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PWR

Department of Computer Science & Software Engineering



Introduction to Information and Communication Technology

Lab Manual



Course Title	Introduction to Information & Communication Technology		
Course Code	CL3001		
Credit Hours	3		
Semester	Fall-2021		
Lab. Engineer	Engr. Khuram Shahzad	Course Instructor	

List of Experiments

Lab#	Title of Experiment	CLO
1	Operating System (Microsoft windows), exploration of windows desktop, accessories, Start Button, start menu, managing files and folders, icons on desktop, keyboard, mouse, and their use	3
2	Introduction to MS Word, Features of MS Word, Elements of Word interface, exploring different tabs of MS Word, Basic Data entry in MS Word, Basic Editing	3
3	Working on Proofing Features, Character and Paragraph Formatting in MS word	3
4	Working on Page Layout, Customize Styles and Tables in MS word	3
5	Using illustrations and graphics in MS Word	3
6	Open Ended Lab	3
7	Introduction to MS Excel, Features of MS Excel, Elements of Excel interface, Excel Calculation, Formatting cells, font formatting, text alignments, cell border and fill color, cell styles, formatting text and numbers, modifying columns, rows and cells, wrapping text and margin cells.	3



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8	Excel Fill Handle with Text and Numbers, Excel Formulas, Relative and absolute cell Referencing	3
9	Functions, IF conditions Count, CountIf, and CountIfs Functionin MS Excel	3
10	Introduction to MS power point, features and interface of MS power point, creating a presentation, slides lay out, slide design	3
11	Insert Picture and Clip Art, Bulleted or Numbered lists, Working with Charts in MS PowerPoint	3
12	Working on slide transition, slide animation, audio and video, hyperlinking, Slide Viewers	3
13	Introduction to Data base, Intro to MS Access, Creation of Table, Primary key , Field properties,	3
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15	Open Ended Lab	3
16	Working with Macro and modules in MS Access	3

Lab Instructor:



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Experiment # 01

Basic Mouse Functions

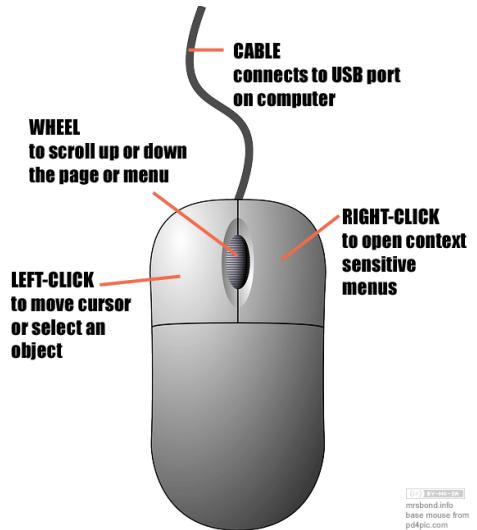
Point: Move the mouse until the pointer rests on what you want to open or use on the screen. The form of the mouse will change depending on what you are asking it to look at in Windows, so you need to be aware of what it looks like before you click.

Single-click: The **left mouse button** is used to indicate choices from menus and indicate choices of options within a “dialog box” while you are working in an application program. Roll the mouse pointer on top of the choice and press the left mouse button once.

Right-click: With a single quick press on the **right mouse button**, it will bring up a shortcut menu, which will contain specific options depending on where the right-click occurred.

Click and drag: This is used for a number of functions including choosing text to format, moving items around the screen, and choosing options from menu bars. Roll the mouse pointer over the item, click and hold down the left mouse button, and drag the mouse while still holding the button until you get to the desired position on the screen. Then release the mouse button.

Double-click: This is used to choose an application program. Roll the mouse pointer on top of the icon (picture on the desktop or within a window) of the application program you want to choose and press the left mouse button twice very rapidly. This should bring you to the window with the icons for that software package. Double-click on the icon with the name of the program.



Keyboard Shortcut

Shortcut Keys	Description
Alt+F	File menu options in current program.
Alt+E	Open <i>Edit</i> options in current program.
Alt+Tab	Switch between open programs.
F1	View help information (F1 is used by almost every Windows program to display help).
F2	Rename a selected file.
F5	Refresh the current program window.
Ctrl+D	Bookmarks the current page in most Internet browsers.
Ctrl+N	Create a new or blank document in some software, or open a new tab in most Internet browsers.
Ctrl+O	Open a file in the current software.



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Ctrl+A	Select all text.
Ctrl+B	Change selected text to be bold.
Ctrl+I	Change selected text to be in italics.
Ctrl+U	Change selected text to be underlined.
Ctrl+F	Open find window for current document or window.
Ctrl+S	Save current document file.
Ctrl+X	Cut selected item.
Shift+Del	Cut selected item.
Ctrl+C	Copy selected item.
Ctrl+Ins	Copy selected item
Ctrl+V	Paste
Shift+Ins	Paste
Ctrl+Y	Redo last action.
Ctrl+Z	Undo last action.
Ctrl+K	Insert hyperlink for selected text.
Ctrl+P	Print the current page or document.
Home	Goes to beginning of current line.
Ctrl+Home	Goes to beginning of document.
End	Goes to end of current line.



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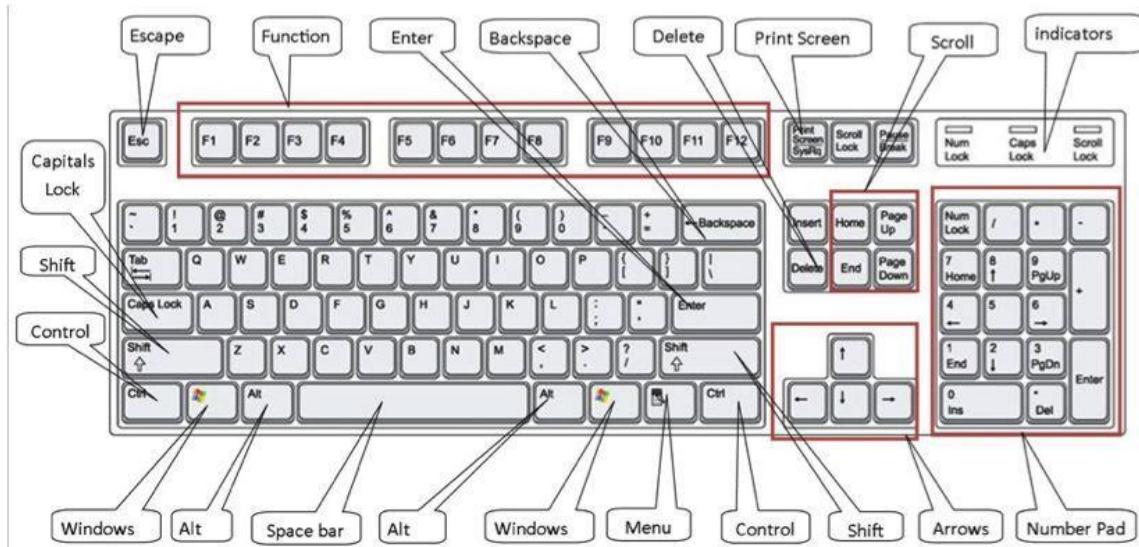
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Ctrl+End	Goes to end of document.
Shift+Home	Highlights from current position to beginning of line.
Shift+End	Highlights from current position to end of line.
Ctrl+Left arrow	Moves one word to the left at a time.
Ctrl+Right arrow	Moves one word to the right at a time.
Ctrl+Esc	Open the Start menu.
Ctrl+Shift+Esc	Open Windows Task Manager.
Alt+F4	Close the currently active program.
Alt+Enter	Open the properties for the selected item (file, folder, shortcut, etc.).



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The Desktop:

The desktop is the main screen area that you see after you turn on your computer and log on to Windows. Like the top of an actual desk, it serves as a surface for your work. When you open programs or folders, they appear on the desktop. You can also put things on the desktop, such as files and folders, and arrange them however you want.

