



Manonmaniam Sundaranar University

*DIRECTORATE OF DISTANCE AND CONTINUING EDUCATION
TIRUNELVELI - 627 012, TAMILNADU*

B.A ENGLISH (THIRD SEMESTER)

Digital Skills

(From the Academic Year 2023-2024 onwards)

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Digital Skills

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PRESCRIBED TEXT:

- Lambert, Joan and Joyce Cox. MOS Study Guide for Microsoft – Word, excel, PowerPoint, & Outlook. Online Training Solutions, Inc., 2011
- Williams, Sean A. ChatGPT for Writers: Unlocking the Power of Artificial Intelligence to Enhance your Nonfiction Writing Process, 2023.
- <https://www.geeksforgeeks.org/top-generative-ai-tools/>

UNIT – I: MS Word

Text Basics

Before you can edit or format text, you need to select it. You can select any amount of text by dragging through it. You can select specific units of text as follows:

- To select a word, double-click it. The word and the space following it are selected.

Punctuation following a word is not selected.

- To select a sentence, click anywhere in the sentence while holding down the Ctrl key. The first character in the sentence through the space following the ending punctuation mark are selected.

- To select a paragraph, triple-click it. The paragraph and paragraph mark are selected. You can select adjacent words, lines, or paragraphs by positioning the cursor at the beginning of the text you want to select, holding down the Shift key, and then pressing an arrow key or clicking at the end of the text that you want to select.

To select non-adjacent blocks of text, select the first block, hold down the Ctrl key, and then select the next block.

To select a block of text quickly, you can use the selection area—the empty area to the left of the document’s text column. When the pointer is in the selection area, it changes from an I-beam to a right-pointing arrow. From the selection area, you can select specific units of text as follows:

- To select a line, click in the selection area to the left of the line.
- To select a paragraph, double-click in the selection area to the left of the paragraph.
- To select an entire document, triple-click anywhere in the selection area.

To deselect text, click anywhere in the document window except the selection area.

Text Formatting and saving file

Applying Character Formatting

By default, the font used for text in a new Word document is Calibri, but you can change the font at any time. Each font consists of characters, numbers, and/or symbols that share a common design. You can vary the look of the base font by changing the following attributes:

- **Size** Almost every font comes in a range of sizes, measured in points. A point is approximately 1/72 of an inch.
- **Style** The most common styles are regular (or plain), italic, bold, and bold italic.
- **Color** The palette includes the colors of the theme applied to the document and a set of standard colors. You can also specify custom colors.
- **Underline** You can choose from a variety of underline styles as well as change the underline color.
- **Effects** Various enhancements can be applied, such as strikethrough, shadows, or embossing. You can also hide text by applying the Hidden font effect.
- **Case** You can specify small capital letters (small caps), all capital letters, or all lowercase. You can mix the case by specifying that the first word in a selection should have an initial capital letter (sentence case) or all words should have initial capital letters (title case). You can also toggle the case of selected text, changing all uppercase letters to lowercase and lowercase letters to uppercase.
- **Character spacing** You can push characters apart or squeeze them together. This is also called kerning.

After you select an appropriate font for a document, you can use these attributes to achieve different effects. Although some attributes might cancel each other out, they are usually cumulative. Collectively, the font and its attributes are called character formatting. You can change the character formatting of a selection by clicking buttons on the Mini Toolbar or in the Font group on the Home tab. You can change several character formats at once from the Font dialog box.

➤ To apply character formatting to selected text

→ On the Mini Toolbar, or in the Font group on the Home tab, click the attribute you want to apply.

➤ To change the font size of selected text

→ On the Mini Toolbar or in the Font group on the Home tab, click the Grow Font button to increase the font to the next standard size, or click the Shrink Font button to decrease the font to the next standard size.

► To change the case of selected text

→ On the Home tab, in the Font group, click the Change Case button, and then click Sentence case, lowercase, UPPERCASE, Capitalize Each Word, or tOGGLE cASE.

► To apply a special effect to selected text

→ In the Font group, click the Strikethrough, Subscript, or Superscript button.

Or

1. On the Home tab, click the Font dialog box launcher.

2. On the Font page of the Font dialog box, in the Effects area, select the check box for the effect you want to apply. Then click OK.

► To change the character spacing of selected text

1. In the Font dialog box, display the Advanced page.

2. In the Character Spacing area, change the Spacing setting to Expanded or Condensed, set the number of points of expansion or contraction, and then click OK.

► To highlight selected text

→ On the Mini Toolbar, in the Highlight list, click the color you want.

→ On the Home tab, in the Font group, in the Text Highlight Color list, click the color you want.

Save a Document

The 2007 Microsoft Office system introduced a new set of file formats based on XML, called Microsoft Office Open XML Formats. By default, Word 2010 (and Word 2007)

documents are saved in the .docx format, which is a Word-specific Open XML format. The .docx format provides the following benefits:

- File sizes are smaller than with previous file formats.

- It is simpler to recover damaged content because XML files can be opened in a variety of text editors.
- Security is greater because .docx files cannot contain macros, and personal data can easily be identified and removed from files.

Documents saved in the .docx format can be opened by Word 2010 and Word 2007. Users of earlier versions of Word can download a converter that will allow them to open a .docx file in their version of Word.

In addition to the .docx format, Word provides these Open XML formats:

- docm This format is for macro-enabled documents.
- dotx This format is for document templates.
- dotm This format is for macro-enabled document templates.

You can save a Word document in many formats, some of which optimize the file for specific uses. If you intend to share a Word document specifically with users of Word 2003, 2002, 2000, or 97, you can save it in the .doc file format used by those versions of the program. Word 2010 opens .doc files in Compatibility Mode. Compatibility Mode turns off advanced program features; these features can be re-enabled by saving the file in one of the current file formats.

If you want to save a Word document in a format that can be opened by the widest variety of programs, use one of the following formats:

- Rich Text Format (rtf) This format preserves the document's formatting.
- Plain Text (txt) This format preserves only the document's text.

If you want to ensure that the appearance of the file content is the same no matter what computer or device it is displayed on, or if you want to ensure that other people can't easily modify the file, you can save it in one of the following formats:

- Portable document format (PDF) A fixed-layout document format created by Adobe Systems. A PDF file includes the text, fonts, images, and vector graphics that compose the document. The Adobe Reader or Adobe Acrobat software is required to view a PDF document.
- XML Paper Specification (XPS) document format A fixed-layout document format created by Microsoft. The XPS document format consists of structured XML markup that defines the

layout of a document and the visual appearance of each page, along with rendering rules for distributing, archiving, rendering, processing, and printing the documents.

Each of these formats displays content in a device-independent manner. When you save a Word document in PDF or XPS format, you can optimize the file size of the document for your intended distribution method. You can also do the following:

- Specify the pages to include in the .pdf or .xps version of the document.
- Include or exclude comments and tracked changes.
- Include or exclude items such as bookmarks and properties.
- Set specific PDF options.
- Web Page This format saves the webpage as an .htm file with a folder of supporting files that ensure the page is rendered exactly as you want it.
- Single File Web Page This format embeds all the information necessary to render the webpage in one MIME-encapsulated aggregate HTML (.mhtml) file that can be distributed via email.
- Web Page, Filtered This format removes any Office-specific tags from the file and significantly reduces the size of the web document and its accompanying folder of supporting files. However, it can also radically change the look of the document. For example, it might change a shaded background to a solid color, making the resulting page difficult to read.

After you save a document as a webpage, it is no longer a Word document. However, you can still open, view, and edit the webpage in Word, just as you would a normal document. (You can also open and edit HTML-format webpages created in other programs.)

Making changes can be as basic as replacing text and adjusting alignment, or as advanced as moving and inserting graphics. When you finish modifying the webpage, you can resave it as a webpage, or save it as a regular Word document.

In the Web Options dialog box, which is available from the Tools menu in the Save As dialog box, you can specify which browsers you anticipate will be used to view your webpages. You can also have Word disable any features that are incompatible with the specified browsers.

► To save a document in a specific format

1. In the left pane of the Backstage view, click Save As.
2. In the Save As dialog box, browse to the folder in which you want to save the document. Enter a file name, select a file format, and then click Save.

Or

1. In the left pane of the Save & Send page of the Backstage view, click Change File Type.
2. In the right pane of the Save & Send page, in the Document File Types or Other File Types list, click the file format in which you want to save the document.
3. Click the Save As button.
4. In the Save As dialog box, browse to the folder in which you want to save the document. Enter a file name, select a file format, and then click Save.

► To save a document as a PDF file or an XPS file

1. In the left pane of the Backstage view, click Save As. In the Save As dialog box, browse to the folder in which you want to save the document, and enter a file name. Then in the Save as type list, click PDF (pdf).

Or

In the left pane of the Save & Send page of the Backstage view, click Create PDF/XPS Document. Then in the right pane, click the Create PDF/XPS button. In the Publish as PDF or XPS dialog box, browse to the folder in which you want to save the document, and enter a file name.

2. In the Optimize for area, click Standard to generate a larger, higher-quality file or Minimum size to generate a smaller, lower-quality file. Then click Options.
3. In the Options dialog box, select the document content you want to include in the file, and then click OK.
4. In the Save As dialog box, click Save.

Or

In the Publish as PDF or XPS dialog box, click Publish.

Working with Objects

Inserting Pictures

You can insert digital photographs or pictures created in almost any program into a Word document. You can also capture and insert images of content displayed on your computer screen directly from Word. By using the built-in screen clipping tool, you can insert screen captures of entire windows or selected areas of on-screen content.

Inserting images in a document can increase the file size of the document dramatically. By default, Word compresses pictures when you save a file. You can turn off automatic compression and compress only the pictures you want. You can also adjust the compression rate to be appropriate for the way the document will be viewed.

► To insert a picture from a file

1. On the Insert tab, in the Illustrations group, click the Insert Picture from File button.
2. In the Insert Picture dialog box, browse to and click the file you want. Then do one of the following:
 - Click Insert to insert the picture into the document.
 - In the Insert list, click Link to File to insert a picture that will update automatically if the picture file changes.
 - In the Insert list, click Insert and Link to insert a picture that you can manually update if the picture file changes.

► To change the picture compression settings

1. On the Picture Tools Format contextual tab, in the Adjust group, click Compress Pictures.
2. In the Compress Pictures dialog box, set the options and output you want, and then click OK twice.

► To capture and insert a screen clipping

1. Display the content you want to capture.
2. In the Word document, position the cursor where you want to insert the screen clipping.

3. On the Insert tab, in the Illustrations group, click the Screenshot button.

4. In the Screenshot gallery, do one of the following:

○ Click a window thumbnail to insert a picture of that window into the document at the cursor.

○ Click Screen Clipping, and then drag across the part of the screen you want to capture.

Formatting Pictures

After you insert an image in a document, you can modify it in many ways. For example, you can crop or resize a picture, change the picture's brightness and contrast, recolor it, apply artistic effects to it, and compress it to reduce the size of the document containing it. You can apply a wide range of preformatted styles to a picture to change its shape and orientation, as well as add borders and picture effects.

► To change the size and/or shape of a selected picture

→ Drag its sizing handles.

→ On the Picture Tools Format contextual tab, in the Size group, change the Height and Width settings.

→ On the Format contextual tab, click the Size dialog box launcher. Then on the Size page of the Layout dialog box, change the Height, Width, or Scale settings.

► To move a picture

→ Drag the picture vertically to a new location.

→ Select the picture. On the Format contextual tab, in the Arrange group, display the Position gallery, and then click one of the In Line with Text or With Text Wrapping icons.

► To copy a picture to a new location

→ Hold down the Ctrl key and drag the picture vertically to the second location.

