ਜਗਤ ਗੁਰੂ ਨਾਨਕ ਦੇਵ
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ਪਟਿਆਲਾ

The Motto of Our University

(SEWA)

SKILL ENHANCEMENT

EMPLOYABILITY

WISDOM

ACCESSIBILITY

SELF-INSTRUCTIONAL STUDY MATERIAL FOR JGND PSOU

JAGAT GURU NANAK DEV
PUNJAB STATE OPEN UNIVERSITY, PATIALA

(Established by Act No. 19 of 2019 of the Legislature of State of Punjab)

BACHELOR OF ARTS
(LIBERAL ARTS)

SKILL ENHANCEMENT COURSE
SEMESTER III

BLAB32308T: FUNDAMENTALS OF COMUTER APPLICATION (SEC-1) (ii)

Head Quarter: C/28, The Lower Mall, Patiala-147001

WEBSITE: www.psou.ac.in

The Study Material has been prepared exclusively under the guidance of Jagat Guru Nanak Dev Punjab State Open University, Patiala, as per the syllabi prepared by Committee of experts and approved by the Academic Council.

COURSE COORDINATOR AND EDITOR:

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LIST OF CONSULTANTS/ CONTRIBUTORS

1. Dr. Anju Bala

JAGAT GURU NANAK DEV PUNJAB STATE OPEN UNIVERSITY, PATIALA
(Established by Act No. 19 of 2019 of the Legislature of State of Punjab)

PREFACE

Jagat Guru Nanak Dev Punjab State Open University, Patiala was established in December 2019 by Act 19 of the Legislature of State of Punjab. It is the first and only Open University of the State, entrusted with the responsibility of making higher education accessible to all, especially to those sections of society who do not have the means, time or opportunity to pursue regular education.

In keeping with the nature of an Open University, this University provides a flexible education system to suit every need. The time given to complete a programme is double the duration of a regular mode programme. Well-designed study material has been prepared in consultation with experts in their respective fields.

The University offers programmes which have been designed to provide relevant, skill-based and employability-enhancing education. The study material provided in this booklet is self-instructional, with self-assessment exercises, and recommendations for further readings. The syllabus has been divided in sections, and provided as units for simplification.

The University has a network of 10 Learner Support Centres/Study Centres, to enable students to make use of reading facilities, and for curriculum-based counselling and practicals. We, at the University, welcome you to be a part of this instituition of knowledge.

Prof. Anita Gill
Dean Academic Affairs

BACHELOR OF ARTS (LIBERAL ARTS)

SKILL ENHANCEMENT COURSE

SEMESTER-III

(BLAB32308T) FUNDAMENTALS OF COMPUTER APPLICATIONS (SEC)

MAX MARKS: 100
EXTERNAL: 70
INTERNAL: 30
PASS: 35%
Credits: 4

Objective:

To provide computer skills and knowledge for commerce students and to enhance the student understands of usefulness of information technology tools for business operations.

INSTRUCTIONS FOR THE CANDIDATES:

Candidates are required to attempt any two questions each from the sections A, and B of the question paper, and any ten short answer questions from Section C. They have to attempt questions only at one place and only once. Second or subsequent attempts, unless the earlier ones have been crossed out, shall not be evaluated.

Section A

Word Processing: Introduction to word Processing, Word processing concepts, Use of Templates, Working with word document: Editing text, Find and replace text, Formatting, spell check, Autocorrect, Auto text; Bullets and numbering, Tabs, Paragraph Formatting, Indent, Page Formatting, Header and footer, Tables: Inserting, filling and formatting a table; Inserting Pictures and Video; Mail Merge: including linking with Database; Printing documents

Preparing Presentations: Basics of presentations: Slides, Fonts, Drawing, Editing; Inserting: Tables, Images, texts, Symbols, Media; Design; Transition; Animation; and Slideshow.

Section B

Spreadsheet and its Business Applications: Spreadsheet concepts, Managing worksheets; Formatting, Entering data, Editing, and Printing a worksheet; Handling operators in formula, Project involving multiple spreadsheets, Organizing Charts and graphs

Generally used Spreadsheet functions**:** Mathematical, Statistical, Financial, Logical, Date and Time, Lookup and reference, Database, and Text function.

Creating spreadsheet in the area of**:** Loan and Lease statement; Ratio Analysis; Payroll statements; Capital Budgeting; Depreciation Accounting; Graphical representation of data; Frequency distribution and its statistical parameters; Correlation and Regression.

Suggested Reading:

1. Hunt, R., J. Shelley, *Computers and Commonsense*, Prentice Hall of India.
2. Sinha, Pradeep K. and Preeti Sinha, *Foundation of Computing*, BPB Publication.
3. Saxena, Sanjay, *A First Course in Computers*, Vikas Publishing House.
4. Leon A. & Leon M., *Introduction to Computers*, Leon Vikas Publications

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BACHELOR OF ARTS (LIBERAL ARTS)

SKILL ENHANCEMENT COURSE

COURSE (BLAB32308T): FUNDAMENTALS OF COMPUTER APPLICATION (SEC-1) (ii)

COURSE COORDINATOR- DR. AMITOJ SINGH
SEMESTER - III

SECTION A

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SECTION B

BACHELOR OF ARTS (LIBERAL ARTS)

SEMESTER-III

FUNDAMENTALS OFCOMPUTER APPLICATION

UNIT 1: WORD PROCESSING

STRUCTURE

1.0 OBJECTIVES

- To know the basics of Word Processor Components
- To open, close, save, delete and rename the document
- To use the templates and styles
- To design a table of contents
- To design the resume
- To create the document views

1.1 INTRODUCTION

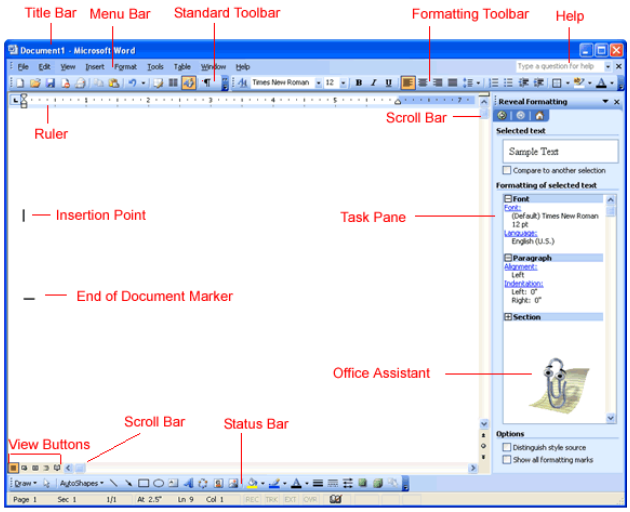
Word Processing Package is a computer application software package which is designed by Microsoft Co-operation. It is used to process and edit the words and also known as computerized typewriter software. Computer and Typewriter have QERTY type keyboard and all the concepts are in Word Processor which are in Typewriter. As compared to typewriter, Word Processor package has many advantages:

- The content of the text can be seen on to the screen rather than directly printing.
- It is easier to modify and edit the information through computer
- Word Processing Package is most popular used package. It is used for every application like industrial, commercial, business, administration, hospital etc.
- You can edit, copy, save, open, and print the document.
- It enables the user to create Graphics, Tables, and Images etc. into the document file.
- It can work in every environment like DOS, WINDOWS, and LINUX etc.

In this chapter, firstly the components of MS-WORD 2007 will be discussed. Then, the basics of word processor like Opening, Closing an existing document and the use of templates have been discussed [13].

1.2 COMPONENTS OF WORD PROCESSOR

The different components of MS-WORD is shown as below:



Title Bar

A horizontal bar is present at the top of an active document. This bar shows the name of the currently open document and application. At the right end, it contains control buttons like Minimize, Maximize, Restore and Close.

Quick Access Toolbar

A customizable toolbar present at the top of an activedocument. By default, this Toolbar displays the Save, Repeat and Undobuttonsand mostly used for accessing frequently usedcommands. Any of the commands can be added by clicking the dropdown arrow [4].

Ribbon

The Ribbon changes the menus and toolbars into the previous versions. The Ribbon depicts various features that used to be hidden in the File menus. It becomes easier to find and seeallcommands for document formatting. CTRL + F1.Is used to reduce the Ribbon to a single line of tabs.

Status Bar

A horizontal bar present at the bottom of an active window. It provides the information like number of pages present in the current document, current position of the cursor, current page number etc.

View Toolbar

A toolbar which enables, modifies, and shows different views of an active document's content.

Zoom Button

A button that expands or reduces the document contents in the document window.

Ruler

It helps to adjust the text along with the document. The ruler may set the ruler according to the requirement of the setting. It is used to make the text more presentable.

Task Bar

It shows the currently open document along with other settings such as volume control, printer, Clock and CPU information etc.

1.2.1 Opening a Document

When you need to modify the existing document, then document will be opened that allows to make changes in the document like adding, modifying or deleting content. To open an existing word document created in the Microsoft Word, the following steps are taken:

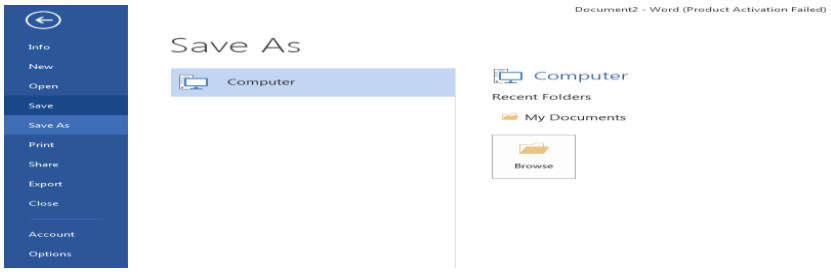
1. Click the File menu.
2. Click on the Open submenu which makes a dialog box to appear.

3. In the recent documents, it show the list of all latest documents opened previously from which one can choose the file you want to open.
4. On clicking the Computer icon, locate and open the drive and folder the contains the file.
5. Click the file which one want to open.

1.2.2 Saving a Document

It is necessary to save the newly created files in order to access them later. We need to give some name to the file which we want to save. To save the created file, the following steps are taken:

1. Choose the File menu.
2. Click on Save submenu from the File menu. From keyboard, the combination of Ctrl+S can be pressed. The Save dialog box will appear as



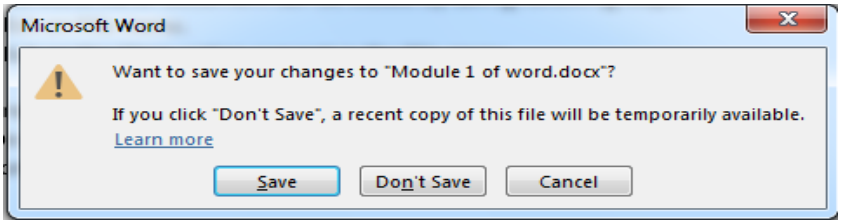
3. Select the required folder from the Browse folder where we want to save the document.
4. In the File name box, write the name of the file by which we want to save the created document.
5. From the Save as type field, we need to specify the format of the file in which we want save our file. The default file format is ".docx".
6. Click on the Save button [16].

1.2.3Closing a Document

The opened word file or document can be closed by taking following steps:

1. Click on File menu.
2. Click on the Close option present in the File menu.

   OR
3. Press Ctrl+F4 key combination from the keyboard.
4. On clicking the Close option for the already existing opened document, the following dialog box will appear on the screen

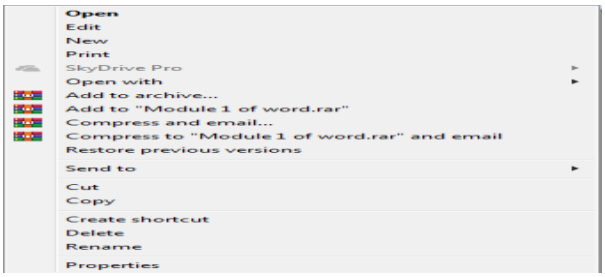


5. To save the document, click on Save otherwise click on Don't Save.
6. On the press of Save button, the document will be saved to the already specified location.
7. On the press of Don't Save, the specified changes in the document will not be reflected back to the specified location.

1.2.4 Renaming the Document

To change the name of the existing document is done using the following steps:

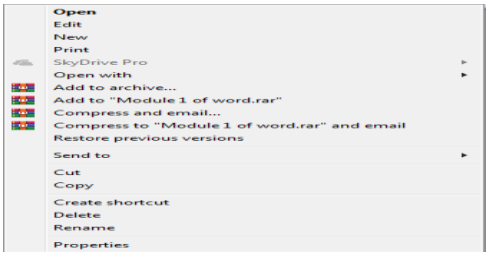
1. Go to the specified location where the document is saved.
2. Right click on the document which we want to rename. The following menu will appear on doing so [8].
3. Click on the Rename option. This will provide the facility to type the new name of the document instead of old name.



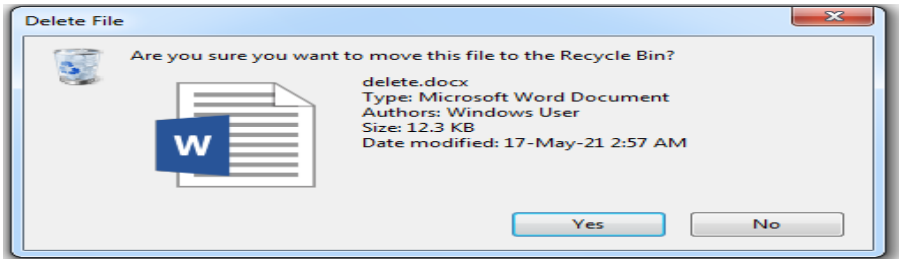
1.2.5 Deleting the Document

To delete the existing document the following steps are followed:

1. Go to the specified location where the document is saved.
2. Right click on the document which we want to delete. The following menu will appear on doing so.



3. Click on the Delete option. The following dialog box appears on the screen asking for the assurance of the user for the deletion of the file.



4. On clicking Yes button, the file gets deleted and move to the recycle bin.
5. On clicking No button, the process gets reverted back and nothing happens.

1.3 USE OF THE TEMPLATES, THEMES AND STYLES

Templates are the files that help to design interesting, attractive, and professional-looking documents. Template contains content and design based elements that are useful in the starting point while creating a document.

A template may be defined as a predefined file with predefined structure, style and look. On the basis of this file, a new document can be created having same structure, style and look as that of the template. The size with orientation of the page, specific margins, face type, font style and line spacing, have to be specified [17]. This collection of specifications that determine the appearance of a document is known as template. User can change structure, style and look of the document depending upon the requirement.

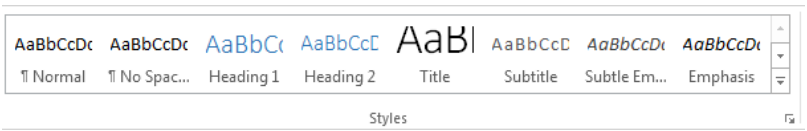
Examples: Examples are resumes, invitations, and newsletters.

Theme

It is used to provide a designer look with different theme colors and fonts. Themes can be shared among the Office for various applications that support themes, such as Excel, Word and PowerPoint. For example, we can create or customize a theme in either Excel, MS-Word PowerPoint, and then apply it anywhere.

Style

It is one of the important feature of the Microsoft Word. Style is basically the predefined instructions used for formatting throughout the document. The style gallery is available in the standard toolbar under the home menu as shown below.



When we create a document in the Microsoft Word, the new blank document uses the Normal template and the written text will use the Normal style. The typed text in the newly created document uses the font type, font size, indentation, line spacing, paragraph spacing, text alignment and other specifications defined under the Normal style.

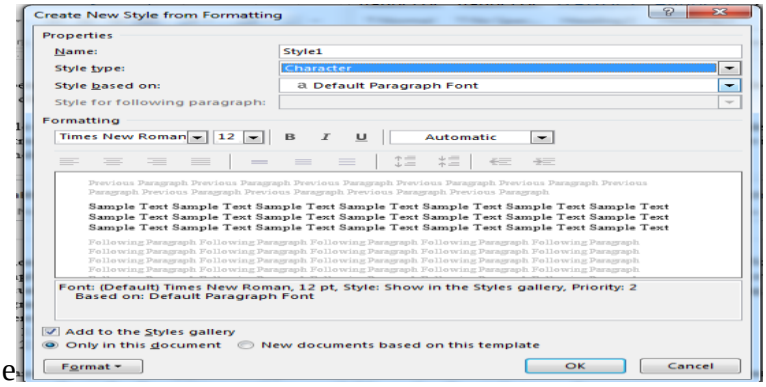
There are two types of styles.

- Character style

- Paragraph style

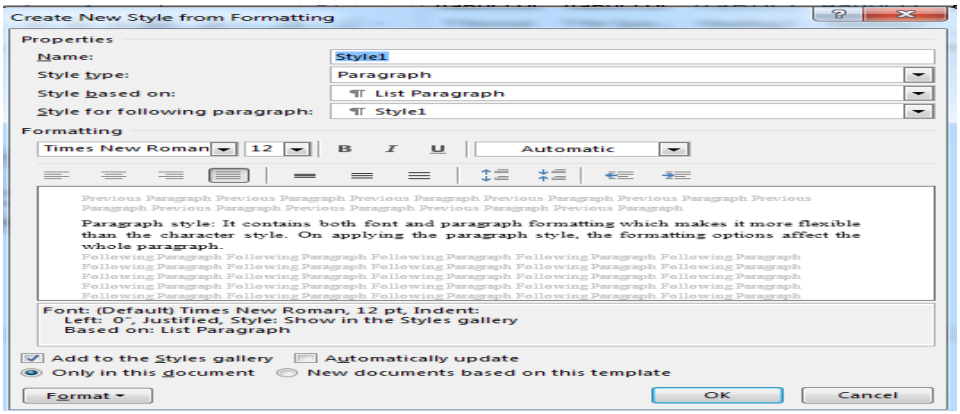
Character Style

It is applied to typed words or even individual characters. Character formatting is done from the formatting options available under the create new style from formatting option. The style type chosen is character.

e 

Paragraph Style

It contains both font and paragraph formatting which makes it more flexible than the character style. On applying the paragraph style, the formatting options affect the whole paragraph.



After Microsoft Word 2007 version, there is a provision of Linked styles which can be used for character formatting or paragraph formatting. When the formatting options are used on the text written in the particular paragraph, the linked styles act as character style. When formatting options are used on the paragraph, they act as paragraph style.

We can disable this option, by checking the 'Disable Linked Styles' option.

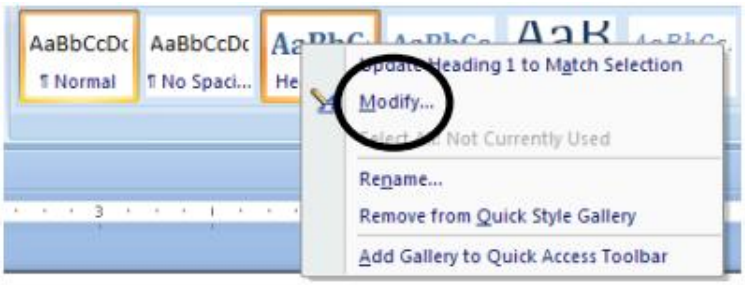
Steps to use and create the style

- Click the paragraph, Word, list, or table you want to format [3].
- Select the style that we wantwant to apply from the Styles group

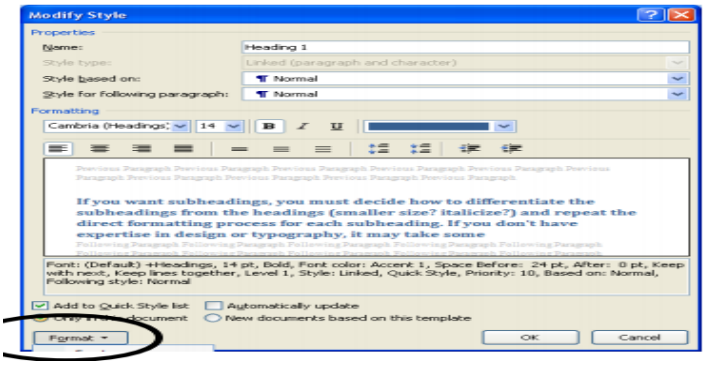
Steps to modify the style

For quickly modifying all the text that is formatted with a particular style, you can reformat the style just by changing its properties.

- Right Click on the styles option in the Styles group
- Click on Modify option



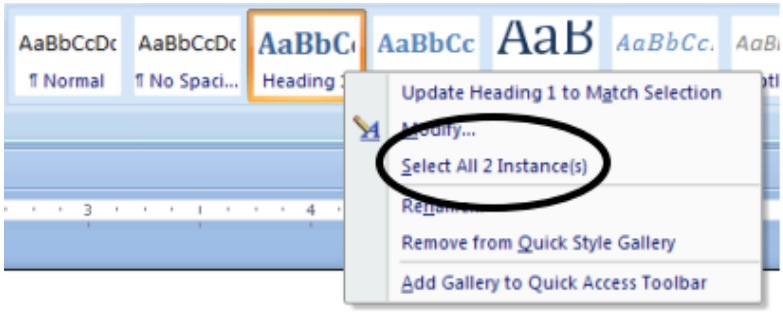
- Do the modifications by using either the Format button or icons



- Click on OK

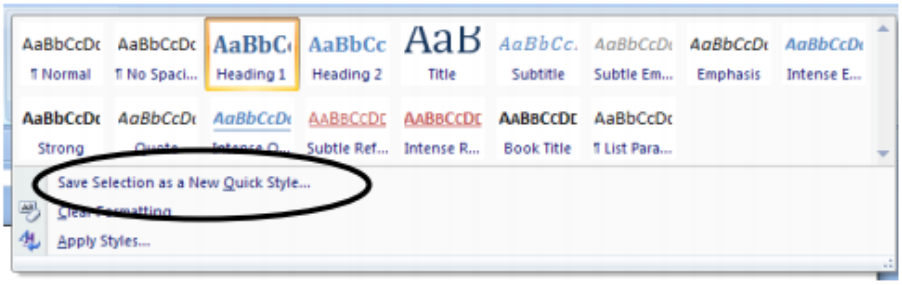
To Select all Same Formatting using Styles,
We can quickly see all the areas of our document that have been formatted with a selected style, it will highlight all the areas that are formatted using style.

- Right-click on the Style option
- Click on Select All 2 Instances

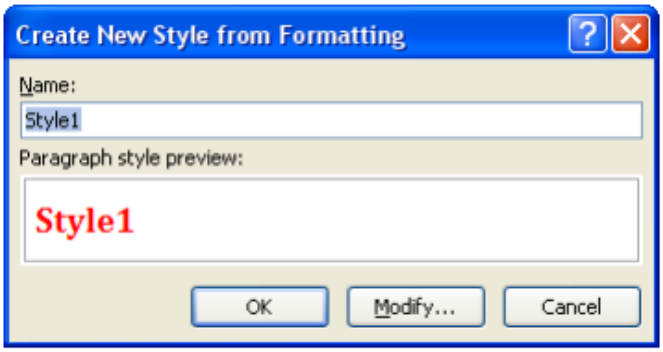


Steps to Create a New Style

- Highlight the part of the document to format
- Using the Font and Paragraph groups apply all formatting
- Click on the drop-down list in the Styles group
- Click Save Selection as a New Quick Style



- Type the name of the new style and click on OK.