The desktop is sometimes defined more broadly to include the taskbar and Windows Sidebar. The taskbar sits at the bottom of your screen. It shows you which programs are running and allows you to switch between them. It also contains the Start button , which you can use to access programs, folders, and computer settings. On the side of the screen, Sidebar contains small programs called gadgets.





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Working with desktop icons

Icons are small pictures that represent files, folders, programs, and other items. When you first start Windows, you'll see at least one icon on your desktop: the Recycle Bin (more on that later). Your computer manufacturer might have added other icons to the desktop. Some examples of desktop icons are shown below.



Examples of desktop icons

Double-clicking a desktop icon starts or opens the item it represents. For example, double-clicking the Internet Explorer icon starts Internet Explorer.

Adding and removing icons from the desktop

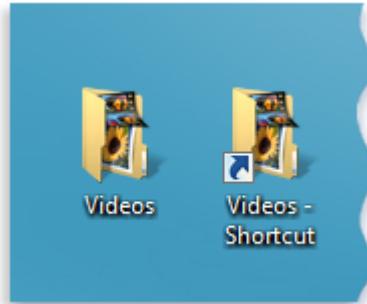
You can choose which icons appear on the desktop—you can add or remove an icon at any time. Some people like a clean, uncluttered desktop with few or no icons. Others place dozens of icons on their desktop to give them quick access to frequently used programs, files, and folders.

If you want easy access from the desktop to your favorite files or programs, create shortcuts to them. A shortcut is an icon that represents a link to an item, rather than the item itself. When you double-click a shortcut, the item opens. If you delete a shortcut, only the shortcut is removed, not the original item. You can identify shortcuts by the arrow on their icon.



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A folder icon (left) and a shortcut icon (right)

To add a shortcut to the desktop

1. Locate the item that you want to create a shortcut for (within Windows Explorer, or your Computer folder, for example).
2. Right-click the item, click Send To, and then click Desktop (create shortcut). The shortcut icon appears on your desktop.

To add or remove common desktop icons

Common desktop icons include Computer, your personal folder, Network, the Recycle Bin, Internet Explorer, and Control Panel.

1. Right-click an empty area of the desktop, and then click Personalize.
2. In the left pane, click Change desktop icons.
3. Under Desktop icons, select the check box for each icon that you want to add to the desktop, or clear the check box for each icon that you want to remove from the desktop, and then click OK.

To move a file from a folder to the desktop

1. Open the folder that contains the file.
2. Drag the file to the desktop.

To remove an icon from the desktop



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- Right-click the icon, and then click Delete. If the icon is a shortcut, only the shortcut is removed; the original item is not deleted.

Moving icons around

Windows stacks icons in columns on the left side of the desktop. But you're not stuck with that arrangement. You can move an icon by dragging it to a new place on the desktop.

You can also have Windows automatically arrange your icons. Right-click an empty area of the desktop, click View, and then click Auto Arrange. Windows stacks your icons in the upper-left corner and locks them in place. To unlock the icons so that you can move them again, click Auto Arrange again, clearing the check mark next to it.

Note: By default, Windows spaces icons evenly on an invisible grid. To place icons closer together or with more precision, turn off the grid. Right-click an empty area of the desktop, click View, and then click Align to Grid to clear the check mark. Repeat these steps to turn the grid back on.

Selecting multiple icons

To move or delete a bunch of icons at once, you must first select all of them. Click an empty area of the desktop and drag the mouse. Surround the icons that you want to select with the rectangle that appears. Then release the mouse button. Now you can drag the icons as a group or delete them.



Select multiple desktop icons by dragging a rectangle around them.

Hiding desktop icons

If you want to temporarily hide all of your desktop icons without actually removing them, right-click an empty part of the desktop, click View, and then click Show Desktop Icons to clear the check mark



from that option. Now no icons are displayed on the desktop. You can get them back by clicking Show Desktop Icons again.

The Recycle Bin

When you delete a file or folder, it doesn't actually get deleted right away—it goes to the Recycle Bin. That's a good thing, because if you ever change your mind and decide you need a deleted file, you can get it back.



The Recycle Bin when empty (left) and full (right)

If you're sure that you won't need the deleted items again, you can empty the Recycle Bin. Doing that will permanently delete the items and reclaim any disk space they were using.

Picking a desktop background

One of the easiest ways to personalize your computer is to change the desktop background, also called the wallpaper. You can choose one of the backgrounds provided with Windows, pick a favorite digital picture from your own collection, or use a solid background color. You can also find pictures on the Internet designed to be used as desktop backgrounds.



Sample desktop backgrounds provided with Windows

To change the desktop background

1. Right-click on your desktop and choose Personalize.
2. Click the Desktop Background link.
3. Click the picture or color you want for your desktop background.



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If the picture you want to use is not in the list of desktop background pictures, click Browse to search for the picture on your computer. When you find the picture you want, double-click it. It will become your desktop background and appear in the list of desktop backgrounds.

4. Under How should the picture be positioned, choose to have the picture fit the screen, tile, or be centered on the screen, and then click OK.

Note: If you choose to have a centered picture as your desktop background, you can also have a color background to frame your picture. Under How should the picture be positioned, click Change background color, click a color, and then click OK.

Tip

□ You can make any picture on your computer your desktop background by right clicking the picture, and then clicking Set as Desktop Background.

To change the theme to Windows Classic

1. Right-click on your desktop and choose Personalize.
2. Under Theme, select the Windows Classic theme in the drop-down list, and then click OK.

E-Mail Address

To send or receive an email, you must have an email address. This address is unique in nature and it has two important parts. The first part is the ‘user name’ and the other is the ‘domain name’. These two are separated by a special symbol @. The domain name can be same for lots of people. For example cmfri@gmail.com and cmfri1@gmail.com are two addresses with the same domain name gmail.com. But the user names cmfri and cmfri1 are different and hence the addresses are different.

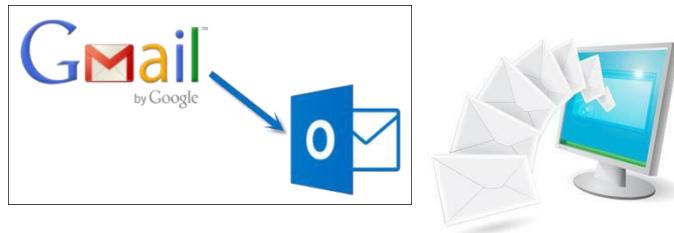
Creating an E-Mail Account

Email, short for Electronic Mail, is a component of internet. It is a fast and economic way of sending messages to individuals and groups of people. Messages can include text, pictures or animations.



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This section discusses on creation and accession of an email account, opening and reading of received mails and composing and sending mails. Several sites on the internet allow you to create an email account and send and receive email and attachments for free, for example gmail.com, hotmail.com, rediff.com, yahoo.com. This session focus on the services available through Gmail as it is free and is the most popular email service available today.

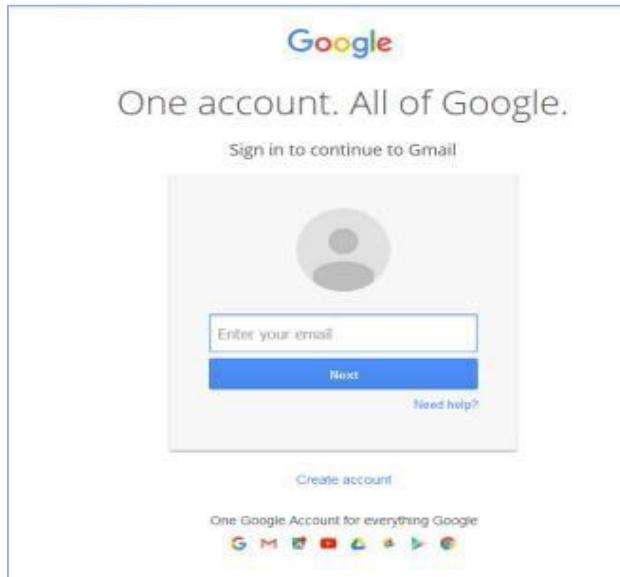
Setting up an email account

1. Connect to the Internet by double-clicking the Google chrome, Internet Explorer or Firefox desktop icon.
2. Go to the Gmail site by typing gmail.com into the address bar at the top of the screen, and press the Enter key on your keyboard.
3. You should see a screen that looks like this:



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4. Click on the Create an Account link at the bottom of the box and following window will be displayed. Complete all starred information in the form, beginning with the Get Started section. Finally, you have to agree to the Terms of Service. Read through the text, and then click "I Agree." So now you have created an email account and your email address is your Google Login Name followed by "@gmail.com."

