CCA-101: Fundamentals of IT & Programming

Assignment -1

Q1: What are the four fundamental parts of computer? Explain it with the help of diagram.

ANS. **Computer Block Diagram**

Mainly computer system consists of three parts, that are central processing unit (CPU), Input Devices, and Output Devices. The Central Processing Unit (CPU) is divided into two parts again: arithmetic logic unit (ALU) and the control unit (CU). The set of instruction is in the form of raw data.

A large amount of data is stored in the computer memory with the help of primary and secondary storage devices. The CPU is like the heart/brain of the computer. The user does not get the desired output, without the necessary option taken by the CPU. The Central processing unit (CPU) is responsible for the processing of all the instructions which are given by the user to the computer system.

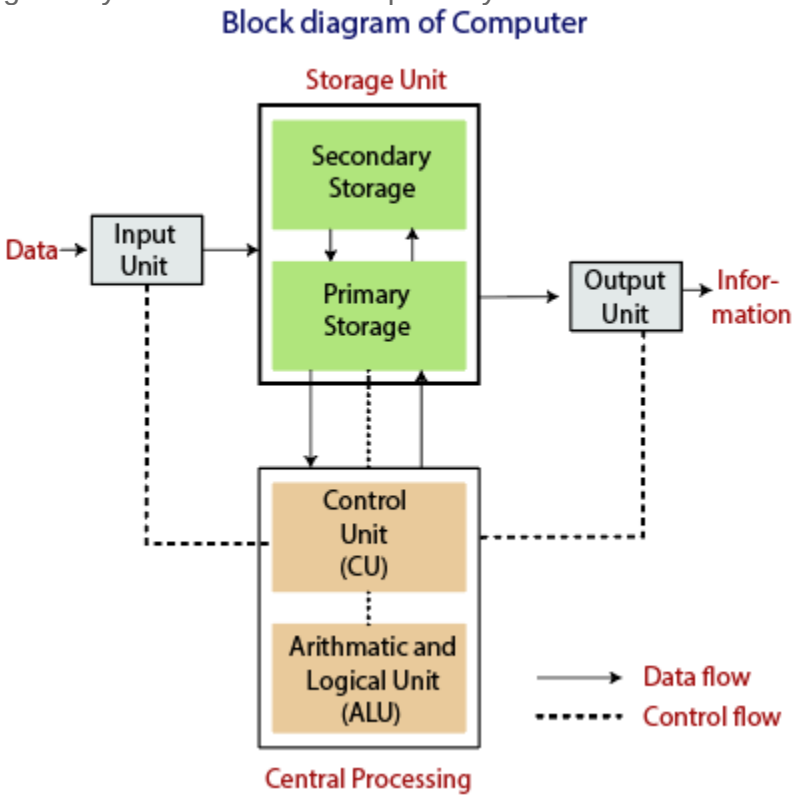


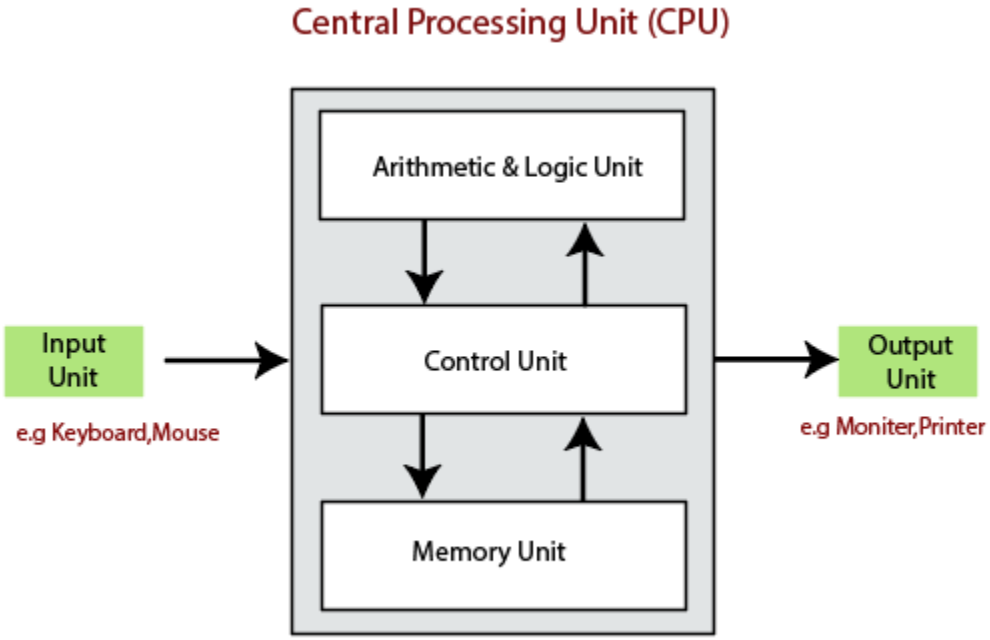
Fig: Block Diagram of the computer.

The data is entered through input devices such as the keyboard, mouse, etc. This set of instruction is processed by the CPU after getting the input by the user, and then the computer system produces the output. The computer can show the output with the help of output devices to the user, such as monitor, printer, etc.

- CPU (Central Processing Unit)
- Storage Unit
- ALU(Arithmetic Logic Unit)
- Control Unit

Central Processing Unit (CPU)

The computer system is nothing without the Central processing Unit so, it is also known as the brain or heat of computer. The CPU is an electronic hardware device which can perform different types of operations such as arithmetic and logical operation.



The CPU contains two parts: the arithmetic logic unit and control unit. We have discussed briefly the arithmetic unit, logical unit, and control unit which are given below:

Control Unit

The control unit (CU) controls all the activities or operations which are performed inside the computer system. It receives instructions or information directly from the main memory of the computer.

When the control unit receives an instruction set or information, it converts the instruction set to control signals then; these signals are sent to the central processor for further processing. The control unit understands which operation to execute, accurately, and in which order.

Arithmetic and Logical Unit

The arithmetic and logical unit is the combinational digital electronic circuit that can perform arithmetic operations on integer binary numbers.It presents the arithmetic and logical operation. The outputs of ALU will change asynchronously in response to the input. The basic arithmetic and bitwise logic functions are supported by ALU.

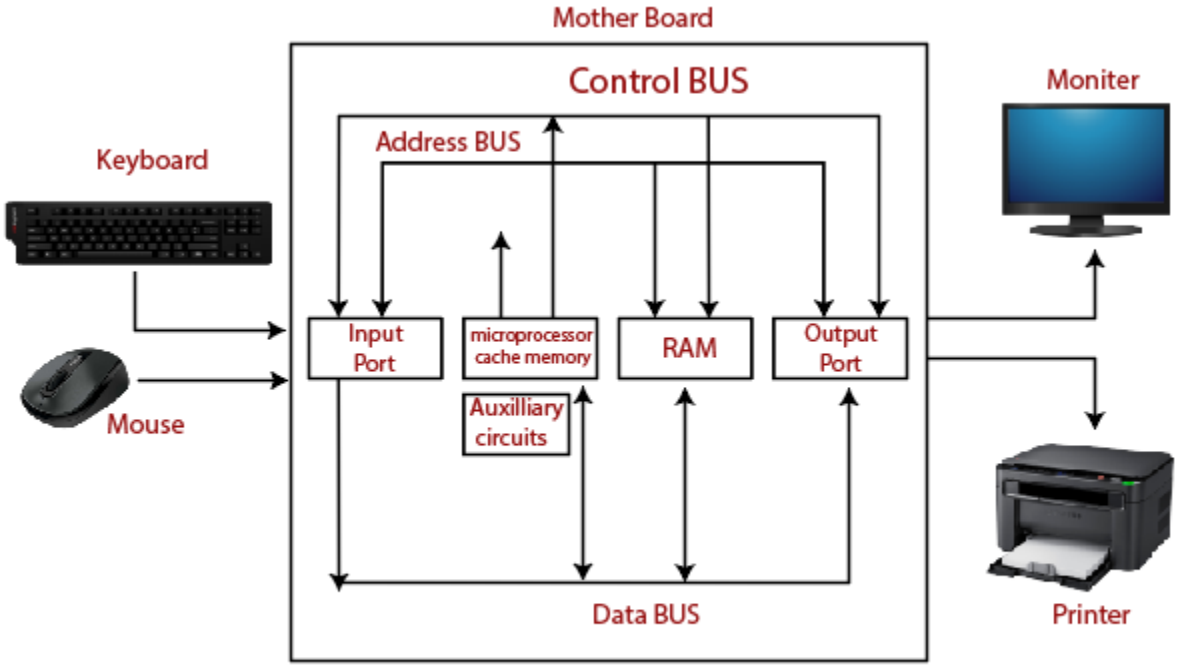
Storage Unit

The information or set of guidelines are stored in the storage unit of the computer system. The storage unit provides the space to store the data or instruction of processed data. The

information or data is saved or hold in computer memory or storage device. The data storage is the core function and fundamental of the computer components.

Components of Computer System

The hardware and software exist on the computer. The information which is stored through the device is known as computer software. The hardware components of the computer system are related to electronic and mechanical parts, and the software component is related to data and computer programs. Many elements are connected to the main circuit board of the computer system called a “motherboard.”



Components of a Computer System

- Processor.
- Main Memory.
- Secondary Memory.
- Input Devices.
- Output Devices.

Q2: Discuss about the classification of computers based on size and capacity.

Ans.

Introduction

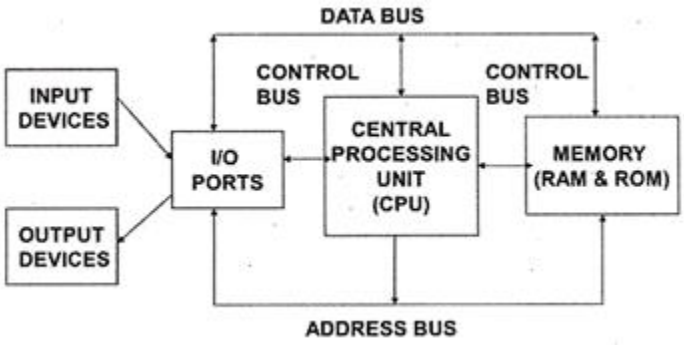
Classification of computers are based on their architecture, speed of executing commands or instructions, peripheral used and also their uses. Microcomputers are usually used in home and offices and only a single user can perform the task using a microcomputer. Its storage and data handling capacity are limited as per the requirement for home and office work. The another type of computer is called minicomputer which has usually larger storage and can handle multiuser at a time. This chapter includes the classification of computers.

Computer's Classification

Computers are classified on different parameters, such as, storage capacity, processing speed and component (CPU) used in computers. Depending upon the components used and features of different computers, they are classified into four groups, Microcomputers, Minicomputers, Mainframe computers and Supercomputers.

Micro Computers

Micro Computer is a computer whose CPU (Central Processing Unit) is a microprocessor. All the components of a microprocessor are on a single integrated circuit chip. Micro computer can be categorized as the desktop, programmable and workstation. The microprocessor based computers are called third generation computers. They are the backbone of the modern computer era. The first and second generation computers are based on vacuum tubes and bipolar junction transistors.



Desktop Computers

Desktop computer is a type of microcomputer. A desktop computer has a keyboard for input data, a LCD or CRT monitor to display information and Central processing unit tower contains storage, memory, different types of drives, such as, CD drive, hard drive, etc. A desktop computer is mainly used at home and office applications.

Programmable Computers (PDA)

Personal digital assistance is a type of hand held programmable digital computer. It is used as notepads, address books and can connect to world web wave to share information. A PDA is equipped with mobile phone hence, called smallest computer.

Workstation

A workstation computer has greater memory capability and more extensive mathematical abilities. It is connected with other workstation computers or personal computer to exchange data and mostly used for scientific applications. It also supports multitasking applications.

Mini Computers

Minicomputers were introduced in early 1960s. They were faster than micro computers. Basically these computers were mainly multi-user systems, where many users work on the systems. Generally these types of computers had larger memories and greater storage capacity. They had large instruction set and address field. These kinds of computers have efficient storage for handling of text, in comparison to lower bit machines. Due to more efficient processor, speed and memory size, minicomputer was used in variety of applications and could support business applications along with the scientific applications. Minicomputer was a multi-user system which means more than one user could use this system simultaneously.

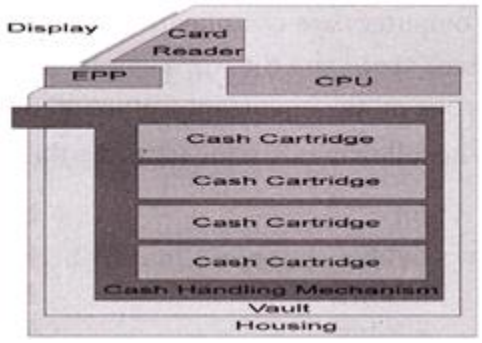
Comparison of Micro and Mini computers

Features	Microcomputer	Minicomputer
Primary memory	Shall memory	Larger memory

Word length	Small word length	Larger word length
Cost low	Low	High
Processor	Low	High

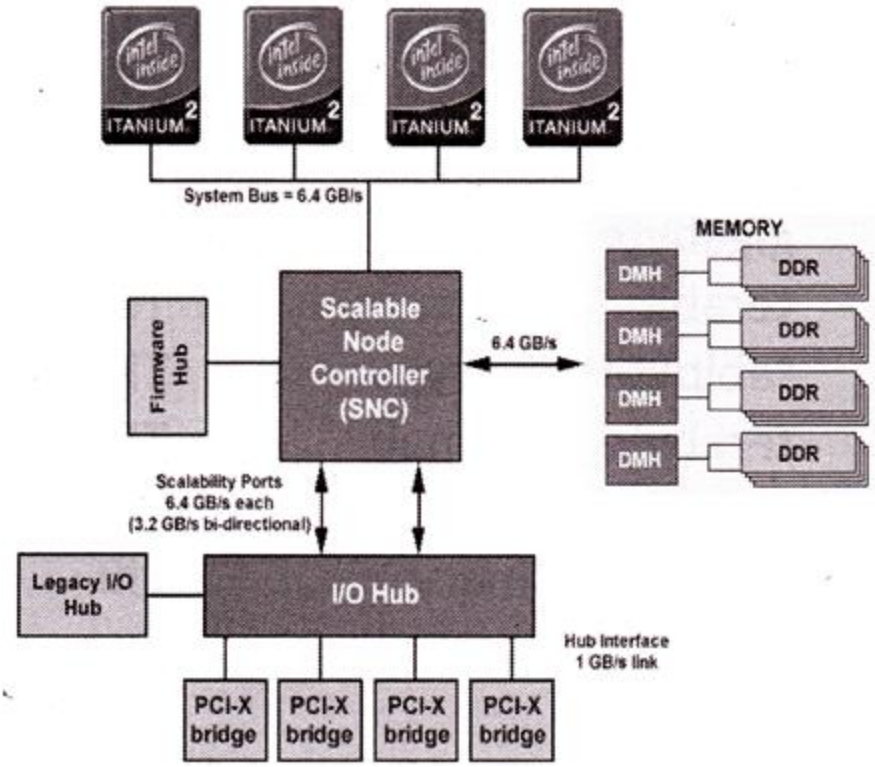
Mainframe Computers

Mainframe computers are large and expensive machines. The word length of mainframe computers may be 48, 60 or 64 bits, memory capacity being in some megabytes and storage capacity in some terabytes. Generally they handle huge volumes of information and data. In terms of speed, they are having significant processing capacity. They are used in research organizations, large industries, airlines reservation where a large database has to be maintained.