► To apply artistic effects to a selected picture

→ On the Format contextual tab, in the Adjust group, expand the Artistic Effects gallery, and then click the effect you want to apply.

► To apply a style to a selected picture

→ On the Format contextual tab, in the Picture Styles group, expand the Quick Styles gallery, and then click the style you want to apply.

Or

1. On the Format contextual tab, click the Picture Styles dialog box launcher.

2. In the Format Picture dialog box, on the Line Color, Line Style, Shadow, Reflection, Glow and Soft Edges, 3-D Format, and 3-D Rotation pages, choose the effects you want to apply. Then click Close.

Insert and Format Shapes, WordArt, and SmartArt

Inserting and Formatting Shapes

If you want to add visual interest and impact to a document but you don't need anything as fancy as a picture or a clip art image, you can draw a shape. Shapes can be simple, such as lines, circles, or squares; or more complex, such as stars, hearts, and arrows. You can format shapes by using built-in styles or by applying a fill, outline, and effects. You can add text to shapes, specify the text direction, and format the text, either by using normal formatting techniques or WordArt styles, or by applying a fill, outline, and effects.

If you build a picture by drawing individual shapes, you can group them so that they act as one object. If you move or size a grouped object, the shapes retain their positions in relation to each other. To break the bond, you ungroup the object. If your picture consists of more than a few shapes, you might want to draw the shapes on a drawing canvas instead of directly on the page. The drawing canvas keeps the parts of the picture together, helps you position the picture, and provides a frame-like boundary between your picture and the text on the page. You can then draw shapes on the canvas in the usual ways. At any time, you can size and move the drawing canvas and the shapes on it as one unit.

► To open a drawing canvas

→ On the Insert tab, in the Illustrations group, click the Shapes button, and then click

New Drawing Canvas.

Inserting and Modifying WordArt

When you want a text banner that is fancier than one you can create by applying character formatting, you can use WordArt. WordArt text can swirl, grow bigger from one end to the other or in the middle, take on a three-dimensional shape, and change color from one letter to the next. The WordArt object is attached to the paragraph that is active at the time you create the WordArt object, but you can move it independently of the surrounding text.

► To insert a WordArt object

1. On the Insert tab, in the Text group, click the WordArt button.
2. In the WordArt gallery, click the text style you want.
3. Replace the placeholder text in the WordArt object.
4. Set the size and other attributes of the text as you would with any other text.

► To create a WordArt object from existing text

1. Select the text.
2. On the Insert tab, in the Text group, click the WordArt button.
3. In the WordArt gallery, click the text style you want.
4. Set the size and other attributes of the text as you would any other text.

► To format the background of a selected WordArt object

→ On the Drawing Tools Format contextual tab, do any of the following:

- In the Shape Styles gallery, click the built-in style you want to apply.
- In the Shape Styles group, in the Shape Fill, Shape Outline, and Shape Effects galleries, click the settings you want.

► To format the text of a selected WordArt object

→ On the Format contextual tab, do any of the following:

- In the WordArt Styles gallery, click the built-in style you want to apply.

○ In the WordArt Styles group, in the Text Fill, Text Outline, and Text Effects galleries, click the settings you want.

○ In the Text group, click Text Direction, and then click the direction in which you want the text to flow.

Header & Footers

You can display information on every page of your document by creating headers and footers—regions at the top and bottom of the pages that can be created and formatted independently. You can have a different header and footer on the first page of a document, different headers and footers on odd and even pages, or different headers and footers for each section. When you create a header or footer, Word applies the header or footer style specified by the document's template, indicates the header and footer areas by displaying dotted borders, and displays a contextual Design tab on the ribbon.

You can enter information in the header and footer areas the same way you enter ordinary text. You can use the commands on the Design tab to enter and format items such as the date and time, move from one header or footer to another, and establish the location and position of the header and footer.

► To insert a header or footer

1. Position the cursor anywhere in the document.
2. On the Insert tab, in the Header & Footer group, click the Header button or the Footer button.
3. In the Header gallery or the Footer gallery, click the design you want.
4. On the Header & Footer Tools Design contextual tab, in the Options group, do any of the following:
 - Select the Different First Page check box if you want to use a different header or footer on the first page of the document. You might want to do this if, for example, the first page of the document is a cover page.
 - Select the Different Odd & Even Pages check box if you want to use different headers or footers for odd pages and for even pages. Select this option if the content of the header or footer is not centered and the document content will be viewed on facing pages.

Clear the Show Document Text check box if you find that you're distracted by the main document text when you're working in the header or footer.

5. In the Position group, set the Header from Top or Footer from Bottom distance.

6. From the Insert group, insert the date, time, a picture, a clip art image, or any Quick Parts you want to include in the header or footer.

7. In the header or footer, replace any text placeholders and enter any other information you want to appear.

8. In the Close group, click the Close Header and Footer button.

► To delete a header or footer

1. Double-click the header or footer to activate it.

2. Press Ctrl+A to select all the content of the header or footer, and then press Delete.

► To insert the current date and/or time in a header or footer

1. In the header or footer, position the cursor where you want the date and/or time to appear.

2. On the Design contextual tab, in the Insert group, click the Insert Date and Time button.

3. In the Date and Time dialog box, do the following, and then click OK:

Click the format in which you want the date and/or time to appear in the header or footer.

If you want Word to update the date and/or time in the header each time you save the document, select the Update automatically check box.

► To insert a page number in a header or footer

1. On the Insert tab, in the Header & Footer group, click the Insert Page Number button.

2. In the Page Number list, point to a page number position, and then click the page number style you want.

► To change the format of page numbers

1. In the Header & Footer group, click the Insert Page Number button, and then click Format Page Numbers.

2. In the Page Number Format dialog box, in the Number format list, click the format you want.
3. Select any other options you want, and then click OK.

Working with bullets and numbered lists

You can use lists to clearly present a set of related items in a document. When the order of the items is not important, use a bulleted list. You can create a single-level or multilevel bulleted list by selecting a bulleted list style and then typing the list, or by typing the list and then applying the style.

After you create a bulleted list, you can modify, format, and customize the list as follows:

- Move items up or down, insert new items, or delete unwanted items.
- Sort list items in ascending or descending order.
- Change the bullet character to a standard symbol or to a picture.
- Change the overall indentation of the entire list or change the relationship of the first “outdented” line to the other lines.
- Change the level of items in a multilevel list.

► To create a bulleted list

1. Enter the list items as separate paragraphs, and then select the paragraphs.
2. On the Home tab, in the Paragraph group, click the Bullets button.

Or

1. Type * (an asterisk) at the beginning of a paragraph, press the Spacebar or the Tab key, type the first item in the list, and then press Enter.
2. Type items and press Enter to add subsequent bulleted items.
3. To end the list, do one of the following:
 - Press Enter twice to start the next paragraph at the left margin.
 - Press Enter and then Backspace to indent the next paragraph at the same level as the list.

► To change the level of a selected bulleted list

1. On the Home tab, in the Paragraph group, click the Bullets arrow, and then click Change List Level.

2. In the Change List Level gallery, click the level you want.

► To change the level of a list item

→ With the cursor in the item, on the Home tab, in the Paragraph group, click the Increase Indent button to demote the item or the Decrease Indent button to promote the item.

► To sort bulleted list items

1. Select the list items you want to sort.

2. On the Home tab, in the Paragraph group, click the Sort button.

► To change the bullet symbol

1. Click anywhere in the list you want to format.

2. On the Home tab, in the Paragraph group, click the Bullets arrow and then, in the Bullets gallery, click the symbol you want to use.

Or

1. Click anywhere in the list you want to format.

2. On the Home tab, in the Paragraph group, click the Bullets arrow, and then click Define New Bullet.

3. In the Define New Bullet dialog box, do one of the following, and then click OK:

○ Click the Symbol button. In the Symbol dialog box, locate and click the bullet symbol you want to use, and then click OK.

○ Click the Picture button. In the Picture Bullet dialog box, locate and click the bullet graphic you want to use, and then click OK.

► To turn automatic bulleted list formatting on or off

1. On the Proofing page of the Word Options dialog box, in the AutoCorrect options section, click the AutoCorrect Options button.
2. On the AutoFormat As You Type page of the AutoCorrect Options dialog box, select or clear the Automatic bulleted lists check box, and then click OK.
3. In the Word Options dialog box, click OK.

Tables:

Creating Basic Tables

Numeric data can often be presented more efficiently in a table than in a paragraph of text. Tables make large amounts of data or more complex data easier to read and understand because the data can be structured in rows and columns, frequently with row and column headers.

You can create a table in several ways:

- Select the number of rows and columns you want from a grid to create a table that spans the text column with all the cells of equal size.
- Display the Insert Table dialog box and specify the number of rows and columns, as well as the size of the columns.
- Draw cells the size you want.
- Convert selected text to a table

Most people are accustomed to thinking of a table as a means of displaying data in a quick, easy-to-grasp format. But tables can also serve to organize your pages in creative ways. For example, suppose you want to display two tables side by side. The simplest way to do this is to first create a table with one tall row and two wide columns and no gridlines. You can then insert one table in the first cell and the other table in the second cell. These nested tables then seem to be arranged side by side.

As with regular tables, you can create a nested table in one of three ways:

- From scratch
- By formatting existing information
- By inserting Excel data

And just like other tables, you can format a nested table either manually or by using one of the ready-made table styles.

► To insert a table

1. On the Insert tab, in the Tables group, click the Table button.
2. In the grid, move the pointer across and down to select the number of columns and rows you want, and then click the lower-right cell in the selection.

Or

1. On the Insert tab, in the Tables group, click the Table button, and then click Insert Table.
2. In the Insert Table dialog box, in the Table size area, specify the number of columns and rows you want the table to include.
3. In the AutoFit behavior area, do one of the following:

Click Fixed column width, and then specify a standard width for the table columns.

Click AutoFit to contents to size the table columns to fit their contents. The width of the resulting table may be less than the width of the page.

Click AutoFit to window to create a table that fits within the page margins and is divided into columns of equal size.

4. In the Insert Table dialog box, click OK.

► To draw a table

1. On the Insert tab, in the Tables group, click the Table button, and then click Draw Table.
2. Drag the pointer (which has become a pencil) across and down to create a cell.
3. Point to a corner of the cell, and drag to create another cell, or draw column and row boundaries inside the first cell.
4. Press Esc to turn off the table drawing pointer.

► To convert selected text to a table

1. On the Insert tab, in the Tables group, click the Table button, and then click Convert Text to Table.
2. In the Convert Text to Table dialog box, adjust the Table size and AutoFit behavior settings, select the type of text separator, and then click OK.

Formatting Tables

To format an existing table, you can apply one of the table styles available on the Table Tools Design contextual tab, which include a variety of borders, shading, text colors, and other attributes to give the table a professional look. The appearance of the built-in styles reflects the table elements selected in the Table Style Options group on the Design contextual tab.

► To apply a built-in table style

1. Click anywhere in the table you want to format.
2. On the Table Tools Design contextual tab, in the Table Styles gallery, click the built-in style you want to apply

Inserting Preformatted Tables

Formatting a table to best convey its data is often a process of trial and error. You can get started by creating a Quick Table, a preformatted table with sample data that you can customize.

► To insert a Quick Table

1. On the Insert tab, in the Tables group, click the Table button, and then point to Quick Tables.
2. In the Quick Tables gallery, click the preformatted table you want to insert.

UNIT – II: MS Excel

Introduction to Excel

Microsoft Excel is a powerful spreadsheet application widely used for organizing, analyzing, and visualizing data. It allows users to work with a grid of rows and columns, where each intersection is a cell that can store various types of data, including numbers, text, dates, and formulas. Excel offers numerous features such as functions for mathematical operations, data formatting options, and tools for creating charts and graphs. It also includes advanced tools like Pivot Tables for summarizing large datasets and conditional formatting for visually highlighting important information. Whether for personal budgeting, business financial modeling, or data analysis, Excel provides the flexibility and functionality to handle a wide range of tasks efficiently.