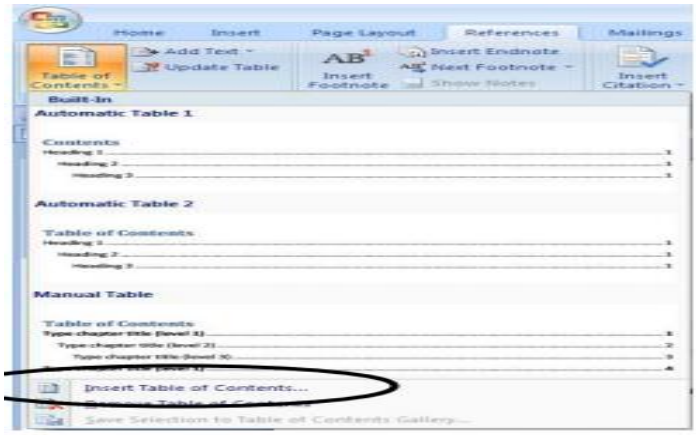


1.4 CREATE A TABLE OF CONTENTS

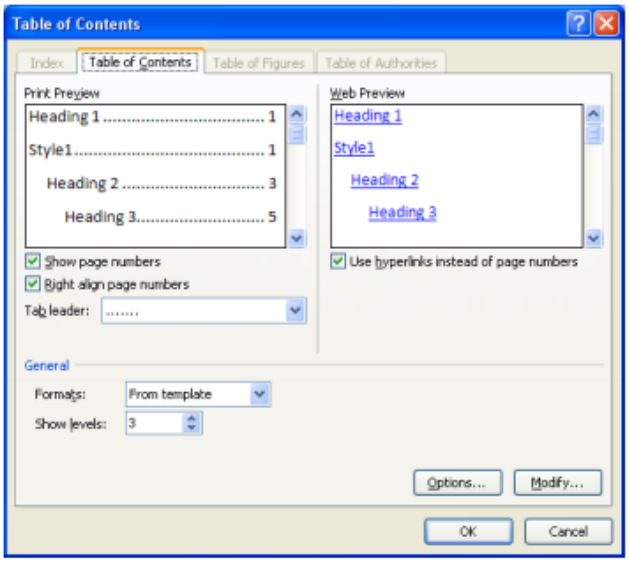
To get the overview of the topics in a document, Table of Contents is used to create using the heading styles from the Styles group.

- Apply the styles of headings to the areas of the document that are to be included in the Table of Contents [5].
- Use Heading 1 as the main Heading, Heading 2 for subtopics
- Select the References tab
- Select the Table of Contents

- Select either one of the built-in table of contents styles or click on Insert Table of Contents for a list of options

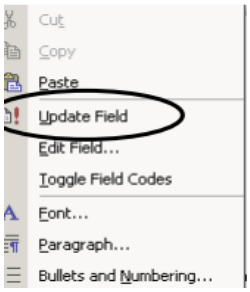


- Apply Changes
- Click on OK



1.4.1 Update the Table of Contents

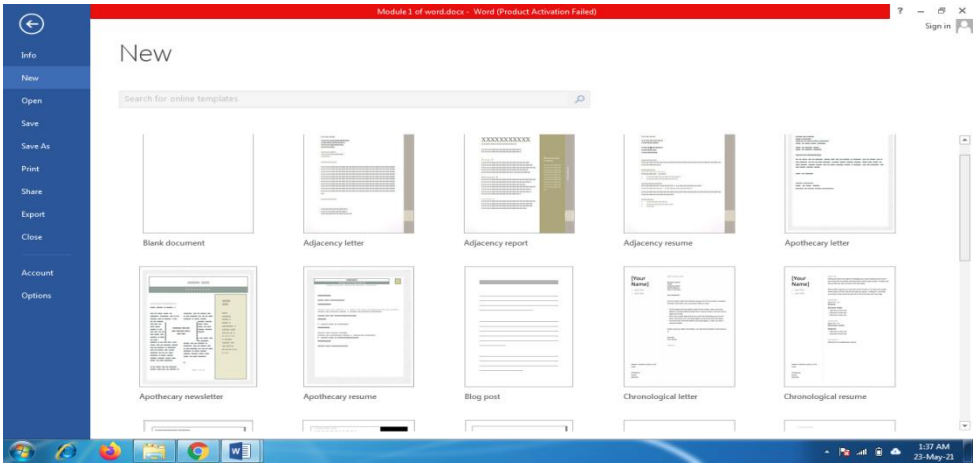
- If you want to modify the document, Table of contents need to be modified using the following steps
- Right-click where you need to update within the Table of Contents [3]
- Select Update Field
- Click on Update Entire Table
- Click OK



1.4.2 Using Template to Create a Document

There are number of existing templates available for the newly created word document. To select the already existing templates, following steps are used:

1. Choose the File tab
2. Click on the new option which will display all the existing templates.

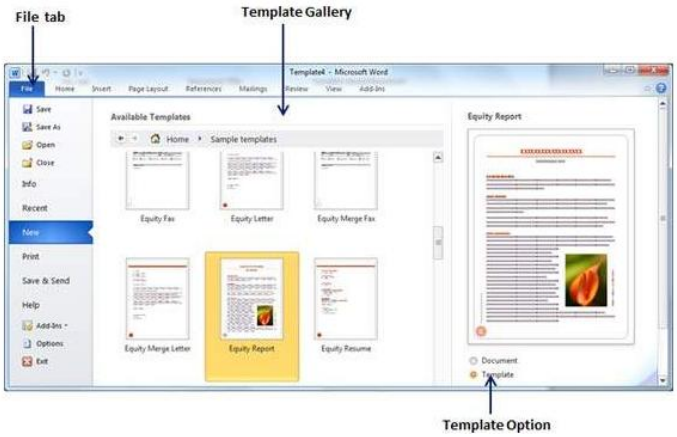


Microsoft Word provides a number of templates which one can use but it also provide the option to search for the templates online from the office.com.

1.4.3 Creating / Modifying a Template

Depending on the requirement of the user, the user can create his own new template. The template file has .dotx extension. The following steps are used to create the new template.

1. Select the File tab.
2. Click on the New option which display all the existing templates
3. Select any of the existing templates and open with template option as 'On'.



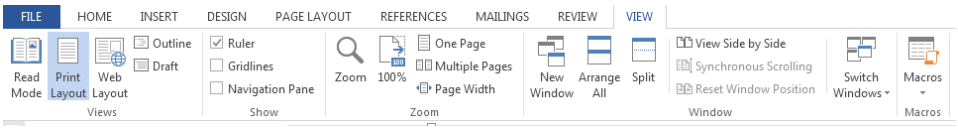
The user can modify the opened template as per the requirement and save it with .dotx extension.

Even, one can create the template from the created new document as well.

1. Click on File tab.
2. Click on New option where existing available templates will open.
3. Double click the Blank Document to create the new empty document template.
4. Save the template with the .dotx extension and a unique name.

1.5DOCUMENT VIEWS

Depending upon the different aspects of the usage of the word document, Microsoft Word provides different views of the document. Instead of the default view, the user can find other views available to make one more productive. By default the word document opens in Print Layout, but other views can be selected by clicking the View tab.



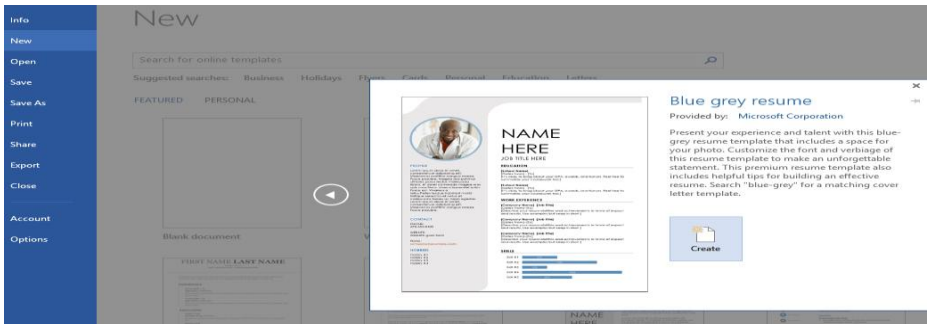
The other available view modes except the default 'Print Layout' are Web Layout, Read Mode, Outline and Draft.

- The Web Layout is appropriate when one want to view the document in the form of a web page. It is mostly used when the user is designing the web page in Microsoft Word.
- The Outline view is used for the navigation of a lengthy document which shows the outline form of the document. The user can also decide the number of levels that should be shown.
- Draft view works similar to the plain text editor which shows only the text without any formatting and graphics.
- Read mode displays only the pages of the document by hiding all the toolbars and menus which provides more space for the document text.

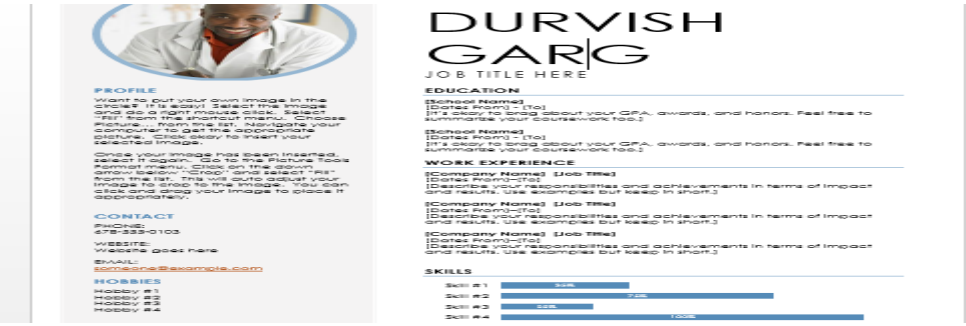
1.6STEPS TO CREATE A RESUME

The following steps are used to create a Resume using MS-WORD

- Open MS WORD
- Click on CTRL+N or New from the File Menu
- Select the style of resume



- Click on Create
- Then Update the details and photographs as per the requiremnets



1.7 SUMMARY

- Basics of the Word Processor has been discussed
- Steps for Creating, closing, deleting and renaming the document file is also discussed
- Templates are the files that help to design interesting, attractive, and professional-looking documents.
- Theme is used to provide a designer look with different theme colors and fonts.
- **Style**is one of the important feature of the Microsoft Word. Style is basically the predefined instructions used for formatting throughout the document.
- Templates and Styles can be used for designing Resume, Invitation letter etc.

1.8 PRACTICE QUESTIONS

Q1. Differentiate between SAVE and SAVEAS
Q2. Design a template for typing the resume
Q3. Differentiate between Template, Style and Theme
Q4. Design the template for Invitation letter
Q5. What are the document views?

MCQ Type Questions

Q1. Which is the extension of templates [1]

a) Dotx
b) Doc
c) Doct
d) Dott

Q2. Which of the following statements regarding styles in MS Word are true[5]?

a) Styles can not to individual words or characters, only be applied to paragraphs,
b) All text in the document has assigned style even without assigning it
c) We cannot modify built-in styles
d) All of the above

Q3.Ali typed a letter to his son but did not apply a style. Which built-in style was assigned to the text in his letter?

a) Normal Style
b) Default Style

c) No Spacing Style
d) No style applied to the text

Q4. Which of the following statements about style deletion are true?
a) Both Custom and Built-in Styles can be deleted
b) Both Custom and Built-In Styles can be removed from the Styles Gallery
c) Styles cannot be deleted if they are assigned to text in the document, you first need to assign that text a new style
d) All of the above

Q5. Which of the following statements about the styles are false?
a) Styles help maintain consistent formatting within and between documents
b) Every aspect of text formatting can be specified for a style
c) Styles make it easier to change the formatting in large documents
d) Custom styles must be created as part of a template

Q6.The file extension _____ shows the file is a Word document.
a. .wor
b...wrd
c. .doc
d. None of these

Q7.How many number of different documents can be opened at the same time?
a. Maximum Three
b. One Only
c. As per the computer memory.
d. None of these

Q8 The _____ in the Resume Wizard dialog box shows the wizard is ready to be create the document [6]
a. Address panel
b. Start panel
c. Add or Sort Heading panel
d. Finish panel

Q9._____is the default font size of a new Word document which is based on Normal template in Word 2007?
a. 12pt
b. 11pt
c. 14 pt
d. None of above

Q10. What do you call ‘a collection of character and paragraph formatting commands’?
a. defaults
b. template
c. documnet
d. a boilerplate

BACHELOR OF ARTS (LIBERAL ARTS)

SMESTER-III

FUNDAMENTALS OF COMPUTER APPLICATION

UNIT 2: WORKING WITH TEXT

STRUCTURE

2.0 OBJECTIVES

To Edit and Format Text/Paragraph and Page

- To add comments in the document
- To insert the Table of Contents in the file
- To write the bibliography for writing content or research papers
- To track the document views

2.1 EDITING AND FORMATTING A DOCUMENT

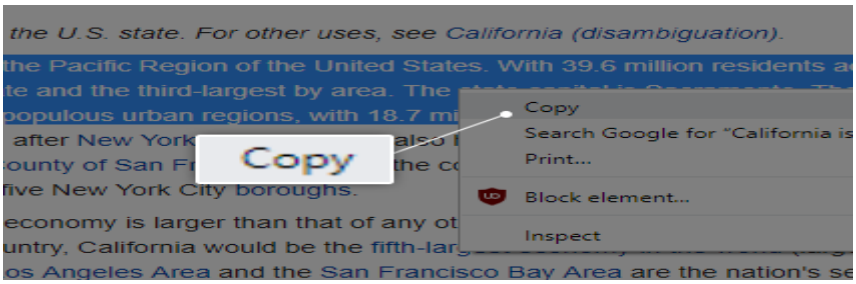
Editing means doing modifications in the document according to the requirements of the user. It is used for better look to your documents. You can select the text either by using Keyboard or mouse clicking.

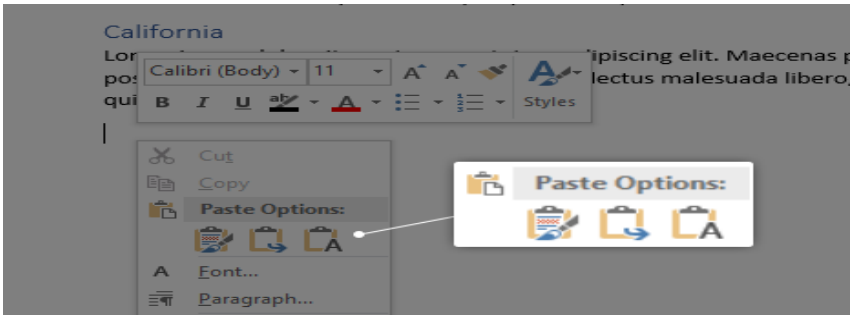
In this module, firstly editing of the text is discussed, then formatting through various options.

2.1.1 Select, Copy and Paste Text in Word

It is the important feature of the MS-WORD in which the part of the document can be available multiple times at the required location. The copy part of the content may be present in the same location and to other location. To perform a Copy, Paste the following steps need to follow:

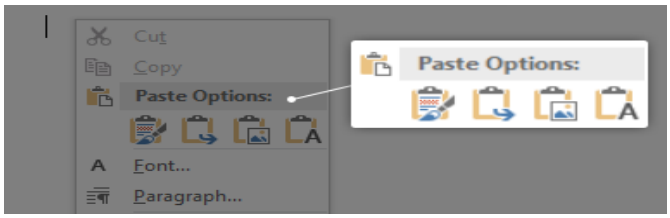
- Select the text that you need to copy.
- You can copy the text in one of two ways:
    - Right-click on the selected text, then select the **Copy** option. Or you can select the Copy option from Edit menu from the menu bar.





    - **Ctrl + C** Key can be used to copy also as a shortcut on your keyboard.
- Paste the text inside your document in a number of ways[2]:

- Put the cursor where you want to paste and right click onto it, It may be accessed the **Home** tab in the Ribbon. You can select any of the formatting like "**Source formatting", "merge formatting" or keep text only".**
- Use the **Ctrl + V** shortcut on your keyboard for pasting the text.

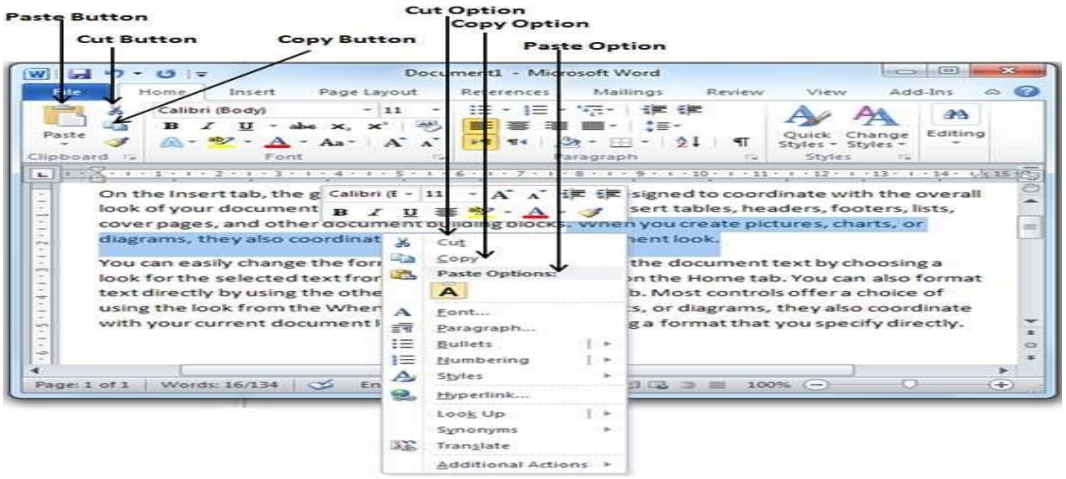


- The text you copied is now in your document!

2.1.2 Cut & Paste the Text

The Cut operation is used to remove the content from its original location and made available from its original location to a desired location. It can be used to move to the same document or to any other document. These are thefollowing steps:

- Select a portion of the text which we want to cut
- Multiple options can be used to cut the content
- Using Right-Click – By pressing right-click on the selected text, cut option will be displayed and click on the option.
- Using Ribbon Cut Button is also available at the ribbon to cut the selected content
- Using Ctrl + X shortcut Keys to cut the selected text.

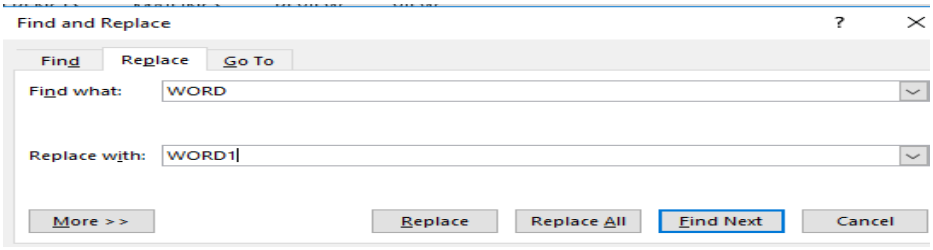


- Using Ctrl + V keys is used to paste the content at the desired location.

2.1.3 Find and Replace in the Word

This option is used to find a required word and replace a word with other word. To perform Find and Replace these are the steps:

- Click Edit Menu and select the option replace from the drop down menu, either press Ctrl+H.



- Type the word or text that you want to find and enter desired text in the Replace box.
- To update in all the places at once, choose Replace All.

2.1.4 Inserting Special Symbols and Characters

MS-WORD contains all the alphabets, numbers and some other symbols which are available on the keyboard. Sometimes, you need to insert some special symbols that are not available on the keyboard like some mathematical formulas, scientific equations etc.

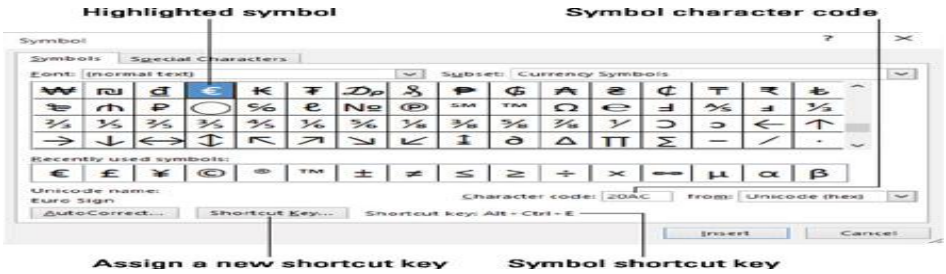
These are the following steps:

To insert a special symbol:

- Put the cursor where you need to insert a symbol
- From the Insert tab, select 'Symbol'[14].
- Choose the symbol from the drop-down list.
- If the symbol is not in the current list, Select More Symbols. From the font box, select the font that you need to use and select Insert.

To insert a special character:

- Click on the Insert tab, choose the Special Characters tab.
- Select the character that you need to insert, and then select Insert.



2.1.5 Set Tabs and Indenting

Tab stops can be sued to create uniformly spaced text. Word has by default left tab stops set after every half-inch, but it can be created using own tab stops for a specific position.

2.1.5.1 Steps to Set the Tabs

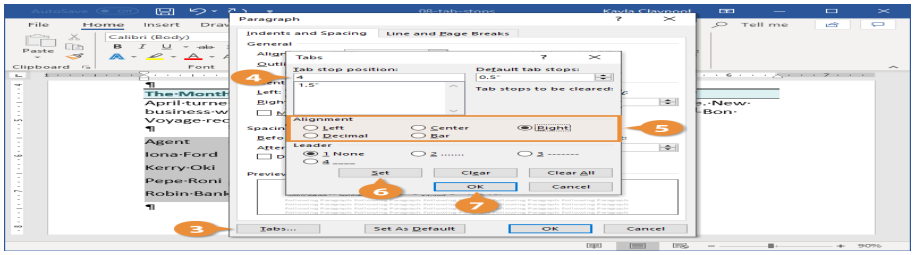
1. Select the **Show/Hide ¶** button from the Home tab.

2. Select the Viewtab.

3. Select the **Ruler** checkbox to Show the group.

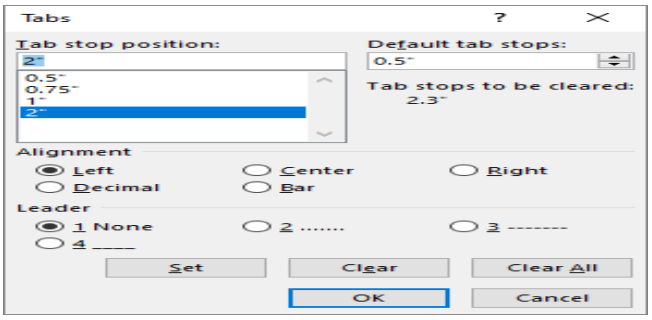
2.1.5.2 Steps to Set a Custom Tab Stop

- Select the **Home** tab.
- Select the **Paragraph** dialog box launcher.
- Select Tabs.
- Choose the type of tab stop which you need to set.
- Click **Set**.
- Click on **OK**.



2.1.5.3 Steps to Remove a Tab Stop

- Select the **Clear** button in the Tabs dialog box to delete a single tab stop
- Select the **Clear All** button to delete all tab stops.
- Alignment can also be done in the same way.

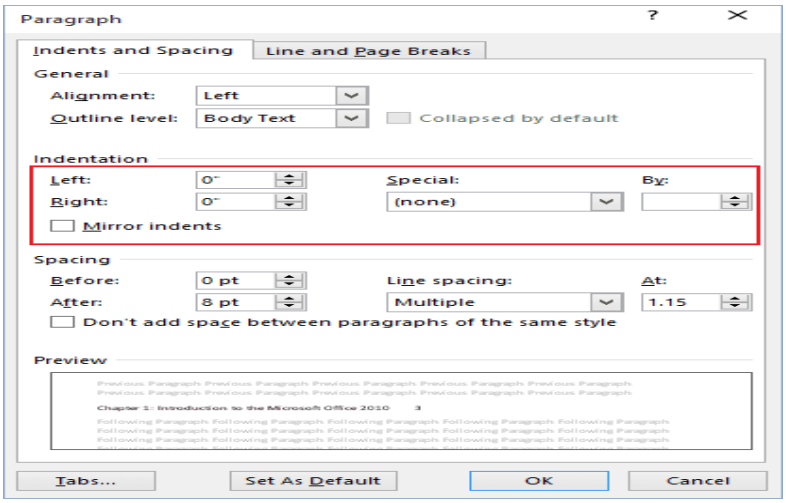


2.1.5.4 Indenting Text

It is used to provide the extra space to the paragraph or the text. The distance between the page margin and the boundaries of the Text is called an Indent and the process is known is as indentation. There are four types of indents such as left, right, hanging and first line indent

- Steps to indent the paragraph are:
- Select the paragraph or text which you need to be indented
- Select the Format menu and select the paragraph option
- Click the mouse on the indent and spacing tab option.
- Select any of the option to set left, right, hanging or first line indent.

- Click on OK.