Checking Your Email

Once you have set up your email account, you can check your mail anywhere that you can access the Internet. For this follow the steps given below.

1. Connect to the Internet by double-clicking the Google chrome, Internet Explorer or Firefox icon.
2. Go to the Gmail site by typing gmail.com into the address bar at the top of the screen.
3. Type your Google Login Name and Password into the box on the right.
4. The next page will show you the number of new messages in your Inbox.



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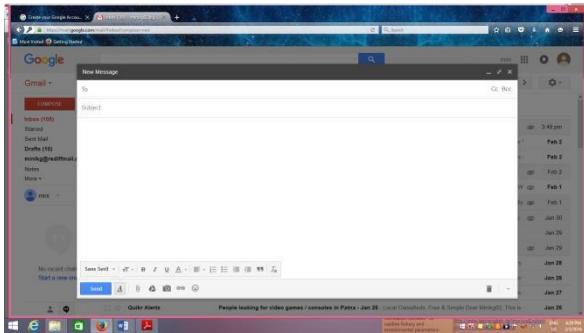
The screenshot shows a Gmail inbox with the following details:

- Inbox (3)**: The left sidebar shows 3 messages.
- Archive Report spam Delete Move to Labels More actions Refresh**: The top navigation bar.
- Select: All, None, Read, Unread, Starred, Unstarred**: The search/filter bar.
- Message Preview 1: Gmail Team - Import your contacts and old email**
- Message Preview 2: Gmail Team - Access Gmail on your mobile phone**
- Message Preview 3: Gmail Team - Get started with Gmail** (This message is circled in red).

The inbox is where all of your incoming messages are stored. Click on the subject of the message to open and read it.

Composing and Sending Messages

To create a new message, click the Compose button on the top left side of the screen. Type the email address of the person(s) to whom you wish to send the email in ‘To’. Once you have completed your message, send it by clicking on the Send button at the bottom of the window.



Gmail Help

For any help in connection with Gmail, Help link is given at the top right corner of the Gmail page.

Setting up a Gmail account

To create a Gmail address, you'll first need to create a Google account. Gmail will redirect you to the Google account signup page. You'll need to provide some basic information like your name, birth date, gender, and location. You will also need to choose a name for your new Gmail address. Once you create an account, you'll be able to start adding contacts and adjusting your mail settings.

To create an account:



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1. Go to www.gmail.com.
2. Click Create account.

Enter your email

Next

Need help?

Create account

3. The signup form will appear. Follow the directions and enter the required information.

Name
Elena Casarosa

Choose your username
EMCasarosa82@gmail.com

Create a password
.....

Confirm your password
.....

Birthday
March 02 1982

4. Review Google's Terms of Service and Privacy Policy, click the check box, then click Next step.

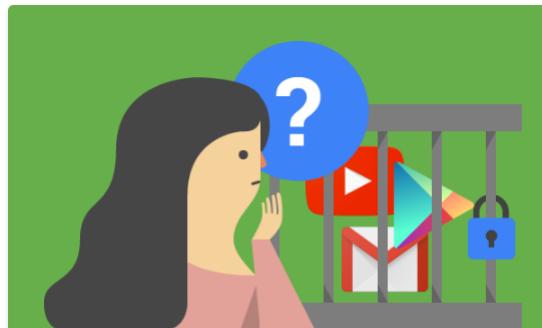


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5. Here, you'll have an opportunity to set up recovery options. Recovery options are helpful if you forget your password or if someone tries to access your account. If you don't want to set up recovery options at this time, click Done.



Without recovery options, you could lose access to your account if you forget your password or your account is stolen.

[Learn more about recovery options.](#)

Recovery phone

[Add a phone](#)

Recovery email

you@example.com

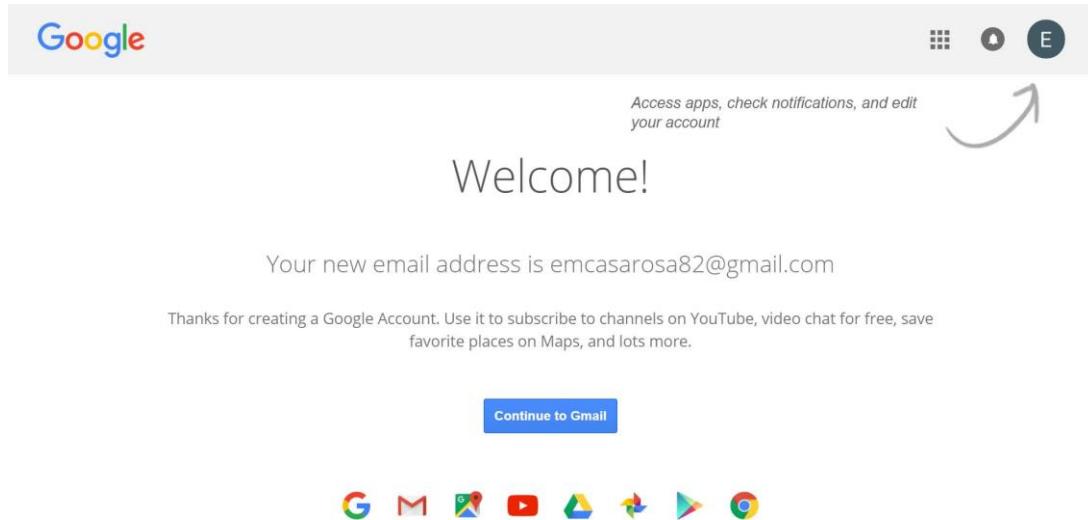
[Done](#)

6. Your account will be created, and the Google welcome page will appear.



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Signing in to your account

When you first create your account, you will be automatically signed in. Most of the time, however, you'll need to sign in to your account and sign out when you're done with it. Signing out is especially important if you're using a shared computer (for example, at a library or office) because it prevents others from viewing your emails.

To sign in:

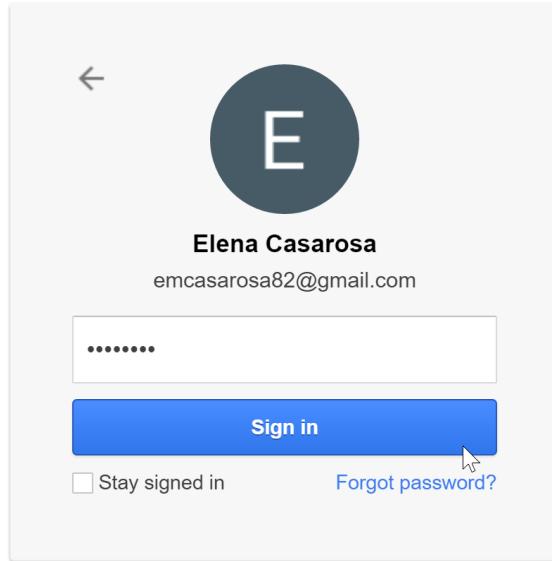
Go to **www.gmail.com**.

Type your user name (your email address) and password, then click Sign in.



