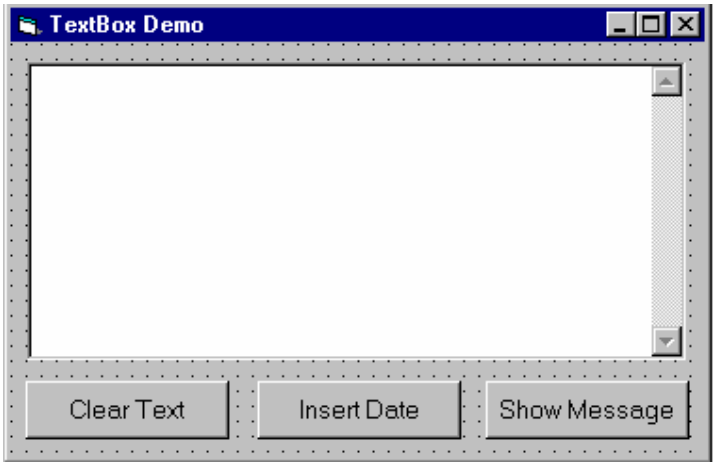
Advanced Visual Basic

LAB EXERCISES AND SOLUTIONS

Ex1 - TextBoxDemo

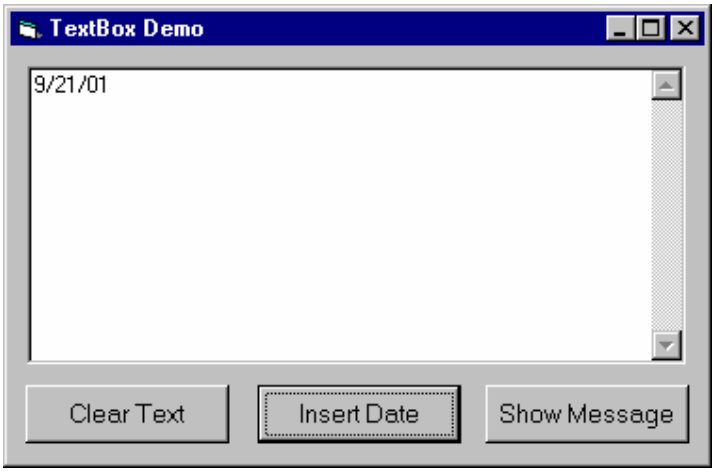
- Create a standard exe
- Open a new form and change the name of the form as example & change the caption as TextBoxDemo
- Paste one text box
- Paste three command buttons and change the captions of
- Command1 as Clear Text
- Command2 as Insert Date
- Command3 as Show Message

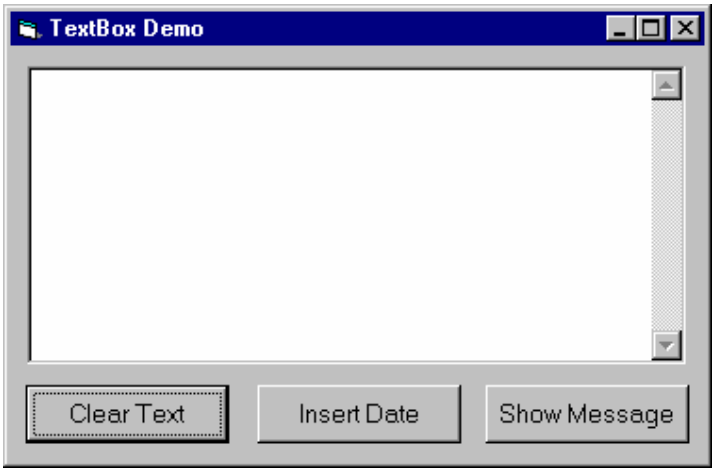
The form will look like




```
Option Explicit

Private Sub Command1_Click()
    Text1.Text = ""
End Sub

Private Sub Command2_Click()
    Text1.Text = Date
End Sub
Private Sub Command3_Click()
    Text1.Text = "Welcome to Visual Basic 5.0"
End Sub
```

Run the program

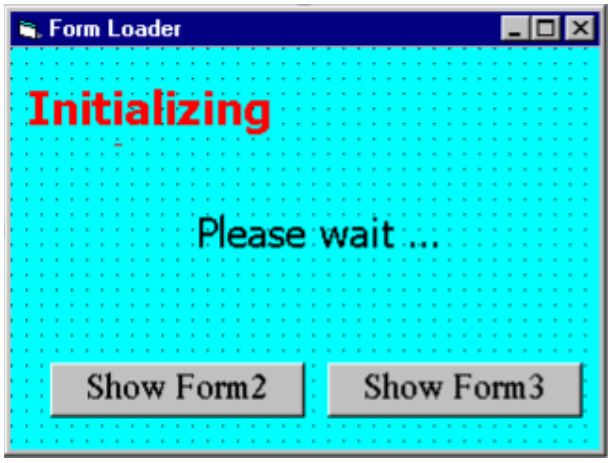




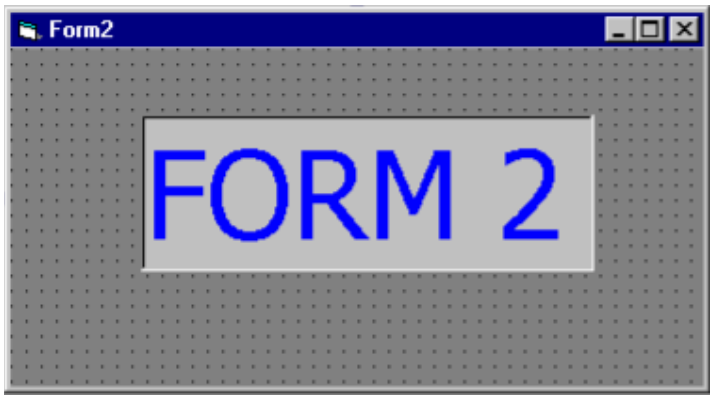
Ex2 - LabelBoxDemo

- create a standard exe
- Paste 3 forms
- In the form1 change the caption as form loader
- In form1 paste two command buttons
- And change the caption of command1 as show form2 & command2 as show form3
- Paste two label box and change the caption of label1 as Initializing and label2 as please wait (open the property window of the label boxes and change the font property and font size property and height,width of the label boxes)

The first form will look like

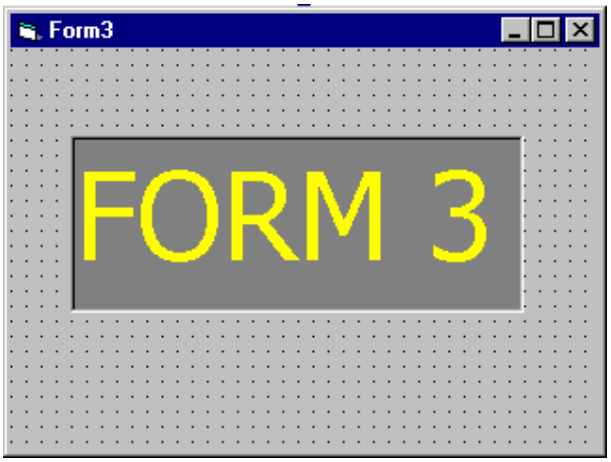


- In form 2 paste a label box and change the caption as form2
- Change the font type and font size in the property window
- The second form will look like



- open the third form and past one label box
- change the caption of the label box as FORM3
- change the font size and font type in the property window of the label box.

Now the third form will look like



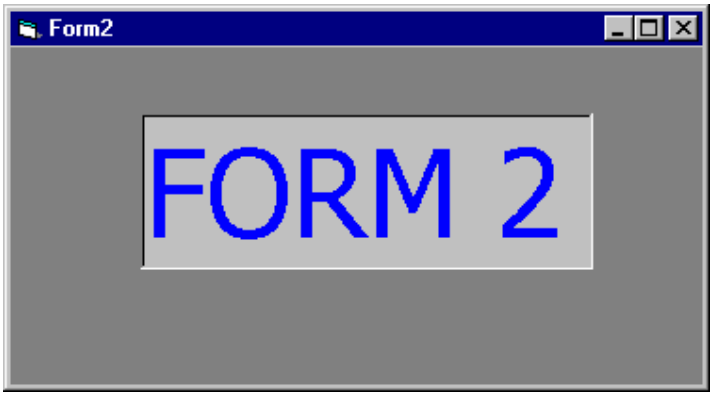
Write the following code in form1's corresponding control's event.

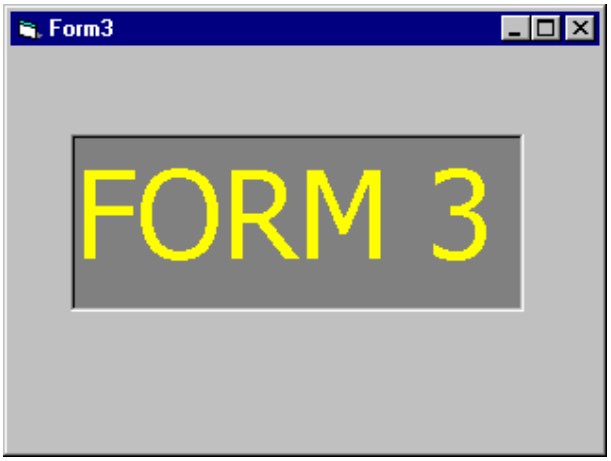
```
Option Explicit
Private Sub Command1_Click()
    Form2.Show
End Sub

Private Sub Command2_Click()
    Form3.Show
End Sub

Private Sub Form_Load()
    Form1.Show
    Form1.MousePointer = vbHourglass
    DoEvents
    Form1.Caption = "Loading Form2..."
    Load Form2
    Form1.Caption = "Loading Form3..."
    Load Form3

    Form1.Caption = "Form Loader"
    Command1.Visible = True
    Command2.Visible = True
    Label1.Caption = "Application Loaded"
    Label2.Caption = "Click on the buttons to load a Form"
    Form1.MousePointer = vbDefault
    DoEvents
End Sub
```

Write the following code in form2

```
Private Sub Form_Load()
    Dim LTime
    LTime = Timer
    While Timer - LTime < 5
    Wend
End Sub

Write the following code in form3
Private Sub Form_Load()
    Dim LTime
    LTime = Timer
    While Timer - LTime < 5
    Wend
End Sub
```

Run the program

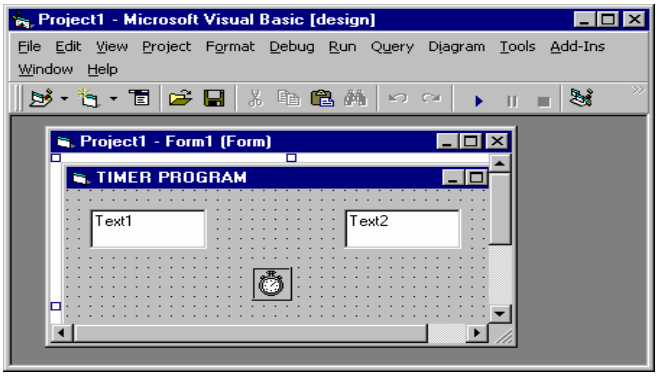




Ex3 - Timer Program

- Open a new standard EXE project
- Design your form as shown below
- Current Time should be displayed on the Text1
- Current Date should be displayed on the Text2
- Change the Caption properties of the Form to Timer Program
- Right Click the Timer control, click Properties

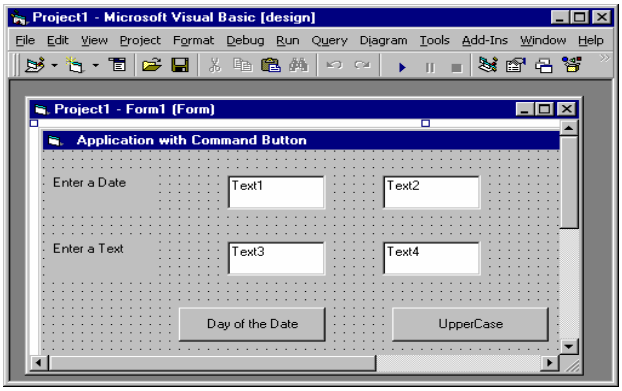
- Set the Interval property of the Timer Control to 1000 which implies that the Timer is activated every one second




```
Enter the code in the Form_Load( ) procedure.
Private Sub Form_Load( )
       Text1.Text = Time$
       Text2.Text = Date$
End Sub
Private Sub Timer1_Timer()
       Text1.Text = Time$
End Sub

Execute the Program
```

Ex4 - Application with Command Button

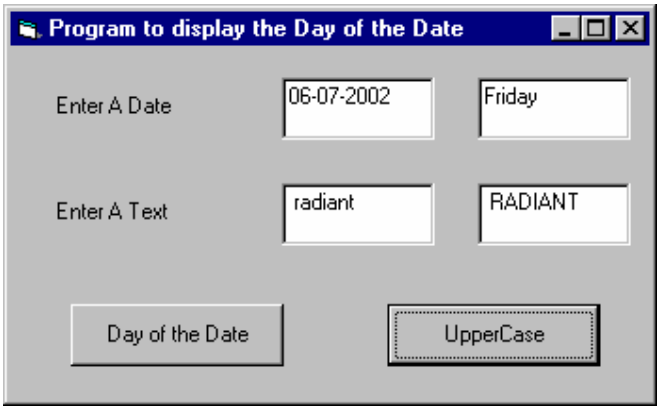
- Open a standard EXE project with four text boxes, two command button, with two lable boxes
- In the Text1 Box enter a date
- In the Text3 Box enter a text
- If you click the Command Button1, Day of the Date should be displayed in the Text2 Box
- If you click the Command Button2, UpperCase of the text should be displayed in the Text4 Box
- Design your form as shown below




```
Private Sub Command1_Click()
Dim MYDATE As Date
```

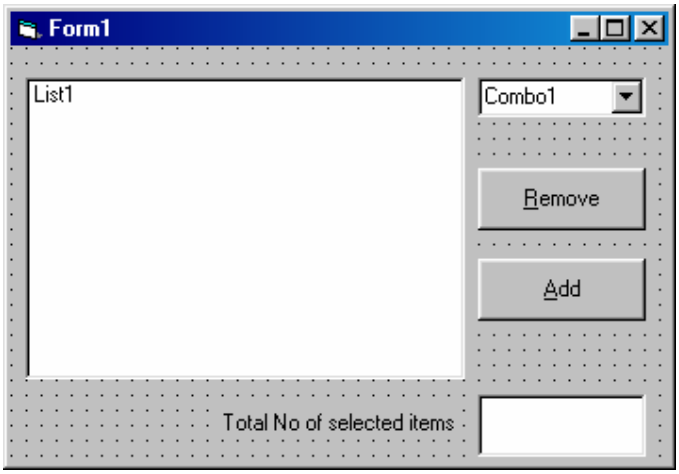
```
   MYDATE = Format(Text1.Text, "D-MMM-YY")
   Text3.Text = Format(MYDATE, "dddd")
End Sub

Private Sub Command2_Click()
   Text4.Text = Format(Text2.Text, ">")
End Sub
```

Execute the program



Ex 5 : List Box Controls

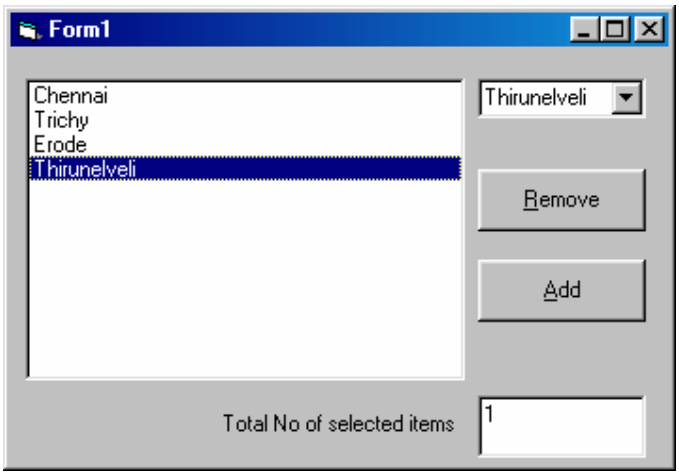
1. Open a new standard EXE project.
2. Paste one combo box, one list box, one label box , two command button and write the following code in the corresponding controls.
3. If we Click Command1, the item is entered in the inputbox and added to the List1.
4. If we Click Command2, the selected item of the listbox will be removed.
5. Design your form as shown below.



When we select the item in the List1, that item will be added in the Combo1 & displayed in the Text1.

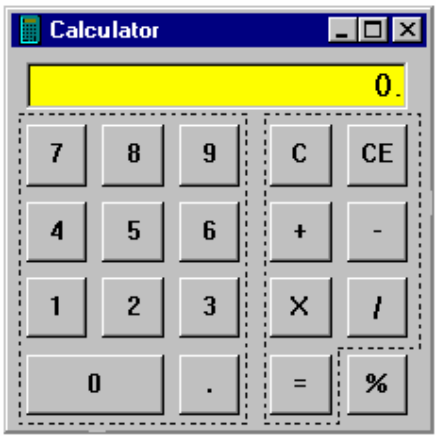
```
Private Sub Command1_Click()
Dim a As String
a = InputBox("Enter the name")
List1.AddItem a
End Sub

Private Sub Command2_Click()
Dim a As Integer
a = List1.ListIndex
Combo1.AddItem (List1.List(a))
Text1.text = list1.list(a)
List1.RemoveItem (a)
End Sub

Private Sub List1_Click()
Text1.Text = List1.SelCount
End Sub
```

3. Run the program by pressing



Ex6 - Calculator Program

- Open a new Standard EXE project
- Paste 5 command buttons and create one control array for 0 to 9 numbers, another control array for four operators, one for decimal point, one for cancel, one for cancel entry.
- Design your form as shown below and perform a Calculator Project, which can able to work as like as Windows Calculator Use Control Arrays)



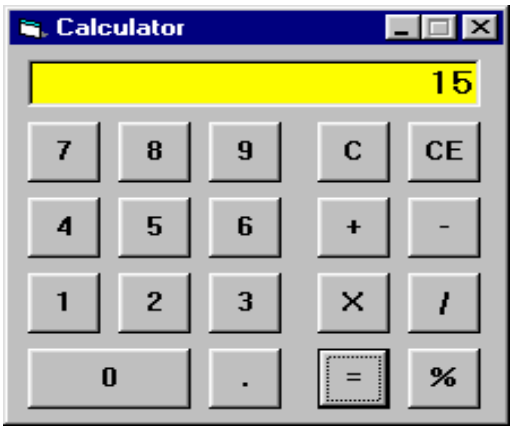
o Write the following code in the corresponding control events.

```
Option Explicit
Dim Op1, Op2
Dim DecimalFlag As Integer
Dim NumOps As Integer
Dim LastInput
Dim OpFlag
Dim TempReadout

Private Sub Cancel_Click()
    Readout = Format(0, "0.")
    Op1 = 0
    Op2 = 0
    Form_Load
End Sub

Private Sub CancelEntry_Click()
    Readout = Format(0, "0.")
    DecimalFlag = False
    LastInput = "CE"
End Sub

Private Sub Decimal_Click()
    If LastInput = "NEG" Then
        Readout = Format(0, "-0.")
    ElseIf LastInput <> "NUMS" Then
        Readout = Format(0, "0.")
    End If
    DecimalFlag = True
    LastInput = "NUMS"
End Sub

Private Sub Form_Load()
    DecimalFlag = False
    NumOps = 0
    LastInput = "NONE"
    OpFlag = " "
    Readout = Format(0, "0.")
End Sub
```

```
Private Sub Number_Click(Index As Integer)
    If LastInput <> "NUMS" Then
        Readout = Format(0, ".")
        DecimalFlag = False
    End If
    If DecimalFlag Then
        Readout = Readout + Number(Index).Caption
    Else
     Readout = Left(Readout, InStr(Readout, Format(0, ".")) - 1) +
       Number(Index).Caption + Format(0, ".")
    End If
    If LastInput = "NEG" Then Readout = "-" & Readout
    LastInput = "NUMS"
End Sub

Private Sub Operator_Click(Index As Integer)
    TempReadout = Readout

    If LastInput = "NUMS" Then
        NumOps = NumOps + 1
    End If

    Select Case NumOps
        Case 0
     If Operator(Index).Caption = "-" And LastInput <> "NEG" Then
            Readout = "-" & Readout
            LastInput = "NEG"
        End If

        Case 1
        Op1 = Readou
If Operator(Index).Caption = "-" And LastInput <> "NUMS" And OpFlag <> "="
Then
            Readout = "-"
            LastInput = "NEG"
        End If

        Case 2
        Op2 = TempReadout
        Select Case OpFlag
            Case "+"
                Op1 = CDbl(Op1) + CDbl(Op2)
            Case "-"
                Op1 = CDbl(Op1) - CDbl(Op2)
            Case "X"
                Op1 = CDbl(Op1) * CDbl(Op2)
            Case "/"
                If Op2 = 0 Then
                   MsgBox "Can't divide by zero", 48, "Calculator"
                Else
                Op1 = CDbl(Op1) / CDbl(Op2)
                End If
            Case "="
                Op1 = CDbl(Op2)
            Case "%"
                Op1 = CDbl(Op1) * CDbl(Op2)
```

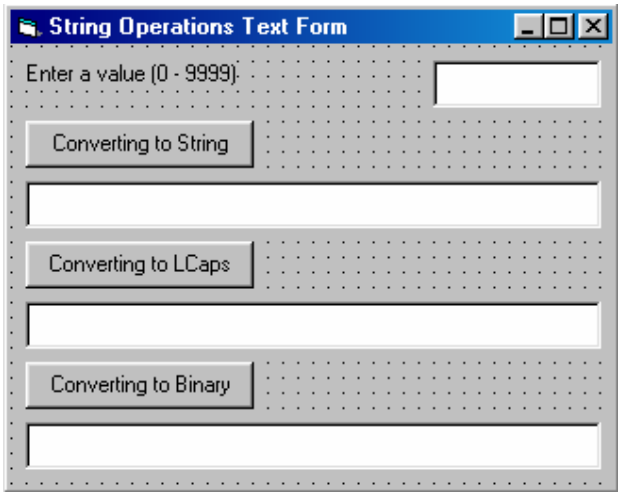
```
            End Select
        Readout = Op1
        NumOps = 1
    End Select

    If LastInput <> "NEG" Then
        LastInput = "OPS"
        OpFlag = Operator(Index).Caption
    End If
End Sub

Private Sub Percent_Click()
    Readout = Readout / 100
    LastInput = "Ops"
    OpFlag = "%"
    NumOps = NumOps + 1
    DecimalFlag = True
End Sub
```

Run the Program by press F5.



Ex7 - String Operations Program

1. Create a new standard EXE project.
2. Design your form as shown below.



3. We have to Create CSting Class, follow this Steps.
4. In the Menu Project->Add Class Module in the Form1
5. We write the code in the Class Module (NumStr.cls)

```
Private BinaryDigits(16) As String
Private NDigits(20) As String
Private NTens(10) As String

Private Sub Class_Initialize()
BinaryDigits(0) = "0000"
BinaryDigits(1) = "0001"
BinaryDigits(2) = "0010"
BinaryDigits(3) = "0011"
BinaryDigits(4) = "0100"
BinaryDigits(5) = "0101"
BinaryDigits(6) = "0110"
BinaryDigits(7) = "0111"
BinaryDigits(8) = "1000"
BinaryDigits(9) = "1001"
BinaryDigits(10) = "1010"
BinaryDigits(11) = "1011"
BinaryDigits(12) = "1100"
BinaryDigits(13) = "1101"
BinaryDigits(14) = "1110"
BinaryDigits(15) = "1111"
NDigits(1) = "one"
NDigits(2) = "two"
NDigits(3) = "three"
NDigits(4) = "four"
NDigits(5) = "five"
NDigits(6) = "six"
NDigits(7) = "seven"
NDigits(8) = "eight"
NDigits(9) = "nine"
NDigits(10) = "ten"
NDigits(11) = "eleven"
NDigits(12) = "twelve"
NDigits(13) = "thirteen"
NDigits(14) = "fourteen"
NDigits(15) = "fifteen"
NDigits(16) = "sixteen"
NDigits(17) = "seventeen"
NDigits(18) = "eighteen"
NDigits(19) = "nineteen"

NTens(2) = "twenty"
NTens(3) = "thirty"
NTens(4) = "forty"
NTens(5) = "fifty"
NTens(6) = "sixty"
NTens(7) = "seventy"
NTens(8) = "eighty"
NTens(9) = "ninety"
```

```
End Sub

Private Function ReadSingle(Number) As String
    If Number > 0 And Number < 20 Then
        ReadSingle = NDigits(Number)
    Else
        ReadSingle = "*****"
    End If
End Function

Private Function ReadTenths(Number)
    tnumber = Int(Number / 10)
    If tnumber > 1 And tnumber < 10 Then
        ReadTenths = NTens(tnumber)
    Else
        ReadTenths = "*****"
    End If
End Function
Public Function Number2String(Number)
Dim tenth As Long
Dim leftover As Long
Dim hundred As Long
Dim thousand As Long

    If Number < 20 Then
        NumString = ReadSingle(Number)
    ElseIf Number < 100 Then
        tenth = Fix(Number / 10)
        NumString = ReadTenths(tenth * 10)
        leftover = Number - (tenth * 10)

        If leftover > 0 Then
            NumString = NumString & " " & ReadSingle(leftover)
        End If
    ElseIf Number < 1000 Then
        hundred = Fix(Number / 100)
        NumString = ReadSingle(hundred) & " hundred"
        leftover = Number - (hundred * 100)

        If leftover > 0 Then
            tenth = Fix(leftover / 10)
If tenth >0 Then NumString = NumString & " " & ReadTenths(tenth * 10)
            leftover = Number - (hundred * 100) - (tenth * 10)
            If leftover > 0 Then
                NumString = NumString & " " & ReadSingle(leftover)
            End If
        End If
    Else
        thousand = Fix(Number / 1000)
        NumString = ReadSingle(thousand) & " thousand"
        leftover = Number - (thousand * 1000)

        If leftover > 0 Then
            hundred = Fix(leftover / 100)
```

```
            If hundred > 0 Then
    NumString = NumString & " " & ReadSingle(hundred) & " hundred"
            End If
           leftover = Number - (thousand * 1000) - (hundred * 100)

            If leftover > 0 Then
                tenth = Fix(leftover / 10)
                If tenth > 0 Then
              NumString = NumString & " " & ReadTenths(tenth * 10)
                End If
leftover =Number-(thousand*1000) - (hundred * 100) - (tenth * 10)
                If leftover > 0 Then
               NumString = NumString & " " & ReadSingle(leftover)
                End If
            End If
        End If
    End If
    Number2String = NumString
End Function

Public Function LowerCaps(str As String) As String
Dim newWord As String, newStr As String
Dim tempStr As String
Dim WDelimiter As Integer

    tempStr = Trim(str)
    WDelimiter = InStr(tempStr, " ")
    While WDelimiter > 0
        newWord = Left(tempStr, WDelimiter)
        tempStr = Right(tempStr, Len(tempStr) - WDelimiter)
     newStr = newStr & UCase(Left(newWord, 1)) & Mid(newWord, 2, Len(newWord)
- 1)
        WDelimiter = InStr(tempStr, " ")
    Wend
    newWord = tempStr
    newStr = newStr & UCase(Left(newWord, 1)) & Mid(newWord, 2, Len(newWord)
- 1)
    LowerCaps = newStr
End Function

Public Function Integer2Binary(ByVal Number As Long) As String
    HexNum = Hex(Number)
    For i = 1 To Len(HexNum)
        BinNum = BinNum & BinaryDigits("&H" & Mid(HexNum, i, 1))
    Next
    Integer2Binary = BinNum
End Function
```

6. We have to create the Instance of Class Module .

```
Dim NS As New NumStrings.StringClass
```

7. When we select the CmdString Button, the value of Text1 is converted to the String in the Text2.

```
Private Sub Cmdstring_Click()
    Text2.Text = NS.Number2String(Text1.Text)
End Sub
```

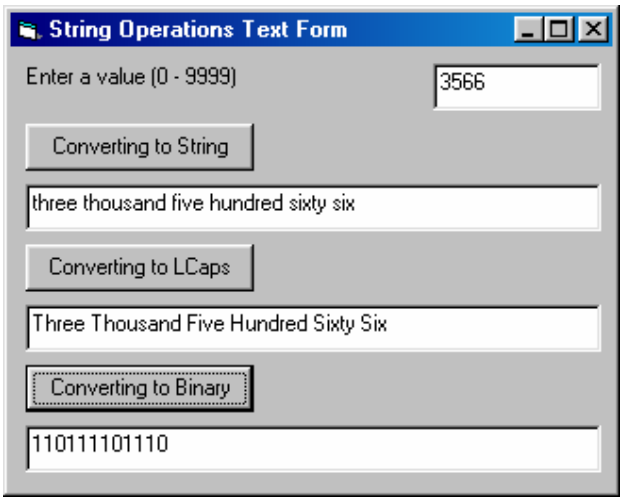
8. When we select the CmdLcaps Button, the value of Text1 is converted to the Capital of the first Word.

```
Private Sub CmdLcaps_Click()
Dim NStr As String
    NStr = NS.Number2String(Text1.Text)
    Text3.Text = NS.LowerCaps(NStr)
End Sub
```

9. When we select the CmdBinary Button, the value of Text1 is converted to the Binary in the Text2.

```
Private Sub Cmdbinary_Click()
    Text4.Text = NS.Integer2Binary(Text1.Text)
End Sub
```

10. Run the Program.



Ex8 - PicutreBoxDemo

- Create a standard exe
- Create a new form
- Paste two picture box in the form
- Paste 3 lable box in the first picture box and change caption of

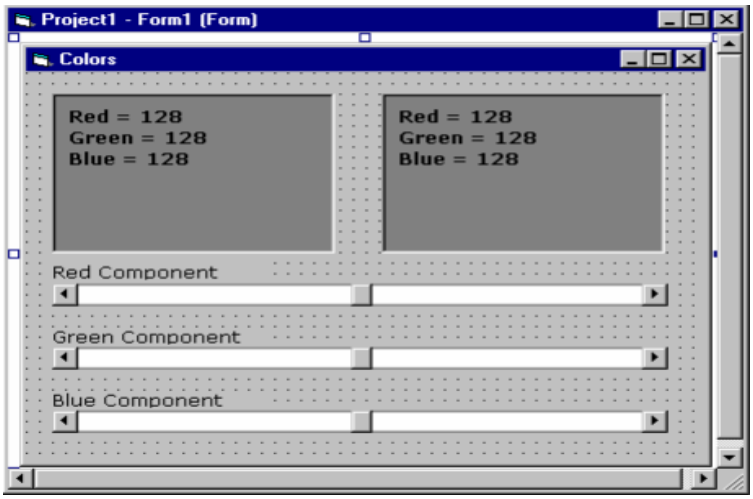
```
lable1 as  Red = 128
lable2 as Green =128
lable3 as  Blue = 128
```

- Paste again 3 label box in the second picture box and change caption of

```
label4as  Red =128
& label 5 as Green = 128
&label 6 as  Blue = 128.
```

- Paste 3 hrscroll bar and change its value property as 128
- Paste 3 more labels and change the captions of label 7 as Red component & label8 as Green Component & label9 as Blue component

The form will look like



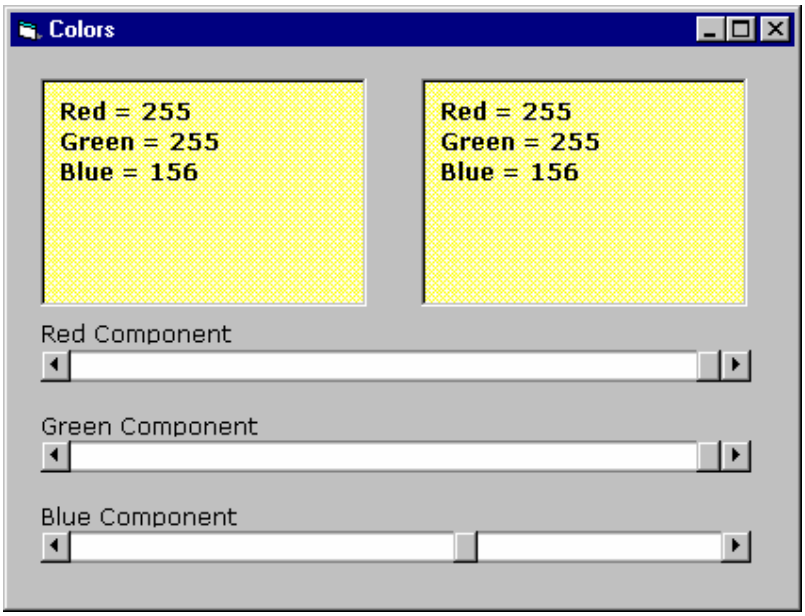
Write the following code in corresponding controls event like shown below

```
Private Sub HScroll1_Change()
    Label4.Caption = "Red = " & HScroll1.Value
    Picture2.BackColor = RGB(HScroll1.Value, HScroll2.Value, HScroll3.Value)

End Sub

Private Sub HScroll1_Scroll()
    Label1.Caption = "Red = " & HScroll1.Value
    Picture1.BackColor = RGB(HScroll1.Value, HScroll2.Value, HScroll3.Value)
End Sub


Private Sub HScroll2_Change()
    Label5.Caption = "Green = " & HScroll2.Value
    Picture2.BackColor = RGB(HScroll1.Value, HScroll2.Value, HScroll3.Value)
End Sub

Private Sub HScroll2_Scroll()
    Label2.Caption = "Green = " & HScroll2.Value
    Picture1.BackColor = RGB(HScroll1.Value, HScroll2.Value, HScroll3.Value)
End Sub

Private Sub HScroll3_Change()
    Label6.Caption = "Blue = " & HScroll3.Value
    Picture2.BackColor = RGB(HScroll1.Value, HScroll2.Value, HScroll3.Value)
End Sub

Private Sub HScroll3_Scroll()
```

```
    Label3.Caption = "Blue = " & HScroll3.Value
    Picture1.BackColor = RGB(HScroll1.Value, HScroll2.Value, HScroll3.Value)
End Sub
```

Run the above program

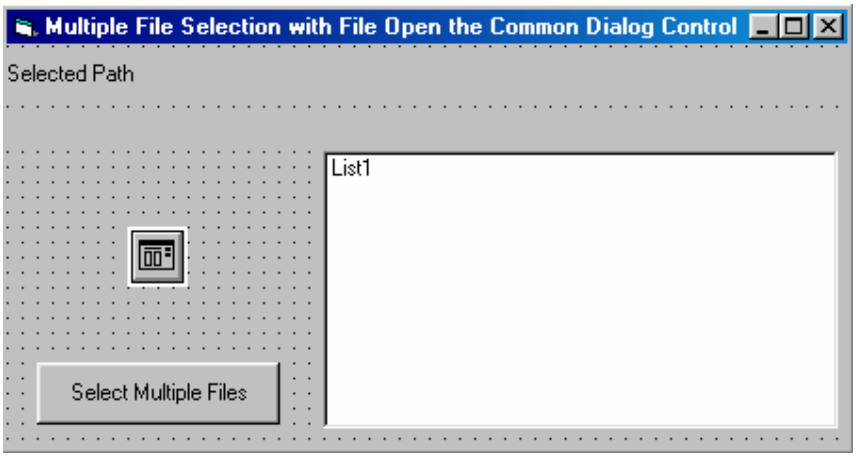
Out put is :



Ex 9 - Multiple File Selection

- Create a standard exe
- Add a form and change its name as multiple files & change its caption as multiple file selection with file open the common dialog box.
- Paste two label box and change the caption of label 1 as empty & label 2 as selection path
- Paste one common dialog box
- Paste a command button and change its caption as select multiple files
- Paste one list control

The form will look like

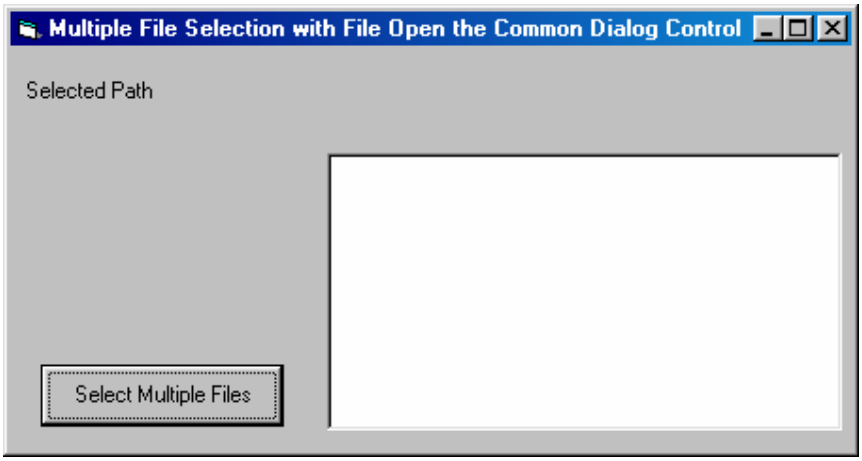


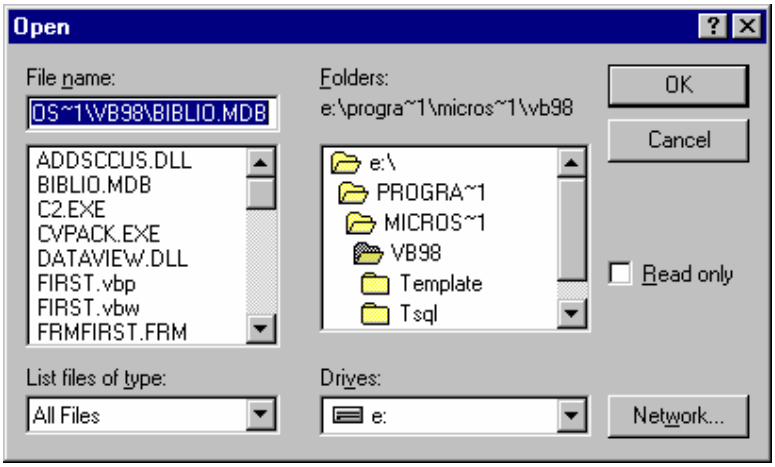
Write the following code in the command buttons click event

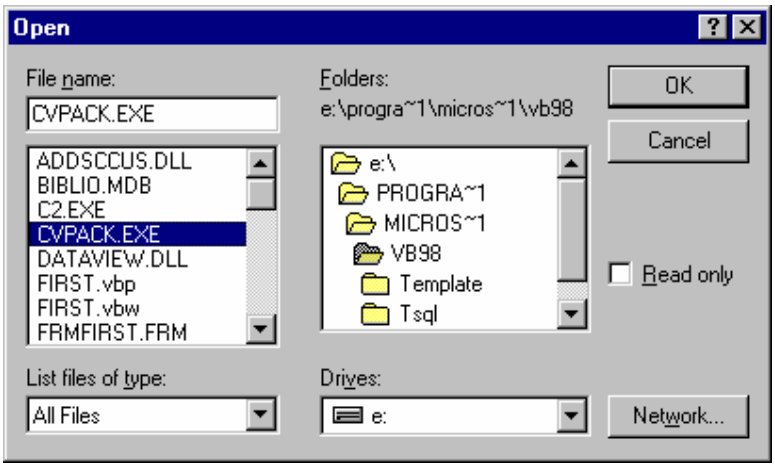
```
Private Sub Command1_Click()
    CommonDialog1.Flags = cdlOFNAllowMultiselect
    Label1.Caption = ""
    List1.Clear
    CommonDialog1.Filter = "All Files|*.*"
    CommonDialog1.ShowOpen
    filenames = CommonDialog1.FileName
    If Len(filenames) = 0 Then
        MsgBox "No files selected"
        Exit Sub
    End If

' Extract path name:
' IF FILETITLE IS NOT EMPTY, THEN A SINGLE FILE
' HAS BEEN SELECTED. DISPLAY IT AND EXIT
    If CommonDialog1.FileTitle <> "" Then
        List1.AddItem CommonDialog1.FileTitle
        Exit Sub
    End If

' FILETITLE IS NOT EMPTY, THEN MANY FILES WERE SELECTED
' AND WE MUST EXTRACT THEM FROM THE FILENAME PROPERTY

    spPosition = InStr(filenames, " ")
    pathName = Left(filenames, spPosition - 1)
    Label1.Caption = pathName
    filenames = Mid(filenames, spPosition + 1)

' then extract each space delimited file name
    If Len(filenames) = 0 Then
        List1.AddItem "No files selected"
        Exit Sub
    Else
        spPosition = InStr(filenames, " ")
        While spPosition > 0
            List1.AddItem Left(filenames, spPosition - 1)
            filenames = Mid(filenames, spPosition + 1)
            spPosition = InStr(filenames, " ")
        Wend
' Add the last file's name to the list
' (the last file name isn't followed by a space)
        List1.AddItem filenames
    End If
End Sub
```

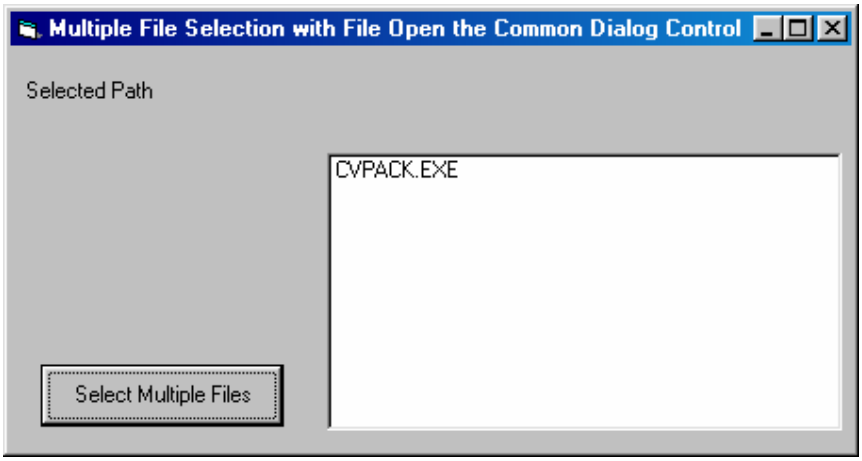
Run the above program

The output is


Multiple File Selection with File Open the Common Dialog Control
Selected Path
Select Multiple Files


Open
File name:
OS~1\VB98\BIBLIO.MDB
Folders:
e:\progra~1\micros~1\vb98
OK
Cancel
ADDSCCUS.DLL
BIBLIO.MDB
C2.EXE
CVPACK.EXE
DATAVIEW.DLL
FIRST.vbp
FIRST.vbw
FRMFIRST.FRM
e:\
PROGRA~1
MICROS~1
VB98
Template
Tsql
Read only
List files of type:
All Files
Drives:
e:
Network...

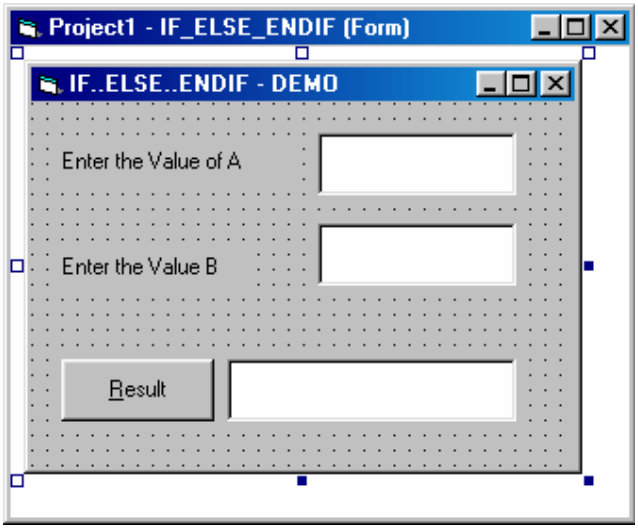

Open
File name:
CVPACK.EXE
Folders:
e:\progra~1\micros~1\vb98
OK
Cancel
ADDSCCUS.DLL
BIBLIO.MDB
C2.EXE
CVPACK.EXE
DATAVIEW.DLL
FIRST.vbp
FIRST.vbw
FRMFIRST.FRM
e:\
PROGRA~1
MICROS~1
VB98
Template
Tsql
Read only
List files of type:
All Files
Drives:
e:
Network...



Ex 10 - for If statement

- Create a standard exe
- Change the form caption as IF-ELSE-ENDIF- DEMO
- Paste three text boxes and clear its text property
- Paste two label boxes and change label1 caption as "Enter A value" & caption of label2 as "Enter B value"
- Paste a command button and change its caption as "Result"

The form will look like

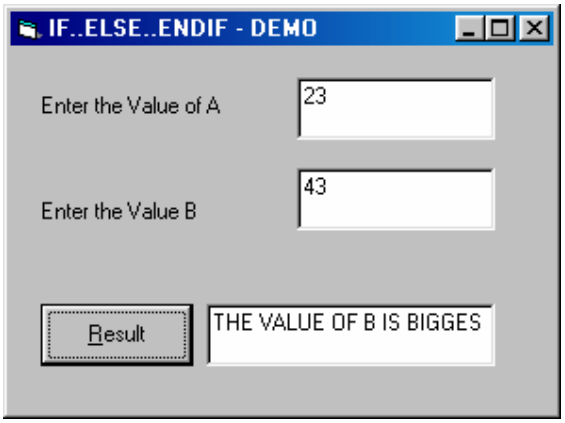


Write the following code in the command button click event

```
Private Sub Command1_Click()
  If Val(Text1.Text) > Val(Text2.Text) Then
    Text3.Text = "THE VALUE OF A IS BIGGEST"
  Else
    Text3.Text = "THE VALUE OF B IS BIGGEST"
  End If
End Sub
```

Run the above program

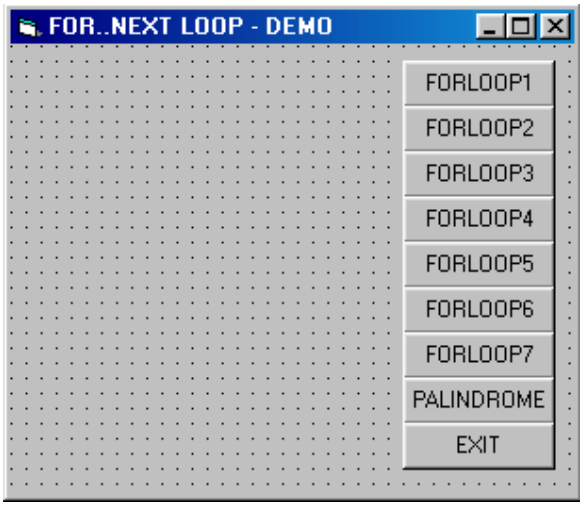
The out put is



Ex 11 - for loop

- Open Standard exe
- Add a form and change its caption as FOR.. NEXT LOOP - DEMO
- Paste 9 command button
- Change the caption of command1 as FORLOOP1
- Command2 as FORLOOP2
- Command3 as FORLOOP3
- Command4 as FORLOOP4
- Command5 as FORLOOP5
- Command6 as FORLOOP6
- Command7 as FORLOOP7
- Command8 as POLYNDROM
- Command9 as EXIT

The form will look like



Write the following code in the command buttons click events

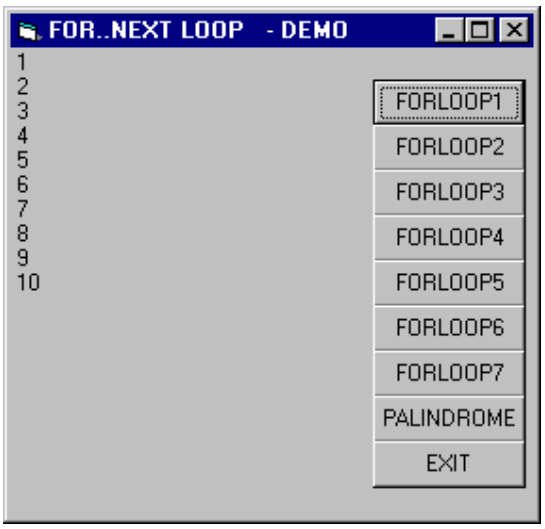
```
Private Sub COMMAND1_Click()
```

```
Me.Cls
For I = 1 To 10
      Print I
  Next I
End Sub

Private Sub Command2_Click()
Me.Cls
  For I = 1 To 10 Step 2
      Print I
  Next I
End Sub

Private Sub Command3_Click()
Me.Cls
  For I = 10 To 1 Step -2
      Print I
  Next I
End Sub

Private Sub Command4_Click()
Me.Cls
  Dim STR As String
  Dim I As Integer
  Dim A, B
  STR = InputBox("ENTER A STRING")
  A = Len(STR)
      For I = 1 To A Step 1
      B = Mid(STR, I, 1)
      Print B
    Next I
End Sub

Private Sub Command5_Click()
Me.Cls
  Dim STR As String
  Dim I As Integer
  Dim A, B
  STR = InputBox("ENTER A STRING")
  A = Len(STR)
      For I = A To 1 Step -1
      B = Mid(STR, I, 1)
      Print B
    Next I
End Sub
Private Sub Command6_Click()

Me.Cls
Dim STR As String
  Dim I As Integer
  Dim A, B
  STR = InputBox("ENTER A STRING")
  A = Len(STR)
  Print "THE GIVEN STRING IS --> " & STR

  For I = 1 To A Step 1
```

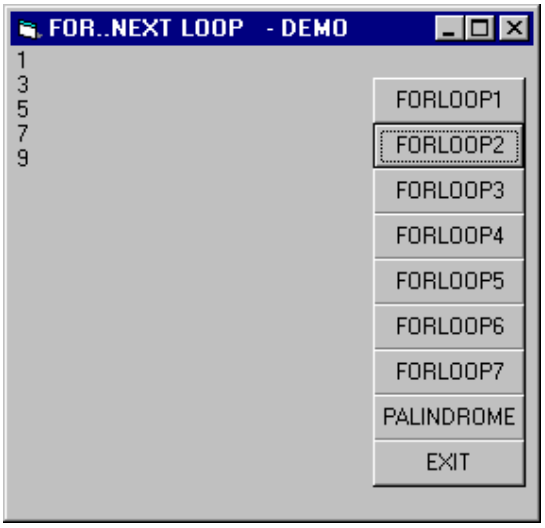
```
    B = Mid(STR, 1, I)
    Print B
    Next
End Sub

Private Sub Command7_Click()
Me.Cls
Dim STR As String
  Dim I As Integer
  Dim A, B, C

  STR = InputBox("ENTER A STRING")
  A = Len(STR)
  Print "THE GIVEN STRING IS --> " & STR

  For I = 1 To A Step 1
    B = Mid(STR, 1, I)
    Print B
    Next

    C = A - 1

  For I = C To 1 Step -1
    B = Mid(STR, 1, I)
    Print B
    Next
End Sub

Private Sub Command8_Click()

Me.Cls
  Dim STR As String
  Dim I, J As Integer
  Dim A, B, C


  STR = InputBox("ENTER A STRING")
  A = Len(STR)
  Print "THE GIVEN STRING IS --> " & STR
  For I = 1 To A
     For J = A To 1 Step -1

       If Mid(STR, I, 1) = Mid(STR, J, 1) Then
           Print "THE GIVEN STRING IS PALINDROME"
           Exit Sub
       Else
             Print " THE GIVEN STRING IS NOT PALINDROME"
             Exit Sub
       End If
     Next J
  Next I
End Sub

Private Sub Command9_Click()
```

```
    End
End  Sub
```

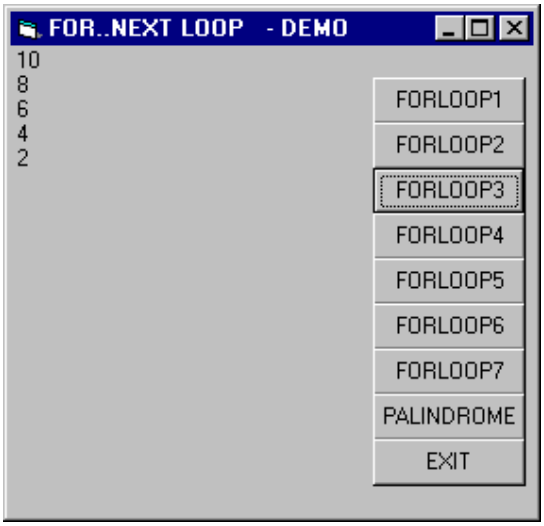
Run the above program
Out put for the first forloop1 button is shown below



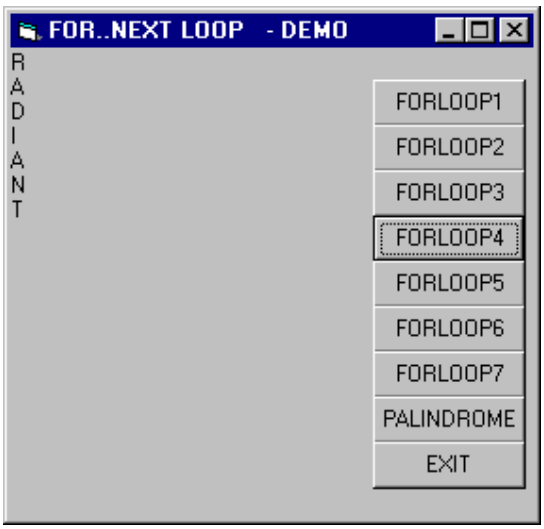
Output for the FORLOOP2 button is



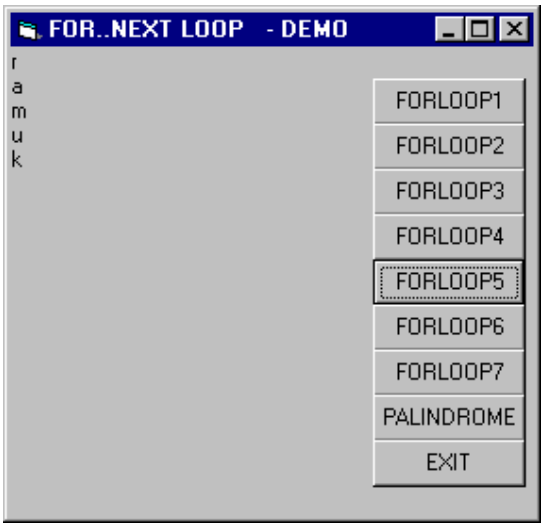
Out put for the FORLOOP3 button is



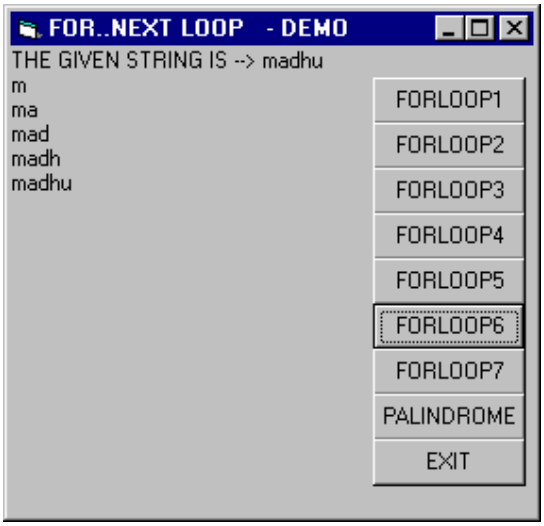
OUTPUT for FORLOOP4 is



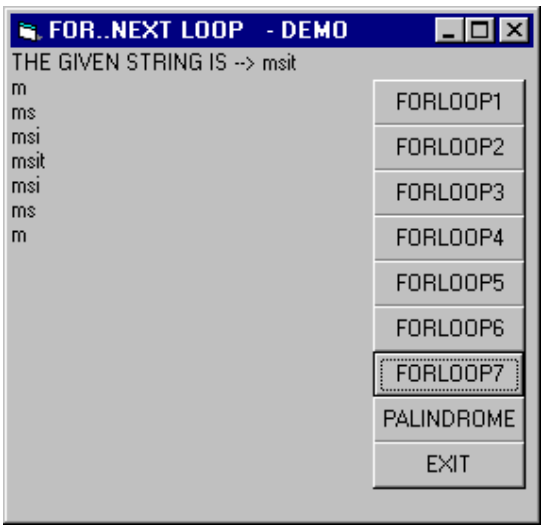
Output for FORLOOP5 is



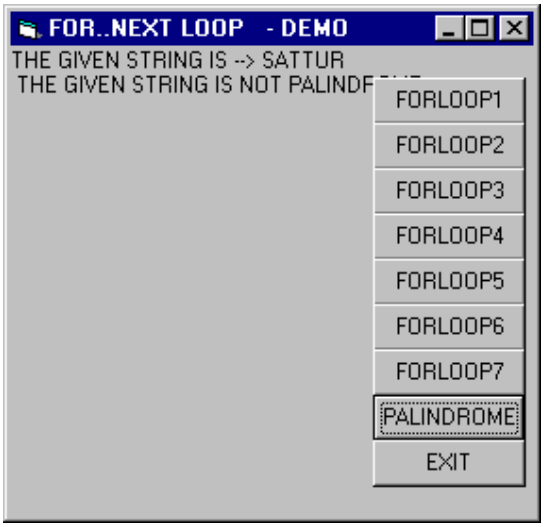
Output for FORLOOP6 is



output for FORLOOP 7 is



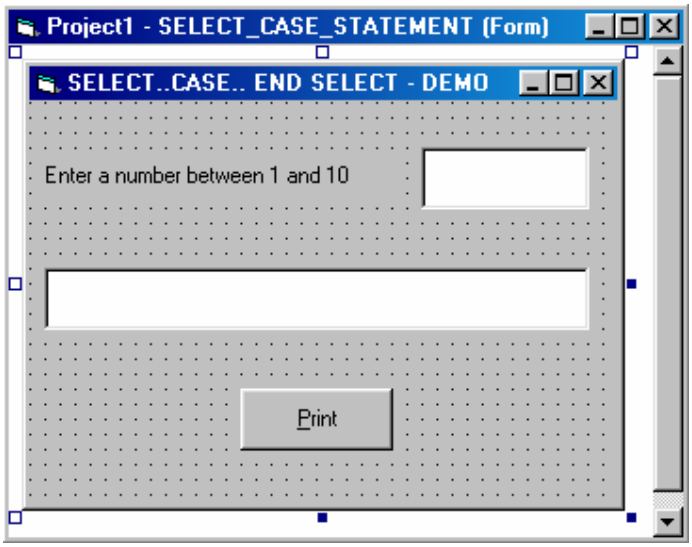
Output for the PALINDROME is



Ex 12 - Select Case

- Create a standard exe
- Change the caption of the form as SELECT_CASE_STATEMENT form
- Add two text boxes and clear its caption property
- Add one label box and change its caption as "Enter a number between 1 and 10"
- Add one command button and change its caption property as "&Print"

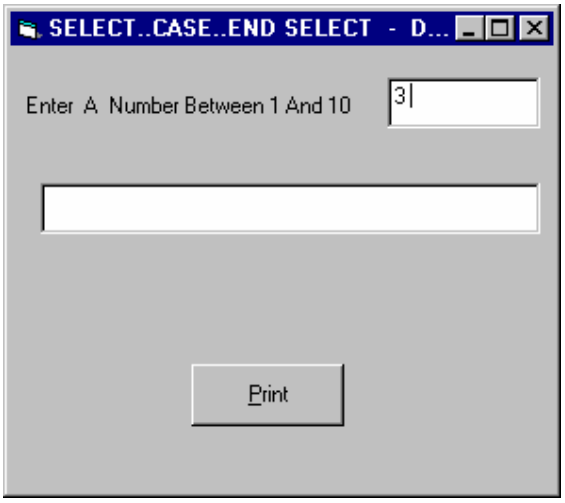
The form will look like

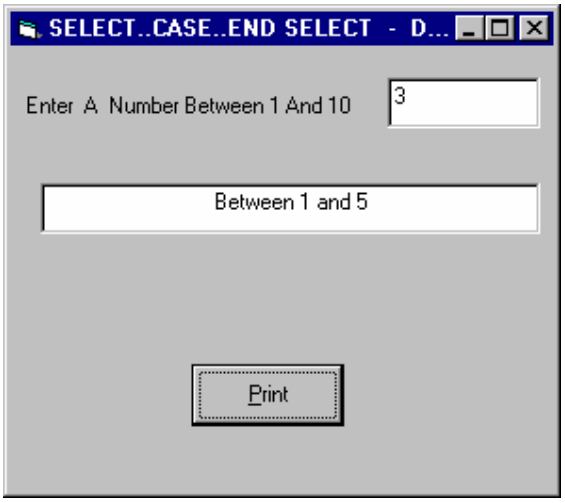


Write the following code in the corresponding control events.

```
Private Sub Command1_Click()
Dim NUM
Text2.Enabled = True
NUM = Val(Text1.Text)

Select Case NUM
Case 1 To 5
         Text2.Text = "Between 1 and 5"
Case 6, 7, 8
         Text2.Text = "Between 6 and 8"
Case 9 To 10
         Text2.Text = "Greater than 8"
Case Else
         Text2.Text = "Not between 1 and 10"
End Select
End Sub
Private Sub Form_Load()
  Command1.Enabled = False
  Text2.Enabled = False
End Sub

Private Sub Text1_CHANGE()
  Command1.Enabled = True
End Sub
```

Run the program
Out put is

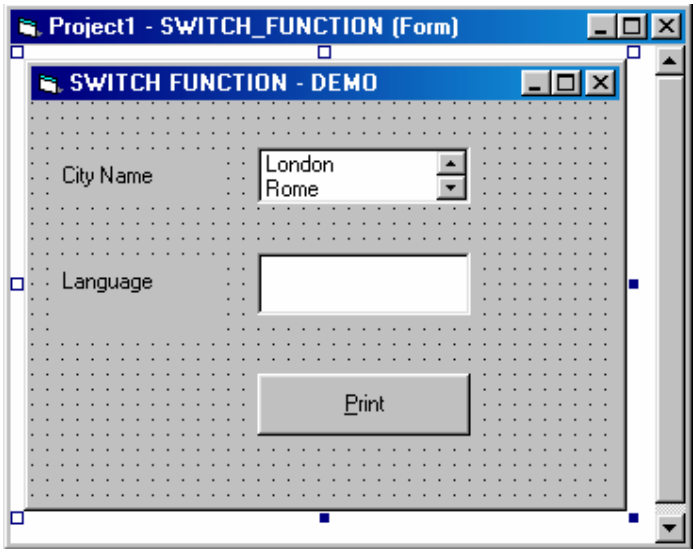




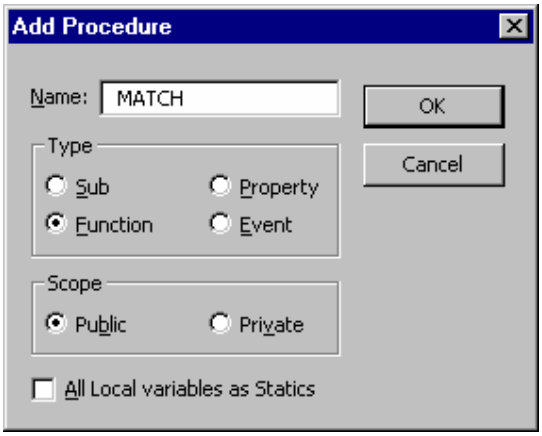
Ex 13 – Switch statement using function

- Create a standard exe
- add a form
- Paste two label boxes in the form and change label1 caption as "City name" & label2 caption as "Language"
- Add one list box and its property window input the city name Landon, Rome, Paris one by one in the list property.
- Add one text box and clear its caption
- Add one command button and change its caption as "&Print"

The form will look like



- Choose the TOOL menu bar
- The following window will be displayed
- Select Add Procedure option
- Give the function name as MATCH

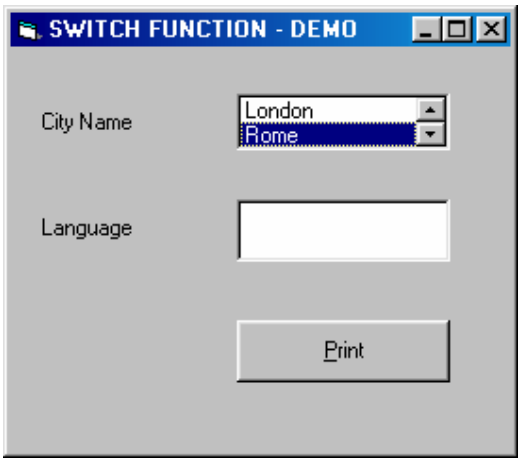


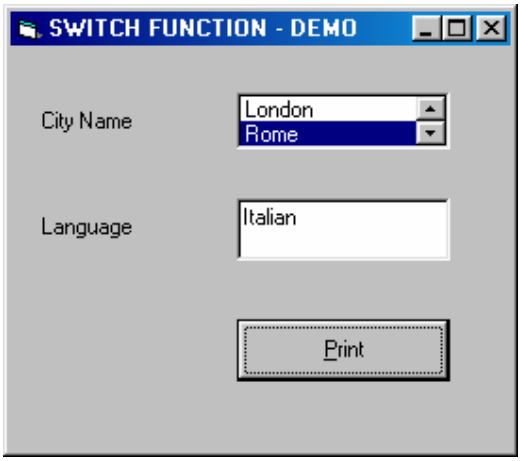
Click ok button

In the code window write the following code

```
Public Function MATCH(CITYNAME As String)
MATCH = Switch(CITYNAME = "London", "English", CITYNAME _
               = "Rome", "Italian", CITYNAME = "Paris", "French")
End Function

Private Sub Command1_Click()
  Dim I As String
  I = MATCH(List1.Text)
  Text1.Text = I
End Sub
```

Run the above program
The output for the program is

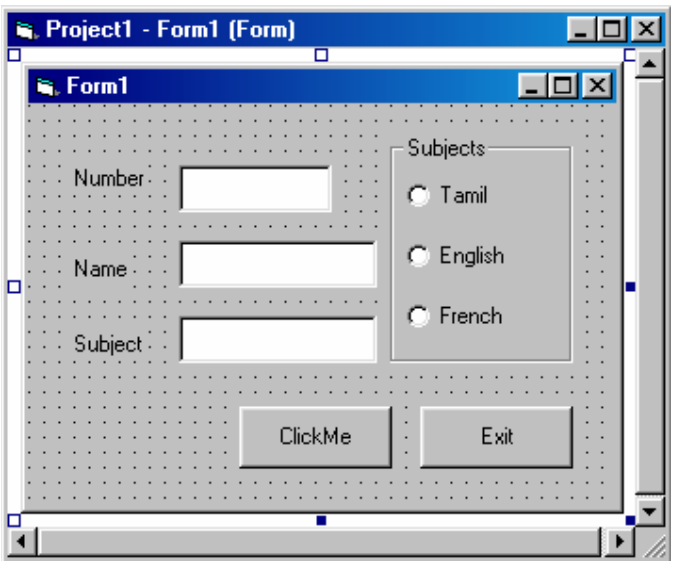




Ex 14 - Using Option box

- Open a standard exe
- Paste 3 label boxes change label1 caption as Number , label2 caption as Name & label3 caption as Subjects.
- Paste a Frame control and change its caption as Subjects
- Paste 3 option controls in the frame control and change option1 label as tamil, Option2 Caption as English , Option3 caption as French
- Paste 3 text boxes and clear its caption property
- Paste 2 Command buttons and change command1 caption as Click me & command2 caption as Exit.