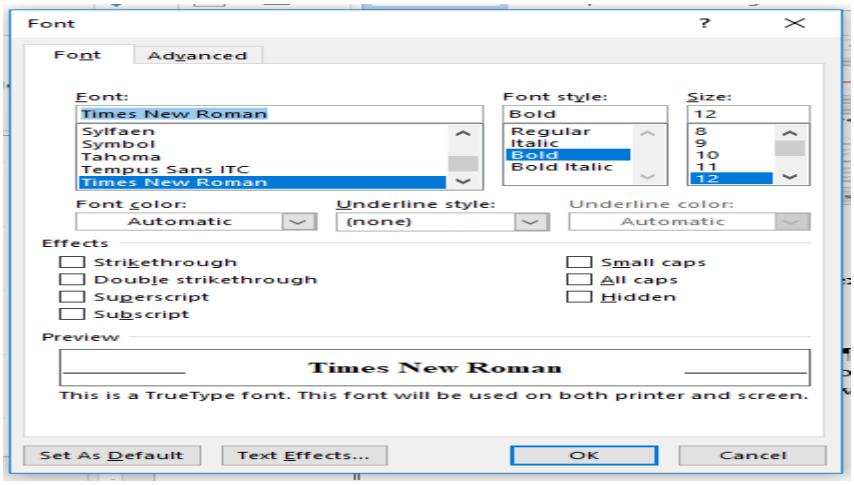


2.1.6 Formatting Text

Formatting text means to display the text in the better way using various font, font size, font styles and font colors.

Steps to Format the text

1. Select the text or the paragraph
2. Select the Format menu and drop down menu appears.
3. Select the Font option. A font window appears on the screen with different items
4. Font: Select the type of the Font like Times New Roman or any other.
5. Font Style: Select the Font Style like regular, bold, italic etc.
6. Select the Font Size any like 10,12,8 etc.
7. Select the Font color from the set of colors
8. Click OK

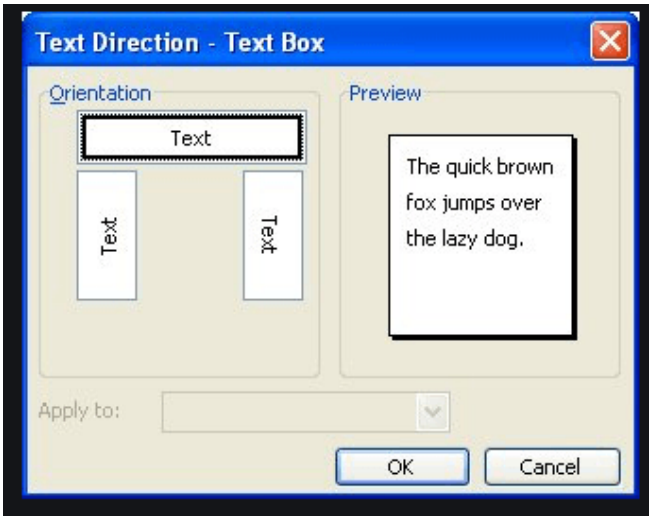


2.1.6.1 Setting Text Direction

Text direction can be changed from bottom to top or top to the bottom.This option is useful for printing name or headings in a envelope on A4 sheet

Steps to Set the Text Direction:

- Click on the Insert Tab and select the Text Box from the drop down list
- Then Text box will be available
- Enter the required Text in the text box
- Select the Format and select the Text Direction.
- Select the required Text direction
- Click on OK



2.1.6.2 Auto-Correct

Auto Correct option converts the large Strings to short form. These are the following steps

- Click on the Tools and Click on Auto Correct Option from the drop down menu'
- Enter the short form MS-WORD like MW
- Click on add and ok

2.1.6.3 Bullets and Numbering

Graphical symbols bullets can be used to represent each line and Numbering can be used to represent the items into numbers and alphabets. These are the steps to insert bullets and numbering

- Set the cursor where you need to use bullets/numbering
- Select any of the bullet button from formatting tool bar
- Press the enter key or Okay

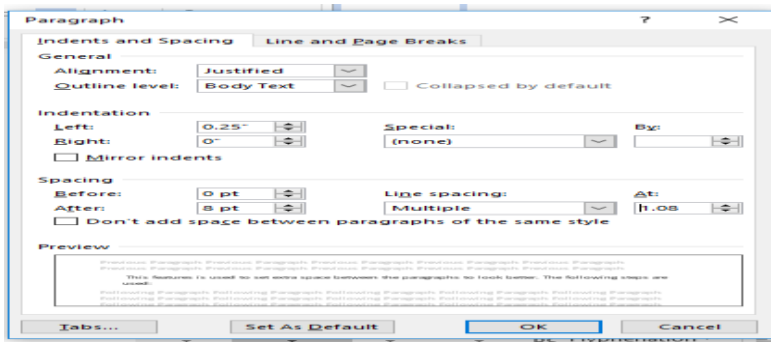
2.1.7 Formatting Paragraphs

MS-WORD provides many features for formatting whole paragraph in your document. The following features are being discussed.

2.1.7.1 Paragraph Spacing

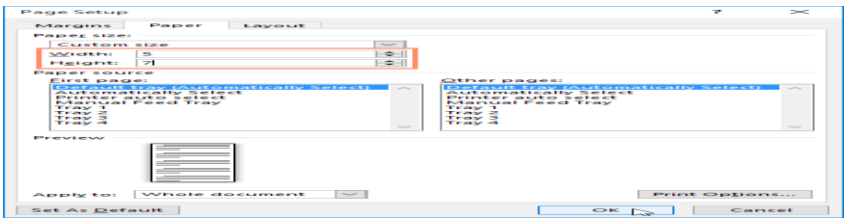
This features is used to set extra space between the paragraphs to look better. The following steps are used:

- Choose the paragraph which you need to format
- Click on the Format me menu and select the paragraph option



2.1.7.2 Page Setting

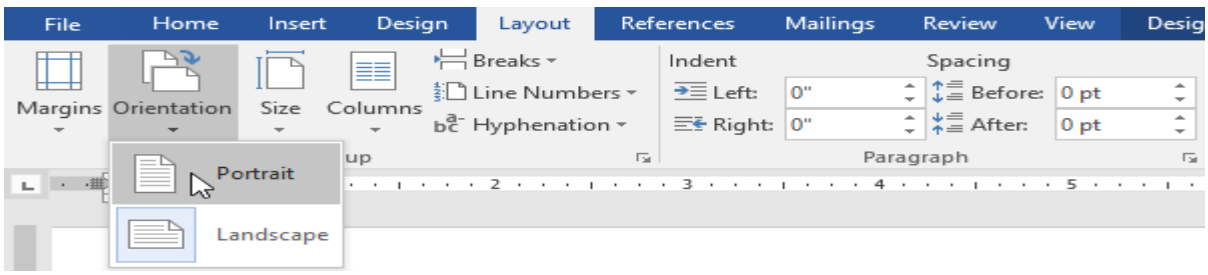
- Click on the File option and select the page setup
- Select the Margin, Paper or layout option



2.1.7.3 Page Layout

Sometimes you need to take a print on landscape, then the page layout can be used for taking the page in portrait (length wise) or landscape (width wise)

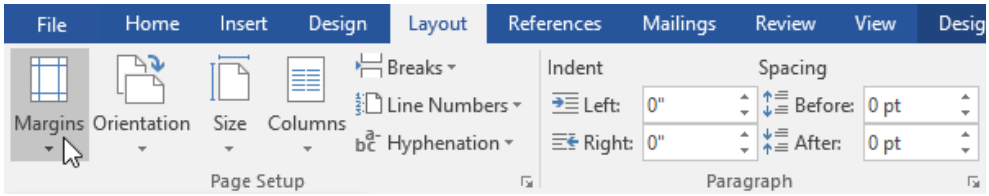
- Click on orientation tab
- Select the orientation either portrait or landscape
- Landscape means the page is oriented **horizontally**.



2.1.7.4 Page Margins

Page margin is the difference of the space between text and the edge of the document. The default value of Page margins is Normal style with one-inch space between a text and each of the edge.

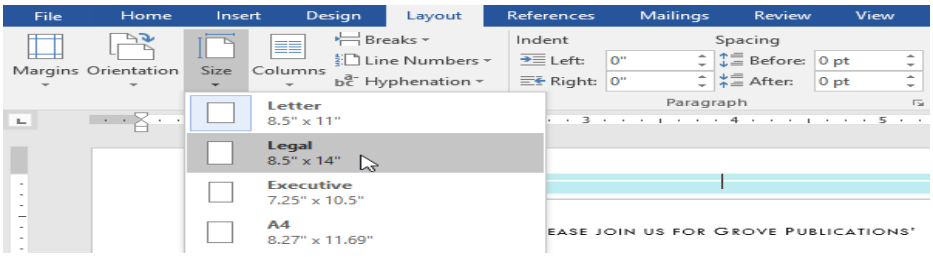
- Select the Page Layout tab, thenchoose the Margins command.
- Select the defined margin from a list of drop-down menu.
- The margins of the document will be modified.



2.1.7.5 Page Size

The default page size of an active document is 8.5 inches by 11 inches. If you need to change the page size, then you can modify using following steps:

- Click on the paper tab from the page set up dialog box
- You can change the paper size as per the need.



2.1.7.6 Page Break

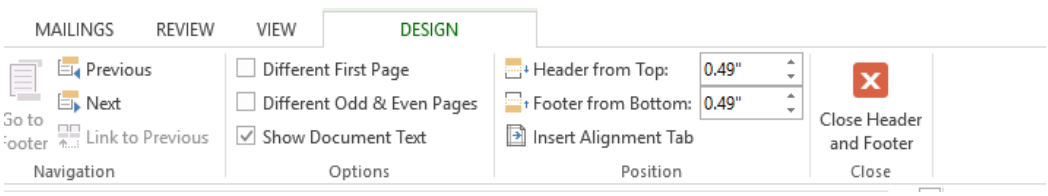
When you want to start a new page when current page is still not used fully, then Page Break allow to go to the next page.

- Put the pointer where you want to set the page break
- Click on the INSERT menu and select break
- Select the Page break from the or you can press Ctrl+ENTER

2.1.7.7 Creating Headers and Footers

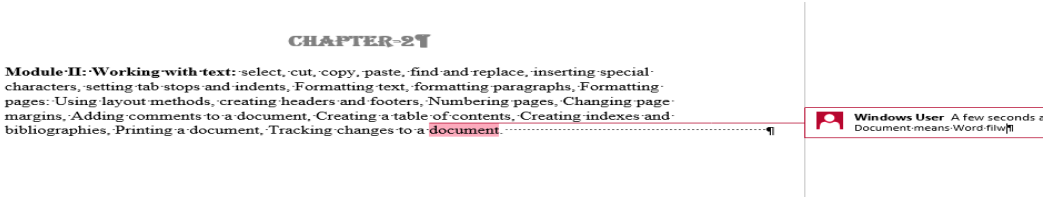
It is used to create a heading o on the top of the page and some message at the bottom of the page. It is mainly used for setting heading of the chapter and on the footer, date or page number may be mentioned.

- Select the view option from drop down menu
- Select the header and footer option
- Enter the text in the header and in the footer set the date
- Heading will be appeared on the top and date will be onto the bottom.



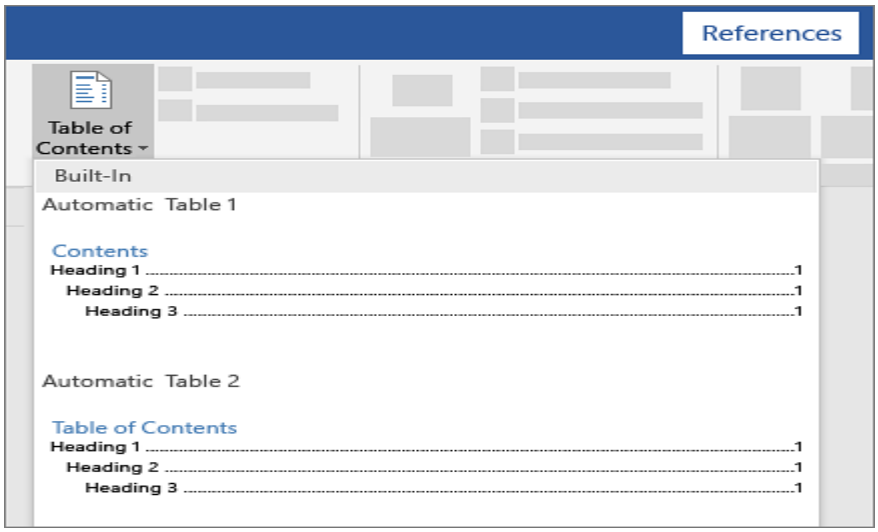
2.1.7.8 Adding Comments to a Document

- Click the text where want to insert a comment.
- Choose on the **Review** tab and click on NewComment.
- Type your comment and word displays the comment in the document's margin.

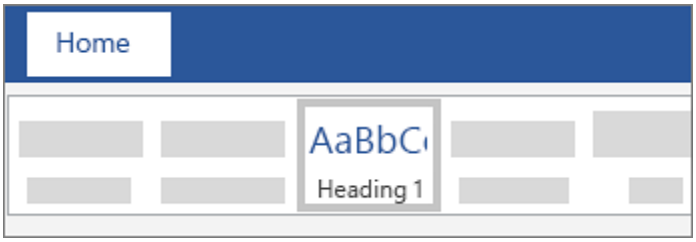


2.1.8 Create the Table of Contents

- Put the cursor where you need to add the table of contents.
- Click on the References and select Table of Contents option
- Choose an automatic style.



- If you want to modify the content that also effects the table of contents,
- Then, update the table of contents by right-clicking on the table of contents and select Update Field.
- For taking each heading the table of contents, select the heading text.
- Select Home then Styles option and then select Heading 1.

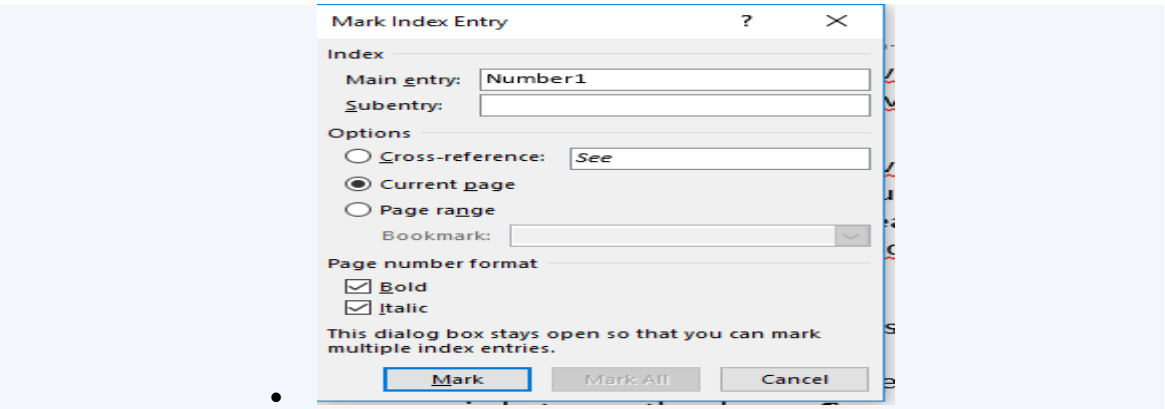


2.2 MODIFY YOUR TABLE OF CONTENTS

- Choose the text which you need to modify with table of contents.
- Click where you want to insert the entry
- .Select the Referencestab, in the Index group, click Mark Entry.

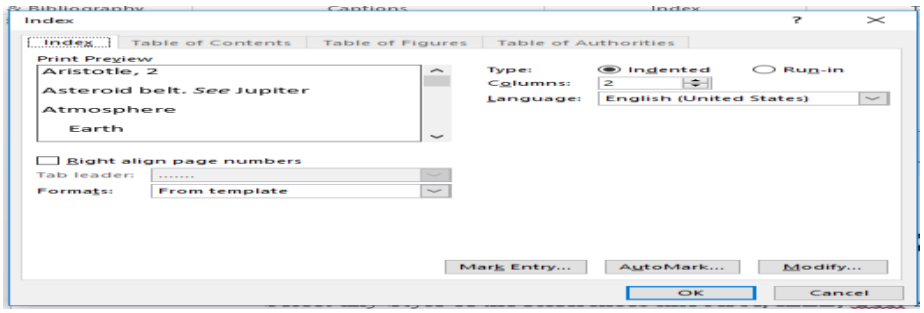
2.2.1 Create Indexes

- Place the cursor where you want to create an index
- Go to References and select Mark Entry option
- Select any required formatting options from the menu
- Select Mark Entry Option
- Text can be edited in the Mark Entry option



-
  - Second level can be added the Subentry box.
  - Select Cross-reference tender Options, and then type the text for the other entry in the box.
  - Page can be formatted by using formatting features like Bold/Italic
- To mark this text in whole document select Mark Al option
- Click where you need to add the index.
- On the References tab select Insert Index.

- Formatting can be done for text entries, page numbers, tabs, and leader characters.



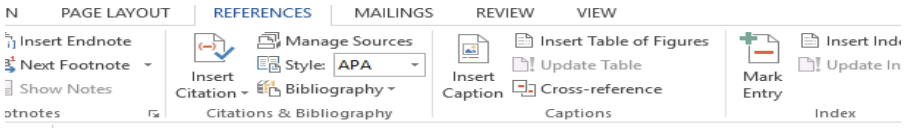
- Click **OK**.

2.2.2 Create Bibliography

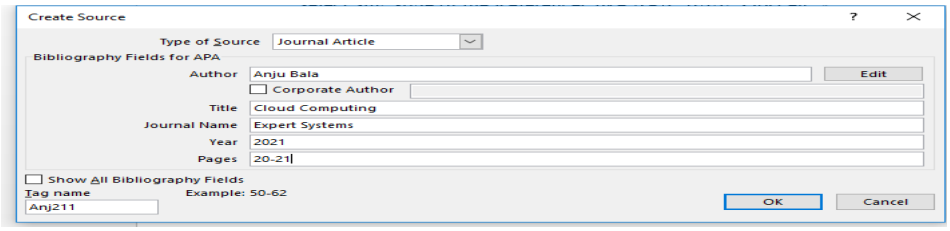
A bibliography means the list of references used in the document. The references can be taken in a bibliographic database or within the document itself[11].

Steps to Create and Update a Bibliography database

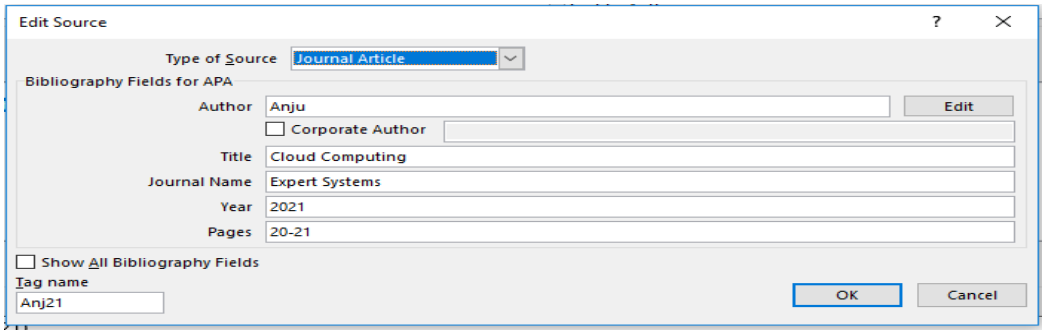
- Select the References option
- Select any Style of the References like APA, IEEE, Gost etc.



- Select the source for where you need to add references.



- Put the cursor at the end of the line to add citation
- Select Insert Citation option and select the source which you are citing. (Anju, 2021)
- Citation can be edited Go to the citation and add the references
- Click on OK.



2.2.3 Printing a document

When you want to take a hard copy of the document, then it is better to use print preview option, it gives the idea about formatting details before taking printout. You can modigy the document before taking print [10]. These are the steps to print a document.

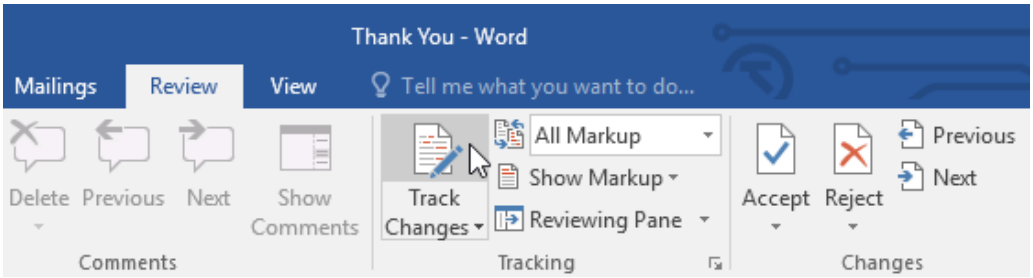
- Make sure that the printer is on and ready to print.
- Save your document.
- Click the File tab.
- Firstly, select the print preview
- If you are satisfied with formatting, select the Print option or Ctrl+P command
- Specify the type of printer which is attached
- Select the page range:
  - **All:** To print all the pages
  - **Current Page**: To print the current page

Pages: Number of pages you need to print

2.2.4 Track Changes in the Document

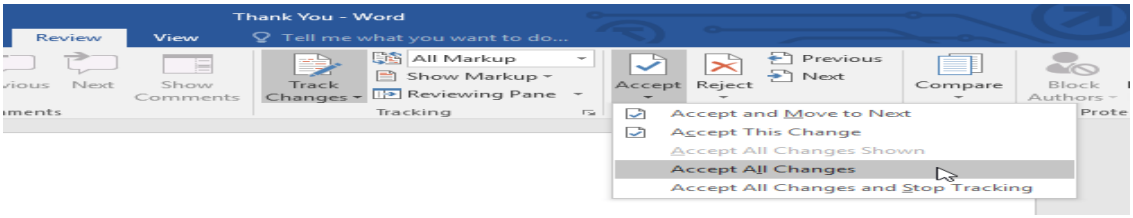
To turn on Track Changes:

- Select the Review tab
- click the Track Changes option



- Track Changes will be turned on.
- Any modifications you make to the document will be appeared as colored markups.

- The changes can be reviewed from where you can accept or reject the changes
- Select the change which you need to accept or reject
- Click the Accept drop-down arrow to select all the changes, select Accept
- If you do not want to continue, then select Stop Tracking.



2.3 SUMMARY

- Editing of the text or paragraph is possible by using CUT, COPY PASTE option or with shortcut keys
- Text Formatting can be done using various options like Auto Correct, Bullets and Numbering, Text Direction etc.
- Page Formatting can be done using Page Size, page break, Page Layout etc.
- For writing any book, chapter, table of contents can be created using Table of content option from the References Tab.
- Bibliography can be added using References Menu Bar, it would be useful to add citations in the paper or in the document.
- Print option is used to print any document. Ctrl+P shortcut key is also used to Print.
- The changes in the document is tracked by using Track changing option.

2.4 PRACTICE QUESTIONS

Q1. Differentiate between Cut Paste and Copy Paste

Q2. What is the importance of inserting Headers and Footers in the document?

Q3. Significance of Find and Replace

Q4. Create a Bibliography for any Research paper using IEEE style

Q5.Write various steps to create the Index?

Multiple Choice Questions

1. The space left between the start of a paragraph and Margin is called

a. Spacing
b. Indentation
c. Merging
d. None of these

2. To apply centre alignment to a paragraph which shortcut key can be used

a. Ctrl+E

b. Ctrl+A
c. Ctrl+B
d. Ctrl+N

3. Text Styling features in MSWORD is done by

a. Word Art
b. Word Color
c. Word Fill
d. Word Font

4. In which view Headers and Footers are visible

a. Print Layout
b. Page Layout
c. Normal View
d. None of these

5. For changing the line height to 1.5 we use shortcut key :

a. Ctrl+1B.
b. Ctrl + 2
c. Ctrl + 3D.
d. Ctrl + 5

6. We can insert a page number at

a. Header.
b. Footer
c. Both Header and Footer
d. None

7. _____can be used to change the thickness of a line.

a. Line Width
b. Line Height
c. Line Style
d. None of these

8. For selecting the Symbol dialog box, which menu is used?

a. Insert

b. Table

c. Format

d. Tools

9. Which is the default font size in MS-WORD

a. 12 pt

b. 8 pt

c. 6 pt

d. None of these

10. Which menu bar is used to add bibliography?

a. Insert
b. Home
c. References
d. None of these

BACHELOR OF ARTS (LIBERAL ARTS)

SMESTER-III

FUNDAMENTALS OF COMPUTER APPLICATION

UNIT 3: PREPARING PRESENTATION

STRUCTURE

3.0 OBJECTIVES

- To know the basics of presentation software
- To Insert, Delete, Update the slides in a presentation
- To Add Clip Art and Pictures in the PowerPoint.
- To Set the timings for Slide Show

3.1 INTRODUCTION: BASICS OF POWER POINT

Power Point is an application program developed and distributed by Microsoft as a part of Microsoft office suit. It is very powerful, easy-to-use graphical presentation software that allows the user to create electronic slide show of presentations. It is widely used to showan important information and data in an organized manner. Power Point is used to display text, table, charts, graphics, audio and videos in the slides and it involves various tools like word processing, graphing and drawing etc. In this module, we will learn how to work with Microsoft Power Point and how to create exciting and interactive presentations [7][8].