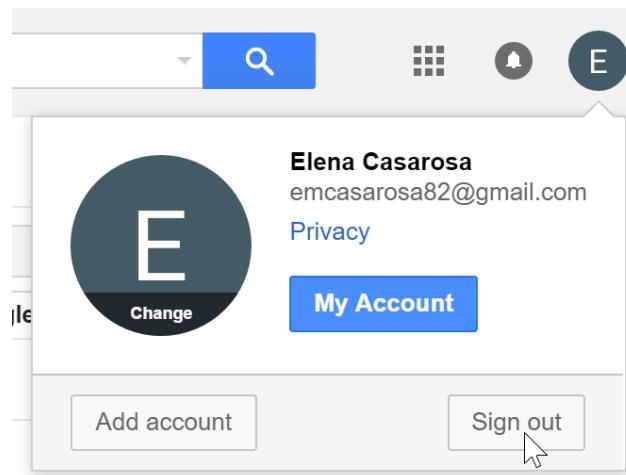
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To sign out:

In the top-right corner of the page, locate the circle that has your first initial (if you've already selected an avatar image, it will show the image instead). To sign out, click the circle and select Sign out.





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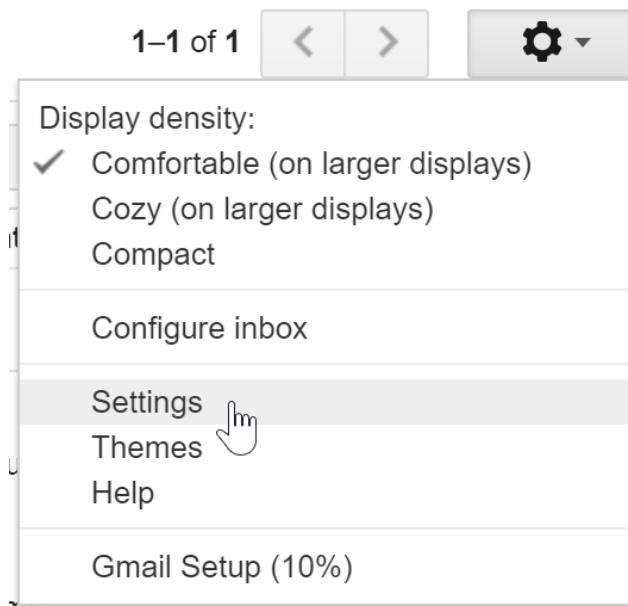
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Mail settings

Occasionally, you may want to make adjustments to Gmail's appearance or behavior. For example, you could create a signature or vacation reply, edit your labels, or change the theme. These adjustments can be made from your mail settings.

To access your mail settings:

1. Click the gear icon in the top-right corner of the page, then select Settings.



2. From here, you can click any of the categories at the top to edit the desired settings.



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Settings ⚙️

General Labels Inbox Accounts and import Filters and Blocked Addresses Forwarding and POP/IMAP Chat Labs Offline Themes

Setup progress: 10% Continue setting up account

Language: Gmail display language: English (US) Change language settings for other Google products Show all language options

Phone numbers: Default country code: United States

Maximum page size: Show 50 conversations per page Show 250 contacts per page

Images: Always display external images - Learn more Ask before displaying external images

Default reply behavior: Reply Reply all

Default text style: (Use the 'Remove Formatting' button on the toolbar to reset the default text style)

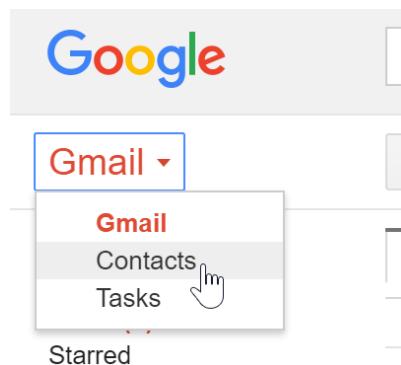
Sans Serif A This is what your body text will look like.

Adding contacts

Like all major email providers, Gmail lets you keep an address book of contacts so you don't have to memorize everyone's email addresses. You can also add other contact information, like phone numbers, birthdays, and physical addresses.

To add a contact:

1. In the Gmail drop-down menu, select Contacts.

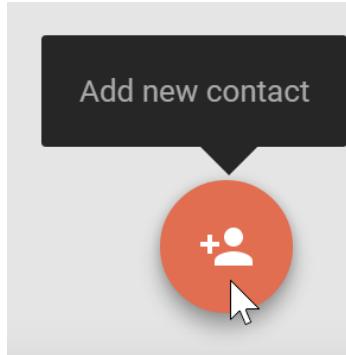


2. Your contacts screen will appear. Click Add new contact.



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3. Type the person's name or email address. If they have a Google+ profile, it may appear below. Click Create to add the contact.

Olenna Mason

Olenna Mason [Create](#)

Other profiles on Google+

Olenna Mason [+•](#)

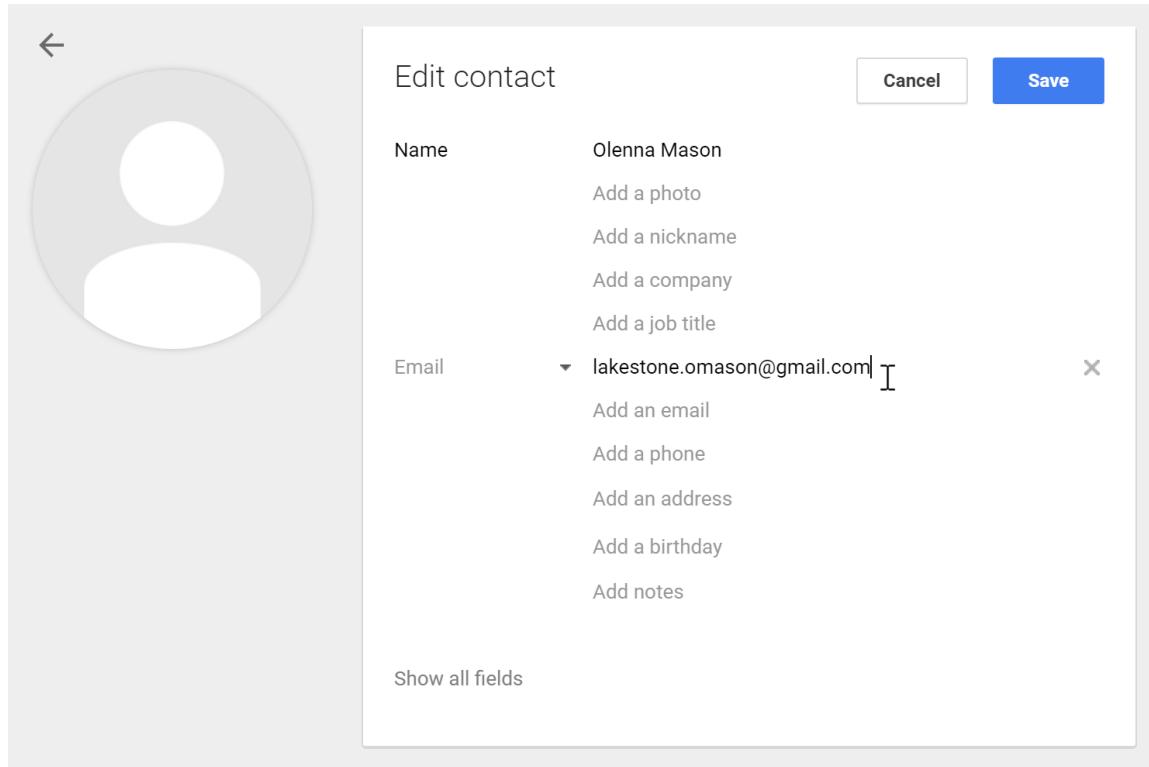
To add a contact, click the 'New contact' button.