Now your form will look like



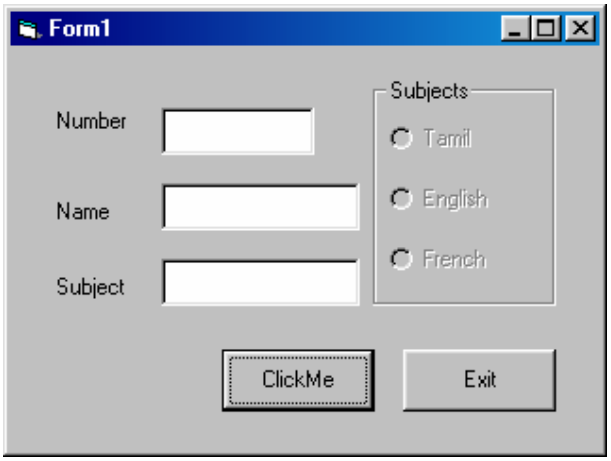
Write the following code in the corresponding control events

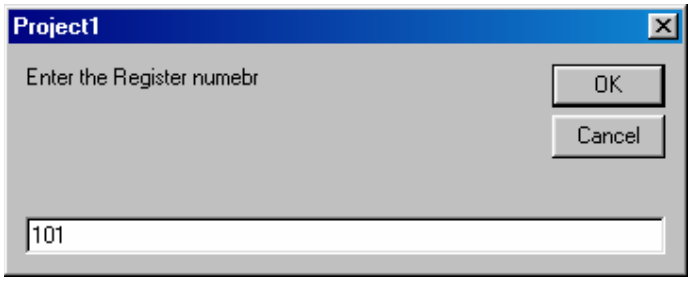
```
Option Explicit
```

```
Private Sub Command1_Click()
 Option1.Enabled = True
Option2.Enabled = True
Option3.Enabled = True

Text1.Text = InputBox("Enter the Register numebr")
Text2.Text = InputBox("Enter the name ")
MsgBox ("Please select any two optional subjects from the Subject box")
End Sub

Private Sub Command2_Click()
End
End Sub

Private Sub Form_Load()
Form1.WindowState = 2
Option1.Enabled = False
Option2.Enabled = False
Option3.Enabled = False

End Sub

Private Sub Option1_Click()
If Option1.CausesValidation = True Then
Text3.Text = Text3.Text + "  Tamil"
End If

End Sub

Private Sub Option2_Click()
If Option2.CausesValidation = True Then
Text3.Text = Text3.Text + "  English"
End If

End Sub

Private Sub Option3_Click()
If Option3.CausesValidation = True Then
Text3.Text = Text3.Text + "  French"
End If

End Sub
```

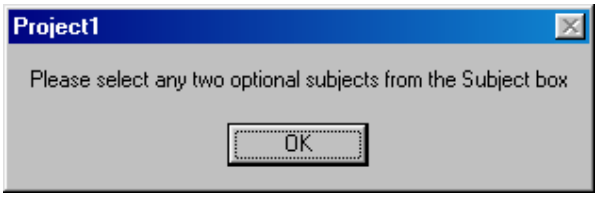
Run the above program

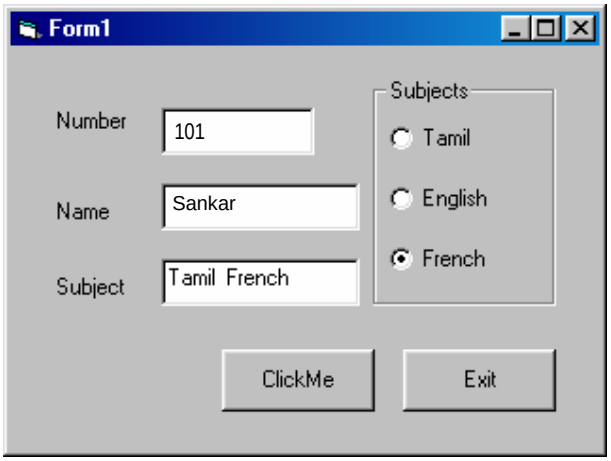
The output is


Form1
Number
Name
Subject
Subjects
Tamil
English
French
ClickMe
Exit


Project1
Enter the Register numebr
OK
Cancel
101


Project1
Enter the name
OK
Cancel
Sankar

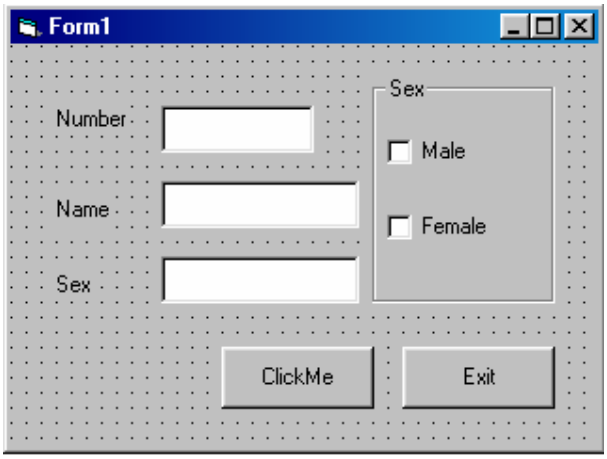

Project1
Please select any two optional subjects from the Subject box
OK



Ex 15 - Using Check box

- Open a standard exe
- Paste 3 label boxes change label1 caption as Number , label2 caption as Name & label3 caption as Sex.
- Paste a Frame control and change its caption as Sex
- Paste 2 Check box controls in the frame control and change check1 caption as "Male", Check2 Caption as "Female".
- Paste 3 text boxes and clear its caption property
- Paste 2 Command buttons and change command1 caption as Click me & command2 caption as Exit.

Now your form will look like

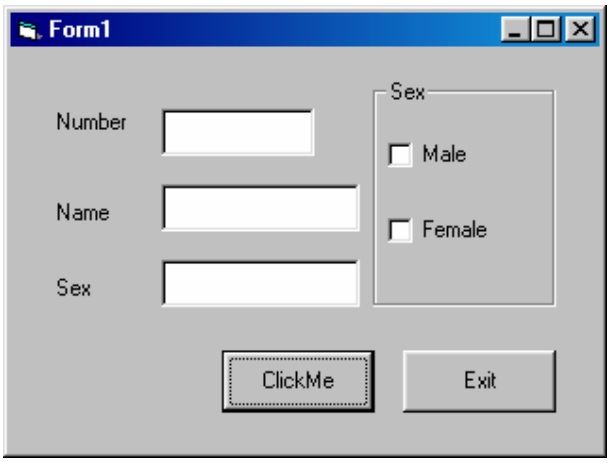


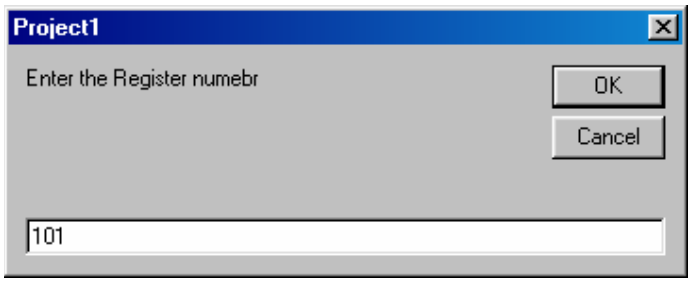
Write the following code in the corresponding control events

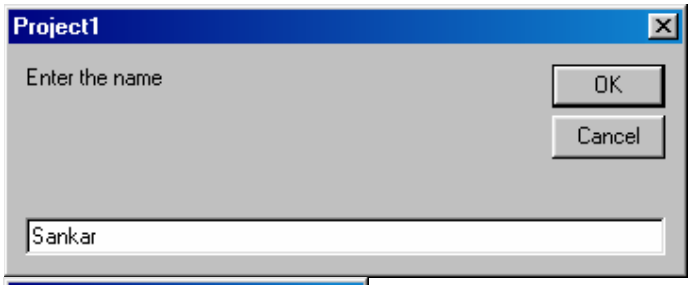
```
Option Explicit

Private Sub Check1_Click()
```

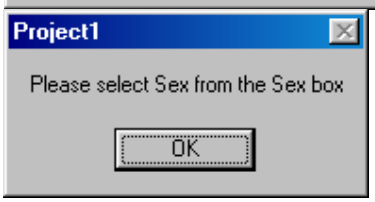
```
If Check1.CausesValidation = True Then
Text3.Text = "Male"
End If
End Sub

Private Sub Check2_Click()
If Check2.CausesValidation = True Then
Text3.Text = "Female"
End If
End Sub

Private Sub Command1_Click()
Check1.Enabled = True
Text1.Text = InputBox("Enter the Register numebr")
Text2.Text = InputBox("Enter the name ")
MsgBox ("Please select Sex from the Sex box")
End Sub

Private Sub Command2_Click()
End
End Sub

Private Sub Form_Load()
Form1.WindowState = 2
End Sub
```

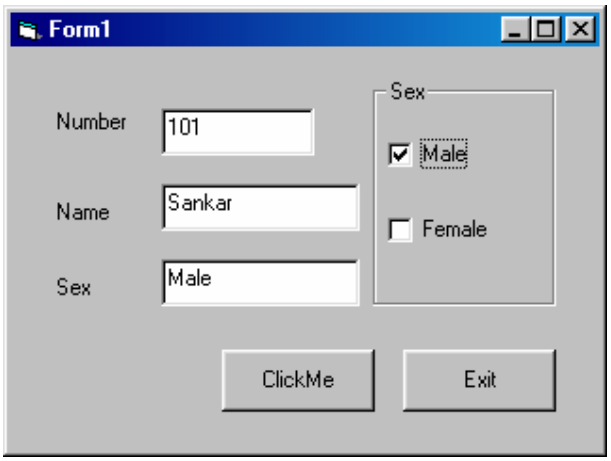
Run the program





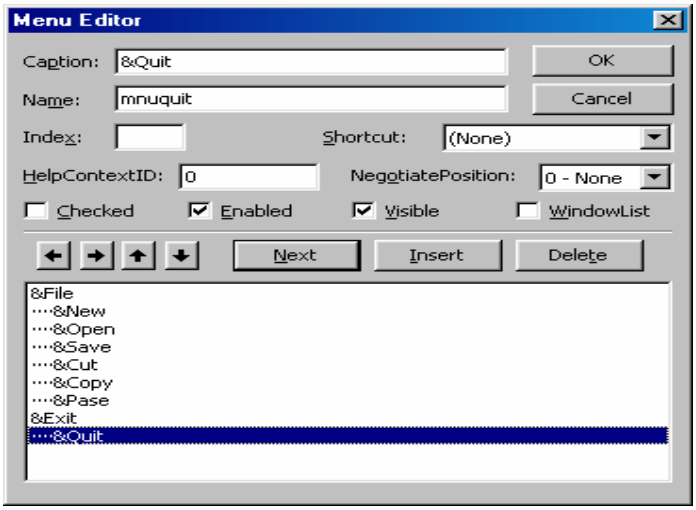


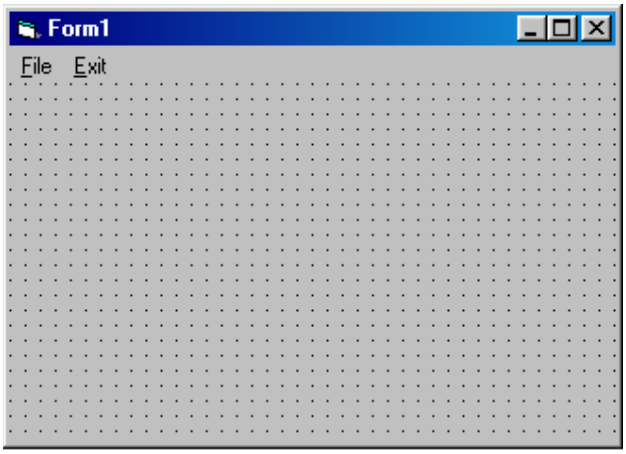




Ex 16 - Example for Creation of Menu

- Ceate a Standard Exe
- Right click the form and Select the option « Menu Editor »
- In the Menu Editor Window type the following



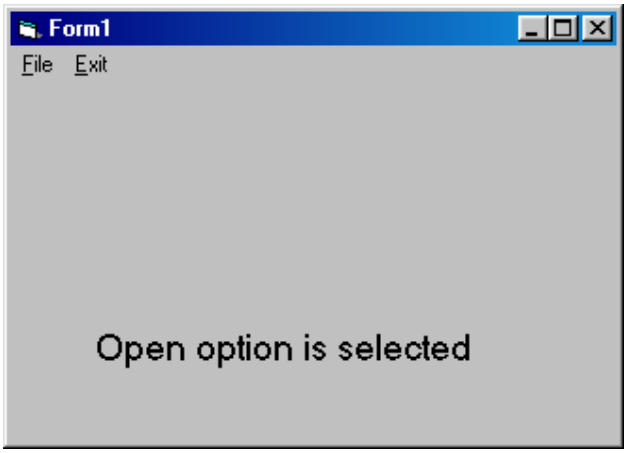


Write the following code in the code window's corresponding menu events

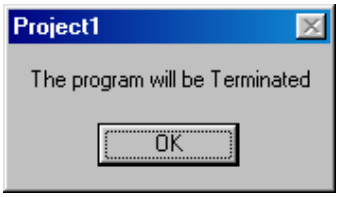
```
Option Explicit
Private Sub Copy_Click()
Label1.Caption = " Copy option is selected"
End Sub

Private Sub Cut_Click()
Label1.Caption = " Cut option is selected"
End Sub

Private Sub Form_Load()
Label1.FontSize = 16
Label1.FontBold = False
End Sub

Private Sub New_Click()
Label1.Caption = " New option is selected"
End Sub

Private Sub Open_Click()
Label1.Caption = " Open option is selected"
End Sub

Private Sub Paste_Click()
Label1.Caption = " Paste option is selected"
End Sub

Private Sub Quit_Click()
Label1.Caption = " Quit option is selected"
MsgBox ("The program will be Terminated")
End
End Sub

Private Sub Save_Click()
Label1.Caption = " Save option is selected"
End Sub
```

Run the program

Click the file menu and select the Option option
The output will be

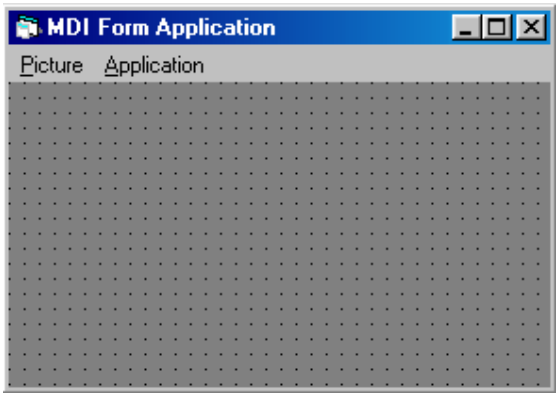


When select the Exit menus Quit option the output will be



Ex 17 Multiple Document Interface

- Open a New standard EXE project
- Design your form as shown below

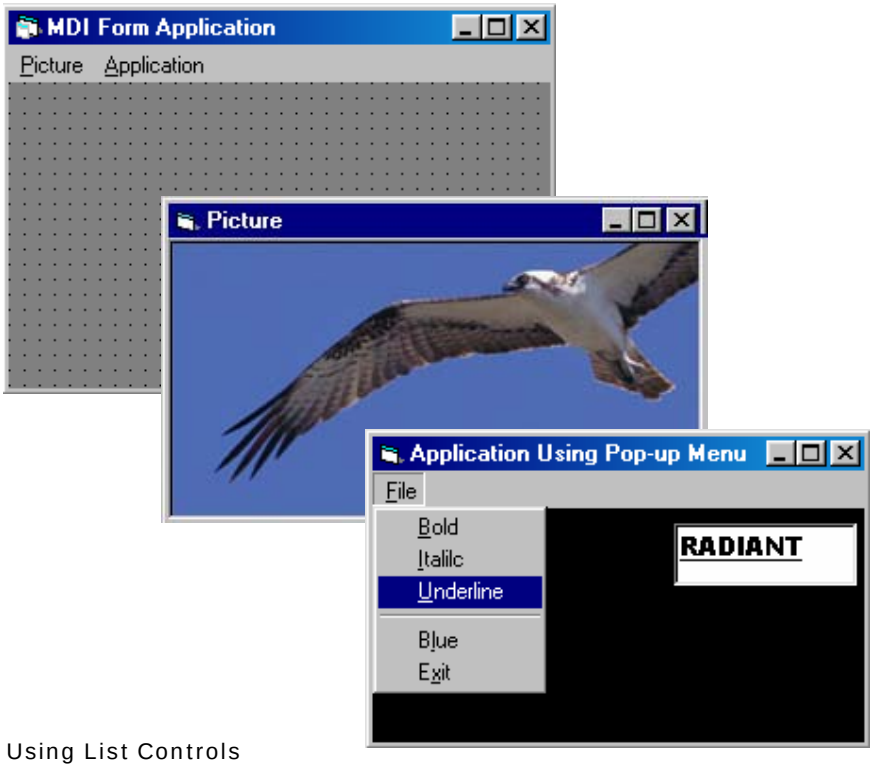


- On clicking the Picture & Application button another form should be loaded
- Change the Caption property of the form.
- On the Tool menu click Menu Editor.
- Add the following Menu items.

Caption	*Name*
&Picture	mnmaster
&Application	mntrans

1. Enter the code in the declaration section of the form

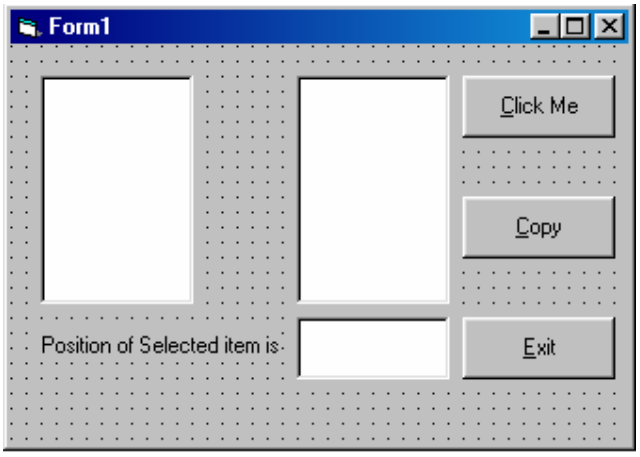
```
Private Sub mnmaster_Click()
Form3.Show
End Sub

Private Sub mntrans_Click()
Form1.Show
End Sub
```



Ex18 - Using List Controls

- Open a standard exe
- Paste 2 list controls boxes change list1 list as empty , list2 list as empty
- Paste a label control and change its caption as "Position of your Selected item is "
- Paste 3 command controls in the form and change command1 option1 as "Click me", Command2 Caption as "Copy" , Command3 caption as "Exit".
- Paste 1 text box and clear its caption property

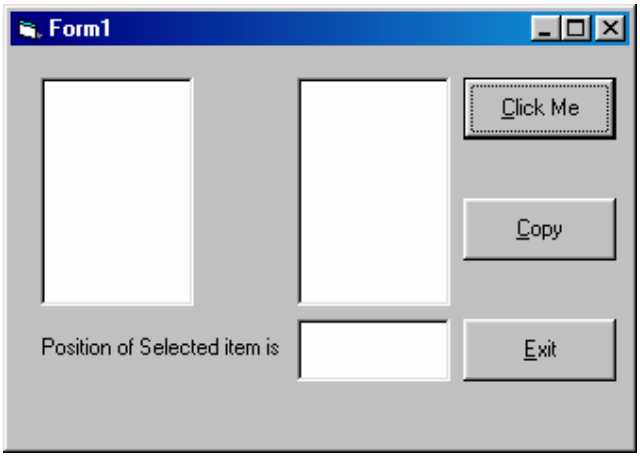
Now your form will look like



Write the following code in the command button events

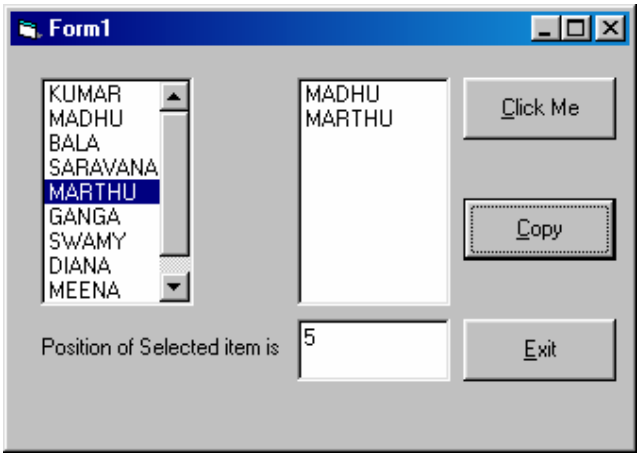
```
Option Explicit
Private Sub Command1_Click()
Dim a As String
a = InputBox("Enter a name")
List1.AddItem a
End Sub

Private Sub Command2_Click()
 Text1.Text = List1.ListIndex + 1
List2.AddItem (List1.Text)
End Sub

Private Sub Command3_Click()
End
End Sub
```

Run the program



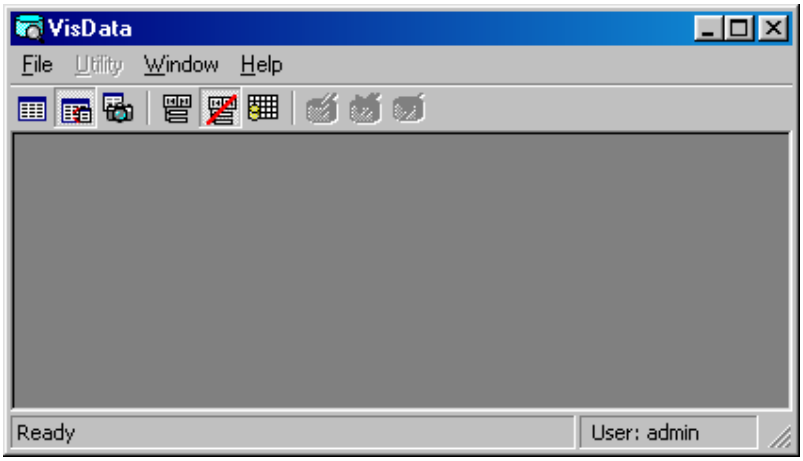
- Click the 'Click Me ' Button
- Enter the name and Click 'OK' Button

- Select a particular name and Click 'Copy' Button.

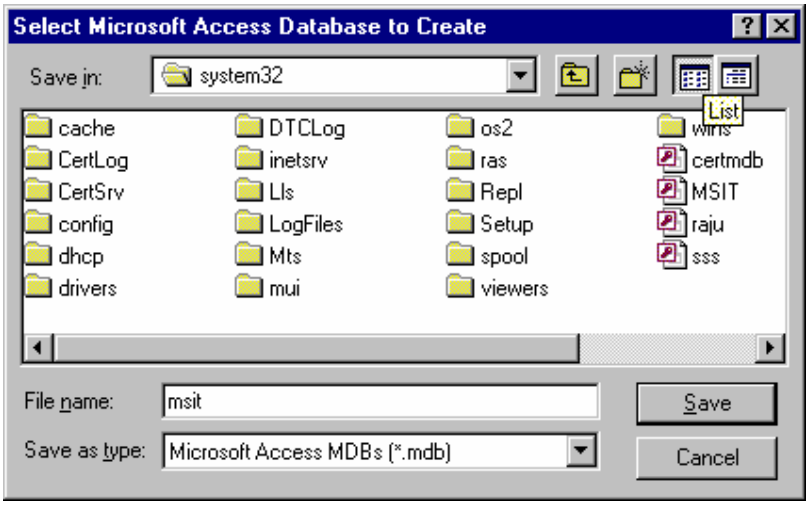


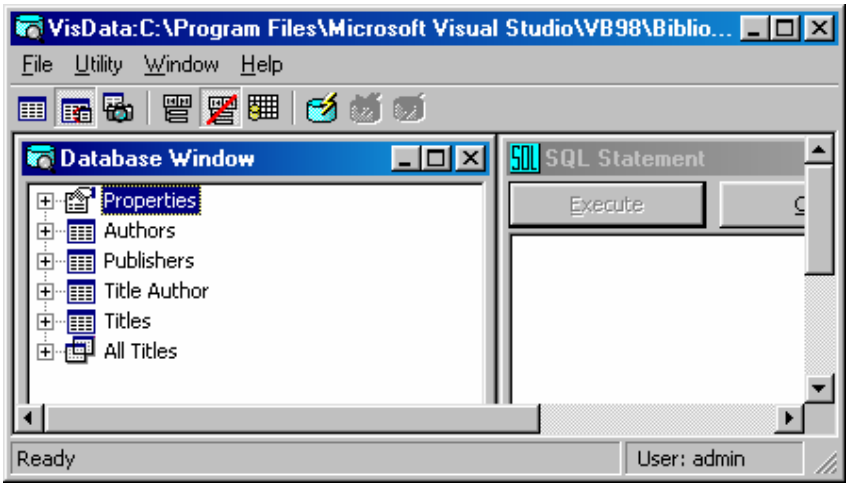
Ex 19 - Creating a Table Using Visual Data Manager

- Create a Standard Exe
- Selecte the Add_ins command in the menu bar
- Select Visual data manager



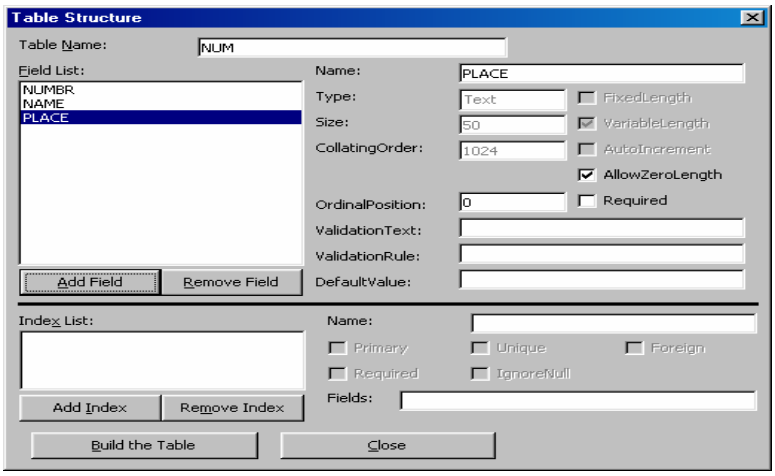
- select Filemenu -> New ->Ms Access -> version 7.0
- Give a data base name (ie. MSIT)



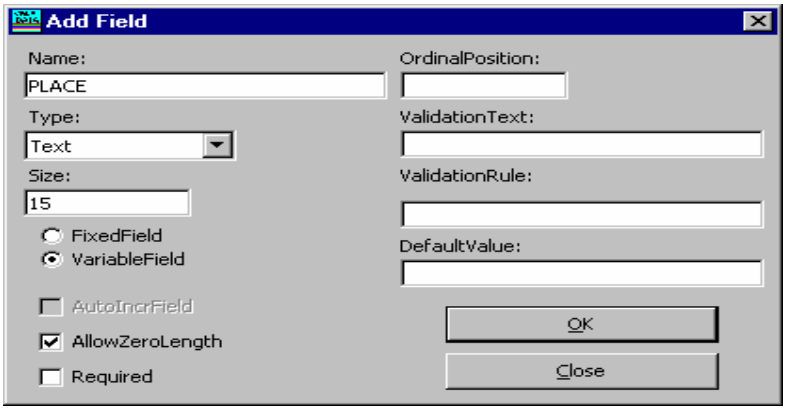


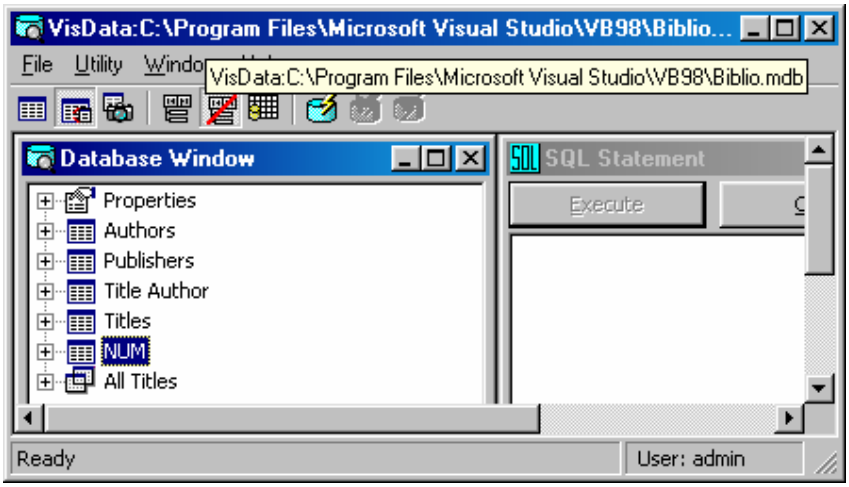
Click properties and Select new table now Table structure will be displayed

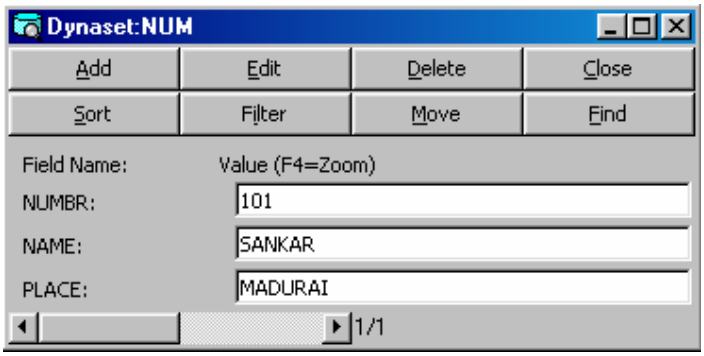
- Give the table in the Table name text box
- Click 'Add field' button
- Enter the fileld name, field type & field wideth in the appropriate text Boxes of the add field window.



Give the table name and click Add field

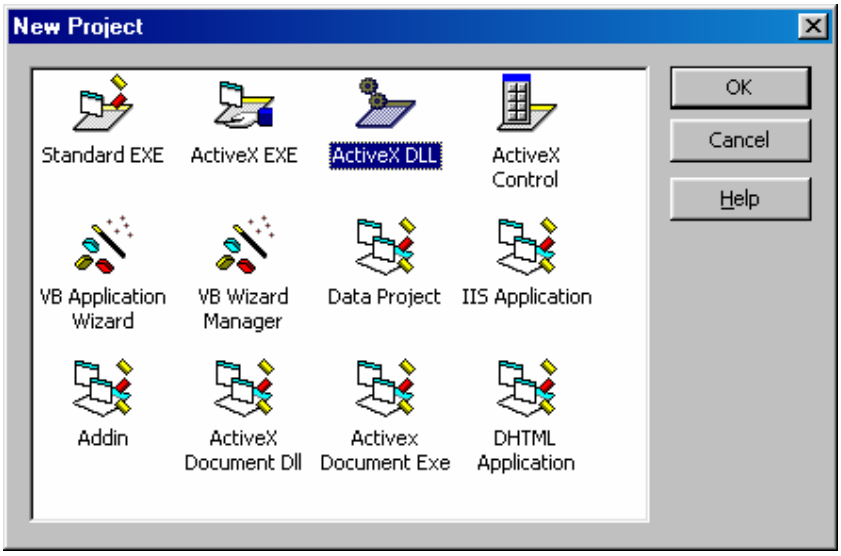


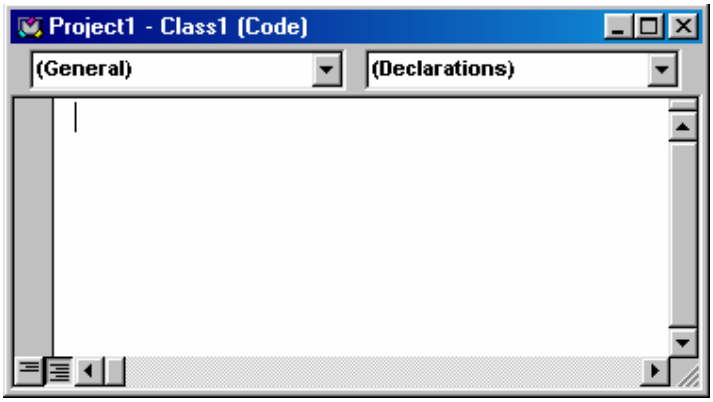




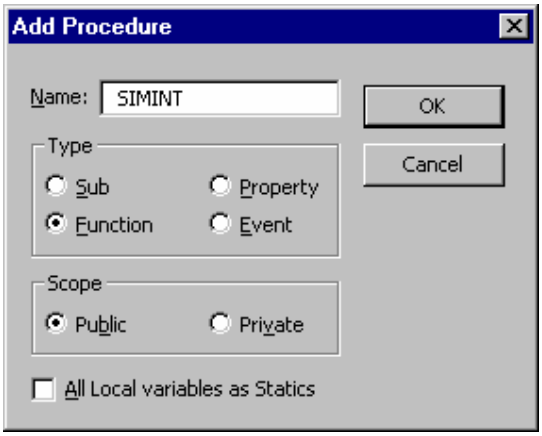
Ex20 - To Ceate DLL

- Open New project and select ActiveX DLL

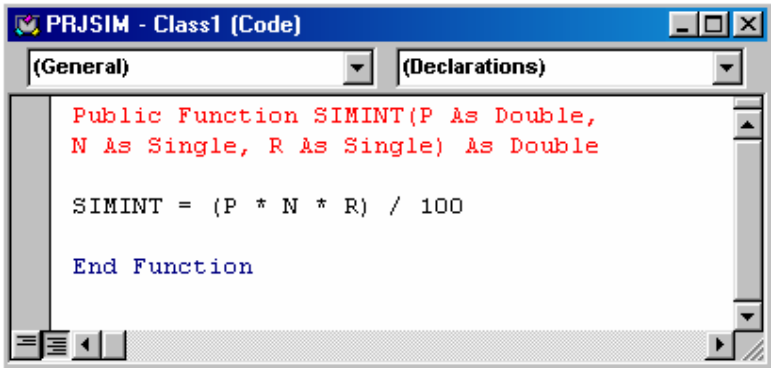


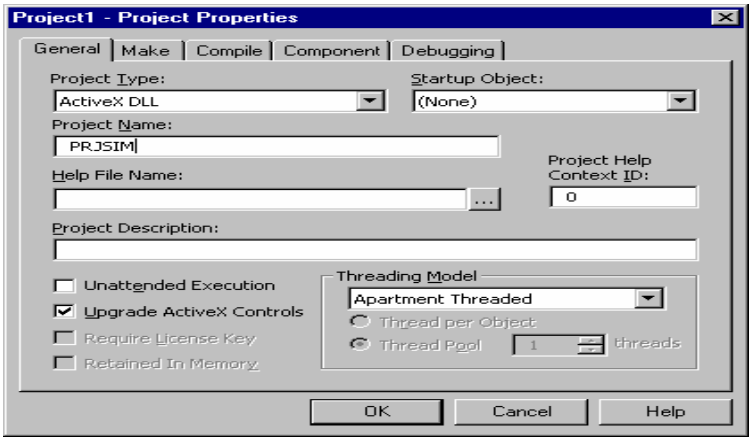


- Select the Tool in the menu bar and click the Add procedure option .
- A window will be displayed like given below
- Give one name for the procedure

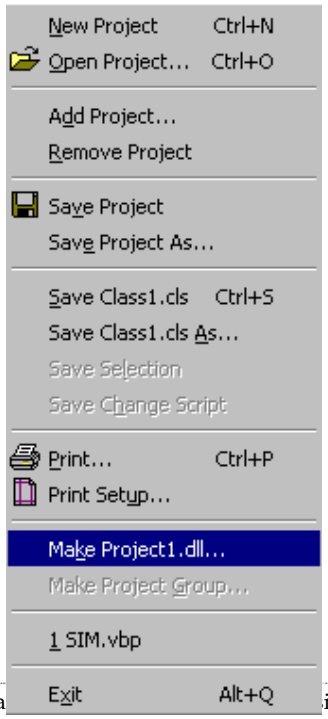


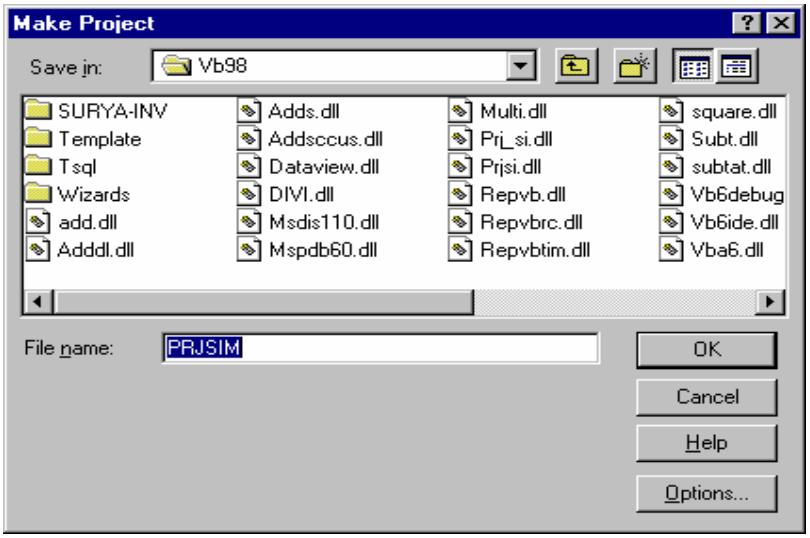
- Select Function and click ok button
- Write the following code in the windows





- Save the class module and the project
- Open the class module property window and change the name as SIM
- From the file menu select the option make project dll
- Save the dll name





Open a new Standard Exe and write the following code in the load event.

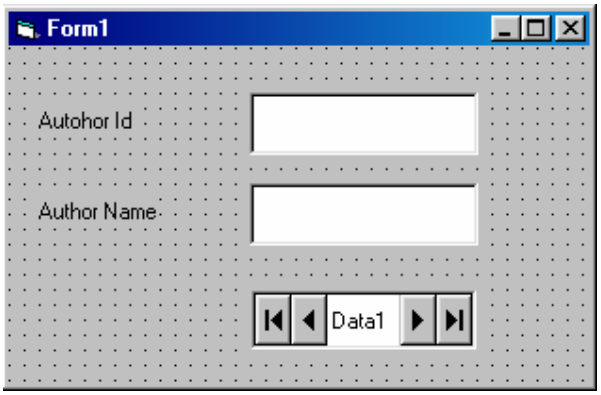
- Select project in the Munu bar
- Select Reference option in the project menu
- Now you can see your dll in the Reference
- Select your dll
- Write the following code in the form load event

```
Dim A As New PRJSIM.SIM

Private Sub Form_Load()
  MsgBox A.SIMINT(10000, 2, 2)
End Sub
```

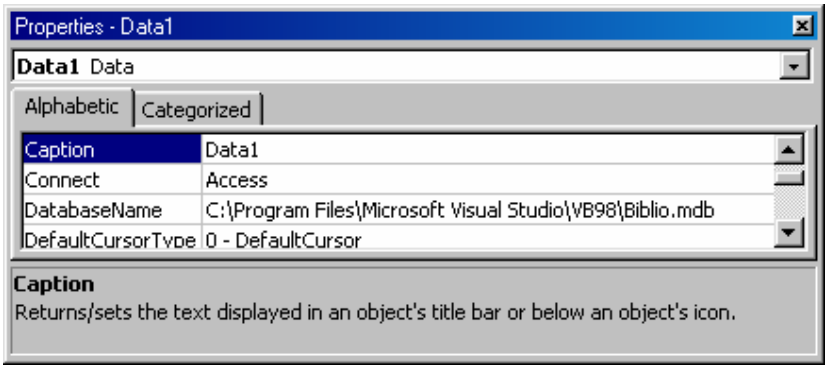
Run the program
THE OUT PUT IS

Ex 21 - Using Data Control

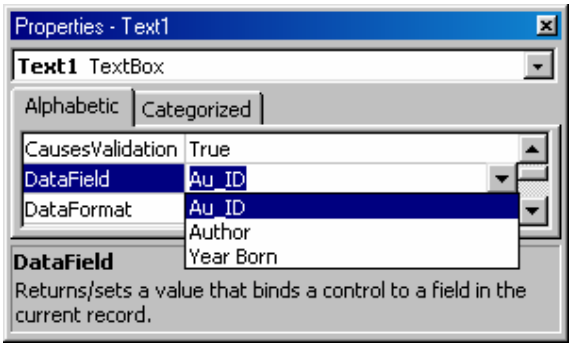
- Create a form with the following controls ie. 2 label boxes and 2 text boxes with one data control.
- Change the caption of label 1 as Author_id
- Change the caption of label2 as Author name
- Clear the text boxes text property

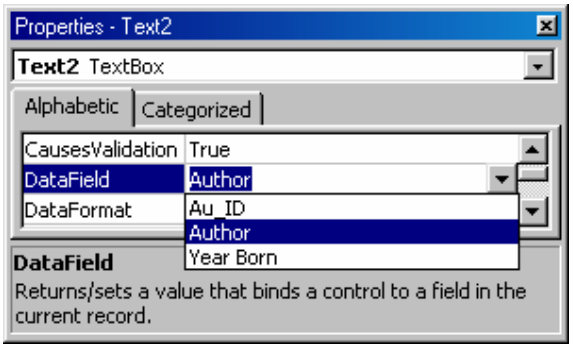


- Change the data field and data source in the property box of the text box
- Open the property window of the Data1 and change its caption as Data1 & change the Databasename as given below ow.

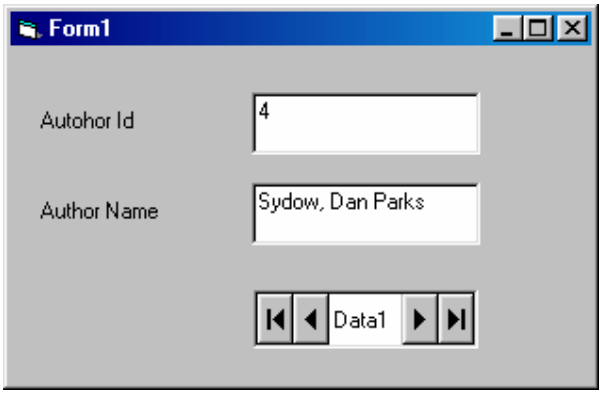


o Open the text boxs property window and change this 'Data source' nand 'Data filed' property





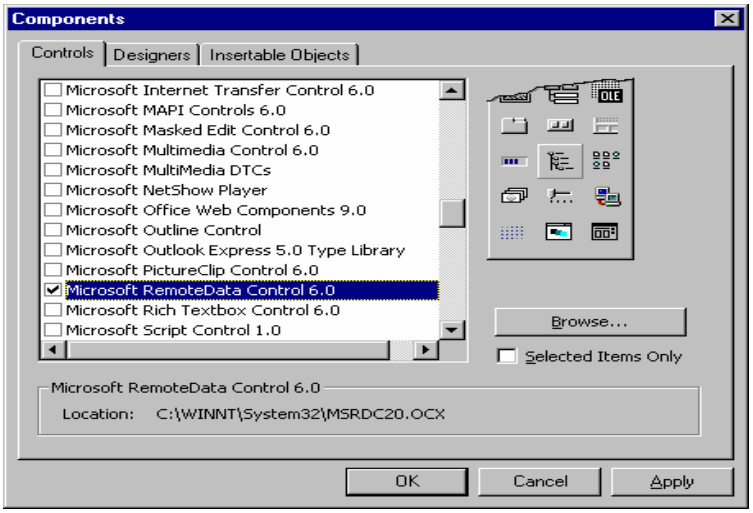
Run the above program
The output is

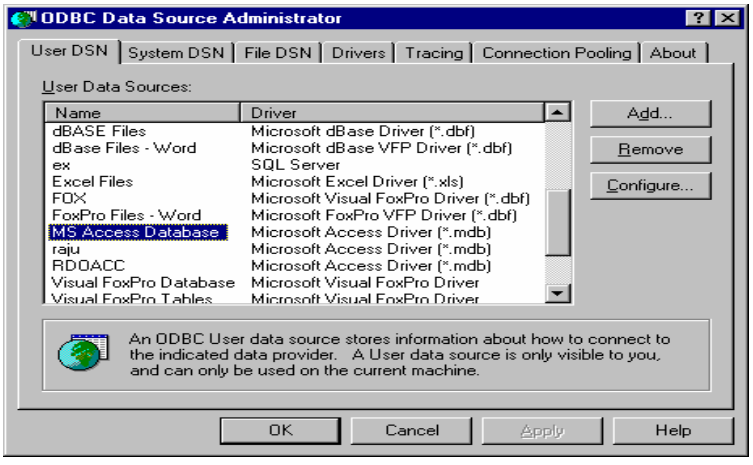


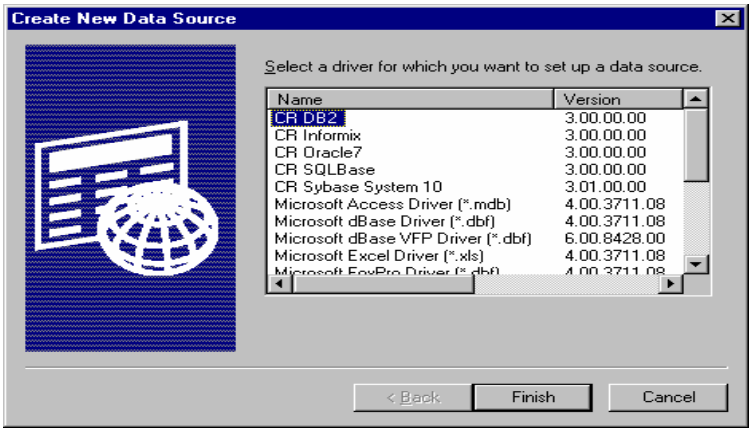
Ex22 - Using RDO

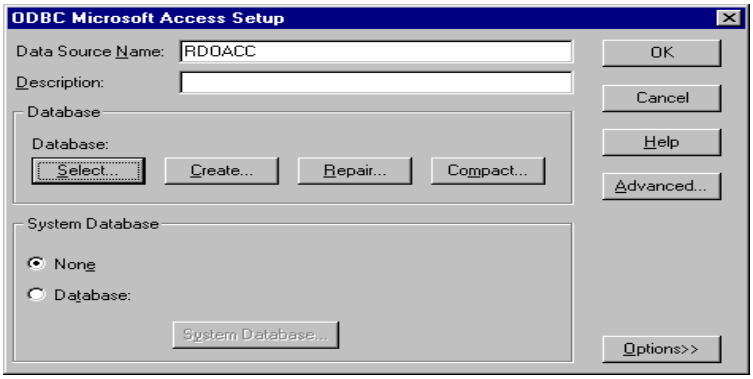
- Click the start button
- Click the setting
- Open the control panel and select the ODBC Data Source

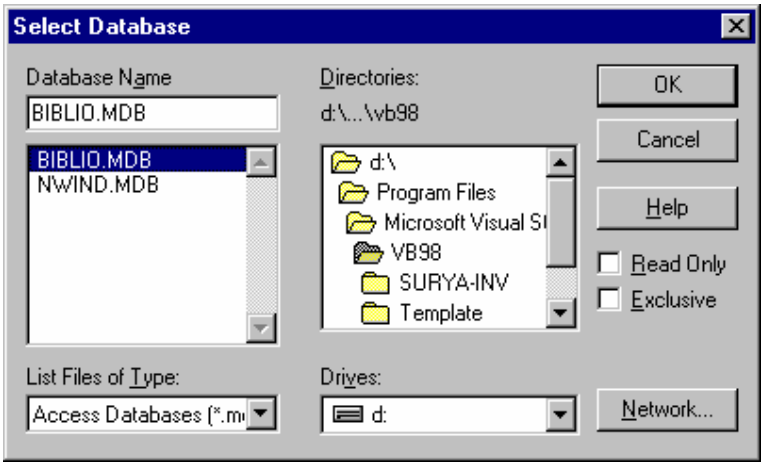

Control Panel
File Edit View Go Favorites Help
Control Panel
ODBC
ODBC Data Sources (32bit)
Passwords
Power Management
Printers
QuickTime 32
Regional Settings
Sounds
My Compute


Components
Controls
Designers
Insertable Objects
Microsoft Internet Transfer Control 6.0
Microsoft MAPI Controls 6.0
Microsoft Masked Edit Control 6.0
Microsoft Multimedia Control 6.0
Microsoft MultiMedia DTCs
Microsoft NetShow Player
Microsoft Office Web Components 9.0
Microsoft Outline Control
Microsoft Outlook Express 5.0 Type Library
Microsoft PictureClip Control 6.0
Microsoft RemoteData Control 6.0
Microsoft Rich Textbox Control 6.0
Microsoft Script Control 1.0
Browse...
Selected Items Only
Microsoft RemoteData Control 6.0
Location: C:\WINNT\System32\MSRDC20.OCX
OK
Cancel
Apply

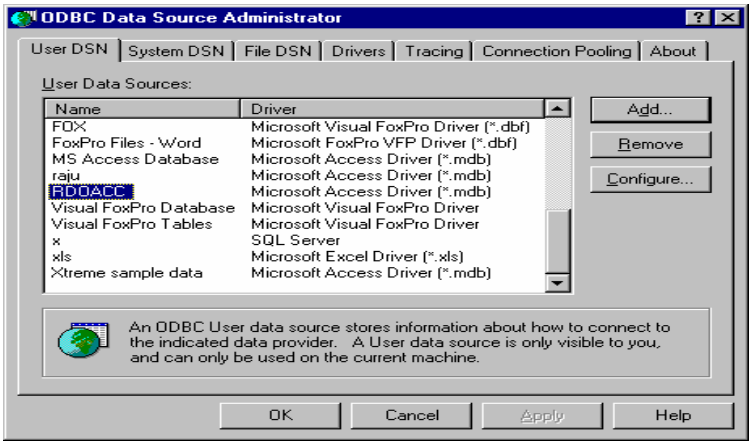

ODBC Data Source Administrator
User DSN
System DSN
File DSN
Drivers
Tracing
Connection Pooling
About
User Data Sources:
Name
Driver
dBASE Files
Microsoft dBase Driver (*.dbf)
dBase Files - Word
Microsoft dBase VFP Driver (*.dbf)
ex
SQL Server
Excel Files
Microsoft Excel Driver (*.xls)
FOX
Microsoft Visual FoxPro Driver (*.dbf)
FoxPro Files - Word
Microsoft FoxPro VFP Driver (*.dbf)
MS Access Database
Microsoft Access Driver (*.mdb)
raju
Microsoft Access Driver (*.mdb)
RDOACC
Microsoft Access Driver (*.mdb)
Visual FoxPro Database
Microsoft Visual FoxPro Driver
Add...
Remove
Configure...
An ODBC User data source stores information about how to connect to the indicated data provider. A User data source is only visible to you, and can only be used on the current machine.
OK
Cancel
Apply
Help



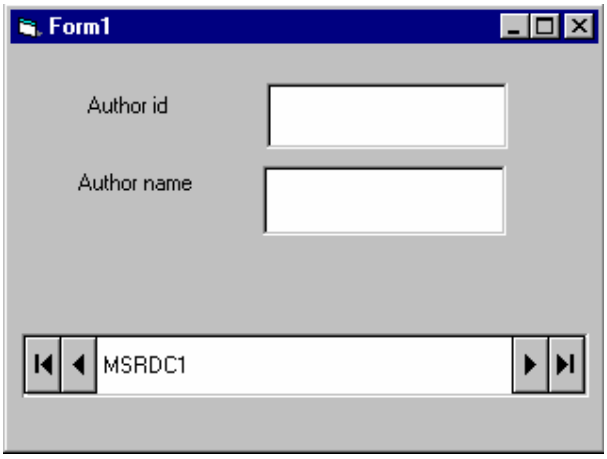




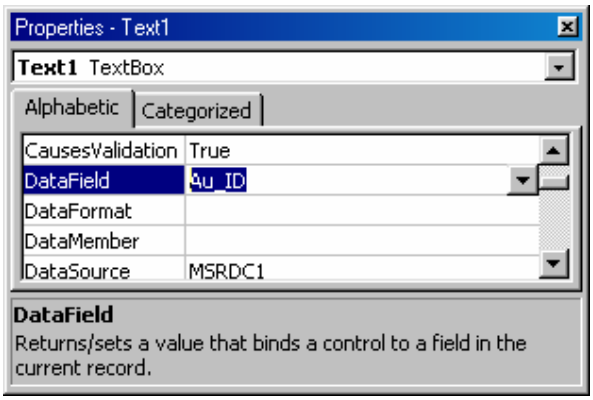
The DSN RDOACC can be seen in the ODBC Data source administrator.

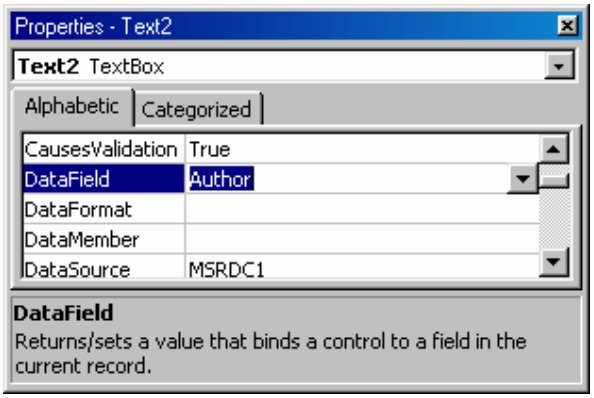


Create a standard exe with following controls ie., two text boxes and two label boxes
And paste a MSRDC control in the form.



Open the property window of the text box and change its Datafield and Datasource property like shown in the following windows.