First of all, you have to start the Microsoft Power Point from the start button of your windows as shown in Figure 3.1.

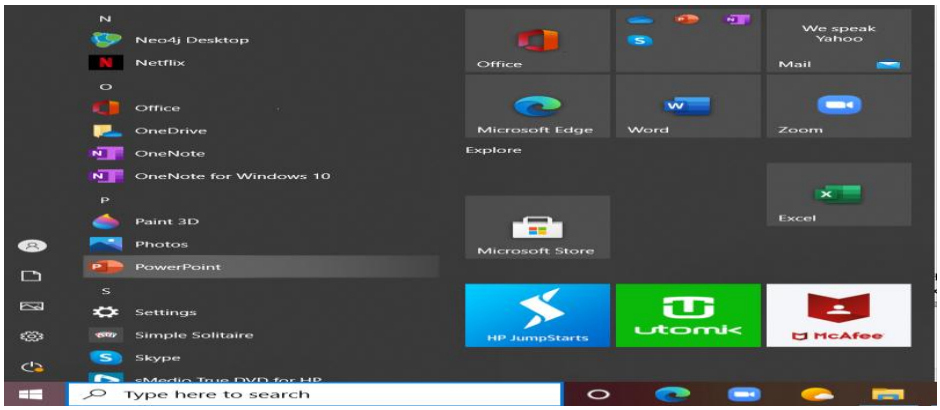


Figure: 3.1 Open Microsoft Power Point in Windows 10

3.1.1 Exploring the Parts of the Power Point Window

Power point window will appear as shown in Figure 3.2 at start-up and the various areas in a standard PowerPoint file are labelled. It provides the basic information of the graphical user interface of the window which is further helpful to the user to learn easily. The different labels of power point window are explained as follows: The different tabs for power point window is shown below:

- **File Tab**

This tab represents the backstage view that helps the user to create new file, open a file and print the presentation. The Save and Save as buttons are also user File Tab. Various design templates are shown in File Tab when user clicks on New button.

- **Ribbon**

The ribbon of power point window consists of the following components:

- Tabs: Tabs will be shown on the top of the ribbon along with the relevant command such as Home, Insert, Design, Layout and View.
- Groups: Groups are used to arrange commands that belong to same group on the basis of the function and the name of every group is displayed below the group on the Ribbon. For example, clipboard, font, paragraph, styles and editing are the names of groups displayed on the ribbon.
- Commands: Groups contain the related commands in the form of small icons

➢ **Title Bar**

It appears on the top part of the power point window. It displays a name of the file along with the name of the application program that is Microsoft PowerPoint. It also contains small button for save, undo, redo on the left corner and minimize, maximize and close buttons on the right corner of the title bar.

➢ **Quick Access Toolbar**

It appears just below to the ribbon in power point window. Quick Access Toolbar is used to place all the most frequently used commands inside it. It can be customized according to the requirement of the user.[4]

➢ **Slide**

It is the working area of power point presentation or the place where the information is represented of displayed. User can make the presentation by adding different layout or pictures, text boxes in this section of the window. It can be viewed as portrait or landscape as per the requirement.

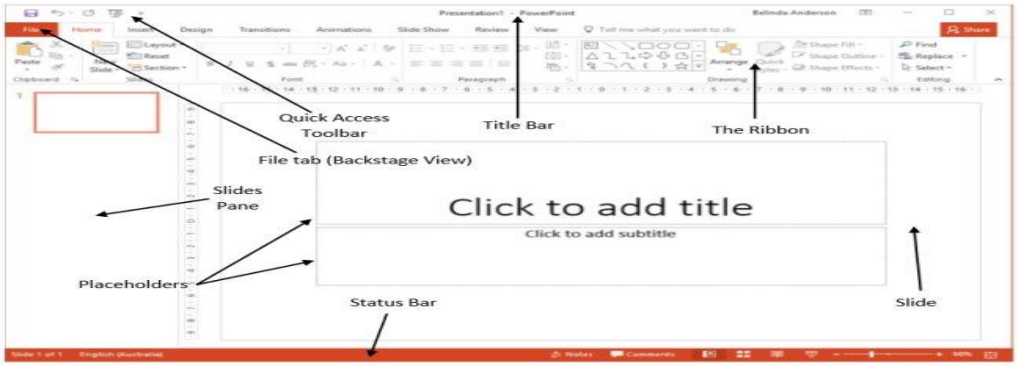


Figure: 3.2 Power Point Presentation and parts of the window

➢ **Slide Pane**

Slide pane displays all the slides in sequence in the form of small icons for every slide. User can add or delete slides in this slide pane. The slides can also be rearranges here.

3.1.2 Creating Presentation

When Power Point window will open then by default a slide appears as shown in Figure 6.2. This slide has two placeholders or text boxes. Additional text boxes can be added from the Insert tab. To start creating presentation just click on “Click to add title” (title placeholder) or text box a blinking cursor will appear. Click once on “click to add subtitle” and add the subtitle of the slide or the other information that you want to present. You can also add table,

image or graph in the subtitle box. But if you need to create more new presentation then follow the steps:

- Click the File tab to view new button that is available under the backstage view of File Tab, further click on new button then consequently window shown in Figure 6.3 will be displayed.
- The user can take any of the templates shown on the screen or can search for a specific template from search bar to find something more specific or click on the Blank Presentation.

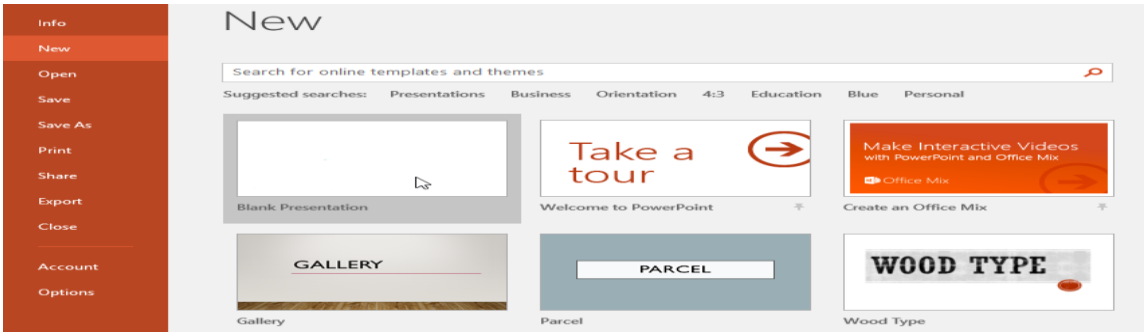


Figure: 3.3 Creating a New presentation in Power Point

3.1.3 Saving the Power Point Presentation

Power Point has two ways to save the presentation Save and Save as. These two options have similar operation but there is a significant difference also:

Save: When you create a presentation, thensave command is used to save the changes which you have done. Save option is used to choose a file name and its location the first time. Then, click on the Save command to save it with the same name and same location.

Save As: This command is used to create a copy of the presentationat new location while keeping the original file as it is. By using Save As, You can select a different name and/or different location for the copied version.

Once you have finished the power point presentation and want to save it for future use then click on the File button in the menu bar. Then this Figure 6.4 will appear to you and click on the save or save as button and select the location from the given options such as computer, OneDrive or the other place by clicking on add a place.

Figure: 3.4 Saving a Power Point Presentation using Save As

Steps to Save a Presentation:

1. Save command is selected from the file menu or from the Quick Access Toolbar.
2. The dialog box will appear to you, where you can select the location to save the file along with the name of the file to be filled in the text box.

3. The Save As dialog box will displays as shown in Figure 6.5.
4. After clicking the save button the presentation will be saved.
5. The key combination of Ctrl+S will also perform the same function as save option.

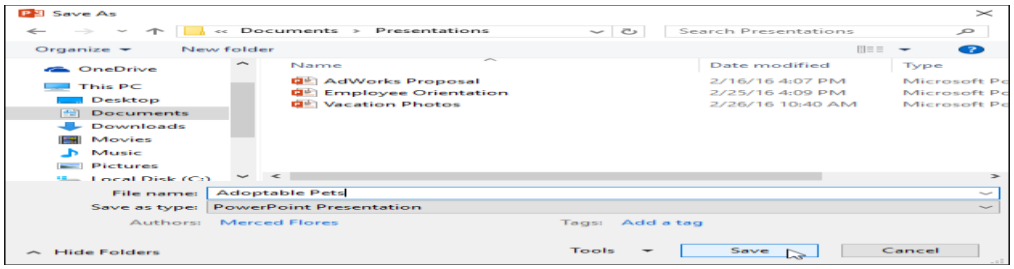


Figure: 3.5 Saving a presentation

3.1.4 Entering and Editing Text

Power Point allows users to enter text to the slide or to the text box also. The entered text can be arranged or displayed in desirable font, style, size and colour.

The new text can be added to the slide by clicking the tile box or subtitle box and then cursor will appear.

- The default text shown in the content box will automatically disappear.
- The added text initially follows the default formatting but latter the user can change the font or style.
- If you want to edit the text that has been entered previously then click in the text box or the placeholder box and change the text.

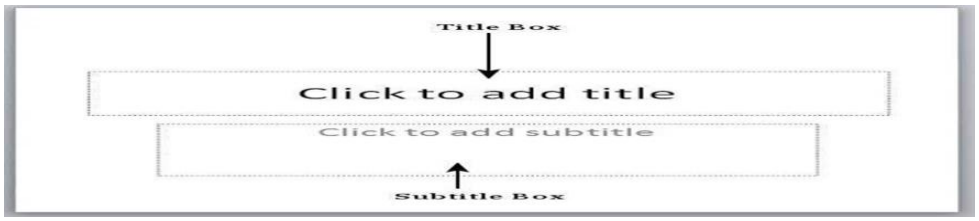


Figure: 3.6 Entering and Editing the Text

3.1.4.1 Font Formatting

It is the part of editing and entering text in a slide to make it more presentable. It can be modified using formatting toolbar. It includes different tasks:

- Font: It is used to change the style of the Font.
- Font Size: Font Size can be selected from the size box.
- Text appearance: It helps to change the appearance of text either in Bold, Italic or Underline etc.

Steps to edit the font setting using Format Menu.

- Select the text which you need to format
- Click the 'Format' menu from the Menu bar and select the font. The Font dialog box will be appeared
- Choose the appropriate option from the dialog box like font size, type of font, font style etc.

- Click on OK to obtain the result after formatting

3.1.4.2 Change Case

It is also used for editing the text in case of changing the case of letters either Capital to Small or Small to Capital.

Steps to change the Case

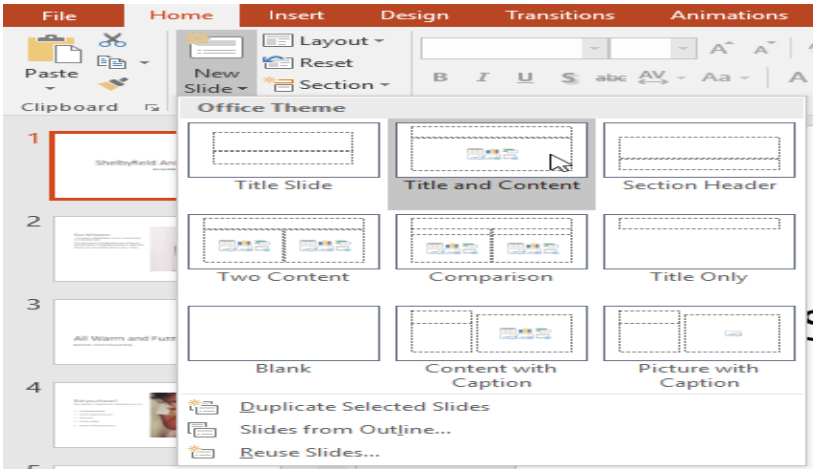
- Select the Format from Menu bar
- Select Change Case from the drop down Menu
- Select appropriate case from the options like Sentence Case, Lowercase, Uppercase, Title Case and Toggle Case.
- Click on OK.

3.1.4.3 Inserting and Deleting Slides in a Presentation

By default, the presentation contains only one slide at the beginning. The user can insert any number slides as per the requirement. The following steps are taken to add a new slide in power point:

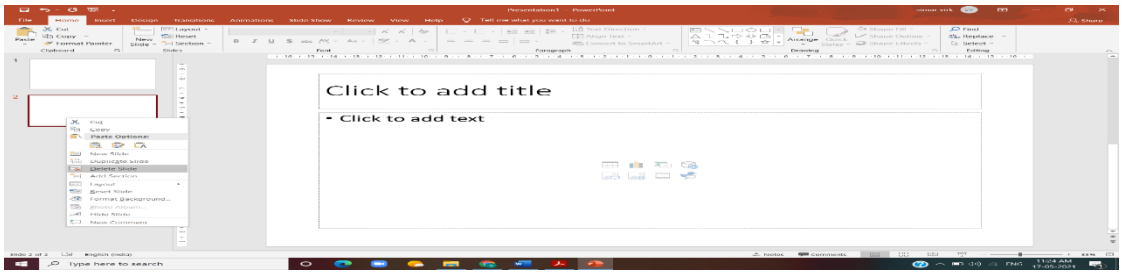
- Firstly, click on the Home tab, then further click on the small arrow on the New Slide command from the ribbon.

- The power point will ask you to choose the slide layout from the shown layouts and choose the slide as per the requirement.



- After selecting a slide layout then a new slide will be shown as below. Click any placeholder and enter the new text.

Delete slides: To delete a slide from your presentation if the slide is no more required. You have to choose the slide from the slide pane appearing on the left side the power point window, then press the Backspace key or Delete on your keyboard to delete the slide.

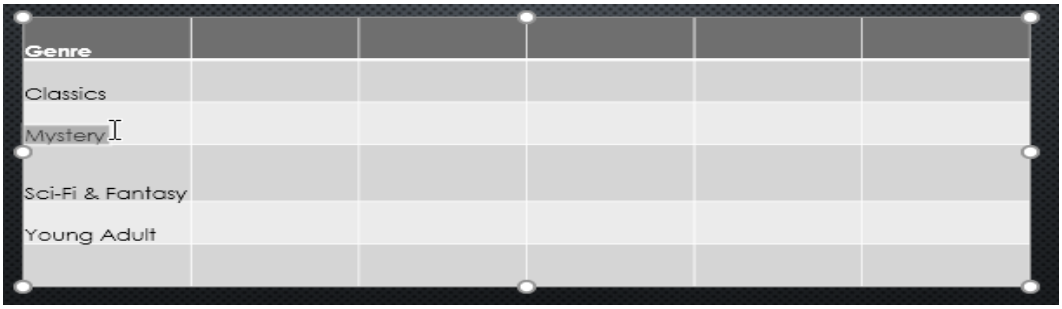


3.2 INSERTING WORD TABLE

A table is a collection of cells organized in the form of rows and columns. The tables are used for variety of tasks for presenting textual information and numerical data. To insert a table in power point presentation, follow the steps:

- Click on the Insert tab and then choose the Table command.
- Select the desirable number of rows and column that you want to take in a table. The example below is showing a table with six rows and six columns (6x6) is inserted:

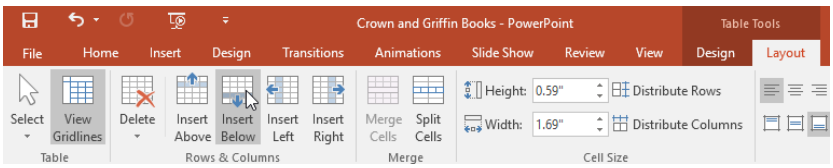
- The table is created now and will be displayed on the current slide.
- Click inside any of the cell in the table and add text to it.



3.2.1 Add a Row or Column to a Table

A new row or column can be added to table once it is created. The following are the steps to insert new row or columns:

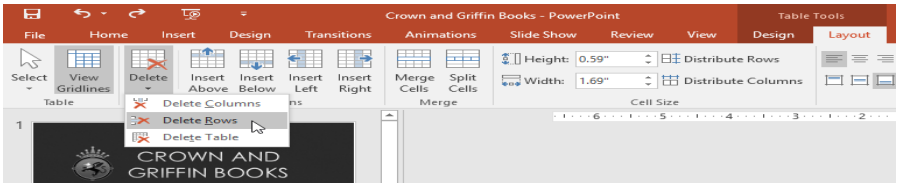
- Click a cell adjacent to which a new row or column is required.
- Click the Layout tab or right click in the cell.
- Search the Rows & Columns group from the ribbon. Then, select the options from given in the ribbon like to insert a new row, select any of the option either Insert Below or Insert Above. To insert a new column, select any of the option like Insert Left or Insert Right.



- After that a new row or column will be added to the table

3.2.2To Delete a Row or Column from a Table

- Any row or column can be deleted. Choose the blank row at the bottom of the table as shown in the figure below.
- Click Layout tab under the Rows and Columns group on the ribbon, click the Delete command, which will ask you to select delete columns, delete rows or delete table options.

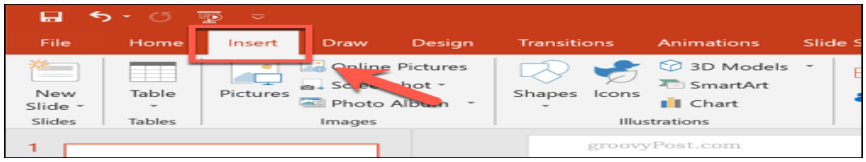


- The select row or column is deleted after selecting the delete option from the menu.

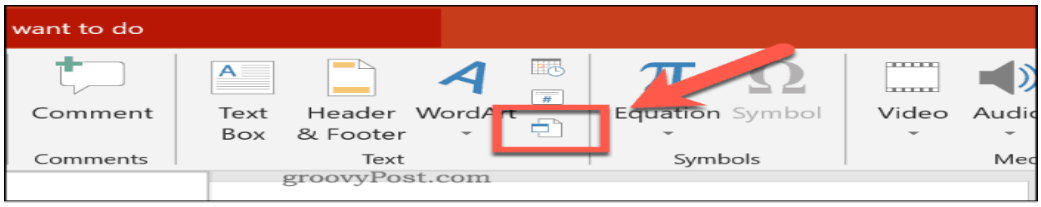
3.3 Inserting Spreadsheet Worksheet into Power Point

Using the **Insert Object** tool, insert data from your Excel spreadsheet as an object. This will add the contents of the most recently accessed worksheet into PowerPoint to view. To insert Excel spreadsheet, follow the steps:

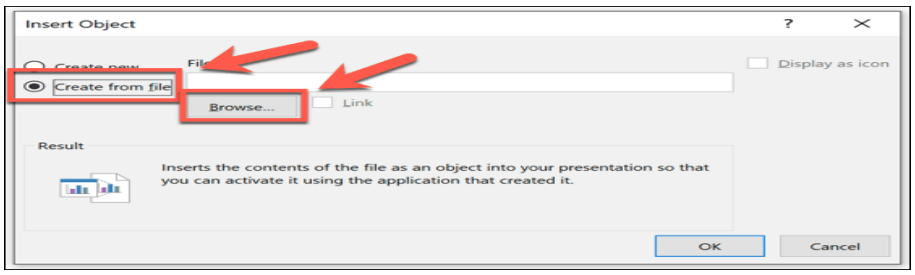
- To start, open your PowerPoint presentation and press the **Insert** tab on the ribbon bar.



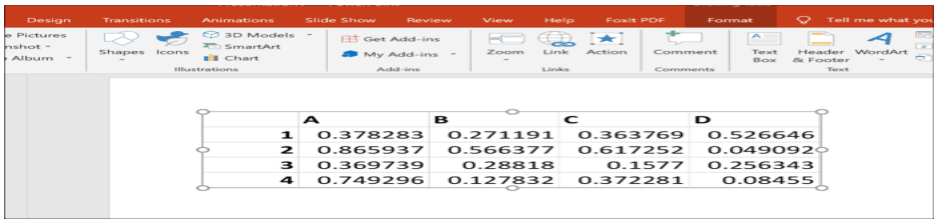
- To insert your Excel data, click the Object button. This may appear as a large or small icon, depending on your current screen resolution and the size of the PowerPoint window.



- This will open an insert object dialogue box. To add your Excel data, press the Create from file radio button, then press Browse to find and select your Excel spreadsheet.



- To add your data to PowerPoint, press the OK button. The data will be inserted as an object onto your PowerPoint slide, which you can then resize and manipulate.

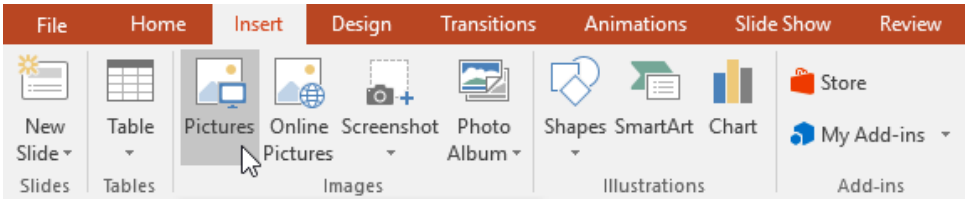


- By double clicking the table any required can be made to the spreadsheet data.

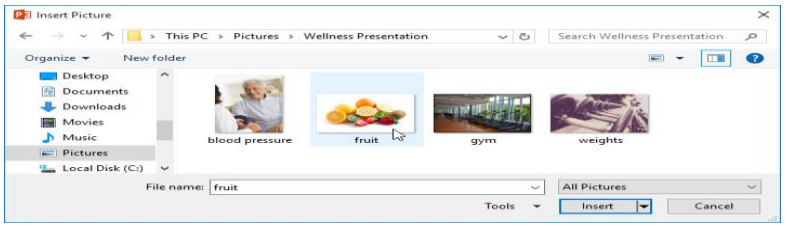
3.3.1Adding Pictures and Other Objects

Objects are any element that can be added in PowerPoint. A text label is an object. An image is an object. Graphs and charts are objects. Any element within a slideshow is an object. Since any addition to a slide is considered an object, there are numerous options in the "Insert" tab.

- Click on the Insert tab, which will display all insert options such as Pictures, online pictures, screenshot and photo album.



- After clicking on the picture button, a dialog box will be display as shown below. Then choose the desired picture and press Insert button.



- The selected picture will appear on the current slide.

3.3.2 Inserting Video Clips

Video Clips add the liveliness to the presentation. It allows to insert a video into the slide and can be played it during presentation.

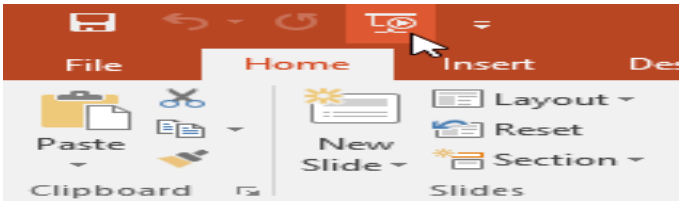
Steps to insert a Video Clip:

- Select the Insert Tab and Click on the Video drop down arrow from the Media Group and Select Video on My PC option.
- The **Insert Video** dialog box will be used to locate and select the desired video file, then click on the insert option.
- **Format and Playback** tabs under Video Tools can be used to **Insert** a Video by clicking on the Format Tab.
- Click on the Play button present at the extreme left of the ribbon.

3.3.3 Running a Slide Show

Once the presentation is finished then it is ready to run and slide show to its audiences. To run the slide show, follow the steps:

- Select the Start button icon from the Quick Access Toolbar and slide show of the presentation will appear or other way to run slide show is from your keyboard by pressing the F5 key from the function keys available on the top of the keyboard.