4. You can also type additional contact information if desired. All changes you make will be saved automatically.



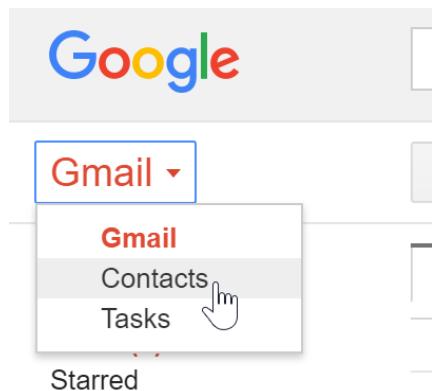
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To edit a contact:

1. In the Gmail drop-down menu, select Contacts.



2. Click the contact you want to edit.



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All contacts (2)

	Julia Fillory	jfillory@gmail.com	⋮
<input type="checkbox"/>	Olenna Mason	lakestone.omaso...	⋮

3. You can now make any changes you want to the contact.

Edit contact

Name	Olenna J. Mason	X
Add a photo		
Add a nickname		
Add a company		
Add a job title		
Email	lakestone.omason@gmail.com	

Cancel Save

By default, when you send an email to a new address, Gmail adds the address to your contacts. You can then go to your contacts to edit the person's information as needed.

Importing mail and contacts

You may already have a contact list from another email address, and it would be a lot of work to re-enter all of this information manually. Gmail allows you to import your contacts from another email account, and you can even import all of your email messages from that account. Several email providers are supported, including Yahoo!, Hotmail, and AOL.

To add other accounts:

1. Click the gear icon in the top-right corner of the page, then select Settings.
2. Go to Accounts and click Add a POP3 mail account you own. You can then follow the instructions on the screen to import your mail.



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Settings



[General](#) [Labels](#) [Inbox](#) [Accounts and Import](#) [Filters and Blocked Addresses](#) [Forwarding and POP/IMAP](#) [Chat](#) [Labs](#)
[Offline](#) [Themes](#)

Change account settings:

[Change password](#)
[Change password recovery options](#)
[Other Google Account settings](#)

Import mail and contacts:
[Learn more](#)

Import from Yahoo!, Hotmail, AOL, or other webmail or POP3 accounts.

[Import mail and contacts](#)

Send mail as:

(Use Gmail to send from your other email addresses)
[Learn more](#)

Elena Casarosa <emcasarosa82@gmail.com>

[edit info](#)

[Add another email address you own](#)

Check mail from other accounts (using POP3):
[Learn more](#)

[Add a POP3 mail account you own](#)





Experiment # 02

Word Processor:

A **word processing package** is used to prepare and edit text. Word processors are used to create all types of documents such as letters, reports and essays. Using a word processor you can type, revise and correct a document on the screen before printing it out. The layout of the page can be changed and a wide variety of different styles of text can be used to improve the presentation of a document. Tools such as spelling checkers can help ensure that the contents of a document are accurate.

The functions of a word processor can be divided up into several different categories:

- **Page Layout:** The page layout functions let you decide how each page will be set out.
- **Text Presentation:** The appearance of text can be easily altered. Different fonts and styles can be used and the size of text can be varied. Text can be neatly lined up on the page.
- **Editing of Text:** Text editing functions are used to revise and change text that you have entered.
- **Blocks of Text:** The style and position of selected blocks of text can be changed.
- **Text Analysis:** The word processor can look at your document and try to highlight any errors such as spelling or grammatical mistakes that you have made.
- **Templates:** Template files let you save favorite document layouts that you have created so that you can use them over and over again.
- **Other Features:** Most modern word processors will offer lots of extra features such as tables, bullet points and fancy text effects.
- **Mail Merging:** A database of names and addresses can be used to personalize letters that have been created in a word processor.

Getting Started

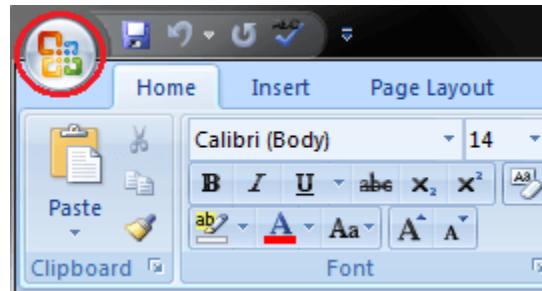
Microsoft Office Icon

Microsoft Office Button is located on the top left corner of the window. It is a new user interface feature that replaced the traditional "File" menu. You can also see this button in Outlook while creating a new message, task, contact, etc.

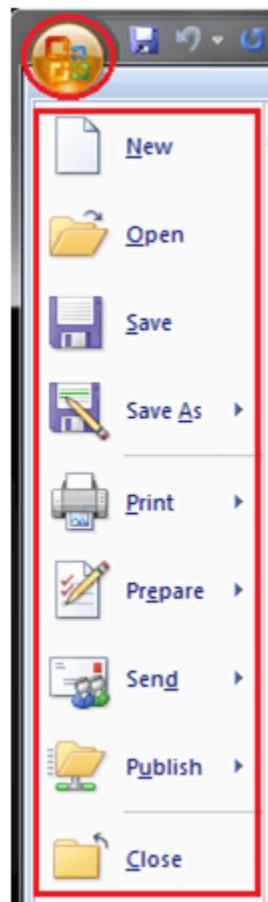


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Click the button it offers a list of commands to perform different tasks which are New, Open, Save, Save As, Print, Prepare, Send, Publish and Close. These commands are described below the following image.





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New: This command enables you to create a new file, i.e. Word document.

Open: This command allows you to open an existing file on the computer.

Save: This command is used to save a file after completing the work. You can also save the changes made to the currently open file.

Save As: This command helps you save a new file with a desired file name to a desired location on the hard drive.

Print: This command is used to print a hard copy of the currently open document.

Prepare: This command allows you to prepare the document for distribution, i.e. you can view and edit the document properties and inspect the hidden metadata.

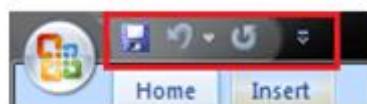
Send: This command allows you to share the document with other users, i.e. you can send a document through e-mail or by posting to a blog.

Publish: This command allows you to distribute the document to other people, i.e. you can create a blog with the content of the document.

Close: This command is used to close the currently open file.

Quick Access Toolbar

Quick Access Toolbar lies next to the Microsoft Office Button. It is a customizable toolbar that comes with a set of independent commands. It gives you quick access to commonly used commands such as Save, Undo, Redo, etc.

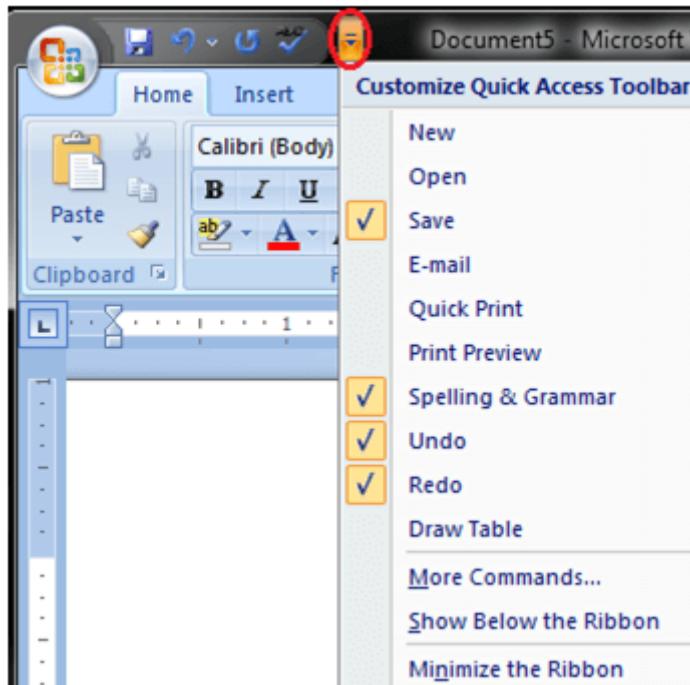


When you click the drop-down arrow next to the toolbar, it offers more commands. With a left click, you can add any of these commands to the Quick Access Toolbar. You can also remove the commands added to the tool bar. The indent, spacing values, individual styles and other features that appear on the ribbon cannot be added to the quick access toolbar. The following image is showing the menu of quick access toolbar.