Formatting excels work book

Managing Worksheets

► To insert a new worksheet

→ Click the Insert Worksheet button at the right end of the worksheet tab section.

Or

1. Right-click the worksheet tab before which you want to insert a new worksheet, and then click Insert.

2. On the General page of the Insert dialog box, click Worksheet, and then click OK.

► To delete a worksheet

→ Right-click the worksheet tab, and then click Delete.

► To rename a worksheet

1. Right-click the worksheet tab, and then click Rename.

2. Type the new worksheet name, and then press Enter.

Managing Worksheet Content

➤ To select all the content in a worksheet

→ At the junction of the row and column headings (above row 1 and to the left of column A), click the Select All button.

➤ To select an individual column or row

→ Click the column heading (labeled with the column letter) or the row heading (labeled with the row number).

➤ To size a column or row to fit its contents

→ Select the column or row, and then double-click its right or bottom edge.

Managing Excel Tables

➤ To select the data in a table, table column, or table row

→ Point to the upper-left corner of the table. When the pointer changes to a diagonal arrow, click once to select only the data, or twice to select the data and headers.

→ Point to the top edge of the table column. When the pointer changes to a downward-pointing arrow, click once to select only the data, or twice to select the data and headers.

→ Point to the left edge of the table row. When the pointer changes to a right pointing arrow, click once to select only the data, or twice to select the data and headers.

Managing Data Entries

You enter text or a number in a cell simply by clicking the cell and typing the entry. A

Cancel (X) button and an Enter (check mark) button appear between the Formula Bar and

Name box, and the indicator at the left end of the status bar changes from Ready to Enter,

because what you have typed will not be recorded in the cell until you “enter” it.

Excel allows a long text entry to overflow into an adjacent empty cell and truncates the

entry only if the adjacent cell also contains an entry. However, unless you tell it otherwise,

Excel displays long numbers in their simplest form, as follows:

- If you enter a number with fewer than 12 digits in a standard-width cell (which holds 8.43 characters), Excel adjusts the width of the column to accommodate the entry.
- If you enter a number with 12 or more digits, Excel displays it in scientific notation. For example, if you enter 12345678912345 in a standard-width cell, Excel displays 1.23457E+13 (1.23457 times 10 to the 13th power).
- If you enter a value with many decimal places, Excel might round it. For example, if you enter 123456.789 in a standard-width cell, Excel displays 123456.8.
- If you manually set the width of a column and then enter a currency value that is too large to be displayed in its entirety, Excel displays pound signs (#) instead of the value.

► To complete a data entry

→ Click the Enter button (the check mark) on the Formula Bar to complete the entry and stay in the same cell.

→ Press Enter or the Down Arrow key to complete the entry and move to the next cell in the same column.

→ Press the Tab key or the Right Arrow key to complete the entry and move to the next cell in the same row.

→ Press Shift+Enter or the Up Arrow key to complete the entry and move to the previous cell in the same column.

→ Press Shift+Tab or the Left Arrow key to complete the entry and move to the previous cell in the same row.

Perform Calculations

Excel has been referred to as the world's most popular database program because you can store vast amounts of data within a single workbook or worksheet. This was not, however, the purpose for which Excel was created. By using the many functions built in to Excel, you can build formulas that perform complex data calculations. Excel 2010 includes many features that simplify the process of creating complex formulas.

This chapter guides you in studying ways of creating basic formulas, controlling the order in which Excel performs calculations within formulas, calculating data based on specific requirements, and referencing data within a formula.

Create Formulas

Formulas in Excel can be made up of values that you enter, cell references, names, mathematical operators, and functions. A function can be thought of as a service provided by Excel to do a specific task. That task might be to perform a math operation, to make a decision based on information you give it, or to perform an action on some text. A function is always indicated by the function name followed by a set of parentheses. For most functions, arguments inside the parentheses either tell the function what to do or indicate the values that the function is to work with. An argument can be a value that you enter, a cell reference, a range reference, a name, or even another function. The number and type of arguments vary depending on which function you're using. It is important to understand the syntax of common functions and be able to correctly enter the function arguments. Fortunately, you don't have to memorize anything; Excel 2010 does an excellent job of walking you through the process of using a function within a formula. You can type a function's syntax yourself if you want, but it's almost always easier to let Excel guide you through the process. Probably the most common formula used in Excel is one that totals the values in a set of cells. Rather than individually adding the values of all the cells you want to total, you can use the SUM function to perform this task. The following table describes other functions that allow you to summarize information from sets of cells.

► To sum values in a cell range

1. Select the cell immediately below or to the right of the values you want to total.
2. On the Home tab, in the Editing group, click the AutoSum button.

Or

On the Formulas tab, in the Function Library group, click the AutoSum button.

3. Verify that the cell range displayed in the formula is correct, and then press Enter.

Or

1. Select the cell in which you want to place the total.

2. On the Formulas tab, in the Function Library group, click the Math & Trig button, and then in the list, click SUM.

3. In the Function Arguments box, enter the cell range you want to total, and then click OK.

► To count cells containing numeric values

1. Select the cell immediately below or to the right of the range within which you want to count the cells containing numeric values.

2. On the Formulas tab, in the Function Library group, click the AutoSum arrow, and then in the list, click Count Numbers.

3. Verify that the cell range displayed in the formula is correct, and then press Enter.

Or

1. Select the cell in which you want to place the count.

2. On the Formulas tab, in the Function Library group, click the More Functions button, point to Statistical, and then in the list, click COUNT.

3. In the Function Arguments box, enter the cell range within which you want to count non-empty cells, and then click OK.

► To count cells containing any type of value

1. Select the cell in which you want to place the count.

2. On the Formulas tab, in the Function Library group, click the More Functions button, point to Statistical, and then in the list, click COUNTA.

3. In the Function Arguments box, enter the cell range within which you want to count the cells that contain any type of value, and then click OK.

► To average values in a data range

1. Select the cell immediately below or to the right of the values you want to average.

2. On the Formulas tab, in the Function Library group, click the AutoSum arrow, and then in the list, click Average.

3. Verify that the cell range displayed in the formula is correct, and then press Enter.

Or

1. Select the cell in which you want to place the average.
2. On the Formulas tab, in the Function Library group, click the More Functions button, point to Statistical, and then in the list, click AVERAGE.
3. In the Function Arguments box, enter the cell range that you want to average, and then click OK.

► To find the lowest value in a data range

1. Select the cell immediately below or to the right of the values you want to evaluate.
2. On the Formulas tab, in the Function Library group, click the AutoSum arrow, and then in the list, click Min.
3. Verify that the cell range displayed in the formula is correct, and then press Enter.

Or

1. Select the cell in which you want to place the minimum value.
2. On the Formulas tab, in the Function Library group, click the More Functions button, point to Statistical, and then in the list, click MIN.
3. In the Function Arguments box, enter the cell range you want to evaluate, and then click OK.

► To find the highest value in a data range

1. Select the cell immediately below or to the right of the values you want to evaluate.
2. On the Formulas tab, in the Function Library group, click the AutoSum arrow, and then in the list, click Max.
3. Verify that the cell range displayed in the formula is correct, and then press Enter.

Or

1. Select the cell in which you want to place the maximum value.
2. On the Formulas tab, in the Function Library group, click the More Functions button, point to Statistical, and then in the list, click MAX.
3. In the Function Arguments box, enter the cell range you want to evaluate, and then click OK.

Sort and Filter Data with Excel

Filter Data

To locate a specific value, you can apply a filter. To filter by multiple criteria, you can apply additional filters to the results of the first one. In addition to filtering on entire values, you can use ready-made filters to locate values that meet certain criteria. The criteria vary depending on the number format. If the worksheet or table is formatted, you can filter for the cell color, font color, or cell icon.

► To display rows containing a specific column value

1. Click any cell in the range to be sorted. Then on the Home tab, in the Editing group, click the Sort & Filter button, and click Filter.

Or

Click any cell in the range to be sorted. Then on the Data tab, in the Sort & Filter group, click the Filter button.

2. Click the filter arrow for the column by which you want to filter the worksheet, and then click Select All to clear all the check boxes.

3. Select the check box(es) of the field value(s) you want to display, and then click OK.

► To remove a filter

→ On the Home tab, in the Editing group, click the Sort & Filter button, and then click Clear.

→ On the Data tab, in the Sort & Filter group, click the Clear button.

► To apply a common filtering criterion

1. Display the filter arrows, and then click the arrow of the column on which you want to filter.

2. Point to <data type> Filters, and then click the criterion you want to filter by.

3. In the Custom AutoFilter dialog box, enter the value that completes the criterion.

Then if you want, add a second criterion.

4. Click OK.

► To filter on formatting

1. Display the filter arrows, and then click the arrow of the column on which you want to filter.
2. Point to Filter by Color, and then click the formatting you want to filter by.

► To create a custom filter

1. Display the filter arrows, and then click the arrow of the column on which you want to filter.
2. Point to <data type> Filters, and then click Custom Filter.
3. In the Custom AutoFilter dialog box, construct the criterion by which you want to filter, using And to specify two criteria or Or to specify alternatives.
4. Click OK.

Sort Data

You can sort the values in one or more columns in a worksheet or table in either ascending or descending order. To sort on multiple columns, you specify in the Sort dialog box the order in which you want them to be sorted. By default, Excel assumes that the first row in the worksheet contains column headers and does not include it in the sort. It also assumes that you want to sort on the cells' values, but if the worksheet or table is formatted, you can specify that you want to sort on any of the following:

- Cell color
- Font color
- Cell icon

► To sort a worksheet or table on one column

→ Click any cell in the column. Then on the Home tab, in the Editing group, click the Sort & Filter button, and click the sorting option you want.

→ Click any cell in the column. Then on the Data tab, in the Sort & Filter group, click the Sort A to Z or Sort Z to A button.

► To sort a worksheet or table on more than one column

1. Click any cell in the range to be sorted. Then on the Home tab, in the Editing group, click the Sort & Filter button, and click Custom Sort.

Or

Click any cell in the range to be sorted, and then on the Data tab, in the Sort & Filter group, click the Sort button.

2. In the Sort dialog box, click the first column you want in the Sort by list. Then click the criteria by which you want to sort in the Sort on list. Finally, click the order you want in the Order list.

3. Click Add Level, and repeat step 2 for the second column. Repeat this step for additional columns.

4. Click OK

► To remove a sort level

1. On the Home tab, in the Editing group, click the Sort & Filter button, and then click Custom Sort.

2. In the Sort dialog box, click the level you want to remove.

3. Click Delete Level, and then click OK

Create Effective Charts to Present

Plotting Charts

Charts are an important tool for data analysis and are therefore a common component of certain types of worksheets. You can easily plot selected data as a chart to make it easy to identify trends and relationships that might not be obvious from the data itself.

To plot selected data as a chart, all you have to do is specify the chart type. If the type of chart you initially selected doesn't adequately depict your data, you can change the type at any time. The 11 chart types each have several two-dimensional and three-dimensional variations, and you can customize each aspect of each variation. When you plot worksheet data, a row or column of values, which in the charting world are called data points, constitutes a set of data called a data series. Each data point in a data series is represented graphically in the chart by a data marker and in the chart legend by a unique color or pattern. The data is plotted against an x-axis (or category axis) and a y-axis (or value axis). Three-dimensional charts also

have a z-axis (or series axis). Sometimes a chart does not produce the results you expect because the data series are plotted against the wrong axes; that is, Excel is plotting the data by row when it should be plotting by column, or vice versa. You can quickly switch the rows and columns to see whether that produces the desired effect. To see what Excel is doing behind the scenes, you can open the Select Data Source dialog box, which shows you exactly what is plotted where.