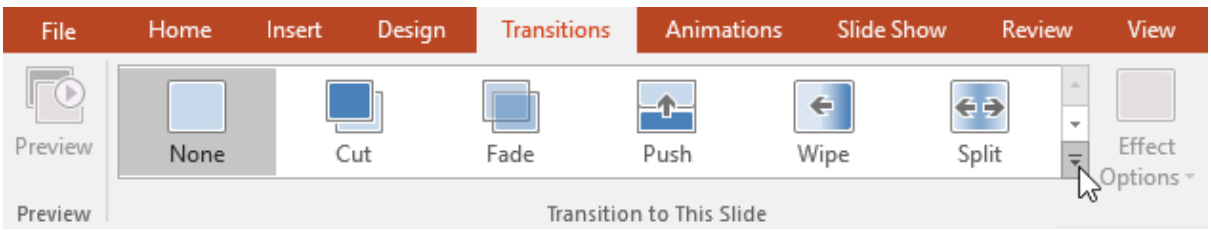
- The slide show will provide you full-screen mode of your presentation.
- By clicking the mouse or pressing the spacebar from the keyboard will help to move to next slide.
- The arrow keys of the keyboard help to move the slide forward or backward for the presentation.
- To exit presentation mode the Esc key, need to be pressed from the keyboard.

3.3.4 Transition and Slide Timings

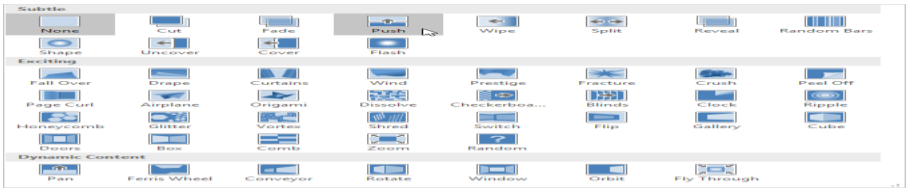
You can add special effect between each slide of your PowerPoint presentation, by using the feature slide transitions. A transition is a special visual effect that make the slide show attractive and eye-catching. By default, there is no transition effect on the slide. It can be added to the presentation in the following manner:

To apply a transition

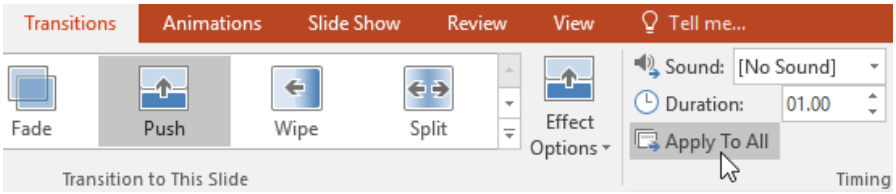
- Choose the particular slide from the Slide Navigation pane to apply transition. The slide shown below will appear after the transition.
- Click the Transitions tab from the menu tab of power point, then explore the transition effects from "Transition to This Slide group". By default, none is selected to each slide.
- All the transition effects can be explored by clicking the more drop-down arrow.



- Select the transition from the group to apply on the selected slide. It would be useful to automatically preview the transition.



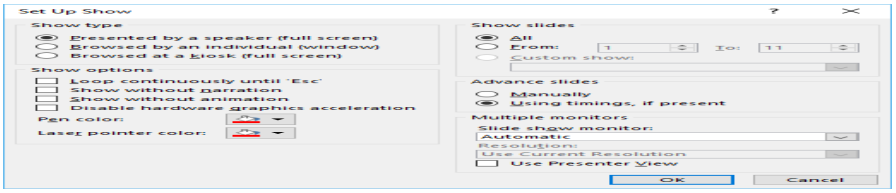
- If you want to apply the transition effect to all the slides then go to ribbon in right corner, look into the Timing group click on the “Apply To All” option and then same transition effect will be applied to all slides of your presentation.



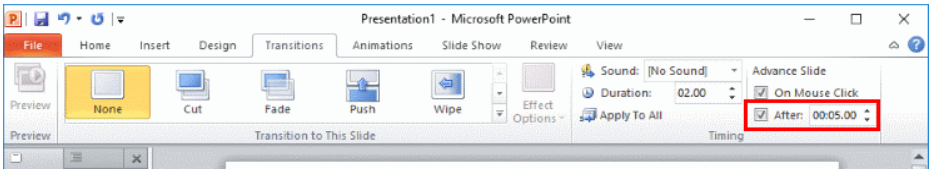
3.3.5 Automating the Slide Show

- Go to the Slide Show tab in the menu bar, then click on Set Up Slide Show button to automate the slide show.

- The Set Up Show dialog box will be display to you and you need to select the relevant options from Show type, Show options, Show slides, Advance slides and Multiple show monitors for the presentation and click Ok.



- Click on “Transitions” tab from the menu bar.
- Then go to “Advance Slide” area and select check box option “After”, setup the elapse time for the presentation to advance to the next slide.



3.4 Summary

- The presentation can be created, saved and edited using various features.
- Power point has the ability to import data from other applications like Word, Excel and other applications.
- Other objects like Video clips, Pictures and Audio Clips can be added.
- Slide Show can be seen by pressing F5 or Slide Show option.
- Transition effects can be appeared during the slide show.
- Slide Transition Time is the Time during which the Slide will be active. It can be set by using Transitions Tab.

3.5 PRACTICAL EXERCISE

Q:1 Make a presentation of 3 slides to describe yourself with different layouts (e.g., use title and content layout). Use automatic slide advancement effect by 5 seconds.

Q:2 Create a presentation with 5 slides on the topic "Basics of Computer". Add picture, change background colour for each slide and change the design theme of your presentation.

Q: 3 Make slides with your introduction and academic qualification and insert your picture at right side. Insert the current date and time in the footer and slide number.

Q: 4Prepare a presentation with animation and transition for any organization with minimum five slides using facet design theme.

Q: 5 Make table of 5 rows and 2 columns and insert the following data on the first slide and colour the table of your choice.

Items	Sales (Amount)
Apple	12000
Mango	10000
Grapes	20000
Orange	15000

Multiple Choice Questions:

Q 1: Which of the following tool enables you to add text to a slide without using the standard placeholders [19]?

A. Text tool
B. Line tool
C. Drawing tool
D. Auto shapes tool

Q 2: What happens if you edited an image inserted in PowerPoint?

A. The original file which was inserted is not modified
B. The original file that was inserted is changed
C. The original file is modified when you save presentation
D. None of above

Q3: What happens if you select first and second slide and then click on New Slide button on toolbar?

A. A new slide is being inserted as the first slide in presentation
B. A new slide is inserted as the second slide in presentation
C. A new slide is inserted as the third slide in presentation
D. None of above

Q4: In a presentation of PowerPoint, the special effects used to introduce slides are known as -

A. Custom Animation
B. Transitions
C. Annotations
D. None of the above

Q5: Which of the following shortcut key is used to start the slideshow?

A. Using F5 key
B. Using F3 key
C. Using F1 key
D. Using F6 key

Q6: Which of the following is the default standard layout in PowerPoint?

A. Blank slide
B. Title and content slide
C. Title slide
D. None of the above

Q7: Which of the following fill effects can be used to fill the background of the slide?

A. Picture
B. Gradient
C. Texture
D. All of the above

Q8: Which of the following option is correct to insert the chart as part of the PowerPoint presentation?

A. Insert -> Chart
B. Edit -> Chart
C. View -> Chart
D. All of the above

Q9: Which of the following are the uses of the PowerPoint presentation?

A. It can be used for project presentations
B. Communication of planning
C. Used to represent the data in an attractive way
D. All of the above

Q10: Is it possible to convert a PowerPoint presentation into a video?

A. Yes
B. No
C. May be
D. Can't say

BACHELOR OF ARTS (LIBERAL ARTS)

SMESTER-III

FUNDAMENTALS OF COMPUTER APPLICATIONS

UNIT 4: USING SPREADSHEET STATISTICAL FUNCTIONS

STRUCTURE

4.0 OBJECTIVES

- To know about the Mathematical Functions such as COUNT, SUM, AVERGAE, PRODUCT, POWER and SQRT functions
- To use the MAX and MIN functions to calculate the highest and lowest values from a set of cells.
- To learn about copy and paste formulas without formats applied to a cell location.
- To implement various Statistical Functions like MODE, MEDIAN, and MEAN etc.
- To design and implement Logical Functions like IF, COUNTIF, SUMIF etc.

4.1 INTRODUCTION

A spreadsheet is an electronic graph sheet that divided into rows and columns and can help arrange, calculate and sort data. The width of the rows and columns can be changed according to the user's choice. The rows are marked with positive integers like 1 and columns are marked with Alphabets like A. The rectangular boxes formed by the intersection of rows and columns is known as cell. MS-EXCEL has 256 columns and 65536 rows in one workbook. There are three worksheets per one workbook by default. Data can be represented in numeric values, text, functions, formulas and references [15].

To analyze the data in MS-EXCEL, statistical functions can be used. This chapter will help you to understand the meaning of the basic statistical functions.

4.2STATISTICAL FUNCTIONS

There are many statistical functions like sum, count, median, mode, standard deviation, etc., are present in the MS Excel. It can also implement the logical operations like if, average if, sumif, etc.

The following points needs to be take care while writing the format of a user defined function

- Each Function must start with 'equal to' (=) sign
- Round braces are used to indicate the opening and closing of the function.
- Arguments are written within the parenthesis
- Commas can be used to separate the different arguments.

Example: The basic syntax of the function is shown below:

Syntax=Function Name (Argument)
=SUM ((B3:H3)), 50, 90)

This function will sum the values from cells B3 to H3 along with the constants 50 and 90.

Statistical functions are used to analyze the statistical data. The results can also be represented into Graphical or Pictorial form. To implement all these functions, this module has used MS Excel 2016. Some of the statistical functions are shown below using Employee Database as shown in Figure 4.1.

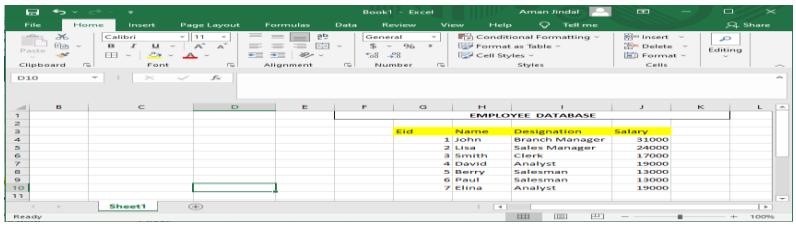


Figure 4.1: Employee Database

4.2.1 SUM()

Sum is a predefined function in the MS Excel. This function calculates the sum of the numerical values present in the range of cells mentioned in the argument. The formula for sum is **=SUM (number1, [number2],..).** For a range of cell, argument can be given as shown in Figure 4.2.

Example- Find the sum of salary of all employee.
Result- =SUM (J4:J10)
= 136000/-

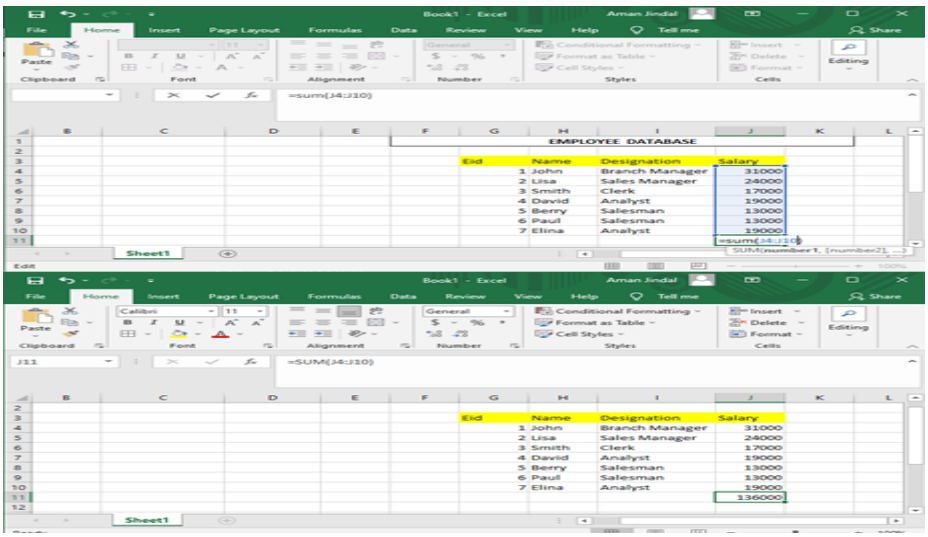


Figure 4.2: Sum of Salary

4.2.2 COUNT()

During entries in the worksheet, it becomes difficult to recall the number of entries which we have made in the worksheet. The Count function helps to count the number of cells within a range of cells. An implementation can be seen in Figure 7.3, for Count the number of employee in the company. The Syntax and example is written below:

Syntax: **COUNT (cell_1:cell_n).**
=COUNT (J4:J10)
Answer = 7

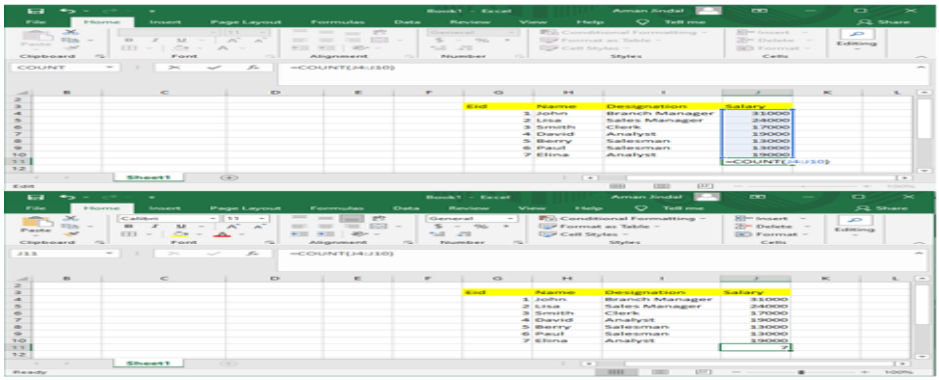


Figure 4.3: Counting the number of employees

If the user wants to count the number of entries without using cell references, then it could be written as:

=COUNT (23, 24, 67, 78, 89, 90) The result will be 6 =COUNT (“23”, 24, 67,78) The result will be 4, as the text value is converted into numeric by default

4.2.3AVERAGE()

This function calculates the average of the numbers specified in the argument. The formula to calculate average is **=AVERAGE (number1, [number2],)**.

Example: Find the average salary among all the employees of the company.
The result can be seen in Figure 4.4.

Syntax=AVERAGE (number 1, number2----) Suppose you need to find out the average from J4 to J10 cell range, then it will be calculated =AVERAGE (J4:J10) =19428.57/-

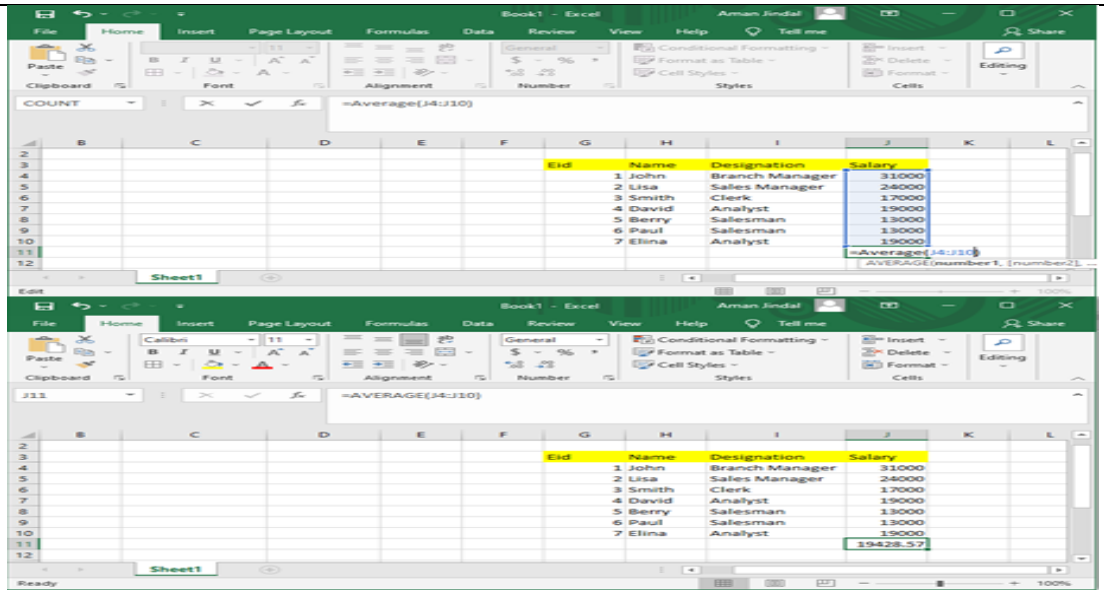


Figure 4.4: Average Function

4.2.4PRODUCT()

The PRODUCT function is inbuilt function multiplies the numbers and returns the product as the output.

Syntax: PRODUCT(3,4,10), it returns the 120 Where Argument type : Number and return type is number =PRODUCT("4",5, 3), the answer will be 60, it will take by default as number.

4.2.5 POWER()

The Power function will take two values of the specified cells for numeric constants, in the syntax first value defines the number and second value as a power. It returns the results as the power of a number.

Syntax=POWER(number, power) Example1=POWER(2,3), Example2=POWER("2",3) Answer will be 8 for both the examples, it will also take as numeric as a default argument.

4.2.6 SQRT()

This function will displays the square root of the positive number and returns the positive number. The square root of negative number cannot be evaluated.

Syntax=SQRT(number) Example1=SQRT(64), result will be 8 Example2=SQRT("100"), results will be 10

4.2.7MAXIMUM and MINIMUM

To find maximum and minimum value from a given set of values, MAX and MIN function can be used respectively. See Figure 4.5 for its implementation.

Syntax: Max(Number1,Number2,-------), Syntax of Min=Min(Number1, Number2----) Here return type: Number, Argument Type=Number Example: Find the maximum and minimum salary given to the employee. Result: =MAX(E4:E10) =MIN(E4:E10) =31000/- =13000/-

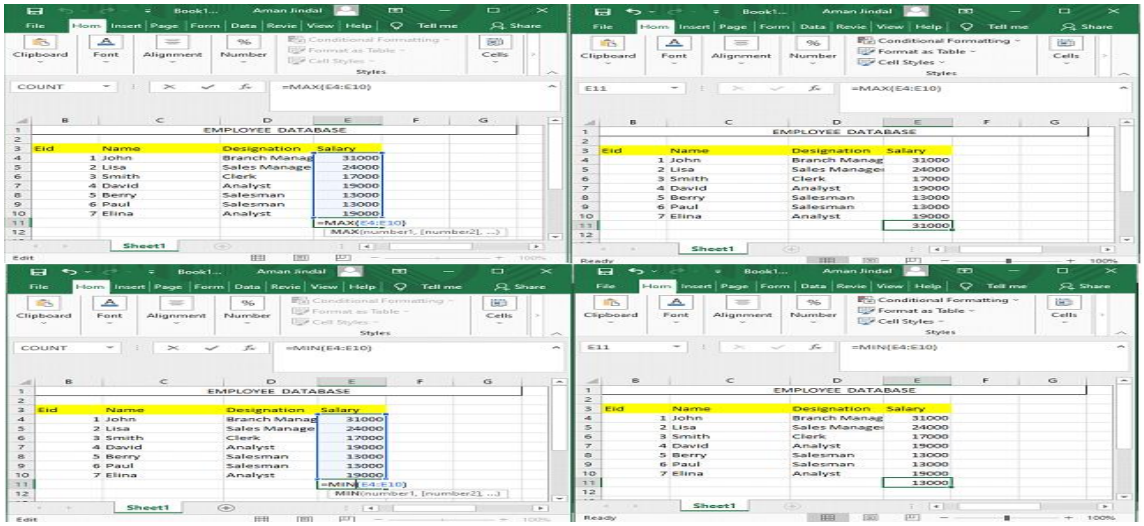


Figure 4.5: Maximum and Minimum Function

If the user write it in the constant form like =MAX("78",34,37,29), It will returns 78 because it will consider every argument as the constant term. MIN("78",34,37,29), it will return 29 similarly it will also take every argument as the constant.

4.2.8MEDIAN()

The median is the central score for a set of data that has been arranged in order of magnitude. which is less affected by outliers and skewed data. In order to calculate the median, suppose we have the data below: The median function finds the median of the numbers passed as an argument.

The syntax for median function is =**MEDIAN(number1, [number2],…..)**
Example: Find the median salary from the employee data.(see Figure 4.6)
Result: =MEDIAN(E4:E10)
=19000/-

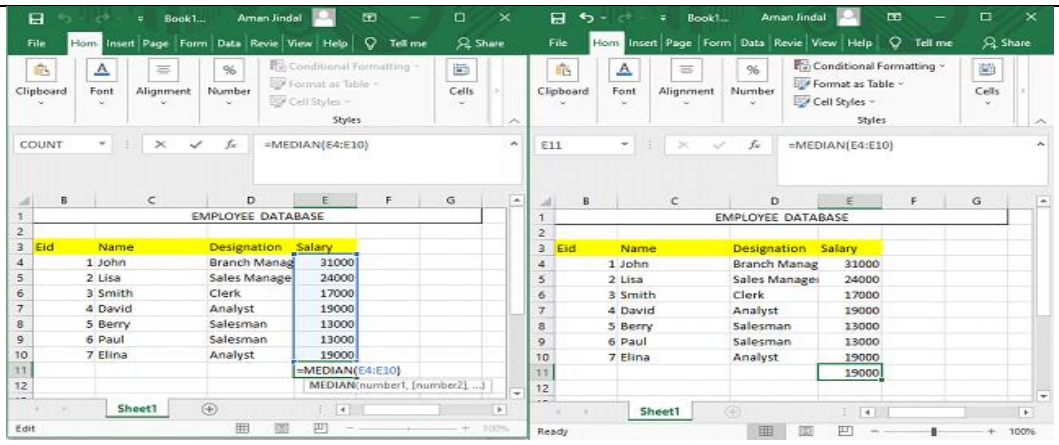


Figure 4.6: Median Function

4.2.9 MODE()

Mode function calculates the most frequently occurring value from the given set of arguments.

The syntax for mode function is =**MODE(number1, [number2],…..)**.
Example:- Find the mode value of the salary column of the employee data.
Result: =MODE(E4:E10)
=19000/-

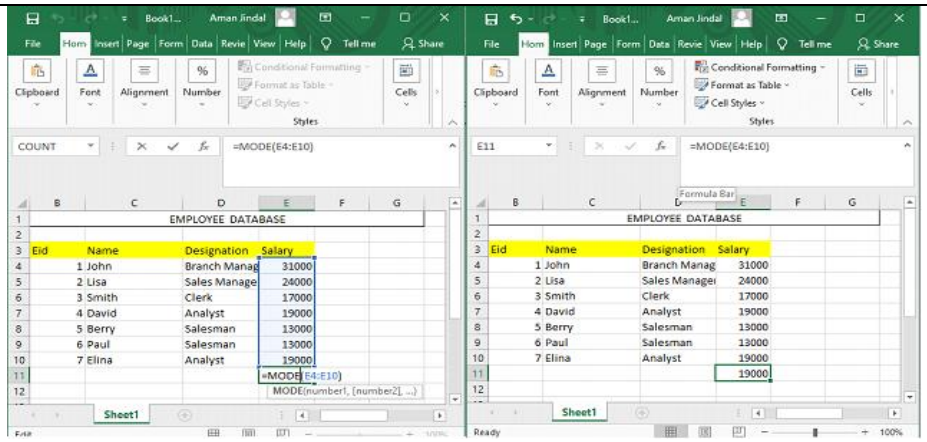


Figure 4.7: Mode Function

4.2.10 STDEV.S ()

It estimates the standard deviation of the numbers give as an argument. If the arguments consist logical values or text then STDEV.S ignores them. Its implementation can be seen in Figure 7.8.