Super Computers

Super Computers are the fastest computer in current era. The processing capabilities of super computer lies in the range of GIPS2, word length 64-128 or may be in 256 or so. The memory capacity of super computer is in some gigabytes or in terabytes. The storage capacity of this type of computer is in exabytes.



The parallel processing of a super computer makes it very fast because it contains number of CPU that operates parallel. They are used at some research centers and government agencies involving sophisticated scientific and engineering tasks.

Super computers are used for the followings:

- ❖ Weapons research and development
- ❖ Nuclear and plasma physics
- ❖ Rocket research and development
- ❖ Atomic research
- ❖ Aerodynamics

Q3: What is the meaning of computer generation? How many Computer Generations are defined? What technologies were/are used?

Ans. Generation in computer terminology is a change in technology a computer is/was being used. Initially, the generation term was used to distinguish between varying hardware technologies. Nowadays, generation includes both hardware and software, which together make up an entire computer system.

There are five computer generations known till date. Each generation has been discussed in detail along with their time period and characteristics. In the following table, approximate dates against each generation has been mentioned, which are normally accepted.

Following are the main five generations of computers.

S.No	Generation & Description
1	First Generation The period of first generation: 1946-1959. Vacuum tube based.
2	Second Generation The period of second generation: 1959-1965. Transistor based.
3	Third Generation The period of third generation: 1965-1971. Integrated Circuit based.
4	Fourth Generation The period of fourth generation: 1971-1980. VLSI microprocessor based.
5	Fifth Generation The period of fifth generation: 1980-onwards. ULSI microprocessor based

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The period of third generation: 1965-1971. Integrated Circuit based.

4 Fourth Generation

The period of fourth generation: 1971-1980. VLSI microprocessor based.

5 Fifth Generation

The period of fifth generation: 1980-onwards. ULSI microprocessor based.

In modern life, we are surrounded by technology. It's integral to everything we do, big or small. We can find examples of technology in our homes and personal spaces, in industry, in business, and in the medical profession. Most people know technology when they see it, but what exactly is technology?

Technology is the way we apply scientific knowledge for practical purposes. It includes machines (like computers) but also techniques and processes (like the way we produce computer chips). It might seem like all technology is only electronic, but that's just most modern technology. In fact, a hammer and the wheel are two examples of early human technology.

Q4: Differentiate between Volatile & Non- Volatile memories.

ANS. Volatile and Non-Volatile Memory are both types of computer memory. Volatile Memory is used to store computer programs and data that CPU needs in real time and is erased once computer is switched off. RAM and Cache memory are volatile memory. Where as Non-volatile memory is static and remains in the computer even if computer is switched off. ROM and HDD are non-volatile memory.

Following are the important differences between Volatile and Non-Volatile Memory.

Sr. No.	Key	Volatile Memory	Non-Volatile Memory
1	Data Retention	Data is present till power supply is present.	Data remains even after power supply is not present.

Sr. No.	Key	Volatile Memory	Non-Volatile Memory
2	Persistence	Volatile memory data is not permanent.	Non-volatile memory data is permanent.
3	Speed	Volatile memory is faster than non-volatile memory.	Non-volatile memory access is slower.
4	Example	RAM is an example of Volatile Memory.	ROM is an example of Non-Volatile Memory.
5	Data Transfer	Data Transfer is easy in Volatile Memory.	Data Transfer is difficult in Non-Volatile Memory.
6	CPU Access	CPU can access data stored on Volatile memory.	Data to be copied from Non-Volatile memory to Volatile memory so that CPU can access its data.
7	Storage	Volatile memory less storage capacity.	Non-Volatile memory like HDD has very high storage capacity.
8	Impact	Volatile memory such as RAM is high impact on system's performance.	Non-volatile memory has no impact on system's performance.
9	Cost	Volatile memory is costly per unit size.	Non-volatile memory is cheap per unit size.

Q5: Distinguish among system software, application software and open source software on the basis of their features.

ANS. System Software is a set of programs that control and manage the operations of computer hardware. It also helps application programs to execute correctly.

System Software are designed to control the operation and extend the processing functionalities of a computer system. System software makes the operation of a computer more fast, effective, and secure. Example: Operating system, programming language, Communication software, etc.

In this tutorial, you will learnApplication Software acts as a mediator between the end-user and System Software. It is also known as an application package. This type of software is written using a high-level language like C, Java, VB. Net, etc. It is a user-specific and is designed to meet the requirements of the user.

You can also install multiple Application Software on a single System Software. You can store this kind of software on CDs, DVDs, flash derive, or keychain storage devices. Example: Word-processing, Spreadsheet, Database, etc.

Features of System Software

An important feature of System Software are:

- System Software is closer to the system
- Generally written in a low-level language
- The system software is difficult to design and understand
- Fast in speed
- Less interactive
- Smaller in size
- Hard to manipulate

• S.NO	SYSTEM SOFTWARE	APPLICATION SOFTWARE
1.	System Software maintain the system resources and give the path for application software to run.	Application software is built for specific tasks.
2.	Low level languages are used to	While high level languages

	write the system software.	are used to write the application software.
3.	Its a general purpose software.	While its a specific purpose software.
4.	Without system software, system can’t run.	While without application software system always runs.
5.	System software runs when system is turned on and stop when system is turned off.	While application software runs as per the user’s request.
6.	Example of system software are operating system, etc.	Example of application software are Photoshop, VLC player etc.
7.	System Software programming is complex than application software.	Application software programming is simpler as comparison to system software.

Q6. a) Create a file in MS-word to insert a paragraph about yourself and save it with file name

“yourself”. Describe all steps involved in it.

Ans,(A) If you want the formatting for all paragraphs, including the last one, stored with the text in the AutoText entry, select the last paragraph mark. The paragraph mark at the end of each paragraph stores the formatting for that paragraph. If you applied any character formatting, like bold or italic, it’s automatically stored in the AutoText entry.

If you don’t see the paragraph marks in your document, click the **Home** tab. In the **Paragraph** section, click the paragraph symbol. Now you can see the last paragraph mark and select it.

Create a New AutoText Entry

To create a new AutoText entry, select the text you want to add to your collection of AutoText entries. Or, if you don’t have the text available, type the text into a document and then select it.

On the **Insert** tab, click **Quick Parts** in the **Text** section. Then, move your mouse over AutoText and select **Save Selection to AutoText Gallery** from the submenu.
Make sure AutoText is selected in the Gallery drop-down list. It should be by default.

General is selected by default in the **Category** drop-down list. Initially, it’s the only choice and we’re going to select the **General** category for our example. But you can create a custom category by selecting **Create New Category** from the **Category** drop-down list. Enter a name for your custom category on the **Create New Category** dialog box and click **OK**. The new category is added and selected automatically in the **Category** drop-down list.
You can enter a **Description** for the AutoText entry if it helps to clarify what the entry is for. If the entry is self-explanatory, you don’t have to enter a description.
AutoText entries are saved in templates, not in documents. That way, they’re available in any document based on the template they’re saved in. The **Normal** template is the default selection in the **Save in** the drop-down list. You can save AutoText entries in custom templates, but we’re going to accept the default to save our new entry in the “Normal.dotm” template.

Note: To save an AutoText entry in a custom template, that template must be open to be available in the **Save in** drop-down list.

Finally, there are a few **Options** to choose from:

- To insert the AutoText entry on its own page in a document, select **Insert content in its own page**. This will set the text from the AutoText entry off from the rest of your document with page breaks.
- To insert the AutoText entry into its own paragraph, even if your cursor is in the middle of a paragraph, select **Insert content in its own paragraph**.
- For all other content, select **Insert content only**.

Q6 steps regarding followings b) Write

 To change the font style

 To change the font size

 To change the font color

 To highlight (in yellow) the line that reads “need to get IMS’s address”.

Ans. Changing the Font

The most common way to format text is to change the font. The font defines the uniform style and appearance of letters such as Arial, Arial Black, Courier, Old English, or Stencil. To change the font, follow these steps:

1. Click the Home tab and then select the text you want to change.
2. Click the Font list box. A list of available fonts on your computer appears.
3. Move the mouse pointer over each font. Word temporarily changes your selected text so you can see how the currently highlighted font will look.
4. Click the font you want to use. Word changes your text to appear in your chosen font.

As a general rule, try not to use more than three fonts in a document. If you use too many fonts, the overall appearance can be annoying and distracting.
Not all computers have the same lists of fonts, so if you plan on sharing documents with others, stick with common fonts that everybody's computer can display.

Changing the Font Size

The font changes the appearance of text, but the font size defines how big (or small) the text may look. To change the font size, you have two choices:

- Select a numeric size from the Font Size list box.

- Choose the Grow Font/Shrink Font commands.

You can use both methods to change the font size of text. For example, you may use the Font Size list box to choose an approximate size for your text, and then use the Grow Font/Shrink Font commands to fine-tune the font size. To change the font size, follow these steps:

1. Click the Home tab and then select the text you want to change.
2. Choose one of the following:
    - Click the Font Size list box and then click a number, such as 12 or 16.
    - Click the Grow Font or Shrink Font icon.

Changing the Text Style

The text style defines the appearance of text in one or more of the following ways:

Bold:

Press Ctrl+B.

Italic:

Press Ctrl+I.

Underline:

Press Ctrl+U.

~~Strikethrough:~~

This formatting draws a line through text.

Subscript:

Use this to create text that falls below the text line, as in the 2 in H_2O.

Superscript:

Use this to create text that sits higher than the top of the text line, as in the 2 in $H = NO^2$.

To change the style of text, follow these steps:

1. Click the Home tab and then select the text you want to change.
2. Click a Style icon, such as Bold or Underline.
3. Repeat Step 2 for each additional style you want to apply to your text (such as italic and underlining).

If you select any style change without selecting any text, Word applies your style changes to any new text you type from the cursor's current position.

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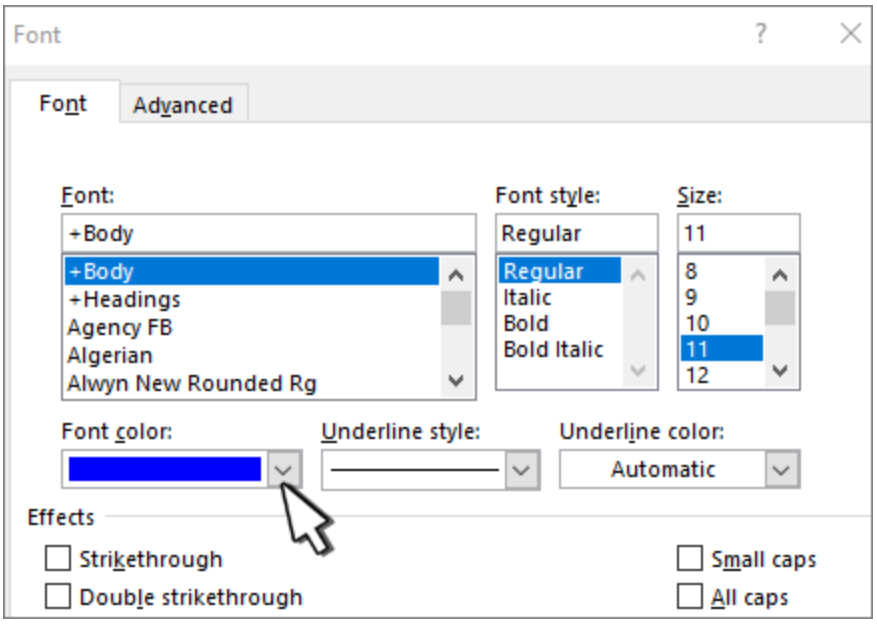
2. Click a Style icon, such as Bold or Underline.
3. Repeat Step 2 for each additional style you want to apply to your text (such as italic and underlining).

If you select any style change without selecting any text, Word applies your style changes to any new text you type from the cursor's current position.

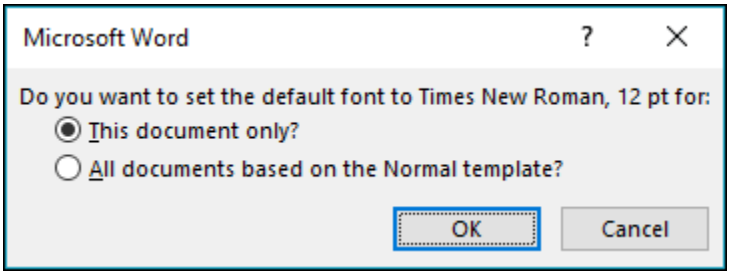
Change the default text color (font color) in Word

1. Open the template or a document based on the template whose default settings you want to change.
2. Go to **Home** and select the Font dialog launcher .
3. Select the arrow next to **Font color**, and then choose a color.