► To plot selected data as a chart on the worksheet

→ On the Insert tab, in the Charts group, click the button of the chart type you want, and then click a sub-type.

► To change the type of a selected chart

1. On the Chart Tools Design contextual tab, in the Type group, click the Change Chart Type button.

2. In the Change Chart Type dialog box, click a new type and sub-type, and then click OK.

► To switch rows and columns in a selected chart

→ On the Design contextual tab, in the Data group, click the Switch Row/Column button.

Or

1. On the Design contextual tab, in the Data group, click the Select Data button.

Or

Right-click the chart border or data area, and then click Select Data.

2. In the Select Data Source dialog box, click Switch Row/Column, and then click OK.

Moving and Sizing Charts

The charts you create often don't appear where you want them on a worksheet, and they are often too big or too small to adequately show their data. You can move and size a chart by using simple dragging techniques.

If you prefer to display a chart on its own sheet instead of embedding it in the worksheet containing its data, you can easily move it. You can also move it to any other existing worksheet in the workbook

► To move a selected chart to a chart sheet

1. On the Chart Tools Design contextual tab, in the Location group, click the Move Chart button.

Or

Right-click the chart border, and then click Move Chart.

2. In the Move Chart dialog box, click New sheet, and then if you want, enter a name for the sheet.

3. Click OK.

► To move a selected chart to a different sheet in the same workbook

1. Open the Move Chart dialog box, click Object in, and then select the worksheet you want from the list.

2. Click OK.

► To change the size of a selected chart

→ Point to a handle (set of dots) on the chart's frame, and drag in the direction you want the chart to grow or shrink.

→ Point to a handle in a corner of the chart's frame, hold down the Shift key, and drag in the direction you want the chart to grow or shrink proportionally.

→ On the Chart Tools Format contextual tab, in the Size group, change the Shape Height and Shape Width settings.

Or

1. On the Format contextual tab, click the Size dialog box launcher.

2. In the Size and Properties dialog box, change the settings in the Size and rotate or Scale area, and then click Close.

Editing Data

A chart is linked to its worksheet data, so any changes you make to the plotted data are immediately reflected in the chart. If you add or delete values in a data series or add or remove an entire series, you need to increase or decrease the range of the plotted data in the worksheet.

► To edit the data in a chart

→ In the linked Excel worksheet, change the plotted values.

► To change the range of plotted data in a selected chart

→ In the linked Excel worksheet, drag the corner handles of the series selectors until they enclose the series you want to plot.

Protecting and Sharing the work book

Saving Workbooks in Specific Formats

The 2007 Microsoft Office system introduced a new set of file formats based on XML, called Microsoft Office Open XML Formats. By default, Excel 2010 (and Excel 2007) workbooks are saved in the .xlsx format, which is an Excel-specific Open XML format. The .xlsx format provides the following benefits:

- File sizes are smaller than with previous file formats.
- It is simpler to recover damaged content because XML files can be opened in a variety of text editors.
- Security is greater because .xlsx files cannot contain macros, and personal data can easily be identified and removed from files.

Other Excel-specific Open XML formats include .xlsm for macro-enabled workbooks and .xlsb for binary workbooks. Workbooks saved in the .xlsx format can be opened by Excel 2010 and Excel 2007. Users of earlier versions of Excel can download a converter that will allow them to open an .xlsx file in their version of Excel.

In addition to saving a workbook for use with Excel 2010, you can save it in other formats, including the following:

- Excel Macro-Enabled Workbook To be able to store Microsoft Visual Basic for Applications (VBA) macro code or Excel 4.0 macro sheets, use the XML-based .xlsm format.

- Excel 97-2003 To share an Excel workbook with users of an earlier version of Excel, you can save it in the .xls file format.

- Single File Web Page or Web Page You can convert a workbook into HTML so that it can be viewed in a web browser. Saving a workbook in the Single File Web Page format creates one .mht or .mhtml file that contains the content and supporting information, whereas saving a workbook in the Web Page format creates one .htm or .html file that sets up the display structure and a folder that contains separate content and supporting information files.

- Excel Template To be able to use a workbook as the starting point for other workbooks, you can save the file as a template.

- Text (Tab delimited) or CSV (Comma delimited) If you don't know what program will be used to open the file, you can save it as a delimited text file that can be opened by many programs.

If you intend to share an Excel workbook specifically with users of Excel 2003 or earlier, you can save it in the .xls file format used by those versions of the program. Users of Excel 2010 and Excel 2007 can open an .xls file in Compatibility Mode. Compatibility Mode turns off advanced program features; these features can be re-enabled by saving the file in one of the current file formats.

If you want to ensure that the appearance of the file content is the same no matter what computer or device it is displayed on, or if you want to ensure that other people can't easily modify the file, you can save it in one of the following formats:

- Portable Document Format (PDF) A fixed-layout document format created by Adobe Systems. A PDF file includes the text, fonts, images, and vector graphics that compose the document. The Adobe Reader or Adobe Acrobat software is required to view a PDF document.

- XML Paper Specification (XPS) document format A fixed-layout document format created by Microsoft. The XPS document format consists of structured XML markup that defines the layout of a document and the visual appearance of each page, along with rendering rules for distributing, archiving, rendering, processing, and printing the documents.

Each of these formats displays content in a device-independent manner.

► To save a workbook in a specific format

1. In the left pane of the Backstage view, click Save As.

2. In the Save As dialog box, browse to the folder in which you want to save the workbook. Enter a file name and select a file format, and then click Save.

Or

1. In the left pane of the Save & Send page of the Backstage view, click Change File Type.
2. In the right pane of the Save & Send page, in the Workbook File Types or Other File Types list, click the file format in which you want to save the workbook. Then click the Save As button.
3. In the Save As dialog box, browse to the folder in which you want to save the workbook. Enter a file name, and then click Save.

► To save a workbook as a PDF or XPS file

1. In the left pane of the Backstage view, click Save As. In the Save As dialog box, browse to the folder in which you want to save the workbook, and enter a file name. Then in the Save as type list, click PDF (*.pdf) or XPS Document (*.xps).

Or

In the left pane of the Save & Send page of the Backstage view, click Create PDF/XPS Document. Then in the right pane, click the Create PDF/XPS button.

In the Publish as PDF or XPS dialog box, browse to the folder in which you want to save the workbook, and enter a file name.

2. In the Optimize for area, click Standard to generate a larger, higher-quality file or Minimum size to generate a smaller, lower-quality file. Then click Options.
3. In the Options dialog box, select the workbook content you want to include in the file, and then click OK.
4. In the Save As dialog box, click Save.

Or

In the Publish as PDF or XPS dialog box, click Publish.

► To save a workbook to an existing Windows Live SkyDrive folder

1. In the left pane of the Save & Send page of the Backstage view, click Save to Web.

2. In the right pane of the Save & Send page, in the Shared Folders list, click the folder in which you want to save the workbook. Then click the Save As button.

3. In the Save As dialog box displaying the selected workspace, enter a file name and select a file format, and then click Save.

► To create a Windows Live SkyDrive folder from within Excel

1. In the left pane of the Save & Send page of the Backstage view, click Save to Web.

2. In the right pane of the Save & Send page, click the New Folder button.

3. On the Windows Live SkyDrive site, follow the instructions to log in and create a folder.

4. On the Save & Send page, click the Refresh button.

► To save a workbook to a SharePoint site

1. In the left pane of the Save & Send page of the Backstage view, click Save to SharePoint.

2. In the right pane of the Save & Send page, click Publish Options. In the Publish Options dialog box, do the following, and then click OK:

○ On the Show page, select the workbook content you want to display when the file is open in a browser window.

○ On the Parameters page, add any named ranges in the workbook that you want to be editable when the file is open in a browser window.

3. In the Recent Locations list, click the SharePoint document library in which you want to save the file.

Or

In the Locations list, click Browse for a location.

4. Click the Save As button.

5. In the Windows Security dialog box, enter your SharePoint site credentials, and then click OK.

6. In the Save As dialog box, if necessary, browse to the document library in which you want to save the file. Then enter a file name and select a file format.

7. If you want to display the file in the browser after saving it, select the Open with Excel in the browser check box.

8. In the Save As dialog box, click Save.

Printing

Printing Part or All of a Workbook

An Excel workbook can contain many separate worksheets of data. You can print part or all of an individual worksheet, a selected worksheet, or all the worksheets that contain content at one time. By default, Excel prints only the currently active worksheet(s). If you want to print only part of a worksheet, you can do so from the Print page of the Backstage view or, if you will often print the same portion of a worksheet, you can define that portion as the print area. After defining the print area of a worksheet, you can add selected ranges to it. A contiguous range becomes part of the original print area definition; a range that is noncontiguous or a different shape becomes a separate print area and is printed on a separate page. You can also remove ranges from the print area. If you don't want to limit printing to the print area, you can permanently clear the print area or temporarily ignore it by selecting an option on the Print page of the Backstage view.

► To print all populated worksheets in a workbook

→ On the Print page of the Backstage view, in the Settings area, display the first Print list, and then click Print Entire Workbook.

► To print a single worksheet

1. Display the worksheet you want to print.

2. On the Print page of the Backstage view, in the Settings area, display the first Print list, and then click Print Active Sheets.

► To print specific worksheets

1. Display the first worksheet in the workbook that you want to print.

2. Select additional worksheets in one of these ways:

○ To select adjacent worksheets, press Shift and then click the tab of the last worksheet in the workbook that you want to print.

○ To select nonadjacent worksheets, press Ctrl and then click the tab of each additional worksheet you want to print.

3. On the Print page of the Backstage view, in the Settings area, display the first Print list, and then click Print Active Sheets.

➤ To print a portion of a worksheet without defining a print area

1. In the worksheet, select the range of cells you want to print.

2. On the Print page of the Backstage view, in the Settings area, display the first Print list, and then click Print Selection.

➤ To define a selected range as the print area

→ On the Page Layout tab, in the Page Setup group, click the Print Area button, and then click Set Print Area.

➤ To add a selected range to the print area

→ On the Page Layout tab, in the Page Setup group, click the Print Area button, and then click Add to Print Area.

➤ To remove a range from the print area

1. On the Page Layout tab, click the Page Setup dialog box launcher.

2. On the Sheet page of the Page Setup dialog box, change the range reference in the Print area box, and then click OK.

➤ To clear the print area

→ On the Page Layout tab, in the Page Setup group, click the Print Area button, and then click Clear Print Area.

➤ To ignore the print area

→ On the Print page of the Backstage view, in the Settings area, display the first Print list, and then click Ignore Print Area.

Setting Page Breaks

When the cell entries in a worksheet will not fit within the margins of one printed page, Excel indicates which cells will print on which page by inserting a soft page break. Page breaks are indicated in Normal view as dashed lines. If you want to control how pages break, you can insert manual page breaks. Before printing a worksheet, you can preview the page breaks and fine-tune their placement.

► To insert a manual page break

1. Click the cell in column A above which you want to insert a horizontal page break.

Or

Click the cell in row 1 to the left of which you want to insert a vertical page break.

Or

Click a cell anywhere in the worksheet above and to the left of which you want to insert both horizontal and vertical page breaks.

2. On the Page Layout tab, in the Page Setup group, click the Breaks button, and then click Insert Page Break.

► To delete a manual page break

1. Click any cell below or to the right of the page break you want to remove.

2. On the Page Layout tab, in the Page Setup group, click the Breaks button, and then click Remove Page Break.

► To delete all manual page breaks

→ On the Page Layout tab, in the Page Setup group, click the Breaks button, and then click Reset All Page Breaks.