The syntan of this function is =**STDEV.S(number1, [number2],…..)**.
Example:- Find the standard deviation of the employee data
Result: =STDEV(E4:E10)
=6373.307

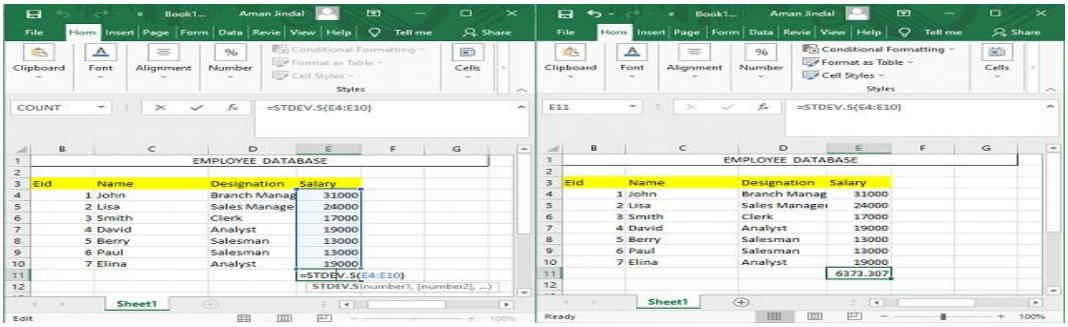


Figure 4.8: Standard Deviation Function

4.2.11ABS()

ABS function finds the absolute value of a number. It returns a positive number if any number is passed as an argument. Its syntax is =**ABS(number).**

Example: Find the product, square root and absolute value of the data given in Figure 4.9

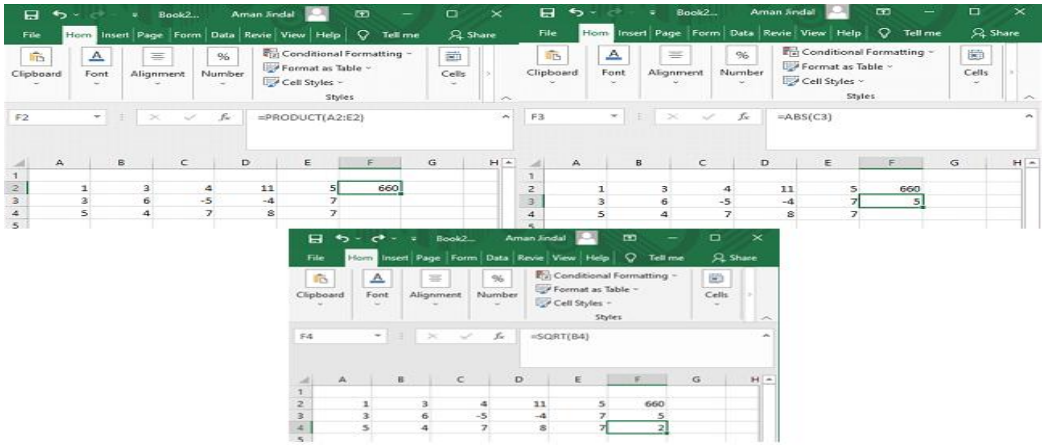


Figure 4.9: Product, Square root and Absolute function

4.2.12QUARTILE()

Quartile function returns the quartile of a given set of values. It can return first quartile, second quartile, third quartile, maximum value and minimum value.

Syntax: =QUARTILE.INC(array, quart) If quart=0, then returns minimum value If quart=1, then returns 1st Quartile If quart=2, then returns 2nd Quartile If quart=3, then returns 3rd Quartile If quart=4, then returns maximum value

Example: Find the first, second, third quartile of student marks as shown in Figure 4.10

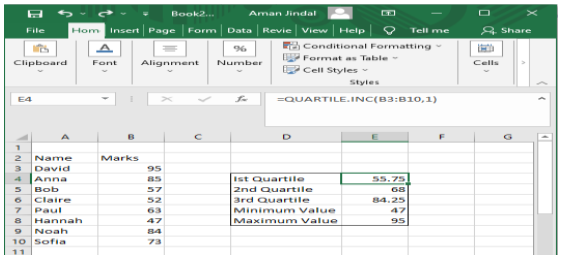


Figure 4.10: Quartile function

4.2.13PERCENTILE()

This function calculates the kth percentile for the given set of arguments. The syntax for this function is =PERCENTILE.INC(array,k_value)

Example: Find the 90th percentile, 80th percentile, 70th percentile, 60th percentile, 50th percentile of the student marks shown in Figure 4.11.

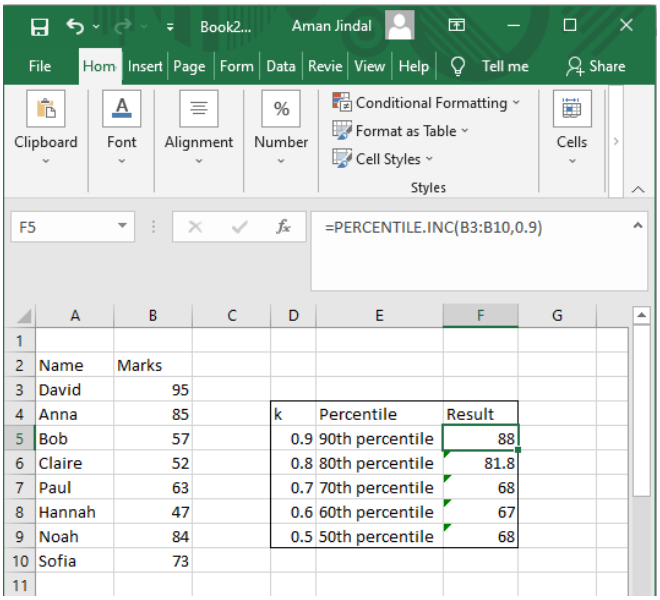


Figure 4.11: Percentile function

4.2.14COUNTA and COUNTBLANK()

COUNTA function counts the non-empty cells from the given set of arguments. It means it will count numbers, text, logical values, etc. Whereas COUNTBLAK counts the empty or blank cell from the provided cell range in the argument.

Syntax: =COUNTA(value1,[value2],…)

=COUNTBLANK(value1,[value2],…)

Example: Count the non-empty cell from the data given in figure 4.1. Also count the empty cell from the given data

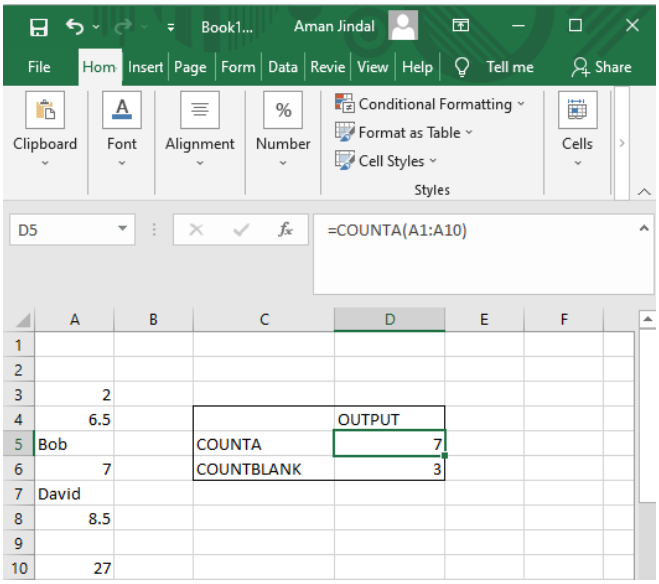


Figure 4.12: COUNTA and COUNTBLANK function

4.2.15CORREL()

It calculates the correlation coefficient of the two given dataset or array.

Syntax: =CORREL(array1, array2)

Example: Find the correlation coefficient of the dataset given in figure 4.13

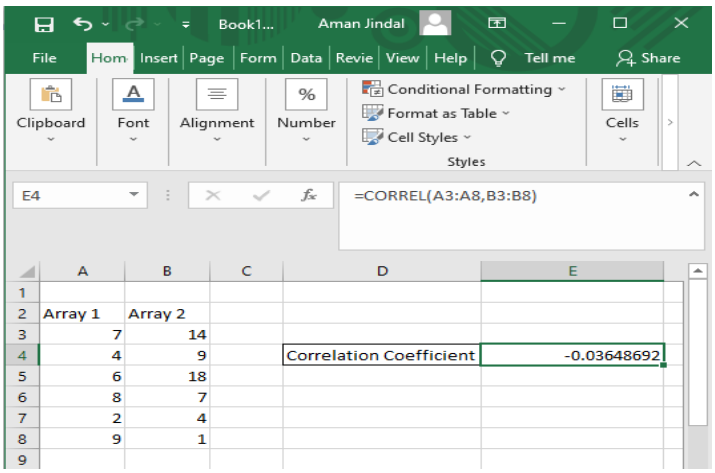


Figure 4.13: CORREL Function

4.2.16LOGICAL OPERATIONS(IF, AVERAGEIF, SUMIF, COUNTIF)

IF is a logical operation that returns a value depending on the TRUE or FALSE result. The syntax of this operation is =IF (logical_test, [value_if_true], [value_if_false]).

Example: Calculate the result as PASS or FAIL of student data as shown in figure 4.14. Student will pass the examination only if marks is greater than 60.

Result:

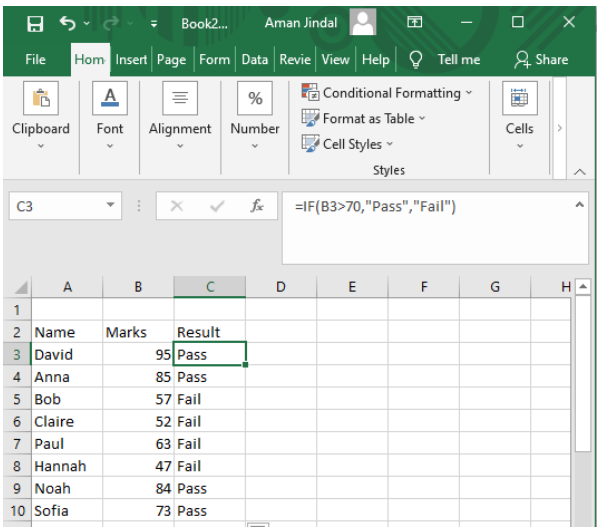


Figure 4.14: IF Function

AverageIf operation calculates the average of the given set of values depending on the given condition or criteria.

Syntax: =AVERAGEIF(array1,criteria,[array2],…)

Example: Find the average marks among students whose marks are greater than 50. See figure 4.15

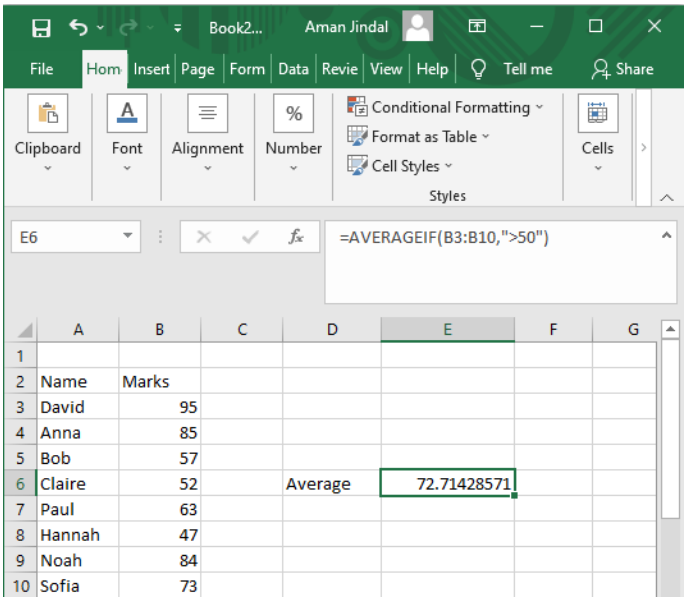


Figure 4.15: AVERAGEIF Function

4.2.17SUMIF()

It is also a conditional function SumIf function is used to add up the range of cells satisfying the conditions given by the user, condition is to be represented in double quotes. The syntax below shows to calculate the sum of the given set of values depending on the given criteria.

Syntax: =SUMIF(array1,criteria,[array2],…) Example1=SUMIF(A3:A10,"=Bob",B2:B10),

It will answer the sum of marks whose name is Bob, answer for this example will be 57 only, because only one value is there for only Bob.

Example2: Find the sum of the marks among students whose marks are greater than 65. See Figure 4.16

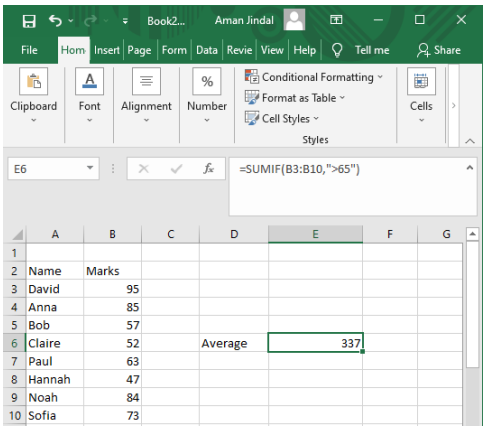


Figure 4.16: SUMIF Function

4.2.18COUNTIF()

CountIf() operation counts the cell from the given set of values depending on the given condition.

Syntax: =COUNTIF(range of the values, “condition”)
Example=COUNTIF(B3:B10,”>75”)
Return Type: Number

Example: Find the number of students having marks greater than 75. See Figure 4.17

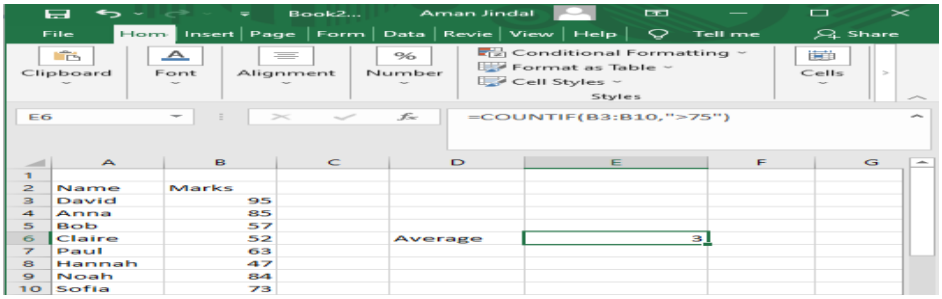


Figure 4.17: COUNTIF Function

4.3 SUMMARY

- Built in Functions are Pre-designed formulas in Excel to perform both simple and complex functions. Built in Functions include Mathematical/Statistical and Logical Functions etc.
- Statistical Functions SUM() is used to find the total of all the values
- AVERAGE(): To find the arithmetic mean of group of numbers
- PRODUCT(): To multiply given set of cell locations.
- POWER(): To calculate the raise to the power of any number
- SQRT(): The Positive Square root of a number
- MAX(), MIN(): To find the highest and minimum value from a set of cells
- MEDIAN(): To find the central number from a group of numbers
- MODE():To find the number which is frequently occurs from a set of numbers
- STDEV.S(): This function is for a set of numbers based on a sample.
- ABS(): Absolute value of any number.
- QUARTILE(),PERCENTILE()
- COUNTA(), COUNTBLANK(), COUNT() are used to quickly count the number of items in a list.
- LOGICAL FUNCTIONS:SUMIF(), AVERAGEIF(), COUNTIF() are used to apply the functions based on the condition.

4.4 PRACTICE EXERCISE

Q1. Differentiate between the following:

- Max() and Min() Functions
- SUMIF() and COUNTIF()

- MEDIAN and MODE
- SUM and COUNT
- COUNTA and COUNTBLANK

Q2. Calculate the average, mode, standard deviation of the data given below:

	Quarter 1	**Quarter 2**	**Quarter 3**
January	$400	$200	$350
April	$340	$140	$405
June	$107	$98	$55

Q3. The following data shows the inventory figures for 100-gallon tanks at something's Fishy

	Something's Fishy					
	100-Gallon Fish Tanks Inventory					
						Amount
2-Jan	Beginning Inventory	24	Units	@	$30.00	?
14-May	Purchase	20	Units	@	$34.50	?
10-Jul	Purchase	33	Units	@	$36.70	?
2-Aug	Purchase	33	Units	@	$49.75	?

Fish tanks available for sale	?	Cost of tanks available for sale	?

- Enter the data into Excel in the same format and Find the amount for each date
- Calculate the cost of tanks available for each date
- How many total tanks are available for the sale?

Q4. Enter the data of 20 students for five subjects like Maths, Chemistry, Biology, English and Hindi. Enetr the marks of each student out of 100. Find the student who scores first division using logical functions by using conditions If total marks>=60, print a message "First Division" Else IF Marks>50 Print:" Second Divison, Else IF marks>40, PRINT: Third Divison, Else PRINT "FAIL"

Q5. Use Logical operations to calculate the following

	Sales ($ millions)
Quart. 1	500
Quart. 2	350
Quart. 3	495
Quart. 4	620

Which quarter is the better?	
Find the maximum and minimum sales	
Compare through logical if	

MCQ Based Questions

1. _____ Function in Excel tells how many numeric entries are there.

a) COUNT
b) SUM
c) NUM
d) CHKNUM

2. Which is not a Function in MS Excel?

a) SUM
b) AVG
c) MAX
d) MIN

3. Functions in MS Excel must begin with ___

a) An () sign
b) An Equal Sign
c) A Plus Sign
d) A > Sign

4. Which function in Excel checks whether a condition is true or not ?

a) SUM
b) AVERAGE
c) COUNT
d) IF

5. Which of the following formulas is not entered correctly?

a) =10+50
b) =B7*B1
c) =B7+14
d) 10+50

6. Which of the following formulas will Excel Not be able to calculate?

a) SUM(Sales)-A3
b) SUM(A1:A5)*.5
c) SUM(A1:A5)/(10-10)
d) SUM(A1:A5)-10

7. Which function will be performed first in this formula?
=IF(SUM(C2:C4)>500,"Yes","No")

a) IF
b) SUM

Q8.Statistical calculations and preparation of tables and graphs can be done using

a) Adobe Photoshop b) Excel c) Notepad d) PowerPoint

Q9.Which function is used to count the cells using condition

a) SUMIF()

b) COUNT ()

c) COUNTIF ()

d. None of these

Q10.____Function is used to find the frequently used data

a) Mode ()

b)Median()

c) STDEV.S()

d) MEAN()

BACHELOR OF ARTS (LIBERAL ARTS)

SMESTER-III

FUNDAMENTALS OF COMPUTER APPLICATION

UNIT 5: FORMAT TEXT BY USING FUNCTIONS

STRUCTURE

5.0 OBJECTIVES

- To know about various functions like Right, Left and Mid etc.
- To implement the text formatting using various functions such as Upper, Lower Proper, and Concatenate etc.
- To create various charts like Pie chart, Area Chart, Bar Chart, Line chart etc.
- To generate the pivot tables
- To remove the duplicate values from the file

5.1 FORMATTING TEXT

To create a proper spreadsheet in Excel, there is a need to do formatting of the text of the cells. There are some functions which can be used to format the text of the cell. These functions have been implemented using MS EXCEL 2016. UPPER, LOWER, PROPER, LEFT, RIGHT, MIDDLE, CONCATENATE, etc. are such functions to format the text.

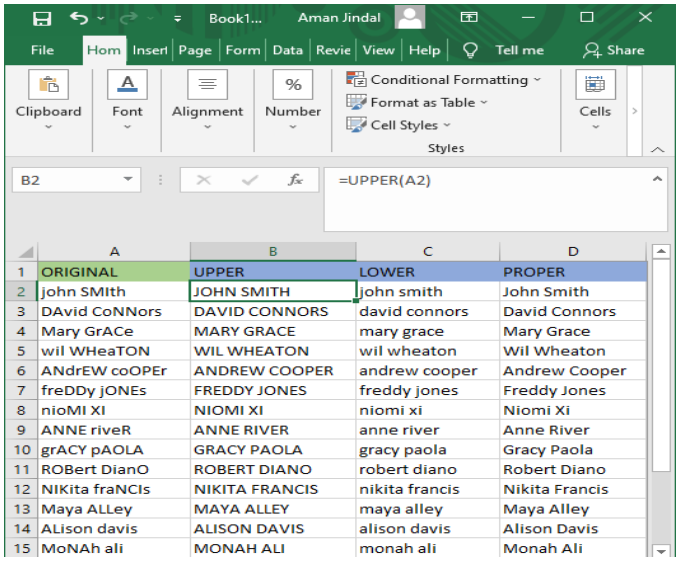
5.1.1 Using UPPER, LOWER and PROPER

UPPER function is used to change the characters of text to capitals. LOWER function will change the text to lower case. PROPER function changes only the first character of each word to capital and rest of the characters to lower case. If a text contains numbers, punctuation or special characters then these are not affected by UPPER, LOWER or PROPER function[18].

Syntax of each function is given below: -

- =UPPER(text)
- =LOWER(text)
- =PROPER(text)

Here, argument text will be a cell number that contains a text. See the example shown in figure 8.1



	A	B	C	D
1	ORIGINAL	UPPER	LOWER	PROPER
2	john SMIth	JOHN SMITH	john smith	John Smith
3	DAvid CoNNors	DAVID CONNORS	david connors	David Connors
4	Mary GrACe	MARY GRACE	mary grace	Mary Grace
5	wil WHeaTON	WIL WHEATON	wil wheaton	Wil Wheaton
6	ANdrEW coOPEr	ANDREW COOPER	andrew cooper	Andrew Cooper
7	freDDy jONEs	FREDDY JONES	freddy jones	Freddy Jones
8	nioMI XI	NIOMI XI	niomi xi	Niomi Xi
9	ANNE riveR	ANNE RIVER	anne river	Anne River
10	grACY pAOLA	GRACY PAOLA	gracy paola	Gracy Paola
11	ROBert DianO	ROBERT DIANO	robert diano	Robert Diano
12	NIKita fraNCIs	NIKITA FRANCIS	nikita francis	Nikita Francis
13	Maya ALLey	MAYA ALLEY	maya alley	Maya Alley
14	ALison davis	ALISON DAVIS	alison davis	Alison Davis
15	MoNAh ali	MONAH ALI	monah ali	Monah Ali

Figure 5.1: UPPER, LOWER and PROPER Function

Functions applied on row 2 are as follows:

- Cell B2: =UPPER(A2)
- Cell C2: =LOWER(A2)
- Cell D2: =PROPER(A2)

5.1.2 Using LEFT, RIGHT and MID

Some functions are used to retrieve the characters or substring from a given text. A text can contain characters, numbers, special characters, punctuations and spaces. Such functions are given below:

- LEFT function retrieves a specific number of characters from left side of a given text. Syntax: =LEFT(text, [num_chars])
- RIGHT function retrieves a specific number of characters from right side of a given text. Syntax: =RIGHT(text, [num_chars])
- MID function retrieves a specific number of characters from the middle of a given text. Syntax: =MID(text, start_num, [num_chars])

Here,

- text will be a cell number.
- num_charsis the number of characters to be retrieved.
- start_num is the starting position of the characters to be retrieved.

An Example is given in the figure 5.2. In this example text is given in cell A1. Value of num_chars is 8 and start char is 3.

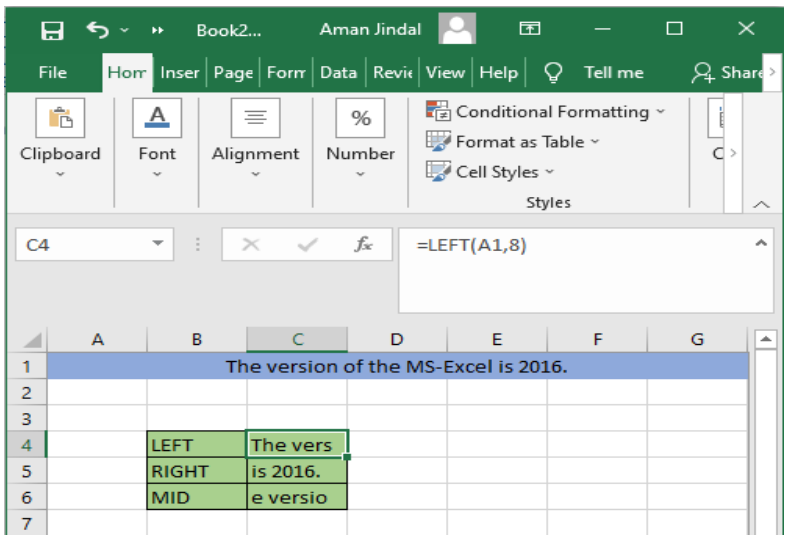


Figure 5.2: LEFT, RIGHT, MID Function

5.1.3 CONCATENATE

CONCATENATE function joins the several text strings into one text string. The syntax of the function is =CONCATENATE (text1, [text2], [text3],.).