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Title Bar

It lies next to the Quick Access Toolbar. It displays the title of the currently open document or application. It is present on almost all windows displayed on your computer. So, if there are several windows across the screen, you can identify each window by looking at the title bar. In many graphical user interfaces, you can also move a window by dragging the title bar.



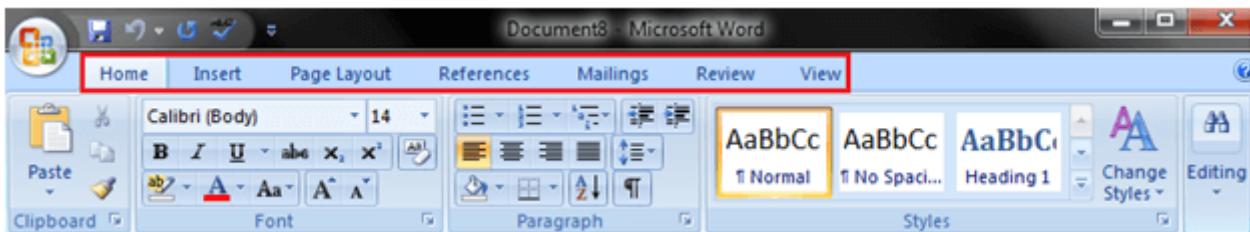


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Ribbon and Tabs

The Ribbon is a user interface element which was introduced by Microsoft in Microsoft Office 2007. It is located below the Quick Access Toolbar and the Title Bar. It comprises seven tabs; Home, Insert, Page layout, References, Mailing, Review and View. Each tab has specific groups of related commands. It gives you quick access to the commonly used commands that you need to complete a task.



Home tab:

The Home tab is the default tab in Microsoft Word. It has five groups of related commands; Clipboard, Font, Paragraph, Styles and Editing. It helps you change document settings like font size, adding bullets, adjusting styles and many other common features. It also helps you to return to the home section of the document.



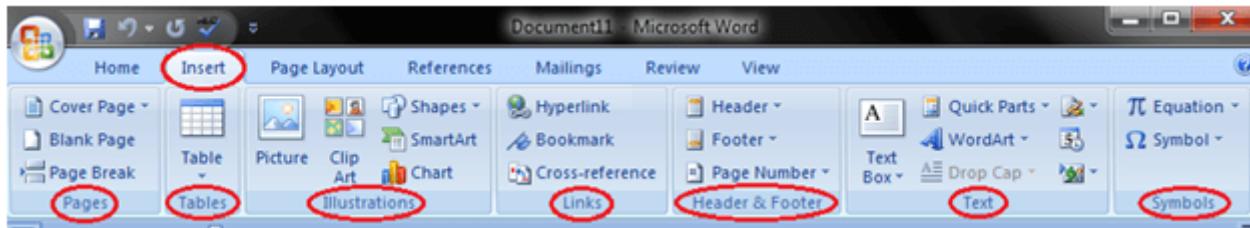
Insert tab:

Insert Tab is the second tab in the Ribbon. As the name suggests, it is used to insert or add extra features in your document. It is commonly used to add tables, pictures, clip art, shapes, page number, etc. The Insert tab has seven groups of related commands; Pages, Tables, Illustrations, Links, Header & Footer, Text and Symbols.



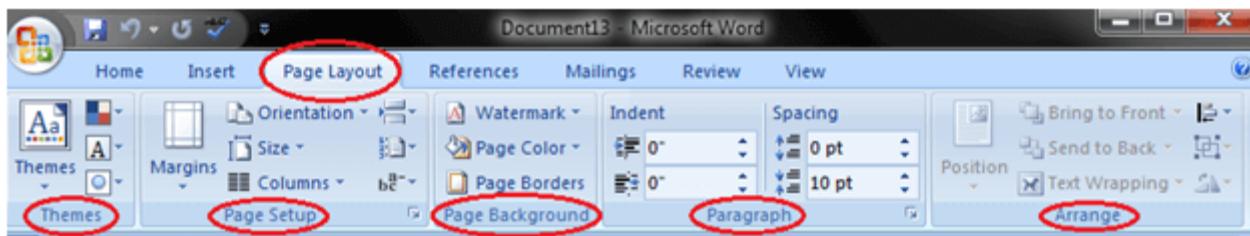
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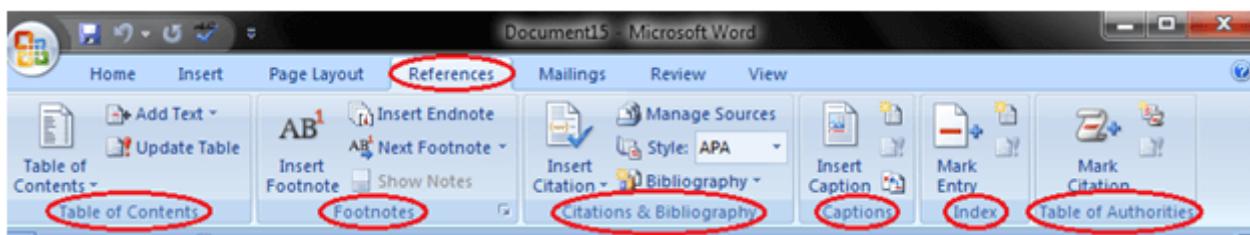
Page Layout tab:

It is the third tab in the Ribbon. This tab allows you to control the look and feel of your document, i.e. you can change the page size, margins, line spacing, indentation, documentation orientation, etc. The Page Layout tab has five groups of related commands; Themes, Page Setup, Page Background, Paragraph and Arrange.



References tab:

It is the fourth tab in the Ribbon. It allows you to enter document sources, citations, bibliography commands, etc. It also offers commands to create a table of contents, an index, table of contents and table of authorities. The References tab has six groups of related commands; Table of Contents, Footnotes, Citations & Bibliography, Captions, Index and Table of Authorities.



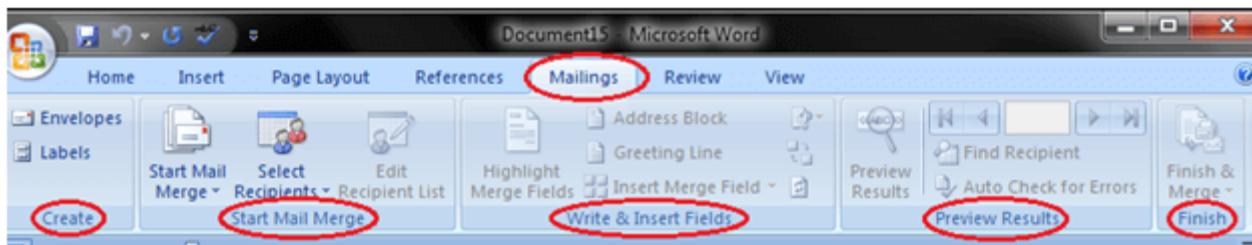
Mailings tab:



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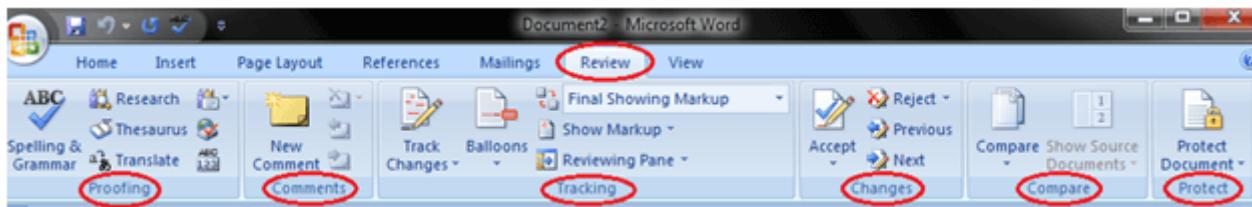
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It is the fifth tab in the ribbon. It is the least-often used tab of all the tabs available in the Ribbon. It allows you merge emails, writing and inserting different fields, preview results and convert a file into a PDF format. The Mailings tab has five groups of related commands; Create, Start Mail Merge, Write & Insert Fields, Preview Results and Finish.