► To preview and adjust page breaks

1. On the View toolbar located at the right end of the status bar, click the Page Break Preview button and, if a message box appears, click OK.
2. To adjust an existing page break, drag it in the direction of either of its arrows.

UNIT – III: MS PowerPoint

Setting Up PowerPoint Environment

Moving Around in a Presentation

When developing a presentation in Normal view, you can move around in several ways.

- ▶ To display a specific slide in the Slides pane
 - On the Outline tab or the Slides tab of the Overview pane, click the slide's icon.
- ▶ To move backward or forward one slide at a time
 - At the bottom of the vertical scroll bar to the right of the Slide pane, click the Previous Slide or Next Slide button.
- ▶ To move to a different slide in a presentation
 - On the vertical scroll bar, drag the scroll box until the adjacent Screen

Before you can edit or format existing text, you have to select it. You can select specific items as follows:

- A word Double-click it. The word and the space following it are selected. Punctuation following a word is not selected.
- A bullet point or subpoint Click its bullet.
- Adjacent words, lines, or paragraphs Drag through them.
- All the text in a placeholder In the Slide pane, click inside the placeholder. Then on the Home tab, in the Editing group, click the Select button and click Select All.

Alternatively, after clicking the placeholder, press Ctrl + A.

- All the text on a slide On the Outline tab, click its slide icon.

- All the objects on a slide In the Slide pane, select any placeholder (so that it has a solid border), click the Select button, and then click Select All.

The PowerPoint 2010 working environment, also called the user interface, makes sophisticated features for creating presentations easily accessible. You can manipulate this environment to make working on a presentation as intuitive as possible.

This chapter guides you in studying methods for controlling the PowerPoint working environment to suit the way you work, including switching to the view most suitable for a particular task, customizing the PowerPoint program window, making frequently used commands available with one click, and modifying program settings.

Switching Views

For efficiency you should know which view to use for a particular task. For example, you could change the order of the first four slides in a presentation in Normal view, but you would probably want to switch to Slide Sorter view to change the order of the first 14 slides.

- To switch to Normal, Slide Sorter, or Reading view

→ At the right end of the status bar, on the View Shortcuts toolbar, click the button of the view you want.

→ On the View tab, in the Presentation Views group, click the button of the view you want.

- To switch to Slide Show view

→ At the right end of the status bar, on the View Shortcuts toolbar, click the Slide Show button.

→ On the Slide Show tab, in the Start Slide Show group, click the From Beginning or From Current Slide button.

- To exit Slide Show view

→ Press the Esc key to return to the previous view.

- To display notes pages

→ On the View tab, in the Presentation Views group, click the Notes Page button.

- To display the slide master, handout master, or notes master

→ On the View tab, in the Master Views group, click the button of the master you want.

Creating slides and applying themes

Inserting New Slides

When you insert a slide into a presentation, PowerPoint inserts it with the default layout immediately after the current slide. If you want to add a slide with a different layout, you select the layout you want from the New Slide gallery. The available layouts and their design depend on the template used to create the presentation.

If you want to insert a slide that is similar to an existing slide, you can duplicate the existing slide and then change it, instead of having to create the slide from scratch.

➤ To insert a new slide after the current slide

→ On the Home tab, in the Slides group, click the New Slide button to insert a slide with the default layout.

→ On the Home tab, in the Slides group, click the New Slide arrow, and then click the layout you want.

➤ To change the layout of an existing slide

→ On the Home tab, in the Slides group, click the Layout button, and then click the layout you want.

➤ To duplicate a slide

→ On the Home tab, in the Slides group, click the New Slide arrow, and then click Duplicate Selected Slides.

→ In the Overview pane, on the Slides tab, right-click the slide, and then click Duplicate Slide.

Deleting Slides

You can easily delete slides you no longer need.

► To delete the current slide

→ On the Home tab, in the Clipboard group, click the Cut button.

→ In the Overview pane, on the Slides tab, right-click the slide thumbnail, and then click Delete Slide.

→ In the Overview pane, on the Outline tab, right-click the slide title, and then click Delete Slide.

► To delete multiple slides

1. In the Overview pane, on the Slides tab, select the slides you want to delete, and then do one of the following:

○ Cut the slides.

○ Right-click anywhere in the selection, and then click Delete Slide.

Hiding Slides

If you decide not to include a slide when you deliver a presentation but you don't want to delete the slide entirely, you can hide the slide. Then PowerPoint will skip over that slide during delivery.

► To hide a selected slide

→ On the Slide Show tab, in the Set Up group, click the Hide Slide button.

→ Right-click the selected slide, and then click Hide Slide.

► To display a hidden slide during presentation delivery

→ Right-click anywhere on the screen, point to Go to Slide, and then click the hidden slide, which is identified by the parentheses around its slide number.

Applying and Modifying Themes

The primary formatting of a presentation is dictated by a theme—a combination of colors, fonts, formatting, graphics, and other elements that gives the presentation a coherent look. Even a presentation developed from scratch has a theme, albeit one that consists of only a white background and a basic set of font styles and sizes. You can change the theme applied to a presentation at any time by selecting one from the Themes gallery.

Colors Every presentation, even a blank one, has an associated set of 12 complementary colors: four Text/Background colors for dark or light text on a dark or light background; Accent 1 through Accent 6 for the colors of objects other than text; Hyperlink to draw attention to hyperlinks; and Followed Hyperlink to indicate visited hyperlinks. Ten of these colors appear with light to dark gradients in the various color palettes. (The two background colors are not represented in these palettes.)

Fonts Every presentation, even a blank one, has an associated set of two fonts. The Fonts gallery lists the combination of fonts that is used by each of the themes, in alphabetical order by theme. The top font in each combination is used for titles, and the bottom font is used for other slide text.

- **Effects** The Effects gallery displays the combination of effects that is applied to shapes on the slides by each of the themes.

Changes made to a component of a theme are stored with the presentation and do not affect the default theme.

- ▶ To apply a different theme

- On the Design tab, in the Themes group, click the More button in the lower-right corner of the Themes gallery, and then click the thumbnail of the theme you want.

- ▶ To change the theme colors, fonts, or effects

1. On the Design tab, in the Themes group, click the Colors, Fonts, or Effects button.
2. In the corresponding gallery, click the color scheme, font set, or combination of effects you want.

- ▶ To save a modified theme

1. Adjust the colors, fonts, or effects of the current theme to suit your needs.
2. In the Themes gallery, below the thumbnails, click Save Current Theme.
3. In the Save Current Theme dialog box, name the theme, and then click Save.

► To create a new color scheme

1. Apply the color scheme that is closest to the one you want.
2. On the Design tab, in the Themes group, click the Colors button, and then at the bottom of the gallery, click Create New Theme Colors.
3. In the Create New Theme Colors dialog box, click the box to the right of the presentation element you want to change.
4. In the color palette that appears, do one of the following:
 - Click the color you want to apply to the selected element.
 - At the bottom of the palette, click More Colors. Then on either the Standard page or the Custom page of the Colors dialog box, click the color you want, and click OK.
5. In the Name box at the bottom of the Create New Theme Colors dialog box, assign a name to the new color scheme, and then click Save.

► To create a new font set

1. Apply the font set that is closest to the one you want.
2. On the Design tab, in the Themes group, click the Fonts button, and then at the bottom of the gallery, click Create New Theme Fonts.
3. In the Create New Theme Fonts dialog box, in the Heading font list, click the font you want.
4. Repeat step 3 to change the Body font setting.
5. In the Name box at the bottom of the dialog box, assign a name to the new font set, and then click Save.

Formatting the Background of Slides

You can customize the background of all the slides in a presentation by applying a background style from a gallery of predefined solid colors and gradients that reflect the color scheme applied to the presentation.

- **Solid color** This simple effect can be customized with varying degrees of transparency.
- **Gradient color** In these visual effects, a solid color gradually changes from light to dark or dark to light. PowerPoint offers several gradient patterns, each with several variations. You can also choose a preset arrangement of colors from professionally designed backgrounds in which the different colors gradually merge.
- **Texture** PowerPoint comes with several preset textures that you can easily apply to the background of slides.
- **Picture** You can also add a picture to the background as a single object or as a tiled image that fills the entire slide.
- **Pattern** You can choose from 48 patterns and specify the foreground and background colors.

Working with bullets and numbering

Bulleted lists form the foundation of most presentations. You can enter up to five levels of bullets on any slide with a content placeholder. By default, the bullet points you enter are all first-level, but you can easily demote bullet points to subpoints and promote subpoints to bullet points, both on the slide in the Slide pane and on the Outline tab of the Overview pane. (On the Outline tab, you can also change slide titles to bullet points and vice versa.)

If you have entered regular text paragraphs in a placeholder or an independent text box, you can convert the text to a bulleted list or a numbered list. (Numbers are appropriate for items that must appear in a specific order.) You can also convert a bulleted list or numbered list to regular text paragraphs. The basic look of the bullet points and subpoints is determined by the formatting prescribed on the slide master. However, you can customize a bulleted list by using basic formatting techniques. You can also change the size, color, and symbol of the bullets on the Bulleted page of the Bullets And Numbering dialog box.

- To demote a bullet point to a subpoint

→ With the cursor in the bullet point, on the Home tab, in the Paragraph group, click the Increase List Level button.

→ Click to the left of the text of the bullet point, and then press the Tab key.

► To promote a subpoint to a bullet point

→ With the cursor in the subpoint, on the Home tab, in the Paragraph group, click the Decrease List Level button.

→ Click to the left of the text of the bullet point, hold down Shift, and then press the Tab key.

► To convert selected text to a bulleted list

→ On the Home tab, in the Paragraph group, click the Bullets button.

► To change the bullets in a selected bulleted list

1. On the Home tab, in the Paragraph group, click the Bullets arrow.

2. In the Bullets gallery, select the bullet style you want.

Or

1. In the Bullets gallery, click Bullets and Numbering.

2. On the Bulleted page of the Bullets and Numbering dialog box, change the size and color of the existing bullet.

3. To change the bullet symbol, click Customize, and in the Symbol dialog box, choose a font and symbol. Then click OK.

4. To use a picture as a bullet, click Picture, and in the Insert Picture dialog box, locate and double-click the picture file you want.

5. In the Bullets and Numbering dialog box, click OK.

► To convert selected text to a numbered list

→ On the Home tab, in the Paragraph group, click the Numbering button.

► To change the numbers in a selected numbered list

1. On the Home tab, in the Paragraph group, click the Numbering arrow.
2. In the Numbering gallery, select the number scheme you want.

Or

1. In the Numbering gallery, click Bullets and Numbering.
2. On the Numbered page of the Bullets and Numbering dialog box, change the size and color of the numbers, and then click OK.

► To adjust the hanging indent of a list

→ Drag the First Line Indent and Hanging Indent markers to the left or right on the ruler.

Working with Objects

Cropping Images

For pictures and clip art images, you can focus attention on a particular part of an image by cropping away the parts you don't need. In addition to being able to crop free-hand, you can use one of several ready-made aspect-ratio settings that take the guesswork out of cropping, including the following:

- Square (1:1)
- Portrait (2:3, 3:4, 3:5, and 4:5)
- Landscape (3:2, 4:3, 5:3, 5:4, 16:9, and 16:10)

When you select an aspect ratio, PowerPoint centers a cropping frame of that ratio over the picture. You can then move the picture under the cropping frame so that it encompasses the part of the picture you want.

You can also crop a picture to fill a picture area, to fit a picture area, or to fit any of the shapes in the Shape gallery.