Here, text can be a string or a cell number. A string will be represented within double quotes (“”) as shown in the example given in the figure 5.3.

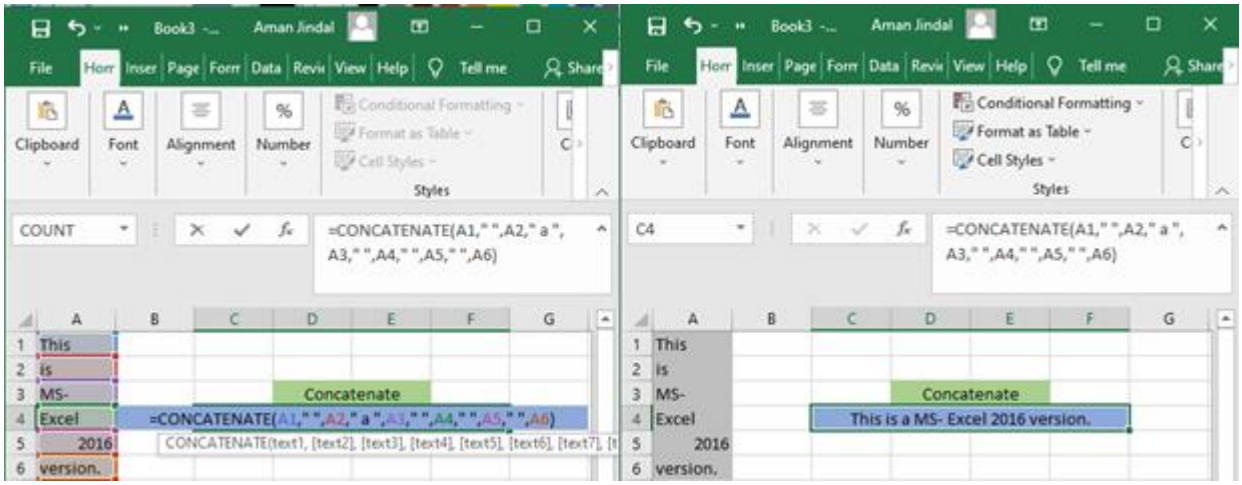
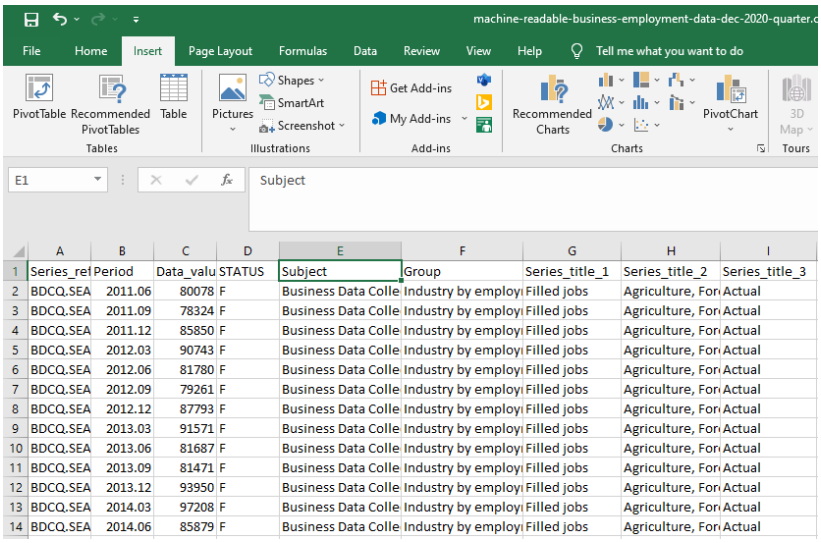


Figure 5.3: CONCATENATE Function

5.1.4 Pivot Table

Pivot table is the most useful tool of the MS-Excel. It allows us to extract the information from a large, complex and detailed dataset. It arranges and summarize the complex dataset. To implement this, an employee dataset is used as shown in figure 8.4 having 12317 rows.



	A	B	C	D	E	F	G	H	I
1	Series_ref	Period	Data_valu	STATUS	Subject	Group	Series_title_1	Series_title_2	Series_title_3
2	BDCQ.SEA	2011.06	80078	F	Business Data Colle	Industry by employ	Filled jobs	Agriculture, For	Actual
3	BDCQ.SEA	2011.09	78324	F	Business Data Colle	Industry by employ	Filled jobs	Agriculture, For	Actual
4	BDCQ.SEA	2011.12	85850	F	Business Data Colle	Industry by employ	Filled jobs	Agriculture, For	Actual
5	BDCQ.SEA	2012.03	90743	F	Business Data Colle	Industry by employ	Filled jobs	Agriculture, For	Actual
6	BDCQ.SEA	2012.06	81780	F	Business Data Colle	Industry by employ	Filled jobs	Agriculture, For	Actual
7	BDCQ.SEA	2012.09	79261	F	Business Data Colle	Industry by employ	Filled jobs	Agriculture, For	Actual
8	BDCQ.SEA	2012.12	87793	F	Business Data Colle	Industry by employ	Filled jobs	Agriculture, For	Actual
9	BDCQ.SEA	2013.03	91571	F	Business Data Colle	Industry by employ	Filled jobs	Agriculture, For	Actual
10	BDCQ.SEA	2013.06	81687	F	Business Data Colle	Industry by employ	Filled jobs	Agriculture, For	Actual
11	BDCQ.SEA	2013.09	81471	F	Business Data Colle	Industry by employ	Filled jobs	Agriculture, For	Actual
12	BDCQ.SEA	2013.12	93950	F	Business Data Colle	Industry by employ	Filled jobs	Agriculture, For	Actual
13	BDCQ.SEA	2014.03	97208	F	Business Data Colle	Industry by employ	Filled jobs	Agriculture, For	Actual
14	BDCQ.SEA	2014.06	85879	F	Business Data Colle	Industry by employ	Filled jobs	Agriculture, For	Actual

Figure 5.4: Employee Dataset

Steps to create a pivot table is shown below: -

1. In Insert tab, click on the Pivot Table option as shown in Figure 8.5. A new window will appear. In this, first option is to select the table or range. Second option is to create pivot table on new worksheet or existing one. Select the appropriate option and click on OK.

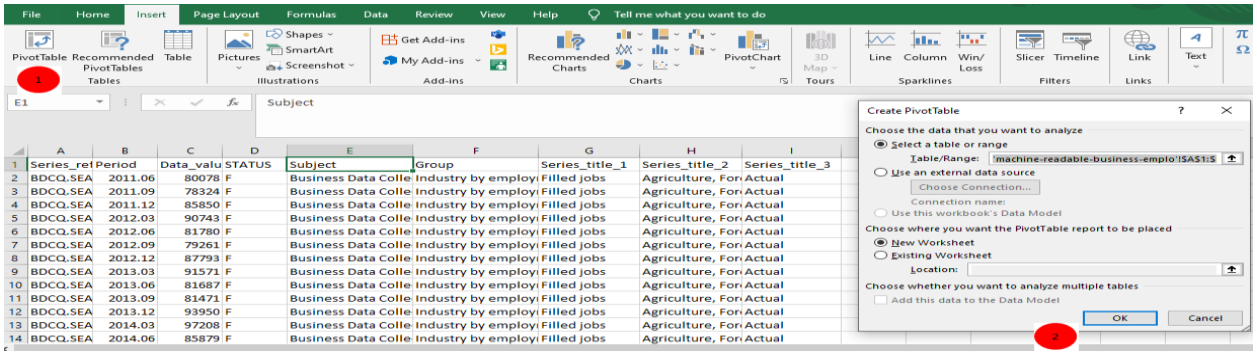


Figure 5.5: Step-1 to Create Pivot Table

2. After this, new page will appear as shown in figure 5.6. Here, firstly select the fields to include in the pivot table, then apply filters on it. According to the fields selected and filters applied pivot table will be created.

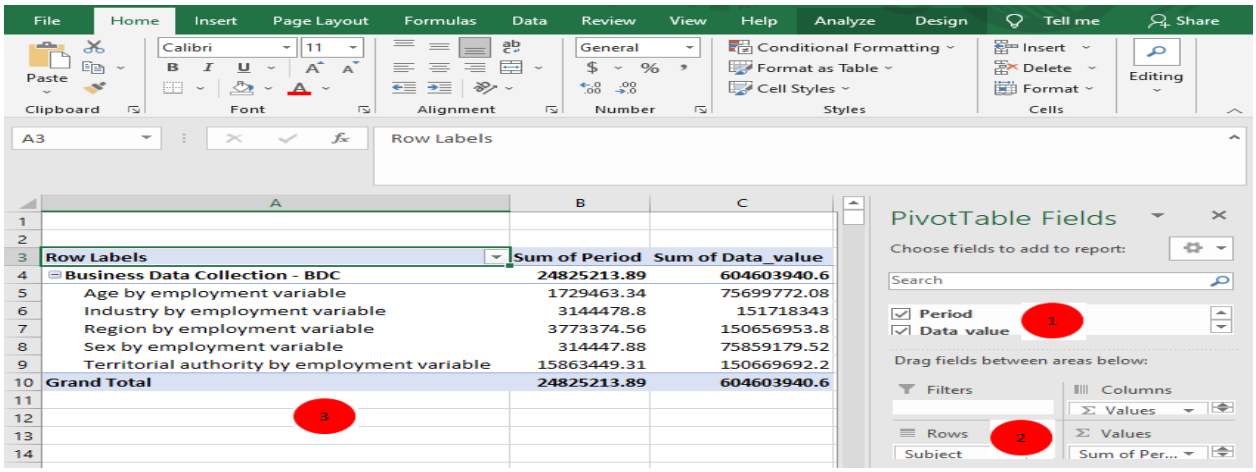


Figure 5.5: Step-2 to Create Pivot Table

5.1.5 Charts

A chart is a visual representation of data present in both rows and columns. It analyze the pattern and trends in the data sets. The dataset shown in figure 5.6 is used to prepare the chart [9].

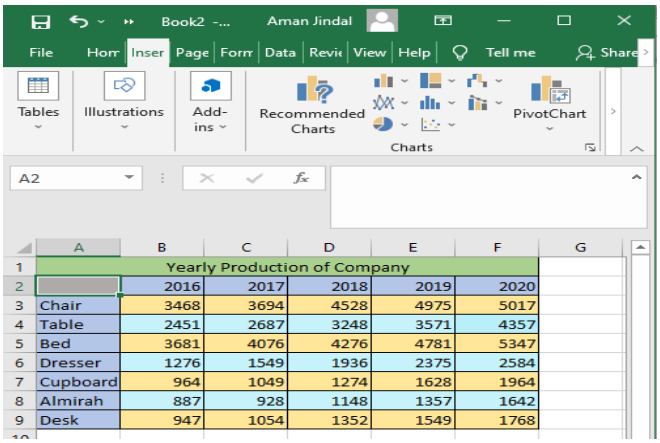


Figure 5.6: Dataset to create the charts

In Figure 5.7, some steps are mentioned that must be followed to create a chart:

1. Select the data to represent in the graph.
2. Click on the insert tab.
3. Select the appropriate chart type.

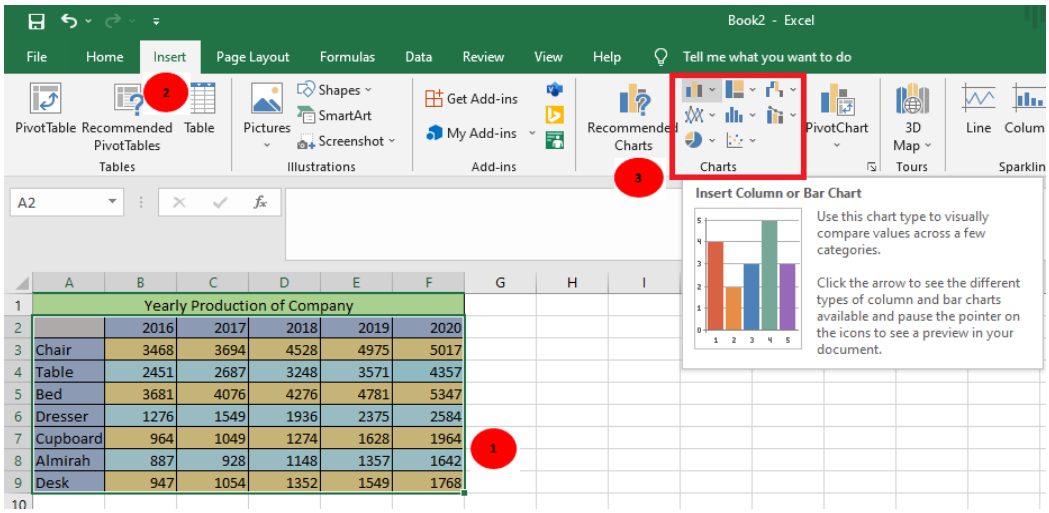


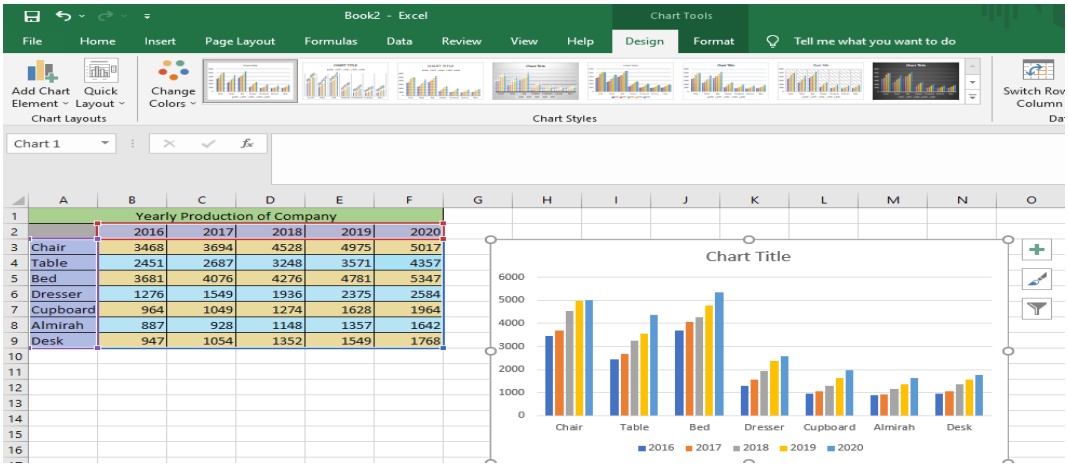
Figure 5.7: Creating a chart

There are various types chart available in MS-Excel 2016 version and that are:

- Bar or Column Chart
- Line Chart
- Area Chart
- Hierarchy Chart
- Pie Chart
- Doughnut Chart
- Statistical Chart
- Scatter or Bubble Chart
- Combo Chart

5.1.5.1 Bar or Column Chart

Bar chart is used to compare the values according to the categories. It is used when the order of the categories doesn't matter. It is also known as column chart. An Example of Bar Chart is shown in figure 8.8.

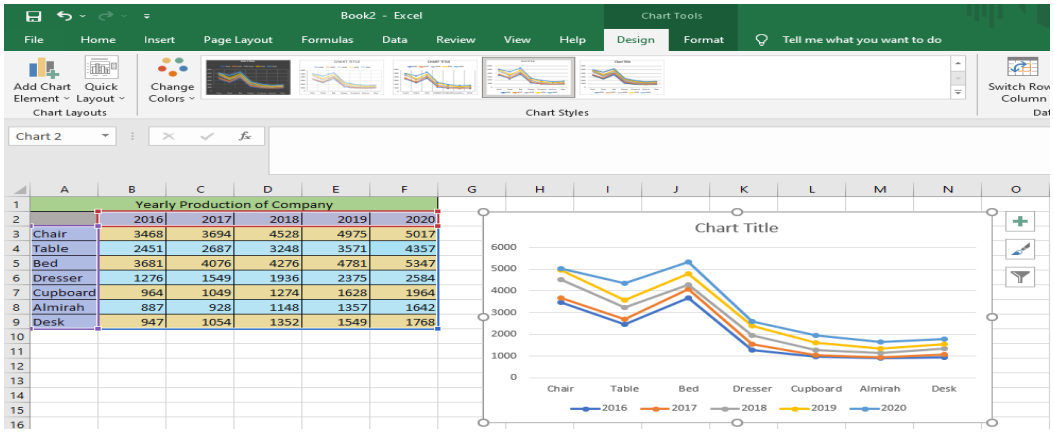


Yearly Production of Company					
	2016	2017	2018	2019	2020
Chair	3468	3694	4528	4975	5017
Table	2451	2687	3248	3571	4357
Bed	3681	4076	4276	4781	5347
Dresser	1276	1549	1936	2375	2584
Cupboard	964	1049	1274	1628	1964
Almirah	887	928	1148	1357	1642
Desk	947	1054	1352	1549	1768

Figure 5.8: Bar or Column Chart

5.1.5.2 Line Chart

It shows the trends over categories or time (years, months, days). It represents the chart in the form of line. Each line has many data points as shown in Figure 8.9.

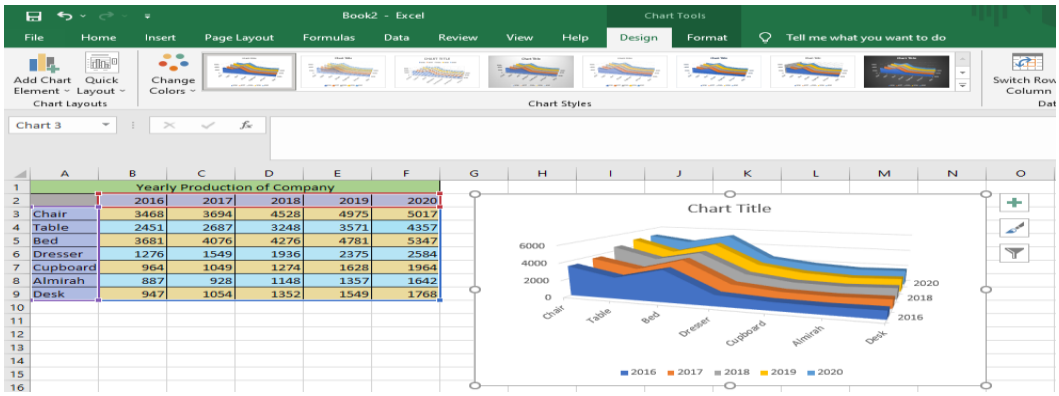


Yearly Production of Company					
	2016	2017	2018	2019	2020
Chair	3468	3694	4528	4975	5017
Table	2451	2687	3248	3571	4357
Bed	3681	4076	4276	4781	5347
Dresser	1276	1549	1936	2375	2584
Cupboard	964	1049	1274	1628	1964
Almirah	887	928	1148	1357	1642
Desk	947	1054	1352	1549	1768

Figure 5.9: Line Chart

5.1.5.3 Area Chart

It represents the chart in the form of area in 2-D or 3-D. It shows the trends over categories or time (years, months, days). An example of the Area chart is shown in Figure 5.10.



Yearly Production of Company					
	2016	2017	2018	2019	2020
Chair	3468	3694	4528	4975	5017
Table	2451	2687	3248	3571	4357
Bed	3681	4076	4276	4781	5347
Dresser	1276	1549	1936	2375	2584
Cupboard	964	1049	1274	1628	1964
Almirah	887	928	1148	1357	1642
Desk	947	1054	1352	1549	1768

Figure 5.10: Area Chart

5.1.5.4 Hierarchy Chart

It represents the values of the dataset in hierarchical level. There are two ways to represent the chart in hierarchy, Treemap and Sunburst. Treemap will show the proportion within the hierarchical level as rectangles whereas Sunburst shows the proportion as rings. Its implementation can be seen in Figure 5.11

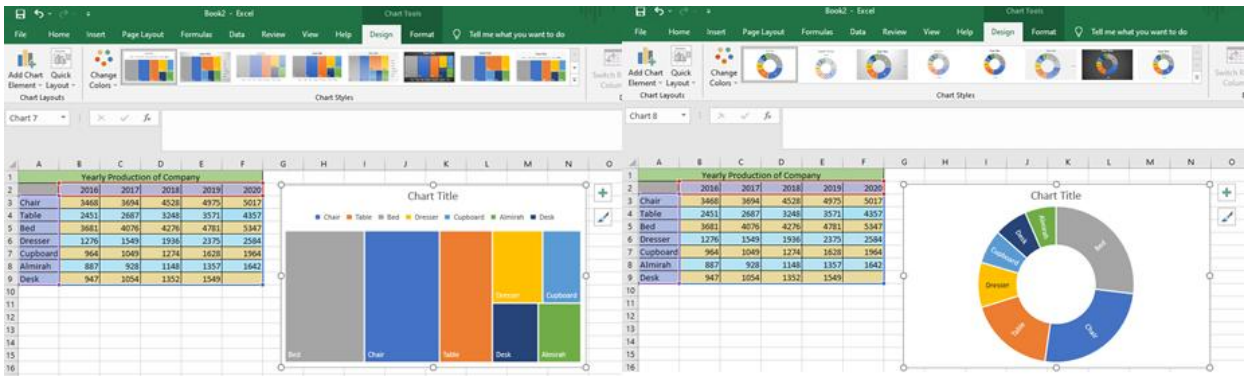


Figure 5.11: Hierarchy Chart (Treemap and Sunburst)

5.1.5.5 Pie Chart

This type of chart represents the whole dataset in the form of proportion. Each proportion will represent the category of the dataset. It can be represented in 2-D and 3-D. A 2-D representation of the pie chart is shown in Figure 5.12.

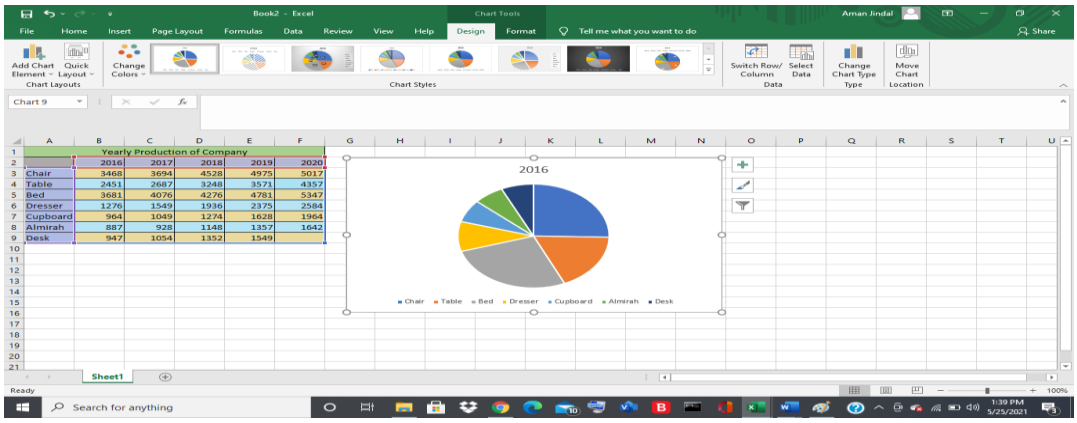


Figure 5.12: Pie Chart (2-D)

5.1.5.6 Doughnut Chart

This chart type is similar to Pie chart. But here, chart is represented in the form of doughnut. It is used when multiple series are present in the dataset. An example is shown in Figure 8.13.

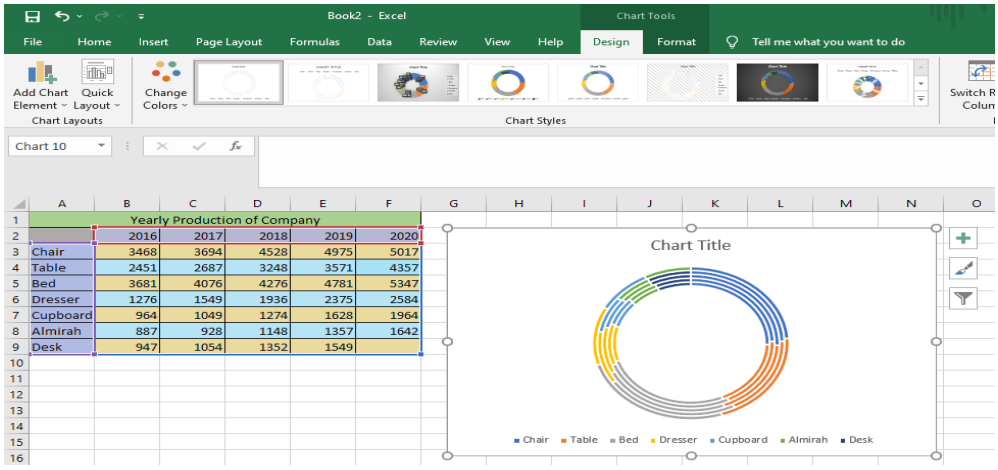


Figure 5.13: Doughnut Chart

5.1.5.7 Statistic Chart

This chart type shows the statistical analysis of the data values. An example of company production in the year 2016 is shown in Figure 5.14.