4. Select **Set As Default** and then select one of the following:

- **This document only?**
- **All document based on the Normal.dotm template?**

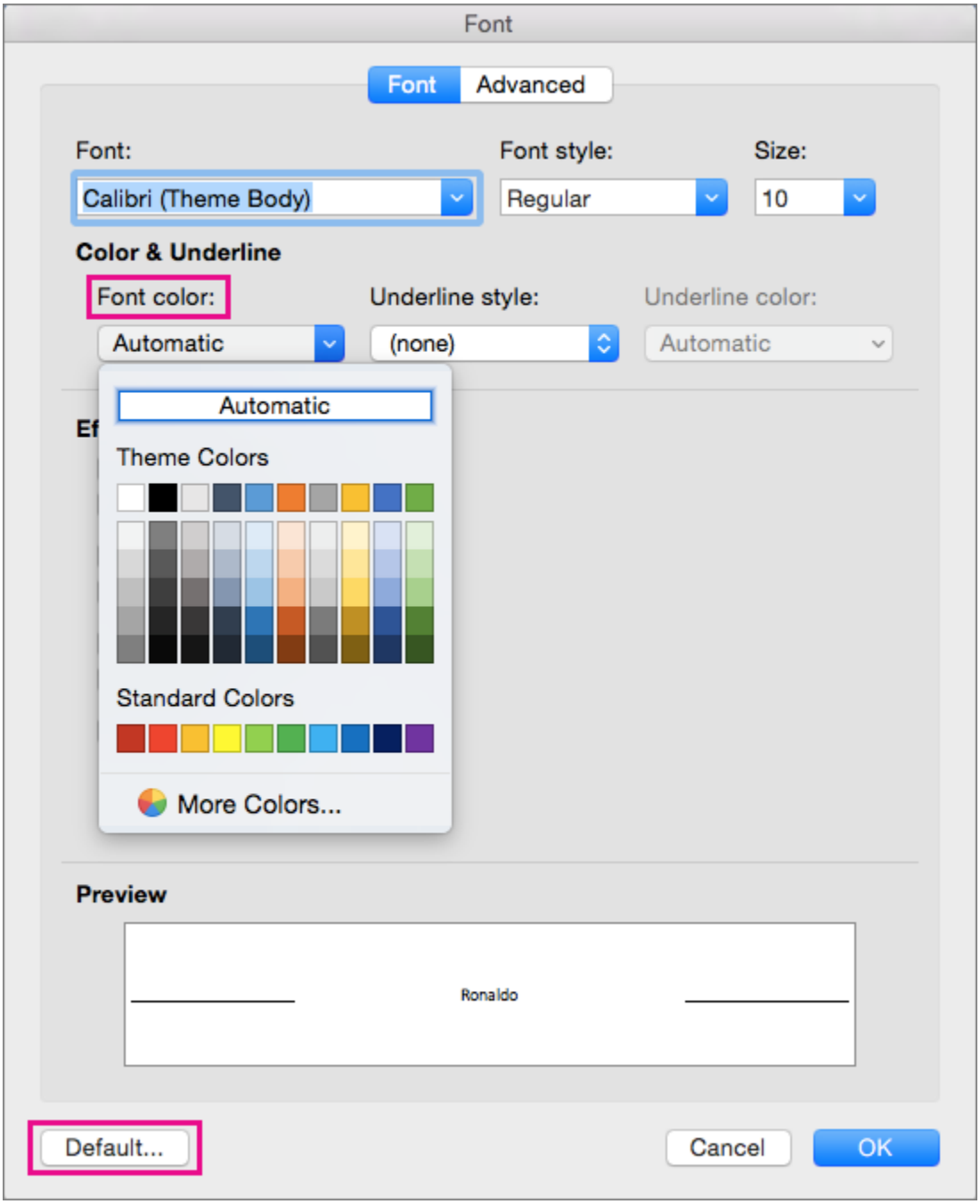


5. Select **OK**.

6. Open the template or a document based on the template whose default settings you want to change.
7. Go to **Format** > **Font** > **Font**.

You can also press and hold ⌘ + D to open the **Font** dialog box.

8. Select the arrow next to **Font color**, and then choose a color.



9. Select **Default** and then select **Yes** to apply the change to all new documents based on the template.
10. Select **OK**.

Q7. Create a file in MS-Word for the following document and save it with file name ‘ms_word’. Describe

all steps involved in it.

Create and Save a Document

To create and save a document as a .doc file:

(Microsoft Word is being used for this tutorial.)

1. To open Microsoft Word, click on the Word icon ("W") on the toolbar or desktop.
If there is no Word icon, click on "START"; follow the menu to "Programs"; follow to Microsoft Office (or other Microsoft operating system used), and to "Microsoft Word." (Sometimes the menu is set up to go directly from "Programs" to "Microsoft Word.")

2. An open (and blank) Word document will open on the screen.

3. Enter document data.

4. When document is finished, click on "File" on the standard toolbar at the top of screen.

5. Click on "Save As."

A window will open that offers many options. Unless otherwise specified, your document will be saved as a . doc file to your "My Documents" file. The "File Name" will be whatever the first line (or partial line) of text reads.

You may click on the "Save" box, and your document will be saved as is. Performing this task repeatedly will cause your "My documents" file to be highly congested with documents that have odd names, each document noted by a "W" icon. To manage your files and documents capably, perform the following tasks:

6. If you wish to have the file titled with the title that is listed in the "File name" box, omit this step. As the file name is already highlighted, tap the delete key on the keyboard. The file name will disappear. Type in the desired file name.

Ideally, this name should be a few descriptive words that identify the document clearly.

7. If you have already set up folders (noted by folder-shaped icons in the large textbox below the "Save in" box. If you wish to save this document in one of the previously created folders, double-click the desired folder. That file name should now appear in the "Save in" text box. Click the "Save" button, and your document will automatically be saved in that folder.

8. If you do not wish to place the document in a file created on the "My documents" folder, click on the "Save in" box (that currently reads: "My Documents.") A drop-down menu will suggest several other places to save your document. Depending on the status of your document, you may store it in one of a number of places.

Suggestions:
a. If you would like to continue working on this document in the near future, you may save it to your desktop, by clicking on "Desktop" on the drop down menu. "Desktop" will appear in the "Save in" box. Click "Save" and the document will appear on your desktop screen, with a "W" icon.

b. If you wish to temporarily save your document, or wish to work on it on another computer, you may save it to your "3 ½ Floppy"; the "Removable Disk," which is the Zip drive; or the drive marked with a CD-ROM disk (saving to CD-ROM). (Before saving to a CD-ROM remember: most CDs are re-write-able and whatever is saved to a disk will be written over, when material is saved to the disk again.

Decide on your location, click it, and click the "Save" box on the screen. You have now saved your document as a .doc file (i.e. "project_document.doc").

TIP:
If you re-open a file and edit it, you may save it by just clicking on the "Save" icon (appears as a floppy disk near the left side of the standard toolbar). You may also pull down the menu from "File" on the Menu bar, and click on "Save."

Most documents may be easily saved by using this technique. Another tutorial will illustrate how to save documents in other types.

- Print

To print a document, your computer needs to be connected to a printer. Being able to print is not necessary in order to use Word, but if you want to send a letter in the post or print out a poster, you'll need to have access to a printer.

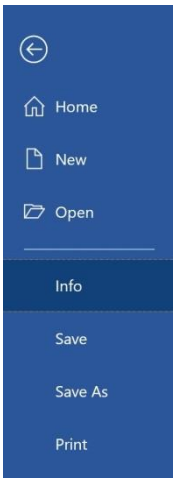
You'll need:

- A computer with Microsoft Word installed
- A printer set up and connected to your computer (wireless or connected by cable)

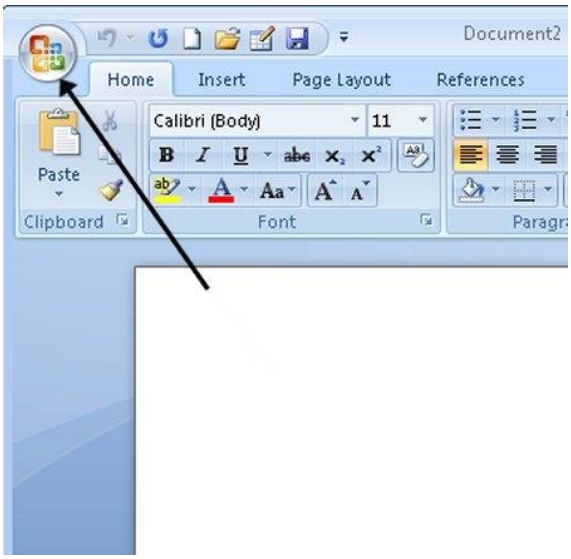
Follow these step-by-step instructions to print a document from Microsoft Office 365.

Step 1: Open an existing Microsoft Word document or start a new document, if you have Windows 10 you can use Cortana to search for it. Before you print, type your text in the blank document or insert an image.

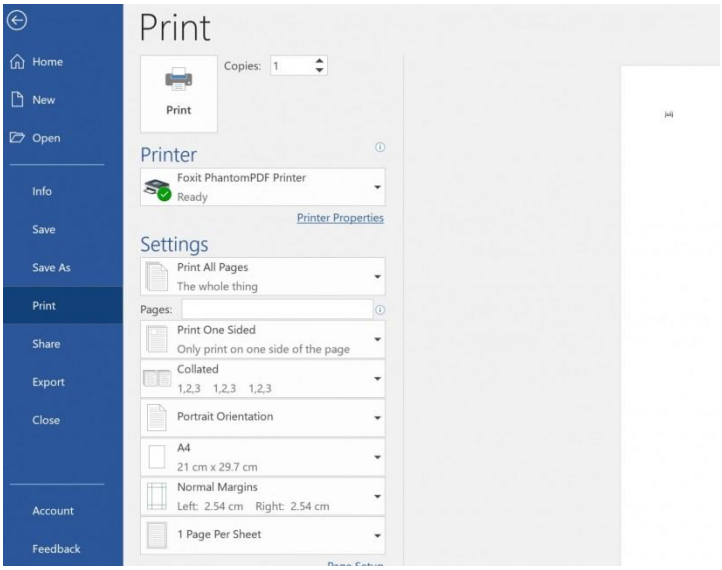
Step 2: When you are ready, click on **File** in the top left-hand corner of your document. Then, click on Print.



Alternatively, some older versions of Word may have an Office button instead of a 'File' button – it's a round Office icon in the top left-hand corner of the screen, click on this if you have one.



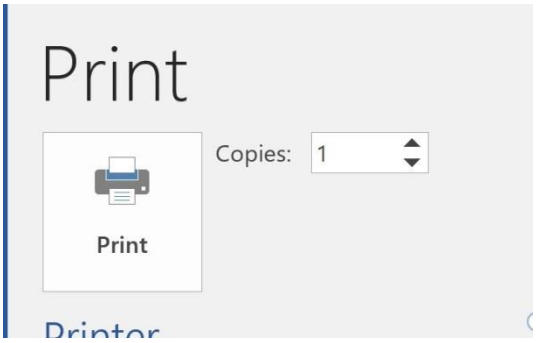
Step 3: For Office 365, click on File then **Print** in the menu, this will bring up the 'Print' dialogue box.



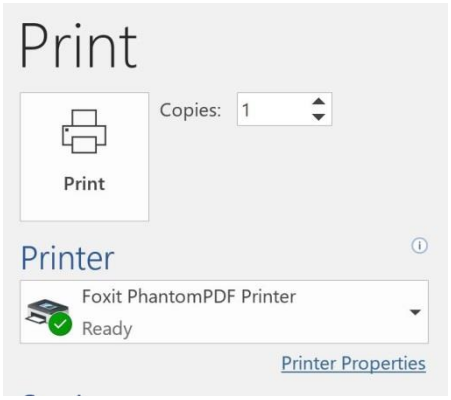
Choose how many copies of your document you need and click on the printer you wish to use. You will have to have your printer already installed on your computer.

Step 5: Depending on your printer options, you can choose other printing features such as whether you want to print all pages or only certain pages. You can also change the orientation of the print from portrait to landscape and tell your computer and printer whether you're printing on a certain size of paper. You'll also see, on the right, a preview of your printed document will look like.

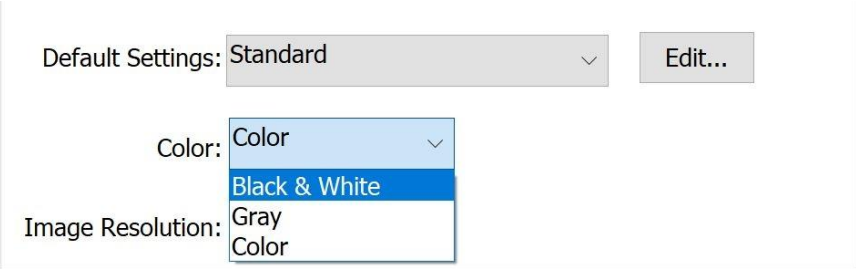
Step 6: When you're happy with your settings, click **Print**. The document will now start printing on your printer.



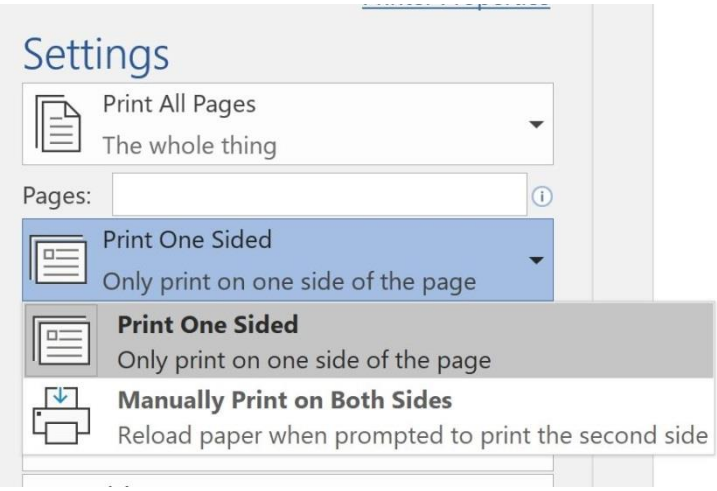
Advanced options



To print in black and white, select Printer Properties in the Print menu, then click on the drop down and select Black & White.



If you want to print your document on one side of the page, make sure you select this in the Print menu.



Edit a document in Word for the web

Word for the web

Click **Edit Document** > **Edit in Word for the web** to make changes to a document.

When you open a document from OneDrive, Word for the web displays it in Reading view. To make changes to your document, switch to Editing view, where you can add and delete content and do other things, such as:

- Add tables and pictures.

- Apply styles.
- Adjust formatting.
- Edit headers and footers.

You can do these simple tasks in both Reading view and Editing view:

- View and add comments.
- Share a document so you can work together with other people at the same time.
- Download a copy.
- Print.

Remember, to edit a document in Word for the web, click **Edit Document** > **Edit in Word for the web**.