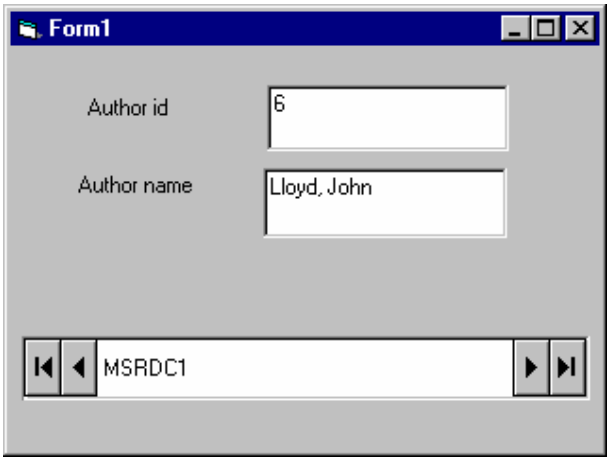


Select the property window of the MSRDC1 and change the following properties ie.,

```
DataSourceName     RDOACC
SQL    Select * from  authors
```

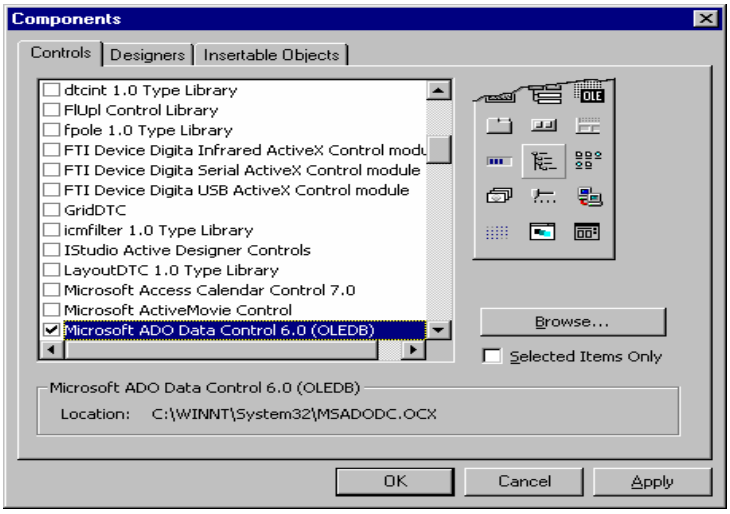
Run the program

The out put is

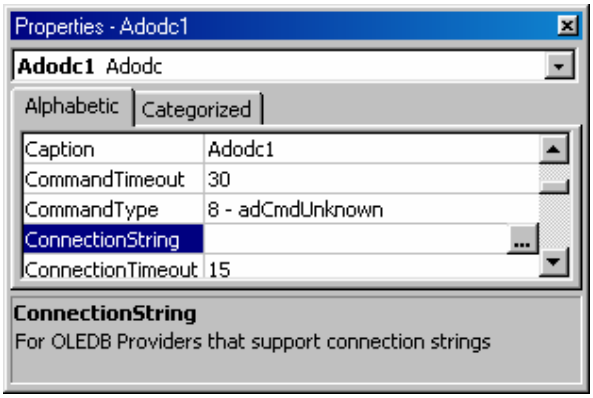


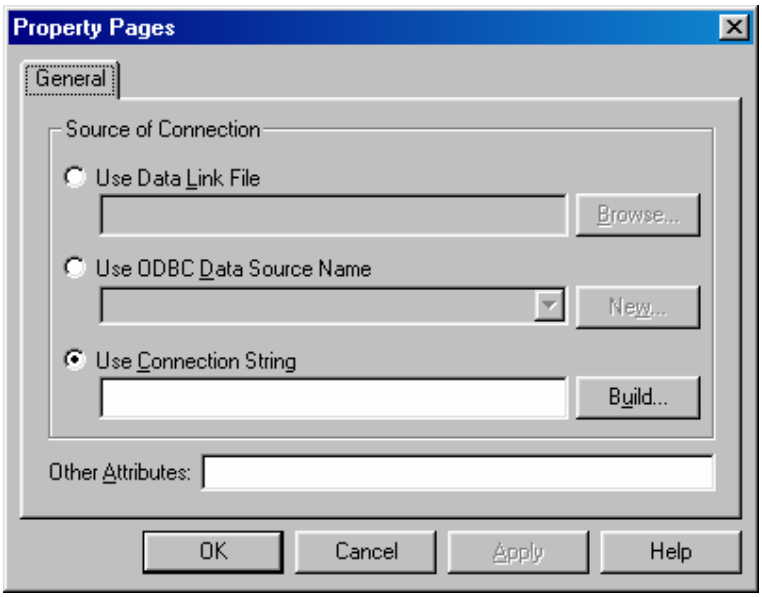
Ex 23 - Using ADO

- Open a Standard exe form
- Open a new form and paste two label boxes and two text boxes
- Clear the captions of the two text boxes
- Change the caption of lable1 as Author id
- Change the caption of label2 as Author name
- Open the property menu and click the Component option
- select the Microsoft ADO Data control 6.0

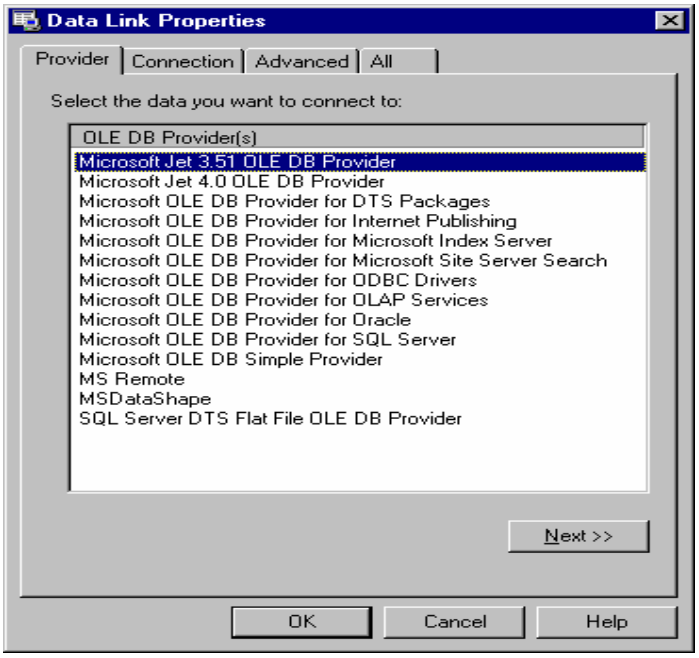


o Paste one ADODC ie., ADO Data Control in the form and select the Connectionstring

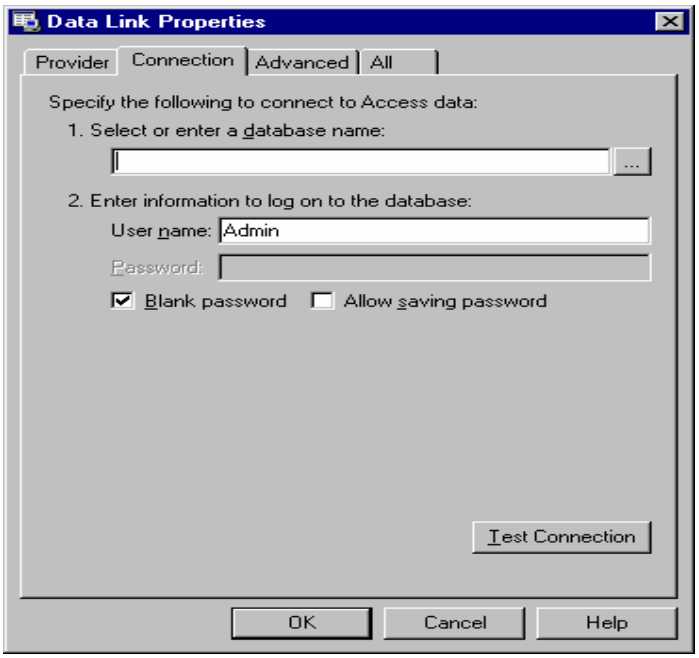




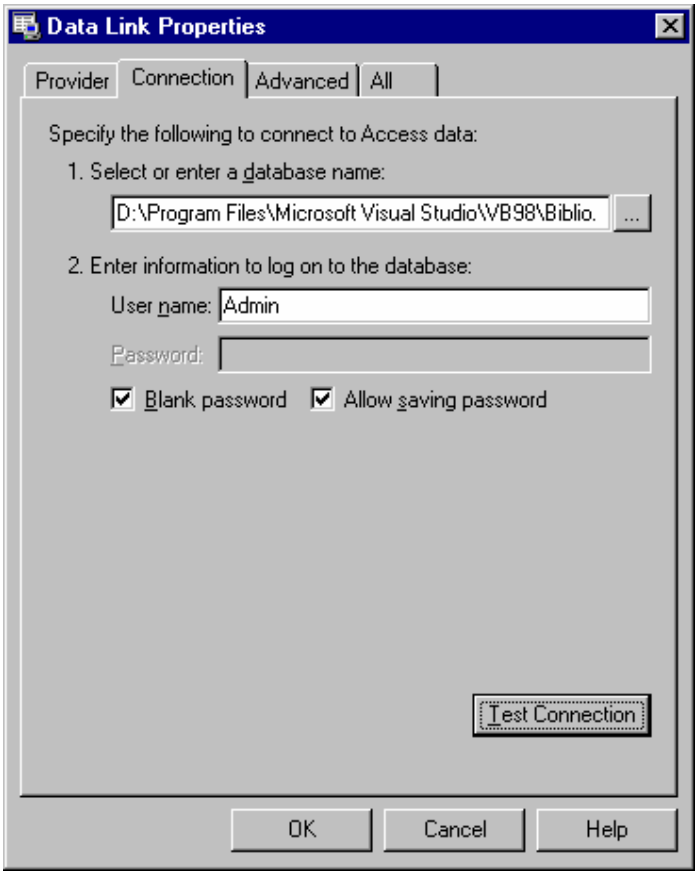
Click build button



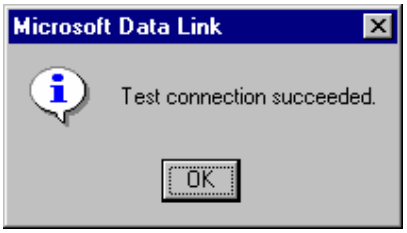
Select Microsoft jet 351 OLE DB Provider



Select the table

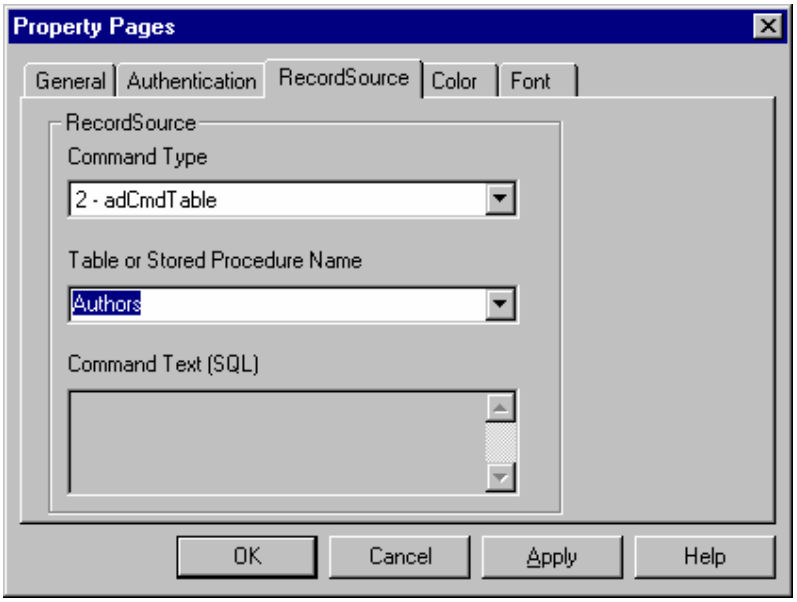


Click text connection



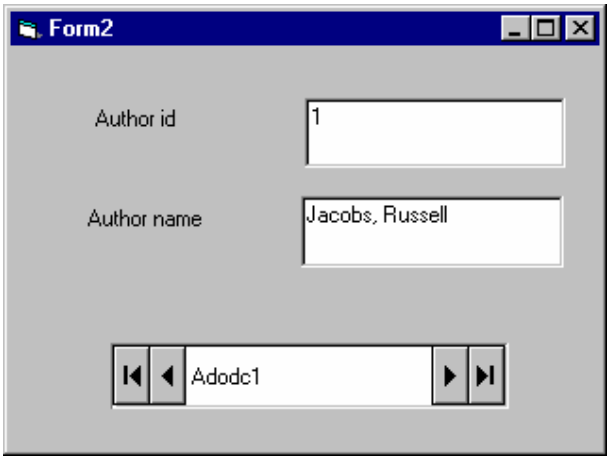
Click ok

Once again click apply in the property pages then theproperty box will be changed like the following format.



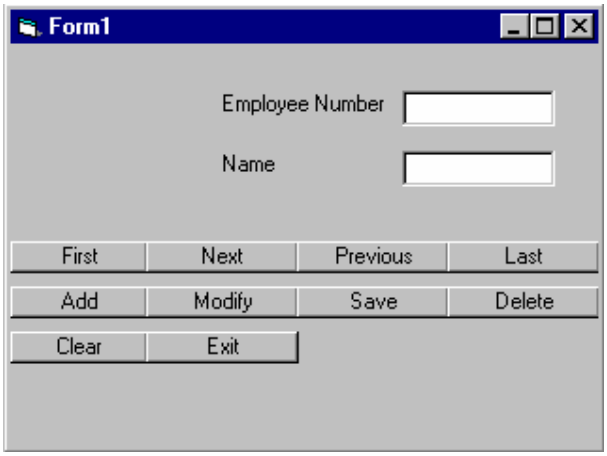
Give the command type and table name in the dropdown list box and click apply in the window.

Run the program



Ex 24 - Using ADO

- Open a form and paste 10 command buttons, two label box and two text boxes
- Change the caption label1as Employee number
- Change the caption label2 as Employee name
- Change the name of the command1 as first and caption as first
- Change the name of the command2 as next and caption as next
- Change the name of the command3 as previous and caption as previous
- Change the name of the command4 as last and caption as last
- Change the name of the command5 as add and caption as add
- Change the name of the command6 as modify and caption as modify
- Change the name of the command7 as save and caption as save
- Change the name of the command8 as delete and caption as delete
- Change the name of the command9 as clear and caption as clear
- Change the name of the command10 as exit and caption as exit



Write the following code

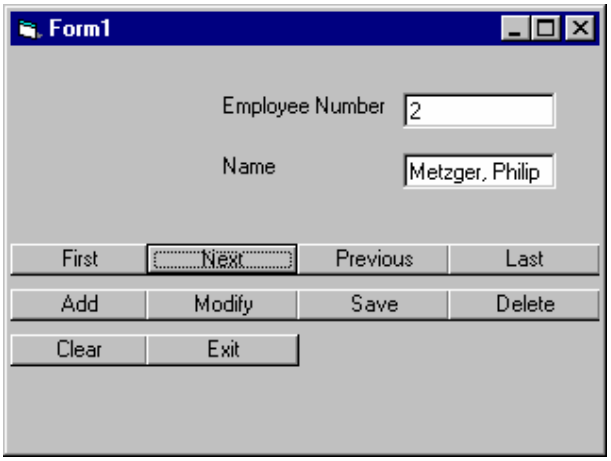
```
Dim DB As Database
Dim RS As Recordset

Private Sub Add_Click()
  RS.AddNew
  CLEA
End Sub
Private Sub Clear_Click()
  CLEA
End Sub

Private Sub Delete_Click()
  RS.Delete
  CLEA
```

```
End Sub

Private Sub Exit_Click()
  End
End Sub

Private Sub First_Click()
  RS.MoveFirst
  SCROLL
End Sub

Private Sub Form_Load()
Set DB = OpenDatabase("d:\PROGRAM FILES\MICROSOFT VISUAL
STUDIO\VB98\biblio.MDB")
  Set RS = DB.OpenRecordset("authors", dbOpenDynaset)
End Sub
Public Sub CLEA()
  Text1.Text = ""
  Text2.Text = ""
End Sub
Public Sub SCROLL()
  Text1.Text = RS(0)
  Text2.Text = RS(1)
End Sub
Private Sub Last_Click()
  RS.MoveLast
  SCROLL
End Sub

Private Sub Modify_Click()
  RS.Edit
  RS(0) = Text1.Text
  RS(1) = Text2.Text
  RS.Update
End Sub

Private Sub Next_Click()
  RS.MoveNext
    If RS.EOF Then
      RS.MoveFirst
    End If
  SCROLL
End Sub

Private Sub Previous_Click()
  RS.MovePrevious
    If RS.BOF Then
      RS.MoveLast
    End If
  SCROLL
End Sub

Private Sub Save_Click()
  RS(0) = Text1.Text
```

```
  RS(1) = Text2.Text
  RS.Update
End Sub
```

Run the program

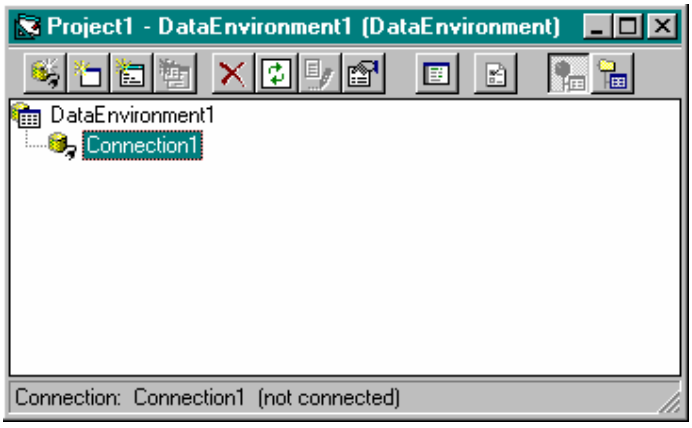
The out put is



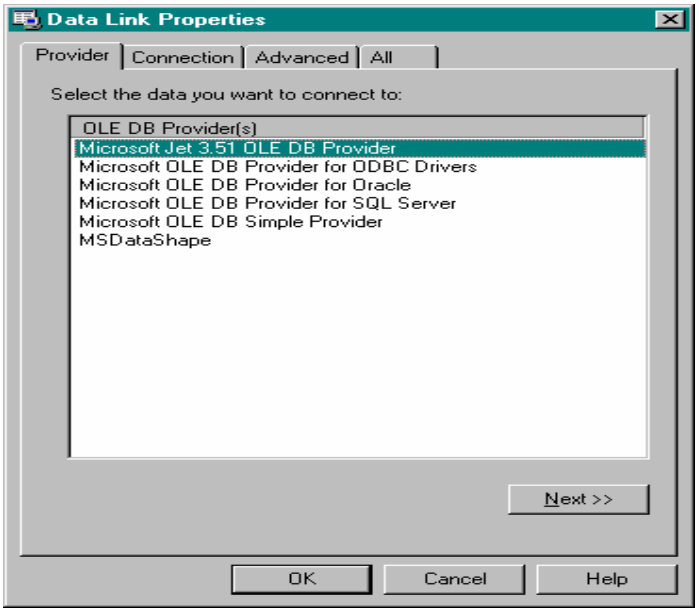
Ex 25 - Creating a Data Report

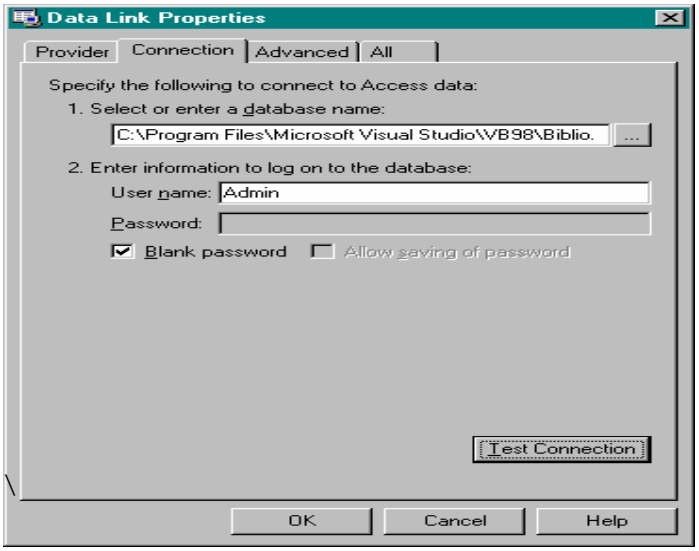
- Create a standard EXE
- Place a command button on the form
- Select project1 and right click it
- Select "Add" -> " More ActiveX Designer " -> "Data Environment"

The following window will be displayed



- Open property of Connection1 and select "MicroSoft Jet 3.51 OLE DB provider"
- Click OK
- Then select the Database name for displayed window



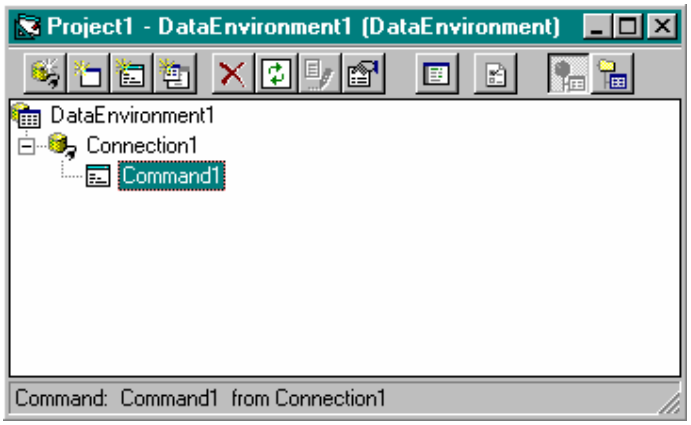


Click the Test Connectio button

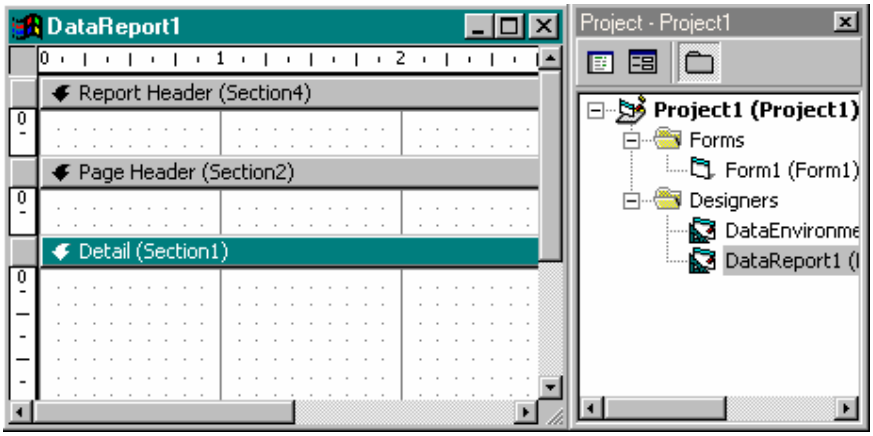
The following window will be displayed

click OK

Now select the Connection1 and select the option Add Command



- Select Command1 and click its property
- In the property window of the Command1
- Enter the Database name in Database Object box
  &
- Enter the Table name in Object Name Box
- Click OK



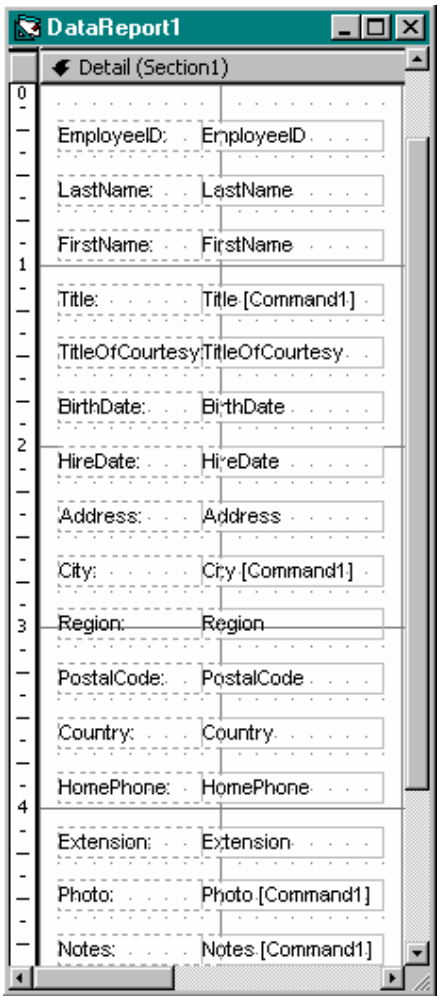
- Now Select the Project1 ->Add->DataReport
- Now Open the property box of the DataReport1 and Enter
- Command1 in DataMember
- DataEnvironment1 in DataSource
- Now Drag Command1 from the DataEnvironment1 and paste it in DataReport1
- Now the window will look like

Now Open the form1 command button Click Event and write the following code in it.

```
Private Sub Command1_Click()
```

```
DataReport1.show
```
End Sub

Now Run the project



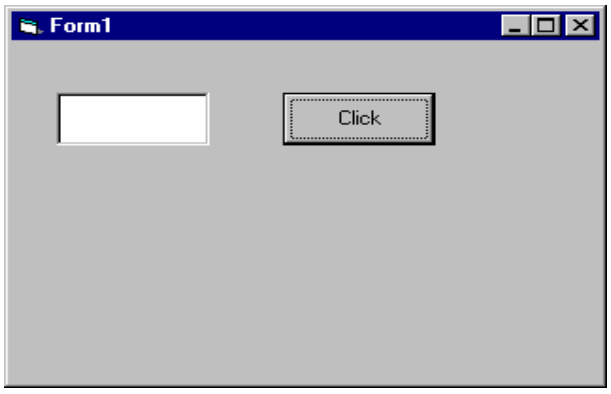
Lab Unit – 1 (1 Real Time Hrs)

Ex 1:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 3.

(Use If..Then..Else statement)

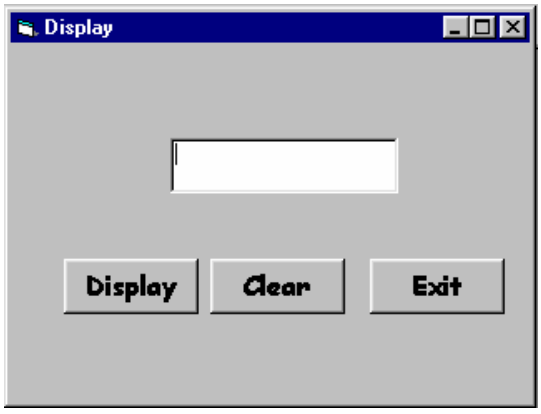
1. Open a new standard EXE project
2. Place a text box and a command button in the form



3. Enter a number in the text box
4. On clicking the command button, a message box is to be displayed
5. The message box should display whether the number in the text box is a Single, Two, Three digit numbers

Ex 2:

1. Add Standard Exe project
2. In this form add one text box and three command buttons.



3. The form is designed as per the following Specifications.

Object	Property	Setting
Form	Caption	Display

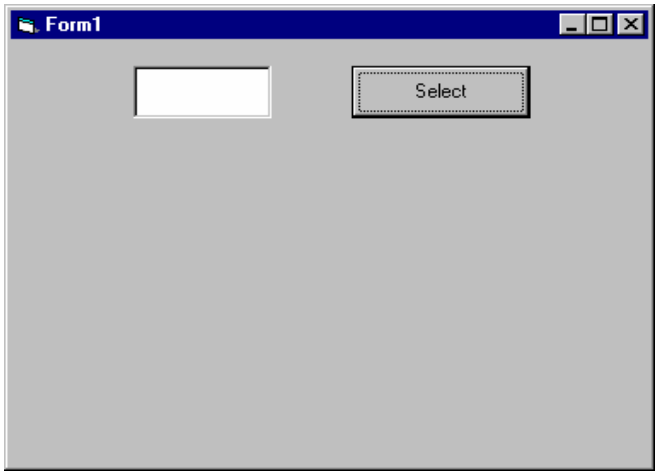
Command	Name Caption Name	Form1 Display Command1
Text	Name Text	TxtResult Clear the Property

4. When we click the display button "welcome" message is printed in the text box
5. When we click the clear button the message is cleared
6. When we click the Exit button the form will be closed.

Ex 3:

(Use Select ...Case statement)

Open a new standard EXE project
Place a text box , label and a command button in the form



- Enter a number (0 or 1 or 2)in the text box
- On clicking the command button, the messages given below should be displayed.
- God's delays are not denials (for 0)
- A Single drop makes an Ocean (for 1)
- Hardwork and success go hand-in-hand (for 2)

Lab - 2 (1 Real Time Hrs)

Ex1:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 4.

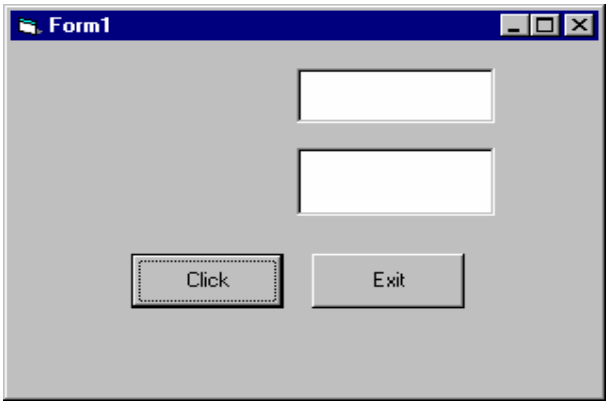
1. Create a new Standard EXE project

2. Enter the Code in the Form Load event procedure

3. During run time the caption , mouse pointer, Window State, Height and Width properties should be changed

EX 2:

1. Add a new standard EXE project.
2. Design your form as shown below



3. The form is designed as per the following Specifications.

Object	Property	Setting
Form1	Caption	Convert the Date
Command1	Caption	Click
Command2	Caption	Exit
Text1	Text	Clear the Property
Text2	Text	Clear the Property

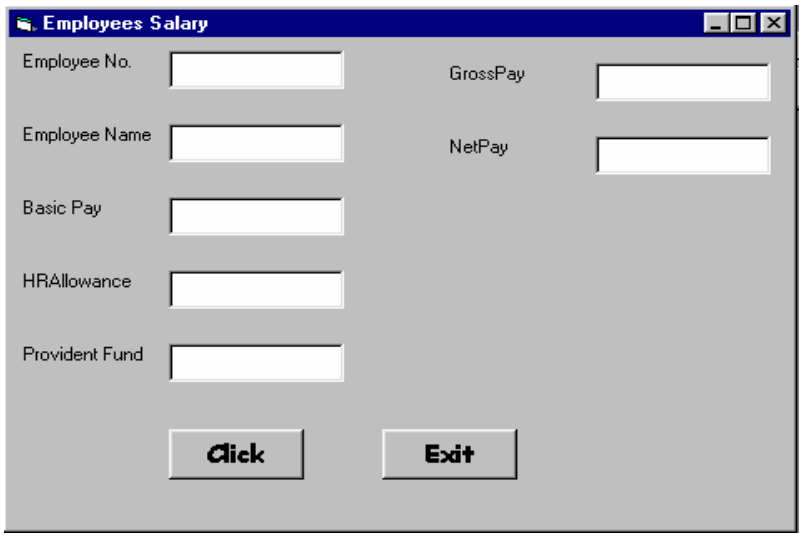
4. When we click the 'click ' button it will clear the date in text1 and it will converts the date to text2.
5. When we click the exit button it will close the form.

Lab - 3

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture4

1. Add a new standard EXE project.

2. Design your form as shown below



Object	Property	Setting
Form	Caption	Employees Salary
	Name	Form1
Text1	Text	Clear the
Text2	Text	Property
Text3	Text	Clear the
Text4	Text	Property
Text5	Text	Clear the
Text6	Text	Property
Text7	Text	Clear the
Label1	Caption	Property
Label2	Caption	Clear the
Label3	Caption	Property
Label4	Caption	Clear the
Label5	Caption	Property
Label6	Caption	Clear the
Label7	Caption	Property
Command1	Caption	Employee No
Command2	Caption	Employee Name
		Basic pay
		HRAllowance
		Provident Fund
		Gross Pay
		Net Pay
		Click
		Exit

3. We enter the Employee no, Employee Name and Basicpay.

4. When we click the 'Click' button the HRA, PF, GrossPay and NetPay are calculated.

HRA is 20% of Basic pay.
PF is 10% of Basic pay.
GrossPay is addition of Basicpay and HRA.
NetPay is GrossPay-PF.

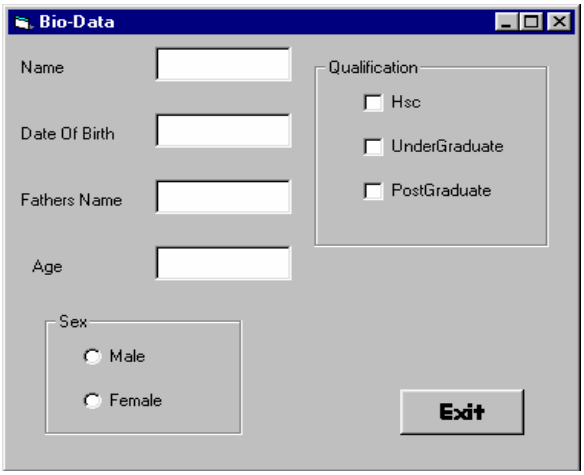
5. When we click the exit button the form is closed.

Lab – 4 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:-
You are suggested to take this lab Unit only after completion of Lecture 4.

1. Add a new standard EXE project.
2. Design your form as shown below



3. The form is designed as per the following Specifications.

Object	Property	Setting
Form1	Caption	Bio-Data
Text1	Caption	Click
Text2	Caption	Exit
Text3	Text	Clear the Property
Text4	Text	Clear the Property
Frame1	Caption	Sex
Frame2	Caption	Qualification
Option1	Caption	Male
Option2	Caption	Female
CheckBox1	Caption	Hsc
CheckBox2	Caption	Undergraduate
CheckBox3	Caption	postgraduate
Command1	Caption	Exit

4. When we enter the date of birth of the candidate automatically it will display age of that particular person. (For using Lost Focus Event).
5. When the control transfer to sex frame control there is only one option will be selected.
6. After selecting the option the control will transfer to Qualification
7. In this Qualification frame we also select more then one options.
8. When we click the exit button for closing the form.

Ex 2:

(Declaring Variable)

1. Open a new standard EXE project

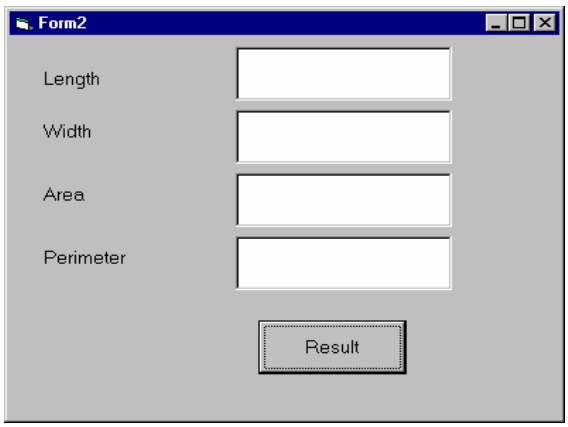
2. Add four text boxes and a command button to the form

3. Open the code window of the form

4. Place the code Option Explicit as the first line of the declarations section of the form. This forces the variables to be declared before they are used.

5. Open the event procedure for the Click event of the command button. You can do this by selecting the name of the command button from the object list on the left of the code window. Use the following statements to create the variables for calculating area and perimeter. These statements should be place at the top of the event procedure.

6. Run the program



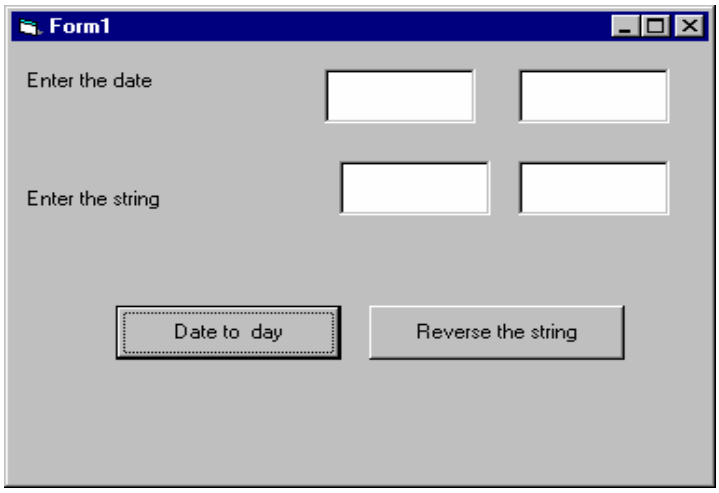
Lab – 5 (1 Real Time Hrs)

Ex1:

Pre-Requisite:-
You are suggested to take this lab Unit only after completion of Lecture 4.

1. Add a new standard EXE project.

2. Design your form as shown below.



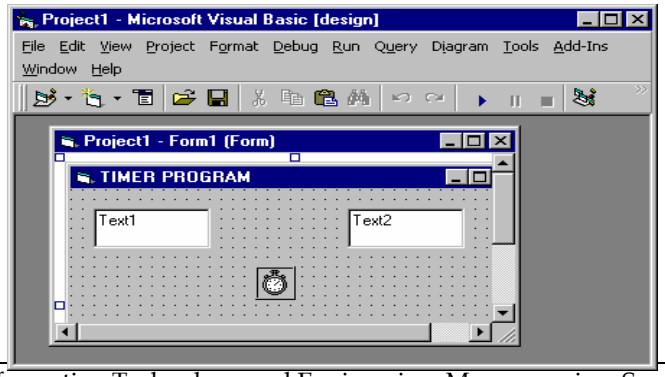
3. The form is designed as per the following Specifications.

Object	Property	Setting
Form1	Caption	Reverse the Text
Text1	Text	Clear the Property
Text2	Text	Clear the Property
Text3	Text	Clear the Property
Text4	Text	Clear the Property
Label1	Caption	Enter the Date
Label2	Caption	Enter the Text
Command1	Caption	Day to Year
Command2	Caption	Reverse the Text

4. When we click the 'reverse the text' button it will display reverse content of text3 in text4.
5. When we click the 'day to year' button it will display the year of the text1 content in text2.
6. When we click the exit button the form will close.

Ex2:

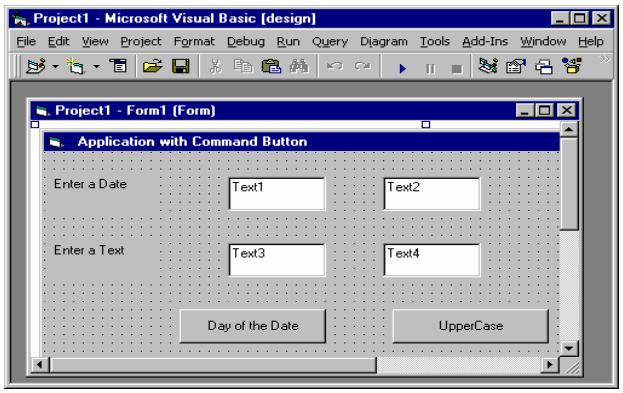
1. Open a new standard EXE project
2. Design your form as shown below



3. Current Time should be displayed on the Text1
4. Current Date should be displayed on the Text2

Ex 3:

1. Open a new standard EXE project
2. Design your form as shown below



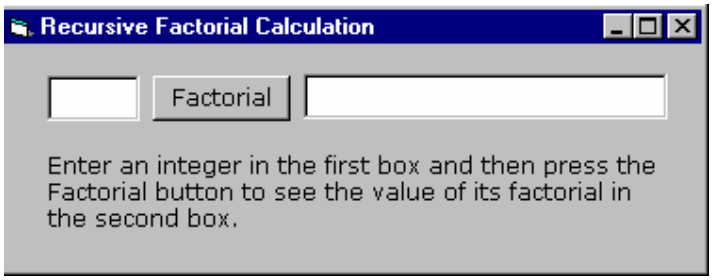
3. In the Text1 Box enter a date
4. In the Text3Box enter a text
5. If you click the Command Button1, Day of the Date should be displayed in the Text2 Box
6. If you click the Command Button2, UpperCase of the text should be displayed in the Text4 Box

Lab - 6 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 6.

1. Add a new standard EXE project.
2. Design your form as shown below.



3. The form is designed as per the following Specifications.

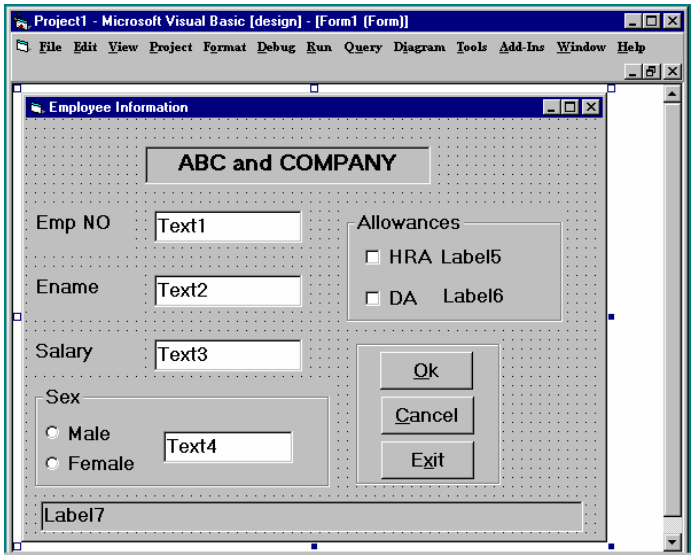
Object	Property	Setting
Form	Caption Name	Recursive Factorial Calculation

Command Text Text	Caption Text Text	Form1 Factorial Clear Property Clear Property

4. When we Click the Commad1 Button, the factorial Value of Text1 will be Displayed in the Text2.(**Using Recursive Fn**.)

Ex 2:

1. Open a new Standard EXE project
2. Design your form as shown below
3. Whenever the Textbox "TEXT1" gets the focus it must be cleared.
4. The Textbox "TEXT1" should accept only numbers.
5. The user must not be allowed to go out of the Text box "TEXT1" when it is empty
6. The Textbox "TEXT2" must accept only alphabets (Upper case)
7. The Textbox "TEXT3" should accept only a maximum of 8 digits and only numbers.



8. "TEXT4" is to input a special allowance to the female candidates. So the user must be allowed to enter values in it only if the candidate is a female candidate

9. If any of the allowances is applicable to the candidate it must be displayed in the respective label boxes.
   HRA – 2500.00
   DA - 3000.00

10. When the user clicks the "OK" button a confirmation message must be displayed in the label box "Label"

11. When the user clicks the "Cancel" button a cancellation message must be displayed in the above mentioned label control and all the textboxes must be cleared.

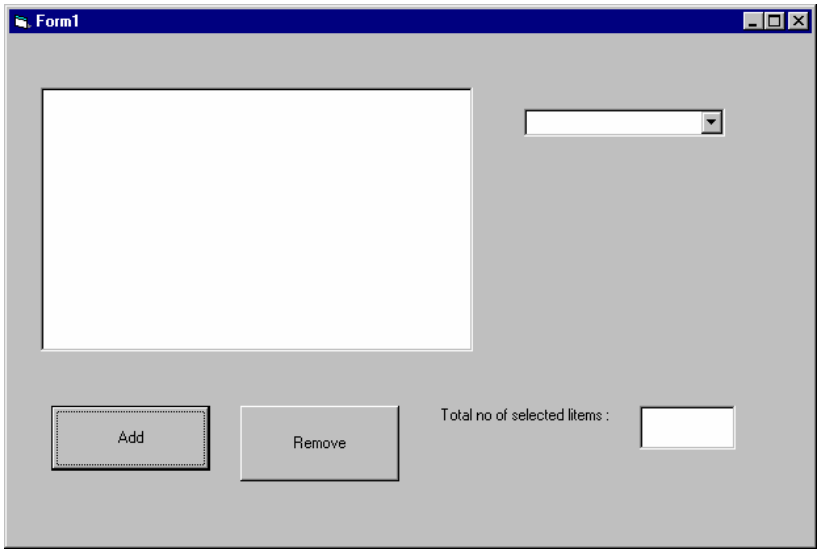
12. When the user clicks the "Exit" button stop the execution of the program.

Lab – 7 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:-
You are suggested to take this lab Unit only after completion of Lecture 6.

1. Open a new standard EXE project.
2. Design your form as shown below.



3. The form is Designed as per the following Specifications.

Object	Property	Setting
Form1	Caption	List Box Controls
	Name	Form1
Label1	Caption	Total No.of Selected Item
	Name	Label1
List1	Name	List1

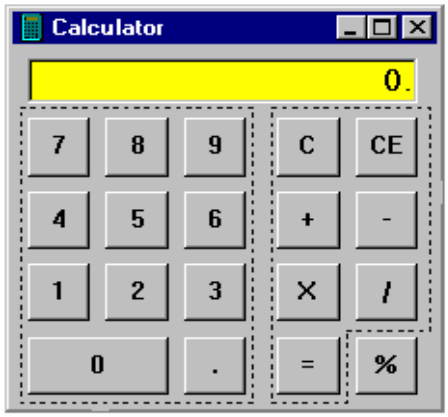
Combo1	Name	Combo1
Command1	Caption	Add
Command2	Caption	Remove
Text1	Name	Text1

4. If we Click Command1, the item is entered in the inputbox and added to the List1.
5. If we Click Command2, the selected item of the listbox will be removed.
6. When we select the item in the List1, that item will be added in the Combo1 & displayed in the Text1.

Ex 2:

1. Open a new Standard **EXE** project

2. Design your form as shown below and perform a Calculator Project , which can able to work as like as Windows Calculator



(Use Control Arrays)

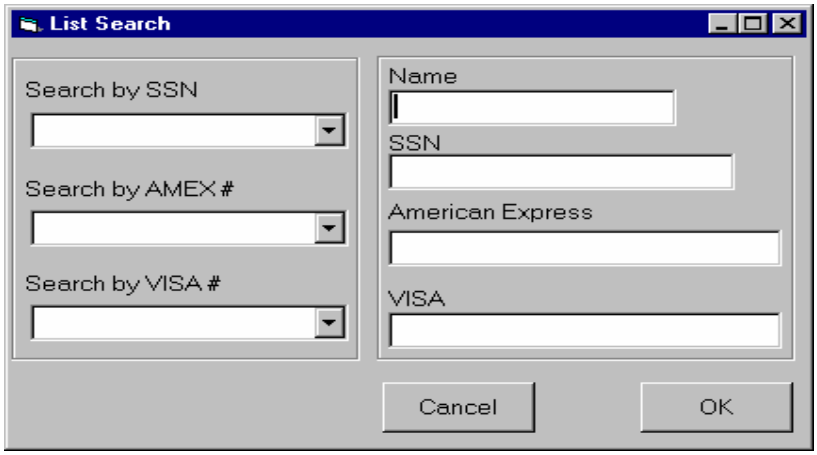
Lab – 8 (2 Real Time Hrs) .

Ex 1:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 6.

1. Open a new standard EXE project.

2. Design your form as shown below.



3. The form is Designed as per the following Specifications.

Object	Property	Setting
Form	Caption	List Search
	Name	Form1
Frame	Name	Frame1
Frame	Name	Frame2
Label	Caption	Name
	Name	Label1
Label	Caption	SSN
	Name	Label2
Label	Caption	American Express
	Name	Label3
Label	Caption	Visa
	Name	Label4
Label	Caption	Search By SSN
	Name	Label5
Label	Caption	Search By American #
	Name	Label6
Label	Caption	Search By Visa
	Name	Label7
Text	Name	TxtName
Text	Name	TxtSSN
Text	Name	TxtAmericn
Text	Name	Txtvisa
Combo	Name	CmbSSN
Combo	Name	CmbAmerican
Combo	Name	CmbVisa
Command	Caption	Add New
	Name	Cmdadd
Command	Caption	Cancel
	Name	CmdCancel

4. If we select the CmdAdd ,we have to enter the values in the TxtName, TxtSSN, TxtAmerican, TxtVisa .Then it contents is added to the corresponding Combo box (CmbSSN,cmbAmerican,cmbVisa)

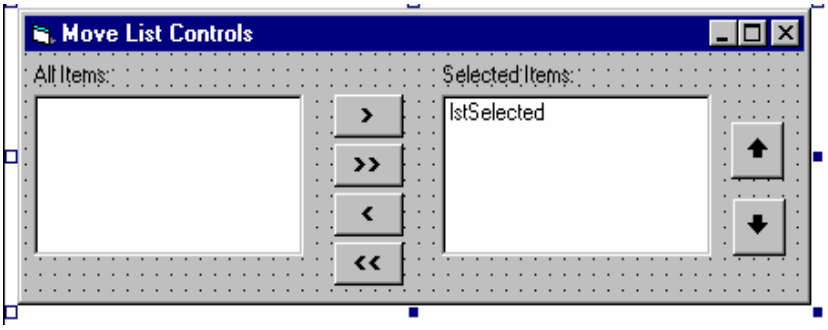
5. If we select the SSN name in the CmbSSN, the corrsponding values is displayed in the Text box.

Lab - 9 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 6.

1. Open a new standard EXE project.
2. Design Your form As shown in below.



3. The form is Designed as per the following Specifications.

Object	Property	Setting
Form1	Caption	Move List Control
	Name	Form1
Label1	Caption	All Items
	Name	lblall
Label2	Caption	Selected Items
	Name	LblSelected
List1	Caption	lstAll
	Name	list1
List2	Caption	lstSelected
	Name	list2
Command1	Caption	>
	Name	CmdRightOne
Command2	Caption	>>
	Name	CmdRightAll
Command3	Caption	<
	Name	CmdLeftOne
Command4	Caption	<<
	Name	CmdLeftAll
Command5	Caption	
	Name	
		CmdUp
Command6	Caption	

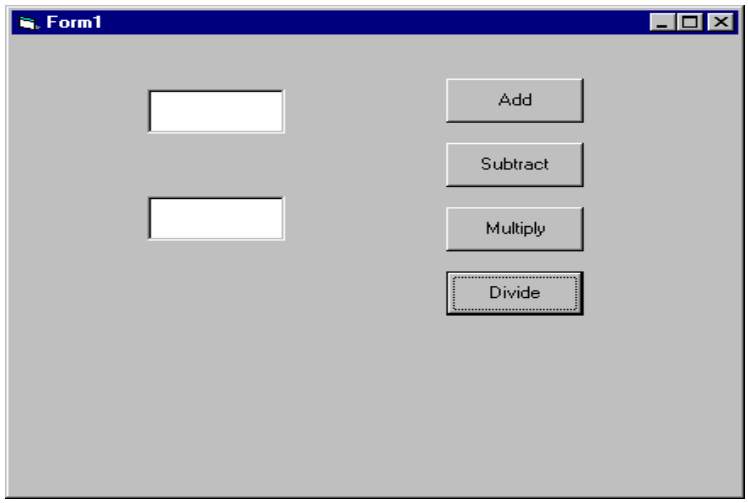
	Name	CmdDown

4. Add the list of item to the list1.
5. When Click CmdRightOne Button, the Selected item of List1 is Moved to List2
6. When Click CmdRightAll Button, the All item of List1 is Moved to List2
7. When Click CmdLeftOne Button, the Selected item of List2 is Moved to List1
8. When Click CmdLeftAll Button, the All item of List2 is Moved to List1.
9. When Click CmdUp Button, the Selected item of List2 is Moved to Up
10. When Click CmdDown Button, the Selected iem of List2 is Moved to Down.

Ex 2 :

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 6.

1. Open a new standard EXE project
2. Design your form as shown below



3. Result should be displayed depending upon the button pressed

Hint: Make Use Of User Defined Sub Routines for Arithmetic Operation.

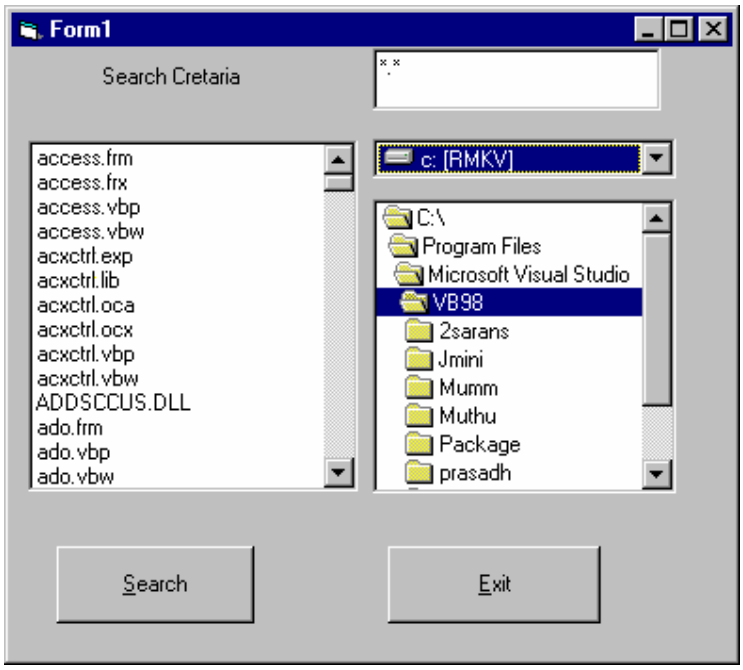
Lab - 10 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 6.

1. Create a new standard EXE project

2. Paste one directory listbox, one drive list box, file list box, combo box, two label box, two command box.(like given below).



3. If We Click Command1 button, Find the files corresponding text box type, it will display the file1.

4. If we Click Command Button2,stop the Searching Files.

5. Total number of files is displayed in the Label4.

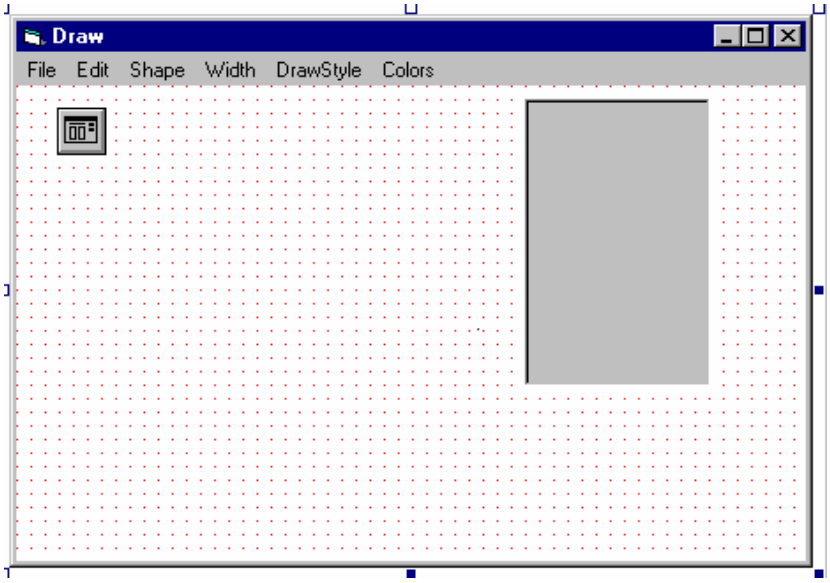
Ex 2:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 6.

1. Create a standard EXE file.

2. Paste one common dialogue box and picture box.

3. Create a menu using the label box like given below.



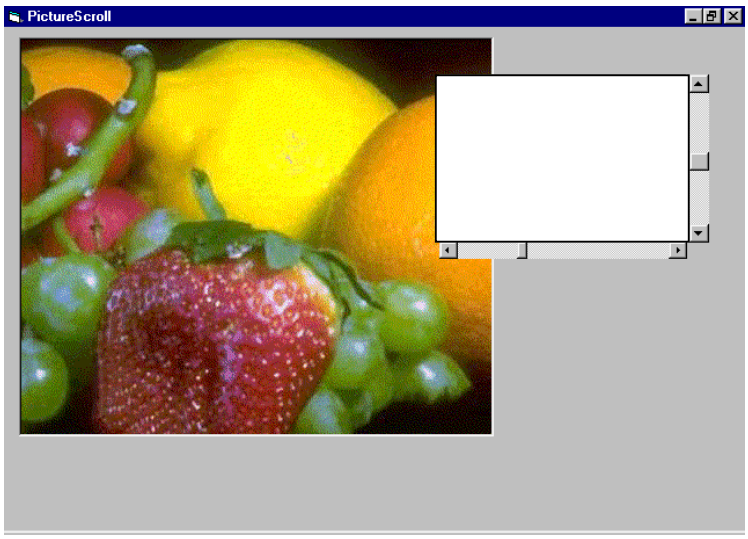
Hint : It Should Be Similar to Paint Brush Line Drawing Method. Use Mouse Down and

Lab - 11 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 6.

1. Create a new standard EXE project.
2. Design your form as shown below.



3. The form is Designed as per the following Specifications.

Object	Property	Setting
Form	Caption	Form1
	Name	Form1
Picture	Name	Picture1
	Picture	C:\lake.jpg
Hscroll	Name	HScroll1
Picutre	Name	Picture2
Vsroll	Name	VScroll1

4. **When we move the Hscroll1 values,the corresponding Width of picture changed.**

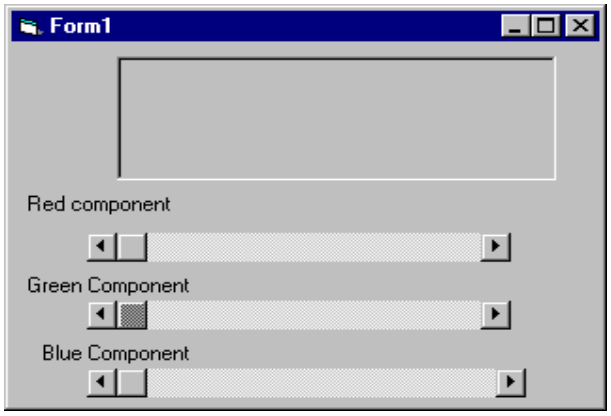
5. **When we move the Vscroll1 values,the corresponding Hight of picture changed.**

Lab – 12 (2 Real Time Hrs)

Ex 1 :

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 6

1. Create a new standard EXE project.
2. Design your form as shown below.



3. The form is Designed as per the following Specifications.

Object	Property	Setting
Form	Caption	Colors
	Name	Form1
Picture	Name	Picture1
Hscroll	Name	HScroll1
	Max	255
	Min	0

Hscroll	Name	Hscroll2
	Max	255
	Min	0
Hscroll	Name	Hscroll3
	Max	255
	Min	0
Label	Caption	Red
	Name	Label1
Label	Caption	Green
	Name	Lalbel2
Label	Caption	Blue
	Name	Label3
Label	Caption	Red Component
	Name	Label4
Label	Caption	Green Component
	Name	Label5
Label	Caption	Blue Component
	Name	Label6

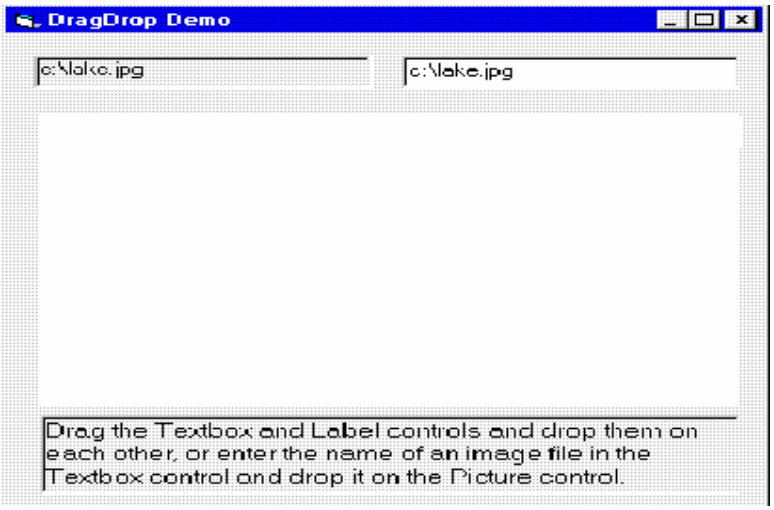
4. When we Scroll_Change in the Hscroll1, the background color of Picture1 is Changed regarding red.
5. When we Scroll_Change in the Hscroll2, the background color of Picture1 is Changed regarding green.
6. When we Scroll_Change in the Hscroll3, the background color of Picture1 is Changed regarding Blue.
7. When we Change in the Hscroll, the Value of Label is Changed.

Ex 2:

Pre-Requisite:-You are suggested to take this lab session only after completion of Lecture 8.

1. Write a suitable program that displays all possible run time error user giving a data input and validating the data input.

Hint : Undefined Variable Declaration , Overflow



Lab - 13 (2 Real Time Hrs)

Ex 1

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 8.

1. Create a new standard EXE project.
2. Design your form as shown below.

3. The form is Designed as per the following Specifications.

Object	Property	Setting
Form	Caption	Drag &Drop Demo
	Name	Form1
Picture	Name	Picture1
Text	Name	Text1
Label	Name	Label1

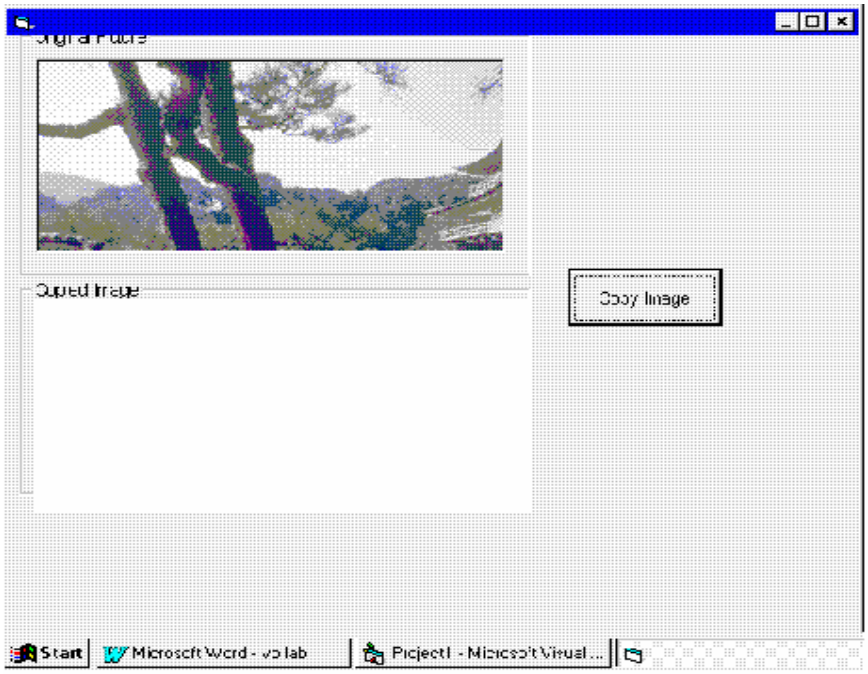
4. Enter the Name of the Image file in the Text1 , then drag the Picture Box, the corresponding Picture will be displayed.
5. Enter the Name of the Image file in the Text1 , then drag the Label Box .

Lab - 14 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 8.