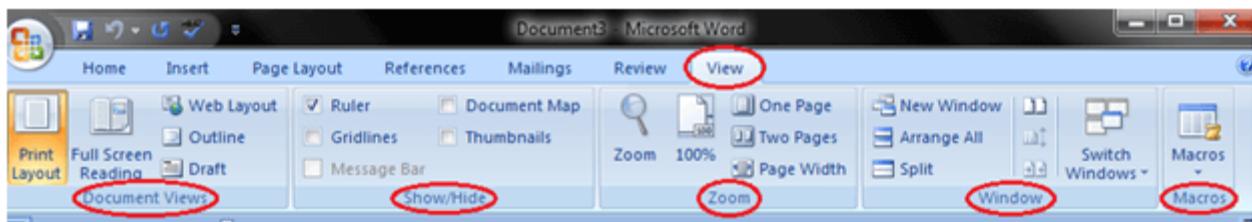
Review tab:

It is the sixth tab in the Ribbon. This tab offers you some important commands to modify your document. It helps you proofread your content, to add or remove comments, track changes, etc. The Review tab has six groups of related commands; Proofing, Comments, Tracking, Changes, Compare and Protect.



View tab:

The View tab is located next to the Review tab. This tab allows you to switch between Single Page and Two Page views. It also enables you to control various layout tools like boundaries, guides, rulers. Its primary purpose is to offer you different ways to view your document. The View tab has five groups of related commands; Document Views, Show/Hide, Zoom, Window and Macros.



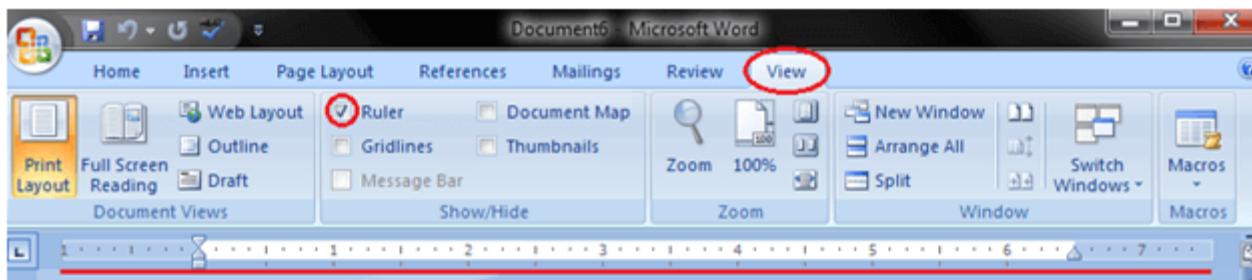


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Ruler

The Ruler is located below the Ribbon around the edge of the document. It is used to change the format of the document, i.e. it helps you align the text, tables, graphics and other elements of your document. It uses inches or centimeters as the measurements unit and gives you an idea about the size of the document.

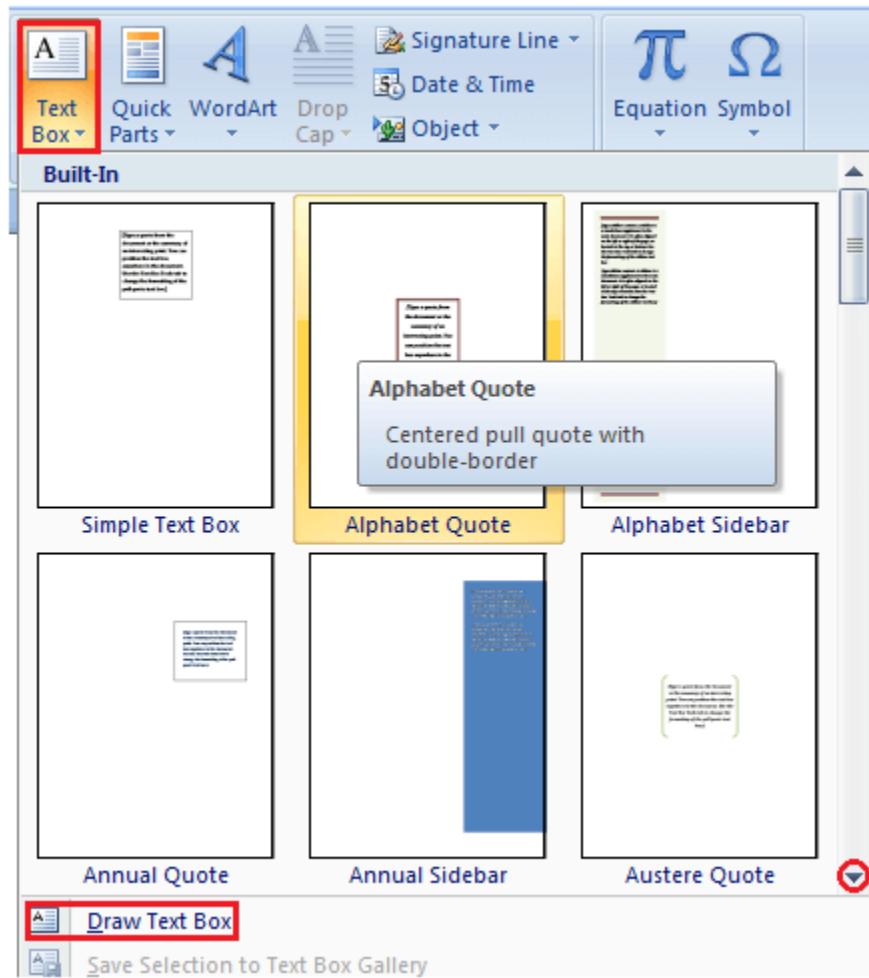


Basic Text:

Insert Text in MS Word

The basic steps to insert text or to create a new document in Word are listed below;

- Go to the start menu and look for Microsoft Word icon
- Click the icon to open the Microsoft Word
- You will see a blinking cursor or insertion point in the text area below the ribbon
- Now, as you start typing, the words will appear on the screen in the text area
- To change the location of insertion point press spacebar, Enter or Tab keys



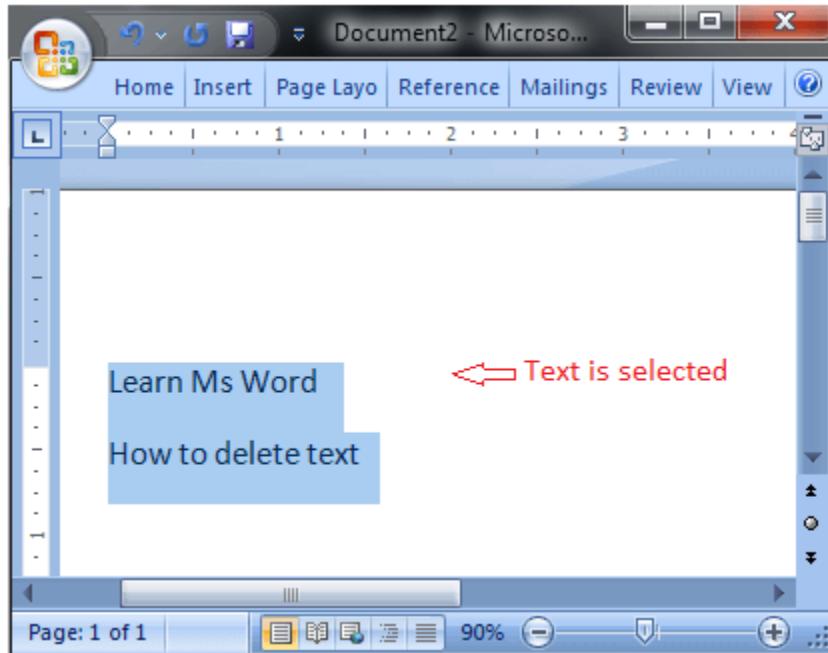
Delete Text in MS Word

You can easily delete the text in Word including characters, paragraphs or all of the content of your document. Word offers you different methods to delete the text; some of the commonly used methods are given below;

- Place the cursor next to the text then press Backspace key
- Place the cursor to the left of the text then press Delete key
- Select the text and press the Backspace or Delete key



- Select the text and type over it the new text.