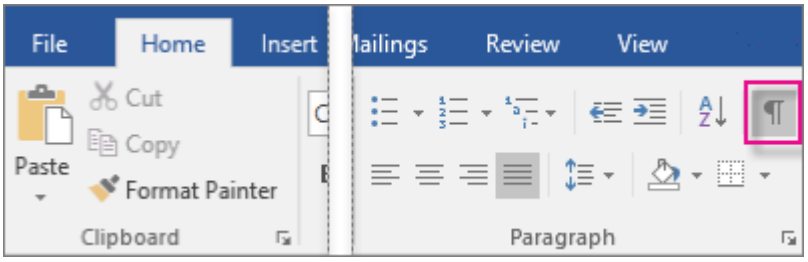
Q9. Create a file in MS-word that convert existing highlight text to table as shown below and save it as

file name 'text_to_table'. Describe all steps involved in it.

Ans. Convert text to a table or a table to text

Word for Microsoft 365 Outlook for Microsoft 365 Word 2019 Outlook 2019 More...

To convert text to a table or a table to text, start by clicking the **Show/Hide** paragraph mark on the **Home** tab so you can see how text is separated in your document.



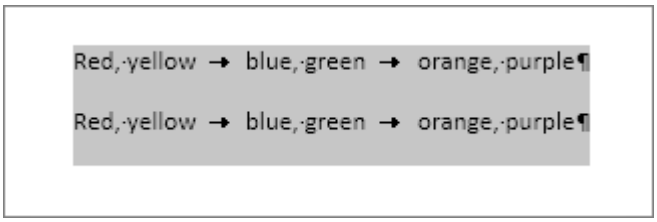
Convert text to a table

1. Insert separator characters—such as commas or tabs—to indicate where to divide the text into table columns.

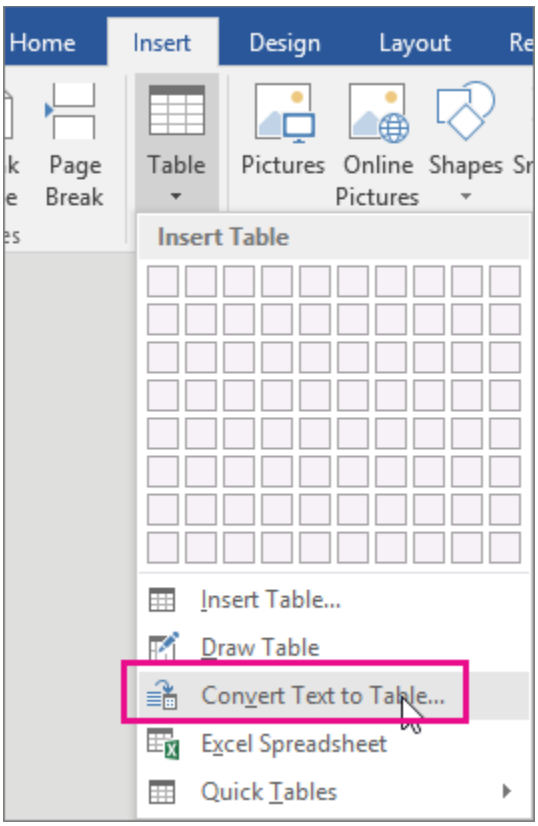
   Note: If you have commas in your text, use tabs for your separator characters.

2. Use paragraph marks to indicate where you want to begin a new table row.

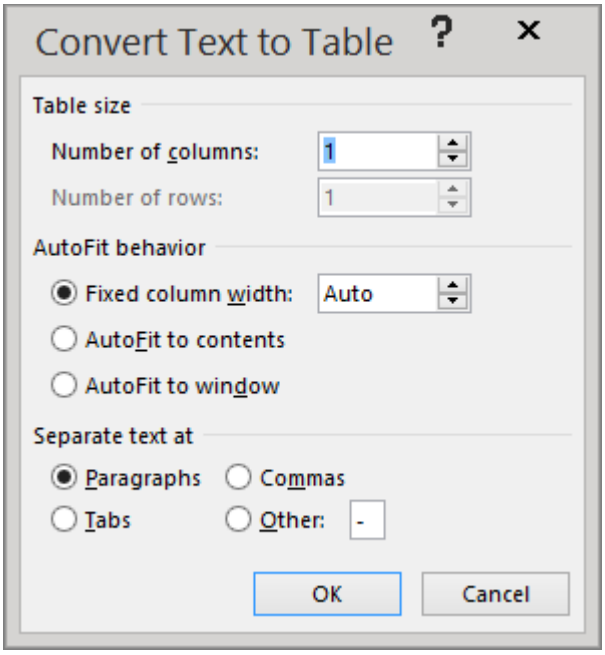
   In this example, the tabs and paragraph marks will produce a table with 3 columns and 2 rows:



3. Select the text that you want to convert, and then click **Insert** > **Table** > **Convert Text to Table**.



4. In the **Convert Text to Table** box, choose the options you want.



   Under **Table size**, make sure the numbers match the numbers of columns and rows you want.

   Under **AutoFit behavior**, choose how you want your table to look. Word automatically chooses a width for the table columns. If you want a different column width, choose one of these options:

To do this	Choose this option
Specify a width for all the columns	In the **Fixed column width** box, type or select a value.
Resize the columns to fit the width of the text in each column	**AutoFit to contents**
Resize the table automatically in case the width of the available space changes (for example, web layout or landscape orientation)	**AutoFit to window**

   Under **Separate text at**, choose the separator character you used in the text.

5. Click **OK**. The text converted to a table should look something like this:

Red, yellow	blue, green	orange, purple
Red, yellow	blue, green	orange, purple

Q10. Create a file in MS-Word to insert a table in the document. Describe all steps involved in it.

Ans.

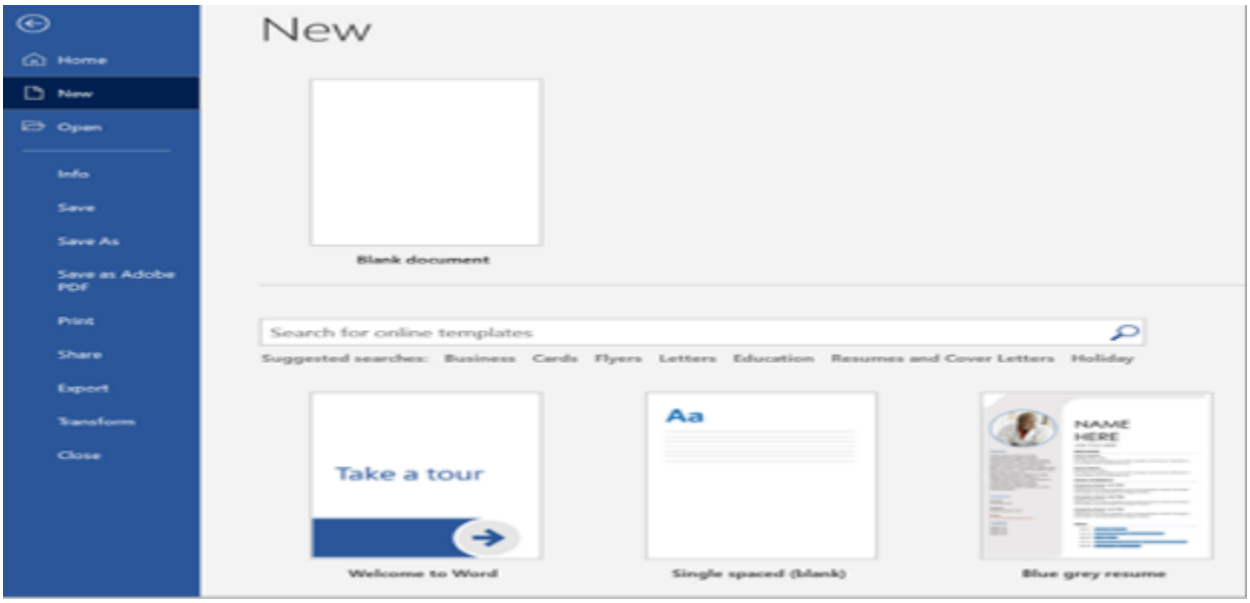
Create a document

1. On the File tab, click New.

2. In the Search for online templates box, enter the

type of document you want to create and press

ENTER.



Editing

Word provides many options to customize the process of editing documents. There are several views

and tools in Word that allow you to make and see changes to your document in a preferable method.

The following Editing articles will also explain how to utilize the Review tab of the ribbon, which is

crucial to personalizing the editing process in Word.

Q11. Create a following worksheet in MS-excel and save it with name 'book1'.

Ans. Save a worksheet

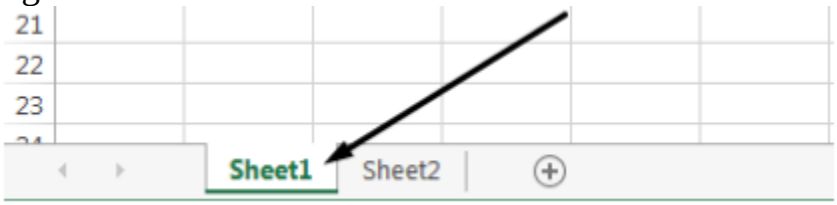
When you have multiple worksheets in an Excel workbook, you might want to

save only one worksheet as its own workbook. Use the Move or Copy function

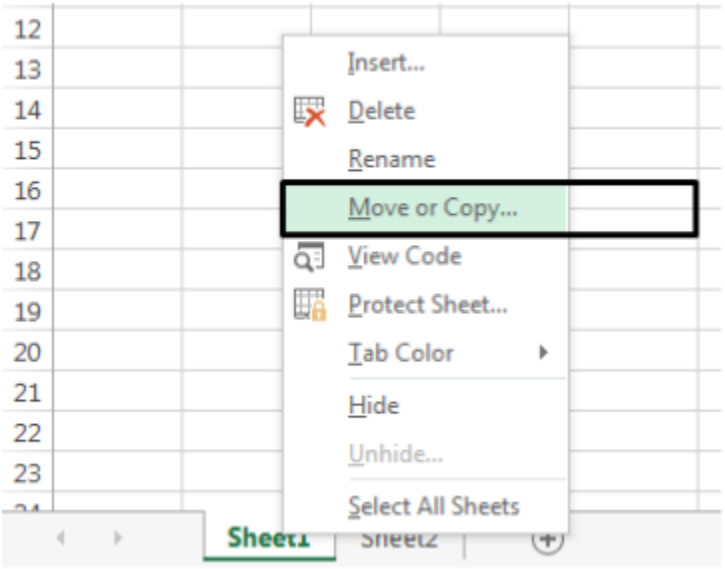
to save one worksheet in Excel 2013 or Excel 2016.

Save a single worksheet

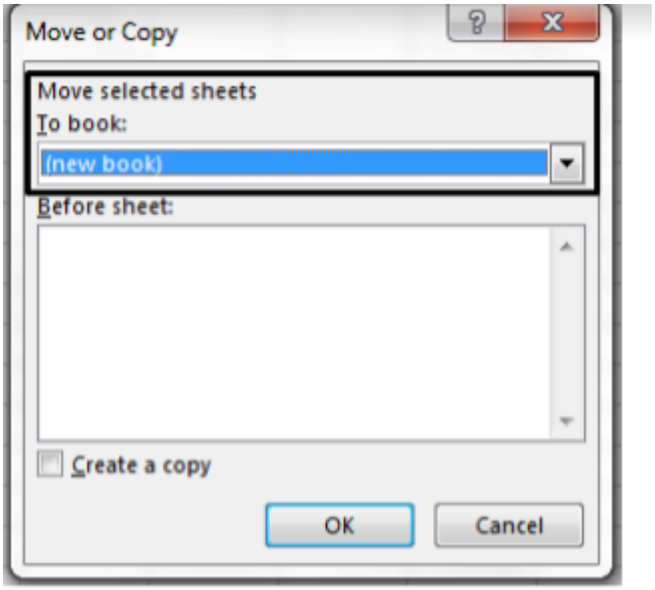
1. Right-click the worksheet name tab.



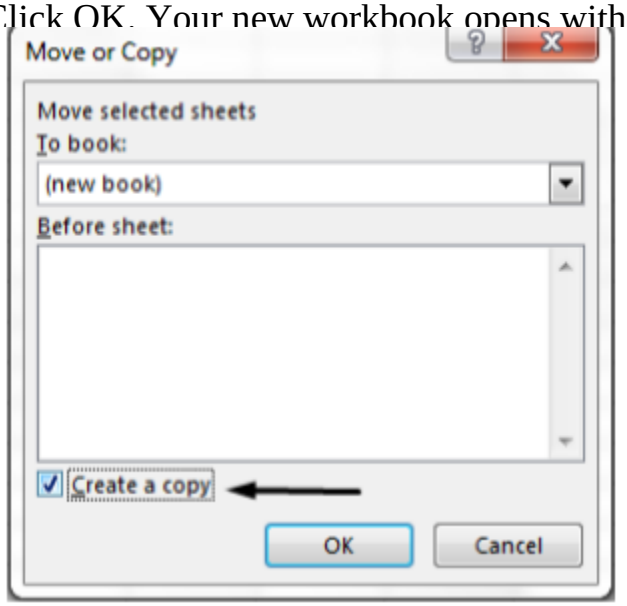
2. Click select Move or Copy.



3. Click on the Move selected sheets to Book drop-down menu. Select (new book).



4. Click OK. Your new workbook opens with your moved worksheet.



5. Click File > Save in your new workbook.

Q12. Calculate the following things of a range (C2:C11) of data in the worksheet created in question no

10.

 the sum of the marks using AutoSum in a range of cells (C2:C11)

 average of the marks in a range of cells (C2:C11)

 highest marks in a range of cells (C2:C11)

 minimum marks in a range of cells (C2:C11)

Ans. 1. the sum of the marks using AutoSum in a range of cells (C2:C11)

The SUM function adds values. You can add individual values, cell references or ranges or a mix of all three.

=SUM(A2:A10) Adds the values in cells A2:10

2. average of the marks in a range of cells (C2:C11)

Returns the average (arithmetic mean) of the arguments. For example, if

the range A1:A20 contains numbers, the

formula =AVERAGE(A1:A20) returns the average of those numbers

3. highest marks in a range of cells (C2:C11)

MAX will return the largest value in a given list of arguments. From a given

set of numeric values, it will return the highest value. Unlike MAXA function,

the MAX function will count numbers but ignore empty cells, text, the logical

values TRUE and FALSE, and text values.

=MAX(number1, [number2], …)

4. minimum marks in a range of cells (C2:C11)

The Microsoft Excel MIN function returns the smallest value from the

numbers provided.