1. Create a new standard EXE project.
2. Design your form as shown below.



3. The form is Designed as per the following Specifications.

Object	Property	Setting
Form	Caption	Copy Image
	Name	Form1
Frame	Caption	Original Picture
	Name	Frame1
Frame	Caption	Copy Image
	Name	Frame2
Picture	Name	Picture1
Picture	Name	Picture2
		Text1
CommonDialog	Name	CommonDialog1
	Caption	
Command	Name	Copy Image
		CmdCopy

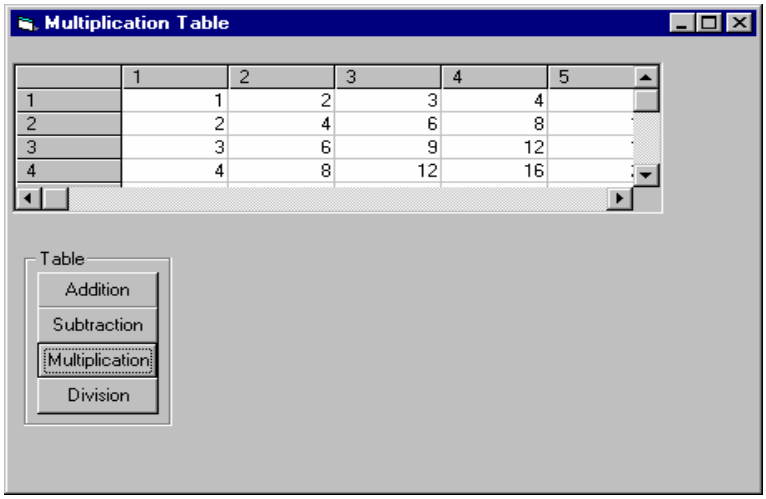
4. When we click the CmdCopy Button, the Open Dialog Box will be Displayed. then select the Picture file, that picture will be dispalyed in the Picture1 &copied to the picture2.

Lab - 15 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 8.

1. Create a new standard EXE project.
2. Design your form as shown below.



3. The form is Designed as per the following Specifications.

Object	Property	Setting
Form	Caption	Form1
	Name	Form1
Grid	Name	MSFlexGrid1
	Rows	7
	Cols	7
Command	Caption	Addition
	Name	Cmdadd
Command	Caption	Subtraction
	Name	Cmdsubtract
Command	Caption	Multiplication
	Name	Cmdmultiply
Command	Caption	Division
	Name	Cmddivide
Frame	Caption	Table
	Name	Frame1

4. The Caption Property of the form is changed ,according to the Command Button Caption.
5. When we Click the Cmdadd ,the addition of row & column value will be displayed in the Grid1.
6. When we Click the Cmsubtract ,the Subtraction of row & column value will be displayed in the Grid1.
7. When we Click the Cmdmultiply,the Multiplication of row & column value will be displayed in the Grid1.
8. When we Click the Cmddivide ,the division of row & column value will be displayed in the Grid1.

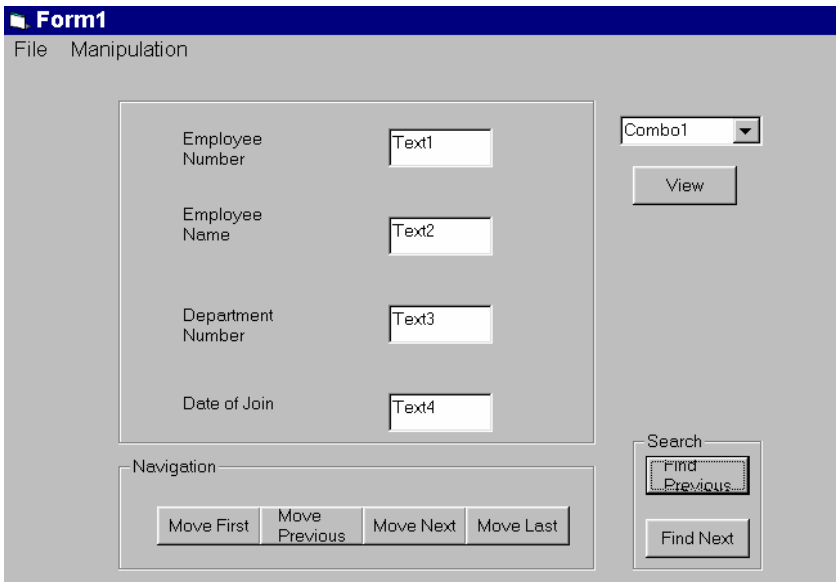
Ex 2:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture10.

1. Open a new project and add a form to it
2. Select →Project→References→ Microsoft Data Access Objects 3.5 library
3. Create a menu with the following items and sub items:

- **File**
  Open database
  Open recordset
  Open qryrecset
  - **Manipulation**
    Addnew
    Edit
    Update
    Delete

Design your form as shown below:



4. Write code for each of the above mentioned sub menus to perform its corresponding task accordingly with the below given details:

   - Create a database by name "**Sample.mdb**" in Visual Data Manager in your Folder

   - Create a table under "**Sample.mdb**" as "**Emp**" with the following fields of mention datatypes:

Field Name	**Data type**
Eno	Integer
Ename	Text (30)
Deptno	Integer
Doj	Date

   - Index on "**Deptno**" (Primary) field
   - Open recordset for "**emp**" table with dynaset as its type
   - After completing the above said task, try entering records, deleting records, editing records to the emp table
   - Use the Find methods to find the records for a given employee name
   - Use Move methods to navigate through the records

5. In the Command Button named "**View**", Open a record set to fetch only the "**Eno**" and add it on to "**Combo 1**". Once when an "**Eno**" is selected from the Combo1, the corresponding Eno's information should be shown in the text boxes.

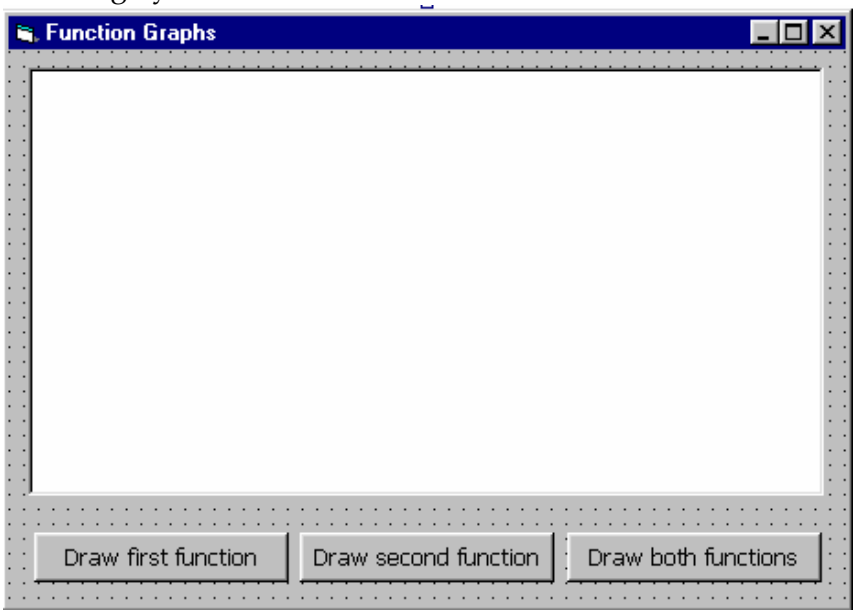
Lab units 16 (2 Real Time Hrs)

Ex 1 :

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 10.

1. Create a new standard EXE project.

2. Design your form as shown below.



3. The form is Designed as per the following Specifications.

Object	Property	Setting
Form	Caption	Function Graphs
	Name	Form1
Picture	Name	Picture1
Command	Caption	Draw first Function
	Name	Cmdfirst
Command	Caption	Draw Second Function
	Name	Cmdsecond
Command	Caption	Draw Both Function
	Name	Cmdboth

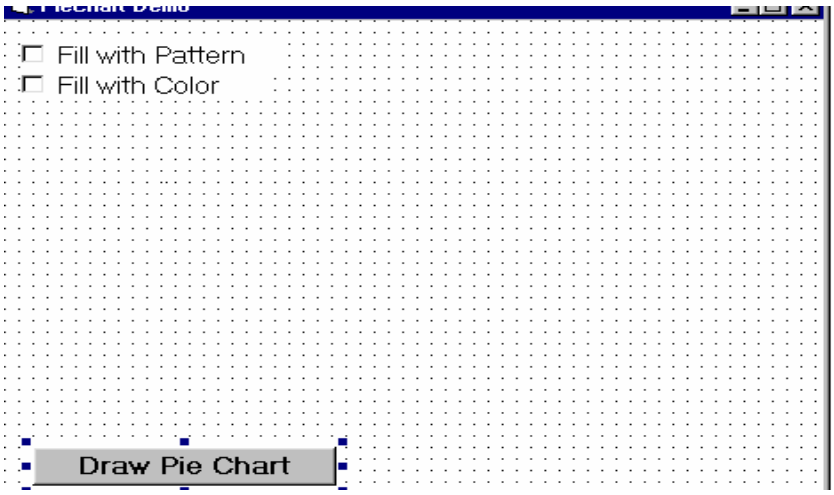
4. When we click Cmdfirst Button, the one graph will be displayed in the Picture1
5. When we click CmdSecond Button, the another graph will be displayed in the Picture1
6. When we click Cmdboth Button, the both graph will be displayed in the Picture1

Note: Using Sin, Cos **Function.**

Ex 2 :

1. Create a new standard EXE project.

2. Design your form as shown below.



3. The form is Designed as per the following Specifications.

Object	Property	Setting
Form	Caption	Pie Chart Demo
	Name	Form1
Check	Caption	Fill With Pattern
	Name	Chkpattern
Check	Caption	Fill With Color
	Name	Chkcolor
Command	Caption	Draw Pie Chart
	Name	Cmdpie

4. When we click the CmdPie Button, pie chart will be displayed in the Form1.

5. When we click the Chkpattern ,Chkcolor ,the pattern & color of the pie chart is displayed.

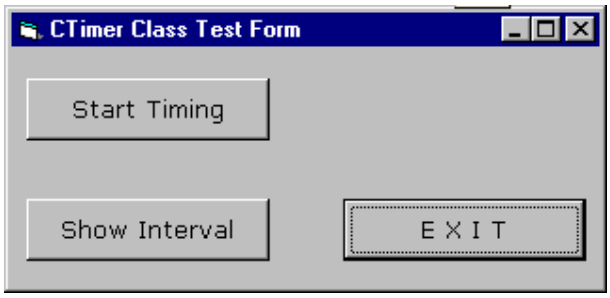
Lab units 17 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:-You are suggested to take this lab Unit only after completion of Lecture 7.

1. Create a new standard EXE project.

2. Design your form as shown below.



3. The form is Designed as per the following Specifications.

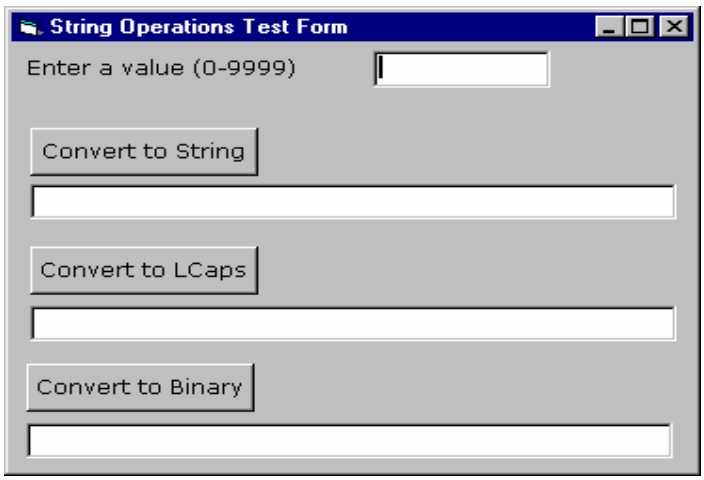
Object	Property	Setting
Form	Caption	Ctimer Class Test Form
	Name	Form1
Command	Caption	Start Timing
	Name	CmdStart
Command	Caption	Show Interval
	Name	CmdShow
Command	Caption	EXIT
	Name	Cmdexit

4. We have to Create CTimer Class, follow this Steps. In the Menu Project->Add Class Module in the Form1
5. When we select the CmdStart Button, the Caption of this button is Changed to "Stop Timing",then start the Time .
6. When we select the CmdStart Button, the Caption of this button is Changed to "Start Timing",then stop the Time.
7. When we select the CmdShow Button, the Elapsed time will be displayed in the MessageBox.
8. When we select the CmdExit Button, to exit of the Program.

Note : (Using ClassModule)

Ex 2:

1. Create a new standard EXE project.



2. Design your form as shown below.
3. The form is Designed as per the following Specifications.

Object	Property	Setting
Form	Caption	String Operation Test
	Name	Form1
Command	Caption	Convert to String
	Name	CmdString
Command	Caption	Convert to Lcaps
	Name	CmdLcaps
Command	Caption	Convet to Binary
	Name	CmdBinary
Text	Name	Text1
Text	Name	Text2
Text	Name	Text3
Text	Name	Text4

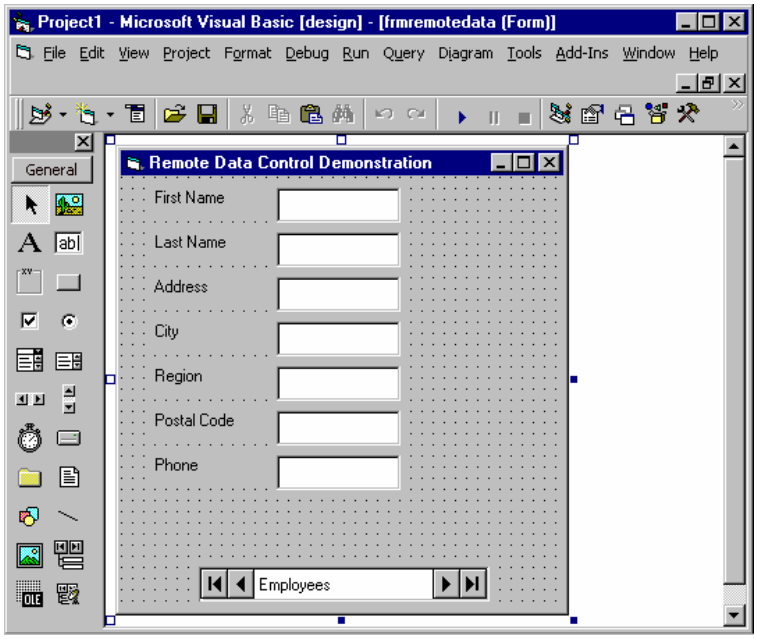
4. We have to Create CSting Class, follow this Steps In the Menu Project->Add Class Module in the Form1
5. We have to enter the Number From 1 to 9999 in the Text1
6. When we select the CmdString Button, the value of Text1 is converted to the String in the Text2.
7. When we select the CmdLcaps Button, the String of Text2 is converted to the Lcaps in the Text3.
8. When we select the CmdBinary Button, the value of Text1 is converted to the Binary in the Text4.

Lab units 18 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 11.

1. Open a New standard EXE project
2. Design your form as shown below

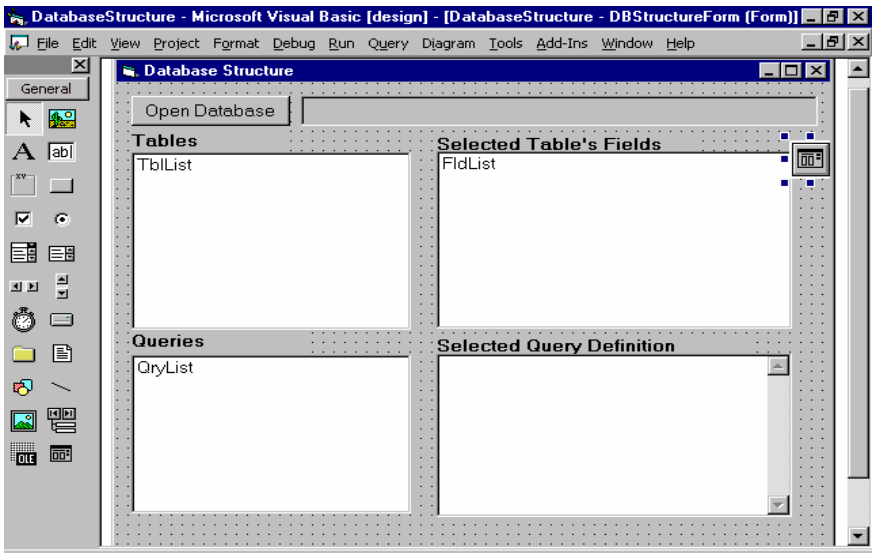


3. Create a Data Source named Trading Company
4. Link the data source(Trading Company) to this form. The data source can be got from the file Nwind.mdb in your VB folder

Ex 2 :

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 11

1. Create a new standard EXE project.
2. Design your form as shown below.



3. The form1 is Designed as per the following Specifications.

Object	Property	Setting
Form	Caption	DataBase Structure
	Name	Form1
Command	Caption	OpenDataBase
	Name	CmdOpen
List	Name	List1
List	Name	List2
List	Name	List3
List	Name	List4
Label	Caption	Tabels
Label	Caption	Selected Table's Fields
Label	Caption	Queries
Label	Caption	Selected Queries definition
CommonDialo	Name	CommonDialog1
g	Name	Text1
Text		

4. When we select the CmdOpen Button, the Open dialog box will be displayed. Then we select the MDB file, that file will be Displayed in the Text1 and corresponding tables, queries will be displayed in the list1,list3

5. If we select the tables in the List1, the corresponding fields in the table will be displayed in the List3.

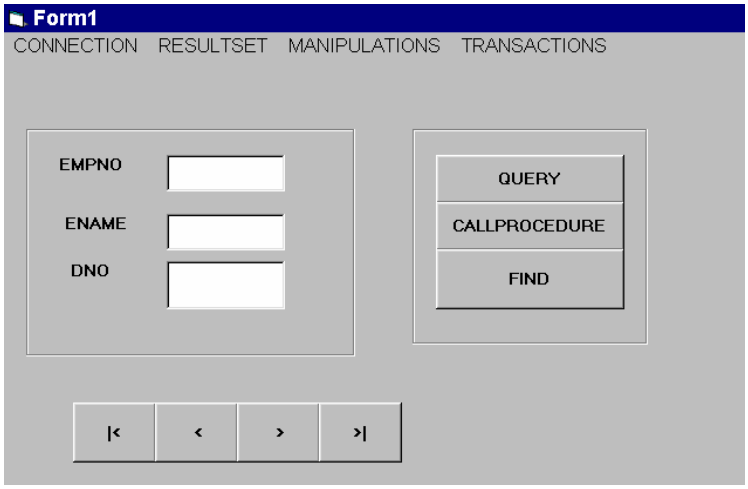
6. If we select the tables in the List3, the corresponding queries will be displayed in the List4.

Ex3:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 12.

1. Create a new form and name it as RDO form.

2. Design the form as given below:
3. Refer the Microsoft Remote Data Objects 2.0 from Project/References.
4. Declare the variables RDO Environment, RDOConnection, RDO Resultset, RDO query.
5. Register a Data Source Name (DSN).



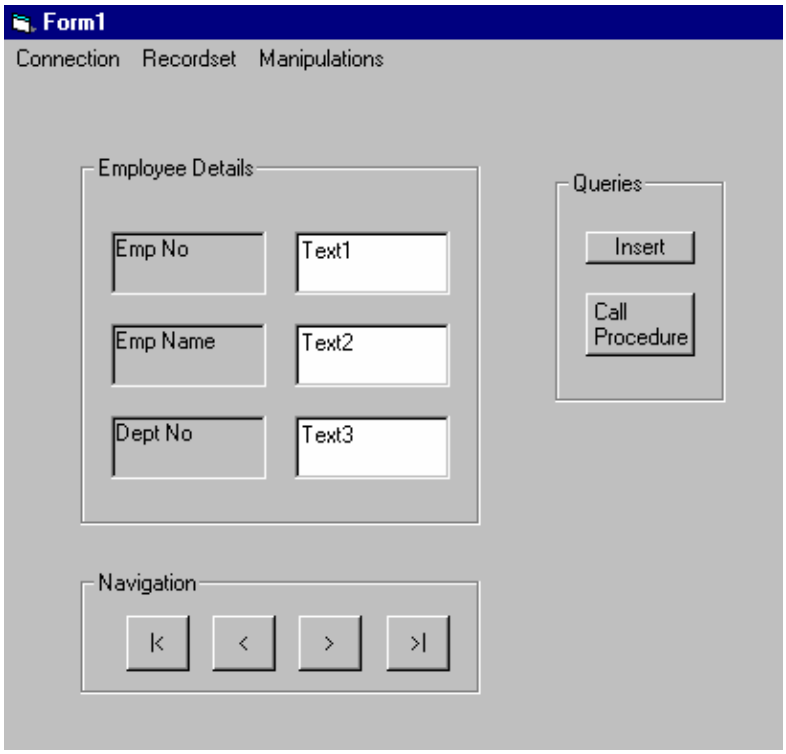
6. To Register the DSN follow the steps as mentioned below :
7. Start/Settings/ControlPanel/32bitODBC & select the Microsoft ODBC Driver for Oracle.
8. Using the Create Environment, Open Connection methods create the environment & open the connection respectively.
9. Use the Open Resultset method to display the records from the respective table in the textboxes.
10. Perform the manipulations such as addnew, edit & update with the respective coding addnew, update & edit methods.
11. Using the Create RDOQuery method try to insert a value.
12. Find a record based on the Empno using the RDO Query.
13. Write a code segment to call a procedure (Remote Procedure) that returns the summation of two numbers.

Lab units 19 (2 Real Time Hrs)

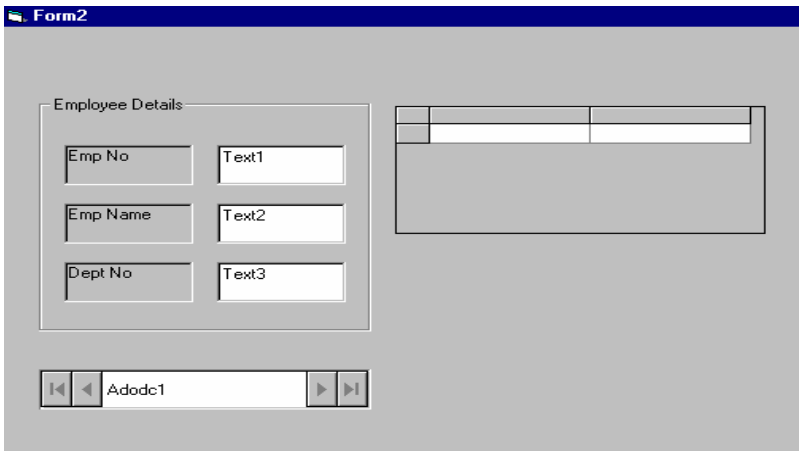
Ex 1:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 13.

1. Add a New Project



2. Design the Form as shown below
3. Invoke ActiveX Data Object Library File
   Project → References → MS ActiveX Data Object 2.0 Establish Connection
4. Open Recordset and display records in the Text boxes Perform Data Manipulations like Addition, Deletion, Modification Perform Navigation methods
5. Try using Action Queries with the help of Command Object Using Command Object, try executing a Remote Procedure that gives the sum of two numbers
6. Add a Form
7. Choose Microsoft ADO Data Control Project → Components → Microsoft ADO Data Control 6.0 (OLE DB)
8. Design your Form as shown above



9. Set the following properties of ADODC1
   Connect String
   User Name
   Password
   Record Source
10. Set the following properties for your Text boxes to display the fields
    Data Source
    Data field

    Invoke MS DataGrid Control 6.0 (OLEDB)
11. Set the following property of MS Data Grid
    Record Source
12. Now try data manipulations through the MS Data Grid, by setting the Design time properties

Ex 2:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 14.

1. Consider a Railway database in SQL Server with three tables namely Passenger_details,Train_Details and Train_Pass_Details with fields given below

   Passenger Details
   Passenger Id, Passenger Name,Age,Sex,Train name, Class booked

   Train Details
   Train name, Train no, I class fare, II class fare, Unreserved fare, I seats, II seats

   Traiin Pass Details
   Passenger id, Coach No, seat no, Date of journey

2. Create a project to list the passenger ids in the combobox and to list the details of the passenger (Train number, seat number and ticket fare)

3. Design your form as shown below.

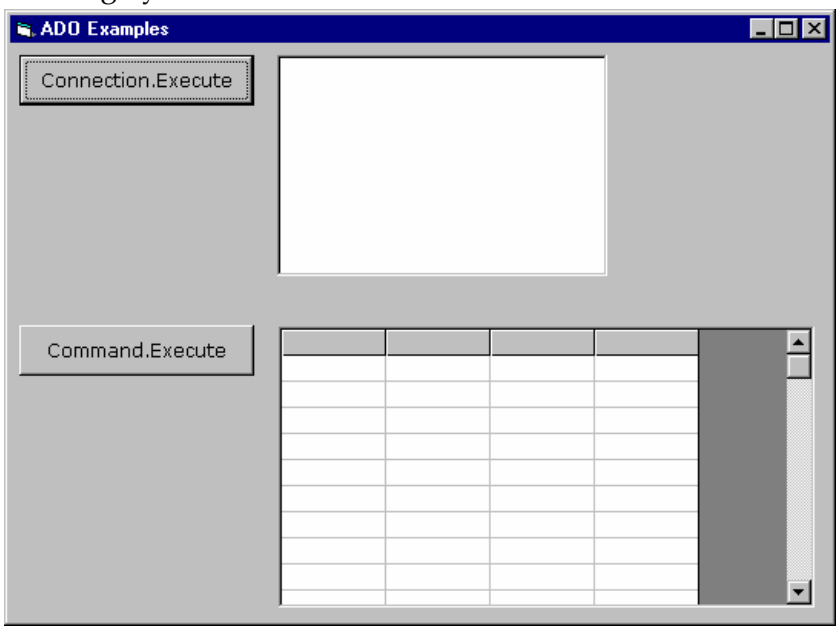
Lab units 20 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:-

` You are suggested to take this lab Unit only after completion of Lecture 14.

1. Create a new standard EXE project.
2. Design your form as shown below.



3. The form is Designed as per the following Specifications.

Object	Property	Setting
Form	Caption	ADO Examples
	Name	Form1
List	Name	List1
Grid	Name	Msflexgrid1
	Rows	20
	Cols	4
Command	Caption	Connection.Execute
	Name	Cmdconnection
Command	Caption	Command.Execute
	Name	Cmdcommand

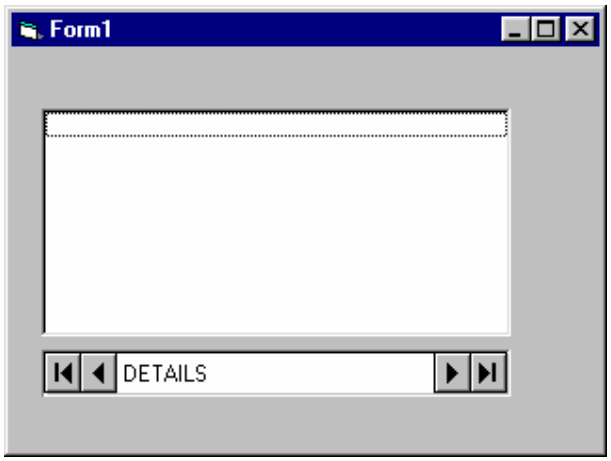
4. When we select the Cmdconnecion Button, the CategoryName from the Category table is Displayed in the List1. (Connect ODBC ,Table at Runtime using ADO Objects).

5. When we select the Cmdcommand Button, the CustomerName,Invoice,Date & subtotal of invoice is Displayed in the Grid1.(Connect ODBC ,Table at Runtime using ADO Objects).

Ex 2:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 14.

1. Create a new standard EXE project.
2. Design your form as shown below.



3. The form is Designed as per the following Specifications.

Object	Property	Setting
Form	Caption	Form1
	Name	Form1
ADO	Name	ADOBIBLIO
	Connection	Bulid->provider tab->MS Jet

	String	3.51 OLEDB Connection tab->biblo.mdb
DataList	Record Source Name DataResource RowSource	Publisher's Dbbiblio ADOBIBLIO Company

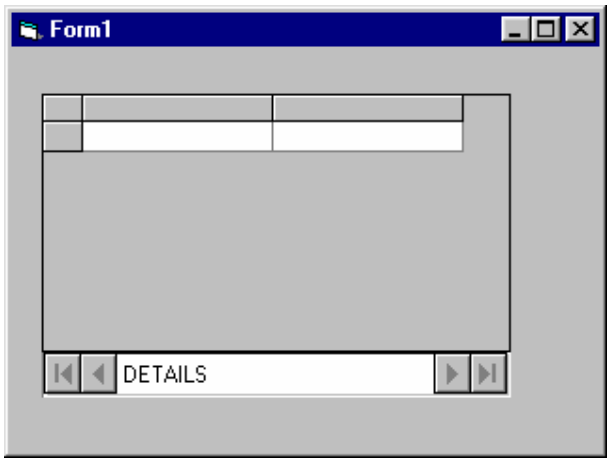
4. Create a database table using Visual data manager Which contain Publisher id, company name, Authur and address. Using the ADO control view the detail of the table.

   Note :It is similar to DBList Control

Ex 3:

Pre-Requisite:-You are suggested to take this lab Unit only after completion of Lecture 14.

1. Create a new standard EXE project.
2. Design your form as shown below.



3. The form is Designed as per the following Specifications.

Object	Property	Setting
Form	Caption Name	Form1 Form1
ADO	Name Connection String	ADOBIBLIO Bulid->provider tab->MS Jet 3.51 OLEDB Connection tab->biblo.mdb
DataGrid	Record Source Name	Publisher's Dbgrid1

	DataResource	ADOBIBLIO

4. Create a database table using Visual data manager Which contain Publisher id, company name, Author and address. Using the ADO control view the detail of the table.

   Note :It is similar to DBGrid Control

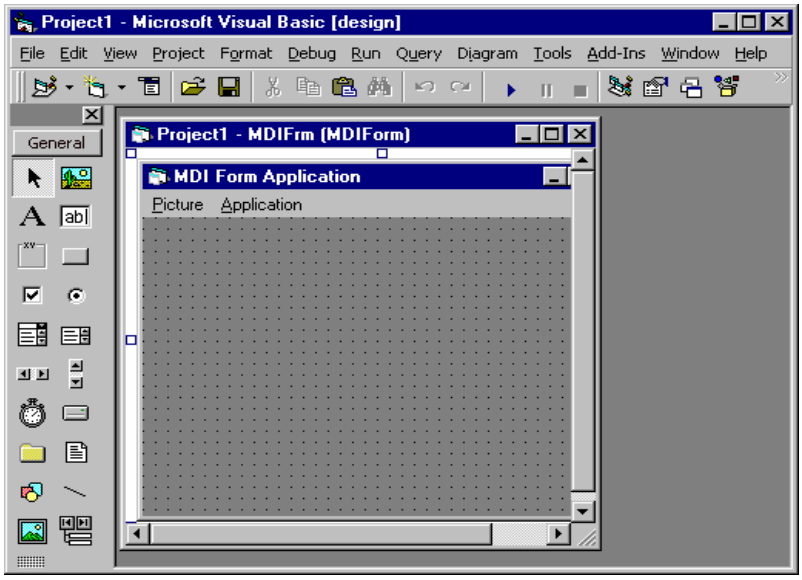
Lab units 21 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:-You are suggested to take this lab session only after completion of Lecture 15

1. Open a New standard EXE project

2. Design your form as shown below



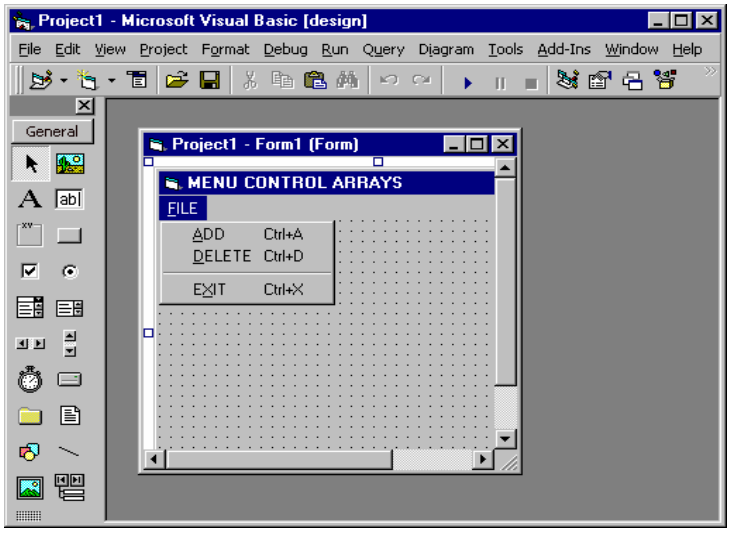
3. On clicking the Picture & Application button another form should be loaded

Ex 2

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 16

1. Open a new standard EXE project

2. Design your form as shown below



3. On clicking the ADD button Item should be added on the file menu.

4. On clicking the Item button Msgbox should be displayed.

Lab - 22 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 16.

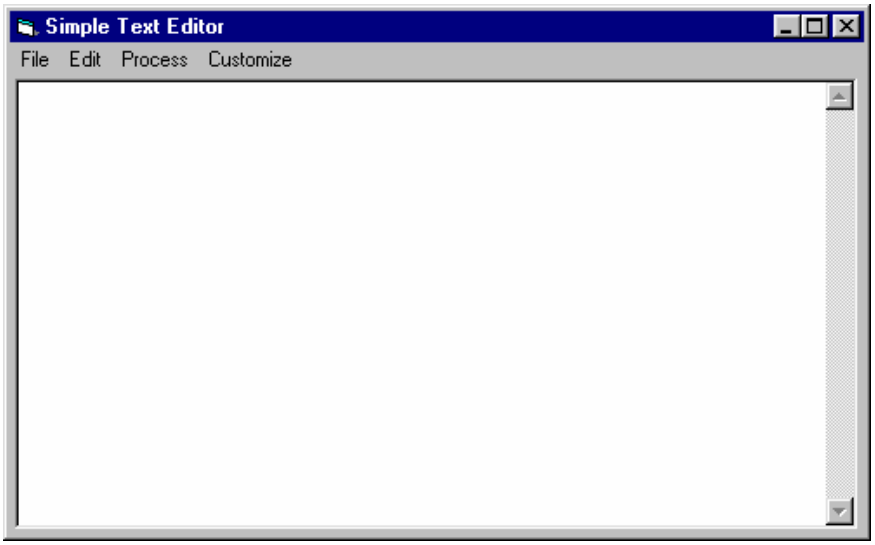
1. Open a New standard EXE project
2. Create the pop-up menu with the following menu items Bold, Italic, Underline, Blue, Green, Red, Black, Exit
3. Place a text box in the form On selecting an item in the pop-up menu the corresponding effect should be displayed

EX 2 :

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 16.

1. Create a new standard EXE project.

2. Design your form as shown below.



3. In this Form, we have to create a menu as above form.
4. File Menu ->It has 5 Sub Menus ie, New, Open, Save, SaveAs, Exit.
5. If we Select the Open &Save Sub Menu, the Corresponding Open ,Save Dialog Box is Displayed.
6. If we Select the Exit Sub Menu, the form will be closed.
7. Edit -> It has 5 Sub Menus ie, Cut, Copy,Paste,Select All,Find.
8. Process -> It has 3 Sub Menus ie, Upper Case,Lower Case,Line No.
9. Customize -> It has 3 Sub Menus ie, Font,Text Color,Pen Color.

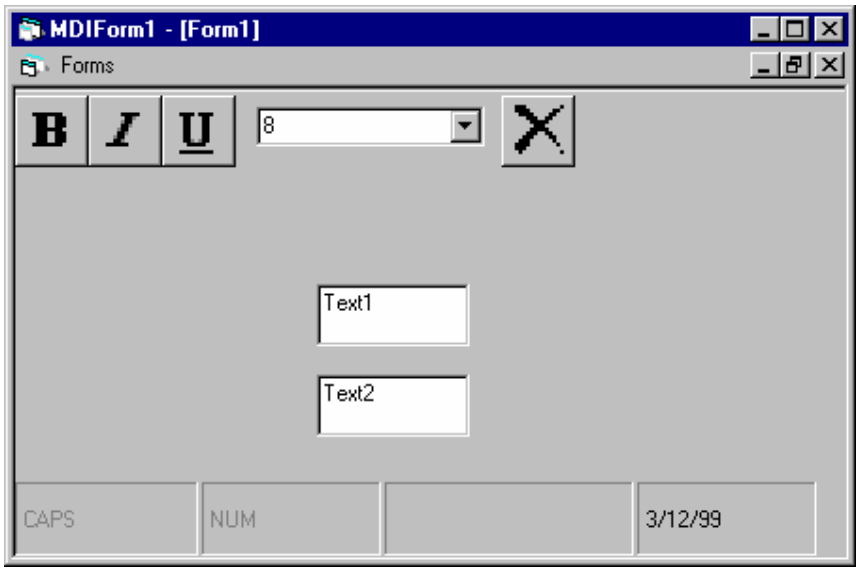
Note :It is Similar like as Notepad bold.

Lab - 23 (2 Real Time Hrs)

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 17

1. **MDI FORM**
   Open a new project. Add a MDI form along with two forms. Set the child Property of forms and provide a way (MENU) to access the two forms from the MDI form.
2. **Ole Drag Drop Property**

Define two controls that support OLEdragdrop. Set OLEdrag/drop mode to automatic, drag and drop data from one textbox to another.



3. Drag and drop Property

Define two containers (picture box, frame) and three controls (command button, Checkbox, picture box). Set the drag drop mode to automatic. Drag and drop the controls to different containers. Provide drag icons. Set the dragover Effect when a control is dragged over a container.

4. Imagelist:

Place a imagelist on the form and insert some pictures to the imagelist Control. Give appropriate key value from the pictures.

5. StaturBar

Place a status bar control in the MDI FORM. Add panels to the statusbar. The statusbar should display the time, date in separate panels. Also display the message in any of the panels whenever a text is dragged from one text box and Dropped into another text box. When a new form is opened display its name in any one of the panels of the status bar.

6. ToolBar:

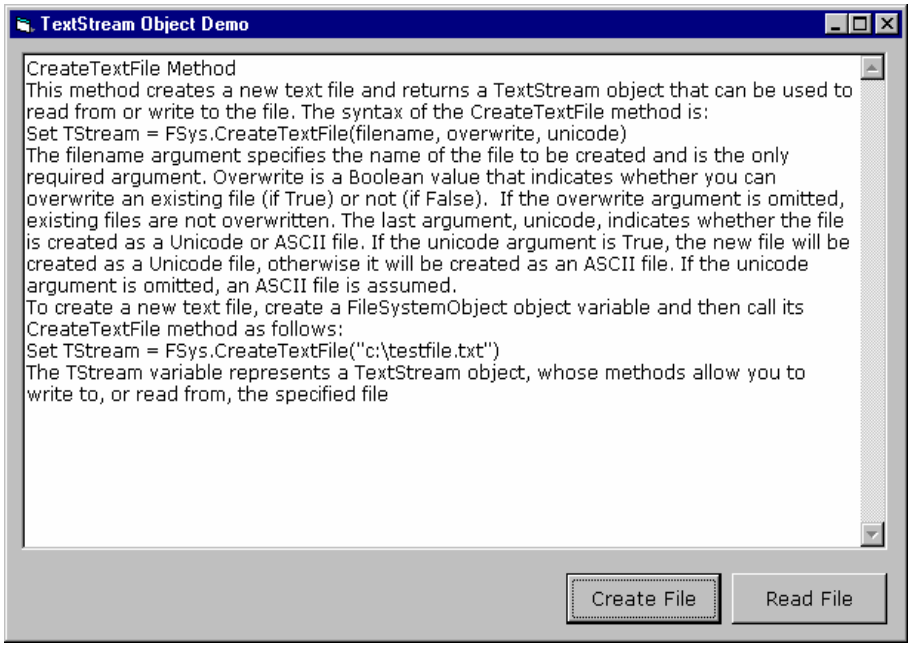
- Place a toolbar control on the form2. Add buttons to the toolbar as shown below. Set the Image index for each and every button.
- When the first button is pressed the text in the “Text1” must be displayed in Bold format
- When the second button is pressed the text in the “Text1” must be displayed in “Italic” format
- When the third button is pressed the text in the “Text1” must be Underlined

- When a number is selected from the combo1 the font size of the text box must changed according to the value selected
- When the last button is selected, the form "Form1" must be closed.

Ex 2:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 17

1. Create a new standard EXE project.
2. Design your form as shown below.



3. The form1 is Designed as per the following Specifications.

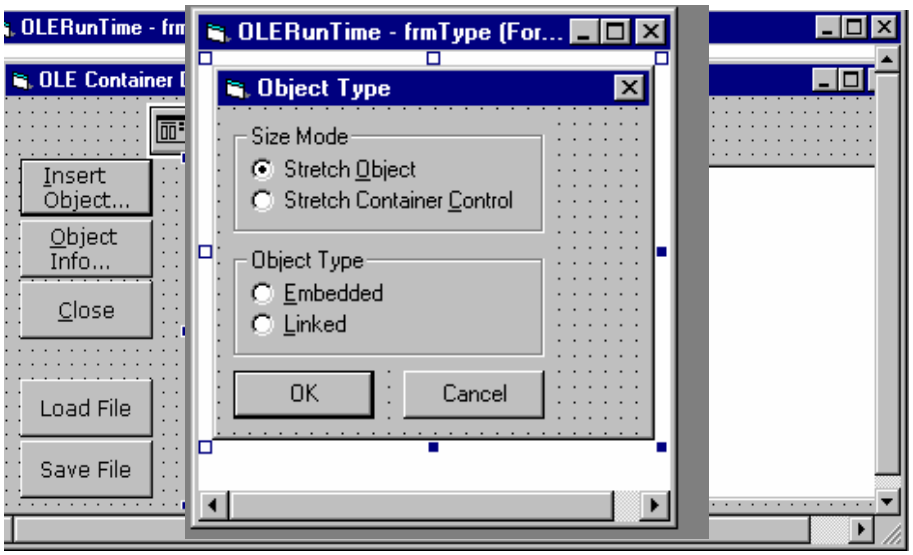
Object	Property	Setting
Form	Caption	Textstream object Demo
	Name	Form1
Command	Caption	Create
	Name	CmdCreate
Command	Command	Read
	Name	CmdRead
Text	Name	Text1

4. When we select the Cmdcreate Button, to create the file is stored in the Filename.
5. When we select the Cmdread Button, to read the file from the existing File is displayed in the text1.

Ex 3

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 17

1. Create a new standard EXE project.
2. In this project contains 2 forms as form1, form2
3. Design your form as shown below.



4. The form2 is Designed as per the following Specifications.

Object	Property	Setting
Form	Caption	OLE Container Demo
	Name	Form1
Command	Caption	Insert Object
	Name	CmdInsert
Command	Caption	Object Info
	Name	Cmdobject
Command	Caption	Close
	Name	CmdCloseText1
Command	Caption	Open File
	Name	CmdOpen
Command	Caption	Save File
	Name	CmdSave
CommonDialo	Name	CommonDialog1
g	Name	Text1
Text		

5. When we Select the CmdInsert Button, the form2 is Displayed.

6. In the Form2, if we click the OptEmbedded or OptLinking Box , the Collection of Object will be Displayed in the dialog box.

7. The form2 is Designed as per the following Specifications.

Object	Property	Setting
Form	Caption	Object Type
	Name	Form1
Command	Caption	Ok
	Name	CmdOk
Command	Caption	Canel
	Name	CmdCancel
Frame	Caption	Size Mode
	Name	Frame1
Frame	Caption	Object Type
	Name	Frame2
Option	Caption	Stretch Object
	Name	OptStretch
Option	Caption	Stretch Container
	Name	Control
Option	Caption	OptContainer
	Name	Embedded
Option	Caption	OptEmbedded
	Name	Linking
		OptLinking

8. When we select CmdOk Button, the corresponding Selected Embedded, Linking Object list dialog is Displayed. then the selected object is inserted into the Text Box.

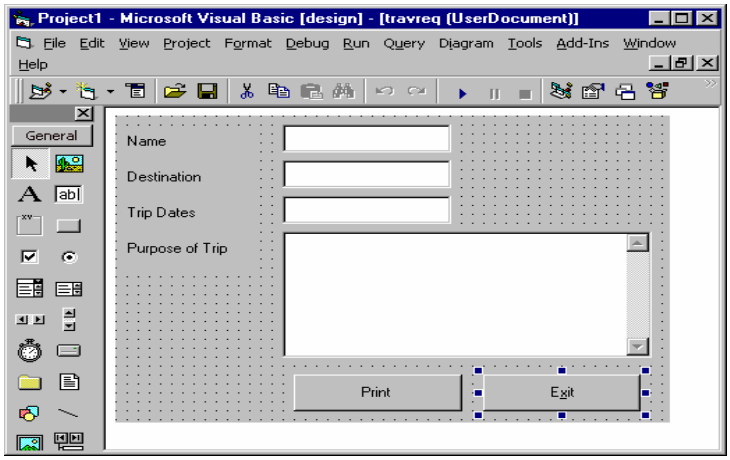
9. When we select the Cancel Button, to cancel the Current operation.

Lab Units 24(2 hrs Real Time)

Ex 1:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 18

1. Open a new project in Visual Basic and select the ActiveX documentEXE
2. Click the UserDocument1 in the Project window and name it as travreq
3. Design the form as shown below
4. On Clicking the Print button this form must be printed

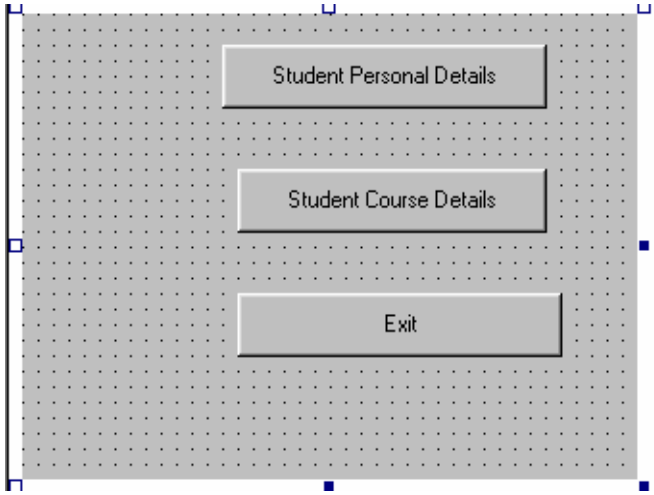


Ex 2:

1. Create a ActiveX documents which has three command button with caption
   i. students personal detail, ii. students course detail, iii. exit

2. When students personal detail is clicked, it should take the user to the document which accept student name,address1,address2,city , state, pin code and the result should be saved in the text file called personal.txt.

3. When students course detail is clicked, it should take the user to the document which accept student name, register number, subject, college and the result should be saved in the text file called course.txt.

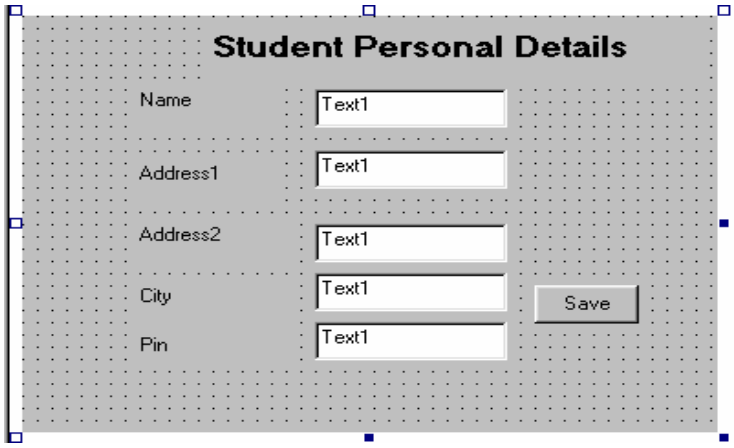


4. The following properties of user document1 are

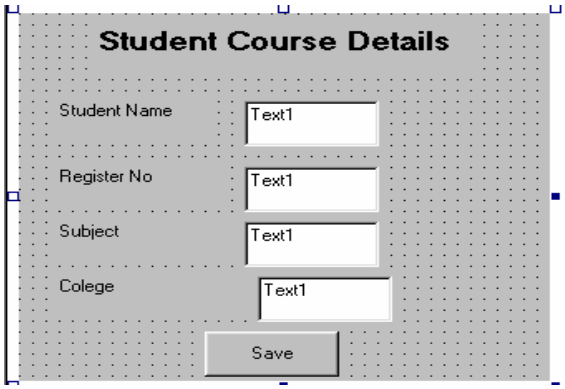
Controls	Property	Setting
Form	Name	MainuserDoc
Command	Caption	Student Personal
	Name	Details

Command	Caption	Command1
	Name	Student Course Details
Command	Caption	Command2
	Name	Exit
		Command3

5. When we select the Command1, the personal details AciveX User Doc is Displayed in below.



6. When we select the Command2 ,the course details AcitceX User Document is displayed in below.



Ex 3:

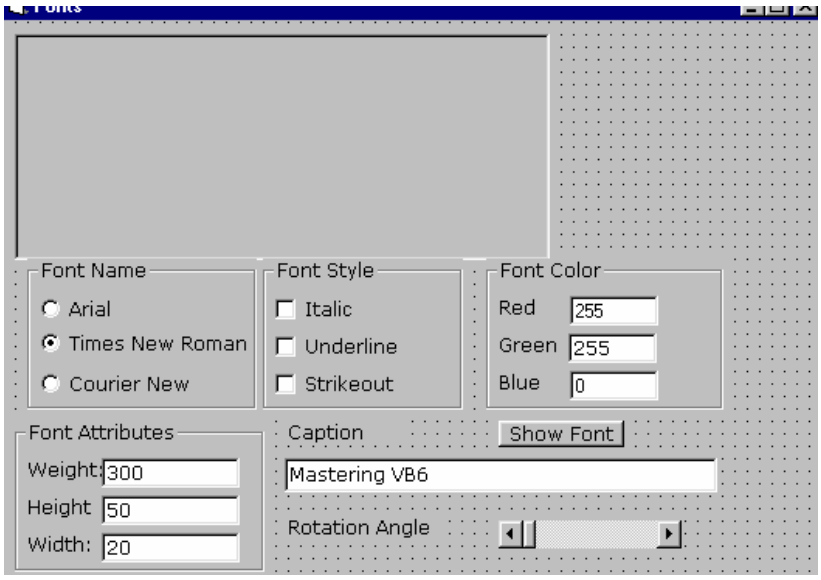
Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 19

Create a Data Project using NWIND (which is in the VB98 folder) database

Ex 4:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 20.

1. Create a new standard EXE project.
2. Design your form as shown below.



3. The form is Designed as per the following Specifications.

Object	Property	Setting
Form	Caption	Fonts
	Name	Form1
Picture	Name	Picture1
Frame	Caption	Font Name
	Name	Frame1
Frame	Caption	Font Style
	Name	Frame2
Frame	Caption	Font Color
	Name	Frame3
Frame	Caption	Font Attributes
	Name	Frame4
Option()	Caption	Arial
	Name	Option1
Option()	Caption	Times New Roman
Option()	Caption	Courier New
Check()	Caption	Italic
Check()	Caption	Underline
Check()	Caption	Strikeout
Label	Caption	Weight
	Name	Lblweight
Label	Caption	Height
	Name	Lblheight
Label	Caption	Width
	Name	Lblwidth

Label	Caption	Caption
	Name	Lblcaption
Label	Caption	Rotation
	Name	Lblrotation
Text	Name	TxtWeight
Text	Name	Txtheight
Text	Name	Txtwidth
Text	Name	Txtcaption
Hscroll	Name	Hscroll1
	Max	360
	Min	0

4. When we click the Option buttons, then the Fonttype of the txtCaption value will be displayed in the Picture1.

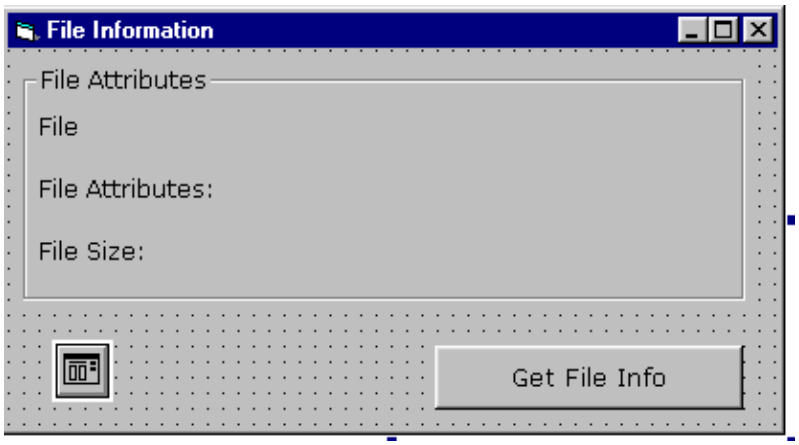
5. When we click the Check Box, then the Fontstyle of the txtCaption value will be displayed in the Picture1.

6. Enter the value of Weight ,Height & Width to the Text Box, then the value will be displayed in the Picture1.

7. When we Scrolling the Hscroll1, the Text value is rotated in the Picture1.

Ex 5:

1. Create a new standard EXE project.
2. Design your form as shown below.



3. The form is Designed as per the following Specifications.

Object	Property	Setting

Form	Caption	File Information
	Name	Form1
Frame	Caption	File Attributes
	Name	Frame1
Label	Caption	File
	Name	Label1
Label	Caption	File Attributes
	Name	Label2
Label	Caption	File Size
	Name	Label3
Label	Name	Lblfile
Label	Name	Lblattribute
Label	Name	Lblsize
Command	Caption	Get File Info
	Name	Cmdinfo
CommonDialo g	Name	CommonDialog1

4. When we Click the Cmdinfo Button, the OpenDialog will be displayed.

5. Then select filename, it will display the filesize, Attributes & Size will be Displayed in the labels.

Lab - 25(2 hrs Real Time)

Ex1:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 20

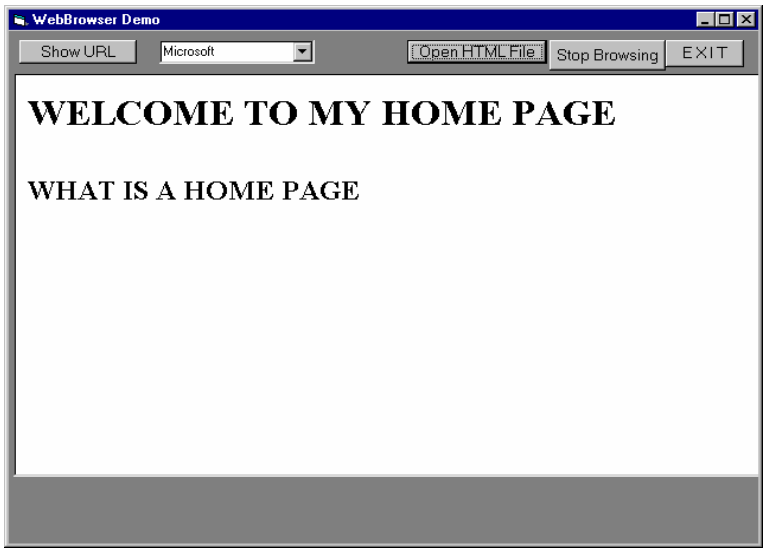
Create a DLL which have to reverse a string .

Ex 2:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 23.

1. Create a new standard EXE project.

2. Design your form as shown below.



3. The form is Designed as per the following Specifications.

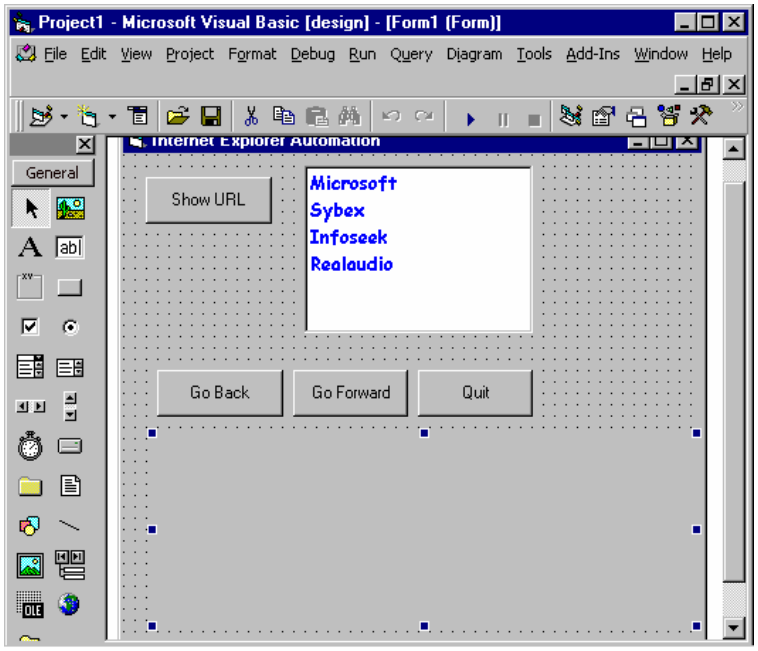
Object	Property	Setting
Form	Caption	Web Browser
	Name	Demo
Combo	Name	Form1
	Text	Combo1
Command	Caption	Combo1
	Name	Show URL
Command	Caption	CmdURL
	Name	Open HTML
Command	Caption	Files
	Name	CmdHTML
Command	Caption	Stop Browsing
	Name	CmdStop
		EXIT
		Cmdexit

4. In the Combo Box, we add the URL name.
5. When we select the CmdURL Button, the selected URL of Combo Will be Displayed in the WebBrowser1.
6. When we select the CmdHtml Button, the Open Dialog will be Displayed.,then we select the particular HTML files will be diaplayed in the WebBrowser1.
7. When we select the CmdStop Button, Stop the current URL .
8. When we select the CmdExit Button, to quit of the Program.

Ex 3:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 23

1. Create an Internet Explore project and make it online
2. Design your form as shown below



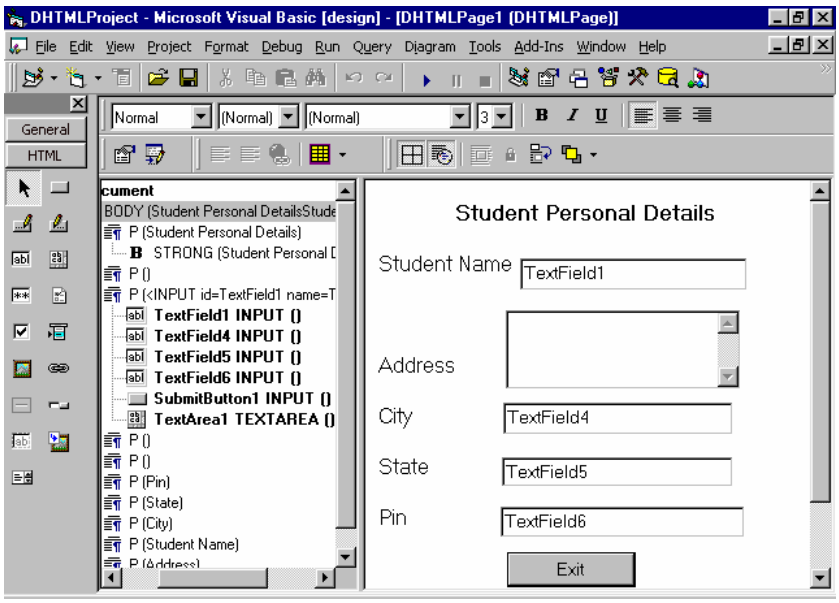
Ex 4:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 24.

1. Create a new DHTML application from the New Project and change the Name Property of the project to Personal.

2. Double-click the Designer for DHTMLPage1 in the Project Explorer to open it in the Form Designer.The ID property of DHTMLPage1 is set as HTMLFORM.

3. Place the control in the Designer as shown in below



4. The details of controls to be included and their properties are given in the following Table

Objects	Property	Setting
TextField	Name	TxtName
	TabIndex	0
TextArea	Name	txtAddr
	TabIndex	1
TextField	Name	txtCity
	TabIndex	2
TextField	Name	txtState
	TabIndex	3
TextField	Name	txtpin
	TabIndex	4
SubmitButton	Caption	Close

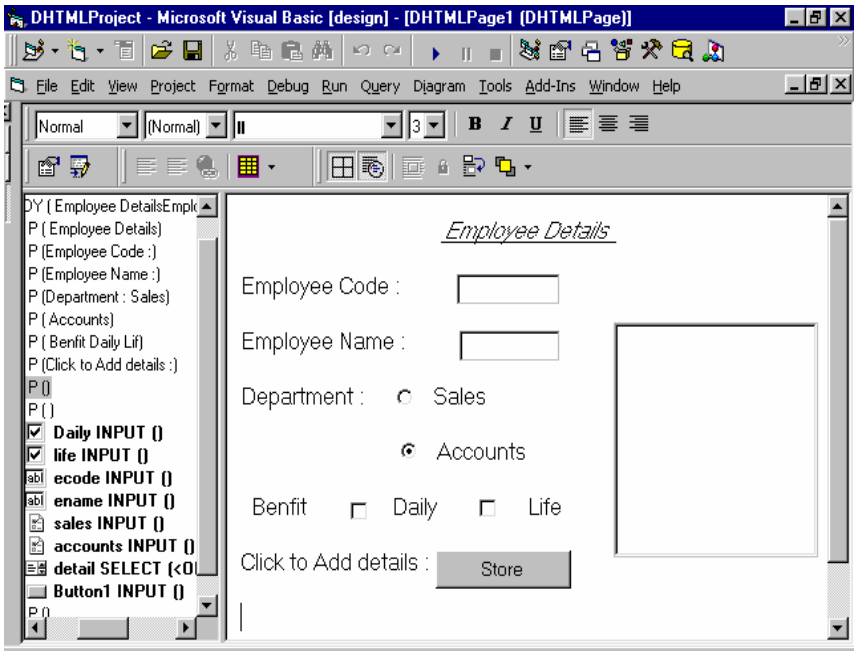
Ex 5:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 24.