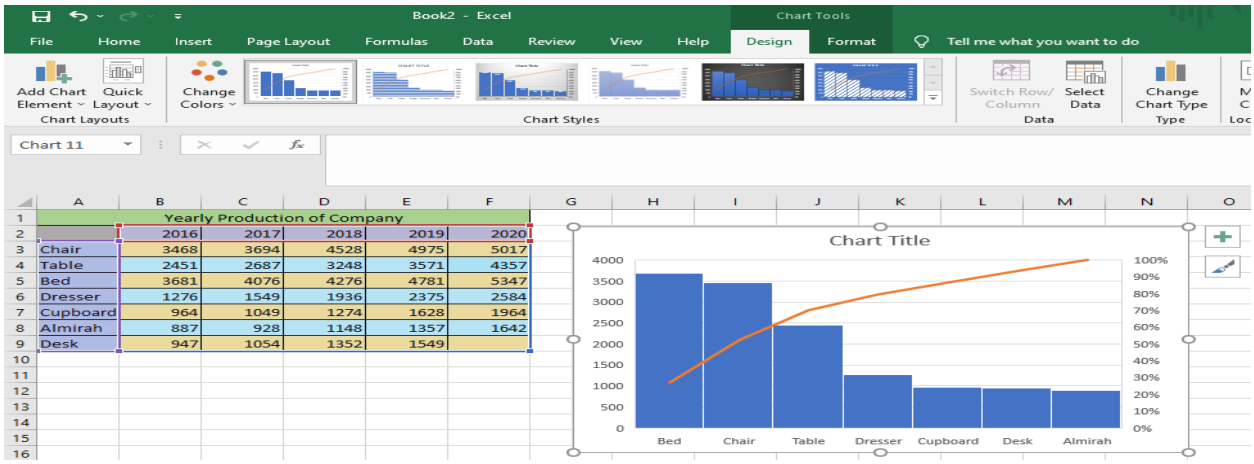


Figure 5.14: Statistic Chart

5.1.5.8 Scatter or Bubble Chart

Scatter chart compares the set of value and shows their relationship. It is also known as bubble chart. Year wise relationship between the values is shown in Figure 8.15.

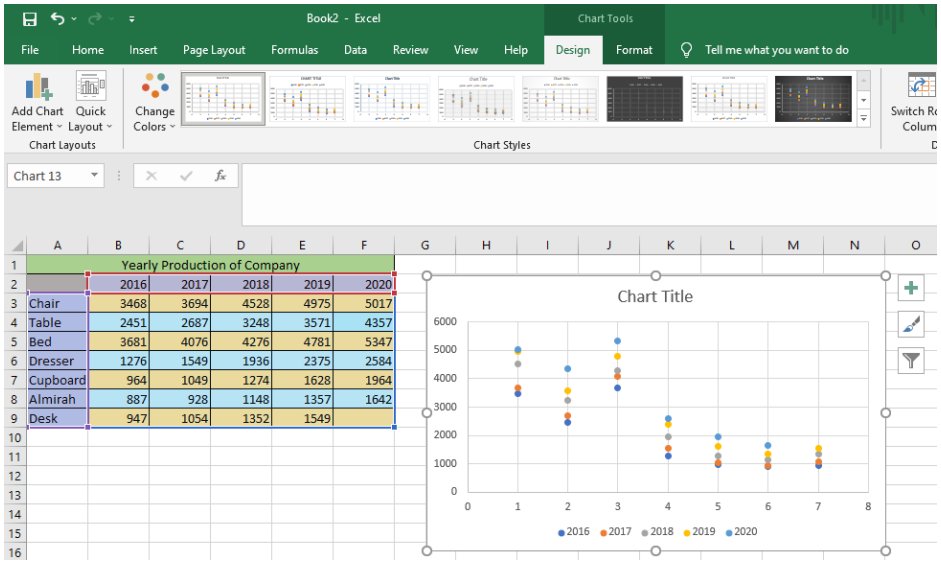


Figure 5.15: Scatter Chart

5.1.5.9 Combo Chart

Combo chart will combine various types if chart to highlight different information. It can be customized. Any type of chart can be chose to make a combo chart. It is used when the range of values varies widely or mixed type of data is present in the dataset. A combination of line and column chart is shown in the Figure 5.16.

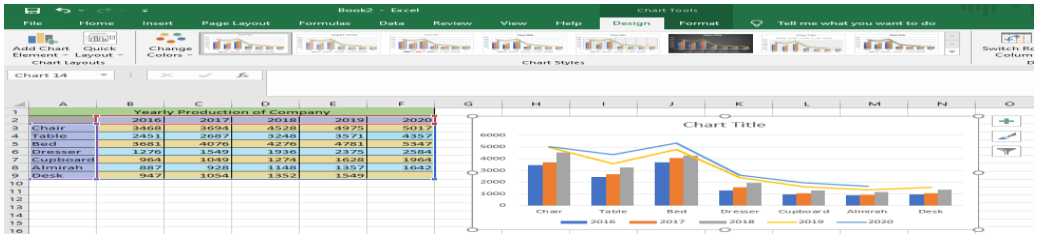


Figure 5.16: Combo Chart

5.1.6 Data Cleaning:

In Excel analysis of various data values is performed. But there are many things that can go wrong while creating a spreadsheet like improper cases, misspelled words, duplicate data, unwanted spaces, etc. In this section, numerous ways to remove these errors will be discussed.

5.1.6.1 Removing Duplicate Values

This method is used to deal with the duplicate data present in the dataset. There are two actions, which can be taken on duplicate data: -

- Highlight the duplicate data
- Remove the duplicate data

The steps that must be followed to highlight the duplicate data is shown in Figure 5.17.

1. Select the data to check for duplicity.
2. In Home tab, click on the Conditional Formatting.

3. In Conditional formatting, click on the Highlight Cells Rules.
4. After this, click on the Duplicate Values.

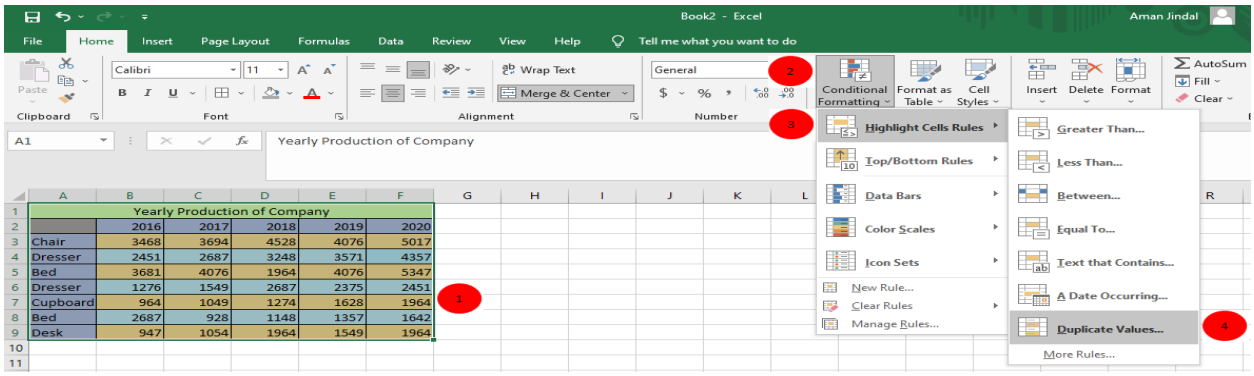


Figure 5.17: Steps to Highlight Duplicate Data

After performing these steps, the duplicate data in the spreadsheet gets highlighted in red as shown in figure 5.18.

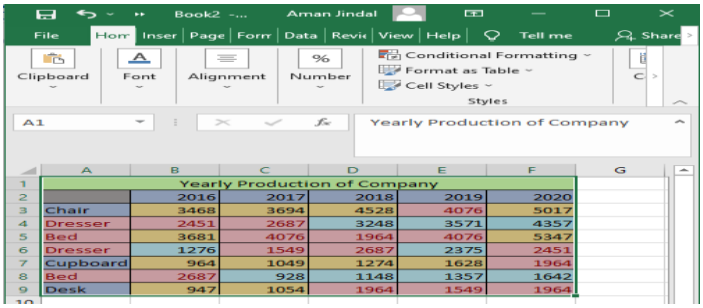


Figure 5.18: Highlighting Duplicate Data

Duplicate data can be removed following the step given below: -

1. Select the data to check for duplicity.
2. In Data tab, click on the Remove Duplicates.
3. Then, a window will appear where one or more than column can be selected to delete the duplicate data.
4. After selecting columns, click on OK button. (See the figure 5.19)

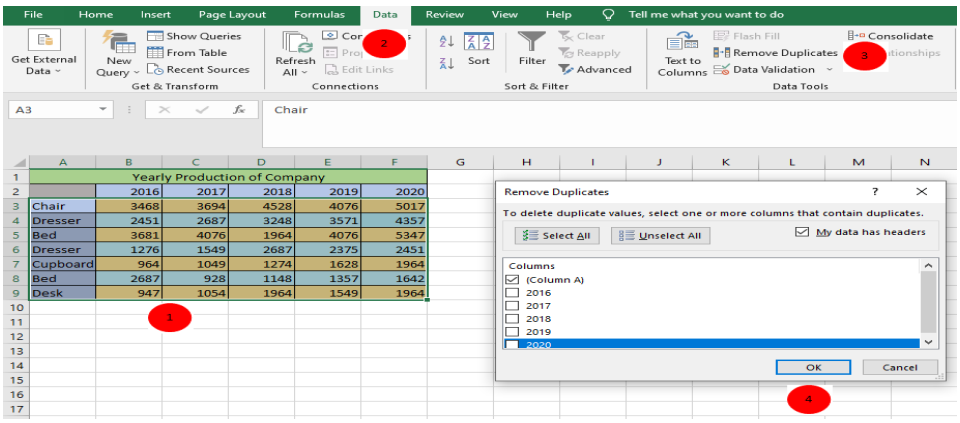


Figure 5.19: Steps to Remove Duplicate Data

The result of the above steps performed is given in the Figure 5.20.

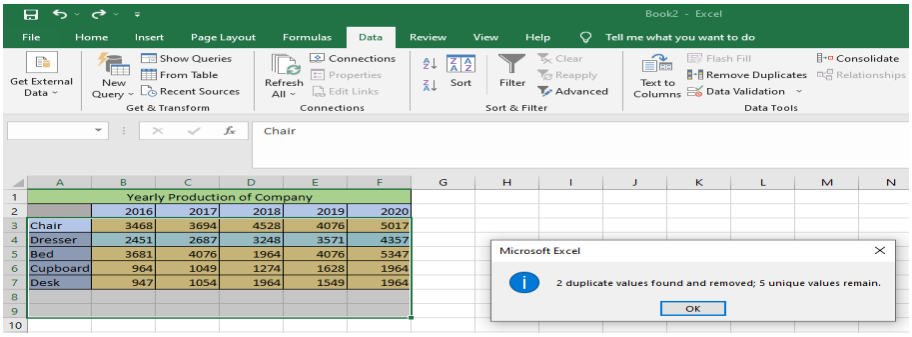


Figure 5.20: Removing Duplicate Data

5.1.6.2 Parse Data using Text to Column

This method converts the selected text into columns on the basis of delimiter or fixed length. It will parse the text and separate the data on the basis of spaces, delimiter like tab, semicolon (;), comma (,), etc. Following steps must be followed to convert the text into columns:

1. Select the text to convert it into columns. Then go to Data tab and click on Text to Columns. A window box will appear as shown in figure 8.21. Here the type of separator is selected. Select Delimited for, tap, commas, etc. and Fixed width for space. After choosing one of the options, click on Next.

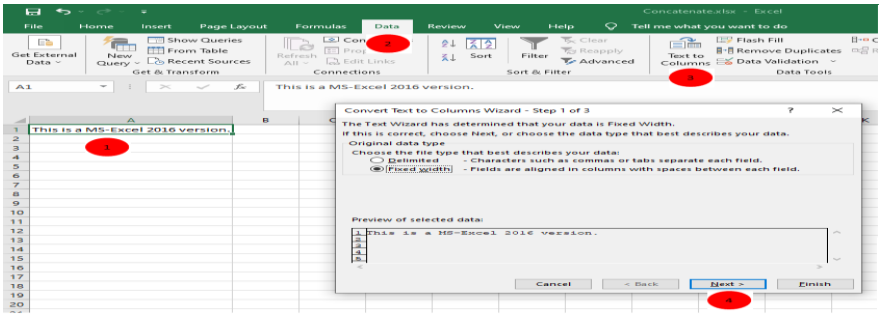


Figure 5.21: Step 1 of conversion

2. After performing step 1, a window will appear showing the preview of the conversion. It can be seen in Figure 8.22. Click on Next to go to the 3rd step of the conversion.

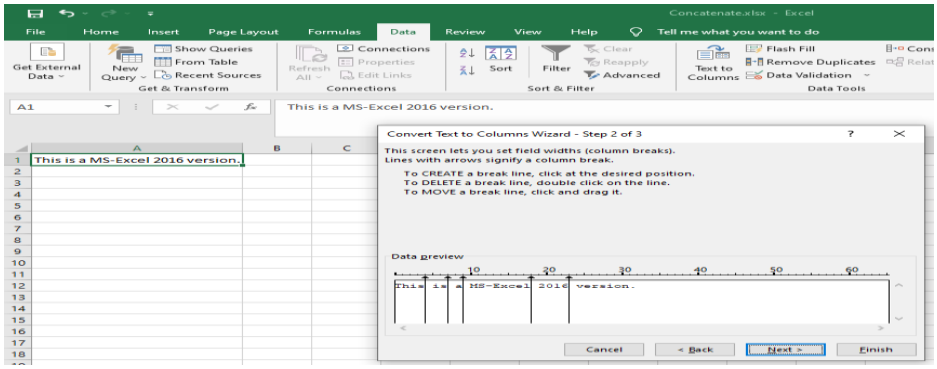


Figure 5.22: Step 2 of conversion

3. This step allows us to format each column or cell going to be formed. See the Figure 5.23. After performing the desired formatting, click on Finish.

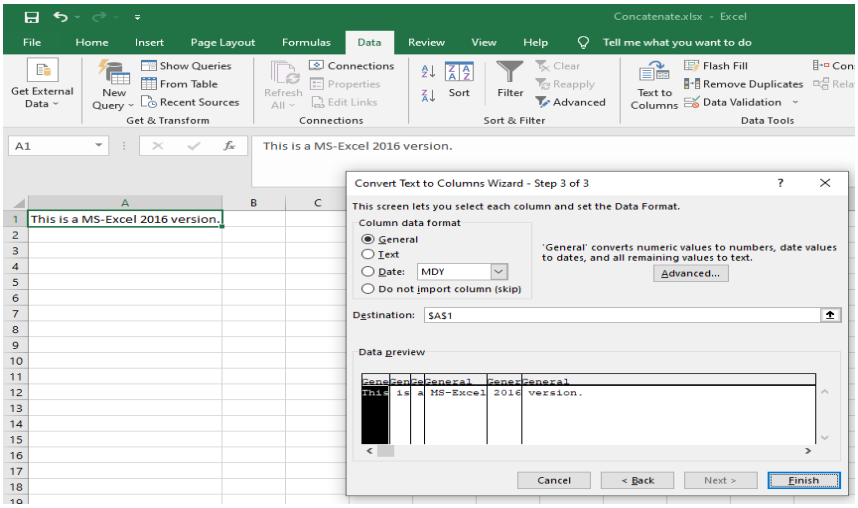


Figure 5.23: Step 3 of conversion

4. Figure 5.24. Shows the conversion of the selected text into columns.

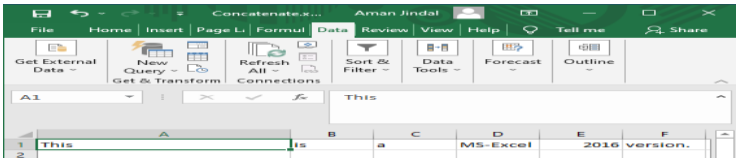


Figure 5.24: Conversion of text to columns

5.2 SUMMARY

- To convert lower case to Upper Case and Upper Case to Lower Case various inbuilt functions has discussed like UPPER, LOWER and PROPER etc.
- To retrieve a specific number of characters from the LEFT, RIGHT or MIDDLE, various functions like MID, LEFT, RIGHT are used.
- Pivot table is the most useful tool allows us to extract the information from a large, complex and detailed dataset.
- Concatenate function is used to merge two or more than two strings.
- Insert Chart option is used to add any type of Chart like Line, Bar, Area chart etc.
- Data can be cleaned by removing duplicate values from the sheet.

5.3 PRACTICE QUESTIONS

1. A Travel Agent table is shown below:

Wise Owl Travel Agents

Country	Resort Name	No of Days	Travel Method	Price	Holiday ID
Australia	Great Barrier Reef	32	Plane	£750	I990AUS
Australia	Perth	28	Plane	£985	AUS112J
Chile	Santiago	21	Plane	£1,259	CH266H
England	London	3	Train	£69	I456UK
England	Bognor	1	Coach	£12	BG726H
France	Lyon	14	Plane	£399	A7995FR
France	Paris - Euro Disney	5	Train	£269	TH789FR
France	Paris - Euro Disney	3	Train	£125	TH788FR

Design a pivot table using above data, then by using filters, to view the average prices of holidays that have either Travel **Method** of **Plane** or a **Resort Name** that starts with the letter G.

2. A list of UK rides is shown in table below:

Open the spreadsheet in the folder above:

Roller Coaster	Amusement Park	Type	Design	Status	Opened	Speed (mph)
Air	Alton Towers	Steel	Flying	Operating	2002	46.6
Boomerang	Pleasure Island Family Theme Park	Steel	Sit Down	Operating	1993	47
Cobra	Paultons Park	Steel	Sit Down	Operating	2006	31.1
Colossus	Thorpe Park	Steel	Sit Down	Operating	2002	45
Corkscrew	Alton Towers	Steel	Sit Down	Operating	1980	40
Corkscrew	Flamingo Land Theme Park & Zoo	Steel	Sit Down	Operating	1983	40
Crazy Mouse	South Pier	Steel	Sit Down	Operating	1998	29.1
Crazy Mouse	Brighton Pier	Steel	Sit Down	Operating	2000	29.1
Enigma	Pleasurewood Hills	Steel	Sit Down	Operating	1995	34
Express	M&Ds Scotland's Theme Park	Steel	Sit Down	Operating	2006	28
Fantasy Mouse	Fantasy Island	Steel	Sit Down	Operating	2000	29.1

Change this data into a pivot table and calculate the overall average speed for taking all rides that satisfy the following conditions:

- The **Type should be Steel**
- The **Design** is to be **Sit Down**
- The A**musement Park**has the word towerssomewhere in the title

3. A property portfolio is given below in the table:

PostCode	Type	Location	No Bedrooms	No Bathrooms	Reception Rooms	Garden Size	Date on Market	Date Sold	Asking Price	Sale Price
SK13 7AZ	Detatched	Town	4	2	3	Medium	11/26/2017		£345,000	
SK22 9GT	Semi-detatche	Village	3	1	2	Small	7/18/2017	2/1/2018	£245,000	£238,500
SK13 6DD	Terraced	Countryside	2	1	2	Small	10/24/2017	12/19/2017	£199,000	£199,000
SK14 8DS	Detatched	Town	4	2	2	Large	10/18/2018	1/23/2018	£398,000	£387,500
SK13 7CW	Semi-detatche	Town	3	1	2	Medium	11/29/2017	12/19/2018	£329,000	£319,500
SK22 3YT	Detatched	Remote	4	2	3	Large	10/13/2017		£478,500	
SK13 4DF	Terraced	Town	2	1	2	Small	9/5/2017	1/16/2017	£213,000	£199,500
SK14 7AD	Semi-detatche	Town	3	2	2	Medium	10/29/2017	2/18/2018	£278,500	£277,000
SK13 2AA	Semi-detatche	Village	3	1	2	Large	8/11/2017		£278,500	
SK13 5YY	Terraced	Town	3	2	1	Small	10/30/2017	1/29/2018	£176,500	£174,300
SK14 9FT	Bungalow	Countryside	2	2	2	Medium	11/16/2017	1/13/2018	£223,750	£219,750
SK23 4RF	Flat	Town	1	1	1	None	11/15/2017		£135,000	
SK13 1GG	Terraced	Town	3	1	2	Small	1/5/2018	1/19/2018	£165,900	£168,000
SK13 6YH	Bungalow	Countryside	3	2	2	Large	9/15/2017	12/28/2017	£415,500	£419,500
SK13 6YH	Bungalow	Countryside	3	2	2	Large	9/15/2017	12/28/2017	£415,500	£419,500
SK13 6YH	Bungalow	Countryside	3	2	2	Large	9/15/2017	12/28/2017	£415,500	£419,500
SK13 6YH	Bungalow	Town	2	2	2	Medium	9/11/2017		£199,500	
SK22 8BN	Flat	Town	2	1	1	None	10/3/2017	1/19/2018	£175,500	£169,500
SK14 7JJ	Semi-detatche	Countryside	3	2	2	Medium	12/21/2017	2/15/2018	£319,750	£315,750
SK22 3LP	Bungalow	Remote	3	2	2	Large	10/15/2017		£289,500	
SK13 4DT	Detatched	Countryside	5	2	3	Large	8/9/2017		£525,750	
SK13 9SS	Detatched	Town	4	3	2	Medium	11/14/2017	2/25/2018	£495,000	£495,000
SK14 6HN	Semi-detatche	Town	3	1	2	Medium	8/6/2017	1/15/2018	£369,500	£362,500

Design a pivot table for the property portfolio to display:

- The asking price as the value in the field;
- The type of property to be in the rows;
- The location is to be in the columns;
- The remaining fields is to be in the filter area.

Convert the filters and aggregate functions to display a **count** of properties that have:

- 4 bedrooms;
- A medium garden; and
- 3 bathrooms.

4. Prepare a line chart and pie chart to compare the favorite films data for 26-40 years old only.

	15 - 25 yrs	26 - 40 yrs	Over 40's
Barbarella	17%	31%	18%
Die Hard	20%	15%	1%
Gone with the Wind	4%	19%	41%
Jurassic Park	34%	12%	3%
Speed	17%	8%	11%
Titanic	8%	15%	26%

5. Design a column 2-D chart of the data given below: -

Athens 2004 Medals Table

Country	Gold	Silver	Bronze
USA	35	39	29
China	32	17	14
Russia	27	27	38
Australia	17	16	16
Japan	16	9	12
Germany	14	16	18
France	11	9	13
Italy	10	11	11
South Korea	9	12	9
Great Britain	9	9	12
Cuba	9	7	11
Ukraine	9	5	9
Hungary	8	6	3
Romania	8	5	6
Greece	6	6	4
Norway	5	0	1
Netherlands	4	9	9
Brazil	4	3	3
Sweden	4	1	2
Spain	3	11	5
Canada	3	6	3

Multiple Choice Questions

Q1. For the formula, which symbol used to specify the fixed rows or columns?

a. $

b.;

c. %

d. None of these

Q2. The function which is used within another function is called:

a. SUM Function
b. Nested Function
c. Text Function
d. All of these

Q3.. _____Formatting is used to delete duplicate values

a. Conditional Formatting

b. text Formatting

c. Page Formatting

d. All of these

Q4._____ function is used to extract the characters from the left

a. LEFT

b.. RIGHT

c. M IDDLE

d. None of these

Q5. Which is the visual representation of data in Excel file

a. Graphs

b. Pie Charts

c. Lines

d. None of these

REFERENCES

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