=MIN(A2, A3)

Q13 a) Describe various steps involved in the following

□ To modify column width of a worksheet

□ To modify the row height of a worksheet

□ To delete rows and columns of a worksheet

Ans. 1**. To modify column width of a worksheet**

If you find yourself needing to expand or reduce Excel's row widths and column heights,

there are several ways to adjust them. The table below shows the minimum, maximum and

default sizes for each based on a point scale.

2. To modify the row height of a worksheet

If you find yourself needing to expand or reduce Excel's row widths and column heights,

there are several ways to adjust them. The table below shows the minimum, maximum and

default sizes for each based on a point scale.

3. To delete rows and columns of a worksheet

Insert or delete a column

1. Select any cell within the column, then go
to Home > Insert > Insert

Sheet Columns or Delete Sheet Columns.

2. Alternatively, right-click the top of the column, and then

select Insert or Delete.

Insert or delete a row

1. Select any cell within the row, then go
to Home > Insert > Insert

Sheet Rows or Delete Sheet Rows.

2. Alternatively, right-click the row number, and then

select Insert or Delete.

Q13 b) Describe following terms in the worksheet

** Absolute reference and relative reference in formula**

** Cell address**

Ans. 1. Absolute reference and relative reference in

formula

Relative references

By default, all cell references are relative references. When copied across

multiple cells, they change based on the relative position of rows and

columns. For example, if you copy the formula =A1+B1 from row 1 to row 2,

the formula will become =A2+B2. Relative references are especially

convenient whenever you need to repeat the same calculation across

multiple rows or columns.

2. Cell address

What is the Cell ADDRESS Function?

The cell ADDRESS function is categorized under Excel Lookup and Reference

functions. It will provide a cell reference (its “address”) by taking the row number

and column letter. The cell reference will be provided as a string of text. The

function can return an address in a relative or absolute format and can be used to

construct a cell reference inside a formula.

As a financial analyst, cell ADDRESS can be used to convert a column number to a

letter, or vice versa. We can use the function to address the first cell or last cell in

a range.

Formula

=ADDRESS(row_num, column_num, [abs_num], [a1], [sheet_text

Q14. a) What tools are available to customize our PowerPoint presentation?

Ans. Customize presentation options and views

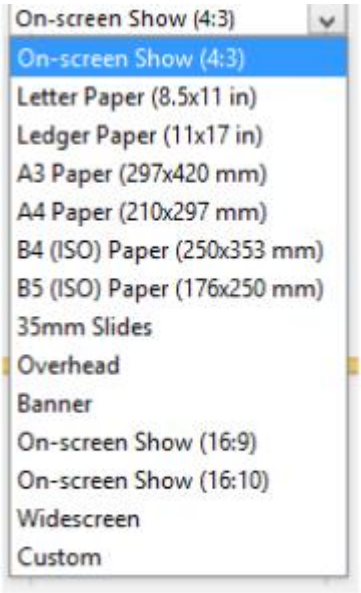
Changing page setup options

Presentations are created mainly to project either on a projector or more and more

frequently to a plasma or TV screen. There are times when a presentation can be

created for delivery in different formats.

- On-screen show (4:3)
- Letter Paper (8.5 x 11 in)
- Ledger Paper (11 x 17 in)
- A3 Paper (297 x 420 mm)
- A4 Paper (210 x 297 mm)
- B4 (ISO) Paper (250 x 353 mm)
- B5 (ISO) Paper (176 x 250 mm)
- 35mm Slides

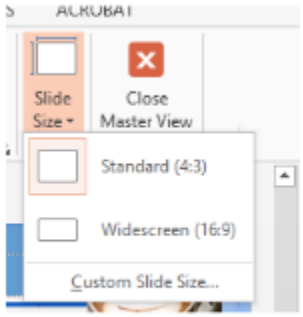


Slide Sizes

- Overhead
- Banner
- On-screen Show (16:9)
- On-screen Show (16:10)
- Widescreen
- Custom

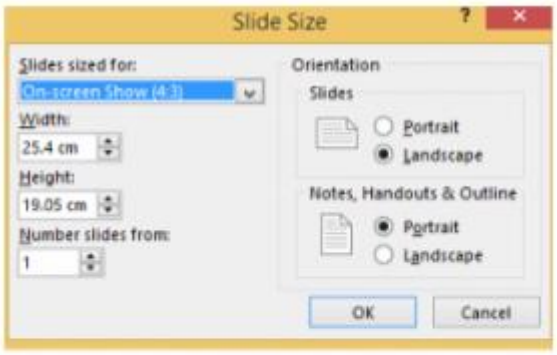
To select a slide size other than the standard one:

1. In Slide Master View
2. Click on Slide Size
3. Select from one of the two options
4. For more choices, click Custom
5. Select one of the options



Slide Size

Figure 89- standard or widescreen



Slide Size box

Figure 90 – other options

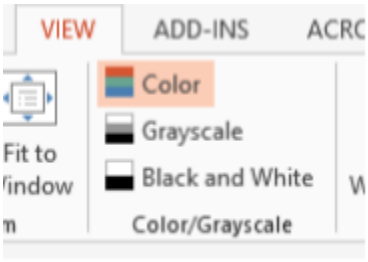
If you change the orientation to Portrait for the presentation it will apply to all the slides.

Changing to view in color/grayscale

Why change to view the presentation in grayscale? You might want to print the

presentation and to print in colour is more expensive than printing to greyscale, so

you need to see what the presentation looks like in grayscale before you print.



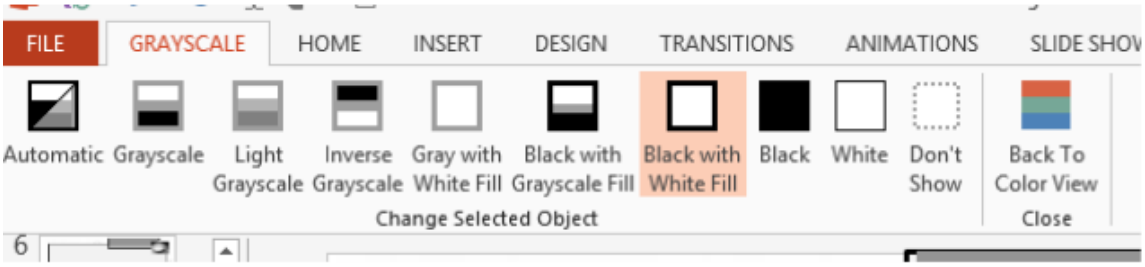
View Grayscale

Figure 91- colour/grayscale options

On the View Ribbon, click on the option you want, Colour, Grayscale or Black and

White.

Then from the Grayscale Ribbon select the option you want to see:



Grayscale Ribbon

Figure 92- grayscale options

To get back to the colour view, click Back to Colour View.

Navigating using presentation views

There are several different views in PowerPoint as we saw earlier and you can

navigate through the presentation in each in different ways.

In Normal View

 Click on the thumbnail of the slide you want to see

 Use the Vertical Scrollbar to move between slides

 Use the up and down arrow keys on the keyboard to move one slide backwards or forwards

In Slide Sorter View

 Click on the slide you want to select

 Use the arrow keys to move up, down, left and right

In Reading View

Use the next and back icons in the status bar to move back or forwards or use the

menu which is accessed from the icon in the middle

Figure 94 – icons

Back and Next icons move between slides.

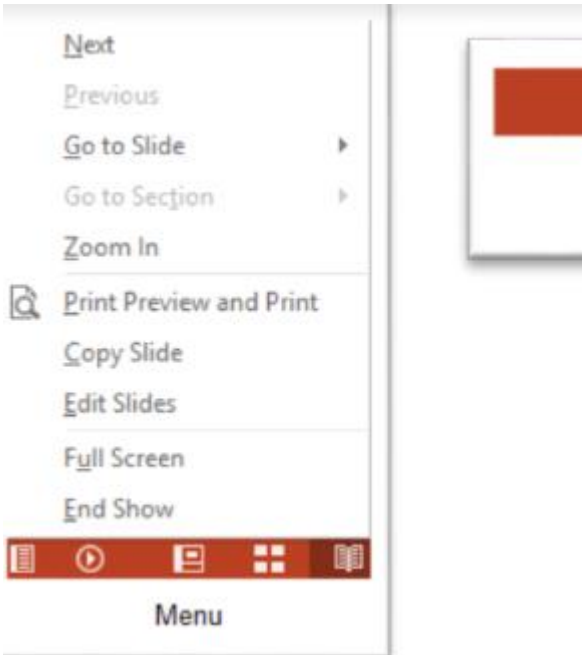


Figure 93- reading view

Pick from the menu – you can use Go to

Slide to pick the slide number

In Slide Show view

When presenting you can use the mouse or the arrows on the keyboard to move

through the presentation one slide at a time.

You can also type the number of the slide you want to see and press Enter.

When you hover the mouse over the bottom left corner of the slide on display you

will notice some faint icons, there is a back arrow and forward arrow which move you

through one slide at a time.

Slide show icons

Figure 95- slide show icons

Use the fourth icon along to show the slides in a presentation view of Slide Sorter

View. This lays the slides on the screen and you can click on the one you want to

see

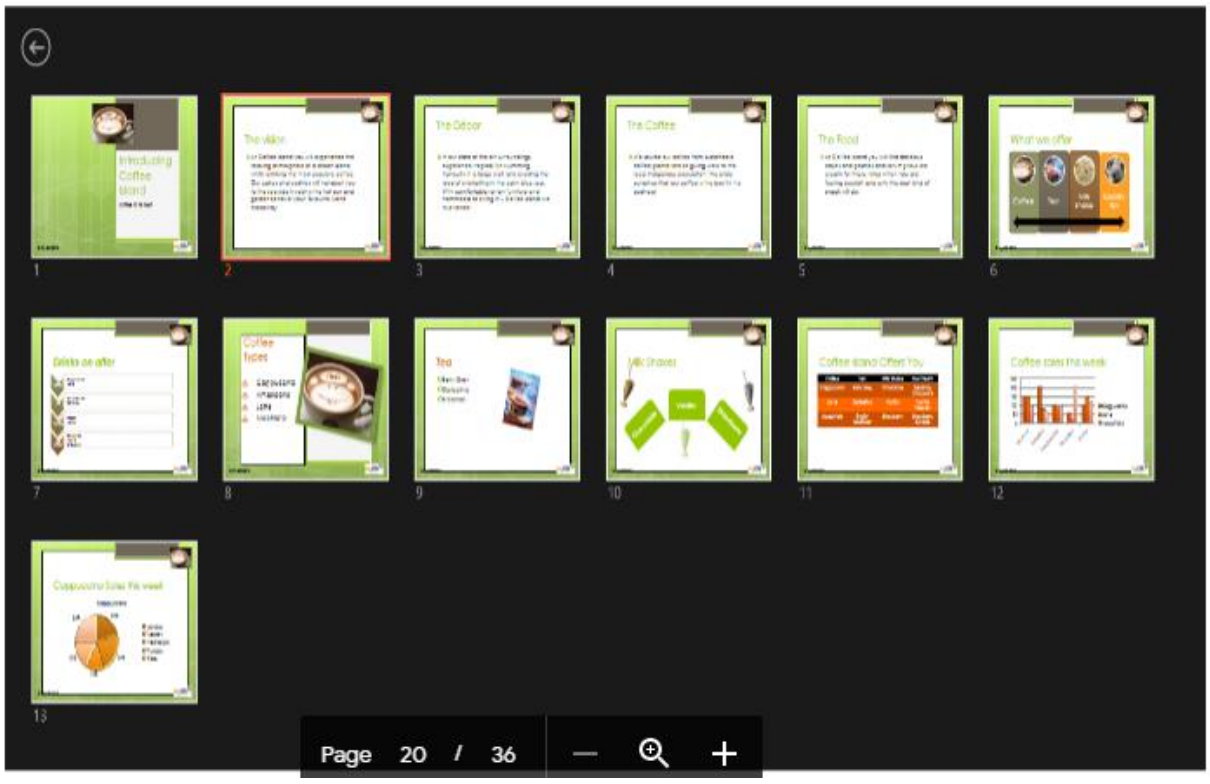


Figure 96- Slide Sorter in presentation view

Use the back arrow at the top left to get back to the slide you started from.

To end the slide show, press the Escape Key on the keyboard – this takes you back

to PowerPoint in the edit mode which means that your audience will see the back

end of your presentation.

You can also use the End Presentation option which is on the small ellipse icon on

the bottom left of the slide when you hover the mouse.

Q14 b) Write the steps for the following action for creation of power point presentation

□ Open a Blank presentation

□ Save the presentation as Lab1.pptx

□ Add a Title to the first slide: the name of your college

□ Type your first name and last name in the Subtitle section

□ Add a New Slide which has a Title and Content

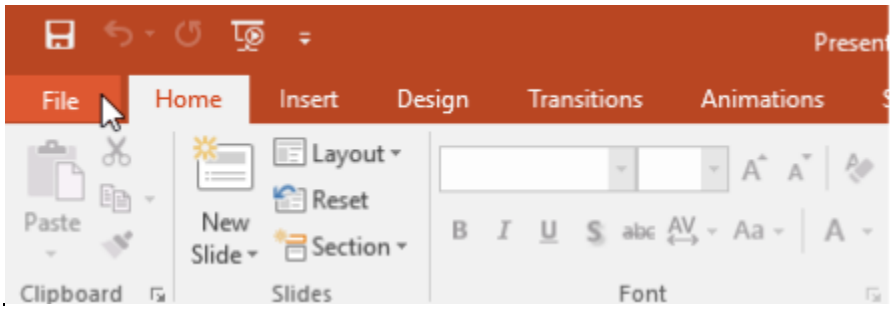
Ans. 1. Open a Blank presentation

To create a new presentation:

When beginning a new project in PowerPoint, you'll often want to start

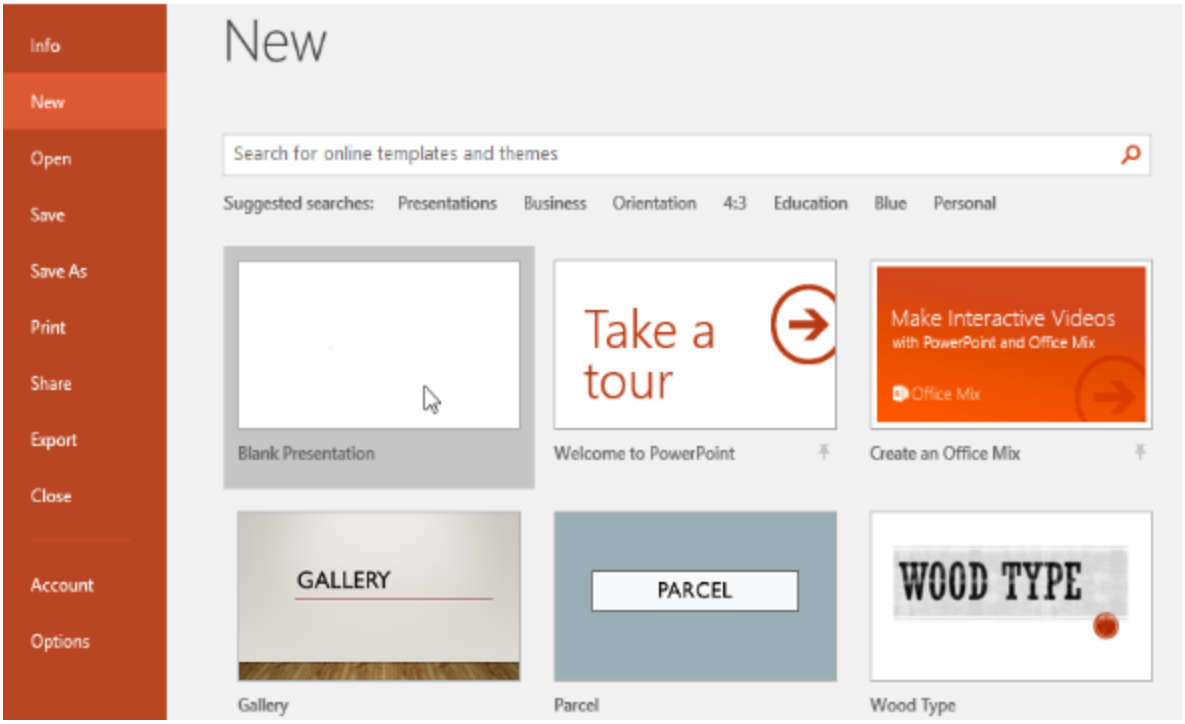
with a new blank presentation.