1. Create a new DHTML application from the New Project and change the Name Property of the project to Personal.

2. Double-click the Designer for DHTMLPage1 in the Project Explorer to open it in the Form Designer.The ID property of DHTMLPage1 is set as DHTMLFORM.

3. Place the control in the Designer as shown in below



4. The details of controls to be included and their properties are given in the following Table

Objects	Property	Setting
TextField	Name	Ecode
TextField	Name	Ename
Option	Name	Sales
Option	Name	Accounts
Check	Name	Daily
Check	Name	Life
List	Name	Details
SubmitButton	Caption	Store

5. When we click the StoreButton, the Employee details will be stored in the Details List.

Lab - 26(2 hrs Real Time)

Ex 1:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 25

1. Create the following tables

- EMP
  - Eno
  - Ename
  - Basic
  - HRA
  - DA
  - PF
  - Dno

- DEPT
  - Dno
  - Dname

- Add records to both the tables

- Open Data Report

- Fetch the tables to the Command of Data Environment

- Create a report, which shows all the above listed fields grouped by their Dno

- Calculate the Net Salary of individuals and display it

- Calculate Department-wise Total, Grant Total and display it

- Display the page number at the right bottom of the page

- Display the title of the report as 'XYZ COMPANY' and a Logo to the left of it

- The Date of preparation should be displayed in the top right corner of the report

- After completion of your report, Place a Command Button on to your Form.

- When Command Button is clicked, the Report should be displayed.

Ex 2:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 25

Microsoft Transaction Sercer:

Design a database structure for "Sales Order Processing" with minimum of three tables like product, ordermaster, orderdetails and etc. in SQL Server7.

Create a server component (*.DDL) by using ACTIVE X DLL in Visual Basic to establish connection with SWL Server 7, retrieve data from server and other data manipulations in server with appropriate properties and methods.

Deploy that component in Microsoft Transaction Server and use the components with your ASP Application.

Note: Set and change transaction state property to feel MTS performance.

Ex3:

Internet Information Server:

1. Create a virtual directory in default web site and map with your application directory.
2. Go through all property tabs of virtual directory.
3. Design home.htm file to describe about your application.
4. Set your home.htm as default web page.
5. Test your virtual directory with sample.asp.
6. Go to Default site properties and select your log time period.
7. Set your web site connection timeout to 50 seconds.
8. Add your name as web site operator.
9. Go to directory securities tab. set the system IP address which is not supposed to access the site.
10. Set the HTTP headers content expiration to 25 minutes.
11. Set the Content Rating of Violence to level-3
12. Set the Content Rating of nudity to 3/3/2000
13. Create a new Key in KeyManager and add it to the Key List.
14. Select Performance Monitor icon and add the required information for the performance chart.

Lab – 27 (1 Real Time Hrs)

Ex 1:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 27

Active server pages:

(Using RESPONSE Objects)

1. Create a Simple Asp page Operation..asp, which is to calcualte the Arithematic mean and geometric mean.

2. The operation.asp assigns the Input as item1 ,item2.

Ex 2:

(Using REQUEST & RESPONSE Objects)

1. Create a Simple Asp page home.asp, which is the home page for PLEASANT BREEZE PERFUMES, Which displays the details like Product List, Company Profile, price list etc. Which Are Hyper Links to display the corresponding Web Pages.

2. The Home.asp gets the Input from the user like Name, Organization, and Designation, country.

3. On filling the input details the user selects the Hyperlink to navigate.

4. For example if the user is JOHN from RADSOFT, INDIA clicking COMPANY PROFILE Hyperlink Will see the compprofile.asp displaying information like:

THANK YOU MR.JOHN FOR VISITING PLEASANT BREEZE PERFUMES HOME PAGE.
Organization: RADSOFT
Country : INDIA

< -------- Details of pleasant breeze perfumes ltd. ---- >

Browse Details : Mozilla/4.0 (compatible; MSIE 4.01; Windows 98)
Server Software: Microsoft-IIS/4.0
Name of Server : RADSERVER

Note: Use ServerVariables, also use a FOR... EACH LOOP for seeing all the server variables.

Ex 3:

(Using Global.asa, Application, Session Objects.)

1. Write Global.asa file with a application variable "AppStartTime" then add three session variables "UserName" , "PassWord" and "SessionStartTime"

2. Write login.htm file to accept user name and password., validate user name as "Administator"" and password as "SYSTEM" and display Username in the Logindetails.asp page along with other information.
3. Design LoginDetails.asp with all information about Radiant Software Ltd. (Training Division) and two hyperlinks one to know about Application status and another one about user status. Selecting an Hyperlink display the next page (Use QueryString for Navigating).

4. Write ASP application file (AppSession.asp) to list all of your Session and Application variables?

Application Status:
Published Date: 1/2/99

Session Status :
Session is openned by : <--UserName -- >
Session Id

How long Mr./Mrs <NAME > working with the application

Note: Try passing a string value using querystring object.

Ex 4:

(Using COOKIES)

1. Create a new ASP page input.asp, which has text boxes to accept user name and password. Have a check box save to cookies, and a submit button.

2. When the submit button is selected then navigate to the next page data.asp

3. Create Data.asp page which gets the personal details of the user like Address, Age, DOB, City etc…

4. Then after entering the input when O.K. button is clicked it displays the final page Message.asp is displayed.

5. Create Message.asp, which displays various messages for the user.

6. After entering the data in Input.asp if the user had selected the check box then the input value is stored in a cookie, otherwise it is not stored anywhere. In either case it takes to the next page Data.asp.

7. When the user reenters a username again after saving it to cookies then it directly displays the Message.asp instead of Data.asp

8. Create an ASP Page Favourite.asp which gets users requirement like font type, fontsize, color etc…stores it to a cookie and when another page Test.asp is opened it should set the properties according to the specification mentioned earlier.

9. When the user opens the Test.asp next time the properties should get effect automatically if the cookie is present. Try this after deleting the cookies.

Ex 5:

(Using Server Object and its methods)

1. Create an ASP page, which will use Server CreateObject method to create an instance of the Dictionary object as follows.

2. Set mydict=server.createobject("Scription.dictionary")

   Now use the mydict instance to add entries in it.
   Mydict.add "CH", "CHENNAI"
   Mydict.add "BG", "BANGALORE"
   Mydict.add "MI", "MUMBAI"

3. Now try to display the total count of the dictionary entries.

4. Try to display the first entry in the dictionary object.
   Like mydict.item("CH")

5. Create two ASP Page FIRST.ASP where a sentence is passed as string value from the first page to the next page SECOND.ASP.

6. Use the server Object's URLENCODE Method.
   Also try using HTMLENCODE method of server object.

Ex 6:

1. Create a table Emp Information with the following columns :-
   Email Id
   Name

DOB
Occupation
City
Country

2. Design a page to accept values for the above fields

VALIDATIONS

3. Add a primary constraint to the Email Id column.

4. The user input must be validated before moving to the next field
   For ex. Name should not allow numbers, etc..

5. Email Id field should have the Domain name like abcd@yahoo.com

6. Add a Submit button to the page. When clicked, the data should be sent to the Server and stored in the database.

7. Add a Search button to the Asp page to accept Email Id and view the rest of the details from the database.

8. Add a Delete button, which gets a name and deletes the information from the database pertaining to the name in the server.

9. Design an Asp page to invoke an External Stored procedure residing in SQL-Server.
   [Hint : Use the Command Object in ADO model].

Ex 7:

1. Open a new ASP page and follow the specifications
2. Define a header as –Working with ADO [<h2>]
3. Create a connection object using a session variable.
4. Establish connection with a SQL-database and define a recordset object using a session variable and associate a table with the recordset object and save the ASP page.
5. Now open a new ASP page and try using the session level conn object and recordset object and try to display the values from the recordset into a table.
6. Open an ASP page and try to access the session level conn object and recordset object defined earlier. Now define a two dimensional array based on the number of fields specified in the recordset dynamically. Now

try to swap the data from the recordset to the array and now read the values from the array to the user in a tabular format.

7. Create a small application with the following specifications.
8. Create the following tables in SQL-server.

CUSTOMER	ORDERS	PRODUCT
	Ocode	Pcode
Ccode	Oval	UnitCost
Cname	Odate Stock	

9. Design an ASP page with the intention of creating a Sales order processing system at a smaller level with just three tables mentioned above.

10. Design a front page of your own choice and design this application With a main page and provide navigation facilities to the user to the main page from anywhere he intends to. Perform validations according to the field requirements.

11. At any point the above mentioned specification can be enhanced according to your Choice.

12. Create an ASP page to accept customer details and post the data into the database.

13. No two customers should have a same customer code.

14. Create a page to edit, delete and view the customer information at any point of time.

15. Create an ASP page to accept product details and post the data into the database.

16. No two products should have a same product code.

17. Create a page to Edit, Delete and View the product information at any point of time.

18. Design an ASP page to generate an order for a customer.

VALIDATIONS

- Order code should be unique and auto generated.
- Accept the ccode from the user and check for its existence in the appropriate table and
- Only then start processing the order else flash an appropriate message.
- Accept a product from the user and quantity.
- Display the ucst of the product as soon as the pcode is entered. Display the total value.
- Reduce the stoc in the product table with the qty entered by the user.
- Provide facilities to accept more than one order, when the transaction is closed try to display a receipt.

Lab – 1 (1 hrs real Time)

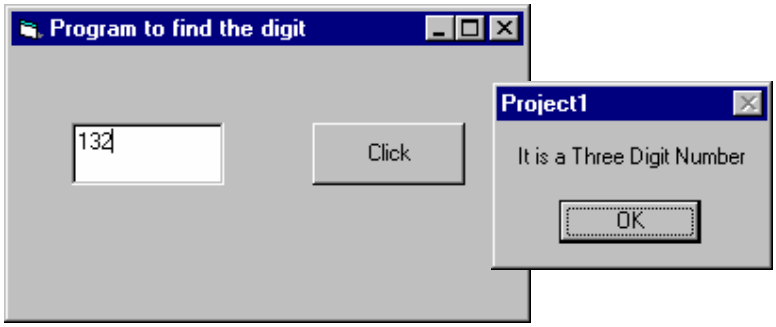
Ex .1:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 4.

1. Change the caption property of the CommandButton to Click
2. Enter the code in the Command1_Click ( ) procedure

```
Private Sub Command1_Click ( )
    If Val ( Text1.text) < 10 Then
        MsgBox " It is a Single Digit Number"
    ElseIf Val ( Text1.Text) <100 Then
        MsgBox " It is a Two Digit Number"
    ElseIf Val ( Text1.Text) <1000 Then
        MsgBox "It is a Three Digit Number"
    Else
        MsgBox " The Value is More than three digit"
    End If
End Sub
```

3. Press F5 to run the program



Ex 2:

1. Add Standard Exe project and add one text box and three command buttons.

2. Write the Code in Command1_Click ()

```
Private  Sub Command1_Click()
Text1.text="Welcome"
End Sub
```

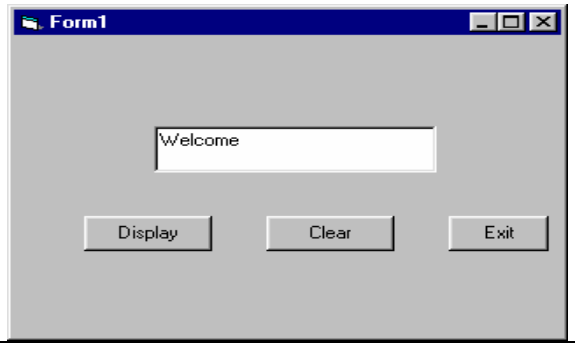
3. Write the Code in Command2_Click ()

```
Private Sub Command2_Click ()
Text1.text=" "
End Sub
```

4. Write the code in command3_click

```
Private Sub command3_click
Exit .
End sub
```

5. Press F5 to run the program.

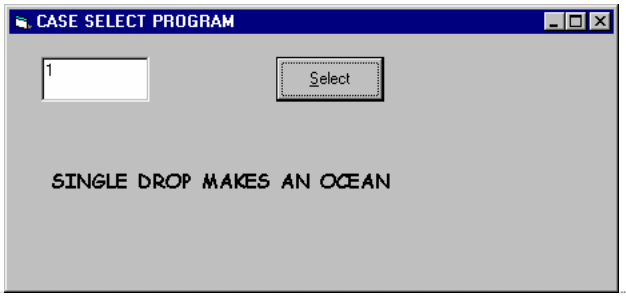


Ex 3:

1. Change the Caption property of the Command Button to &Select
2. Enter the code in the Command1_Click ( ) procedure

```
Private Sub Command1_Click()
        Dim A As Integer
        A = Val(Text1.Text)
        If A <= 2 Then
                Select Case Text1.Text
          Case 0
        Label1.Caption = " GOD'S DELAYS ARE NOT DENIALS "
         Case 1
        Label1.Caption = "SINGLE DROP MAKES AN OCEAN"
          Case 2
        Label1.Caption = "HARDWORK AND SUCCESS GO HAND-IN-HAND"
        End Select
Else
        Label1.Caption = "INVALID OPTION"
        End If
End Sub
```

3. Run the program by pressing F5



Lab - 2 (1 Real Time Hrs)

Ex1:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 4.

1. Create a new Standard EXE project
2. Enter the Code in the Form Load event procedure

```
Private Sub Form_Load()
    Form1.Caption = " Radiant Software Ltd"
    Form1.MousePointer = 11
    Form1.WindowState = 2
    Form1.Height = 2000
    Form1.Width = 4000
End sub
```

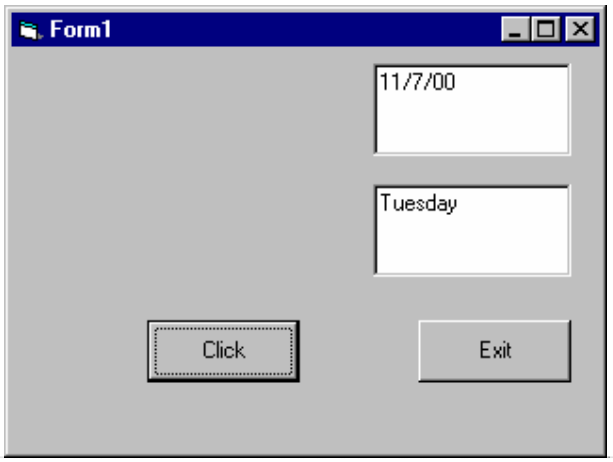
3. Run the program

Ex 2:

1. Add a new standard EXE project with two command and text boxes
2. Enter the following code in the corresponding controls view code

```
Private Sub Command1_Click()
    Text2.Text = Format(Date, "dddd")
End Sub

Private Sub Command2_Click()
    End
End Sub
Private Sub Form_Load()
    Form1.Caption = " Date conversion"
Text1.Text = Date
```

3. Run the program



Lab - 3 (2 Real Time Hrs)

Pre-Requisite:-
You are suggested to take this lab session only after completion of Lecture4

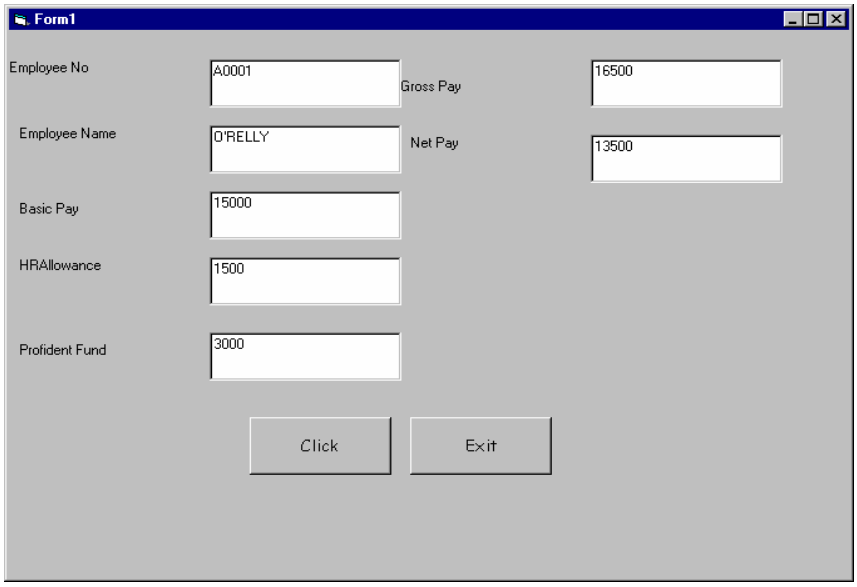
Add a new standard EXE project.
Enter the following code in command1_click()

```
Private sub command1_click()

   Text4.text =val(text3.text)*20/100
   Text5.text =val(Text3.tex)*10/100
   Text6.text =val(text3.text)*10/100
   Text7.text =val(text4.text)+val(text5.text)
   Text8.text =val(text7.text)-val(text6.text)
End sub
```

6. When we click the command button2 the form is closed.

```
Private sub command2_click()
      End
End sub
```

7. Run the Program.



Lab - 4 (2 Real Time Hrs)

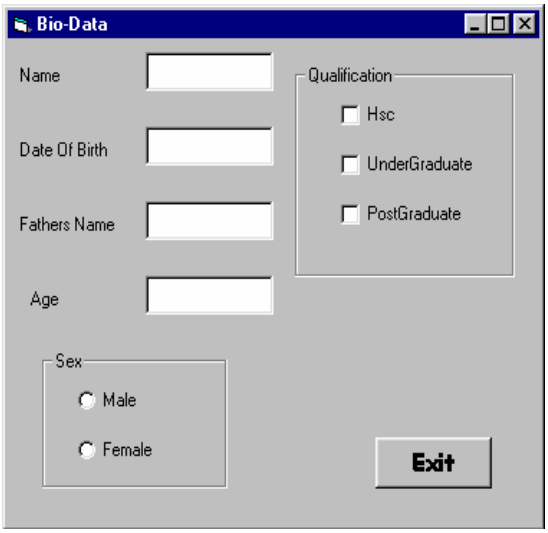
Ex 1:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 4.

.Add a new standard EXE project.
.Write the following code in the corresponding control events

```
Private Sub Command1_Click()
If Check1.Value = 1 And Check2.Value = 0 And Check3.Value = 0 Then
MsgBox ("Higher Secondary")
End If
If Check1.Value = 0 And Check2.Value = 1 And Check3.Value = 0 Then
MsgBox ("Degree")
End If
If Check1.Value = 0 And Check2.Value = 0 And Check3.Value = 1 Then
MsgBox ("post graduate")
End If

If Check1.Value = 1 And Check2.Value = 1 And Check3.Value = 1 Then
MsgBox ("higher secondary, graduate and post graduate")
End If

If Check1.Value = 1 And Check2.Value = 1 And Check3.Value = 0 Then
MsgBox (" higher secondary and degree")
End If

If Check1.Value = 1 And Check2.Value = 0 And Check3.Value = 1 Then
MsgBox ("higher secondary and post graduate")
End If

If Check1.Value = 0 And Check2.Value = 1 And Check3.Value = 1 Then
MsgBox ("degree and post graduate")
End If
End Sub

Private Sub Form_Load()
Form1.Caption = "Bio - data"
End Sub

Private Sub Option1_Click()
If Option1.Value = True Then
MsgBox ("option1")
 End If
End Sub
Private Sub Option2_Click()
If Option2.Value = True Then
  MsgBox ("Option 2")
  End If
End Sub

Private Sub Text2_LostFocus()
Text5.Text = DateDiff("yyyy", sysdate, Text2.Text)
End Sub
```

5. Run the program



Ex 2:

(Declaring Variable)

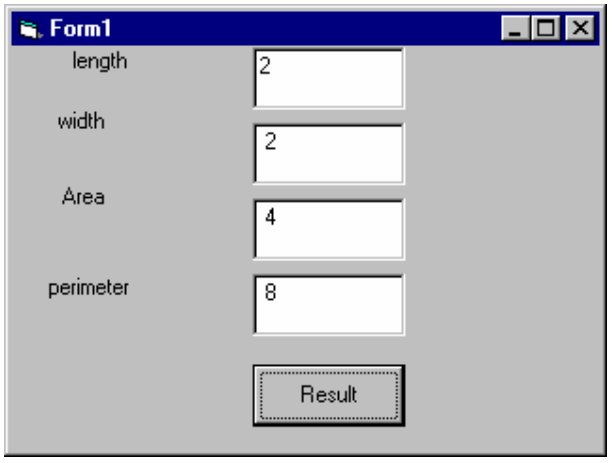
1. Open a new standard EXE project and Add four text boxes with a command button
2. Open the code window of the form
3. Place the code Option Explicit as the first line of the declarations section of the form. This forces the variables to be declared before they are used.
4. Open the event procedure for the Click event of the command button. You can do this by selecting the name of the command button from the object list on the left of the code window.
5. Use the following statements to create the variables for calculating area and perimeter. These statements should be place at the top of the event procedure

```
Dim sngRoomLength As Single, sngRoomWidth As Single
Dim sngRoomArea As Single, sngRoomPerimeter As Single
```

Place the following code in the event procedure to perform the calculation. (Note, on of the variable names is intentionally misspelled to illustrate how forced declaration helps you.)

```
sngRoomLength     = Val(Text1.Text)
sngRoomWidth      = Val(Text2.Text)
sngRoomArea       =  sngRoomLength * sngRoomWidth
sngRoomPerimeter =  2 * ( sngRoomLength + sng RoomWidth)
Text3.text = val(sngRoomArea)
Text4.Text = val(sngRoomPerimeter)
```

6. Run the program



7. The form is designed as per the following Specifications.

Label1	Caption	length
Label2	Caption	width
Label3	Caption	Area
Label4	Caption	Perimeter
Text1	Caption	" "
Text2	Caption	" "
Text3	Caption	" "
Text4	Caption	" "
Command1	Caption	Result

Lab units 5 (1 Real Time Hrs)

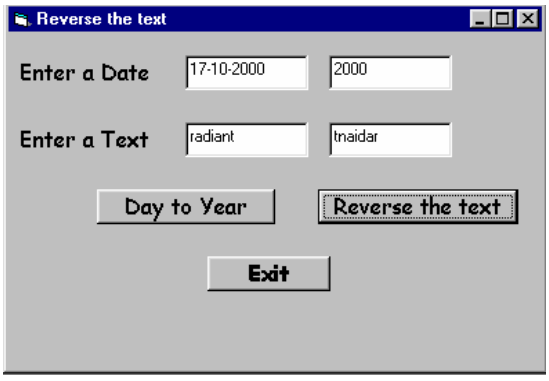
Ex1:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 4.

1. Add a new standard EXE project.
2. Enter the code in the corresponding controls events.

```
Dim i As Integer
Dim reverse As String

Private Sub Command1_Click()
End
End Sub

Private Sub Command2_Click()
For i = Len(Text1.Text) To 1 Step -1
  reverse = reverse + Mid(Text1.Text, i, 1)
Next
Text3.Text = reverse
End Sub

Private Sub Command3_Click()
Text4.Text = Year(Text2.Text)
End Sub
```

3. Run the program.



Ex2:

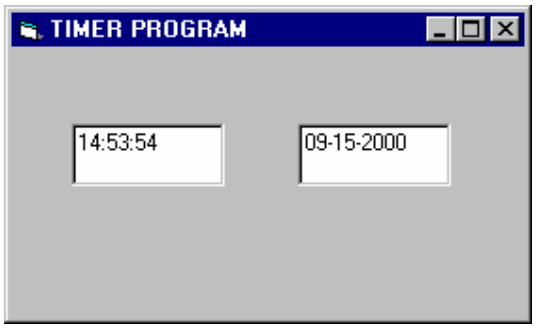
1. Change the Caption properties of the Form to Timer Program
2. Right Click the Timer control, click Properties
3. Set the Interval property of the Timer Control to 1000 which implies that the Timer is activated every one second
4. Enter the code in the Form_Load( ) procedure.

```
Private Sub Form_Load( )
    Text1.Text = Time$
    Text2.Text = Date$
End Sub
```

5. Enter this in Timer1_Timer( ) procedure

```
Private Sub Timer1_Timer()
    Text1.Text = Time$
End Sub
```

6. Execute the Program

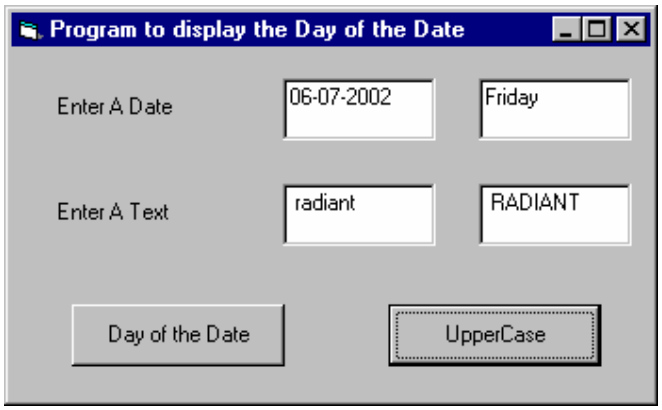


Ex 3:

1. Open a standard EXE project with four text boxes, two command button, with two lable boxes
2. Enter the code in the Command1_Click( ) procedure

```
Private Sub Command1_Click()
Dim MYDATE As Date
  MYDATE = Format(Text1.Text, "D-MMM-YY")
  Text3.Text = Format(MYDATE, "dddd")
End Sub

Private Sub Command2_Click()
  Text4.Text = Format(Text2.Text, ">")
End Sub
```

3. Execute the program



4. The form is designed as per the following Specifications.

Label1	Caption	Enter a date
Label2	Caption	Enter a text
Text1	Caption	" "
Text2	Caption	" "
Text3	Caption	" "
Command1	Caption	Day of the date
Command2	Caption	Upper case

Lab units 6 (2 Real Time Hrs)

Ex1:

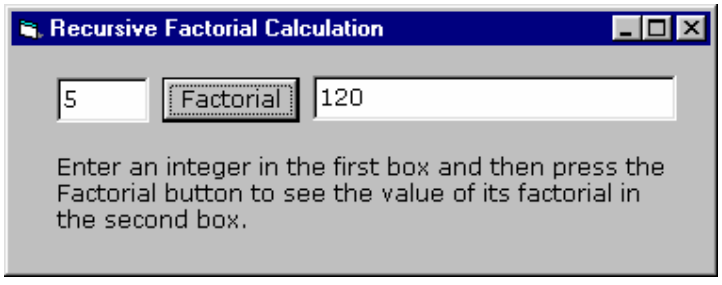
1. Add one standard EXE form with one command button, two boxes.
2. Add_in->Add function (name as factorial and write the following code.)

```
Function factorial(n As Integer) As Double
   If n = 0 Then
      factorial = 1
   Else
      factorial = factorial(n - 1) * n
   End If
End Function
```

3. Write the code in the Command1_Click() .

```
Private Sub Command1_Click()
   Text1.Text = Val(Text1.Text)
   Text2.Text = factorial(Text1.Text)
End Sub
```

4. Run the Program by press F5.



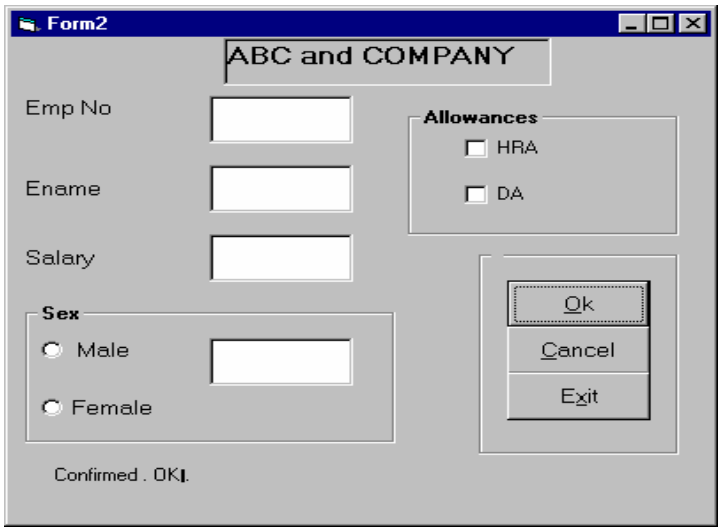
Ex 2:

1. Open a new Standard EXE project
2. Enter the following code in the corresponding control events.

```
Private Sub Check1_Click()
   If Check1.Value = 1 Then
       Label5.Caption = "2500"
        End If
End Sub

Private Sub Check2_Click()
 If Check2.Value = 1 Then
       Label6.Caption = "3000"
      End If
End Sub

Private Sub Command1_Click()
   Label7.Caption = "Confirmed . OK…."
End Sub

Private Sub Command2_Click()
   Label7.Caption = "Cancelled "
End Sub

Private Sub Command3_Click()
   Label7.Caption = "Process exit "
End Sub

Private Sub Form_GotFocus()
  Text1.Text = ""
End Sub
Private Sub Option1_Click()
    If Option1.Value = True Then
         Text4.Enabled = False
       Else
         Text4.Enabled = True
       End If

End Sub
Private Sub Text1_KeyPress(KeyAscii As Integer)
     If KeyAscii >= 48 And KeyAscii <= 57 Then
          KeyAscii = KeyAscii
       Else
         KeyAscii = 0
     End If
End Sub

Private Sub Text1_LostFocus()
     If Text1.Text = "" Then
        Text1.SetFocus
     End If
End Sub

Private Sub Text2_KeyPress(KeyAscii As Integer)
If KeyAscii >= 97 And KeyAscii <= 122 Then
```

```
        KeyAscii = KeyAscii - 32
        Else
        KeyAscii = 0
End If
End Sub

 Private Sub Text3_KeyPress(KeyAscii As Integer)
   Text3.MaxLength = 8
      If KeyAscii >= 48 And KeyAscii <= 57 Then
         KeyAscii = KeyAscii
      Else
         KeyAscii = 0
      End If
End Sub
```

3. Run the form



4. The form is designed as per the following Specifications.

Label1	Caption	ABC and
Label2	Caption	Company
Label3	Caption	Empno
Label4	Caption	Ename
Label5	Caption	Salary
Label6	Caption	" "
Label7	Caption	" "
Frame1	Caption	" "
Frame2	Caption	Sex
Option1	Caption	Allowance
Option2	Caption	Male
Command1	Caption	Female
Command2	Caption	O.K.
Command3	Caption	Cancel
Check1	Caption	Exit
Check2	Caption	HRA
		DA

Lab - 7 (2 Real Time Hrs)

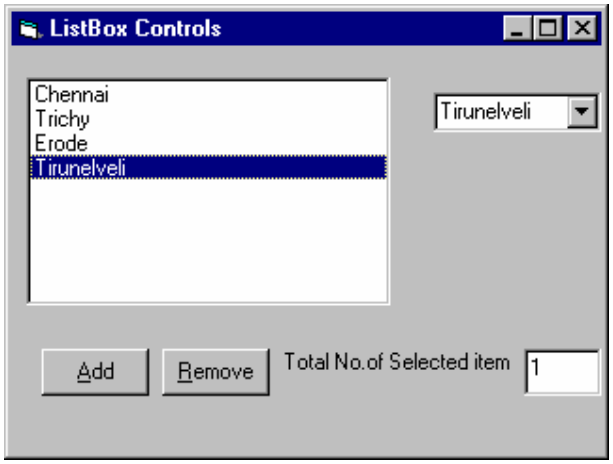
Ex 1:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 4.

1. Open a new standard EXE project.
2. Paste one combo box, one list box, one label box , two command button and write the following code in the corresponding controls.

```
Private Sub Command1_Click()
Dim a As String
a = InputBox("Enter the name")
List1.AddItem a
End Sub

Private Sub Command2_Click()
Dim a As Integer
a = List1.ListIndex
Combo1.AddItem (List1.List(a))
Text1.text = list1.list(a)
List1.RemoveItem (a)
End Sub

Private Sub List1_Click()
Text1.Text = List1.SelCount
End Sub
```

3. Run the program by pressing F5 key.



Ex 2:

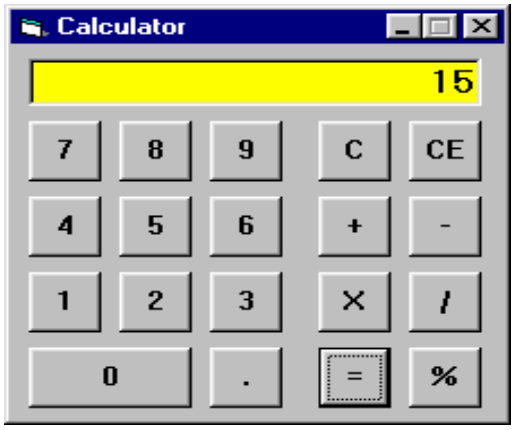
1. Open a new Standard EXE project.
2. Paste 5 command buttons and create one control array for 0 to 9 numbers, another control array for four operators, one for decimal point, one for cancel, one for cancel entry.
3. Write the following code in the corresponding control events.

```
Option Explicit
Dim Op1, Op2
Dim DecimalFlag As Integer
Dim NumOps As Integer
Dim LastInput
Dim OpFlag
```

```
Dim TempReadout

Private Sub Cancel_Click()
   Readout = Format(0, "0.")
   Op1 = 0
   Op2 = 0
   Form_Load
End Sub

Private Sub CancelEntry_Click()
   Readout = Format(0, "0.")
   DecimalFlag = False
   LastInput = "CE"
End Sub

Private Sub Decimal_Click()
   If LastInput = "NEG" Then
      Readout = Format(0, "-0.")
   ElseIf LastInput <> "NUMS" Then
      Readout = Format(0, "0.")
   End If
   DecimalFlag = True
   LastInput = "NUMS"
End Sub

Private Sub Form_Load()
   DecimalFlag = False
   NumOps = 0
   LastInput = "NONE"
   OpFlag = " "
   Readout = Format(0, "0.")
   End Sub
Private Sub Number_Click(Index As Integer)
   If LastInput <> "NUMS" Then
      Readout = Format(0, ".")
      DecimalFlag = False
   End If
   If DecimalFlag Then
      Readout = Readout + Number(Index).Caption
   Else
      Readout = Left(Readout, InStr(Readout, Format(0, ".")) - 1) +
     Number(Index).Caption + Format(0, ".")
   End If
   If LastInput = "NEG" Then Readout = "-" & Readout
   LastInput = "NUMS"
End Sub

Private Sub Operator_Click(Index As Integer)
   TempReadout = Readout

   If LastInput = "NUMS" Then
      NumOps = NumOps + 1
   End If

   Select Case NumOps
      Case 0
      If Operator(Index).Caption = "-" And LastInput <> "NEG" Then
         Readout = "-" & Readout
         LastInput = "NEG"
```

```
        End If

        Case 1
        Op1 = Readou
If Operator(Index).Caption = "-" And LastInput <> "NUMS" And OpFlag <> "="
          Then
          Readout = "-"
          LastInput = "NEG"
        End If

        Case 2
        Op2 = TempReadout
        Select Case OpFlag
          Case "+"
            Op1 = CDbl(Op1) + CDbl(Op2)
          Case "-"
            Op1 = CDbl(Op1) - CDbl(Op2)
          Case "X"
            Op1 = CDbl(Op1) * CDbl(Op2)
          Case "/"
            If Op2 = 0 Then
              MsgBox "Can't divide by zero", 48, "Calculator"
            Else
            Op1 = CDbl(Op1) / CDbl(Op2)
            End If
          Case "="
            Op1 = CDbl(Op2)
          Case "%"
            Op1 = CDbl(Op1) * CDbl(Op2)
          End Select
        Readout = Op1
        NumOps = 1
    End Select

    If LastInput <> "NEG" Then
        LastInput = "OPS"
        OpFlag = Operator(Index).Caption
    End If

End Sub

Private Sub Percent_Click()
    Readout = Readout / 100
    LastInput = "Ops"
    OpFlag = "%"
    NumOps = NumOps + 1
    DecimalFlag = True
End Sub
```

Run the Program by press F5.



Lab units 8 (2 Real Time Hrs) .

Ex 1:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 6.

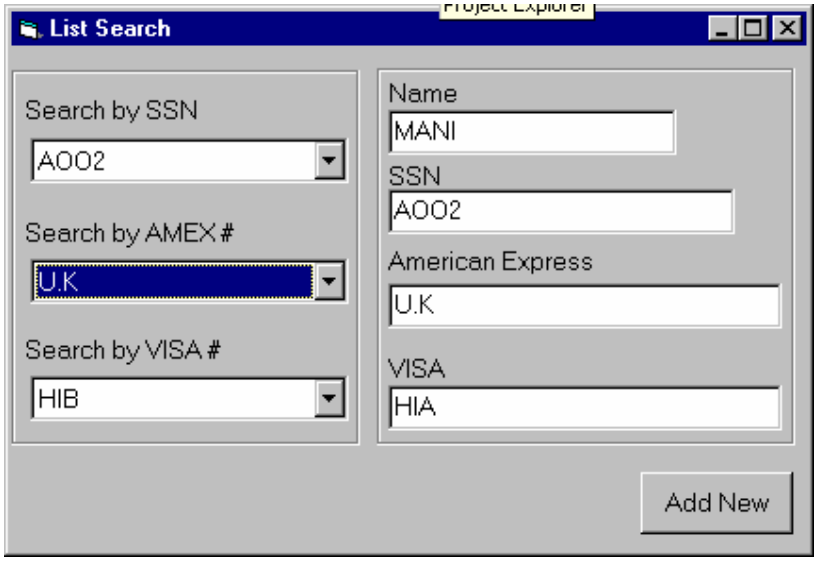
1. Open a new standard EXE project.
2. Add seven label boxes, four text boxes, three combo boxes, one command button (Paste all the controls in two frame boxes).
3. Write the following codes in the corresponding events of the controls.

```
Dim DataArray(999, 3) As String
Dim ArrayIndex As Integer

Sub ClearFields()
   TxtName.Text = ""
   TxtSSN.Text = ""
   TxtSSN.Locked = False
   TxtAmerican.Text = ""
   TextAmerican.Locked = False
   TextVisa.Text = ""
   TextVisa.Locked = False
   CmdAdd.Visible = False
   CmdOK.Visible = True
   CmdCancel.Visible = True
End Sub

Sub ShowButtons()
   CmdOK.Visible = False
   Cmdcancel.Visible = False
   CmdAdd.Visible = True
   TxtSSN.Locked = True
   TxtAmerican.Locked = True
   TxtVisa.Locked = True
End Sub

Private Sub CmdAdd_Click()
   ClearFields
   TxtNmae.SetFocus
End Sub

Private Sub CmdCancel_Click()
   ShowButtons
   CmbSSN_Click
End Sub
Private Sub CmbSSN_Click()

   If CmbSSN.ListIndex < 0 Then
      TxtName.Text = ""
      TxtSSN.Text = ""
      TxtAmerican.Text = ""
      TxtVisa.Text = ""
      Exit Sub
   End If

   ItemIndex = CmbSSN.ItemData(CmbSSN.ListIndex)
   TxtName.Text = DataArray(ItemIndex, 0)
   TxtSSN.Text = DataArray(ItemIndex, 1)
```

```
    TxtAmerican.Text = DataArray(ItemIndex, 2)
    TxtVisa.Text = DataArray(ItemIndex, 3)
End Sub

Private Sub CmbAmerican2_Click()

    If Combo2.ListIndex < 0 Then
        TxtName.Text = ""
        TxtSSN.Text = ""
        TxtAmerican.Text = ""
        TxtVisa.Text = ""
          Exit Sub
    End If

    ItemIndex = CmbAmerican.ItemData(CmbAmerican.ListIndex)
    TxtName.Text = DataArray(ItemIndex, 0)
    TxtSSN.Text = DataArray(ItemIndex, 1)
    TxtAmerican.Text = DataArray(ItemIndex, 2)
    TxtVisa.Text = DataArray(ItemIndex, 3)
End Sub

Private Sub CmbVisa_Click()

    If Combo3.ListIndex < 0 Then
TxtName.Text = ""
        TxtSSN.Text = ""
        TxtAmerican.Text = ""
        TxtVisa.Text = ""
        Exit Sub
    End If

    ItemIndex = Combo3.ItemData(Combo3.ListIndex)
    TxtName.Text = DataArray(ItemIndex, 0)
    TxtSSN.Text = DataArray(ItemIndex, 1)
    TxtAmerican.Text = DataArray(ItemIndex, 2)
    TxtVisa.Text = DataArray(ItemIndex, 3)
End Sub

Private Sub cmdOK_Click()

    Key = Trim(TxtName.Text)
    If Key = "" Then
        MsgBox "Key field must be non-mepty"
        Exit Sub
    End If

    ArrayIndex = ArrayIndex + 1
    If TxtSSN.Text <> "" Then
        CmbSSN.AddItem TxtSSN.Text
        CmbSSN.ItemData(CmbSSN.NewIndex) = ArrayIndex
    End If
    If TxtSSN.Text <> "" Then
        CmbAmerican.AddItem TxtAmerican.Text
        CmbAmerican.ItemData(CmbAmerican.NewIndex) = ArrayIndex
    End If
```

```
    If TxtVisa.Text <> "" Then
       CmbVisa.AddItem TxtVisa.Text
       CmbVisa.ItemData(CmbVisa.NewIndex) = ArrayIndex
    End If

    DataArray(ArrayIndex, 0) = TxtName.Text
    DataArray(ArrayIndex, 1) = TxtSSN.Text
    DataArray(ArrayIndex, 2) = TxtAmerican.Text
    DataArray(ArrayIndex, 3) = TxtVisa.Text

    CmbSSN.ListIndex = CmbSSN.NewIndex
    CmbAmerican.ListIndex = CmbAmerican.NewIndex
    CmbVisa.ListIndex = CmbVisa.NewIndex
    ShowButtons

    TxtName.SetFocus
End Sub
```

4. Run the program



Lab units 9 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 6.

1. Open a new standard EXE project.
2. Paste three label boxes, two list boxes and six command buttons.
3. Write the following codes in the corresponding control events.

```
Private Sub Form_Load()
  lstAll.AddItem "aaa"
  lstAll.AddItem "bbb"
  lstAll.AddItem "ccc"
  lstAll.ListIndex = 0
End Sub
```

```
Private Sub cmdRightOne_Click()
  On Error Resume Next
  Dim i As Integer
  If lstAll.ListCount = 0 Then Exit Sub
  lstSelected.AddItem lstAll.Text
  i = lstAll.ListIndex
  lstAll.RemoveItem lstAll.ListIndex
  If lstAll.ListCount > 0 Then
    If i > lstAll.ListCount - 1 Then
      lstAll.ListIndex = i - 1
    Else
      lstAll.ListIndex = i
    End If
  End If
  lstSelected.ListIndex = lstSelected.NewIndex
End Sub
```

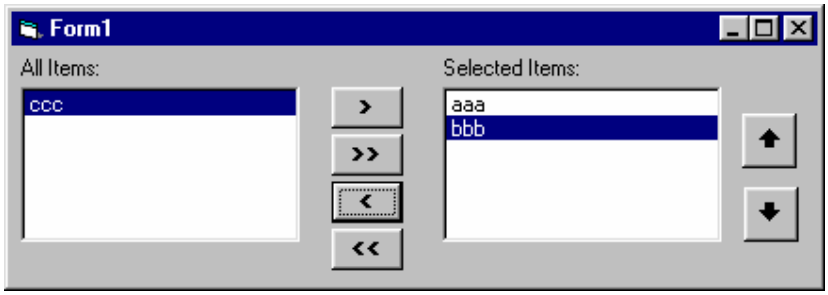
When Click CmdRightAll Button, the All item of List1 is Moved to List2

Write the code in the cmdRightOne_Click() Procedure.

```
Private Sub cmdRightAll_Click()
  On Error Resume Next
  Dim i As Integer
  For i = 0 To lstAll.ListCount - 1
    lstSelected.AddItem lstAll.List(i)
  Next
  lstAll.Clear
  lstSelected.ListIndex = 0
End Sub

Private Sub cmdUp_Click()
  On Error Resume Next
  Dim nItem As Integer

  With lstSelected
    If .ListIndex < 0 Then Exit Sub
    nItem = .ListIndex
    If nItem = 0 Then Exit Sub
    .AddItem .Text, nItem - 1
    .RemoveItem nItem + 1
    .Selected(nItem - 1) = True
  End With
End Sub

Private Sub cmdDown_Click()
  On Error Resume Next
  Dim nItem As Integer

  With lstSelected
    If .ListIndex < 0 Then Exit Sub
    nItem = .ListIndex
    If nItem = .ListCount - 1 Then Exit Sub 'can't move last item down
    .AddItem .Text, nItem + 2
    .RemoveItem nItem
    .Selected(nItem + 1) = True
  End With
End Sub
```

```
Private Sub cmdLeftOne_Click()
  On Error Resume Next
  Dim i As Integer

  If lstSelected.ListCount = 0 Then Exit Sub
lstAll.AddItem lstSelected.Text
  i = lstSelected.ListIndex
  lstSelected.RemoveItem i

  lstAll.ListIndex = lstAll.NewIndex
  If lstSelected.ListCount > 0 Then
    If i > lstSelected.ListCount - 1 Then
      lstSelected.ListIndex = i - 1
    Else
      lstSelected.ListIndex = i
    End If
  End If
End Sub

Private Sub cmdLeftAll_Click()
  On Error Resume Next
  Dim i As Integer
  For i = 0 To lstSelected.ListCount - 1
    lstAll.AddItem lstSelected.List(i)
  Next
  lstSelected.Clear
  lstAll.ListIndex = lstAll.NewIndex
End Sub

Private Sub lstAll_DblClick()
  cmdRightOne_Click
End Sub

Private Sub lstSelected_DblClick()
  cmdLeftOne_Click
End Sub
```

4. Press F5 to run the program



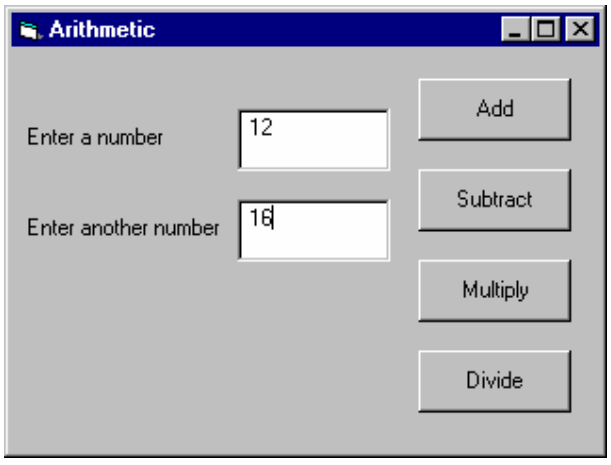
Ex 2 :

Pre-Requisite:-You are suggested to take this lab session only after completion of Lecture 6.

1. Open a new standard EXE project
2. Paste four command buttons, two text boxes, two label boxes.
3. Create four functions for functions in the name add,sub1,divi,mul.
4. Write the following codes in the corresponding control events.

```
Private Sub Command1_Click()
Call ADD
End Sub

Public Sub ADD()
Dim AD As Integer
A = Val(Text1.Text)
B = Val(Text2.Text)
MsgBox (A + B)
End Sub

Public Sub SUB1()
A = Val(Text1.Text)
B = Val(Text2.Text)
MsgBox (A - B)
End Sub

Public Sub DIVI()
A = Val(Text1.Text)
B = Val(Text2.Text)
MsgBox (A / B)
End Sub
Public Sub MUL()

A = Val(Text1.Text)
B = Val(Text2.Text)
MsgBox (A * B)
End Sub

Private Sub Command2_Click()
Call SUB1
End Sub

Private Sub Command3_Click()
Call MUL
End Sub

Private Sub Command4_Click()
Call DIVI
End Sub
```

5. Run the program by pressing F5



Lab - 10 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 6

1. Create a new standard EXE project
2. Paste four one label box, one drive list box, one directory list box, one file list box, one text box with two command buttons.

3. Write the following codes in the proper control events.

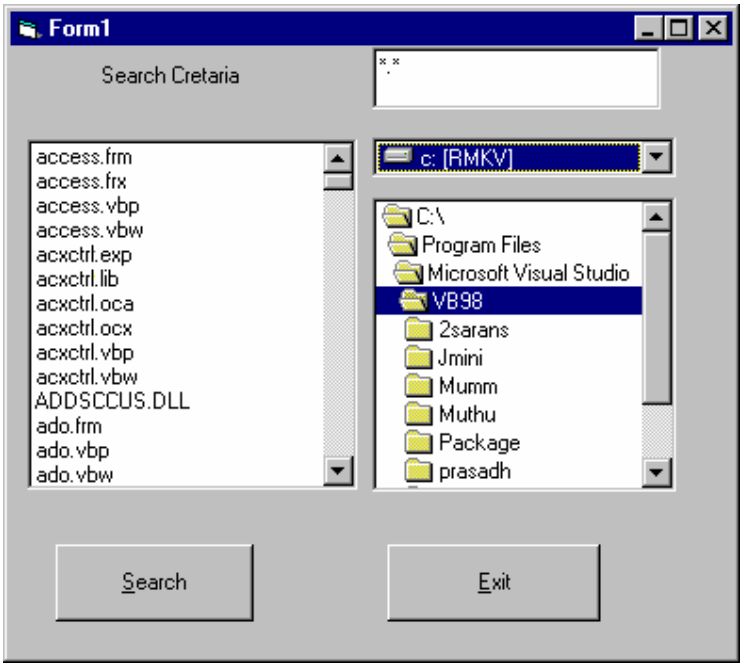
```
Option Explicit
Dim SearchFlag As Integer   ' Used as flag for cancel and other operations.

Private Sub cmdExit_Click()
   If cmdExit.Caption = "E&xit" Then
      End
   Else                 ' If user chose Cancel, just end Search.
      SearchFlag = False
   End If
End Sub

Private Sub cmdSearch_Click()
' Initialize for search, then perform recursive search.
Dim FirstPath As String, DirCount As Integer, NumFiles As Integer
Dim result As Integer
 ' Check what the user did last.
   If cmdSearch.Caption = "&Reset" Then  ' If just a reset, initialize and exit.
      ResetSearch
      txtSearchSpec.SetFocus
      Exit Sub
   End If
   ' Update dirList.Path if it is different from the currently
   ' selected directory, otherwise perform the search.
   If dirList.Path <> dirList.List(dirList.ListIndex) Then
      dirList.Path = dirList.List(dirList.ListIndex)
      Exit Sub        ' Exit so user can take a look before searching.
   End If

   ' Continue with the search.
   Picture2.Move 0, 0
   Picture1.Visible = False
   Picture2.Visible = True

   cmdExit.Caption = "Cancel"

   filList.Pattern = txtSearchSpec.Text
   FirstPath = dirList.Path
   DirCount = dirList.ListCount

   ' Start recursive direcory search.
   NumFiles = 0                  ' Reset found files indicator.
   result = DirDiver(FirstPath, DirCount, "")
   filList.Path = dirList.Path
   cmdSearch.Caption = "&Reset"
```

```
    cmdSearch.SetFocus
    cmdExit.Caption = "E&xit"
End Sub

Private Function DirDiver(NewPath As String, DirCount As Integer, BackUp As String)
As Integer
'  Recursively search directories from NewPath down...
'  NewPath is searched on this recursion.
'  BackUp is origin of this recursion.
'  DirCount is number of subdirectories in this directory.
Static FirstErr As Integer
Dim DirsToPeek As Integer, AbandonSearch As Integer, ind As Integer
Dim OldPath As String, ThePath As String, entry As String
Dim retval As Integer
    SearchFlag = True          ' Set flag so the user can interrupt.
    DirDiver = False           ' Set to True if there is an error.
    retval = DoEvents()        ' Check for events (for instance, if the user
                chooses Cancel).
    If SearchFlag = False Then
        DirDiver = True
        Exit Function
    End If
    On Local Error GoTo DirDriverHandler
    DirsToPeek = dirList.ListCount  ' How many directories below this?
    Do While DirsToPeek > 0 And SearchFlag = True
        OldPath = dirList.Path  ' Save old path for next recursion.
        dirList.Path = NewPath
        If dirList.ListCount > 0 Then
            ' Get to the node bottom.
            dirList.Path = dirList.List(DirsToPeek - 1)
            AbandonSearch = DirDiver((dirList.Path), DirCount%, OldPath)
        End If
        ' Go up one level in directories.
        DirsToPeek = DirsToPeek - 1
        If AbandonSearch = True Then Exit Function
    Loop
    ' Call function to enumerate files.
    If filList.ListCount Then
        If Len(dirList.Path) <= 3 Then    ' Check for 2 bytes/character
            ThePath = dirList.Path            ' If at root level, leave as is...
        Else
            ThePath = dirList.Path + "\"   'Otherwise put "\" before the
                        filename.
        End If
        For ind = 0 To filList.ListCount - 1   ' Add conforming files in
                                this directory  to the list box.
            entry = ThePath + filList.List(ind)
            lstFoundFiles.AddItem entry
            lblCount.Caption = Str(Val(lblCount.Caption) + 1)
        Next ind
    End If
    If BackUp <> "" Then       ' If there is a superior directory, move it.
        dirList.Path = BackUp
    End If
    Exit Function
DirDriverHandler:
```

```
    If Err = 7 Then      ' If Out of Memory error occurs, assume the list box just got full.
       DirDiver = True  ' Create Msg and set return value AbandonSearch.
       MsgBox "You've filled the list box. Abandoning search..."
       Exit Function         ' Note that the exit procedure resets Err to 0.
    Else                     ' Otherwise display error message and quit.
       MsgBox Error
       End
    End If
End Function

Private Sub DirList_Change()
    ' Update the file list box to synchronize with the directory list box.
    filList.Path = dirList.Path
End Sub

Private Sub DirList_LostFocus()
    dirList.Path = dirList.List(dirList.ListIndex)
End Sub

Private Sub DrvList_Change()
    On Error GoTo DriveHandler
    dirList.Path = drvList.Drive
    Exit Sub
DriveHandler:
    drvList.Drive = dirList.Path
    Exit Sub
End Sub

Private Sub Form_Load()
    Picture2.Move 0, 0
    Picture2.Width = WinSeek.ScaleWidth
    Picture2.BackColor = WinSeek.BackColor
    lblCount.BackColor = WinSeek.BackColor
    lblCriteria.BackColor = WinSeek.BackColor
    lblfound.BackColor = WinSeek.BackColor
    Picture1.Move 0, 0
    Picture1.Width = WinSeek.ScaleWidth
    Picture1.BackColor = WinSeek.BackColor
End Sub

Private Sub Form_Unload(Cancel As Integer)
    End
End Sub

Private Sub ResetSearch()
    ' Reinitialize before starting a new search.
    lstFoundFiles.Clear
    lblCount.Caption = 0
    SearchFlag = False              ' Flag indicating search in progress.
    Picture2.Visible = False
    cmdSearch.Caption = "&Search"
    cmdExit.Caption = "E&xit"
    Picture1.Visible = True
    dirList.Path = CurDir: drvList.Drive = dirList.Path ' Reset the path.
End Sub
```

```
Private Sub txtSearchSpec_Change()
   ' Update file list box if user changes pattern.
   filList.Pattern = txtSearchSpec.Text
End Sub

Private Sub txtSearchSpec_GotFocus()
   txtSearchSpec.SelStart = 0         ' Highlight the current entry.
   txtSearchSpec.SelLength = Len(txtSearchSpec.Text)
End Sub
```

4. Run the program by pressing f5



Ex 2:

Pre-Requisite:-

You are suggested to take this lab session only after completion of Lecture 6.