► To crop a selected image by hand

1. On the Picture Tools Format contextual tab, in the Size group, click the Crop button.
2. Move the cropping pointer over one of the cropping handles surrounding the image, and drag to crop away the parts of the image you don't want.

3. Click the Crop button to turn off the cropping pointer.

► To crop a selected image to a specific aspect ratio

1. On the Format contextual tab, in the Size group, display the Crop list, click Aspect Ratio, and then click the aspect you want.

2. Move the picture under the cropping frame until the frame encompasses the part of the image you want.

3. Click the Crop button to turn off the cropping frame.

► To crop a selected image to fill or fit the current shape

→ On the Format contextual tab, in the Size group, display the Crop list, and click Fill or Fit.

► To crop a selected image to fit a different shape

→ On the Format contextual tab, in the Size group, display the Crop list, click Crop to Shape, and then in the Shape gallery, click the shape you want.

Formatting Images

After you insert a picture or clip art image into your presentation, you can modify it in the following ways:

- Remove the background.
- Make it sharper or softer and adjust the brightness and contrast.
- Tint the image with various shades of a color, or make parts of an image transparent.

Working with Shapes

To emphasize key points in a presentation, you can draw shapes, including stars, banners, boxes, lines, circles, and squares. You can also combine shapes to create simple illustrations. After drawing a shape, you can format it by using the same techniques you would use to format a text box. The quickest way to apply an eye-catching combination of formatting is to use a

style. If you format a shape and then want all subsequent shapes you draw in the same presentation to have the same formatting, you can set the formatting combination as the default.

You can add text to a shape and then format it the same way you would format any text, including by applying a WordArt style to it.

► To draw a shape

1. On the Insert tab, in the Illustrations group, click the Shapes button.
2. In the Shapes gallery, click the shape you want.
3. Move the crosshair pointer to the position on the slide where you want the upperleft corner of the shape to be, and drag down and to the right to draw a shape the size you want.

► To change to a different shape

1. With the shape selected, on the Drawing Tools Format contextual tab, in the Insert Shapes group, click the Edit Shape button.
2. Click Change Shape, and then in the Shapes gallery, click the shape you want

► To make the formatting of the selected shape the default for future shapes

→ Right-click the shape, and click Set as Default Shape.

► To add text to a selected shape

1. On the Format contextual tab, in the Insert Shapes group, click the Text Box button.
2. Click the shape, and then enter the text.

► To connect two shapes

1. In the Shapes gallery, under Lines, click one of the connector shapes.
2. Point to the first shape, point to a connection point, drag to the second shape, and when its connection points appear, release the mouse button over one of the points.

Using Smart Art and Tables

When you want to illustrate a process or the relationship between hierarchical elements, you can create a dynamic, visually appealing diagram by using SmartArt graphics. By using

predefined sets of formatting, you can almost effortlessly put together the type and style of diagram that best conveys your information, such as the following:

- List Shows groups of multilevel sequential or nonsequential information.
- Process Visually describes the ordered set of steps required to complete a task or workflow.
- Cycle Represents a circular sequence of steps, tasks, or events; or the relationship of a set of steps, tasks, or events to a central, core element.
- Hierarchy Illustrates the structure of an organization or entity.
- Relationship Shows convergent, divergent, overlapping, merging, or containing elements.
- Matrix Shows items or concepts as they relate to the whole.
- Pyramid Shows proportional, interconnected, or hierarchical relationships in a triangle.
- Picture Creates a layout in which you can insert graphics, optionally with captions.

► To create a SmartArt diagram from a bulleted list

→ Right-click any item in the list, point to Convert to SmartArt, and then in the gallery, click the diagram you want.

► To create an empty SmartArt diagram

1. On a slide that contains a content placeholder, click the Insert SmartArt Graphic button.

Or

On the Insert tab, in the Illustrations group, click the SmartArt button.

2. In the left pane of the Choose a SmartArt Graphic dialog box, click the category you want.

3. In the center pane, click the desired layout.

4. Click OK.

► To add text to a SmartArt diagram

→ Click a shape, and then enter the text.

Or

1. Open the Text pane by doing one of the following:

- Click the button on the left side of the diagram's frame.
- On the SmartArt Tools Design contextual tab, in the Create Graphic group, click the Text Pane button.

2. Replace the bullet point placeholders with your own text.

► To add a shape

→ In the Text pane, at the right end of the bullet after which you want to add the shape, press Enter, and enter the text for the new shape.

→ Click the shape after which you want to add the shape, and then on the Design contextual tab, in the Create Graphic group, click the Add Shape button.

► To promote a subordinate point to a shape or demote a shape to a subordinate point

→ Click the subordinate point or shape, and then on the Design contextual tab, in the Create Graphic group, click the Promote or Demote button.

► To move an existing shape

→ Click the shape, and then on the Design contextual tab, in the Create Graphic group, click the Move Up or Move Down button.

► To delete a selected shape

→ Press the Delete key

Making Design Changes

You can customize a diagram as a whole by making changes such as the following:

- Switch to a different layout of the same type or a different type.
- Switch the direction of the layout.
- Add shading and three-dimensional effects to all the shapes in a diagram.
- Select a different combination of colors that coordinates with the presentation's color scheme.
- Apply fancy formatting to the text in all the shapes.

Animation and Slide Transition

The judicious use of dynamic effects can grab and keep the attention of an audience. By adding transitions between slides, you can visually mark the end of one topic and the beginning of another, and by animating objects on a slide, you can add emphasis, focus, and entertainment. This chapter guides you in studying the techniques for quickly animating objects, including how to customize animations to suit your needs. It also covers how to add and control dynamic slide transitions.

Applying Built-In Animations

If you are delivering a presentation from your computer, you can keep your audience focused and reinforce your message by applying built-in animations to the text and graphics on your slides. You can apply the following types of ready-made effects from the Animation gallery:

- **Entrance** Animate the way the element appears on the slide.
- **Emphasis** Increase or decrease the importance of the element by changing its color, style; or brightness; by making it grow or shrink; or by making it spin.
- **Exit** Animate the way the element leaves the slide.
- **Motion Paths** Move the element around on the slide in various ways, such as diagonally to the upper-right corner or in a circular motion.

Each animation you add is identified on the slide by an adjacent numbered box that indicates the order in which the animations will occur.

➤ To apply a built-in animation to a selected object

→ On the Animations tab, in the Animation group, click the More button, and then in the gallery, click the animation you want.

➤ To preview the animation for a selected object

→ On the Animations tab, in the Preview group, click the Preview button.

➤ To remove an animation from a selected object

→ In the Animation gallery, click None.

Applying Fancier Animations

If none of the predefined effects in the Animation gallery meets your needs, you can display additional, professionally designed animations in four categories: Basic, Subtle, Moderate, and Exciting.

Having applied one animation, you can apply another of a different type. (Applying another of the same type replaces the existing animation.) On the slide, each animation is identified by its own box, with the boxes stacked to the left of the animated object.

► To apply a fancier animation to a selected element

1. On the Animations tab, in the Advanced Animation group, click the More button to the right of the Animation gallery, and then at the bottom of the gallery, click the animation category you want.

2. In the Change <Animation> Effect dialog box, click the animation you want.

► To apply an additional animation to a selected animated object

→ On the Animations tab, in the Advanced Animation group, click the Add Animation button, and then click the additional animation you want to apply.

Copying Animations

If you combine animation effects and want to apply the same combination to another object, you can copy the set with the Animation Painter, which functions the same way as the Format Painter.

► To copy the animations applied to a selected object to another object

→ On the Animations tab, in the Advanced Animation group, click the Animation Painter button, and then click the object to which you want to copy the animations.

Apply and Modify Transitions Between Slides

Transitions control the way successive slides move into view. They include such effects as sliding in, dissolving in from the outer edges or the center, and opening like a vertical blind. Each slide can have only one transition. You can set transitions in Normal view or Slide Sorter view, and you can set them for one slide, for a group of slides, or for an entire presentation.

Depending on the type of transition, you might be able to refine its effect. In addition, you can specify the following:

- An associated sound
- The transition speed
- When the transition occurs

➤ To add transitions between slides

→ On the Transitions tab, in the Transition to This Slide group, display the Transitions gallery, and then click the transition you want.

➤ To refine the effect of the transition of a selected slide

→ On the Transitions tab, in the Transition to This Slide group, click the Effect Options button, and then click the effect you want.

➤ To incorporate a sound into the transition of a selected slide

→ On the Transitions tab, in the Timing group, display the Sound list, and then click the sound you want.

➤ To change the speed of the transition of a selected slide

→ On the Transitions tab, in the Timing group, enter the speed you want in the Duration box.

➤ To automate the transition of the selected slide

1. On the Transitions tab, in the Timing group, clear the On Mouse Click check box.

2. Select the After check box, and then enter a time in the adjacent box.

➤ To apply the transition of the selected slide to all the slides

→ On the Transitions tab, in the Timing group, click the Apply To All button.

➤ To remove transitions between slides

1. On the Transitions tab, in the Transition to This Slide group, display the Transitions gallery, and click None.

2. In the Timing group, click the Apply To All button.

Slide show option

► To use a pen or highlighter

1. In Slide Show view, move the cursor over the slide to display the navigation toolbar. Then click the Pen button, and click either Pen or Highlighter.

Or

Right-click anywhere on the screen, click Pointer Options, and then click either Pen or Highlighter.

2. Use the tool to annotate the slide.

3. Turn off the pen or highlighter by clicking the Pen button and then clicking Arrow.

Or

Right-click the screen, click Pointer Options, and then click Arrow.

► To change the pen color before the presentation

1. On the Slide Show tab, in the Set Up group, click the Set Up Slide Show button.

2. In the Set Up Show dialog box, change the Pen color setting to the desired color, and then click OK.

► To change the pen color during the presentation

→ Display the navigation toolbar, click the Pen button, click Ink Color, and then in the palette, click the color you want.

→ Right-click the screen, click Pointer Options, click Ink Color, and then in the palette, click the color you want.

► To erase an annotation

→ Display the navigation toolbar, click the Pen button, click Eraser, and then click the annotation you want to remove.

→ Right-click the screen, click Pointer Options, click Eraser, and then click the annotation you want to remove.

➤ To remove all annotations on a slide

→ On the navigation toolbar, click the Pen button, and then click Erase All Ink on Slide.

→ Right-click the screen, click Pointer Options, and then click Erase All Ink on Slide.

➤ To discard or retain annotations when you close the presentation

1. Press Esc to stop the presentation.

2. When a message asks whether you want to keep your ink annotations, click Keep or Discard.

Adjusting Slide Show Settings

The final preparations for delivering a presentation depend on the delivery method. In the Set Up Show dialog box, you can specify the following:

- How the presentation will be delivered
- Whether all slides will be shown, or just a slide subset
- Whether an automatic slide show will loop continuously, be shown without narration, and be shown without animation
- Whether slide timings will be used
- Whether your hardware setup includes multiple monitors, and if so whether you want to use Presenter view
- What pen color and laser pointer color should be used.

➤ To set up a presentation for delivery

1. On the Slide Show tab, in the Set Up group, click the Set Up Slide Show button.

2. In the Set Up Show dialog box, select the options you want, and then click OK.

➤ To specify that narrations should be played during presentation delivery

→ On the Slide Show tab, in the Set Up group, select or clear the Play Narrations check box.

→ In the Set Up Show dialog box, in the Show options area, select or clear the Show without narration check box.

► To specify that slide timings should be used during presentation delivery

→ On the Slide Show tab, in the Set Up group, select or clear the Use Timings check box.

→ In the Set Up Show dialog box, in the Advance slides area, click Use timings, if present.