1. Select the File tab to go to Backstage view.



2. Select New on the left side of the window, then click Blank

Presentation.



3. A new presentation will appear.

To create a new presentation from a template:

A template is a predesigned presentation you can use to create a new

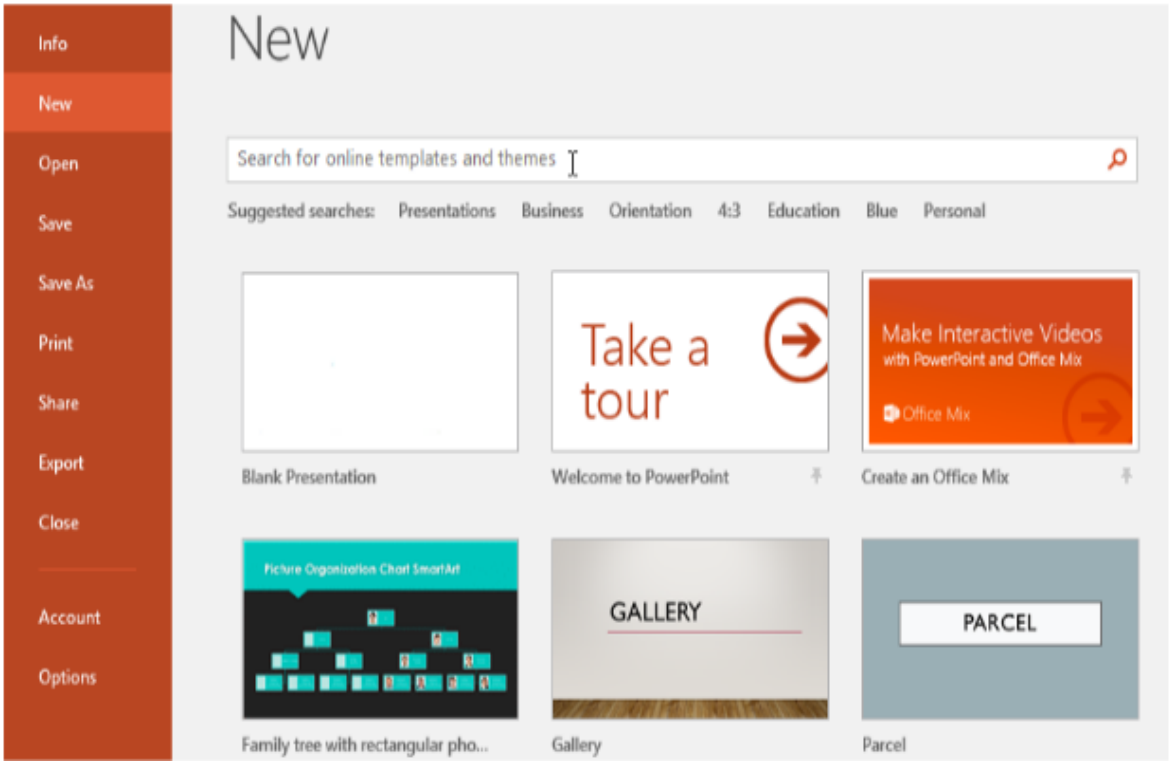
slide show quickly. Templates often include custom

formatting and designs, so they can save you a lot of time and effort

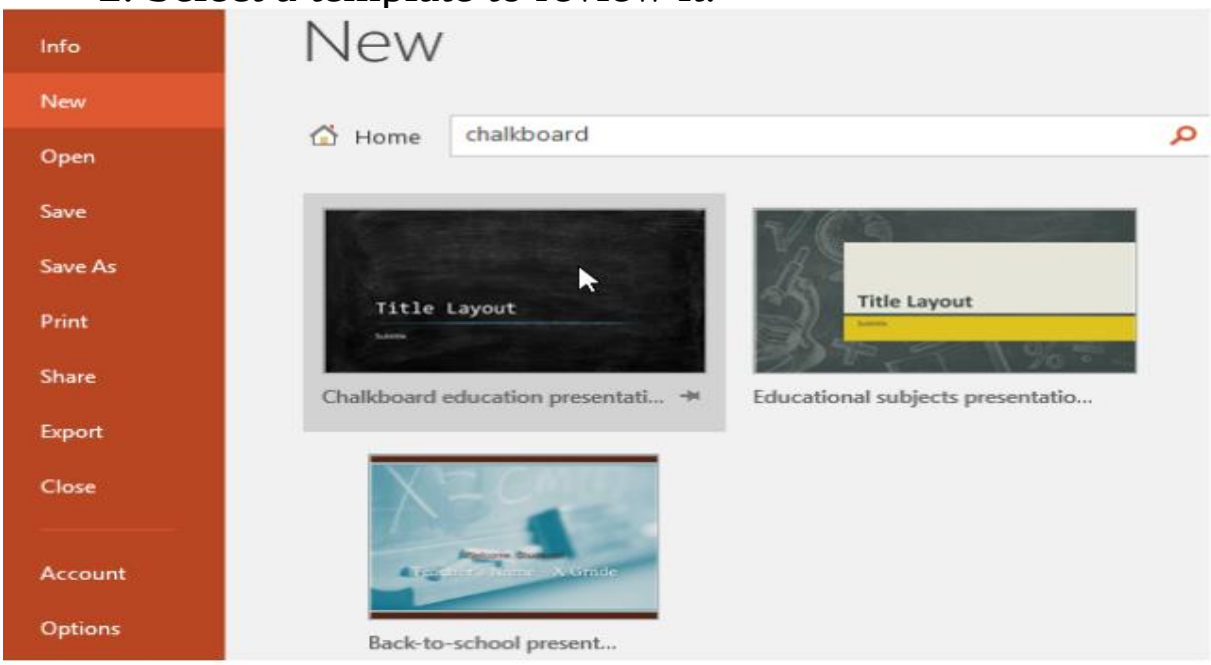
when starting a new project.

1. Click the File tab to access Backstage view, then select New.

2. You can click a suggested search to find templates or use the search bar to find something more specific. In our example, we'll search for the keyword chalkboard.



2. Select a template to review it.



1. A preview of the template will appear, along with additional information on how the template can be used.

2.Click Create to use the selected template.

3. A new presentation will appear with the selected template.

It's important to note that not all templates are created by Microsoft.

Many are created by third-party providers and even individual users, so

some templates may work better than others.

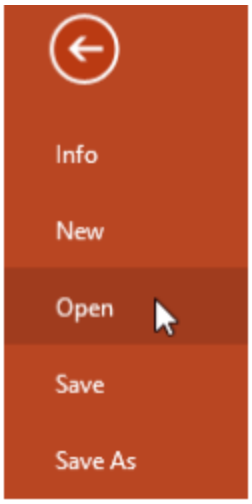
To open an existing presentation:

In addition to creating new presentations, you'll often need to open a

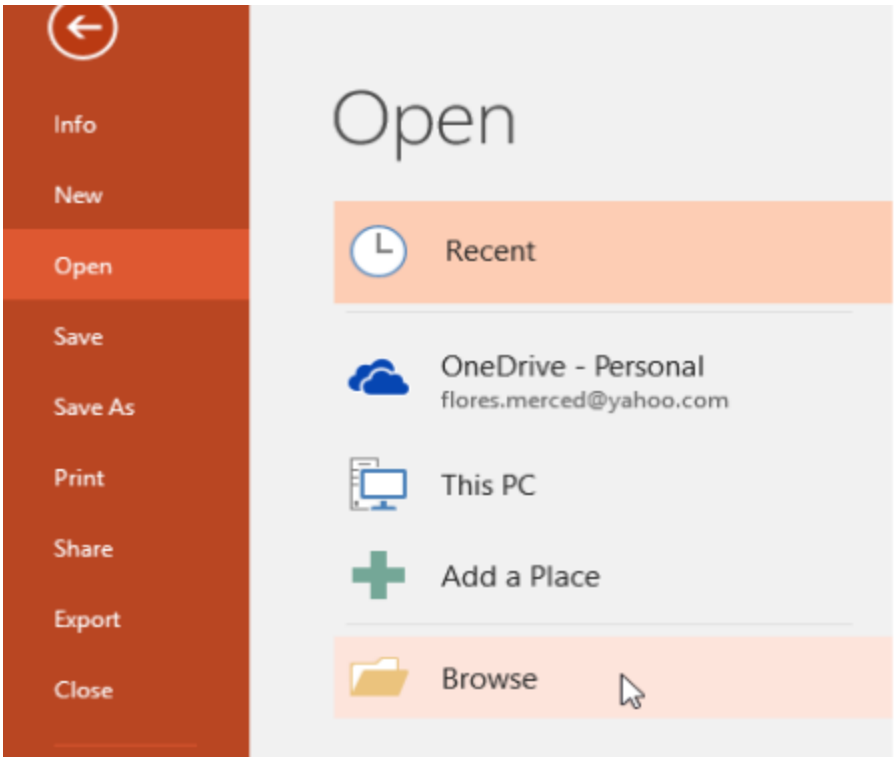
presentation that was previously saved. To learn more about saving

presentations, visit our lesson on Saving Presentations.

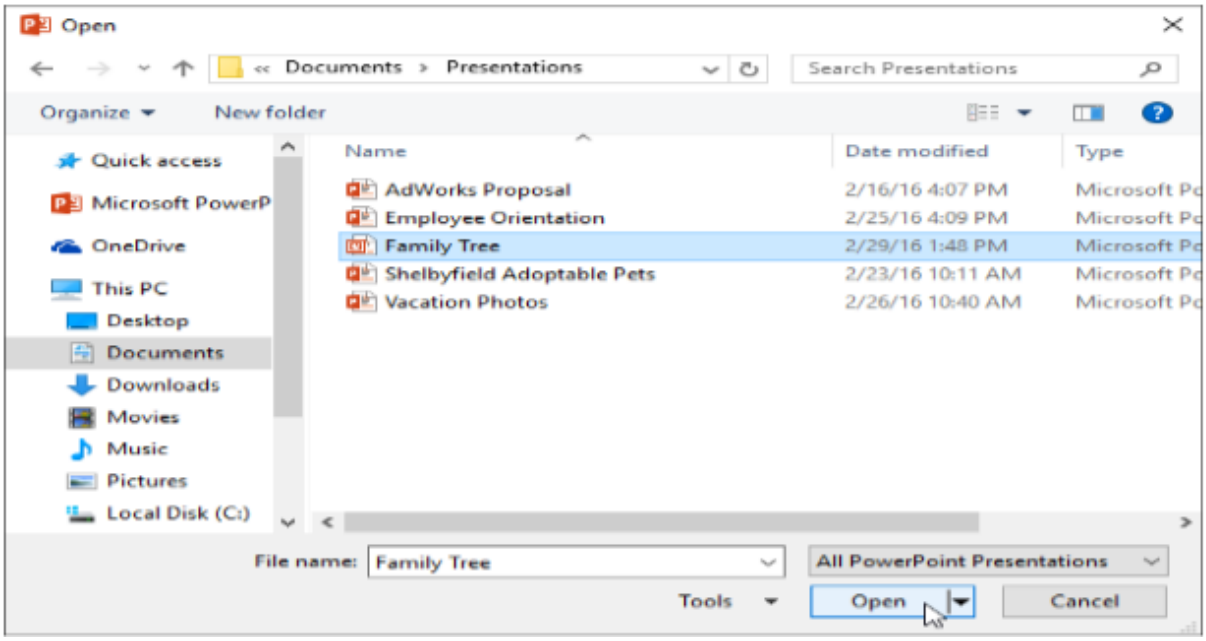
1. Select the File tab to go to Backstage view, then click Open.



2. Click Browse. Alternatively, you can choose OneDrive to open files stored on your OneDrive.



3. The Open dialog box will appear. Locate and select your presentation, then click Open.



2. Save the presentation as Lab1.pptx

Ans.