1. Create a standard EXE form.
2. Paste one common dialogue box, one vertical scroll bar, list box.
3. Write the following code in the corresponding control events.

```
Option Explicit
Dim Shape As String
Dim XStart, YStart As Single
Dim XPrevious, YPrevious As Single
Dim CopyBMP, PasteBMP, CutBMP, PrintText As Integer
Dim PDrawWidth, PDrawStyle, PFillStyle As Integer
Dim CopyWidth, CopyHeight As Integer
Dim XLabel, YLabel As Integer

Dim OpenFile As String
```

```
Private Sub UnCheckStyles()

   StyleSolid.Checked = False
   StyleDash.Checked = False
   StyleDot.Checked = False

End Sub
Private Sub ColorFill_Click()

  CommonDialog1.Color = DrawForm.FillColor
   CommonDialog1.Flags = cdlCCRGBInit
   CommonDialog1.ShowColor
   DrawForm.FillColor = CommonDialog1.Color
End Sub

Private Sub ColorPage_Click()

   CommonDialog1.Color = DrawForm.BackColor
   CommonDialog1.Flags = cdlCCRGBInit
   CommonDialog1.ShowColor
   DrawForm.BackColor = CommonDialog1.Color
End Sub

Private Sub ColorPen_Click()

   CommonDialog1.Color = DrawForm.ForeColor
   CommonDialog1.Flags = cdlCCRGBInit
   CommonDialog1.ShowColor
   DrawForm.ForeColor = CommonDialog1.Color
End Sub

Private Sub DrawBox_Click()
   Shape = "BOX"
End Sub

Private Sub DrawCircle_Click()
   Shape = "CIRCLE"
End Sub

Private Sub DrawLine_Click()
   Shape = "LINE"
   End Sub


Private Sub DrawText_Click()
Dim DrawString As String

   DrawString = InputBox("Enter string")
   Label1.Caption = DrawString
   PrintText = True
End Sub

Private Sub EditClear_Click()
   DrawForm.Cls
End Sub
```

```
Private Sub EditCopy_Click()
   CopyBMP = True
End Sub

Private Sub EditCut_Click()
   CutBMP = True
End Sub

Private Sub EditPaste_Click()
   PasteBMP = True
End Sub

Private Sub FileExit_Click()
      End
End Sub

Private Sub FileNew_Click()
   DrawForm.Picture = LoadPicture()
   OpenFile = ""
End Sub

Private Sub FileOpen_Click()
   CommonDialog1.Filter = "Images|*.bmp;*.gif;*.jpg"
   CommonDialog1.DefaultExt = "BMP"
   CommonDialog1.ShowOpen
   If CommonDialog1.FileName = "" Then Exit Sub
   DrawForm.Picture = LoadPicture(CommonDialog1.FileName)
   OpenFile = CommonDialog1.FileName
   Shape = ""

End Sub

Private Sub FileSave_Click()
   If OpenFile <> "" Then
      SavePicture Image, OpenFile
   End If
End Sub

Private Sub FileSaveAs_Click()
   CommonDialog1.Filter = "Images|*.bmp"
   CommonDialog1.DefaultExt = "BMP"
   CommonDialog1.ShowSave
   If CommonDialog1.FileName = "" Then Exit Sub
   SavePicture DrawForm.Image, CommonDialog1.FileName
   OpenFile = CommonDialog1.FileName
End Sub

Private Sub Form_Load()
   CopyBMP = False
   PasteBMP = False
   PrintText = False
   XPrevious = -9999
   YPrevious = -9999
End Sub
```

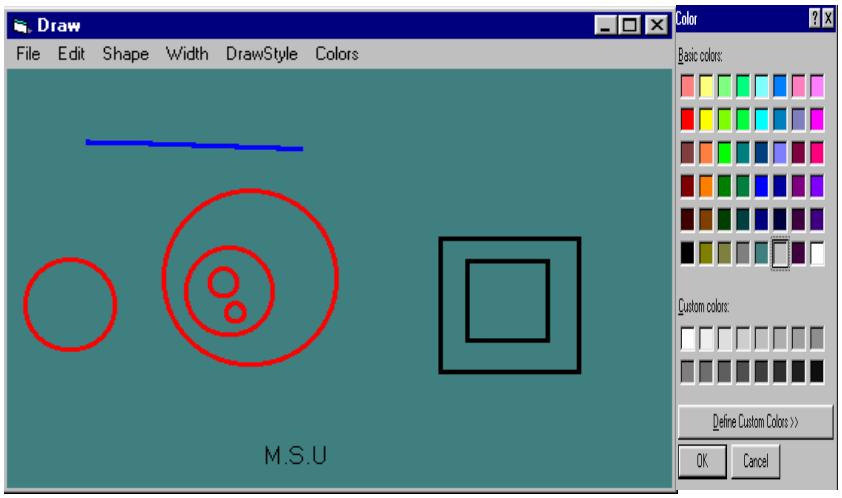
```
Private Sub Form_MouseDown(Button As Integer, Shift As Integer, X As Single, Y As Single)

   If Button = 2 Then Shape = ""
   If Button = 1 Then
      XStart = X
      YStart = Y
      XPrevious = XStart
      YPrevious = YStart
      DrawForm.DrawMode = 7
   End If

   If CopyBMP Or CutBMP Then
      PDrawWidth = DrawForm.DrawWidth
      PDrawStyle = DrawForm.DrawStyle
      PFillStyle = DrawForm.FillStyle
      DrawForm.DrawWidth = 1
      DrawForm.DrawStyle = 0
      DrawForm.FillStyle = 1
   End If

   If PasteBMP Then
      DrawForm.PaintPicture Picture1.Image, X, Y, CopyWidth, CopyHeight, 0, 0, CopyWidth, CopyHeight, &H660046
      XPrevious = X
      YPrevious = Y
      Exit Sub
   End If

   If PrintText Then
      Label1.ForeColor = DrawForm.ForeColor
      Label1.Visible = True
      Label1.Left = X
      Label1.Top = Y
      Exit Sub
   End If
End Sub

Private Sub Form_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As Single)

   If Button <> 1 Then Exit Sub
   If CopyBMP Or CutBMP Then
      DrawForm.Line (XStart, YStart)-(XPrevious, YPrevious), , B
      DrawForm.Line (XStart, YStart)-(X, Y), , B
      XPrevious = X
      YPrevious = Y
      Exit Sub
   End If
   If PasteBMP Then
      DrawForm.PaintPicture Picture1.Image, XPrevious, YPrevious, CopyWidth, CopyHeight, 0, 0, CopyWidth, CopyHeight, &H660046
      DrawForm.PaintPicture Picture1.Image, X, Y, CopyWidth, CopyHeight, 0, 0, CopyWidth, CopyHeight, &H660046
      XPrevious = X
      YPrevious = Y
```

```
        Exit Sub
    End If
    If PrintText Then
        Label1.Left = X
        Label1.Top = Y
        Exit Sub
    End If

    Select Case Shape
        Case "LINE":
            DrawForm.Line (XStart, YStart)-(XPrevious, YPrevious)
            DrawForm.Line (XStart, YStart)-(X, Y)
        Case "CIRCLE":
            DrawForm.Circle (XStart, YStart), Sqr((XPrevious - XStart) ^ 2 + (YPrevious -
YStart) ^ 2)
 DrawForm.Circle (XStart, YStart), Sqr((X - XStart) ^ 2 + (Y - YStart) ^ 2)
        Case "BOX":
            DrawForm.Line (XStart, YStart)-(XPrevious, YPrevious), , B
            DrawForm.Line (XStart, YStart)-(X, Y), , B
    End Select
    XPrevious = X
    YPrevious = Y

End Sub

Private Sub Form_MouseUp(Button As Integer, Shift As Integer, X As Single, Y As Single)
Dim X1, Y1
Dim oldDrawMode

    If CopyBMP Then
        DrawForm.Line (XStart, YStart)-(XPrevious, YPrevious), , B
        If X > XStart Then X1 = XStart Else X1 = X
        If Y > YStart Then Y1 = YStart Else Y1 = Y
        Picture1.PaintPicture DrawForm.Image, 0, 0, Abs(X - XStart), Abs(Y - YStart), X1, Y1,
Abs(X - XStart), Abs(Y - YStart), &HCC0020
        CopyBMP = False
        DrawForm.DrawWidth = PDrawWidth
        DrawForm.DrawStyle = PDrawStyle
        DrawForm.FillStyle = PFillStyle
        CopyWidth = Abs(X - XStart)
        CopyHeight = Abs(Y - YStart)
        Exit Sub
    End If

    If CutBMP Then
        oldDrawMode = DrawForm.DrawMode
        DrawForm.DrawMode = 13
        CopyWidth = XStart - X
        CopyHeight = YStart - Y
        If X > XStart Then X1 = XStart Else X1 = X
        If Y > YStart Then Y1 = YStart Else Y1 = Y
        Picture1.PaintPicture DrawForm.Image, 0, 0, Abs(X - XStart), Abs(Y - YStart), X1, Y1,
Abs(X - XStart), Abs(Y - YStart), &HCC0020
        DrawForm.Line (X, Y)-Step(CopyWidth, CopyHeight), DrawForm.BackColor, BF
        CutBMP = False
        DrawForm.DrawWidth = PDrawWidth
```

```
        DrawForm.DrawStyle = PDrawStyle
        DrawForm.FillStyle = PFillStyle
        DrawForm.DrawMode = oldDrawMode
        CopyWidth = Abs(X - XStart)
        CopyHeight = Abs(Y - YStart)

        Exit Sub
    End If
     If PasteBMP Then
        DrawForm.PaintPicture Picture1.Image, X, Y, CopyWidth, CopyHeight, 0, 0,
CopyWidth, CopyHeight, &HCC0020
        PasteBMP = False
        Exit Sub
    End If

    If PrintText Then
        DrawForm.AutoRedraw = True
        DrawForm.CurrentX = X
        DrawForm.CurrentY = Y
        DrawForm.Print Label1.Caption
        Label1.Visible = False
        PrintText = False
        Exit Sub
    End If

    DrawForm.DrawMode = 13
     Select Case Shape
        Case "LINE":
            DrawForm.Line (XStart, YStart)-(X, Y)
        Case "CIRCLE":
  DrawForm.Circle (XStart, YStart), Sqr((X - XStart) ^ 2 + (Y - YStart) ^ 2)
            ' the following statement erases the dot at the circle's center
            DrawForm.Circle (XStart, YStart), DrawForm.DrawWidth,
           DrawForm.BackColor
        Case "BOX":
            DrawForm.Line (XStart, YStart)-(X, Y), , B
    End Select
End Sub
Private Sub Form_Resize()

    Picture1.Width = DrawForm.Width
    Picture1.Height = DrawForm.Height
End Sub

Private Sub StyleDash_Click()

    UnCheckStyles
    StyleDash.Checked = True
    DrawForm.DrawStyle = 1
End Sub

Private Sub StyleDot_Click()

    UnCheckStyles
    StyleDot.Checked = True
    DrawForm.DrawStyle = 2
```

```
End Sub

Private Sub StyleFilled_Click()

   StyleFilled.Checked = Not StyleFilled.Checked
   If StyleFilled.Checked Then
      DrawForm.FillStyle = 0
   Else
      DrawForm.FillStyle = 1
   End If
End Sub

Private Sub StyleSolid_Click()
   UnCheckStyles
   StyleSolid.Checked = True
   DrawForm.DrawStyle = 0
End Sub

Private Sub width1_Click()
   DrawForm.DrawWidth = 1
End Sub

Private Sub Width2_Click()
   DrawForm.DrawWidth = 2
End Sub

Private Sub Width3_Click()
   DrawForm.DrawWidth = 3
End Sub
```

4. Run the form by press F5.



Lab – 11 (2 Hrs Real Time)

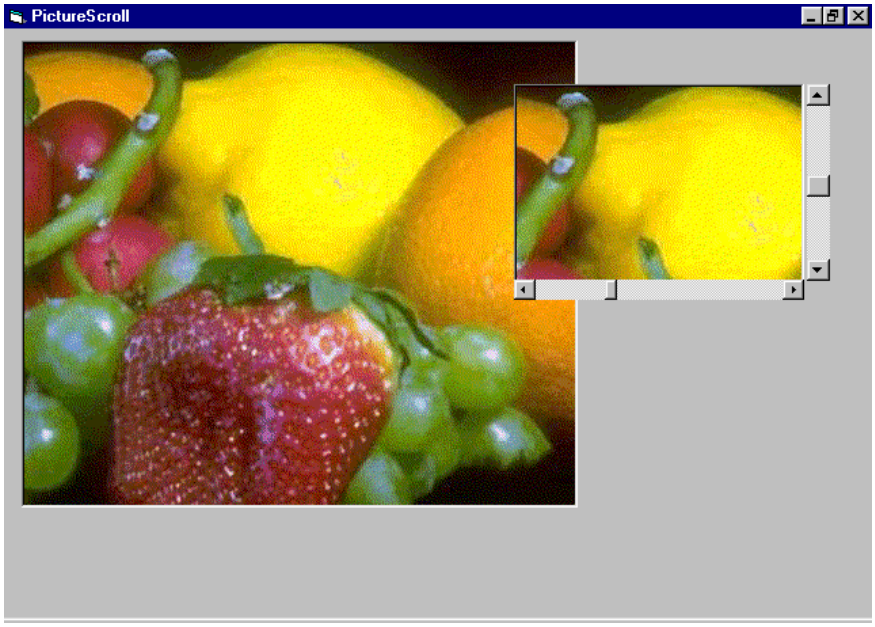
Ex 1:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 6.

1. Create a new standard EXE project.
2. Paste one vertical and horizantal scroll bars with two pictural box
3. Write the following codes in the proper control events.

```
Option explicit

Private Sub Form_Load()

HScroll1.Min = 0

HScroll1.Max = ScaleX(Picture1.Picture.Width, 8, vbTwips) - Picture2.Width
HScroll1.LargeChange = 10 * Screen.TwipsPerPixelX
HScroll1.SmallChange = Screen.TwipsPerPixelX
VScroll1.Min = 0

VScroll1.Max = ScaleX(Picture1.Picture.Height, 8, vbTwips) - Picture2.Height
VScroll1.LargeChange = 10 * Screen.TwipsPerPixelY
VScroll1.SmallChange = Screen.TwipsPerPixelY
HScroll1_Change     ' this line forces a redraw of the small PictureBox
End Sub

Private Sub HScroll1_Change()

Picture2.PaintPicture Picture1.Picture, 0, 0, _
Picture2.Width, Picture2.Height, _
HScroll1.Value, VScroll1.Value, _
Picture2.Width, Picture2.Height

End Sub

Private Sub HScroll1_Scroll()

Picture2.PaintPicture Picture1.Picture, 0, 0, _
Picture2.Width, Picture2.Height, _
HScroll1.Value, VScroll1.Value, _
Picture2.Width, Picture2.Height
End Sub

Private Sub VScroll1_Change()

Picture2.PaintPicture Picture1.Picture, 0, 0, _
Picture2.Width, Picture2.Height, _
HScroll1.Value, VScroll1.Value, _
Picture2.Width, Picture2.Height

End Sub

Private Sub VScroll1_Scroll()

Picture2.PaintPicture Picture1.Picture, 0, 0, _
Picture2.Width, Picture2.Height, _
HScroll1.Value, VScroll1.Value, _
Picture2.Width, Picture2.Height
End Sub
```

4. **Press F5 to run the program.**



Lab Unit - 12(2 Real Time Hrs)

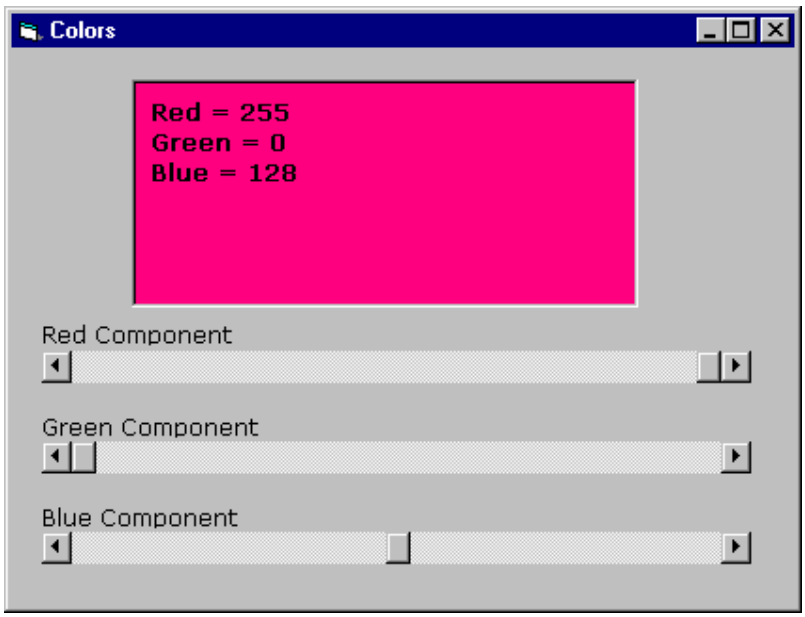
Ex 1 :

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 6

1. Create a new standard EXE project with one text box,three label box and three Hscroll boxes.
2. Write the following code in the Hscroll_change event of the each hscroll box

```
Private Sub Hscroll1_Change()
    Picture1.BackColor = RGB(Hscroll1.Value, 0, 0)
End Sub
Private Sub Hscroll2_Change()
    Picture1.BackColor = RGB(0, HScroll2.Value, 0)
End Sub

Private Sub Hscroll3_Change()
Picture1.BackColor = RGB(0, 0, Hscroll3.Value)
End Sub
```

3. Run the program by pressing F5.



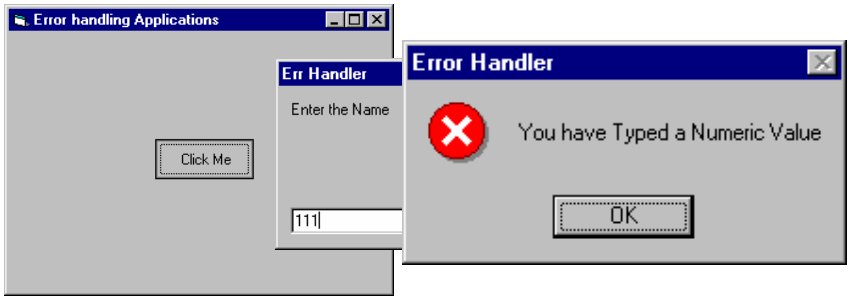
Ex 2:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 8.

1. Open the New standard EXE project
2. Place a CommandButton on the Form
3. Enter the code in the declaration section of the Form

```
Private Sub Command1_Click()
On Error GoTo errhandler

Dim x As String
    x = InputBox("Enter the Name", "Err Handler")
    If IsNumeric(x) Then
    GoTo errhandler
Else
    MsgBox "Your name is " & x
Exit Sub

End If
    errhandler:

MsgBox "You have Typed a Numeric Value", vbCritical, "Error Handler"
```

4. Execute the program by pressing F5.



Lab - 13(2 Real Time Hrs)

Ex 1

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 8.

1. Create a new standard EXE project.
2. Past one label box, picture box and a text box.
3. Write the following codes in the proper control events.

```
Private Sub Form_DragOver(Source As Control, X As Single, Y As Single,
State As Integer)

    If State = 0 Then Source.MousePointer = 12
  If State = 1 Then Source.MousePointer = 0

End Sub

Private Sub Label1_DragDrop(Source As Control, X As Single, Y As Single)

If TypeOf Source Is TextBox Then
  Label1.Caption = Source.Text
End If

End Sub
Private Sub Label1_DragOver(Source As Control, X As Single, Y As Single, State As
      Integer)

  MousePointer = vbDefault
End Sub

Private Sub Label2_DragOver(Source As Control, X As Single, Y As Single, State As
      Integer)

  If State = 0 Then Source.MousePointer = 12
  If State = 1 Then Source.MousePointer = 0
End Sub

Private Sub Picture1_DragDrop(Source As Control, X As Single, Y As Single)
Dim imgName
If TypeOf Source Is TextBox Then
  imgName = Source.Text
Else
  imgName = Source.Caption
End If
On Error GoTo NOIMAGE
Picture1.Picture = LoadPicture(imgName)
Exit Sub

NOIMAGE:
  MsgBox "This is not a valid file name"
End Sub
```

```
Private Sub Picture1_DragOver(Source As Control, X As Single, Y As Single, State As
        Integer)

   MousePointer = vbDefault
End Sub

Private Sub Text1_DragDrop(Source As Control, X As Single, Y As Single)

If TypeOf Source Is Label Then
   Text1.Text = Label1.Caption
End If
End Sub


Private Sub Text1_DragOver(Source As Control, X As Single, Y As Single, State As
        Integer)

   MousePointer = vbDefault

End Sub2 Design your form as shown below.
```

4. Run the program by pressing F5 key.

Lab - 14(2 Real Time Hrs)

Ex 1:

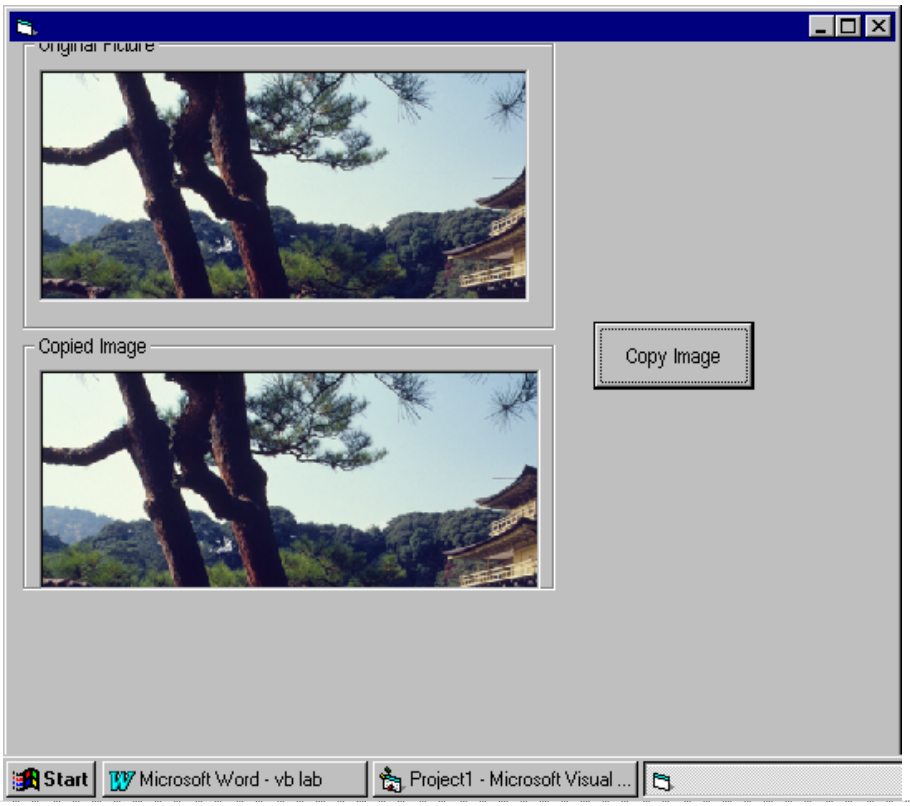
Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 8.

1. Create a new standard EXE project.
2. Paste one common dialogue box, one command box, two frame box, two picture boxes.
3. Write the following codes in the proper control events.

```
Option Explicit
Const GMEM_MOVEABLE = &H2
Const GMEM_ZEROINIT = &H40
Const GENERIC_READ = &H80000000
Const GENERIC_WRITE = &H40000000
Const OPEN_EXISTING = 3
Const FILE_ATTRIBUTE_NORMAL = &H80
Const CREATE_NEW = 1
Const CREATE_ALWAYS = 2

Private Declare Sub CopyMemory Lib "kernel32" Alias "RtlMoveMemory" (ByVal dest As
        Any, ByVal Src As Any, _ ByVal length As Long)

Private Declare Function GlobalAlloc Lib "kernel32" (ByVal wFlags As Long, _    ByVal
dwBytes As Long) As Long

Private Declare Function GlobalLock Lib "kernel32" (ByVal hMem As Long) As Long

Private Declare Function GlobalFree Lib "kernel32" (ByVal hMem As Long) As Long

Private Declare Function GlobalUnlock Lib "kernel32" (ByVal hMem As Long) As Long

Private Declare Function CreateFile Lib "kernel32" Alias "CreateFileA" _
   (ByVal lpFileName As String, ByVal dwDesiredAccess As Long, _
   ByVal dwShareMode As Long, ByVal lpSecurityAttributes As Any, _
   ByVal dwCreationDisposition As Long, ByVal dwFlagsAndAttributes As Long, _
   ByVal hTemplateFile As Long) As Long

Private Declare Function ReadFileLong Lib "kernel32" Alias "ReadFile" (ByVal hFile As
        Long, _
   lpBuffer As Long, ByVal nNumberOfBytesToRead As Long, lpNumberOfBytesRead As
        Long, _
   ByVal lpOverlapped As Any) As Long

Private Declare Function WriteFileLong Lib "kernel32" Alias "WriteFile" (ByVal hFile As
        Long, _
   lpBuffer As Long, ByVal nNumberOfBytesToWrite As Long, _
   lpNumberOfBytesWritten As Long, ByVal lpOverlapped As Any) As Long
  Private Declare Function GetFileSize Lib "kernel32" (ByVal hFile As Long, _
   lpFileSizeHigh As Long) As Long

Private Declare Function CloseHandle Lib "kernel32" (ByVal hObject As Long) As Long

Dim filePointer As Long

Private Sub Command1_Click()
   Dim memHandle As Long
   Dim memPointer As Long
   Dim fileName As String
   Dim retValue As Long
   Dim nBytes As Long
   Dim fileSize As Long
   Dim origStr As String
   Dim strSize As Long
   Dim textStr As String
On Error GoTo noFileName
```

```
CommonDialog1.CancelError = True
 CommonDialog1.ShowOpen
 fileName = CommonDialog1.fileName
 Picture1.Picture = LoadPicture(fileName)
 filePointer = CreateFile(fileName, GENERIC_READ Or GENERIC_WRITE, 0&, 0&,
       OPEN_EXISTING, _ FILE_ATTRIBUTE_NORMAL, 0&)

 fileSize = GetFileSize(filePointer, 0)

    memHandle = GlobalAlloc(GMEM_MOVEABLE Or GMEM_ZEROINIT, fileSize)
 memPointer = GlobalLock(memHandle)

 retValue = ReadFileLong(filePointer, ByVal memPointer, fileSize, nBytes, 0&)
    CloseHandle (filePointer)
    MsgBox "Image copied. Click on OK to save it on disk."

 'New file
 CommonDialog1.ShowOpen
 fileName = CommonDialog1.fileName
 filePointer = CreateFile(fileName, GENERIC_READ Or GENERIC_WRITE, 0&, 0&,
       CREATE_ALWAYS, _
                  FILE_ATTRIBUTE_NORMAL, 0&)

 retValue = WriteFileLong(filePointer, ByVal memPointer, fileSize, nBytes, 0&)

 CloseHandle (filePointer)
 GlobalUnlock (memHandle)
 GlobalFree (memHandle)

 Picture2.Picture = LoadPicture(fileName)
 Exit Sub
noFileName:

End Sub
```

4. Press F5 to Run the program



Lab - 15(2 Real Time Hrs)

Ex 1:

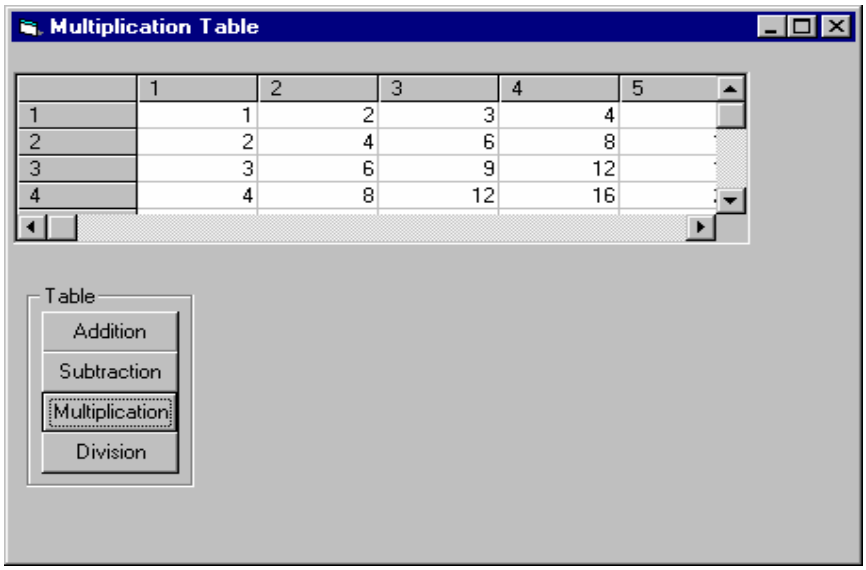
Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 8.

1. Create a new standard EXE project.
2. Paste a Grid and four Command button controls are added to the form of a new standard EXE project.
3. The Form of the project ils saved as GridApp.frm and the project file as GridApp.vbp1
4. The name property of the buttons is changed as Add,Multiply,Subtract and Divide.
5. The caption property of the form is changed to multiplication program.
6. Set the Rows and Cols property of the Grid to 13.
7. Write the following codes in the corresponding controls event.

```
Private sub Form_Load()
  Dim a as integer
  Flexgd1.Row=0
 For a =1 to 12
  FlexGd1.col=a
   FlexGd1.text=str(a)
Next
Flexgd1.col=0
For a =1 to 12
Flexgd1.row=a
Flexgd1.text=str(a)
Next
End sub
```

```
Private sub cmdAdd_click()
 Form1.caption="Addition program"
 Dim x,y
 For x= 1 to 12 step 1
 Flexgd1.row=x
 For y=1 to 12 step 1
   Flexgd1.col =y
   Flexgd1.text=x+y
 Next
Next
End sub
Private sub cmdsubtract_click()
Form1.caption="Subtraction program"
Dim x,y
For x= 1 to 12 step 1
 Flexgd1.row=x
 For y=1 to 12 step 1
   Flexgd1.col =y
   Flexgd1.text=x-y
 Next
Next
End sub

Private sub cmdsubtract_click()
Form1.caption="Multiplication program"
Dim x,y
For x= 1 to 12 step 1
 Flexgd1.row=x
 For y=1 to 12 step 1
   Flexgd1.col =y
   Flexgd1.text=x*y
 Next
Next
End sub

Private sub cmdsubtract_click()
Form1.caption="Division program"
Dim x,y
For x= 1 to 12 step 1
 Flexgd1.row=x
 For y=1 to 12 step 1
   Flexgd1.col =y
   Flexgd1.text=x/y
 Next
Next
End sub
```

8. Run the program by pressing F5 key.



Ex 2:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 10.

1. Open a new project and add a form to it
2. Select →Project→References→ Microsoft Data Access Objects 3.5 library
3. Create a menu with the following items and sub items:
   - Create a database by name "Sample.mdb" in Visual Data Manager in your Folder
   - Create a table under "Sample.mdb" as "Emp" with the following fields of mention datatypes:

Field Name	**Data type**
Eno	Integer
Ename	Text (30)
Deptno	Integer
Doj	*Date*

   - Index on "Deptno" (Primary) field
   - Open recordset for "emp" table with dynaset as its type
   - After completing the above said task, try entering records, deleting records, editing records to the emp table
   - Use the Find methods to find the records for a given employee name
   - Use Move methods to navigate through the records
4. Paste three frame box, one combo box, four text boxes, seven command buttons, one combo box, five label boxes1

```
Dim ws As Workspace
Dim db1 As Database
Dim Td1 As TableDef
Dim Td3 As TableDef
Dim fld(3) As Field
Dim fld3(2) As Field
Dim dbname As String
Dim rs As Recordset
Dim rs_dept As Recordset
Dim clone_rs As Recordset
Dim rs_qry As Recordset
Dim bk As Variant
```

```
Dim Ndx1 As Index
Dim Ndx2 As Index
Dim Relate As Relation
Dim relfld As Field
Dim find_var As Variant
Dim rr As Recordset


Add the path of the database in the form load event
Private Sub Newdb_Click()   ------------ For Creating New Database
Set ws = DBEngine.Workspaces(0)
If Dir(dbname) = "" Then
   Set db1 = ws.CreateDatabase(dbname, dbLangGeneral, dbVersion30)
   MsgBox ("Database Created   " & dbname)
Else
   MsgBox ("Database Already Exists   " & dbname)
End If
End Sub

Private Sub Opendb_Click() ----- For opening the Database
Set ws = DBEngine.Workspaces(0)
If Dir(dbname) <> "" Then
   Set db1 = ws.OpenDatabase(dbname)
   MsgBox ("Database Opened  " & dbname)
Else
   MsgBox ("Database does not exist  " & dbname)
End If
End Sub
Private Sub Deletedb_Click()
Set ws = DBEngine.Workspaces(0)
If Dir(dbname) <> "" Then
   Kill (dbname)
   MsgBox ("Database Deleted  " & dbname)
Else
  MsgBox ("Database does not Exist   " & dbname)
End If
End Sub

Private Sub Newtd_Click()  --------- New Table creation

'CREATION OF EMPLOYEE TABLE

For Each Td1 In db1.TableDefs
If Td1.Name = "employee" Then
          MsgBox "Employee Already Exists"
          Exit sub
 End If
 Next
  Set Td1 = db1.CreateTableDef("employee")
   Set fld(0) = Td1.CreateField("empno", dbInteger)
   Set fld(1) = Td1.CreateField("ename", dbText, 30)
   Set fld(2) = Td1.CreateField("deptno", dbInteger)
   Set fld(3) = Td1.CreateField("doj", dbDate)
      Td1.Fields.Append fld(0)
      Td1.Fields.Append fld(1)
      Td1.Fields.Append fld(2)
```

```
        Td1.Fields.Append fld(3)
      db1.TableDefs.Append Td1
      MsgBox "Table & Fields  " & Td1.Name & " are created and appended successfully"
    End If
    For Each Td3 In db1.TableDefs
    If Td3.Name = "dept" Then
            MsgBox "department Already Exists"
            Exit sub
     End If
     Next
     If b = False Then
      Set Td3 = db1.CreateTableDef("dept")
      Set fld3(0) = Td3.CreateField("deptno", dbInteger)
      Set fld3(1) = Td3.CreateField("dname", dbText, 15)
      Set fld3(2) = Td3.CreateField("loc", dbText, 15)
      Td3.Fields.Append fld3(0)
      Td3.Fields.Append fld3(1)
      Td3.Fields.Append fld3(2)
      db1.TableDefs.Append Td3
      MsgBox "Table & Fields  " & Td3.Name & " are created and appended successfully"
    End If
    End Sub
    Private Sub A_pos_Click()  ---------- To display Absolute Position
    Text10.Text = rs.AbsolutePosition & "/" & rs.RecordCount
    End Sub
    Private Sub Cln_Click() ---------- Clone Creation
    Set clone_rs = rs.Clone
    clone_display
    MsgBox "Clone Created"
    End Sub

Private Sub Combo1_Click() ----- To find and Display corresponding record
    rs.FindFirst "empno=" & Combo1.Text
    If rs.NoMatch = True Then
      MsgBox "record not found"
    Else
      display
      End If
    End Sub

    Private Sub Command1_Click() ------- To move first
    rs.MoveFirst
    display
    End Sub

    Private Sub Command2_Click() --------- To move previous
    rs.MovePrevious
    If rs.BOF Then
      MsgBox "Already at the first record"
      rs.MoveFirst
      display
    Else
      display
    End If
    End Sub
```

```
Private Sub Command3_Click() ---------- To move next
rs.MoveNext
If rs.EOF Then
   rs.MovePrevious
   MsgBox "Already at the last record"
   rs.MoveLast
   display
Else
   display
End If
End Sub

Private Sub Command4_Click() ------------ To move last
rs.MoveLast
display
End Sub
Private Sub Command10_Click() --------- To move previous for dept table
rs_dept.MovePrevious
If rs_dept.BOF Then
   MsgBox "Already at the first record"
   rs_dept.MoveFirst
   ddisplay
Else
   ddisplay
End If
End Sub

Private Sub Command11_Click() -------To move next for dept table
rs_dept.MoveNext
If rs_dept.EOF Then
   rs_dept.MovePrevious
   MsgBox "Already at the last record"
   rs_dept.MoveLast
   ddisplay
Else
   ddisplay
End If
End Sub

Private Sub Command9_Click() ---------- to move first for dept table
rs_dept.MoveFirst
ddisplay
End Sub

Private Sub Command12_Click() -------- To move last for dept table
rs_dept.MoveLast
ddisplay
End Sub

Private Sub Command5_Click() ---------- To move first for Clone record
clone_rs.MoveFirst
cdisplay
End Sub

Private Sub Command6_Click() -------- To move previous for clone record
clone_rs.MovePrevious
```

```
If clone_rs.BOF Then
   MsgBox "Already at the first record"
   clone_rs.MoveFirst
   cdisplay
Else
   cdisplay
End If
End Sub

Private Sub Command7_Click() ---------- To move next for clone record
clone_rs.MoveNext
If clone_rs.EOF Then
   clone_rs.MovePrevious
   MsgBox "Already at the last record"
   clone_rs.MoveLast
   cdisplay
Else
   cdisplay
End If
End Sub

Private Sub Command8_Click() ----------- to move last for clone record
          clone_rs.MoveLast
          cdisplay
End Sub

Private Sub fnd_bookmark_reset_Click() -------- to find the bookmark and display the
record
rs.Bookmark = bk
display
End Sub

Private Sub fnd_bookmark_set_Click() ------- to set the bookmark
bk = rs.Bookmark
End Sub

Private Sub fnd_first_Click() ------ to find a particular record first occurence
fdno = Val(InputBox("Enter a Department Number"))
rs.FindFirst "deptno= " & fdno
   If rs.NoMatch = True Then
      MsgBox "Record Not Found"
   Else
      display
   End If
End Sub

Private Sub fnd_last_Click() ------- to find the last occurrence of a particular value
rs.FindLast "deptno= " & fdno
   If rs.NoMatch = True Then
      MsgBox "Record Not Found"
   Else
      display
   End If
End Sub

Private Sub fnd_next_Click() -------- to find the next occurence
```

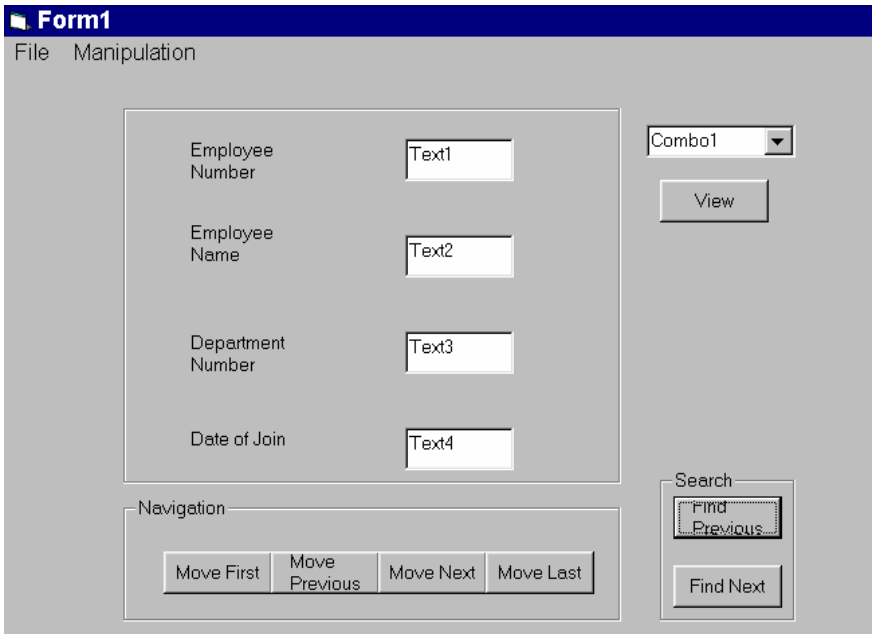
```
rs.FindNext "deptno= " & fdno
   If rs.NoMatch = True Then
      MsgBox "Record Not Found"
   Else
      display
   End If
End Sub

Private Sub fnd_previous_Click() ---------- to find the previous occurence
rs.FindPrevious "deptno= " & fdno
   If rs.NoMatch = True Then
      MsgBox "Record Not Found"
   Else
      display
   End If
End Sub

Private Sub fnd_seek_Click() --------- to seek a record of table type
Dim eno As Integer
Set db1 = OpenDatabase(abc)
Set rr = db1.OpenRecordset("employee", dbOpenTable)
On Error GoTo 100
eno = InputBox("Enter the EMPLOYEE NUMBER to be searched", , eno)
rr.Index = "employee_ndx"

rr.Seek "=", eno
If IsNull(eno) = False Then
   rr.Seek "=", eno
   seek_display
Else
   rr.Bookmark = bk
End If
100 If Err.Number = 3251 Then
MsgBox "Seek can be applied for TABLETYPE recordset only"
End If
End Sub

Private Sub Ndx_Click()  ------------ index creation for emp and dept table
Set Td1 = db1.TableDefs("employee")
   For Each Ndx1 In Td1.Indexes
      If Ndx1.Name = "employee_ndx" Then
MsgBox "Index for Employee table already Exists"
Exit sub
      End If
   Next
Set Ndx1 = Td1.CreateIndex("employee_ndx")
         Set fld(0) = Ndx1.CreateField("empno", dbInteger)
         Ndx1.Primary = True
         Ndx1.Fields.Append fld(0)
         Td1.Indexes.Append Ndx1
         MsgBox "Index for employee table Created successfully!!!!!!!"
           Set Td3 = db1.TableDefs("dept")
 For Each Ndx2 In Td3.Indexes
  If Ndx2.Name = "department_ndx" Then
           MsgBox "Index for department table already Exists"
           Exit sub
```

```
  End If
   Next
Set Ndx2 = Td3.CreateIndex("department_ndx")
        Set fld3(0) = Ndx2.CreateField("deptno", dbInteger)
        Ndx2.Primary = True
        Ndx2.Fields.Append fld3(0)
        Td3.Indexes.Append Ndx2
        MsgBox "Index for department table Created successfully!!!!!!!"
    End Sub

Private Sub P_pos_Click() ---------- to find the percent position
Text9.Text = rs.PercentPosition & "%"
End Sub

Private Sub Qry_Click() ------------- query defs
Set rs_qry = db1.OpenRecordset("select * from employee where deptno=10",
dbOpenDynaset)
MsgBox ("Recordset of employee opened")
If rs.BOF = True Then
   MsgBox "No Current Records"
   Else
      rs.MoveFirst
           Text1.Text = rs_qry(0)

       Text2.Text = rs_qry(1)
       Text3.Text = rs_qry(2)
       Text4.Text = rs_qry(3)
   End If
End Sub

Private Sub Rec_cnt_Click() ------- to display no. of records
Text11.Text = rs.RecordCount
End Sub

Private Sub RecSet_opt_add_Click() ----- to add a record
Dim Y As Variant
 Y = MsgBox("Do you want to add a record?", vbYesNo + vbQuestion +
  vbDefaultButton1, "confirm")
  clear
  rs.AddNew
  End Sub

Private Sub RecSet_opt_cnl_Click() ---- to cancelupdate
rs.CancelUpdate
End Sub

Private Sub RecSet_opt_del_Click()
Dim X As Variant
X = MsgBox("Do you want to delete this record?", vbYesNo + vbQuestion +
vbDefaultButton2, "confirm")
If vbYes Then
   rs.Delete
   MsgBox "Record deleted successfully"
Else
   MsgBox "Record not deleted"
End If
```

```
End Sub

Private Sub RecSet_opt_edt_Click() --------- to edit a record
If rs.EditMode = dbEditNone Then
   rs.Edit
End If
End Sub

Private Sub RecSet_opt_updt_Click() --------- to update a record
Dim z As Variant
rs.AddNew
rs(0) = Val(Text1.Text)
rs(1) = (Text2.Text)
rs(2) = Val(Text3.Text)
rs(3) = Text4.Text
rs.Update
z = MsgBox("do you want to update this record?", vbYesNo + vbQuestion +
vbDefaultButton1, "confirm")
If vbYes Then
MsgBox "records updated successfully!!!!"
End If
End Sub

Private Sub rel_Click() --------- to create a relation
Set Relate = db1.CreateRelation("empdept", "employee", "dept")
Relate.Table = "employee"
Relate.ForeignTable = "dept"
Set relfld = Relate.CreateField("deptno")
relfld.ForeignName = "deptno"
Relate.Fields.Append relfld
db1.Relations.Append Relate
MsgBox "Relationship Established"
End Sub

Private Sub Tbl_def_Click() ------- To open a recordset
Set rs = db1.OpenRecordset("employee", dbOpenDynaset)
MsgBox ("Recordset of employee opened")
If rs.BOF = True Then
   MsgBox "No Current Records"
   Else
      rs.MoveFirst
           display
End If
Set rs_dept = db1.OpenRecordset("dept", dbOpenDynaset)
MsgBox ("Recordset of department opened")
If rs_dept.BOF = True Then
   MsgBox "No Current Records"
   Else
      rs_dept.MoveFirst
     ddisplay
 End If
End Sub

Public Sub clear()
Text1.Text = ""
Text2.Text = ""
```

```
Text3.Text = ""
Text4.Text = ""
End Sub

Public Sub display()
Text1.Text = rs(0)
Text2.Text = rs(1)
Text3.Text = rs(2)
Text4.Text = rs(3)
End Sub

Public Sub cdisplay()
Text5.Text = clone_rs(0)
Text6.Text = clone_rs(1)
Text7.Text = clone_rs(2)
Text8.Text = clone_rs(3)
End Sub

Public Sub ddisplay()
Text12.Text = rs_dept(0)
Text13.Text = rs_dept(1)
Text14.Text = rs_dept(2)
End Sub


Public Sub sdisplay()
Text1.Text = rr(0)
Text2.Text = rr(1)
Text3.Text = rr(2)
Text4.Text = rr(3)
End Sub
```

5. Run the program by pressing F5.



Lab - 16 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 10.

1. Create a new standard EXE project.
2. Create the Function follows the Steps

Choose→ AddIns→ Add Procedure→Give the Name→ Select type Function→ Ok

```
Function FunctionEval1(ByVal X As Double) As Double
FunctionEval1 = Exp(2 / X) * Cos(2 * X)
End Function

Function FunctionEval2(ByVal X As Double) As Double
FunctionEval2 = Cos(3 * X) * Sin(5 * X)
End Function
```

3. When we click Cmdfirst Button, the one graph will be displayed in the Picture1

```
Private Sub Cmdfirst_Click()
Dim t As Double
Dim XMin As Double, XMax As Double, YMin As Double, YMax As Double
Dim XPixels As Integer
YMin = 1E+101
YMax = -1E+101
XMin = 2
XMax = 10
Picture1.Cls
Picture1.ScaleMode = 3
XPixels = Picture1.ScaleWidth - 1
For i = 1 To XPixels
t = XMin + (XMax - XMin) * i / XPixels
```

```
functionVal = FunctionEval1(t)
If functionVal > YMax Then YMax = functionVal
If functionVal < YMin Then YMin = functionVal
Next
Picture1.Scale (XMin, YMin)-(XMax, YMax)
Picture1.ForeColor = RGB(0, 0, 255)
Picture1.PSet (XMin, FunctionEval1(XMin))
For i = 0 To XPixels
   t = XMin + (XMax - XMin) * i / XPixels
        Picture1.Line -(t, FunctionEval1(t))
Next
End Sub
```

4. When we click CmdSecond Button, the another graph will be displayed in the Picture1

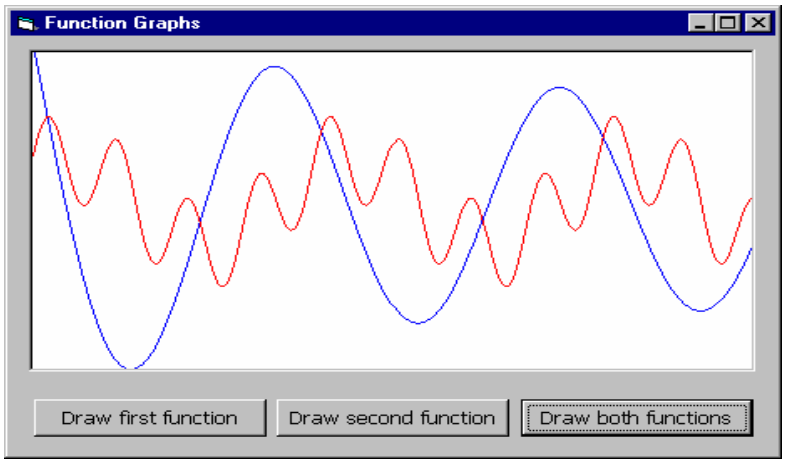
```
Private Sub CmdSecond_Click()
Dim t As Double
Dim XMin As Double, XMax As Double, YMin As Double, YMax As Double
Dim XPixels As Integer
YMin = 1E+101
YMax = -1E+101
XMin = 2
XMax = 10
Picture1.Cls
Picture1.ScaleMode = 3
XPixels = Picture1.ScaleWidth - 1
For i = 0 To XPixels
 t = XMin + (XMax - XMin) * i / XPixels
 functionVal = Cos(3 * t) * Sin(5 * t)
 If functionVal > YMax Then YMax = functionVal
If functionVal < YMin Then YMin = functionVal
Next
Picture1.Scale (XMin, YMin)-(XMax, YMax)
Picture1.ForeColor = RGB(255, 0, 0)
For i = 0 To XPixels - 1
t = XMin + (XMax - XMin) * i / XPixels
functionVal = Cos(3 * t) * Sin(5 * t)
Picture1.Line -(t, functionVal)
Next
End Sub
```

5. When we click Cmdboth Button, the both graph will be displayed in the Picture1.

```
Private Sub Cmdboth_Click()
Dim t As Double
Dim XMin As Double, XMax As Double, YMin As Double, YMax As Double
Dim XPixels As Integer
YMin = 1E+101
YMax = -1E+101
XMin = 2
XMax = 10
Picture1.Cls
Picture1.ScaleMode = 3
XPixels = Picture1.ScaleWidth - 1
For i = 1 To XPixels
t = XMin + (XMax - XMin) * i / XPixels
```

```
functionVal = FunctionEval1(t)
If functionVal > YMax Then YMax = functionVal
If functionVal < YMin Then YMin = functionVal
Next
    Picture1.Scale (XMin, YMin)-(XMax, YMax)
    Picture1.ForeColor = RGB(0, 0, 255)
    Picture1.PSet (XMin, FunctionEval1(XMin))
    For i = 0 To XPixels
  t = XMin + (XMax - XMin) * i / XPixels
    Picture1.Line -(t, FunctionEval1(t))
    Next
    Picture1.ForeColor = RGB(255, 0, 0)
    Picture1.PSet (XMin, FunctionEval2(XMin))
    For i = 0 To XPixels
   t = XMin + (XMax - XMin) * i / XPixels
    Picture1.Line -(t, FunctionEval2(t))
    Next
    End Sub.
```

6. Run the Program.



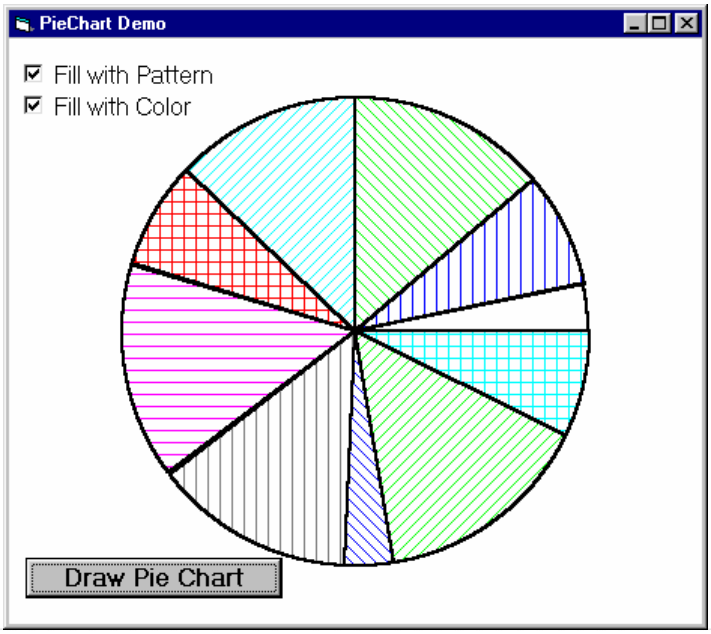
Ex 2:

1. Create a new standard EXE project.
2. When we click the CmdPie Button, pie chart will be displayed in the Form1.

```
Private Sub Cmdpie_Click()
Dim PieData(10) As Integer
  Form1.Cls
  For i = 0 To 9
    PieData(i) = 20 + Rnd() * 100
    Total = Total + PieData(i)
  Next

  Form1.DrawWidth = 2
  For i = 0 To 9
    arc1 = arc2
    arc2 = arc1 + 6.28 * PieData(i) / Total
    If Check1.Value Then
      Form1.FillStyle = 2 + (i Mod 5)
```

```
        Else
            Form1.FillStyle = 0
        End If
        If Check2.Value Then
            Form1.FillColor = QBColor(8 + (i Mod 6))
        Else
            Form1.FillColor = QBColor(9)
        End If
        Form1.Circle (Form1.ScaleWidth / 2, Form1.ScaleHeight / 2), Form1.ScaleHeight
            / 2.5, , -arc1, -arc2
    Next
End Sub
```

3. Run the Program.



Lab - 17 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:-You are suggested to take this lab Unit only after completion of Lecture 10.

1. Create a new standard EXE project.
2. We have to Create CTimer Class, follow this Steps
3. In the Project new ->Add Class Module in the Form1
4. Write the code in the Class Module Ctimer procedure

```
Dim totalInterval As Double
Dim T1 As Double

Public Sub StartCounting()
    T1 = Time
End Sub
Public Sub StopCounting()
    totalInterval = totalInterval + Time - T1
End Sub
Property Get ElapsedTime() As Double
    ElapsedTime = totalInterval
End Property
```

```
Public Sub ResetTimer()
   totalInterval = 0
End Sub
```

5. In the Form1,When we select the CmdStart Button, the Caption of this button is Changed to “Stop Timing”, then start the Time .

6. To create the instance of Class Module CTimer

```
Dim TMR As New CTimer

Private Sub Cmdstart_Click()
   If Command1.Caption = "Start Timing" Then
      TMR.StartCounting
      Command1.Caption = "Stop Timing"
   Else
      TMR.StopCounting
      Command1.Caption = "Start Timing"
   End If
End Sub
```

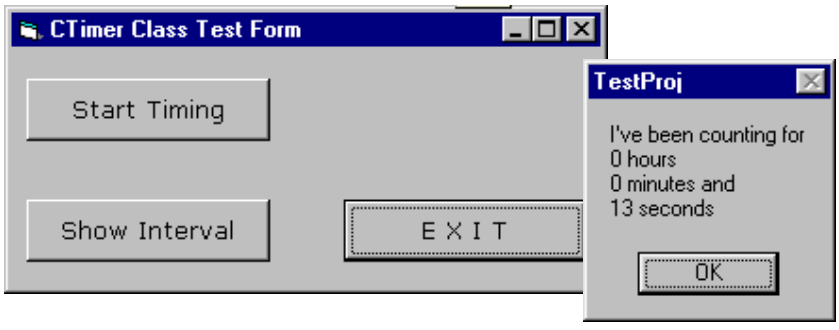
7. When we select the CmdShow Button, the Elapsed time will be displayed in the MessageBox.

```
Private Sub Cmsstop_Click()
   ETime = TMR.ElapsedTime
   MsgBox "I've been counting for " & vbCrLf & _
      Hour(ETime) & " hours" & vbCrLf & _
      Minute(ETime) & " minutes and " & vbCrLf & _
      Second(ETime) & " seconds" & vbCrLf
End Sub
```

8. When we select the CmdExit Button, to exit of the Program.

```
Private Sub Command3_Click()
   End
End Sub
```

9. Run the Program.



Ex 2:

1. Create a new standard EXE project.
2. We have to Create CSting Class, follow this Steps.

3. In the Menu Project->Add Class Module in the Form1
4. We write the code in the Class Module (NumStr.cls)

```
Private BinaryDigits(16) As String
Private NDigits(20) As String
Private NTens(10) As String

Private Sub Class_Initialize()
BinaryDigits(0) = "0000"
BinaryDigits(1) = "0001"
BinaryDigits(2) = "0010"
BinaryDigits(3) = "0011"
BinaryDigits(4) = "0100"
BinaryDigits(5) = "0101"
BinaryDigits(6) = "0110"
BinaryDigits(7) = "0111"
BinaryDigits(8) = "1000"
BinaryDigits(9) = "1001"
BinaryDigits(10) = "1010"
BinaryDigits(11) = "1011"
BinaryDigits(12) = "1100"
BinaryDigits(13) = "1101"
BinaryDigits(14) = "1110"
BinaryDigits(15) = "1111"

NDigits(1) = "one"
NDigits(2) = "two"
NDigits(3) = "three"
NDigits(4) = "four"
NDigits(5) = "five"
NDigits(6) = "six"
NDigits(7) = "seven"
NDigits(8) = "eight"
NDigits(9) = "nine"
NDigits(10) = "ten"
NDigits(11) = "eleven"
NDigits(12) = "twelve"
NDigits(13) = "thirteen"
NDigits(14) = "fourteen"
NDigits(15) = "fifteen"
NDigits(16) = "sixteen"
NDigits(17) = "seventeen"
NDigits(18) = "eighteen"
NDigits(19) = "nineteen"

NTens(2) = "twenty"
NTens(3) = "thirty"
NTens(4) = "forty"
NTens(5) = "fifty"
NTens(6) = "sixty"
NTens(7) = "seventy"
NTens(8) = "eighty"
NTens(9) = "ninety"
End Sub

Private Function ReadSingle(Number) As String
  If Number > 0 And Number < 20 Then
```

```
      ReadSingle = NDigits(Number)
   Else
      ReadSingle = "*****"
   End If
End Function

Private Function ReadTenths(Number)
   tnumber = Int(Number / 10)
   If tnumber > 1 And tnumber < 10 Then
      ReadTenths = NTens(tnumber)
   Else
      ReadTenths = "*****"
   End If
End Function

Public Function Number2String(Number)
Dim tenth As Long
Dim leftover As Long
Dim hundred As Long
Dim thousand As Long

   If Number < 20 Then
      NumString = ReadSingle(Number)
   ElseIf Number < 100 Then
      tenth = Fix(Number / 10)
      NumString = ReadTenths(tenth * 10)
      leftover = Number - (tenth * 10)

      If leftover > 0 Then
         NumString = NumString & " " & ReadSingle(leftover)
      End If
   ElseIf Number < 1000 Then
      hundred = Fix(Number / 100)
      NumString = ReadSingle(hundred) & " hundred"
      leftover = Number - (hundred * 100)

      If leftover > 0 Then
         tenth = Fix(leftover / 10)
         If tenth > 0 Then NumString = NumString & " " & ReadTenths(tenth * 10)
         leftover = Number - (hundred * 100) - (tenth * 10)
         If leftover > 0 Then
            NumString = NumString & " " & ReadSingle(leftover)
         End If
      End If
   Else
      thousand = Fix(Number / 1000)
      NumString = ReadSingle(thousand) & " thousand"
      leftover = Number - (thousand * 1000)

      If leftover > 0 Then
         hundred = Fix(leftover / 100)
         If hundred > 0 Then
            NumString = NumString & " " & ReadSingle(hundred) & " hundred"
         End If
         leftover = Number - (thousand * 1000) - (hundred * 100)
```

```
            If leftover > 0 Then
               tenth = Fix(leftover / 10)
               If tenth > 0 Then
                  NumString = NumString & " " & ReadTenths(tenth * 10)
               End If
               leftover = Number - (thousand * 1000) - (hundred * 100) - (tenth * 10)

               If leftover > 0 Then
                  NumString = NumString & " " & ReadSingle(leftover)
               End If
            End If
         End If
      End If
      Number2String = NumString
   End Function

   Public Function LowerCaps(str As String) As String
   Dim newWord As String, newStr As String
   Dim tempStr As String
   Dim WDelimiter As Integer

      tempStr = Trim(str)
      WDelimiter = InStr(tempStr, " ")
      While WDelimiter > 0
         newWord = Left(tempStr, WDelimiter)
         tempStr = Right(tempStr, Len(tempStr) - WDelimiter)
         newStr = newStr & UCase(Left(newWord, 1)) & Mid(newWord, 2, Len(newWord) -
            1)
         WDelimiter = InStr(tempStr, " ")
      Wend
      newWord = tempStr
      newStr = newStr & UCase(Left(newWord, 1)) & Mid(newWord, 2, Len(newWord) - 1)
      LowerCaps = newStr
   End Function

   Public Function Integer2Binary(ByVal Number As Long) As String
      HexNum = Hex(Number)
      For i = 1 To Len(HexNum)
         BinNum = BinNum & BinaryDigits("&H" & Mid(HexNum, i, 1))
      Next
      Integer2Binary = BinNum
   End Function
```

5. We have to create the Instance of Class Module .

```
Dim NS As New NumStrings.StringClass
```

6. When we select the CmdString Button, the value of Text1 is converted to the String in the Text2.

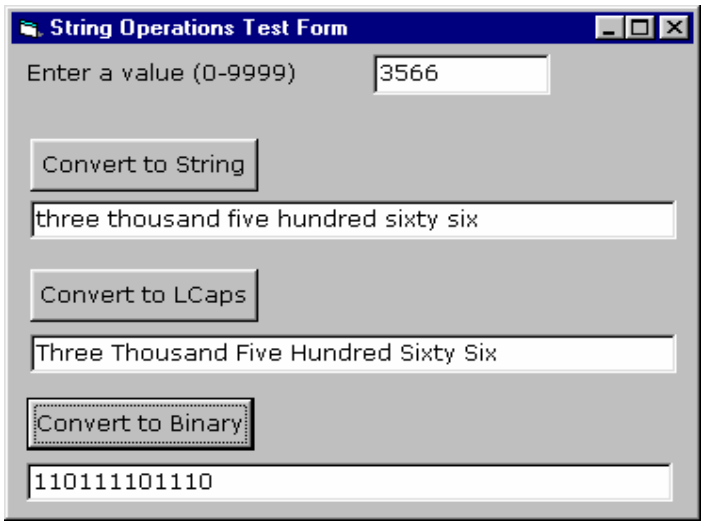
```
Private Sub Cmdstring_Click()
   Text2.Text = NS.Number2String(Text1.Text)
End Sub
```

7. When we select the CmdLcaps Button, the value of Text1 is converted to the Capital of the first Word.

```
Private Sub CmdLcaps_Click()
Dim NStr As String
   NStr = NS.Number2String(Text1.Text)
   Text3.Text = NS.LowerCaps(NStr)
End Sub
```

8. When we select the CmdBinary Button, the value of Text1 is converted to the Binary in the Text2.

```
Private Sub Cmdbinary_Click()
   Text4.Text = NS.Integer2Binary(Text1.Text)
End Sub
```



9. Run the Program.

Lab Units 18 (2 Real Time Hrs)

Ex 1:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 11.

1. Open the New standard EXE project
2. Place 7 Label & Text Boxes, Microsoft Remote Data Control
3. Change the Caption property of the form to Remote Data Control Declaration
4. Select the Data Source Name property from the list ie Trading Company
5. Resultset Type - rdOpenKeyset
6. Enter this statement in the SQL property
7. Select * from Employees
8. For each text box set the Data Source property to rdDemo
9. For each Text box set the Data Field

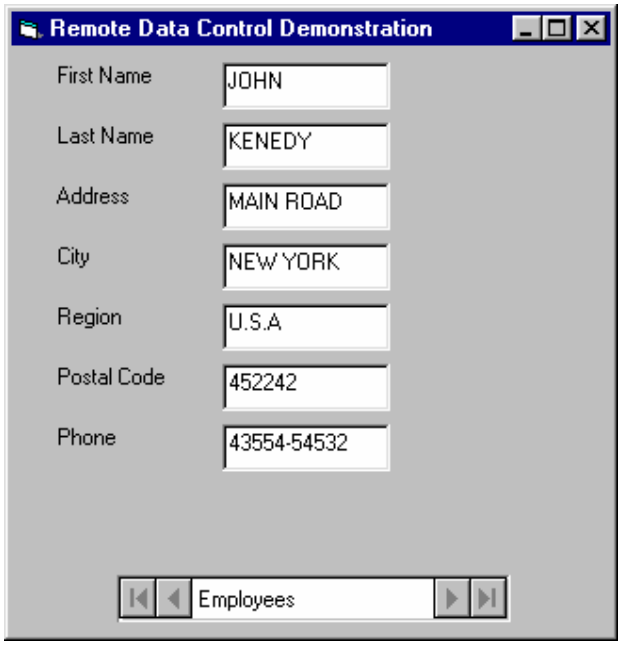
10.

Control Name	Data Field Setting
Text1	FirstName
Text2	LastName
Text3	Address
Text4	City
Text5	Region
Text6	PostalCode
Text7	HomePhone

11. *Setting up a DataSource*

- ✓ Select the ODBC (32 bits) icon in the Control panel
- ✓ Click the add button on the User DSN tab
- ✓ Select the Microsoft Access Driver and click the Finish button
- ✓ Enter the Data Source Name as Trading Company
- ✓ From the open dialog box choose the database (Nwind.mdb which is in the VB folder)

12. Execute the program.



Ex 2:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 11.

1. Create a new standard EXE project,

2. When we select the CmdOpen Button, the Open dialog box will be displayed.

3. Then we select the MDB file, that file will be Displayed in the Text1 and corresponding tables, queries will be displayed in the Tbllist,Qrylist.