► To specify that media controls should be shown during presentation delivery

→ On the Slide Show tab, in the Set Up group, select or clear the Show Media Controls check box.

Printing

Previewing and Printing

If you want to deliver a presentation by using transparencies on an overhead projector, you need to print your presentation on special sheets of acetate. Even if you plan to deliver your presentation electronically, you might want to print your presentation to proof it for typographical errors and stylistic inconsistencies. Assuming that you have already set the slide size and orientation of your presentation, you can preview it to see how the slides will look when printed. If you will be printing a color presentation on a monochrome (usually black ink) printer, it's a good idea to preview in pure black and white or grayscale (shades of gray) to verify that the text is legible against the background.

When you are ready to print, you can quickly print one copy of each slide on the default printer with the default settings. You can adjust any of the following settings:

- Specify the printer to use You can specify the printer you want to use and set its properties (such as paper source and image compression).

- Specify which slides to print You can print all the slides, the selected slides, or the current slide. You can print only specific slides by clicking the Slides box and entering slide numbers and ranges separated by commas (no spaces). For example, enter 1,5,10-12 to print slides 1, 5, 10, 11, and 12.

- Print hidden slides You can include slides in the printed version that will be hidden in the electronic presentation.

- Specify what to print You can print slides (one per page), notes pages (one halfsize slide per page with space for notes), an outline, or handouts. When printing handouts, you can specify the number of slides that print on each page (1, 2, 3, 4, 6, or 9) and the order in which the slides appear on the page. Put a frame around slides You can print a frame around the slides on the printed page.

- Scale slides to fit the paper If you haven't set the size of the slides to match the size of the paper in the printer, PowerPoint can automatically reduce or increase the size of the slides to fit the paper when you print them.

- Print in high quality For final output, you can specify that the slides be printed in the printer's highest quality.

- Print comments and ink markup You can print electronic or handwritten notes attached to the presentation so that you can review them along with the slides.

- Print and collate multiple copies If you want to print multiple copies of a presentation, you can specify whether complete copies should be printed one at a time.

- Specify the color range You can print your presentation in color (color on a color printer and grayscale on a monochrome printer), grayscale (on a color or monochrome printer), or pure black and white (no gray on either a color or monochrome printer).

- To preview a presentation

- On the Print page of the Backstage view, in the right pane, click the Next Page or Previous Page button to move among the slides.

- In the right pane of the Print page, click the Zoom In or Zoom Out button or drag the Zoom slider to zoom in or out. Click the Zoom to Page button to fit the slide to the pane.

- To print one copy of all the slides with the default settings

- On the Print page of the Backstage view, at the top of the center pane, click Print.

- To change the settings for slides, or to print handouts, notes, or an outline

1. On the Print page of the Backstage view, in the center pane, under Settings, display the second list, and then click the presentation component you want to print.

2. Change other settings as necessary, and then at the top of the center pane, click Print.

UNIT – IV: ChatGPT

Overview of using ChatGPT for nonfiction writing

ChatGPT (short for "Generative Pre-trained Transformer") is a powerful language generation model developed by OpenAI that can generate humanlike text based on a given prompt or input. It has been trained on a vast amount of text data, giving it the ability to understand context and generate text that sounds natural and coherent.

In the context of nonfiction writing, ChatGPT can be used as a powerful tool to assist authors with various tasks such as generating ideas, conducting research, writing, editing and more. ChatGPT can assist with idea generation by providing suggestions for chapter titles, subtopics, research questions and more. It can also be used to conduct research by summarizing sources, generating text passages from sources, and ensuring the accuracy and credibility of the generated research.

ChatGPT can also be used to write the book by providing suggestions based on the given outline and research and help with editing and revising the text, which can save a lot of time for the author. ChatGPT can also be used for ghostwriting, fact-checking, and text summarization. Additionally, ChatGPT can assist with multimedia and other media, email marketing, sales and marketing, book marketing, and even product design.

Overall, using ChatGPT can help nonfiction authors to increase their productivity, generate high-quality text quickly, and streamline their writing process, making it an essential tool for any nonfiction author looking to improve their workflow and efficiency.

Benefits of using ChatGPT for nonfiction authors

There are several benefits of using ChatGPT for nonfiction authors, including:

- **Increased productivity:** ChatGPT can help nonfiction authors to generate ideas, conduct research, and write text quickly and efficiently, which can save a significant amount of time and increase productivity.
- **High-quality text:** ChatGPT has been trained on a vast amount of text data, giving it the ability to generate text that sounds natural and coherent. This can help authors to produce high-quality text that is easy to read and understand.

- Streamlined writing process: ChatGPT can assist with various tasks related to nonfiction writing, such as idea generation, research, writing, and editing. This can help to streamline the writing process and make it more efficient.
- Ghostwriting: ChatGPT can be used for ghostwriting as it can generate text that sounds natural and can maintain the style and voice of the author.
- Fact-checking and verification: ChatGPT can assist with factchecking and verification, which can help to ensure the accuracy of the text and credibility of the research.
- Multimedia and other media: ChatGPT can be used to incorporate multimedia and other media into the book making it more engaging and interactive. Email marketing: ChatGPT can be used for crafting compelling email campaigns and personalizing email content.
- Sales and marketing: ChatGPT can be used to create sales copy and optimize landing pages.
- SEO: ChatGPT can be used for optimizing website content and generating meta tags and descriptions.
- Product design: ChatGPT can be used for product design, for example, to design marketing materials.

By using ChatGPT, nonfiction authors can benefit from increased productivity, high-quality text, and a streamlined writing process, among many other features.

Setting up and getting started with ChatGPT

Setting up and getting started with ChatGPT can involve a few steps, including:

- Sign up for an API key: In order to use ChatGPT, you will need to sign up for an API key from OpenAI. This will allow you to access the model and use it to generate text.
- Choose a programming language: ChatGPT can be accessed and used through various programming languages such as Python, JavaScript, and Java. Choose the one that you are most comfortable with and that fits your project requirements.
- Install the necessary libraries: Depending on the programming language you choose; you will need to install the necessary libraries to be able to use ChatGPT. For example, if you are using Python, you can install the "OpenAI" library. Connect to the API: Once you have your API key and the necessary libraries installed, you can connect to the API and start using ChatGPT to generate text. You will need to provide the API with your API key and the text you want to generate.

- Start experimenting with different prompts: Once you are connected to the API, you can start experimenting with different prompts to see what kind of text ChatGPT can generate. You can also adjust the parameters to fine-tune the generated text to suit your needs.
- Get familiar with the API documentation: The OpenAI API documentation provides detailed information on how to use the API and the different parameters you can use to fine-tune the generated text. Familiarize yourself with the documentation to understand how to use the API to its full potential.
- Continuously monitor and make adjustments: As you use the API, monitor the generated text closely and make adjustments to the parameters as needed to fine-tune the output.

Overall, setting up and getting started with ChatGPT can be relatively simple and straightforward, as long as you have an API key and a basic understanding of the programming language you are using. With a little bit of experimentation and practice, you can start using ChatGPT to generate highquality text and streamline your writing process.

Using ChatGPT for idea generation

Using ChatGPT for idea generation: ChatGPT can be used to generate ideas for your nonfiction book by providing suggestions for chapter titles, subtopics, research questions and more. You can give ChatGPT a prompt about the general topic of your book and it will generate a list of ideas related to that topic. For example, if you are writing a book about the history of a specific country, you can give ChatGPT a prompt like "ideas for chapters about the history of X country" and it will generate a list of chapter titles, such as "The Early Civilization of X," "The Colonial Era in X," "The Modern Era in X," and so on.

Organizing your book with ChatGPT: ChatGPT can assist in organizing your book by providing suggestions for organizing your outline and research. You can give ChatGPT your research material and it will generate an outline for your book based on the main points from your research. Additionally, ChatGPT can help to organize your research by summarizing sources, generating text passages from sources, and ensuring the accuracy and credibility of the generated research.

Outlining chapters and subtopics: ChatGPT can be used to generate an outline for your book by providing suggestions for chapter titles, subtopics, and research questions. Once you have a general idea of the topic of your book, you can give ChatGPT a prompt like "outline for a book about X" and it will generate a list of chapter titles and subtopics. This can help you to quickly organize your ideas and plan the structure of your book.

Developing research questions: ChatGPT can be used to generate research questions by providing suggestions based on the given prompt and research. For example, you can give ChatGPT a prompt like "research questions for a book about X" and it will generate a list of research questions related to that topic. This can help you to quickly identify the key questions you need to answer in your research and focus your efforts.

Planning your research with ChatGPT

Planning your research with ChatGPT can involve several steps, including:

Identify the main topics of your book: Before you can start planning your research, you need to have a general idea of the main topics you want to cover in your book. You can use ChatGPT to generate ideas for chapter titles, subtopics, and research questions to help you identify the main topics of your book.

Generate a list of sources: Once you have identified the main topics of your book, you can use ChatGPT to generate a list of sources that you can use for your research. You can give ChatGPT a prompt like "sources for research on X topic" and it will generate a list of sources that are relevant to that topic.

Summarize sources: ChatGPT can also be used to summarize sources, which can help you to quickly understand the key points from each source and determine whether they are relevant to your research.

Organize your research: ChatGPT can assist in organizing your research by providing suggestions for organizing your outline and research. You can give ChatGPT your research material and it will generate an outline for your book based on the main points from your research.

Generate text passages: ChatGPT can also be used to generate text passages from sources, which can help you to quickly identify key quotes and passages that you can use in your book.

Ensure accuracy and credibility: ChatGPT can assist with factchecking and verification, which can help you to ensure the accuracy and credibility of the information you gather during your research. This can give you added confidence in the information you include in your book and can help to avoid inaccuracies or errors that could undermine the credibility of your book.

Overall, using ChatGPT for planning your research can be a powerful tool that can help you to identify relevant sources, summarize key information, and organize your research in a way that makes it easy to use in your book quickly and efficiently. By utilizing ChatGPT to plan your research, you can save time and focus on the most important information to support your arguments and ideas.

Summarizing sources with ChatGPT

Summarizing sources with ChatGPT can involve the following steps:

Provide the source text: You need to provide the source text that you want to summarize to ChatGPT. This can be in the form of a text file, a webpage, or any other format that can be read by the model.

Give a prompt: You need to provide a prompt to ChatGPT that tells it what you want it to do. For example, you can give a prompt like "Summarize this article on X topic" or "Provide a summary of this research paper"

Set the parameters: You can set the parameters such as the length of the summary, the level of detail, and the type of summary (high-level or detailed summary) you want ChatGPT to generate.

Run the model: Once you have provided the source text, the prompt, and set the parameters, you can run the model and it will generate a summary of the source text based on the prompt and parameters provided.

Review the summary: Review the summary generated by ChatGPT to ensure that it accurately captures the main points of the source text and that it is coherent and easy to understand.

Adjust: If necessary, you can adjust the parameters or the prompt to fine-tune the summary.

Summarizing sources with ChatGPT can save a significant amount of time and effort for the author, as it can quickly condense large amounts of information into a more manageable form.

Additionally, it can assist with identifying the main points of the source text and ensure the credibility of the research.

Generating text passages from sources

Generating text passages from sources with ChatGPT can involve the following steps:

Provide the source text: You need to provide the source text that you want to generate text passages from to ChatGPT. This can be in the form of a text file, a webpage, or any other format that can be read by the model.

Give a prompt: You need to provide a prompt to ChatGPT that tells it what you want it to do. For example, you can give a prompt like "Generate text passages on X topic" or "Provide text passages from this research paper on X"

Set the parameters: You can set the parameters such as the length of the passages, the level of detail, and the type of passages (quotes, paraphrasing) you want ChatGPT to generate.