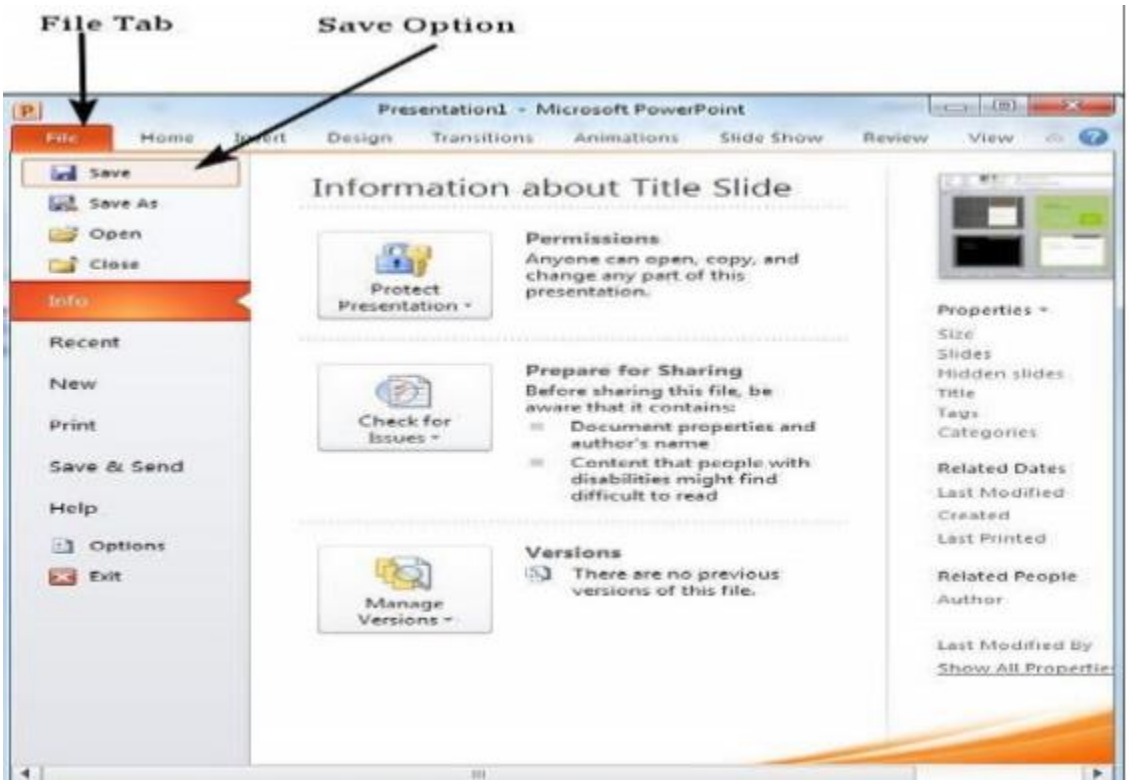
 One of the most basic tasks in PowerPoint is being able to save your work;

this is probably the most important task as well. There are many users who

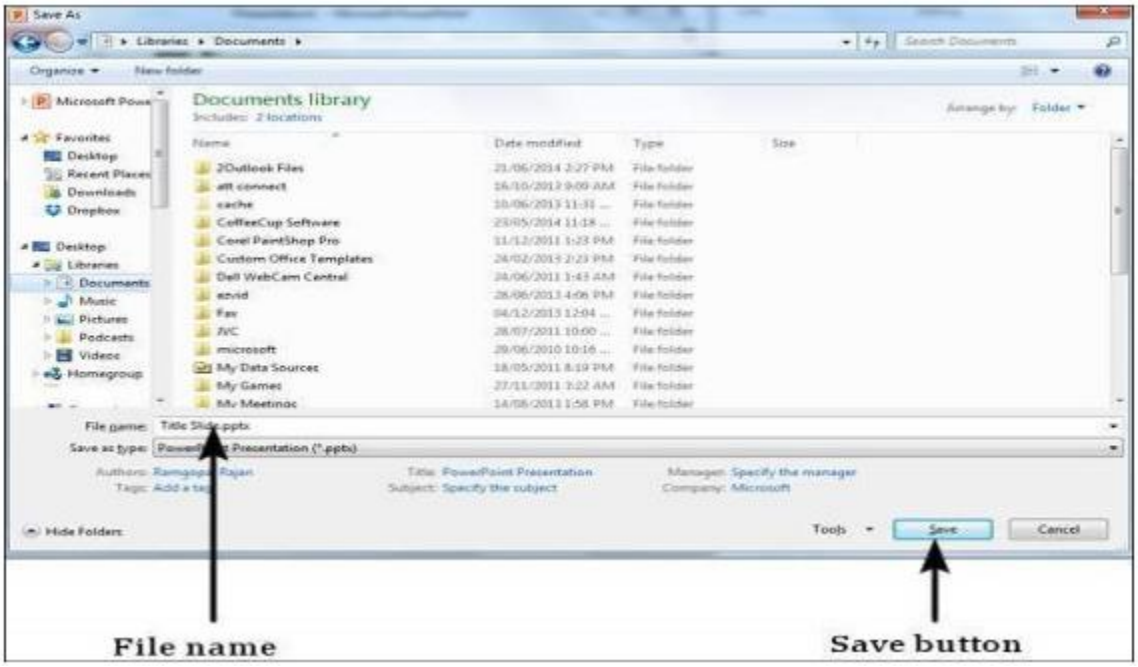
have burnt their fingers for not saving their work in time and losing hours of

hard work. The following are the basic steps to save a presentation.

 Step 1 − Click on the File tab to launch the Backstage view and select Save.

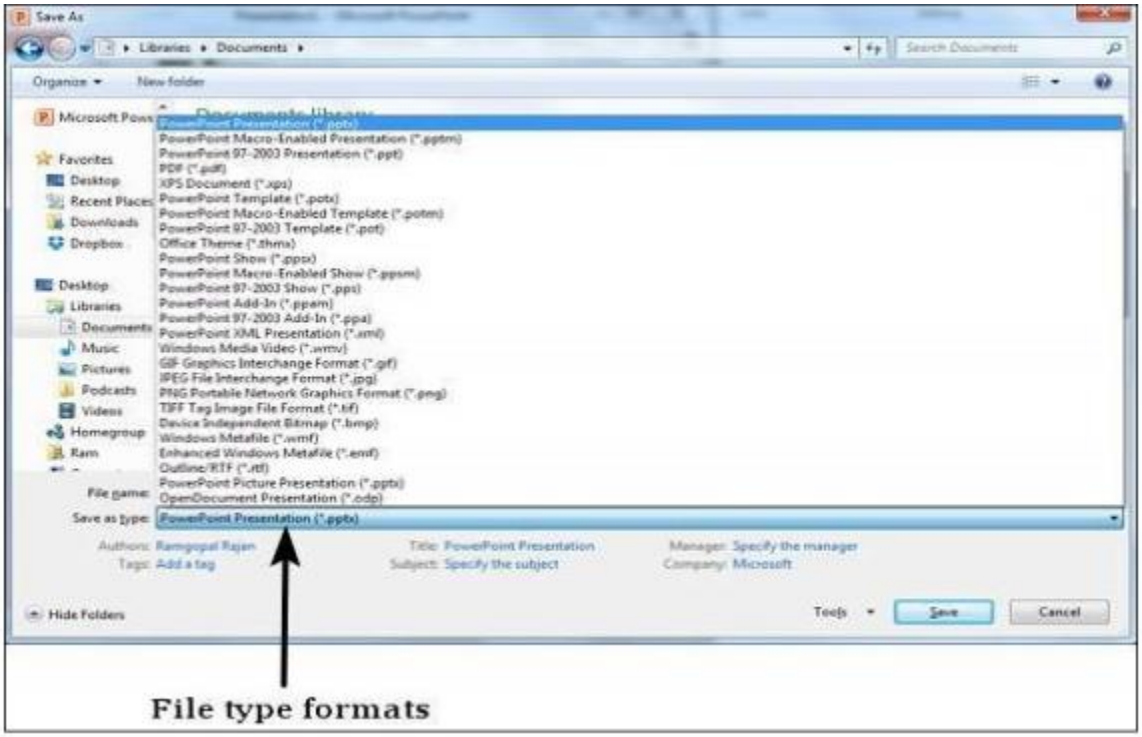


Step 2 − In the Save As dialog, type in the file name and click "Save"



Step 3 − The default file format is .pptx. If you want to save the file with a different name,

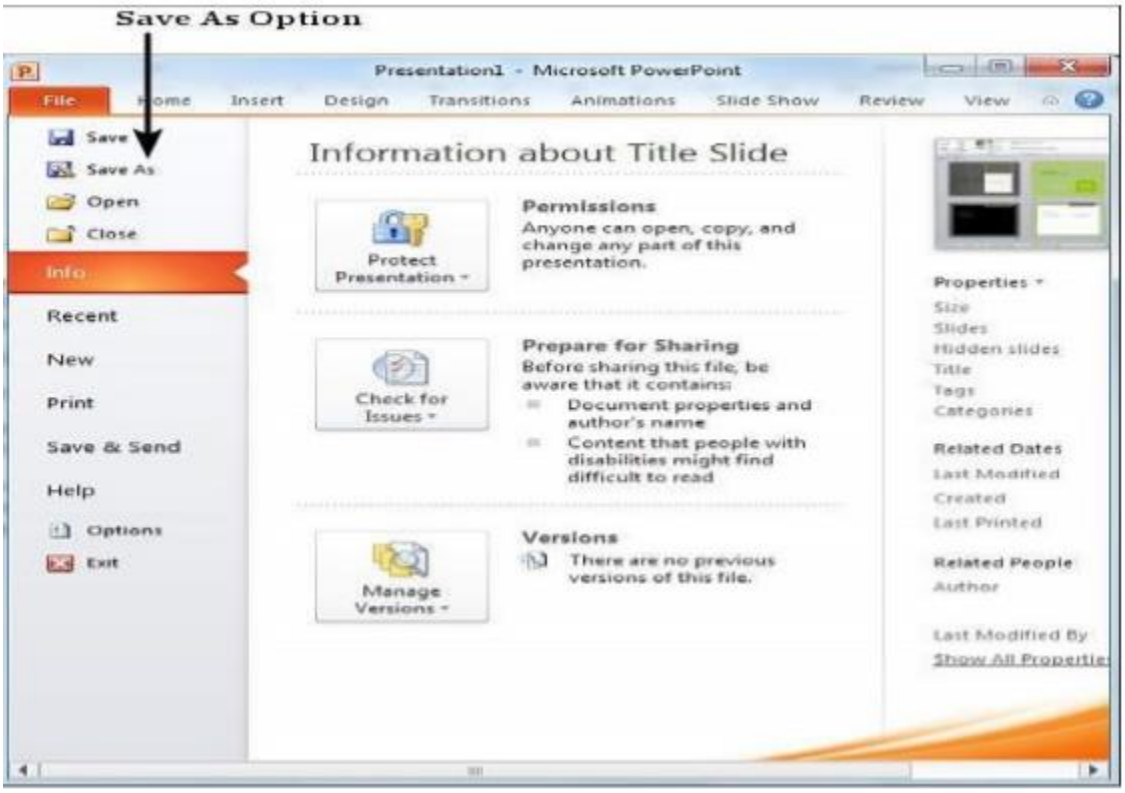
choose one of the file types from the "Save as type" dropdown list.



If you are working on an already saved file, the "Save" option in the Backstage view will

directly save the file in the existing format with the existing name. If you want to change the

format or filename of an existing file, use the Save As option instead.



3. Add a Title to the first slide: the name of your

college

Ans.

1. Open a Blank presentation

2. Save the presentation as PowerPointLabOne.pptx

3. Add a Title to the first slide: the name of your college

4. Type your first name and last name in the Subtitle section

5. Add a New Slide which has a Title and Content

6. Add a title to the second slide “My Future Goals”

7. In the Content section of the second slide, add at least three Personal Goals

8. Right click on the second slide from the left panel, then choose Duplicate Slide

9. Highlight the text in the Content area of the third slide. Under the Home tab,

click Convert to SmartArt, then choose Basic Cycle

10. Change the SmartArt Colors to Colorful—Accent Colors

11. Change the SmartArt Styles to 3D Polished

12. From the left panel, drag the third slide between the first and second slide

13. Change the layout of the third slide, the slide that does not have the SmartArt,

to Comparison

14. Leave the title “My Future Goals”

15. In the head of the first column, type “Goals in College,” then center the heading

16. In the head of the second column, type “Goals after College,” then center the heading

17. Add at least three goals in each section

18. Make sure that slide #3 is selected from the left panel, then add a New Slide

19. Change the layout of the new slide to Blank

20. Insert a Graduation Online Picture from the Office ClipArt—Choose any image of your

choice

21. Change the ClipArt size to 3” X 3” and position it in the middle of the slide

22. Apply the Wisp Design Theme

23. Save and upload PowerPointLabOne.pptx to your instructor

5. Add a New Slide which has a Title and

Content

Ans. Insert a New Slide in PowerPoint: Overview

In this tutorial, you will learn how to insert a new slide in PowerPoint. When you

create a new presentation, PowerPoint gives you one default slide that contains a “Title

Slide” layout. You can click into the placeholders shown in the title slide. Then type the text

you want to appear as the title and subtitle of your presentation.

To add another presentation slide, you must then insert a new slide and determine

which placeholders appear in it. The slide layout you apply determines which placeholders

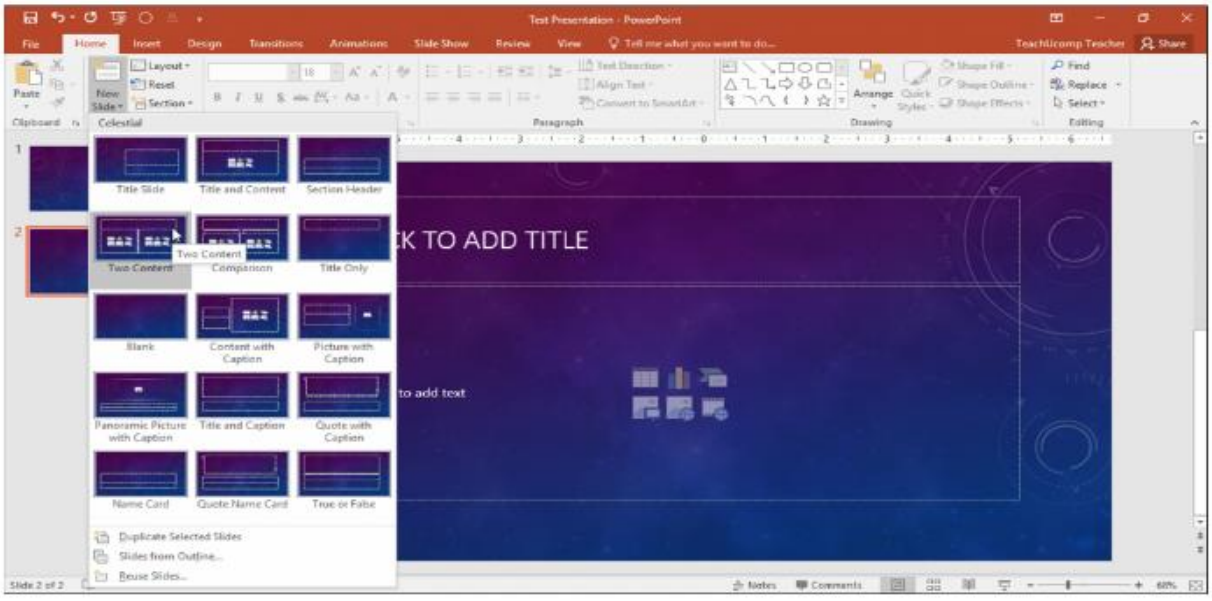
appear within the new slide. However, you can also change the slide layout to change the

placeholders after it is applied.