4. In the Declration, we write the following code.

```
Option Explicit
Dim DB As Database
```

5. We write the following code in the CmdOpen_Click() procedure.

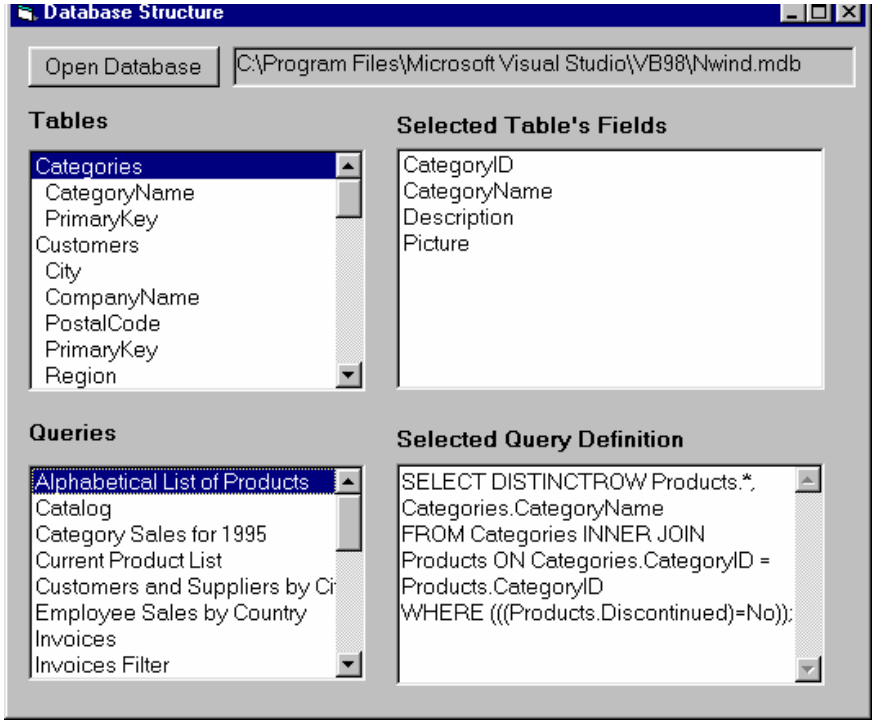
```
Private Sub Cmdopen_Click()
On Error GoTo NoDatabase
   CommonDialog1.CancelError = True
   CommonDialog1.Filter = "Databases|*.mdb"
   CommonDialog1.ShowOpen

  If CommonDialog1.FileName <> "" Then
```

```
      Set DB = OpenDatabase(CommonDialog1.FileName)
      Label1.Caption = CommonDialog1.FileName
    End If
    FldList.Clear
    TblList.Clear
Dim tbl As TableDef
Dim idx As Index
Dim TName As String

Debug.Print "There are " & DB.TableDefs.Count & " tables in the database"
For Each tbl In DB.TableDefs
If Left(tbl.Name, 4) <> "MSys" And Left(tbl.Name, 4) <> "USys" Then
        TblList.AddItem tbl.Name
For Each idx In tbl.Indexes
 TblList.AddItem "  " & idx.Name
        Next
      End If
    Next

Dim qry As QueryDef
Debug.Print "There are " & DB.QueryDefs.Count & " queries in the database"

    For Each qry In DB.QueryDefs
      QryList.AddItem qry.Name
    Next
NoDatabase:
End Sub
```

5. We write the code in the Tbllist_Click ,Qrylist_Click() procedure .

```
Private Sub QryList_Click()
Dim qry As QueryDef
  txtSQL.Text = DB.QueryDefs(QryList.ListIndex).SQL
End Sub

Private Sub TblList_Click()
Dim fld As Field
Dim idx As Index
  If Left(TblList.Text, 2) = "  " Then Exit Sub
  FldList.Clear
  For Each fld In DB.TableDefs(TblList.Text).Fields
    FldList.AddItem fld.Name
  Next
End Sub
```

6. Run the Program.



Ex 3:

Pre-Requisite:-You are suggested to take this lab session only after completion of Lecture 12.

1. Create a new form and name it as RDO form.
2. Enter the code in the declaration section of the Form

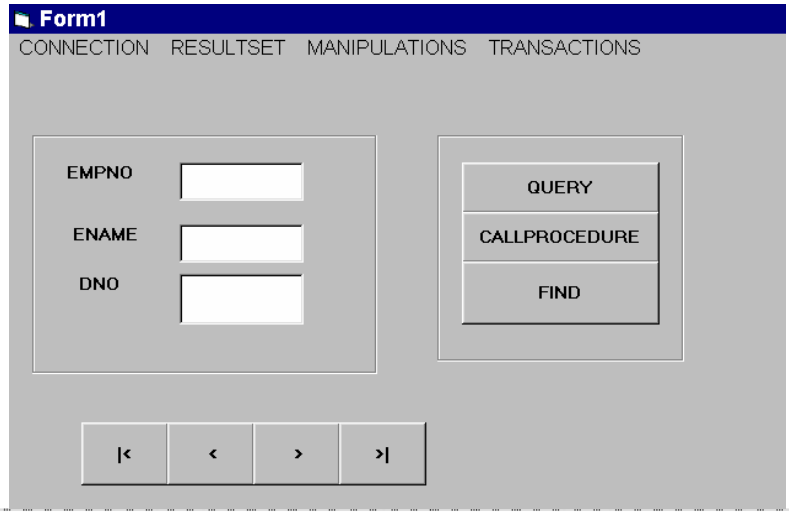
```
Option Explicit
Dim env As rdoEnvironment
Dim conn As rdoConnection
Dim rs As rdoResultset
Dim qry As rdoQuery
Dim ss As String

Private Sub Command1_Click()
Dim a As Integer
Dim b As String
Dim c  As String
Dim d As Integer

a = Val(Text1.Text)
b = Text2.Text
c = Text3.Text
d = Val(Text4.Text)

ss = "insert into emp(EMPNO,ENAME,JOB,DEPTNO) values(" & a & "," " & b & " "," " & c &
" "," & d & ")"
Set qry = conn.CreateQuery("", ss)
qry.Execute
MsgBox "Records Inserted"
```

```
End Sub

Private Sub Command10_Click()
clear
MsgBox "CLEARED"
End Sub

Private Sub Command2_Click()
Dim w As String
w = " {?=call abc(?)} "
Set qry = conn.CreateQuery("", w)
qry(0).Direction = rdParamReturnValue
qry(0).Type = rdTypeVARCHAR

qry(1).Direction = rdParamInput
qry(1).Type = rdTypeVARCHAR
qry(1).Value = InputBox("Enter any word or sentence to be REVERSED", , qry(1).Value)
qry.Execute
MsgBox qry(0)
End Sub

Private Sub Command3_Click()
Dim w As String
w = " {call xyz(?,?)} "
Set qry = conn.CreateQuery("", w)
qry(0).Direction = rdParamInput
qry(0).Type = rdTypeNUMERIC
qry(0).Value = InputBox("Enter a number to be multiplied by itself", , qry(0).Value)
qry(1).Direction = rdParamOutput
qry(1).Type = rdTypeNUMERIC
qry.Execute
MsgBox qry(1).Value
End Sub

Private Sub Command4_Click()
Dim find_var As Variant
Dim y As Variant
Dim rn As rdoResultset
find_var = UCase(InputBox("Enter a Employee Name to find"))
Set rn = conn.OpenResultset("select * from emp where ename='" & find_var & "'",
rdOpenDynamic, rdConcurRowVer)
      Text1.Text = rn(0)
      Text2.Text = rn(1)
      Text3.Text = rn(2)
      Text4.Text = rn(7)
    MsgBox "Record Found Successfully"
    y = MsgBox("Do you want to Find another record?", vbYesNo + vbQuestion +
vbDefaultButton1, "confirm")
    clear
    End Sub

Private Sub Command5_Click()
rs.MoveFirst
display
End Sub
```

```
Private Sub Command6_Click()
rs.MovePrevious
If rs.BOF Then
   MsgBox "Already at the first record"
   rs.MoveFirst
   display
Else
   display
End If
End Sub

Private Sub Command7_Click()
rs.MoveNext
If rs.EOF Then
   rs.MovePrevious
   MsgBox "Already at the last record"
   rs.MoveLast
   display
Else
   display
End If
End Sub

Private Sub Command8_Click()
rs.MoveLast
display
End Sub

Private Sub connect_open_Click()
Set env = rdoEngine.rdoCreateEnvironment("", "or81000", "radiant")
env.CursorDriver = rdUseOdbc
Set conn = env.OpenConnection("Radha", rdDriverPrompt, "false", "or8")
MsgBox "Connection Established"
End Sub
Private Sub manipulate_add_new_Click()
Dim y As Variant
   y = MsgBox("Do you want to add a record?", vbYesNo + vbQuestion +
vbDefaultButton1, "confirm")
   clear
   rs.AddNew
   End Sub

Private Sub manipulate_delete_Click()
Dim find_var As Variant
Dim y As Variant
Dim rd As rdoResultset
find_var = Val(InputBox("Enter a Employee Number"))
Set rd = conn.OpenResultset("select * from emp where empno='" & find_var & "'",
rdOpenDynamic, rdConcurRowVer)
      Text1.Text = rd(0)
      Text2.Text = rd(1)
      Text3.Text = rd(2)
      Text4.Text = rd(7)
    y = MsgBox("Do you want to Delete this record?", vbYesNo + vbQuestion +
vbDefaultButton1, "confirm")
    rd.Delete
```

```
    clear
    MsgBox "Record Deleted Successfully"
End Sub

Private Sub manipulate_edit_Click()
  rs.Edit
assig
  MsgBox "Record Edited"
End Sub

Private Sub manipulate_update_Click()
assig
rs.Update
  MsgBox "Records updated"
End Sub

Private Sub rs_set_open_Click()
Set rs = conn.OpenResultset("select * from emp", rdOpenDynamic, rdConcurRowVer)
  MsgBox "Resultset for Employee Opened"
  display
End Sub

Public Sub display()
  Text1.Text = rs(0)
  Text2.Text = rs(1)
  Text3.Text = rs(2)
  Text4.Text = rs(7)
End Sub

Public Sub clear() – to clear all the contents
  Text1.Text = ""
  Text2.Text = ""
  Text3.Text = ""
  Text4.Text = ""
End Sub

Public Sub assig() – to update
  rs(0) = Val(Text1.Text)
  rs(1) = Text2.Text
  rs(2) = Text3.Text
  rs(7) = Val(Text4.Text)
End Sub

Public Sub emp_back()
empno = Val(Text1.Text)
  ename = Text2.Text
  job = Text3.Text
  deptno = Val(Text4.Text)
End Sub
Private Sub tran_begin_Click()
env.BeginTrans
End Sub

Private Sub tran_commit_Click()
env.CommitTrans
End Sub
Private Sub tran_rollback_Click()
env.RollbackTrans
End Sub
```

3.Run the Program by press F5.



Lab Unit 19(2hrs Real Time)

Ex 1:

Pre-Requisite:-You are suggested to take this lab Unit only after completion of Lecture 13.

1. Enter the code in the declaration section of the Form

```
Option Explicit
Dim conn As New Connection
Dim rec_set As Recordset
Dim comm As Command
Dim param(3) As Parameter
Dim emp_no As Integer
Dim emp_name As String
Dim emp_deptno As Integer
Dim emp_job As String
Dim rec_set_edit As Recordset

Private Sub Command1_Click() --------- to move to first record
rec_set.MoveFirst
display
End Sub

Private Sub Command10_Click() --------- to call a procedure
Dim p As Command
Set p = New Command
Set p.ActiveConnection = conn
p.CommandText = "{call xyz(?,?)}"
p.Parameters(0).Direction = adParamInput
p.Parameters(0).Type = adNumeric
p.Parameters(0).Value = InputBox("Enter a number to be multiplied by itself", ,
p.Parameters(0).Value)
p.Parameters(1).Direction = adParamOutput
p.Parameters(1).Type = adNumeric
p.Execute
Text9.Text = p.Parameters(1).Value
End Sub
```

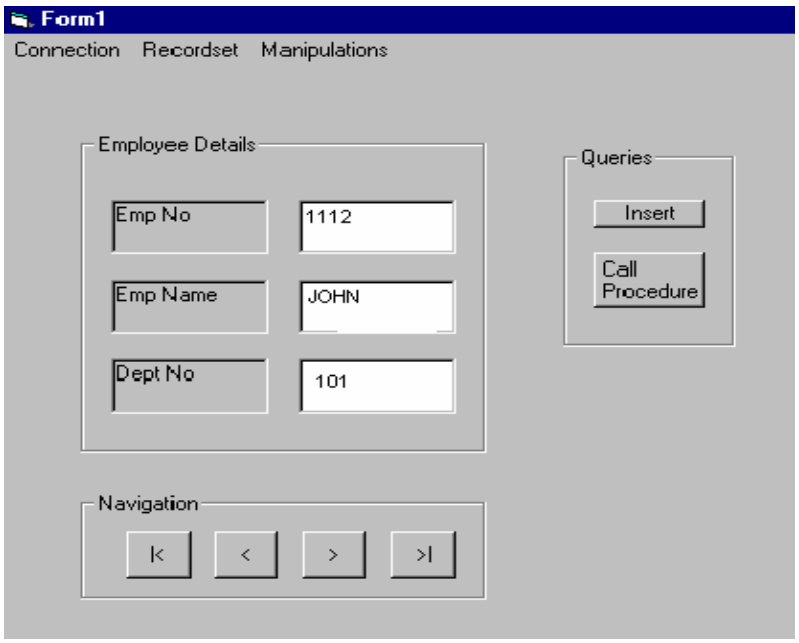
```
Private Sub Command11_Click() ------- to call a function
Dim f As Command
Set f = New Command
Set f.ActiveConnection = conn
f.CommandText = "{?=call abc(?)}"

f.Parameters(0).Direction = adParamOutput
f.Parameters(0).Type = adVarChar

f.Parameters(1).Direction = adParamInput
f.Parameters(1).Type = adVarChar
f.Parameters(1).Value = InputBox("Enter a string to be reversed", , f.Parameters(1).Value)

f.Execute
Text10.Text = f.Parameters(0).Value
End Sub

Private Sub Command2_Click() ----- to move previous
rec_set.MovePrevious

If rec_set.BOF Then
   MsgBox "Already at the first record"
   rec_set.MoveFirst
   display
Else
   display
End If
End Sub

Private Sub Command3_Click() -------- to move next
rec_set.MoveNext
If rec_set.EOF Then
   rec_set.MovePrevious
   MsgBox "Already at the last record"
   rec_set.MoveLast
   display
Else
   display
End If
End Sub

Private Sub Command4_Click() ------- to move last
rec_set.MoveLast
display
End Sub

Private Sub Command5_Click() -------- to insert a new record
Set comm = New Command
Set comm.ActiveConnection = conn
send
comm.CommandText = "Insert into emp(empno,ename,deptno,job) values(" & emp_no &
"," " & emp_name & " "," & emp_deptno & "," " & emp_job & " ")"
comm.Execute
MsgBox "Records Added to emp table"
rec_set.Requery
```

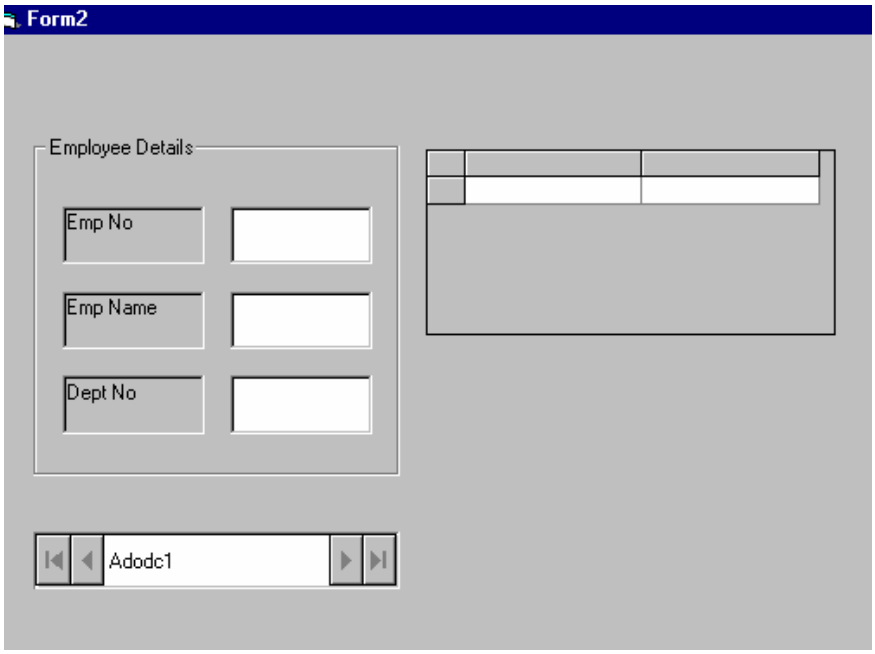
```
End Sub

Private Sub Command6_Click() ------- to select a record with condition
Dim edit_empno As Integer
Dim x As VbMsgBoxResult
Set rec_set_edit = New Recordset
edit_empno = Val(InputBox("Enter the employee number to edit", , edit_empno))
rec_set_edit.Open "select empno,ename,deptno,job from emp where empno=" &
edit_empno, conn, adOpenDynamic, adLockOptimistic
Text5.Text = Val(rec_set_edit(0))
Text6.Text = rec_set_edit(1)
Text7.Text = Val(rec_set_edit(2))
Text8.Text = rec_set_edit(3)
Text5.SetFocus
End Sub

Private Sub Command7_Click() ------- to delete a record
Dim delete_empno As Integer
Dim x As Variant
Dim rec_set_delete As Recordset

Set rec_set_delete = New Recordset
delete_empno = InputBox("Enter the employee number to be deleted", , delete_empno)
rec_set_delete.Open "select empno,ename,deptno,job from emp where empno=" &
delete_empno, conn, adOpenDynamic, adLockOptimistic

Text5.Text = Val(rec_set_delete(0))
Text6.Text = rec_set_delete(1)
Text7.Text = Val(rec_set_delete(2))
Text8.Text = rec_set_delete(3)

x = MsgBox("Do you want to delete this record", vbYesNo + vbQuestion +
vbDefaultButton1, "Confirm")
If (x = vbYes) Then
   rec_set_delete.Delete
   clear
   MsgBox "Record deleted successfully"
Else
   MsgBox "Record Deletion Cancelled"
End If
End Sub

Private Sub Command8_Click()
clear
Text5.SetFocus
End Sub

Private Sub Command9_Click() ------ to insert a record using parameters
Dim i As Integer
Dim comm1 As Command
Set comm1 = New Command
Set comm1.ActiveConnection = conn
comm1.CommandText = "insert into emp(empno,ename,deptno,job) values(?,?,?,?)"
For i = 0 To 3
Set Parameters(i) = New Parameter
Next
```

```
Parameters(0).Type = adInteger
Parameters(0).Value = Val(Text5.Text)

Parameters(1).Type = adVarChar
Parameters(1).Size = 30
Parameters(1).Value = Text6.Text

Parameters(2).Type = adInteger
Parameters(2).Value = Val(Text7.Text)

Parameters(3).Type = adInteger
Parameters(3).Size = 10
Parameters(3).Value = Text8.Text

comm1.Parameters.Append Parameters(0)
comm1.Parameters.Append Parameters(1)
comm1.Parameters.Append Parameters(2)
comm1.Parameters.Append Parameters(3)
comm1.Execute
MsgBox "Employee row inserted"

End Sub

Private Sub conn_open_Click() -------- to establish a connection
Dim s As String
Set conn = New Connection
s = "Provider=MSDAORA.1;Password=radiant;User ID=or81000;Data Source=or8;Persist
Security Info=True"
conn.CursorLocation = adUseClient
conn.Open s
MsgBox "Connection Established For Oracle database"
End Sub

Private Sub rs_set_open_Click() -------- to open a recordset
Set rec_set = New Recordset
rec_set.Open "select * from emp", conn, adOpenDynamic, adLockOptimistic
MsgBox "Record set of Oracle table EMP Opened"
display
End Sub

Public Sub display() --------- to display a record
Text5.Text = Val(rec_set(0))
Text6.Text = rec_set(1)
Text7.Text = Val(rec_set(7))
Text8.Text = rec_set(2)
End Sub

Public Sub clear() ------ to clear all the contents
Text5.Text = ""
Text6.Text = ""
Text7.Text = ""
Text8.Text = ""
End Sub

Public Sub assig() ----- to assign the values
```

```
emp_no = Val(Text5.Text)
emp_name = Text6.Text
emp_deptno = Val(Text7.Text)
emp_job = Text8.Text
End Sub

Public Sub updproc() ------- to update a record
   rec_set_edit(0) = Val(Text5.Text)
   rec_set_edit(1) = Text6.Text
   rec_set_edit(2) = Val(Text7.Text)
   rec_set_edit(3) = Text8.Text
   rec_set_edit.Update
   rec_set_edit.Requery
   MsgBox "Records Edited"
End Sub

Private Sub Text8_LostFocus() ------ to edit a record
Dim x As VbMsgBoxResult
x = MsgBox("Do u want to Edit this record", vbYesNo)
If x = vbYes Then
   updproc
Else
MsgBox "operation cancelled"
Exit Sub
End If
End Sub
```

3.Run the Program.





Ex 2:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 14.

1. Start ⟶ Project ⟶ References ⟶ Microsoft ADO2.0 Library .

2. The code to establishwith the database is included in the general declaration section as given below.

```
Private cn As ADODB.Connection
Private rs As ADODB.Recordset
Dim a As String
```

3. In the Ford _Load event, the following code are entered.

```
Private Sub Form_Load()
Dim cmd as String
Dim sql As String
Dim cn As ADODB.Connection
Dim  rs As ADODB.Recordset
Cmd="Provider=SQLOLBDB.1;Integrated Security =SSPI;Persist Security
Info=False;Initial Catalog =Railways;Data Source=NTSERVR_KD"
Set cn=New ADODB.Connection
Witn cn
.ConnectionString=cmd
.Open
End With

Sql="SELECT * FROM PASSDETAILS"
Set rs=New ADODB.Recordset
With rs
.Open sql,cn,asOpenForward,adLockReadOnly
Do While Not rs.EOF
CmdPassid.Additem rs("Pass_id")
Rs.MoveNext
```

```
Loop
.close
End With
Set rs=Nothing
Cn.close
Set cn=Nothing
End Sub.
```

4. When we click any of t he Pass_id listed in the combo box cmbpassid,all details of the passenger that includes pass_name, age, class_booked, sex, train_name, coach_no seat_no data_of_journey,ticket_fare based on the class of travel are displayed. The details that are present in the different tables are retrieved together using the sequential query statement passed to the sqk variable using the Where clause.

```
Private Sub CmdListPassid_Click ( )
Dim cmk As String
Dim sqk As String
Dim ck as ADODE.Connection
Dim rk As ADODE.Recordset

Cmk = "Provider=SQLOLEDB.1; Intergrated Security=SSPI; Persist Security
Info=False; Initial Catalog=railways; Data Source=NTSERVER_KD"
Set ck = New ADODB.Connection
With ck
. ConnectionString = cmk
.Open
End With
```

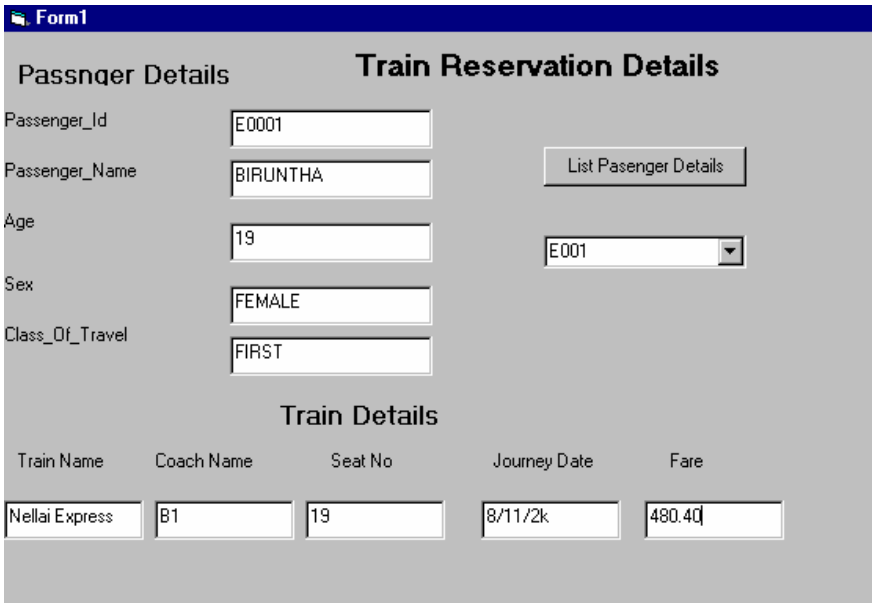
sqk = "Select * from passdetails, trainpass_detail, traindetails where passdetails.pass_id ='" + CmbPassid.Text +"' AND passdetails.pass_id = trainpass_detail.pass_id AND passdetails.train_name = Traindetails.train_name"

5. A new instance of the recordset is create and the recordset is opened using the. Open method by passing the connection and query string parameters along with the other parameters. The relevant textboxes are then assigned to the corresponding field values using the recordset, rk. Here we also have to print the ticket fare for the class_of_travel the passenger has booked, which will be retrieved based on the class chosen. The ticket fares for different classes of different trains will be retrieved from the train_details table which contains details of all trains stored in it.

```
Set rk = New ADBOB,Recordset
With rk
.open sqk, ck, adOpenForwardonly, adLockReadonly
Txtid.Text = rk ("Pass_id")
Txtname.Text = rk ("pass_id")
Txtname.Text = rk ("pass_Name")
Txtage.Text = rk ("Age")
Txtsex.Text = rk ("Sex")
Txtclass.Text = rk ("Class_Booked")
Txtcoach.Text = rk ("Coach_No")
TxtSeat.Text = rk("Seat_no")
TxtjDate.Text = ("Date_of_Journey")
TxtTname.Text = rk ("train_name")
If Txtclass.Text = "first" Or TxtClass.Text = "First Class" Then
Txtfare.Text = rk ("Iclass_Fare")
ElseIf TxtClass.Text = "Second" Or TxtClass.Text = "Second class" Then
```

```
Txtfare.Text  = rk ("IIClass_Fare")
E1self TxtClass.Text = "Unreserved" or Txtclas.Text = "Unreservedclass" Then

Txtfare.Text  = ("UresClass_Fare")
End If
. Close
End With
Set rk = Nothing
ck.Close
Set ck = Nothing
End Sub
```

6. Run the application by pressing F5 .



Lab - 20(2 Real Time Hrs)

Ex 1 :

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 14.

1. Create a new standard EXE project.
2. When we select the Cmdconnecion Button, the CategoryName from the Category table is Displayed in the List1.

   We write the code in the cmdconnectin_click() procedure.

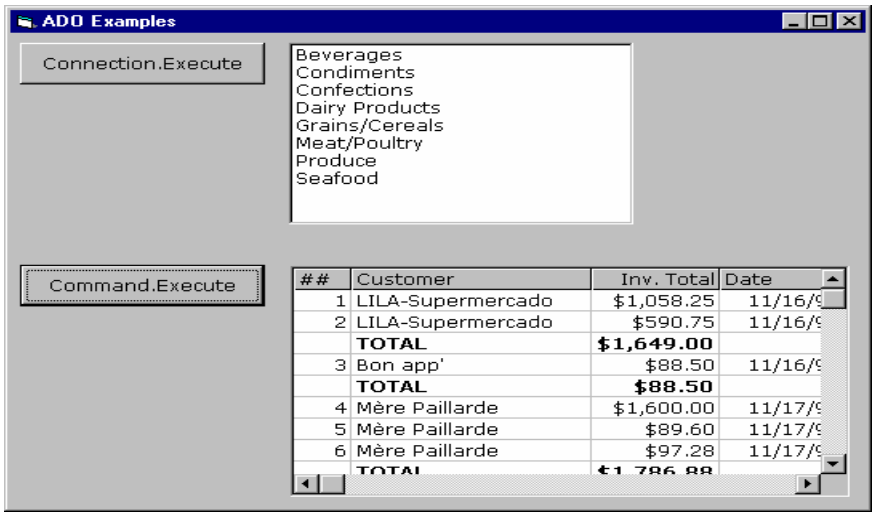
```
Private Sub Cmdconnection_Click()
Dim ADOconnection As New ADODB.Connection
Dim RSSales As ADODB.Recordset

Set ADOconnection = CreateObject("ADODB.Connection")
ADOconnection.Open "DSN=NWind"
Set RSSales = ADOconnection.Execute ("SELECT * FROM CATEGORIES")
While Not RSSales.EOF
   List1.AddItem RSSales("CategoryName")
   RSSales.MoveNext
Wend
End Sub
```

3. When we select the Cmdcommand Button, the CustomerName, Invoice, Date & subtotal of invoice is Displayed in the Grid1.

```
Private Sub Cmdcommand_Click()
Dim ADOcommand As New ADODB.Command
Dim ADOconnection As New ADODB.Connection
Dim RSSales As New ADODB.Recordset

Set ADOconnection = CreateObject("ADODB.Connection")
ADOconnection.Open "DSN=NWindDB"
Set ADOcommand.ActiveConnection = ADOconnection
ADOcommand.Prepared = False
ADOcommand.CommandText = "Invoices"
ADOcommand.CommandType = adCmdStoredProc
Set RSSales = ADOcommand.Execute()
Grid1.Clear
Grid1.ColAlignment(2) = 6
Grid1.ColWidth(0) = TextWidth("9,999")
Grid1.ColWidth(1) = TextWidth("A long customer's name")
Grid1.ColWidth(2) = TextWidth("$999,999.99")
Grid1.ColWidth(3) = TextWidth("#99/99/99#")
Grid1.Row = 0
Grid1.Col = 0
Grid1.Text = "##"
Grid1.Col = 1
Grid1.Text = "Customer"
Grid1.Col = 2
Grid1.Text = "Inv. Total"
Grid1.Col = 3
Grid1.Text = "Date"
Grid1.Row = 1
invCounter = 1
custTotal = 0
Screen.MousePointer = vbHourglass
While Not RSSales.EOF
   invTotal = Format(RSSales("ExtendedPrice"), "$#,###.00")
   custTotal = custTotal + invTotal
   Grid1.Col = 0
   Grid1.Text = Format(invCounter, "###")
   invCounter = invCounter + 1
   Grid1.Col = 1
   Grid1.Text = RSSales(7)
   thisCustomer = RSSales(7)
   Grid1.Col = 2
   Grid1.Text = invTotal
   Grid1.Col = 3
   Grid1.Text = RSSales(15)
   If Grid1.Row = Grid1.Rows - 1 Then
      Grid1.Rows = Grid1.Rows + 100
   End If
   Grid1.Row = Grid1.Row + 1
   RSSales.MoveNext
   If Not RSSales.EOF Then
      If RSSales(7) <> thisCustomer Then
         Grid1.Col = 1
         Grid1.Text = "TOTAL"
         Grid1.CellFontBold = True
         Grid1.Col = 2
         Grid1.Text = Format(custTotal, "$#,###.00")
```

```
            Grid1.CellFontBold = True
            custTotal = 0
            If Grid1.Row = Grid1.Rows - 1 Then
              Grid1.Rows = Grid1.Rows + 100
            End If
            Grid1.Row = Grid1.Row + 1
          End If
        End If
      Wend

      Screen.MousePointer = vbDefault
      End Sub
```

4. Run the Program.



Ex 2:

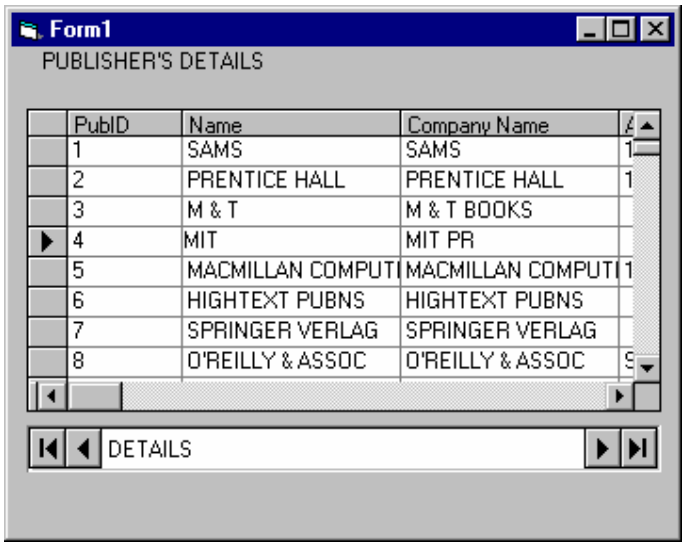
Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 14.

1. Create a new standard EXE project.
   Note :It is similar to DBList Control
2. Run the Program by press F5.

Ex 3:

1. Create a new standard EXE project.
   Note : It is similar to DBGrid Control

2. Run the Program.



Lab - 21(2 Real Time Hrs)

Ex 1 :

Pre-Requisite:-
You are suggested to take this lab Unit only after completion of Lecture 15.

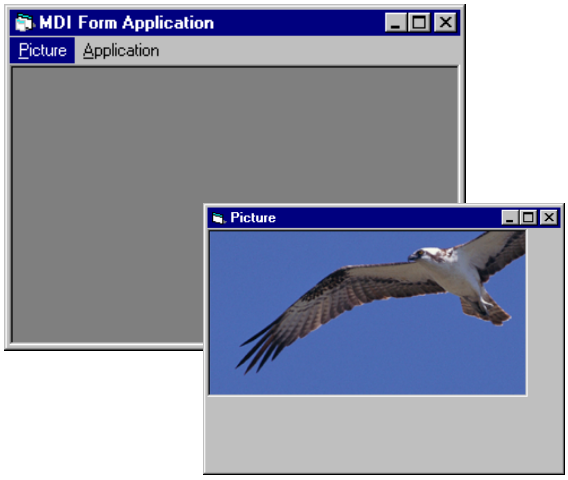
1. Open the New Standard EXE project.
2. Change the Caption property of the form.
3. On the Tool menu click Menu Editor.
4. Add the following Menu items.

Caption	**Name**
&Picture	mnmaster
&Application	mntrans

5. Enter the code in the declaration section of the form

```
Private Sub mnmaster_Click()
        Form3.Show
End Sub

Private Sub mntrans_Click()
        Form1.Show
End Sub
```

6. Execute the program

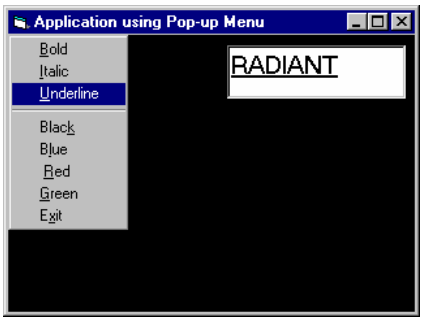


Ex 2:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 16.

1. Open a new standard EXE project
2. Change the Caption property of the form to Menu Control Arrays
3. On Tool menu click Menu Editor
4. Add the following Menu items

Caption	**Name**
&File	mnfile



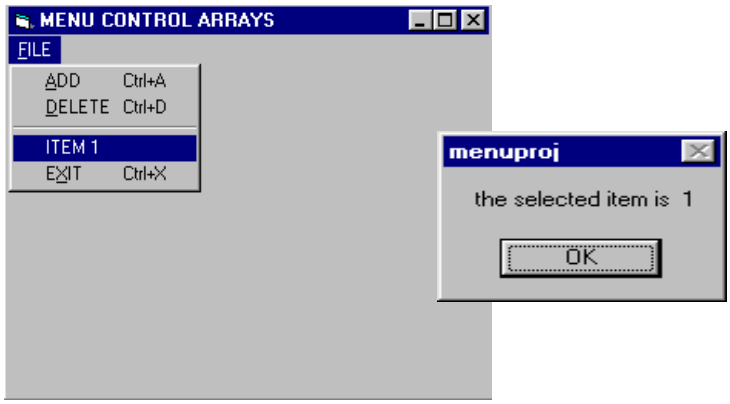
&Add	mnadd
&Delete	mndelete
&-	mnsep
E&xit	mnexit

5. Select the mnsep, set the Index to 0
6. Enter the code in the declaration section of the form

```
(Declaration)
Option Explicit
Dim LastItem As Integer
Private Sub Form_Load()
    LastItem = 0
    mndelete.Enabled = False
End Sub
Private Sub mnadd_Click()
```

```
            LastItem = LastItem + 1
            Load mnsep(LastItem)
            mnsep(LastItem).Caption = "ITEM" + Str(LastItem)
            mndelete.Enabled = True
End Sub

Private Sub mndelete_Click()
            Unload mnsep(LastItem)
            LastItem = LastItem - 1
            If LastItem = 0 Then
                  mndelete.Enabled = False
            End If
End Sub

Private Sub mnexit_Click()
End
End Sub

Private Sub mnsep_Click(Index As Integer)
   MsgBox " the selected item is " + Str(Index)
End Sub
```

7. Execute the program



Lab - 22(2 hrs Real Time)

Ex 1:

Pre-Requisite:-
You are suggested to take this lab Unit only after completion of Lecture 16.

1. Open the New standard EXE project
2. Right click the form , click the Menu Editor
3. Create the top-level item for the Format menu using Format as caption property and popFormat as the Name property & set the visible property to False.

4. Add the following item

Capton	Name
&Bold	fmtBold
&Italic	fmtitalic

&Underline	fmtunderline
-	popsep1
Blac&k	fmtblack
B&lue	fmtblue
&Red	fmtred
&Green	fmtgreen

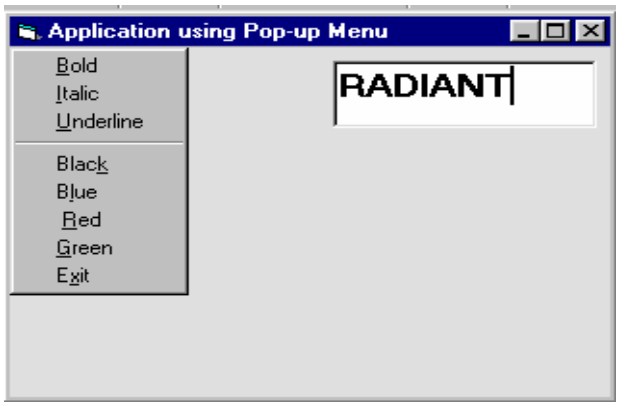
5. Enter the code in the declaration section of the form

General Declaration

```
Option Explicit

Private Sub fmtBlack_Click()
    Text1.Visible = False
    Form1.BackColor = vbBlack
End Sub

Private Sub fmtblue_Click()
    Text1.Visible = False
    Form1.BackColor = vbBlue
End Sub

Private Sub fmtbold_Click()
    Text1.Visible = True
     Text1.FontUnderline = False
    Text1.FontItalic = False
     Text1.FontBold = True
     Text1.Text = ""
End Sub

Private Sub fmtexit_Click()
  Unload Me
End Sub

Private Sub fmtgreen_Click()
    Text1.Visible = False
    Form1.BackColor = vbGreen
End Sub

Private Sub fmtitalic_Click()
     Text1.Visible = True
     Text1.FontBold = False
     Text1.FontUnderline = False
     Text1.FontItalic = True
     Text1.Text = ""
End Sub

Private Sub fmtred_Click()
    Text1.Visible = False
    Form1.BackColor = vbRed
End Sub

Private Sub fmtunderline_Click()
     Text1.Visible = True
     Text1.FontItalic = False
```

```
        Text1.FontBold = False
        Text1.Text = ""
        Text1.FontUnderline = True
End Sub

Private Sub Form_MouseUp(Button As Integer, Shift As Integer, X As Single, Y As Single)
    If Button = vbRightButton Then 'right mouse button
                                        'display popup menu
                PopupMenu popformat, vbPopupMenuLeftAlign, 2, 2
    End If
End Sub
```

5. Execute the program



Ex 2:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 16.

1. Create a new standard EXE project.

2. Add two forms in the Projects.
   Note :It is Similar like as Notepad.

3. We have to Add the Module in the Procedure
   Project ⟶ Add Module, we write the code in below

```
Declare Function SetWindowPos Lib "user32" (ByVal hwnd As Long, ByVal hWndInsertAfter As Long, ByVal x As Long, ByVal y As Long, ByVal cx As Long, ByVal cy As Long, ByVal wFlags As Long) As Long

Public Const HWND_TOPMOST = -1
Public Const SWP_SHOWWINDOW = &H40
Public Const SWP_NOSIZE = &H1
Public Const SWP_NOMOVE = &H2
```

4. In the First Form we write the code

```
Option Explicit
Dim OpenFile As String

Private Sub CustomFont_Click()
   CommonDialog1.Flags = cdlCFBoth
```

```
    CommonDialog1.ShowFont
    Editor.Font = CommonDialog1.FontName
    Editor.FontBold = CommonDialog1.FontBold
    Editor.FontItalic = CommonDialog1.FontItalic
    Editor.FontSize = CommonDialog1.FontSize
End Sub

Private Sub CustomPage_Click()
    CommonDialog1.ShowColor
    Editor.BackColor = CommonDialog1.Color
End Sub

Private Sub CustomText_Click()
On Error Resume Next
    CommonDialog1.ShowColor
    Editor.ForeColor = CommonDialog1.Color
End Sub

Private Sub EditCopy_Click()
    Clipboard.Clear
    Clipboard.SetText Editor.SelText
End Sub

Private Sub EditCut_Click()
    Clipboard.SetText Editor.SelText
    Editor.SelText = ""
End Sub

Private Sub EditFind_Click()
    Form2.Show
End Sub

Private Sub EditPaste_Click()
    If Clipboard.GetFormat(vbCFText) Then
        Editor.SelText = Clipboard.GetText
    Else
        MsgBox "Invalid Clipboard format."
    End If
End Sub

Private Sub EditSelect_Click()
    Editor.SelStart = 0
    Editor.SelLength = Len(Editor.Text)
End Sub

Private Sub FileExit_Click()
    End
End Sub

Private Sub FileNew_Click()
    Editor.Text = ""
    OpenFile = ""
End Sub

Private Sub FileOpen_Click()
Dim FNum As Integer
```

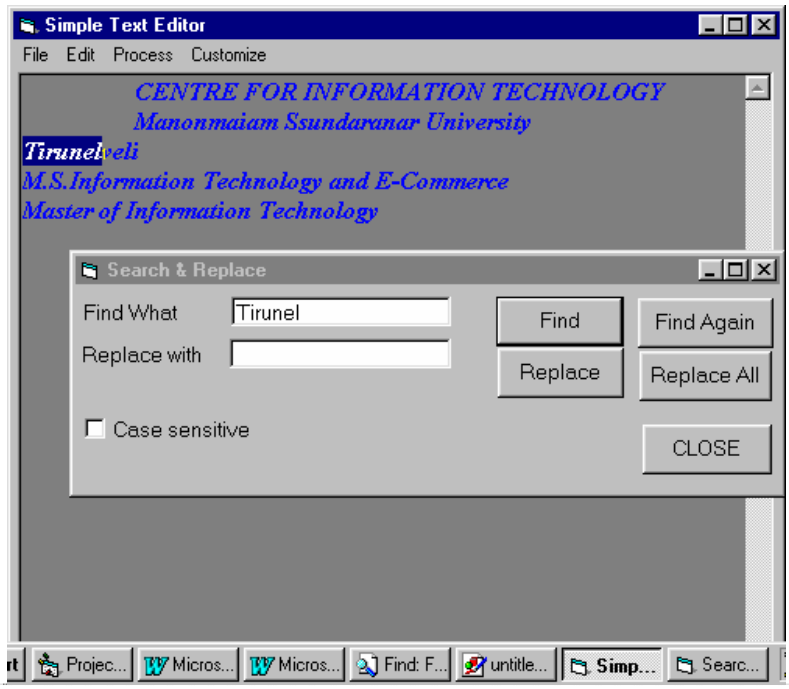
```
Dim txt As String

On Error GoTo FileError
   CommonDialog1.CancelError = True
   CommonDialog1.Flags = cdlOFNFileMustExist
   CommonDialog1.DefaultExt = "TXT"
   CommonDialog1.Filter = "Text files|*.TXT|All files|*.*"
   CommonDialog1.ShowOpen
   FNum = FreeFile
   Open CommonDialog1.FileName For Input As #1
   txt = Input(LOF(FNum), #FNum)
   Close #FNum
   Editor.Text = txt
   OpenFile = CommonDialog1.FileName
   Exit Sub

FileError:
   If Err.Number = cdlCancel Then Exit Sub
   MsgBox "Unkown error while opening file " &
 CommonDialog1.FileName
   OpenFile = ""

End Sub

Private Sub FileSave_Click()
Dim FNum As Integer
Dim txt As String

   If OpenFile = "" Then
      FileSaveAs_Click
      Exit Sub
   End If
On Error GoTo FileError
   FNum = FreeFile
   Open OpenFile For Output As #1
   Print #FNum, Editor.Text
   Close #FNum
   Exit Sub

FileError:
   If Err.Number = cdlCancel Then Exit Sub
   MsgBox "Unkown error while saving file " & OpenFile
   OpenFile = ""

End Sub

Private Sub FileSaveAs_Click()
Dim FNum As Integer
Dim txt As String

On Error GoTo FileError
   CommonDialog1.CancelError = True
   CommonDialog1.Flags = cdlOFNOverwritePrompt
   CommonDialog1.DefaultExt = "TXT"
   CommonDialog1.Filter = "Text files|*.TXT|All files|*.*"
   CommonDialog1.ShowSave
```

```
    FNum = FreeFile
    Open CommonDialog1.FileName For Output As #1
    Print #FNum, Editor.Text
    Close #FNum
    OpenFile = CommonDialog1.FileName
    Exit Sub

FileError:
    If Err.Number = cdlCancel Then Exit Sub
MsgBox "Unkown error while saving file " & CommonDialog1.FileName
    OpenFile = ""
End Sub

Private Sub Form_Resize()
    Editor.Width = Form1.Width - 15 * Screen.TwipsPerPixelX
    Editor.Height = Form1.Height - 50 * Screen.TwipsPerPixelY
End Sub

Private Sub ProcessLower_Click()
Dim Sel1 As Integer, Sel2 As Integer

    Sel1 = Editor.SelStart
    Sel2 = Editor.SelLength
    Editor.SelText = LCase$(Editor.SelText)
    Editor.SelStart = Sel1
    Editor.SelLength = Sel2
End Sub

Private Sub ProcessNumber_Click()
Dim tmpText As String, tmpLine As String
Dim firstChar As Integer, lastChar As Integer
Dim currentLine As Integer

firstChar = 1
currentLine = 1
lastChar = InStr(Editor.Text, Chr$(10))
While lastChar > 0
    tmpLine = Format$(currentLine, "000") & "  " & Mid$(Editor.Text, firstChar, lastChar -
firstChar + 1)
    currentLine = currentLine + 1
    firstChar = lastChar + 1
    lastChar = InStr(firstChar, Editor.Text, Chr$(10))
    tmpText = tmpText + tmpLine
Wend
Editor.Text = tmpText
End Sub


Private Sub ProcessUpper_Click()
Dim Sel1, Sel2 As Integer

    Sel1 = Editor.SelStart
    Sel2 = Editor.SelLength
    Editor.SelText = UCase$(Editor.SelText)
    Editor.SelStart = Sel1
    Editor.SelLength = Sel2
```

```
End Sub

In the Second form we write the code
Option Explicit
Dim Position As Integer

Private Sub FindButton_Click()
Dim compare As Integer

Position = 0
If Check1.Value = 1 Then
   compare = vbBinaryCompare
Else
   compare = vbTextCompare
End If
Position = InStr(Position + 1, Form1.Editor.Text, Text1.Text, compare)
If Position > 0 Then
   ReplaceButton.Enabled = True
   ReplaceAllButton.Enabled = True
   Form1.Editor.SelStart = Position - 1
   Form1.Editor.SelLength = Len(Text1.Text)
   Form1.SetFocus
Else
   MsgBox "String not found"
   ReplaceButton.Enabled = False
   ReplaceAllButton.Enabled = False
End If
End Sub

Private Sub FindNextButton_Click()
Dim compare As Integer
If Check1.Value = 1 Then
   compare = vbBinaryCompare
Else
   compare = vbTextCompare
End If
Position = InStr(Position + 1, Form1.Editor.Text, Text1.Text, compare)
If Position > 0 Then
   Form1.Editor.SelStart = Position - 1
   Form1.Editor.SelLength = Len(Text1.Text)
   Form1.SetFocus
Else
   MsgBox "String not found"
   ReplaceButton.Enabled = False
   ReplaceAllButton.Enabled = False
End If
End Sub

Private Sub Command5_Click()
   Form2.Hide
End Sub

Private Sub Form_Load()
Dim ret As Long
   Me.Show
```

```
   ret = SetWindowPos(Me.hwnd, HWND_TOPMOST, Me.CurrentX, Me.CurrentY,
Me.Width, Me.Height, SWP_SHOWWINDOW Or SWP_NOSIZE Or SWP_NOMOVE)
End Sub

Private Sub ReplaceButton_Click()
Dim compare As Integer
   Form1.Editor.SelText = Text2.Text
   If Check1.Value = 1 Then
      compare = vbBinaryCompare
   Else
      compare = vbTextCompare
   End If
   Position = InStr(Position + 1, Form1.Editor.Text, Text1.Text, compare)
   If Position > 0 Then
      Form1.Editor.SelStart = Position - 1
      Form1.Editor.SelLength = Len(Text1.Text)
      Form1.SetFocus
   Else
      MsgBox "String not found"
      ReplaceButton.Enabled = False
      ReplaceAllButton.Enabled = False
   End If

End Sub
Private Sub ReplaceAllButton_Click()
Dim compare As Integer

   Form1.Editor.SelText = Text2.Text
   If Check1.Value = 1 Then
      compare = vbBinaryCompare
   Else
      compare = vbTextCompare
   End If
   Position = InStr(Position + 1, Form1.Editor.Text, Text1.Text, compare)
   While Position > 0
      Form1.Editor.SelStart = Position - 1
      Form1.Editor.SelLength = Len(Text1.Text)
      Form1.Editor.SelText = Text2.Text
      Position = Position + Len(Text2.Text)
      Position = InStr(Position + 1, Form1.Editor.Text, Text1.Text)
   Wend
      ReplaceButton.Enabled = False
      ReplaceAllButton.Enabled = False
      MsgBox "Done replacing"
               End Sub
```

4. Run the Form.



Lab Unit 23 (2 hrs Real Time)

Ex 1:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 17.

1. Qpen a New Standard EXE project
2. Set the OLEDragMode and OLEDropMode to Automatic for both the text boxes
3. Enter the code in the declaration section of the Form

```
Private Sub Frame1_DragDrop(Source As Control, X As Single, Y As Single)
    Set Source.Container = Frame1
    Source.Move X, Y
End Sub

Private Sub Form_DragDrop(Source As Control, X As Single, Y As Single)
    Set Source.Container = Form2
    Source.Move X, Y
End Sub

Private Sub Toolbar1_ButtonClick(ByVal Button As ComctlLib.Button)
    Select Case Button.Index
Case 1
   If Button.Value = tbrPressed Then
      Text1.FontBold = True
   Else
      Button.Value = tbrUnpressed
      Text1.FontBold = False
   End If
Case 2
   If Button.Value = tbrPressed Then
      Text1.FontItalic = True
   Else
```

```
        Button.Value = tbrUnpressed
        Text1.FontItalic = False
    End If
Case 3
    If Button.Value = tbrPressed Then
        Text1.FontUnderline = True
    Else
        Button.Value = tbrUnpressed
        Text1.FontUnderline = False
    End If
Case 6
    If Button.Value = tbrPressed Then
        Text1.Text = ""
    End If
    End Select
End Sub

Private Sub Combo1_Click()
    Text1.FontSize = Val(Combo1.Text)
End Sub

Private Sub Combo2_Click()
    Text1.Font = Combo2.Text
End Sub
```

4. Execute the program

Ex 2:

1. Create a Standard Exe Project and add it.
2. When we select the createfile Button, to create the file is stored in the Filename called as textfile.txt. Dim FSys As New FileSystemObject
3. Write the code in the Createfile_Click() procedure

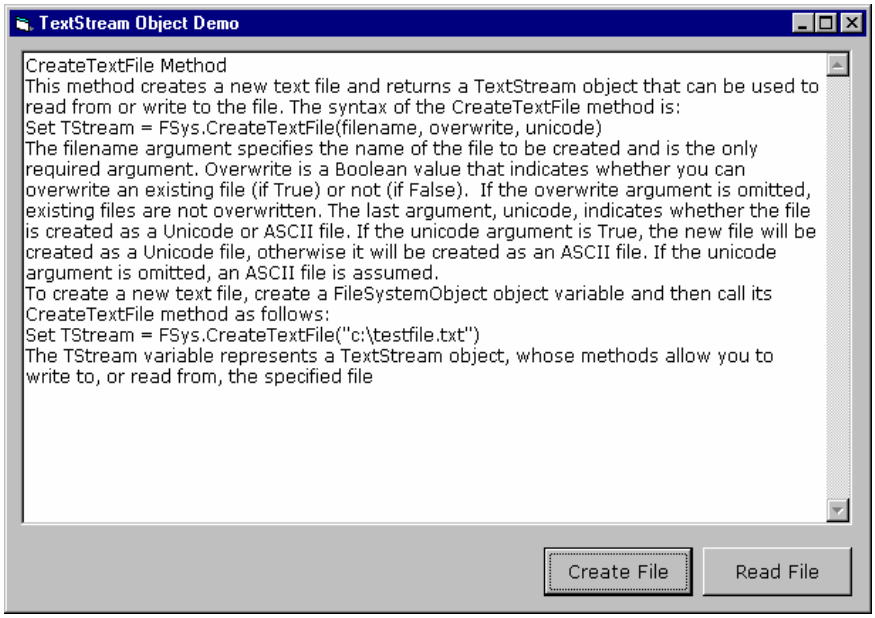
```
Private Sub CreateFile_Click()
Dim OutStream As TextStream
    TestFile = App.Path & "\textfile.txt"
    Set OutStream = FSys.CreateTextFile(TestFile, True, False)
    OutStream.WriteLine Text1.Text
    Set OutStream = Nothing
End Sub
```

4. When the Readfile button, to read the file from the existing File textfie.txt is displayed in the text1.
5. Write the code in the Readfile_Click() procedure

```
Private Sub bttnReadFile_Click()
Dim InStream As TextStream

    TestFile = App.Path & "\textfile.txt"
    Set InStream = FSys.OpenTextFile(TestFile, 1, False, False)
    While InStream.AtEndOfStream = False
        TLine = InStream.ReadLine
        txt = txt & TLine & vbCrLf
    Wend
    Text1.Text = "The following text was read from the file" & vbCrLf
```

```
    Text1.Text = Text1.Text & vbCrLf & String(50, "*")
    Text1.Text = Text1.Text & vbCrLf & txt
    Text1.Text = Text1.Text & vbCrLf & String(50, "*")
    Set InStream = Nothing
End Sub
```

6. Run the Program by press F5.



Ex 3:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 17.

1. Create a new standard EXE project.In this Project Contains , two forms Form1,Form2
2. When we Select the CmdInsert Button, the form2 is Displayed. Write the code in the cmdInsert_Click( ) procedure

```
Private Sub cmdInsert_Click ()
    FrmType.Show
End Sub
```

3. When we Select the CmdInfo Button, the messagebox is Displayed.

   Write the code in the cmdObject_Click( ) procedure

```
Private Sub cmdObject_Click()
    Dim SourceText As String
    Dim TypeText As String
    Dim MsgText As String
    SourceText = "The object's source file is " + oleDisplay.SourceDoc
    TypeText = "The type of object is " + oleDisplay.Class
    MsgText = SourceText + Chr(13) + TypeText
    MsgBox MsgText, vbInformation, "Object Information"
End Sub
```

4. When we Select the CmdClose Button, the messagebox is Displayed.
   Write the code in the cmdClose_Click( ) procedure

```
Private Sub cmdClose_Click()
    Dim Quit As String
```

```
    Quit = MsgBox("Are you sure you want to quit?", vbYesNo + vbQuestion)
    If Quit = vbYes Then
       End
    End If
End Sub
```

5. When we Select the CmdLoad Button, the CommonDialog Box is Displayed.
   Write the code in the cmdLoad_Click( ) procedure

```
Private Sub cmdLoad_Click()
Dim fnum As Integer
    On Error GoTo LoadCancel
    fnum = FreeFile
    CommonDialog1.ShowOpen
   Open CommonDialog1.FileName For Binary As #1
    oleDisplay.ReadFromFile (fnum)
    Close #fnum
    Exit Sub
LoadCancel:
    MsgBox "Could not load file"
    Close #fnum
End Sub
```

6. When we Select the CmdSave Button, the CommonDialog box Displayed.

   Write the code in the cmdSave_Click( ) procedure

```
Private Sub cmdSave_Click()
Dim fnum As Integer
    On Error GoTo SaveCancel
    CommonDialog1.ShowSave
    fnum = FreeFile
    Open CommonDialog1.FileName For Binary As #1
    oleDisplay.SaveToFile (fnum)
Close #fnum
    Exit Sub
SaveCancel:
    MsgBox "Could not save file"
    Close #fnum
End Sub

Private Sub oleDisplay_Resize(HeightNew As Single, WidthNew As Single)
    frmOLE.Width = oleDisplay.Left + WidthNew + 20 *
 Screen.TwipsPerPixelX
    frmOLE.Height = oleDisplay.Top + HeightNew + 80 *
 Screen.TwipsPerPixelY
End Sub
```

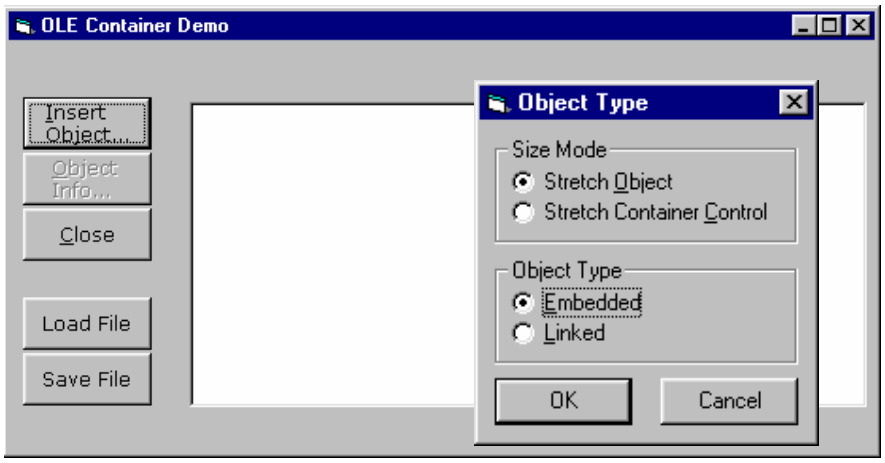
7. In the Form2, We write the Code.

   When we select CmdOk Button, the corresponding Selected Embedded ,Linking Object list dialog is Displayed. then the selected object is inserted into the Text Box in the Form1.

```
Private Sub cmdCancel_Click()
    Unload frmType
End Sub
```

```
Private Sub cmdOK_Click()
   If optStretchObject.Value = True Then
frmOLE.oleDisplay.SizeMode = 1
   Else
      frmOLE.oleDisplay.SizeMode = 2
   End If
   If optTypeEmbedded.Value = True Then

      frmOLE.oleDisplay.OLETypeAllowed = 1
   Else
      frmOLE.oleDisplay.OLETypeAllowed = 0
   End If

frmType.Hide

frmOLE.oleDisplay.InsertObjDlg
   If frmOLE.oleDisplay.Class <> "" Then
      frmOLE.cmdObjInfo.Enabled = True
   End If
   Unload frmType
End Sub
```

8. Run the Program.



Lab - 24(2 hrs Real Time)

Ex 1:

Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 18.

1. Place 4 labels, 4 Text boxes, 2 CommandButton in the User Document
2. In txtpurpose , set Multiline property to True & ScrollBars property to Vertical
3. Enter the code in the declaration section of the form

```
Private Sub cmdPrint_Click()
      Printer.Print "Name : " & txtname.Text
      Printer.Print "Destination : " & txtdestination.Text
```

```
    Printer.Print "Trip Dates : " & txtdates.Text
    Printer.Print "Purpose of Trip : " & txtpurpose.Text
        MsgBox "Completed"
End Sub

Private Sub Command1_Click()
Unload Me
End Sub
```

4. Execute the program

Ex 2:

1. Create a ActiveX documents which has three command button with caption

   i. students personal detail
   ii. Students course detail
   iii. Exit

Controls	Property	Setting
Form	Name	MainuserDoc
Command	Caption	Student Personal Details
	Name	Command1
Command	Caption	Student Course Details
	Name	Command2
Command	Caption	Exit
	Name	Command3

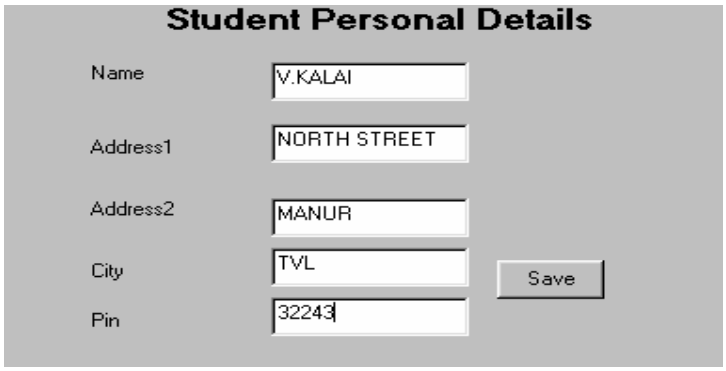
2. Write the code in the command1_click() procedure

```
Private Sub Command1_Click()
Hyperlink.NavigateTo "file://" + App.Path + "\personal.vbd"
End Sub
```

Write the code in the command2_click() procedure

```
Private Sub Command2_Click()
Hyperlink.NavigateTo "file://" + App.Path + "\course.vbd"
End Sub
Write the code in the  Quit is click
Private Sub Command3_Click()
End
End Sub
```

3. Create a ActiveX documents which has five text box & one command button in given below

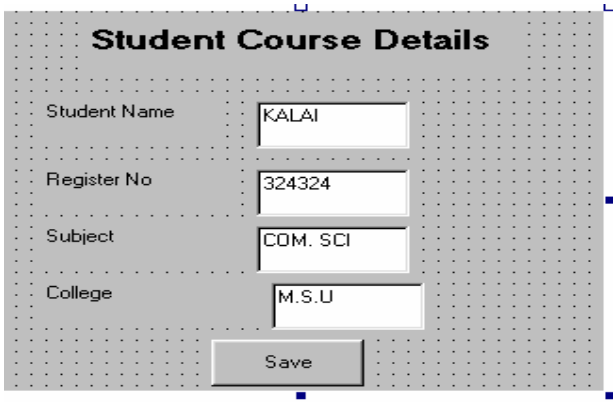


4. When click the save button ,the following code in the Command1_Click() Procedure

```
Private Sub Command1_Click()
Open "personal.txt" For Append As #1
For i = 0 To 2
Print #1, Text1(i).Text
Next
For i = 2 To 4
Print #1, Text1(i).Text
Next
Close #1
MsgBox "The details are submitted"
Hyperlink.navigaeto "file://" + App.Path + "\mainuserdoc.vbd"
End Sub
```

This details of persoanl in personal.txt and messagebox is displayed once the detailss are saved.