Run the model: Once you have provided the source text, the prompt, and set the parameters, you can run the model and it will generate text passages from the source text based on the prompt and parameters provided.

Review the passages: Review the passages generated by ChatGPT to ensure that they accurately reflect the meaning and context of the source text, and that they are coherent and easy to understand.

Make adjustments: If necessary, you can make adjustments to the parameters or the prompt to fine-tune the passages.

Generating text passages from sources with ChatGPT can be useful for authors who are looking to use specific quotes or paraphrase from a source in their book. It can help to ensure the accuracy of the information and make it easy to identify the key points of the source text.

Ensuring accuracy and credibility of ChatGPT generated research.

Ensuring accuracy and credibility of ChatGPT-generated research can involve several steps, including:

Review the generated research: Once you have used ChatGPT to generate research, you should thoroughly review it to ensure that it is accurate and credible. Check the facts and figures, the sources, and the context of the information provided.

Compare with other sources: Compare the generated research with other sources to ensure that the information is consistent and accurate. Look for any discrepancies or inconsistencies and consider the credibility of the sources used by ChatGPT.

Fact-checking: Use fact-checking tools and methods to verify the accuracy of the information provided by ChatGPT. This can include cross-referencing with other sources, using fact-checking websites, or consulting with experts in the field.

Use of multiple models: When generating research, you can use multiple models or services to ensure that the research generated is accurate and credible.

Use of human editors: Have a human editor review the generated research, as they can provide an additional layer of review and fact-checking to ensure the accuracy and credibility of the generated research.

Continuously monitor: Continuously monitor the generated research and make adjustments as needed to ensure its accuracy and credibility.

By following these steps, you can help to ensure the accuracy and credibility of the research generated by ChatGPT. It's important to keep in mind that ChatGPT is a machine and can make mistakes, so it's always good to doublecheck the information it provides. Additionally, it's important to consider the credibility of the sources used by ChatGPT and to use other sources and factchecking methods to verify the information provided.

UNIT – V: Artificial Intelligence Tools (AI Tools)

What is Generative AI?

Generative AI refers to a type of artificial intelligence that can create new content, such as images, text, or music, by learning patterns from existing data. These tools are used for a wide range of generative AI applications, from creating stunning artwork to automating repetitive business processes.

For businesses and educational purposes, generative AI tools help boost productivity and provide creative solutions that save time and effort. For instance, generative AI tools for academics assist students in their studies, while businesses benefit from automation to streamline their operations.

How Does Generative AI Tool Work?

Generative AI tools like those provided by **AWS (Amazon Web Services)** use a cloud-based infrastructure to generate new content like text, images, audio, or even video. Many **generative AI tools in AWS** allow users to leverage powerful cloud computing for AI, making it more accessible and scalable. Here's how they work:

1. **Data Collection and Training:** They learn from large sets of specific data, like text, images, or code samples, to understand patterns and rules.
2. **Model Design:** They're built on neural networks, which are like artificial brains. Different types of networks are used depending on the task.
3. **Content Generation:** They start with random noise and refine it based on what they've learned from the data, gradually creating more meaningful output.
4. **Assessment and Improvement:** The generated content is checked for quality, and the model keeps learning and getting better based on feedback.

By continuously learning and refining, these tools create **higher-quality content** over time.

Best Generative AI Tools

There are plenty of free generative AI tools available that make creating art, videos, or texts accessible to everyone without any financial commitment. Some of the best free AI art generators and free generative AI tools for images allow you to explore creativity with no limitations. Let's explore generative ai tools list

ChatGPT–GPT-4

ChatGPT by OpenAI – Best for Conversational AI and Text Generation

- **ChatGPT** by OpenAI is one of the most popular **generative AI tools** for producing conversational text that feels natural. Used widely in education, business, and customer support, ChatGPT offers real-time assistance in writing, answering questions, and summarizing information. As a **generative AI tool for education**, it helps students and professionals create **AI-generated text** that's engaging and contextually relevant.

Key Features

- Generates natural, conversational text responses
- Available across multiple devices
- Responsive to user inputs

Best For:

- Text creation, education, and support
- Conversational AI applications for chatbots and automated responses.
- Rapid brainstorming and content idea generation.

Pros and Cons

Pros	Cons
High-quality, human-like responses	Subscription for advanced features
Adaptable for various applications	Limited free access

GitHub Copilot

GitHub Copilot uses **generative AI** to assist developers in writing code more efficiently. It provides intelligent code completion, reducing repetitive coding and debugging, and making it a powerful tool for improving productivity in development.

Key Features

- Autocompletes code in real-time as you type.
- Supports popular coding languages like Python, JavaScript, etc.

Best For:

- Developers seeking faster code generation and error reduction.
- Learning new programming languages efficiently.

Pros and Cons

Pros	Cons
Reduces coding time	Subscription required
Works in Visual Studio	Limited free trial

Bard

Bard is Google's response to conversational AI tools, providing reliable, AI-driven content and conversational capabilities. It leverages Google's vast data ecosystem for relevant responses, making it a strong competitor in the **generative AI space**.

Key Features

- Conversational AI with Google's integration and data.
- Human-like responses for customer interactions.
- Supports various NLP tasks for content creation.

Best For

- Businesses using Google services for content and AI.
- Companies leveraging data-driven AI tools.
- Developers building chat-based applications.

Pros and Cons

Pros	Cons
Google ecosystem integration	May have regional limitations
Real-time updates	Competitors offer more customizable options
High reliability	

Cohere Generate

Cohere Generate specializes in generating **AI-driven text** for content creators, marketers, and developers. It supports natural language processing tasks like summarization, language translation, and chatbots, making it a powerful tool in the **generative AI tools** landscape.

Key Features

- Offers language generation, summarization, and classification
- Customizable NLP models
- Ideal for large-scale data processing

Best For:

- **Businesses implementing NLP**
- **Research applications in natural language**

Pros and Cons

Pros	Cons
Supports custom NLP models	Custom pricing may be high
Excellent for text analysis	Requires technical setup for custom use

Claude

Claude by Anthropic is built with a strong focus on safety and ethical AI practices, designed for businesses that prioritize aligned, responsible AI responses. Claude is highly customizable, making it suitable for educational, professional, and corporate uses where ethical AI is paramount.

Key Features

- Ethical and aligned AI text generation
- Prioritizes safety and transparency
- Ideal for regulated industries

Best For:

- **Businesses needing safe, responsible AI**
- **Applications in healthcare, finance, and education**

Pros and Cons

Pros	Cons
Ethical AI model	Custom pricing for full use
Great for sensitive industries	May not support all AI capabilities

Synthesia

Synthesia creates realistic AI avatars, making it ideal for corporate training videos, explainer videos, and other professional content. This **generative AI tool** allows users to turn text into spoken video content, enhancing e-learning and corporate content creation.

Key Features

- Custom AI avatars for video
- Multilingual support

Best For:

- **Corporate training and e-learning videos**
- Quick, engaging video presentations.

Pros and Cons

Pros	Cons
Professional video quality	Paid subscription
Supports multiple languages	Limited customization of avatars

DALL-E 2

DALL-E 2 by OpenAI – Best for AI-Generated Art and Images

- **DALL-E 2** is an **open AI image creator** from OpenAI that generates high-quality visuals from text prompts, making it ideal for creatives in need of unique visuals. This **AI art platform** can create anything from realistic scenes to imaginative artwork, perfect for **AI-generated art prints** and professional design projects.

Key Features

- Detailed AI-generated images
- Image editing and customization
- Ability to create **AI-generated art prints**

Best For:

- **Unique visual content creation and AI art**

Pros and Cons

Pros	Cons
Creative and versatile image outputs	Subscription required for full features
High-quality image generation	Usage limits on free version

Descript

Descript is a **generative AI tool** that combines AI-driven video and audio editing with a text-based editing interface. Perfect for podcasters, YouTubers, and social media creators, Descript allows for editing media content as simply as editing text, with powerful features like auto transcription and voice synthesis

Key Features

- Text-based video and audio editing
- AI voiceover generation

Best For:

- Podcasters who need fast editing tools.
- Content creators working on social media videos.
- Teams collaborating on multimedia projects.

Pros and Cons

Pros	Cons
Great for text-based editing	Limited customization in free version
Easy for beginners	Subscription for full features

Type Studio

Type Studio is a generative AI tool designed for effortless video editing and transcription. It simplifies the process of creating and editing video content by turning audio into text and allowing users to edit the video by modifying the transcript. Ideal for creators and marketers, Type Studio helps to save time and enhance productivity in video production with its user-friendly interface.

Key Features

- Text-based video editing
- Automated transcription
- Easy video captioning and subtitles
- Multi-language support

Best For

- Content creators who need quick video edits
- Social media marketers creating engaging video content
- Businesses that want to automate video captioning

Pros and Cons

Pros	Cons
Easy, text-based video editing	Limited advanced video editing features
Saves time with automated transcription	May not handle complex video edits well
Multi-language transcription support	Can be slow with large files

Designs.ai

Designs.ai is an AI-powered design tool that allows users to create logos, videos, websites, and social media content with ease. It uses artificial intelligence to generate high-quality designs based on user input, making it an excellent tool for businesses and individuals who need professional designs quickly without the need for design expertise.

Key Features

- AI-powered logo creation
- Automated video production
- Website builder with customizable templates
- Social media content generation

Best For

- Small business owners looking for professional design solutions
- Marketing teams needing quick visual content
- Entrepreneurs and startups with limited design resources

Pros and Cons

Pros	Cons
Quick and easy design creation	Limited customization in some templates
No design skills required	Some advanced features are locked behind a paywall
Great for marketing and branding	Generated designs may lack uniqueness

How Can Businesses Use Generative AI Tools?

Generative AI tools are revolutionizing the way businesses operate by streamlining processes, enhancing creativity, and improving efficiency. Businesses can leverage generative AI for a wide range of applications. For example, AI-driven content generation tools can help marketers and content creators rapidly produce high-quality articles, blog posts, social media updates, and ad copy, saving valuable time and resources. In customer service, AI chatbots and virtual assistants can engage with customers around the clock, answering queries, providing product recommendations, and improving customer satisfaction. Generative AI can also be used in product design and development, with AI tools that generate new design concepts or assist in creating prototypes. Additionally, businesses can harness AI for data analysis and forecasting, identifying trends and insights from large datasets that would otherwise be time-consuming to analyze manually. In video and audio production, generative AI tools can automate editing, transcription, and even generate synthetic voices, reducing the need for manual input. Overall, businesses of all sizes can use generative AI to automate routine tasks, enhance creative efforts, improve customer experiences, and ultimately drive innovation and growth.

Which Top Generative AI Tools Are Best?

There are several generative AI tools that have gained popularity for their ability to simplify complex tasks and boost productivity. **Descript**, for example, is an excellent tool for podcasters and video creators. It offers text-based video and audio editing, allowing users to edit their content as easily as editing text. Its AI voiceover generation feature is particularly valuable for creating consistent audio content. **Type Studio** is another standout tool, focused on text-based video editing and transcription. It makes video editing much faster by turning spoken words into editable text, helping content creators create engaging videos in a fraction of the time. **Designs.ai** is a top choice for businesses that need quick, high-quality design work. It uses AI to generate logos, social media posts, websites, and videos, making it a great tool for small businesses and entrepreneurs who need professional designs without hiring a graphic designer. **Runway** is a popular generative AI tool in the creative space, especially for video editing, offering advanced tools for AI-powered video generation and editing. For businesses focused on document creation and management, **ChatGPT** and **Jasper** are leading AI tools that assist with content generation, email drafting, and even coding. These tools, along with

many others, offer different capabilities, but all have the common goal of helping businesses operate more efficiently and creatively by using the power of artificial intelligence.