To insert a new slide in PowerPoint with a “Title and Content” slide layout, click the

“Home” tab in the Ribbon. Then click the “New Slide” button in the “Slides” button group.

To insert a new slide in PowerPoint with a different slide layout, click the drop-down



Q15. Write steps for creation of a set of PowerPoint slides that demonstrates

your skill to usethe tools of PowerPoint. It should include the following

things

- Title slide &bullet list
- Inserting Excel Sheet
- Clip art and Text
- Slide show effects

Ans . **Title a slide**

There are multiple way to add titles to your slides in PowerPoint. Use

the Layout option to create a standalone title slide or to add a title to a slide

that contains other text. You can also use the Outline view to create and

update the titles of your slides

Show each bullet point with a click

1. Select the text box that contains the slides you want

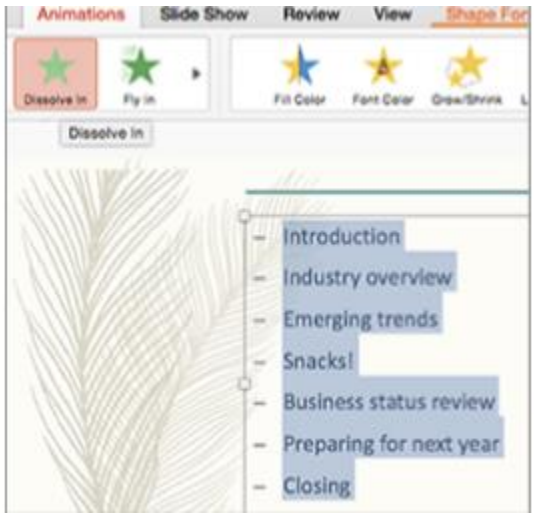
to animate.

2. Click the Animations tab, and then choose a motion effect like Appear or Fly In.

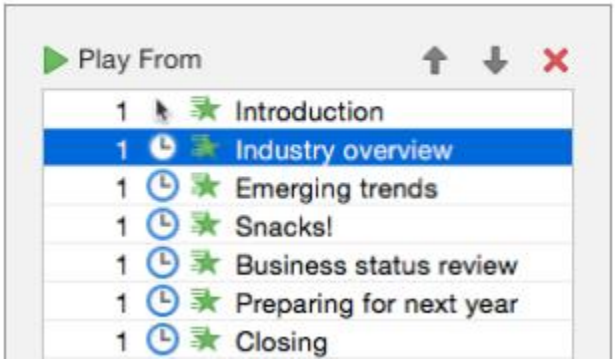
3. The slide displays the animation sequence in a box to the left of each point.

Show each bullet point after a delay

1. Select all the bullet points you want to animate, click the Animations tab, and then choose a motion effect like Appear or Dissolve In.



2. In the Animations pane, select the second animation in the list.



3. Under Timing, change the Start setting to After Previous, and then

enter the amount of time you want to delay between each bullet

point.

B) Inserting Excel Sheet

Ans. Insert an object in your Excel spreadsheet

You can use Object Linking and Embedding (OLE) to include content from other programs, such as Word or Excel.

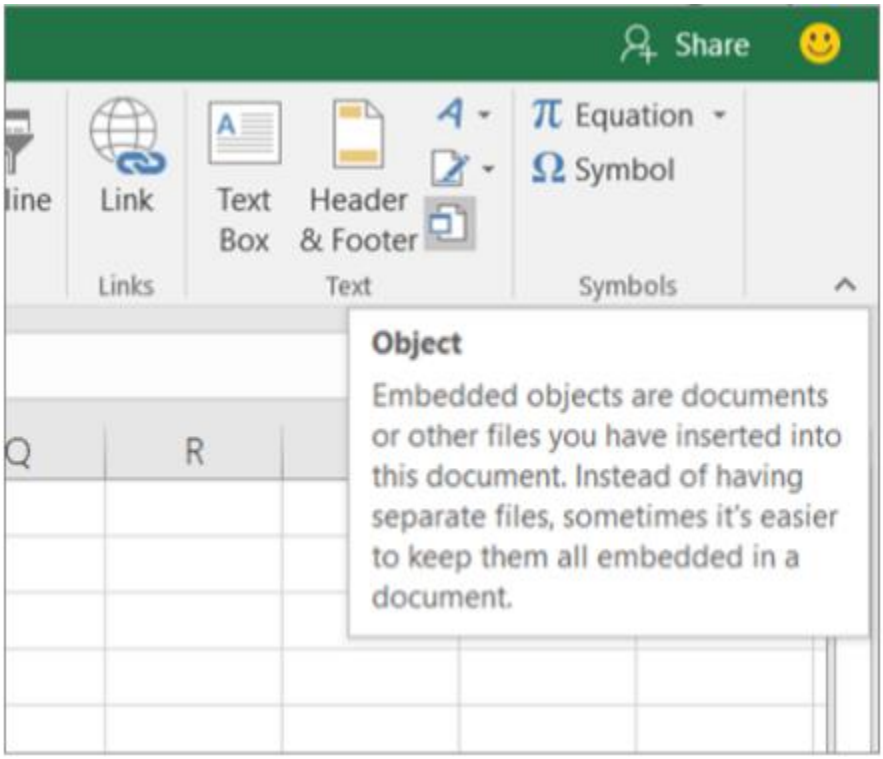
OLE is supported by many different programs, and OLE is used to make content that is created in one program available in another program. For example, you can insert an Office Word document in an Office Excel workbook. To see what types of content that you can insert, click Object in the Text group on

the Insert tab. Only programs that are installed on your computer and that support OLE objects appear in the Object type box.

Embed an object in a worksheet

1. Click inside the cell of the spreadsheet where you want to insert the object.

2.On the Insert tab, in the Text group, click Object .



3. In the Object dialog box, click the Create from

File tab.

4. Click Browse, and select the file you want to insert.

5. If you want to insert an icon into the spreadsheet instead of show the contents of the file, select the Display as icon check box. If you don't select any check boxes, Excel shows the first page of the file. In both cases, the complete file opens with a double click. Click OK.

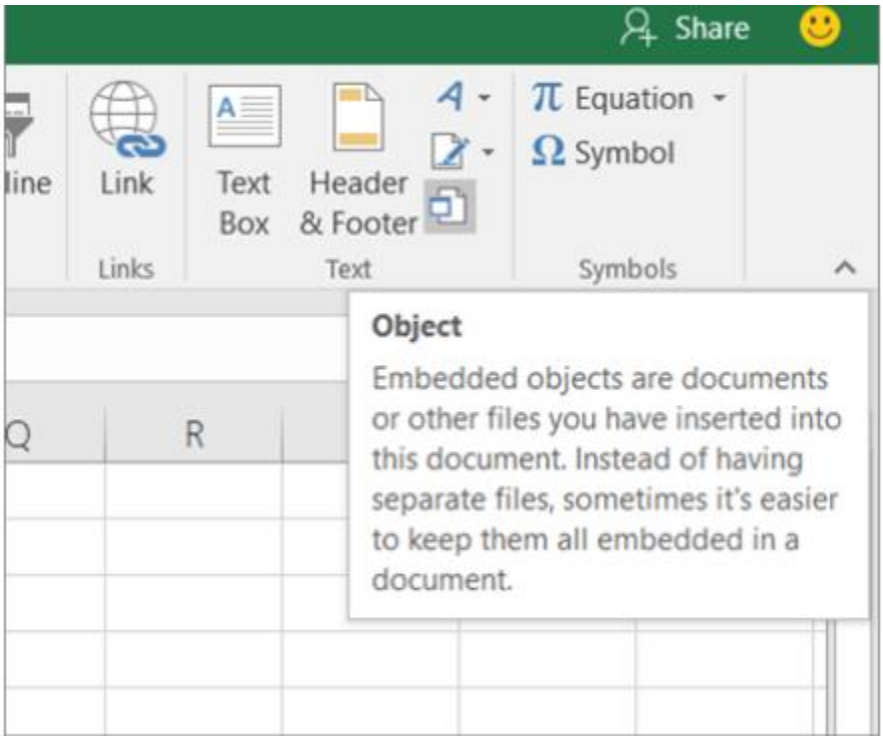
Insert a link to a file

You might want to just add a link to the object rather than fully embedding it. You can do that if your workbook and the object you want to add are both stored on a SharePoint site, a shared network drive, or a similar location, and if the location of the files will remain the same. This is handy if the linked object undergoes changes because the link always opens

the most up-to-date document.

1. Click inside the cell of the spreadsheet where you want to insert the object.

2. On the Insert tab, in the Text group, click Object .



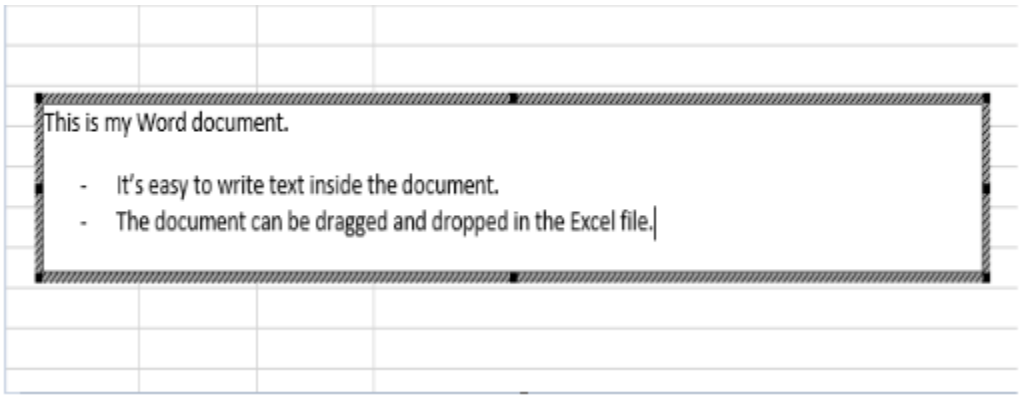
3. Click the Create from File tab.

4. Click Browse, and then select the file you want to link.

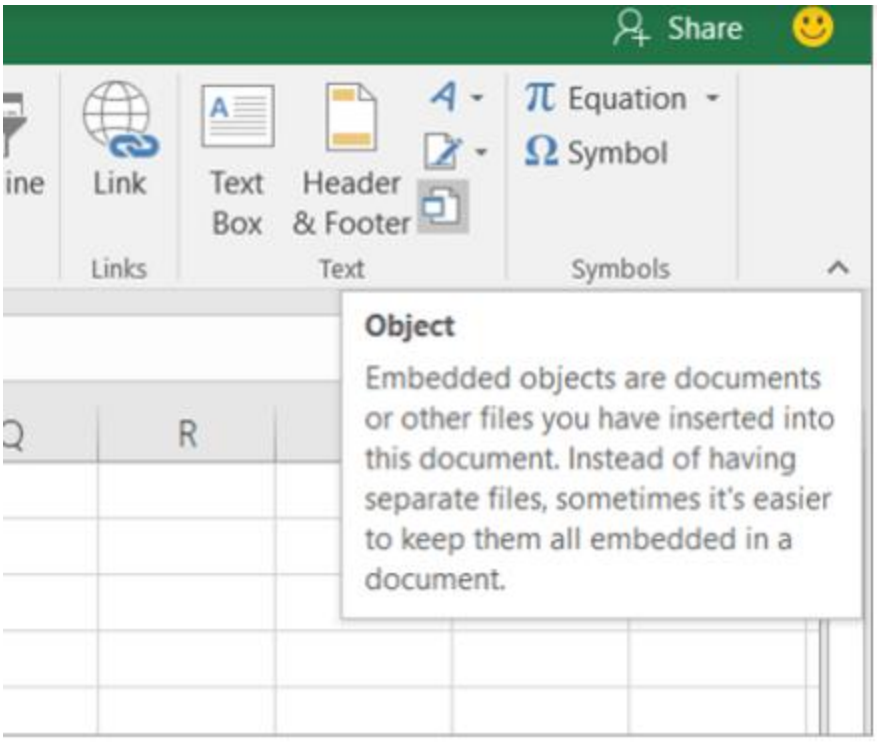
5. Select the Link to file check box, and click OK.

Create a new object from inside Excel

You can create an entirely new object based on another program without leaving your workbook. For example, if you want to add a more detailed explanation to your chart or table, you can create an embedded document, such as a Word or PowerPoint file, in Excel. You can either set your object to be displayed right in a worksheet or add an icon that opens the file.



1. Click inside the cell of the spreadsheet where you want to insert the object.
2. On the Insert tab, in the Text group click Object .



3. On the Create New tab, select the type of object you want to insert from the list presented. If you want to insert an icon into the spreadsheet instead of the object itself, select the Display as icon check box.

4. Click OK. Depending on the type of file you are inserting, either a new program window opens or an editing window appears within Excel.

5. Create the new object you want to insert.

When you're done, if Excel opened a new program

window in which you created the object, you can work directly within it.

When you’re done with your work in the window, you

can do other tasks without saving the embedded

object. When you close the workbook your new

objects will be saved automatically.

C) Clip art and Text

Ans. Clip art (also clipart, clip-art), in the graphic arts, is pre-made images used to illustrate

any medium. Today, clip art is used extensively. Clip art comes in many forms, both electronic

and printed. However, most clip art today is created, distributed, and used in an electronic form.

Since its inception, clip art has evolved to include a wide variety of content, file formats,

illustration styles, and licensing restrictions. Clip art is generally composed exclusively of

illustrations (created by hand or by computer software), and does not include

Text

the main body of matter in a manuscript, book, newspaper, etc., as

distinguished from notes, appendixes, headings, illustrations, etc.

the original words of an author or speaker, as opposed to a translation,

paraphrase, commentary, or the like: the actual wording of anything written

or printed:

D) Slide show effects

Ans. Slide Effect is a presentation tool providing enhanced

transitions and effects. Using a standard Presentation

Software user interface, people can create slide presentation with movies and images in a simpler way than using a video editing software.