5. Create a ActiveX documents which has 4 text box & one command button in given below

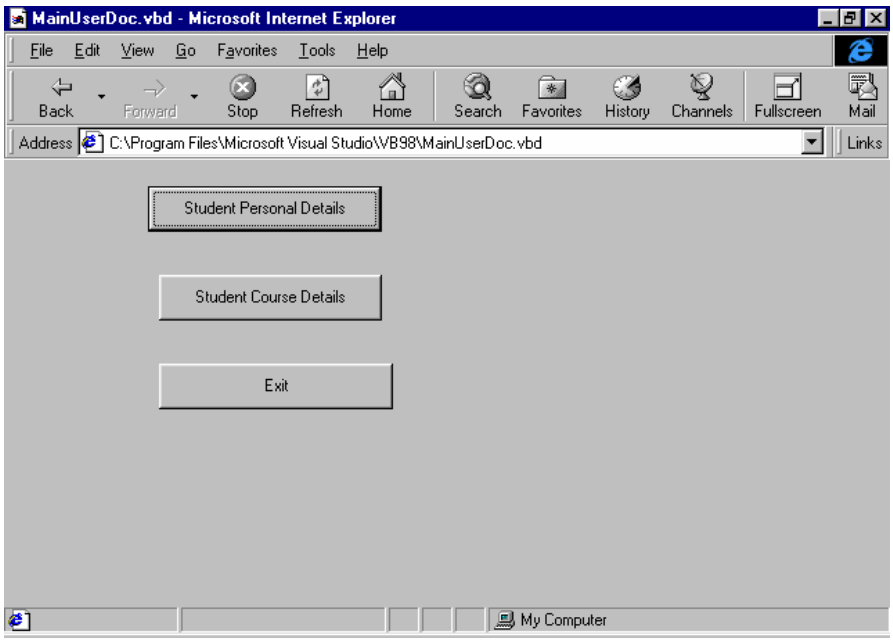


6. When click the save button ,the following code in the Command1_Click() Procedure

```
Option Explicit
Dim i As Integer

Private Sub UserDocument_Initialize()
Open "course.txt" For Append As #1
For i = 0 To 3
Print #1, Text1(i).Text
Next i
Close #1
MsgBox "Details are saved"
Hyperlink.NavigateTo "file://" + App.Path + "\mainuserdoc.vbd"
End Sub
```

This details of course in course.txt and messagebox is displayed once the details are saved.

7. From the MainUserDoc ,click F5 to run the application.It takes us to the Internet Explorer and the following screen appears



Ex 3:

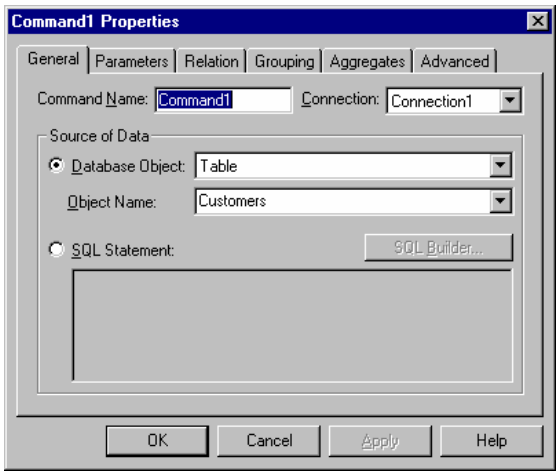
Pre-Requisite:- You are suggested to take this lab session only after completion of Lecture 19.

Start a new project and in the project type dialog box select Data Project

1. In the Project Explorer double click the data environment1 object
2. If you click the Data environment1, Connections object will be displayed
3. Click Connection , Connection 1 object will be displayed
4. Right click the Connection 1 object , Shortcut menu will be seen in that click properties
5. In the Provider tab, select Microsoft Jet 3.51 OLE DB Provider
6. In the connection tab,select Nwind.mdb(it's in the VB98 folder)& make it sure whether the connection works by clicking the Test Connection button

7. In the Advanced tab, check the option Share Exclusive
8. Clcik OK to return to the Data Environment window
9. To retrieve all the customers from the Nwind database

   - Right click the Connection 1 object, click Add buttons , Command1 will be added
   - Right click the Command1 object, then click the properties
   - Set the command 1 properties as shown in figure



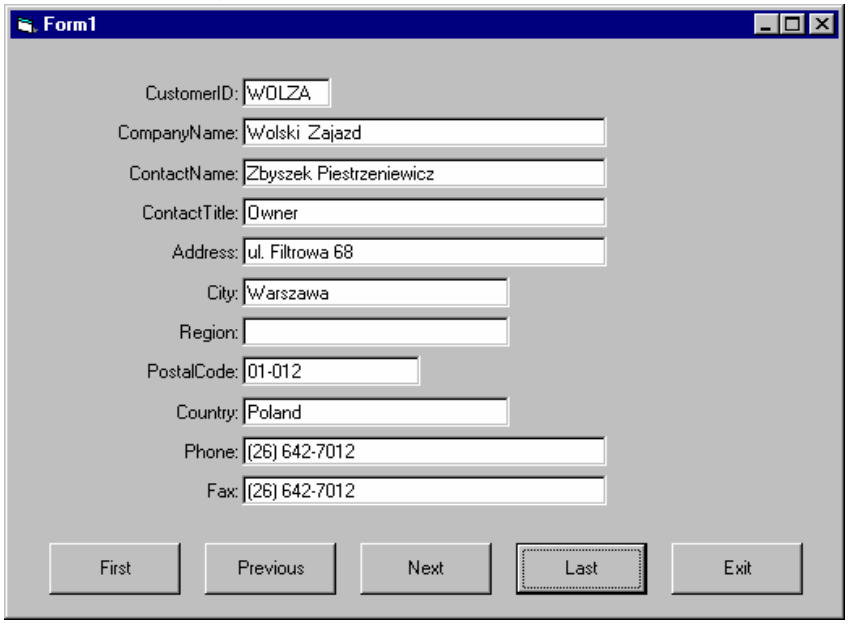
   - With the Form and Data Environment window visible on the screen, drag the Command 1 object and drop it on the Form. In your Form you will see a set of controls.

10. Enter the code in the declaration section of the form

```
            Private Sub Command1_Click()
                    DataEnvironment1.rsCommand1.MoveFirst
End Sub
Private Sub Command2_Click()
If   DataEnvironment1.rsCommand1.BOF Then
                    Beep
            Else
                    DataEnvironment1.rsCommand1.MovePrevious
                       If  DataEnvironment1.rsCommand1.BOF Then
DataEnvironment1.rsCommand1.MoveFirst
            End If
            End If
End Sub

Private Sub Command3_Click()
    If DataEnvironment1.rsCommand1.EOF Then
                    Beep
    Else
                    DataEnvironment1.rsCommand1.MoveNext
                If DataEnvironment1.rsCommand1.EOF Then
                    DataEnvironment1.rsCommand1.MoveLast
      End If
    End If
End Sub

Private Sub Command4_Click()
            DataEnvironment1.rsCommand1.MoveLast
End Sub
```

```
Private Sub Command5_Click()
        Unload Me
End Sub
```

11. Execute the Program



Ex 4:

Pre-Requisite:- You are suggested to take this lab Unit only after completion of Lecture 19.

1. Create a new standard EXE project.
2. We write the API function Declaration ,and type Declaration

```
Option Explicit
Private Declare Function SetTextColor Lib "gdi32" (ByVal hdc As Long,    ByVal crColor
As      Long) As Long

Private Declare Function DeleteObject Lib "gdi32" (ByVal hObject As Long) As Long

Private Declare Function CreateFontIndirect Lib "gdi32" Alias "CreateFontIndirectA" _
(lpLogFont As LOGFONT) As Long

Private Declare Function SelectObject Lib "gdi32" (ByVal hdc As Long, _
ByVal hObject As Long) As Long

Private Declare Function TextOut Lib "gdi32" Alias "TextOutA" (ByVal hdc As Long,     _
ByVal x As Long, ByVal y As Long, ByVal lpString As String, _
ByVal nCount As Long) As Long

    Private Type RECT
        Left As Long
        Top As Long
        Right As Long
        Bottom As Long
    End Type
    Private Type LOGFONT
        lfHeight As Long
        lfWidth As Long
```

```
            lfEscapement As Long
            lfOrientation As Long
            lfWeight As Long
            lfItalic As Byte
            lfUnderline As Byte
            lfStrikeOut As Byte
            lfCharSet As Byte
            lfOutPrecision As Byte
            lfClipPrecision As Byte
            lfQuality As Byte
            lfPitchAndFamily As Byte
            lfFaceName As String * 50
        End Type
Dim myLogFont As LOGFONT
            Private Sub Form_Load()
  Picture1.ScaleMode = 3
End Sub
```

3. We write the code in the Command1_Click() procedure.

```
Private Sub Command1_Click()
Dim PX As Single, PY As Single
Dim txtWidth As Single, txtHeight As Single
Dim rotTxtWidth As Single, rotTxtHeight As Single
Dim newFont As Long, oldFont As Long
Dim retValue As Long
Dim fontStr As String
Const pi As Double = 3.14159265358979
myLogFont.lfWeight = Val(Text1(0).Text)
   myLogFont.lfHeight = Val(Text1(1).Text)
   myLogFont.lfWidth = Val(Text1(2).Text)
    myLogFont.lfEscapement = HScroll1.Value
   Picture1.Cls
   retValue=SetTextColor(Picture1.hdc,RGB(Val(Text2(0).Text),Val(Text2(1).Text),
val(Text2(2).Text)))
   newFont = CreateFontIndirect(myLogFont)
   oldFont = SelectObject(Picture1.hdc, newFont)
   fontStr = Trim(Text3.Text)
   txtWidth = myLogFont.lfWidth * Len(fontStr)
   rotTxtWidth = txtWidth * Cos((myLogFont.lfEscapement / 10) * pi / 180)
   txtHeight = myLogFont.lfHeight
   rotTxtHeight = txtWidth * Sin((myLogFont.lfEscapement / 10) * pi / 180)
   PX = (Picture1.ScaleWidth - rotTxtWidth) / 2 '- 0.5 * txtWidth / 2
   PY = (Picture1.ScaleHeight + 1.25 * rotTxtHeight) / 2 - 0.5 * txtHeight *
Cos((myLogFont.lfEscapement / 10) * pi / 180)
   retValue = TextOut(Picture1.hdc, PX, PY, fontStr, Len(fontStr))
newFont = SelectObject(Picture1.hdc, oldFont)
   retValue = DeleteObject(newFont)
End Sub
```

4. When we click the Check Box, then the Fontstyle of the txtCaption value will be changed n the Picture1.

   Enter the value of Weight ,Height & Width to the Text Box, then the value will be changed in the Picture1.

```
Private Sub Check1_Click()
```

```
    myLogFont.lfItalic = Check1.Value
    Command1_Click
End Sub
Private Sub Check2_Click()
    myLogFont.lfUnderline = Check2.Value
    Command1_Click
End Sub
Private Sub Check3_Click()
    myLogFont.lfStrikeOut = Check3.Value
    Command1_Click
End Sub
Private Sub HScroll1_Change()
    Command1_Click
End Sub
```

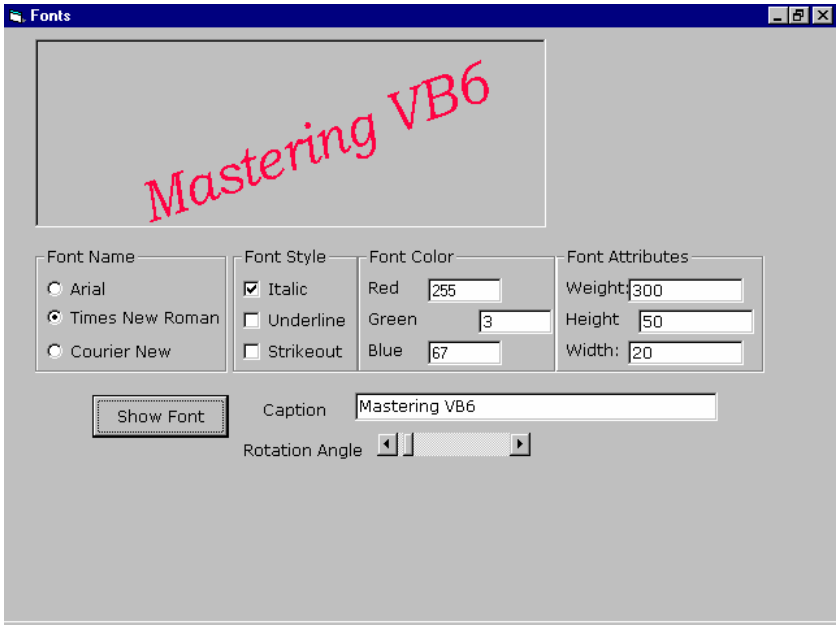
5. When we Scrolling the Hscroll1, the Text value is rotated in the Picture1.

```
Private Sub HScroll1_Scroll()
.   Command1_Click
End Sub
```

6. When we click the Option buttons, then the Fonttype of the txtCaption value will be displayed in the Picture1.

```
Private Sub Option1_Click()
    If Option1.Value = True Then
        myLogFont.lfFaceName = "Arial" + Chr$(0)
    End If
    Command1_Click
End Sub
Private Sub Option2_Click()
    If Option2.Value = True Then
        myLogFont.lfFaceName = "Times New Roman" + Chr$(0)
    End If
    Command1_Click
End Sub
Private Sub Option3_Click()
    If Option3.Value = True Then
        myLogFont.lfFaceName = "Courier New" + Chr$(0)
    End If
    Command1_Click
End Sub
```

7. Run the Program.



Ex 5:

1. Create a new standard EXE project.
2. Write the API Function, API Constant Declaration

```
Option Explicit
Private Declare Function GetFileAttributes Lib "kernel32" Alias
"GetFileAttributesA"  _  (ByVal lpFileName As String) As Long
Private Declare Function GetFullPathName Lib "kernel32" Alias "GetFullPathNameA" _
(ByVal lpFileName As String, ByVal nBufferLength As Long, ByVal lpBuffer As String,
_ByVal lpFilePart As String) As Long
Private Declare Function CreateFile Lib "kernel32" Alias "CreateFileA" _
(ByVal lpFileName As String, ByVal dwDesiredAccess As Long, _
ByVal dwShareMode As Long, ByVal lpSecurityAttributes As Any, _
ByVal dwCreationDisposition As Long, ByVal dwFlagsAndAttributes As Long, _
ByVal hTemplateFile As Long) As Long
Private Declare Function GetFileSize Lib "kernel32" _
(ByVal hFile As Long, lpFileSizeHigh As Long) As Long
Private Declare Function CloseHandle Lib "kernel32" _
(ByVal hObject As Long) As Long

Const FILE_ATTRIBUTE_ARCHIVE = &H20
Const FILE_ATTRIBUTE_COMPRESSED = &H800
Const FILE_ATTRIBUTE_DIRECTORY = &H10
Const FILE_ATTRIBUTE_HIDDEN = &H2
Const FILE_ATTRIBUTE_NORMAL = &H80
Const FILE_ATTRIBUTE_READONLY = &H1
Const FILE_ATTRIBUTE_SYSTEM = &H4
Const GENERIC_READ = &H80000000
Const OPEN_EXISTING = 3
Const GENERIC_WRITE = &H40000000
```

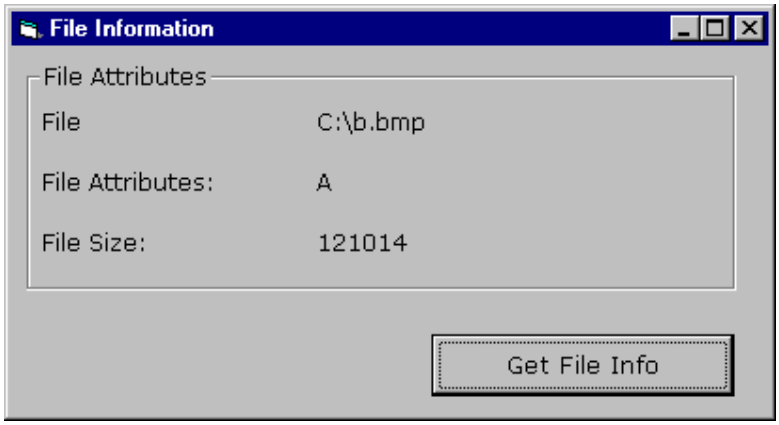
3. When we Click the Cmdinfo Button, the OpenDialog will be displayed.

   Then select filename ,it will display the filesize,Attributes & Size will be Displayed in the labels.

We write the code in the Command1_Click() Procedure.

```
Private Sub Command1_Click()
Dim retValue As Long
Dim filePath As String * 255
Dim attrFlag As Long
Dim attrStr As String, fileName As String
Dim filePointer As Long, fileSize As Long
 CommonDialog1.ShowOpen
 If CommonDialog1.fileName <> "" Then fileName =
 CommonDialog1.fileName
 retValue = GetFullPathName(fileName, 255, filePath, 0)
 Label5.Caption = filePath
 attrFlag = GetFileAttributes(fileName)
  If (attrFlag And FILE_ATTRIBUTE_ARCHIVE) Then attrStr = "A"
    If (attrFlag And FILE_ATTRIBUTE_COMPRESSED) Then attrStr = attrStr & "C"
If (attrFlag And FILE_ATTRIBUTE_DIRECTORY) Then attrStr = attrStr & "D"
  If (attrFlag And FILE_ATTRIBUTE_HIDDEN) Then attrStr = attrStr & "H"
   If (attrFlag And FILE_ATTRIBUTE_NORMAL) Then attrStr = attrStr & "N"
If (attrFlag And FILE_ATTRIBUTE_READONLY) Then attrStr = attrStr & "R"
   If (attrFlag And FILE_ATTRIBUTE_SYSTEM) Then attrStr = attrStr & "S"
      Label6.Caption = attrStr
     filePointer = CreateFile(fileName, GENERIC_READ Or GENERIC_WRITE, 0&, 0&,
    OPEN_EXISTING,
     FILE_ATTRIBUTE_NORMAL, 0&)

      fileSize = GetFileSize(filePointer, 0&)
      Label7.Caption = fileSize
       CloseHandle (filePointer)
     End Sub
```

4. Run the Program.



Lab Unit - 25(2hrs Real Time)

Ex1:

Pre-Requisite:-
You are suggested to take this lab session only after completion of Lecture 20.

1. Open a new ActiveX Dll project. Name it as DLLTest
2. Name the Class Module Functions

3. Set the Instancing property to Global mMultiUse
4. Create a new function in the class and name it as ReverseStr
5. Enter the code

```
Public Function ReverseStr(ByVal sInptStr As String) As String
        Dim aNewStr As String, I As Integer
        sNewStr = ""
        For I = Len(sInptStr) To 1 Step -1
                sNewStr = sNewStr & Mid(sInptStr, I, 1)
        Next I
                ReverseStr = sNewStr
End Function
```

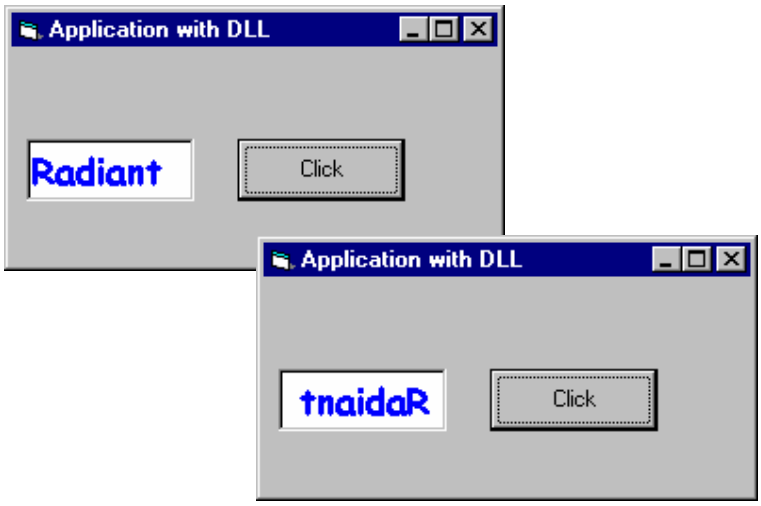
6. Compile the DLL Project

- In File menu click Make.dll
- Click the Option button, check the Title in the Make tab & in the Compile Tab Compile to Native Code option
- Click OK to compile the DLL
- Calling the DLL Project

1. Start a New standard EXE project
2. Project Menu ➡ References ➡ Browse ➡ Dllpro.dll(name of the dll project)
3. Place a Text box and a Command button
4. Enter the code in the click event of the command button

```
Private Sub Command1_Click()
        Dim a As String, b As String
                a = Text1.Text
                b = ReverseStr(a)
                Text1.Text = b
End Sub
```

5. Run the Program



Ex 2:

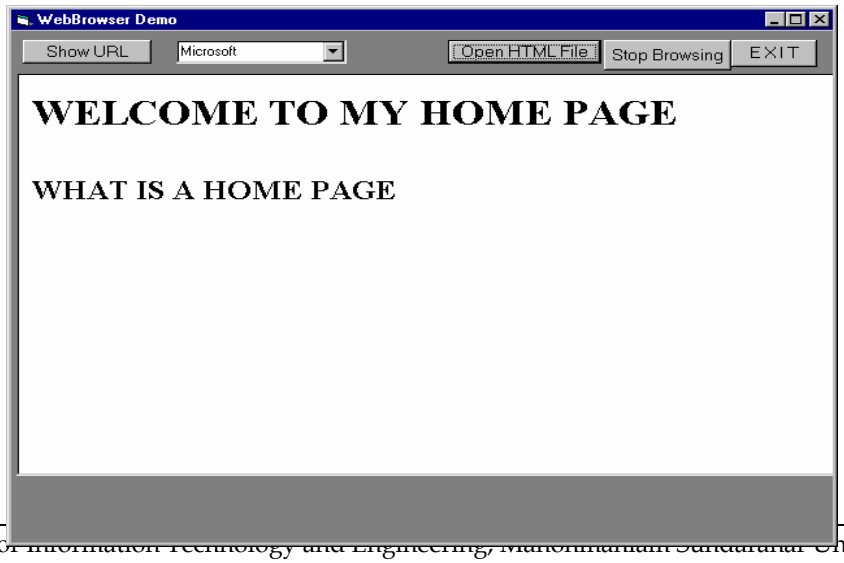
Pre-Requisite:-You are suggested to take this lab Unit only after completion of Lecture 23.

1. Create a new standard EXE project.

2. Write the code in the Web Browser

```
Private Sub CmdURL_Click()
WebBrowser1.Navigate "http://www." & Combo1.Text & ".com"
End Sub

Private Sub CmdHTML_Click()
CommonDialog1.CancelError = True
On Error GoTo CancelOpen
CommonDialog1.Filter = "HTML Files|*.HTM|Text Files|*.TXT|All Files|*.*"
CommonDialog1.ShowOpen

If CommonDialog1.FileName <> "" Then
   WebBrowser1.Navigate CommonDialog1.FileName
End If
Exit Sub

CancelOpen:
   Exit Sub
End Sub

Private Sub Cmdstop_Click()
   WebBrowser1.Stop
End Sub

Private Sub Cmdexit_Click()
   End
End Sub

Private Sub Form_Load()
   Combo1.AddItem "Microsoft"
   Combo1.AddItem "SYBEX"
   Combo1.AddItem "Infoseek"
   Combo1.AddItem "Excite"
   Combo1.AddItem "RealAudio"
   Combo1.ListIndex = 0
End Sub
```

3. Run the Form by press F5.

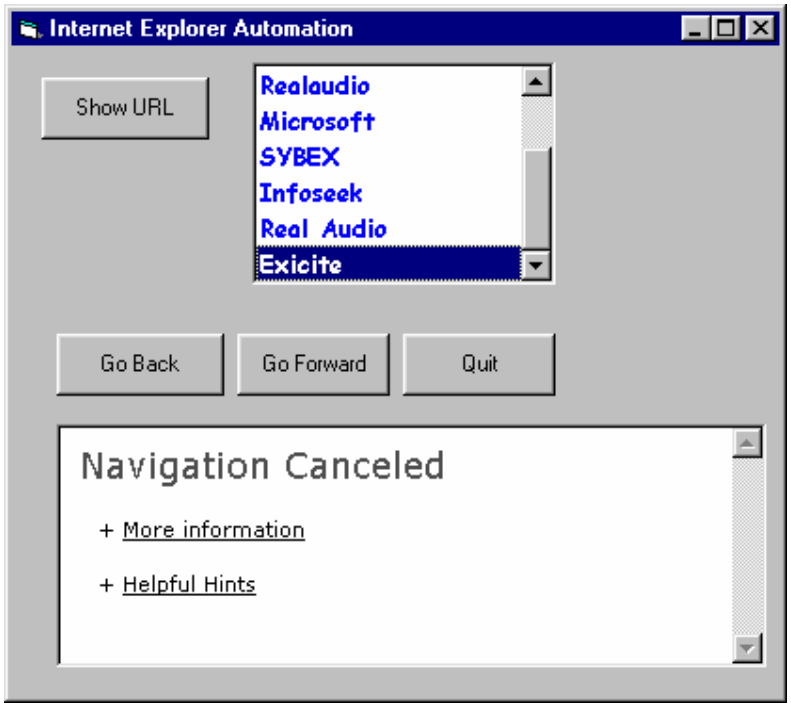


Ex 3:

1. Start a new project and select standard EXE as the project type
2. Choose Project ➡ Reference ➡ Microsoft Internet Controls
3. Place the Web browser control in the form
4. Enter the code in the declaration section of the Form

```
Dim IE As New InternetExplorer

Private Sub Command1_Click()
        IE.ToolBar = False
        IE.MenuBar = False
        IE.Visible = True
        IE.Navigate "http:/www." & List1.Text & ".com"
End Sub

Private Sub BackBttn_Click()
        On Error GoTo Noback
         IE.GoBack
  Exit Sub
        Noback:
         MsgBox " There is no URL in the History List"
End Sub
Private Sub Form_Load()
    List1.AddItem "Microsoft"
  List1.AddItem "SYBEX"
    List1.AddItem "Infoseek"
    List1.AddItem "Real Audio"
    List1.AddItem "Exicite"
End Sub

Private Sub ForwardBttn_Click()
   On Error GoTo Noforward
    IE.GoForward
  Exit Sub
        Noforward:
         MsgBox " There are no URLs in the History List"
End Sub
```

5. Execute the program



Ex 4:

You are suggested to take this lab session only after completion of Lecture 24.

1. Create a new DHTML application from the New Project and change the Name Property of the project to Personal.

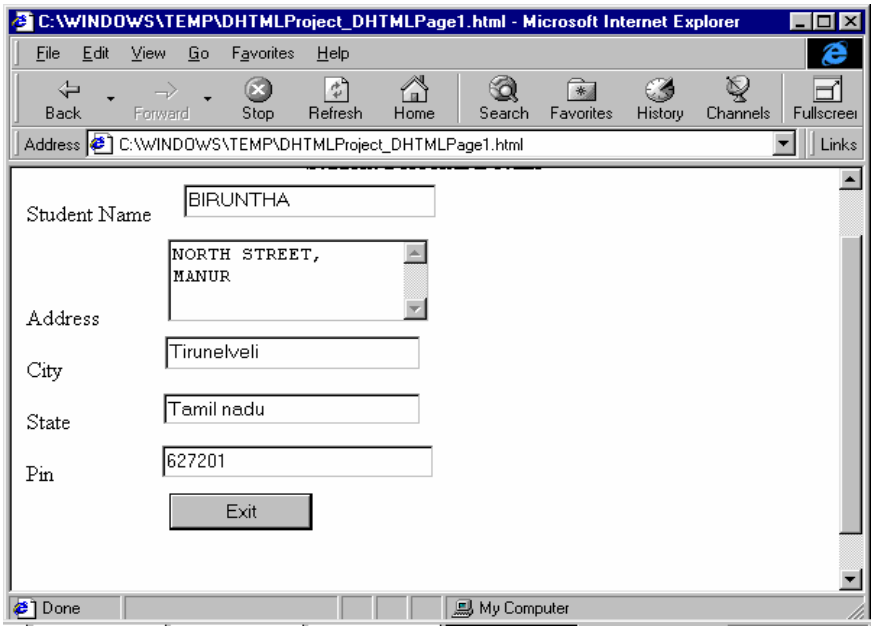
2. Double-click the Designer for DHTMLPage1 in the Project Explorer to open it in the Form Designer.The ID property of DHTMLPage1 is set as HTMLFORM.

3. Place the control in the Designer as shown in below

4. When we click the SubmitButton ,the Form will be closed.
   Write the Code in the SubmitButton _Onclick() procedure.

```
Private Function SubmitButton1_onclick() As Boolean
BaseWindow.Close
End Function
```

5. Run the Program by press F5



Ex 5:

1. Create a new DHTML application from the New Project and change the Name Property of the project to Employee Details.

2. Double-click the Designer for DHTMLPage1 in the Project Explorer to open it in the Form Designer.The ID property of DHTMLPage1 is set as HTMLFORM.

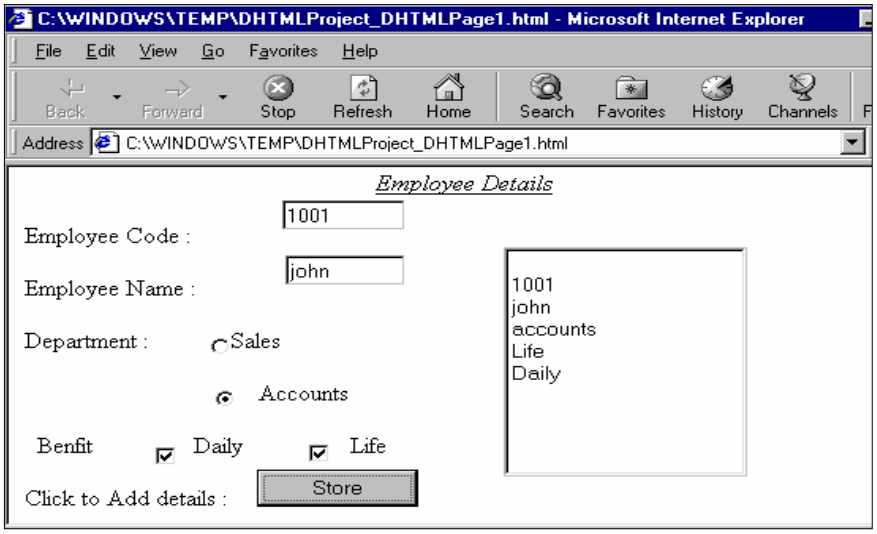
3. Place the control in the Designer as shown in below

4. We click the Submit botton, the employee details will be displayed in the List.

```
Private Function Button1_onclick() As Boolean
Dim o As HTMLOptionElement
Set o = Document.createElement("option")
o.Text = ecode.Value
o.Value = "listitemvalue"
detail.Options.Add o
Set o = Document.createElement("option")
o.Text = ename.Value
o.Value = "listitemvalue"
detail.Options.Add o
Set o = Document.createElement("option")
If sales.Checked = True Then
o.Text = sales.Value
o.Value = "listitemvalue"
detail.Options.Add o
Document.parentWindow.event.cancelBubble = True
ElseIf accounts.Checked = True Then
o.Text = accounts.Value
o.Value = "listitemvalue"
detail.Options.Add o
Document.parentWindow.event.cancelBubble = True
End If
Set o = Document.createElement("option")
If life.Checked = True Then
```

```
o.Text = life.Value
o.Value = "listitemvalue"
detail.Options.Add o
End If
Set o = Document.createElement("option")
If Daily.Checked = True Then
o.Text = Daily.Value
o.Value = "listitemvalue"
detail.Options.Add o
End If

End Function

Private Function ecode_onclick() As Boolean
ecode.Value = ""
ename.Value = ""
End Function
```

5. Run the Program by press F5.



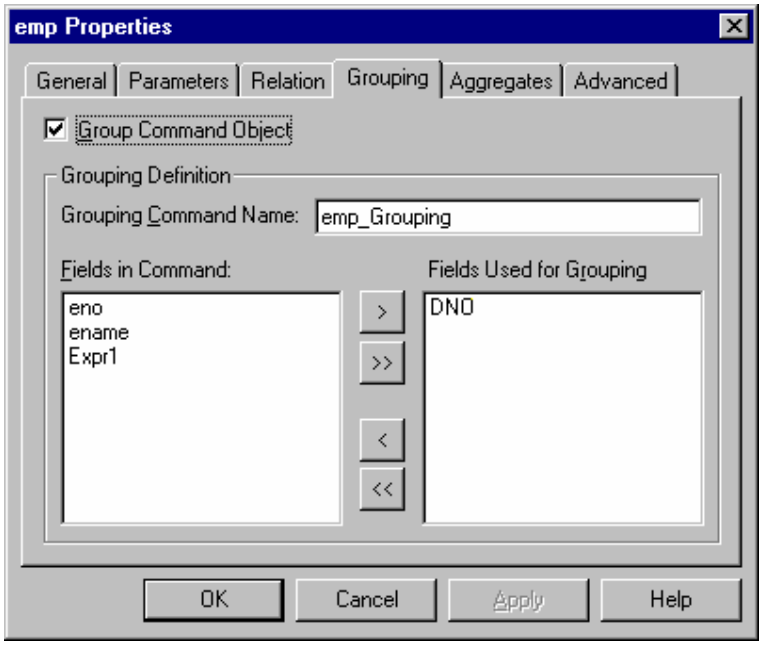
Lab - 26(2 hrs Real Time)

Ex 1

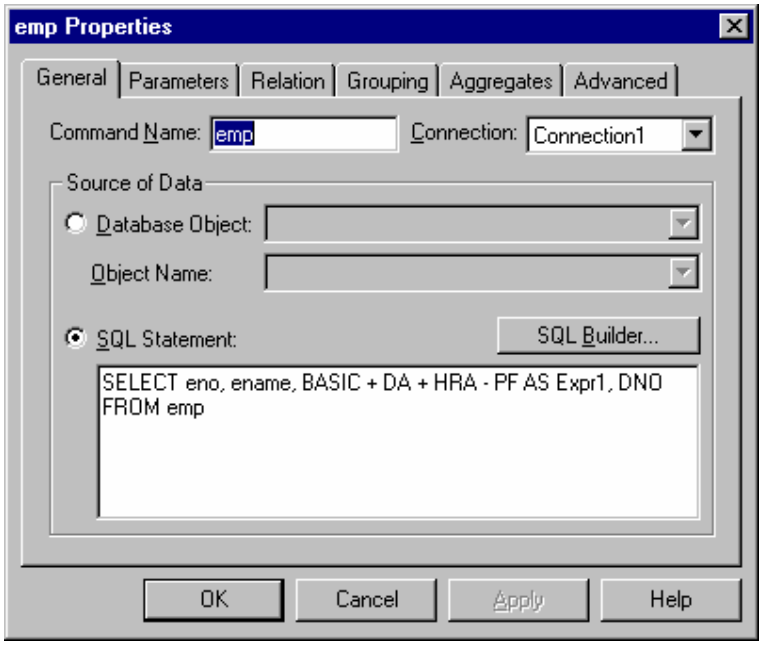
1. Start a new project and in the project type Dialog box select the Data Project
2. In the Project Explorer double click the data environment object
3. If you click the Data Environment1, Connections object will be displayed.
4. Click Connection, Connection1 object will be displayed.
5. Right click the Conncetion1 object, Shortmenu menu will be seen in that click Properties.
6. In the Provider tab, select Microsoft Jet 3.51 OLE DB Provider.
7. In the Connection tab, select the Database Name (Reprt.mdb) and clicking the Test Connection button.

8. In the Advanced tab, check the option Share Exclusive.
9. Click OK to return to the Data Environment window.
10. To retrieve all the records form the Report Database.

- ✓ Right click the Connction1 object, click add buttons, Command1 will be added.
- ✓ Right click the Command1 object, then click the properties.
- ✓ Set the Command1 Properties as shown in below. Change the Command 1 name as EMP.



- ✓ Click the Grouping tab, set the Groups as shown in below.



11. With the Data Report and Data Environment window visible on the screen, drag the Command1 object and drop it on the Data Report. In your Data Report you will see the Set of Controls.

12. We have to link the Data Environment and Data Report using the Following Properties

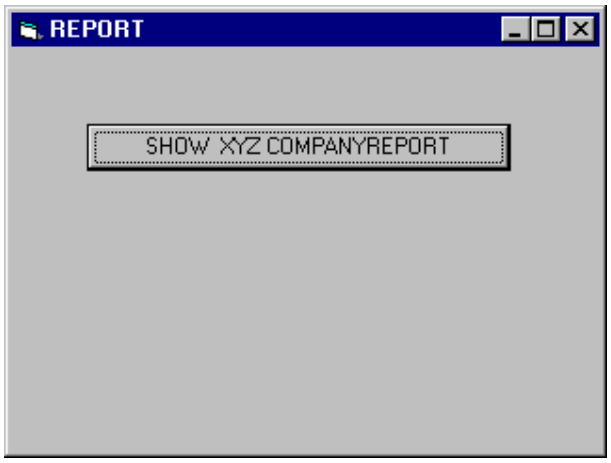
Properties	Setting
Data Member	emp_grouping
Data Source	DataEnvironment.

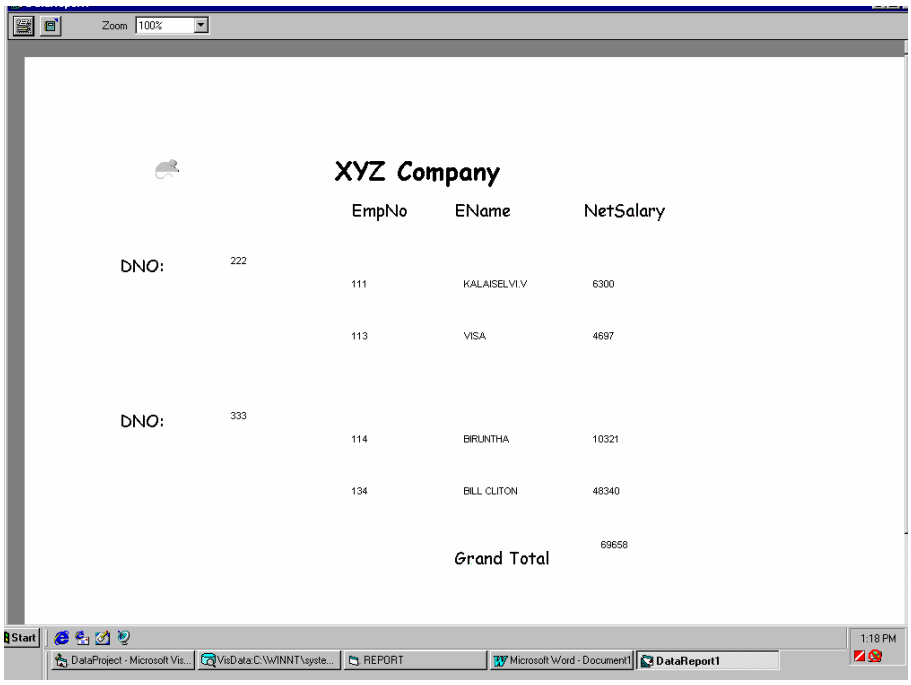
13. Add the Form and Place the One Command button..When we click the Command1 button, the XYZ COMPANY REPORT Will be displayed.

Write the Code in the Command1_click () Procedure

```
Sub Command1_click( )
Datareport1.Show
End Sub
```

14. Run the Form by press F5.





Ex 2:

1. Login in SQL Server and start create tables for your database design requirements.
2. Create a new project with Active X Dll template and class module for each object then expose the property and methodes.
3. Open MTS management console add new package.
4. Add the component that you have created.
5. Open notepad to create an ASP file/application to invoke the components from MTS.

Ex 3:

1. Startup menu - > Programs - > Windows Nt Option Pack ->Internet Information Server -> Internet Service Manager -> Select **Default Web Site ->**Right click -> Select **New ->** Virtual Directory-> Complete the wizard.
   Or

   a. Obtain MMC for IIS
   b. Select Default Web Site
   c. Right click
   d. Select New then Web Site
   e. Complete the wizard

2. Obtain MMC for IIS
   a. Select Default Web Site/Any site
   b. Select Virtual Directory Created in Ex 1./ Any Virtual directory
   c. Right click then select properties
   d. Select and see different Property tabs and its importance

3. <html>
   <head>
   <title> Home Page </title>
   </head>
   <body>
   <h1> Welcome to XYZ Site</h1>
   <!--
   put whatever you want as content for your home page
   --!>
   </body>
   </html>

4. Obtain MMC for IIS

   a. Select Default Web Site
   b. Select your application
   c. Select Right click then select properties
   d. Select Document tab
   e. Enable Default Document
   f. Add your file home.htm
   g. Change the priority "Highest"

5. Obtain MMC for IIS
   a. Select Default Web Site
   b. Select your application
   c. Select Right click then select properties
   d. Select HTTP Header Tab

e. Select File Type Button
f. Give extention and content type

6.

a. <%@ language=VBScript %>
<%Response.write "This is Sample ASP Page."%>
b. Save the file with name as "sample.asp" in the directory which is mapped with you web application(Vdirectory)
c. Obtain MMC for IIS
d. Select your appliction and Select and Browse your file "sample.asp"

7.

a. Obtain MMC for IIS
b. Select Default Web Site
c. Select Right click then select properties
d. Select Web site tab
e. Chanege connection timeout value as 50

8.

a. Obtain MMC for IIS
b. Select Default Web Site
c. Select Right click then select properties
d. Select Operators Tab
e. Click Add Button then choose your login id

9.

a. Obtain MMC for IIS
b. Select Default Web Site
c. Select Right click then select properties
d. Select Directory Security tab
e. Click Edit button under IP address and Domain name restriction
f. Select Grant oprion
g. Add ip addresss which are not supposed to access

10.

a. Obtain MMC for IIS
b. Select Default Web Site
c. Select Right click then select properties
d. Select HTTP Header tab
e. Enable Content Expiration
f. Select Expire after option and give value as "25" Minutes

11.

a. Obtain MMC for IIS
b. Select Default Web Site
c. Select Right click then select properties
d. Select HTTP Header tab
e. Select Edit Rating under Content Rating
f. Choose Rating Tab
g. Enable rating for this resourse
h. Select Violence and use the slider control to change to level 3

12.

a. Obtain MMC for IIS
b. Select Default Web Site

c. Select Right click then select properties
d. Select HTTP Header tab
e. Select Edit Rating under Content Rating
f. Choose Rating Tab
g. Enable rating for this resourse
h. Select Nudity
i. Change Rating Expires as "3/3/2000"

13.
a. Obtain MMC for IIS
b. Select Default Web Site
c. Select Right click then select properties
d. Select Directory Security tab
e. Click Key Manager under Secure communication
f. Select WWW
g. Add key
h. Complete the wizard

14.
a. Select Performance Monitor Button in the IIS MMC tool bar
b. Add Counters as per your requirement

Lab Unit 27 (2 Hrs Real Time)

Ex1

```
<HTML>
<%@  Lanuage =VBScript %>
<% Option Excplicit
  Dim item1,item2,Amean,Gmean
%>
<HTML>
<BODY>
<%
 item1=5
item2=16
Response.Write(The Value of Computing the average of ")
Response.Write(item1)
Response.Write("and")
Response.Write(item2)
%>
<BR>
< %
   Amean=item1 +item2
   Amean=Amean/2
 Gmean=(item1 *item2)^0.5
 Response.Write("The arithmatic mean is ")
 Response.Write(Amean)
 Response.Write("The geometric mean is ")
 Response.Write(Gmean)
%>
</HTML>
```

Ex 2:

```
<html>
<head>
<title> Welcome </title>
</head>
<body bgcolor=black text=pink>
<%=request.querystring("b")%>
Thank You Mr.<%request.querystring("a")%> for visiting<b>PLEASANT BREEZE
PERFUMES HOME PAGE.</b>
<P>Organization : RADSOFT
<P>Country     : INDIA
<p>
<----------Dtails of Pleasant breeze perfumes ltd. ----------
---------->
<table align=center>
<tr><td>Browser Details<td>:<td>
<%=request.servervariables("HTTP_USER_AGENT")%></td></tr>
<tr><td>Server Software<td>:<td>
<%=request.servervariables("SERVER_SOFTWARE")%></td></tr>
<tr><td>Name of Server<td>:<td>
<%=request.servervariables("SERVER_NAME")%></td></tr>
<tr><td>Address<td>:<td>
<%=request.servervariables("REMOTE_ADDR")%></td></tr>
</table>
</body>
```

Ex 3:

```
<html>
<head>
<title>
Login Page</title>
</head>
<body>
<form name=frm1 method=post action="login.asp">
<h2>Enter Name:<input type=text name=text></h2>
<h2>Enter Password: <input type=password name=pwd></h2>
<h2 align=center><input type=submit value="Sign On"></h2>
</form>
</body>
</html>


//////////////////////LOGIN.ASP/////////////////////

<HTML>
<HEAD>

<TITLE>Home Page
```

```
</title>
</head>

<body>
All info about Radiant Traning info
<%
session("UserName")=request.form("text")
session("SesStartTime")=now()
%>
<a href="AppSess.asp?i=1">Application Status</a>
<a href="AppSess.asp?i=2">Session Status</a>

<%
dim u,p
u=request.form("text")
p=request.form("pwd")
if (u="cadremaster1" and p="radiant")then

response.write("h2 align=center> Welcome Mr/Mrs" & u & "</h2>")
elseif (u=" Administator" and p="SYSTEM")then
'           response.write(" Login Failed Try Again")
response.write("<h2 align=center>Welcome Mr/Mrs " & u & "</h2>")
elseif (u=" Administator" and p=" SYSTEM")then
'           response.write(" Login Failed Try Again")
response.write("<h2 align=center>Welcome Mr/Mrs " & u & "</h2>")
else
           response.write("Login Failed Try Again")
end if
%>
</body>
</html>


<html>
<head>

</head>
<body>
<%=application("AppStartTime")%>
<%
if request.querystring("I")=1 then
%>
<h2> Application Status </h2>
Published Date:<%=Application("AppStartTime")%><P>
Number of Users Accessed: <%=Application("NoOfUsersAccessed")%><P>
Number of Users Accessed: <%=Application("NoOfUsersAccessing")%><P>
<% Else %>
<h2> Session Status </h2>
Session is openned by <%=Session("UserName")%><P>
Session Id          <%=Session.Sessionid%><P>
<%
dim life
'life=cint(now()-session("SesStartTime"))
life=now()
%>
```

```
The Session has started :<%=Session("SesStartTime")%><P>
The Current Time is : <%=now()%><P>
Has worked so for: <%=cint((now()-Session("SesStartTime"))*100000)%)>

<% end if%>
</body>
</html>
```

Ex 4:

Input.Asp

```
<%@ Language=VBScript %>
<HTML>
<HEAD>  <META name="VI60_DefaultClientScript" Content="VBScript">
<META NAME="GENERATOR" Content="Microsoft Visual Studio 6.0">
</HEAD>
<BODY>
<FORM action="data.asp?x=input" id=FORM1 method=post name=FORM1>
<P>UserName    :     <INPUT id=text1
name=text1></P>
<P>PassWord    :     <INPUT id=password1
name=password1 type=password></P>
<P><INPUT id=checkbox1 name=checkbox1 type=checkbox>Save to Cookies</P>
<P><INPUT id=submit1  name=submit1 type=submit value=submit></P></FORM>
</BODY>
</HTML>
```

Data.ASP

```
<%@ Language=VBScript %>
<% if Request.Form ("checkbox1") = "" then %>
<% else %>
  <%
  Dim NewCook
  NewCook = Request.Form ("text1")
  if Request.Cookies ("NewCook") = " " then
  Response.Cookies ("NewCook") = Request.Form ("text")
  Response.Cookies ("NewCook").expires = "December 12,1999"

else
  Response.Radirect "Message.asp"
  Endif
%>
<% end if %>

<HTML>
<HEAD>  <META name="VI60_DefaultClientScript" Content="VBScript">
<META NAME="GENERATOR" Content="Microsoft Visual Studio 6.0">
</HEAD>
<BODY>

<P> </P>
<H2><FONT color=white style="BACKGROUND-COLOR: purple">User
Information:</FONT></H2>
<FORM action="message.asp?x=data" id=FORM1 method=post name=FORM1>
```

```
<P>Address  :  <INPUT id=text1 name=text1
style="HEIGHT: 22px; WIDTH: 320px"></P>
<P>Age        :   <INPUT i
d=text2
name=text2></P>
<P>Date Of Birth : <INPUT id=text3 name=text3></P>
<P>City       :   <INPUT id=text4
name=text4></P>
<P><INPUT id=submit1 name=submit1 style="HEIGHT: 24px; WIDTH: 104px" ty
pe=submit value=ok></P></FORM>
</BODY>
</HTML>
```

Message.ASP

```
<%@ Language=VBScript %>

<% if Request.QueryString ("x"  = "data" then %>
<%
Response.Cookies ("SCook") ("Address") = Request.Form ("text1")
Response.Cookies ("SCook") ("Age") = Request.Form ("text2")
Response.Cookies ("SCook") ("DOB") = Request.Form ("text3")
Response.Cookies ("SCook") ("City") = Request.Form ("text4")
Response.Cookies ("Scook") ("Expires") = "December ,12 1999"
Response.write "<h2>Your Address is " & Request.Form ("text1") & "<br>"
Response.write "Your Age is " & Request.Form ("text2") & "<br>"
Response.write "Your Data of Birth is " & Request.Form("text3") & "<br>
"
%>

<% else %>

<%
Response.write "<h2>Your Address is " & Request.Cookies ("Scook")("Addr
ess") & "<br>"
Response.Write "Your Age is " & Request.Cookies ("Scook")("Age") & "<br>"
Response.Write "Your Date of Birth is " & Request.Cookies ("Scook")("Do
B") & "<br>"
Response.Write "Your City is " & Request.Cookies ("Scook")("City") & "<
br>"
%>

<% end if %>
</h2>
```

Favourite.asp

```
<%@ Language=VBScript %>

<HTML>
<HEAD> <META name="VI60_DefaultClientScript" Content="VBScript">
<META NAME="GENERATOR" Content="Microsoft Visual Studio 6.0">
</HEAD>
<BODY>
<P>Enter Your Requirements :</P>
<FORM action="test.asp" id=FORM1 method=post name=FORM1>
<P>Font name : <INPUT id=text1 name=text1></P>
```

```
<P>Font Size  : <INPUT id=text2 name=text2> ( 1 – 7)</P>
<P>Color        : <INPUT id=text3
name=text3></P>
<P><INPUT id=submit1 name=submit1 type=submit value=Accept></P></FORM>
</BODY>
</HTML>
```

TEST.ASP

```
<% @language=vbscript %>
<% if Request.Cookies ("Custom") = "" then
response.cookies("Custom") ("Name") = Request.Form("text1")
response.cookies("Custom") ("Size") = Request.Form("text2")
response.cookies("Custom") ("Color") = Request.Form("text3")
response.Cookies("custom").Expires= "December 12,1999"
end if
%>
<%
Response.write "<font face=" & Request.Cookies ("Custom")("Name") & " s
Ize=" & Request.Cookies ("Custom") ("Size") & ">"
Response.Write "<form name=frm1>"
Response.Write "<input type=hidden name=Color value=" & request.cookies
("Custom") ("Color") & ">"
Response.Write "</form>"
%>
<SCRIPT  LANGUAGE=vbscript>
<!--
   document.fgColor = frm1.Color.value
   document.write "Hello World"
-->
</SCRIPT>
```

Ex 5:

Dictionary.Asp

```
<%@ Language=VBScript %>
<%
set MyDict = server.CreateObject ("Scripting.Dictionary")
MyDict.Add "CH","CHENNAI"
MyDict.Add "BG","BANGALORE"
MyDict.Add "MI","MUMBAI"
Response.Write "<h2>The Number of items in the Dictionary " & MyDict.Co
unt
Response.Write "<h2>The Key with ""CH"" is " & MyDict.Item('CH") & "</h2
>"
%>
```

First.asp

```
<%@ Language=VBScript %>
<HTML>
<HEAD>
<META name="GENERATOR" Content="Microsoft visual Studio 6.0">
</HEAD>
<BODY>
```

```
<%
response.write "<A href="http://eproj/Vid225/Second.asp?x= %>
<%=server.URLEncode ("zdhjgf > sdhf < sdf,sfhjg") %>

<% Response.Write """>URL Encode</a><br><br>" %>

<%
Dim strHTML
strHTML= "<html><head><title> Using HTML Encode </title><body><h2>Hello
World</htm1>"
StrHTML1 = "<html><head><title> Without using HTML Encode </title><body><h2>
Hello World</html>"
Response.Write server.HTMLEncode (strHTML)
Response.Write strHTML1
%>

</BODY>
</HTML>
```

Second.asp

```
<%@ Language=VBScript %>

The  QUERYString Value Passed = <%=Request.QueryString ("X") %>
```

Ex 6:

```
<%@ language="vbscript" %>
<% response.expires=0
    response.buffer = true %>
<%
on error resume next
dim con,rs,constr,errmsg,e
dim m_emailid,m_name,m_dob,m_occupation,m_city,m_country
set con = server.createobject("adodb.connection")
'constr="Provider=sqloledb;database=mydb;server=myserver;user id=user1;password=pass"
constr="Provider=Microsoft.Jet.OLEDB.3.51;Persist Security Info=False;Data
Source=D:\magesh\sriram\mydata.mdb"
con.open constr
set rs = server.createobject("adodb.recordset")
set e = server.createobject("adodb.error")
errmsg=""
select case request.form("s1")
case "Submit"
        m_emailid=request.form("t1")
        m_name=request.form("t2")
        m_dob=request.form("t3")
        m_occupation=request.form("t4")
        m_city=request.form("t5")
        m_country=request.form("t6")
        c = "insert into empinfo values('" & request.form("t1") & "','" & request.form("t2") &
"','" & request.form("t3") & "','" & request.form("t4") & "','" & request.form("t5") & "','" &
request.form("t6") & "')"
        con.execute c
        if con.errors.count <> 0 then
        for each e in con.errors
                if e.number=-2147467259 then
```

```
                        errmsg = "Record already exists"
                end if
        next
        else
                errmsg = "Record added"
        end if
case "Search"

        rs.Open "select * from empinfo where name='" & request.form("ft1") & "'" , con,
adOpenStatic
        if not rs.eof then
                m_emailid=rs(0)
                m_name=rs(1)
                m_dob=rs(2)
                m_occupation=rs(3)
                m_city=rs(4)
                m_country=rs(5)
        else
                errmsg="Employee not found"
        end if
case "Delete"
        con.execute "delete from empinfo where name='" & request.form("ft2") & "'", s
        if s > 0 then
                errmsg = "Record deleted"
        else
                errmsg = "Employee not found"
        end if
end select
%>

<html>
<head><title>Asp Exercise - 9 </title>
<script language=vbscript>

sub c1_OnClick()
f1.t1.value=""
f1.t2.value=""
f1.t3.value=""
f1.t4.value=""
f1.t5.value=""
f1.t6.value=""
document.all.div1.innertext = ""
end sub

sub t1_OnBlur()
if isnumeric(f1.t1.value) or trim(f1.t1.value)="" then
        msgbox "Name cannot be empty or number"
        'f1.t1.focus
end if
end sub

sub t2_OnBlur()
if instr(1,f1.t2.value,"@")=0 or trim(f1.t2.value)="" then
        msgbox "Invalid mail id"
        'f1.t2.focus
end if
```

```
end sub

sub t3_OnBlur()
if not isdate(f1.t3.value) or trim(f1.t3.value)="" then
        msgbox "Invalid Date of Birth"
        'f1.t3.focus
end if
end sub

sub t4_OnBlur()
if trim(f1.t4.value)="" then
        msgbox "Occupation cannot be empty"
end if
end sub

sub t5_OnBlur()
if trim(f1.t5.value)="" then
        msgbox "City cannot be empty"
end if
end sub

sub t6_OnBlur()
if trim(f1.t6.value)="" then
        msgbox "Country cannot be empty"
end if
end sub
</script>
</head>
<body>
<div id="div1">
<font color = "red"><%=errmsg%></font>
</div>
<form name=f1 method=post action=aspex9.asp>
<table border=0>
<tr>
<td>Email Id</td>
<td><input type=textbox name="t1" value=<%="" & m_emailid & ""%>>
</tr>
<tr>
<td>Name</td>
<td><input type=textbox name=t2 value=<%="" & m_name & ""%>>
</tr>
<tr>
<td>Date of Birth</td>
<td><input type=textbox name=t3 value=<%="" & m_dob & ""%>>
</tr>
<tr>
<td>Occupation</td>
<td><input type=textbox name=t4 value=<%="" & m_occupation & ""%>>
</tr>
<tr>
<td>City</td>
<td><input type=textbox name=t5 value=<%="" & m_city & ""%>>
</tr>
<tr>
<td>Country</td>
```

```
<td><input type=textbox name=t6 value=<%="" & m_country & ""%>>
</tr>
</table>
<input type="Submit" value="Submit" name="s1"><input type=button value="Clear"
name="c1">
</form>
<hr>
<form name=f2 method=post action=aspex9.asp>
<input type=textbox name="ft1"><input type=submit name="s1" value="Search"><br>
<input type=textbox name="ft2"><input type=submit name="s1" value="Delete">
</form>
<hr>
</body>
</html>
```

Ex 7:

```
e=vbscript runat=server>
sub application_OnStart()

end sub

sub session_OnStart()
dim constr
constr="Provider=Microsoft.Jet.OLEDB.3.51;Persist Security Info=False;Data
Source=D:\magesh\sathish\mydata.mdb"
session.staticobjects("con").connectionstring=constr
session.staticobjects("con").open
end sub

sub session_OnEnd()

end sub

sub application_OnEnd()

end sub
</script>
<object id=con progid="adodb.connection" scope=session runat=server></object>
<object id=rs progid="adodb.recordset" scope=session runat=server></object>


<%@ language=vbscript %>
<% response.buffer=true %>
<!-- include virtual="/adovbs.inc" -->
<%
dim cn,r
set cn = session.staticobjects("con")
session.staticobjects("rs").open "select * from empinfo",cn,3,2
response.redirect "display.asp"
%>


<%@ language=vbscript %>
<% response.buffer = true %>
```

```
<%
dim r,f
set r = session.staticobjects("rs")
r.movefirst
%>
<html>
<head><title>Table contents</title></head>
<body>
<h2><center>Working with ADO</center></h2>
<center>
<table border=1>
<%
        do while not r.eof = true
                response.write "<tr>"
                for each f in r.fields
                        response.write "<td>" & f.value & "</td>"
                next
                response.write "</tr>"
                r.movenext
        loop
%>
</table>
</center>
</body>
</html>


<%@ language=vbscript %>
<% response.buffer = true %>
<%
on error resume next
dim r,f
dim cn,myarr
set cn = session.staticobjects("con")
session.staticobjects("rs").close
session.staticobjects("rs").open "select * from empinfo",cn,3,2
set r = session.staticobjects("rs")
r.movefirst
myarr = r.getrows
%>
<html>
<head><title>Table contents</title></head>
<body>
<h2><center>Working with ADO and arrays</center></h2>
<center>
<table border=1>
<%
dim nc,nr,i,j
nc = ubound(myarr,1)
nr = ubound(myarr,2)
        for i =0 to nr
                response.write "<tr>"
                for j = 0 to nc
                        response.write "<td>" & myarr(j,i) & "</td>"
                next
                response.write "</tr>"
```

```
        next
%>
</table>
</center>
</body>
</html>


<%@ language=vbscript %>
<%
        set rsCust = Session.staticobjects("rsCust")
        Session.staticobjects("rsCust").MoveFirst
        rsCust.MoveFirst
%>
<html>
<head><title></title></head>
<body>
<h2><center>Customer Information</center></h2>
<center>
<table border=0 bgcolor=silver>
<tr bgcolor=darkblue> <td colspan=3><font color=white><h2>Customer
Information</font></tr>
<form name=frnCust method=post action="display3.asp">
<tr><td> Customer Code <td colspan=2> <input type=text name=txtCode size=30
value=<%=rsCust(0)%>></tr>
<tr><td> Customer Name <td colspan=2> <input type=text name=txtName size=30
value=<%=rsCust(1)%>></tr>
<tr align=center>
<td><input type=Submit Value="<<">
<input type=Submit Value="<">
<input type=Submit Value=">">
<input type=Submit Value=">>">
<td><input type=Submit Value="Add">
<input type=Reset Value="Clear">
<input type=Submit Value="Update">
<input type=Submit Value="Delete">
</tr>
</form>
</table>
</center>
</body>
</html>

<object runat=server SCOPE=Session id=rsCust progid="ADODB.Recordset"></object>
<script language=vbscript runat=server>
sub session_onstart()
        Const strCon = "Provider=Microsoft.Jet.OLEDB.3.51;Persist Security Info=False;Data
Source=D:\magesh\ganesh\ordprd.mdb"
        Session.staticobjects("rsCust").Open "SELECT * FROM Customer", strCon, 2, 3
end sub
sub session_onend()

end sub
z</script>
```