Select Text in MS Word

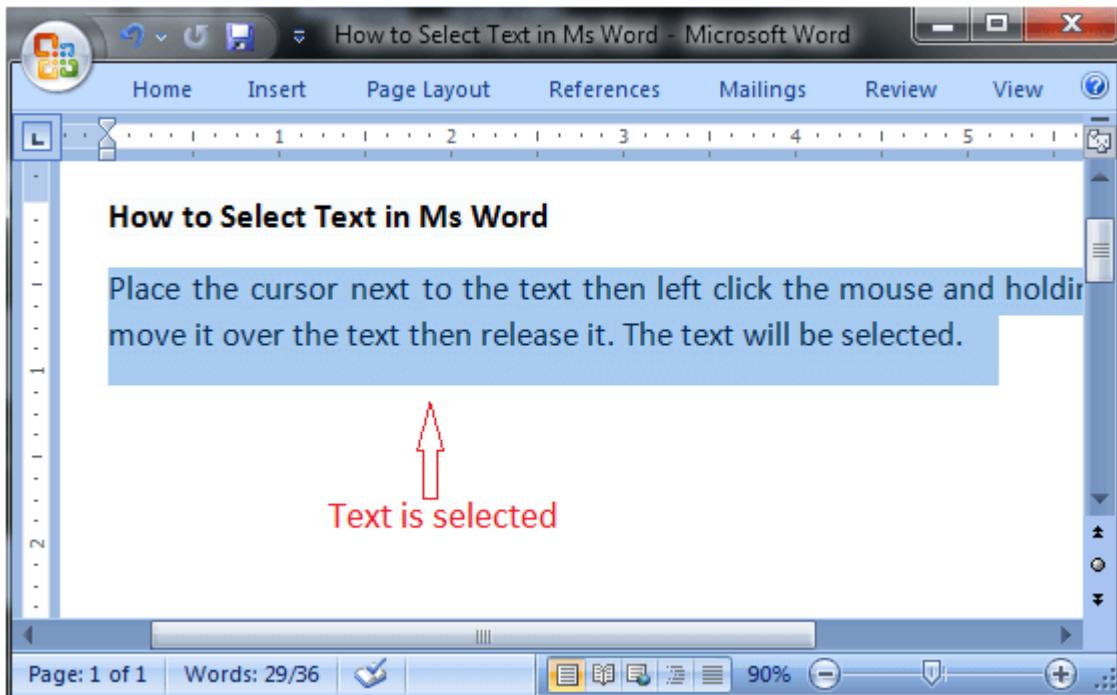
Place the cursor next to the text then left click the mouse and holding it down move it over the text then release it. The text will be selected.

Some shortcuts for selecting text are:

- To select a single word double click within the word
- To select the entire paragraph triple click within the paragraph
- To select entire document, in Home tab, in Editing group click Select then choose Select All option or press CTRL+A



- o Shift + Arrow; hold down the shift key then press the arrow key, the word will select the text in the direction of the arrow key. There are three arrow keys, so you can select the text in three different directions.



Copy and Paste Text in MS Word

Word offers different methods to copy and paste text. Some of the popular methods are given below;

Method 1;

- o Select the text you want to copy
- o Select the Home tab and click the Copy command
- o Place the cursor where you want to paste the text
- o Click the Paste command in Home tab

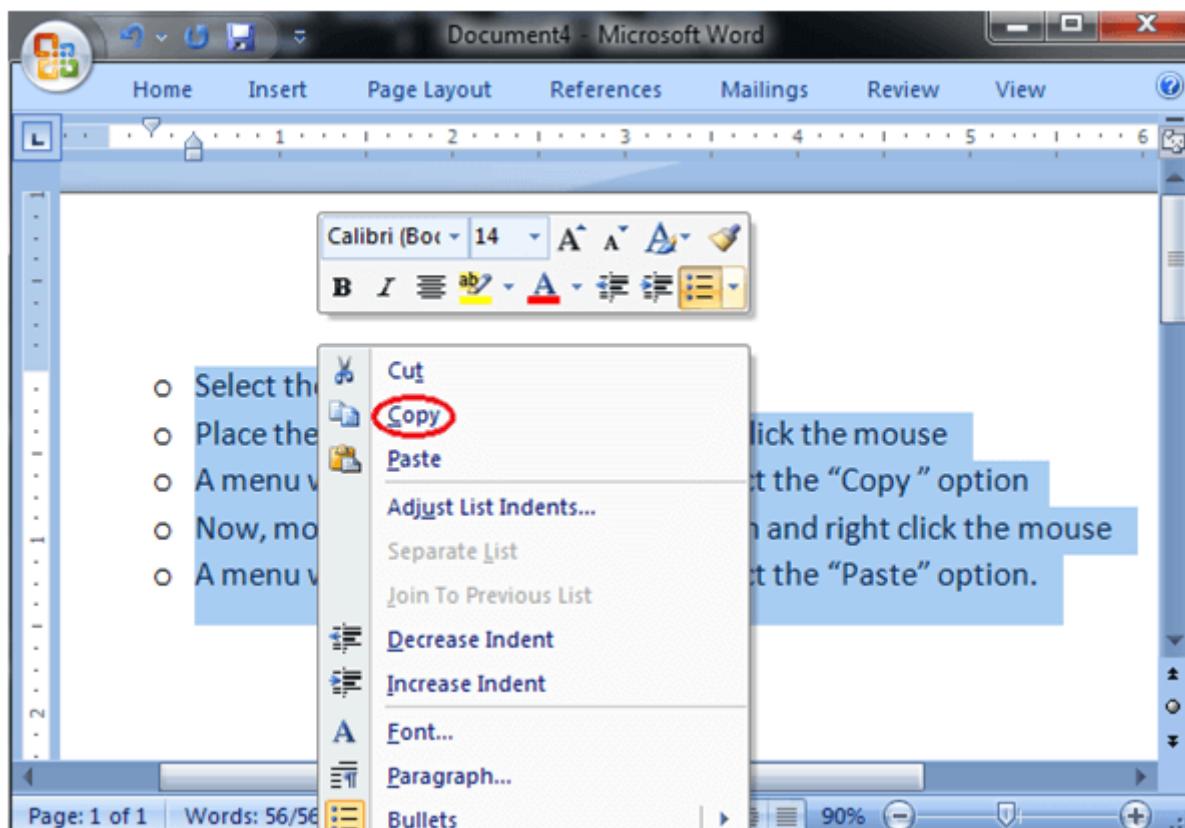
Method 2;



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- o Select the text
- o Place the cursor over the text and right click the mouse
- o A menu will appear; with a left click select the "Copy" option
- o Now, move the cursor to a desired location and right click the mouse
- o A menu will appear; with a left click select the 'Paste" option.



Save the Document in MS Word

When you create a document it is important to save the document so that it can be viewed or reused later. The basic steps to save a document are listed below;



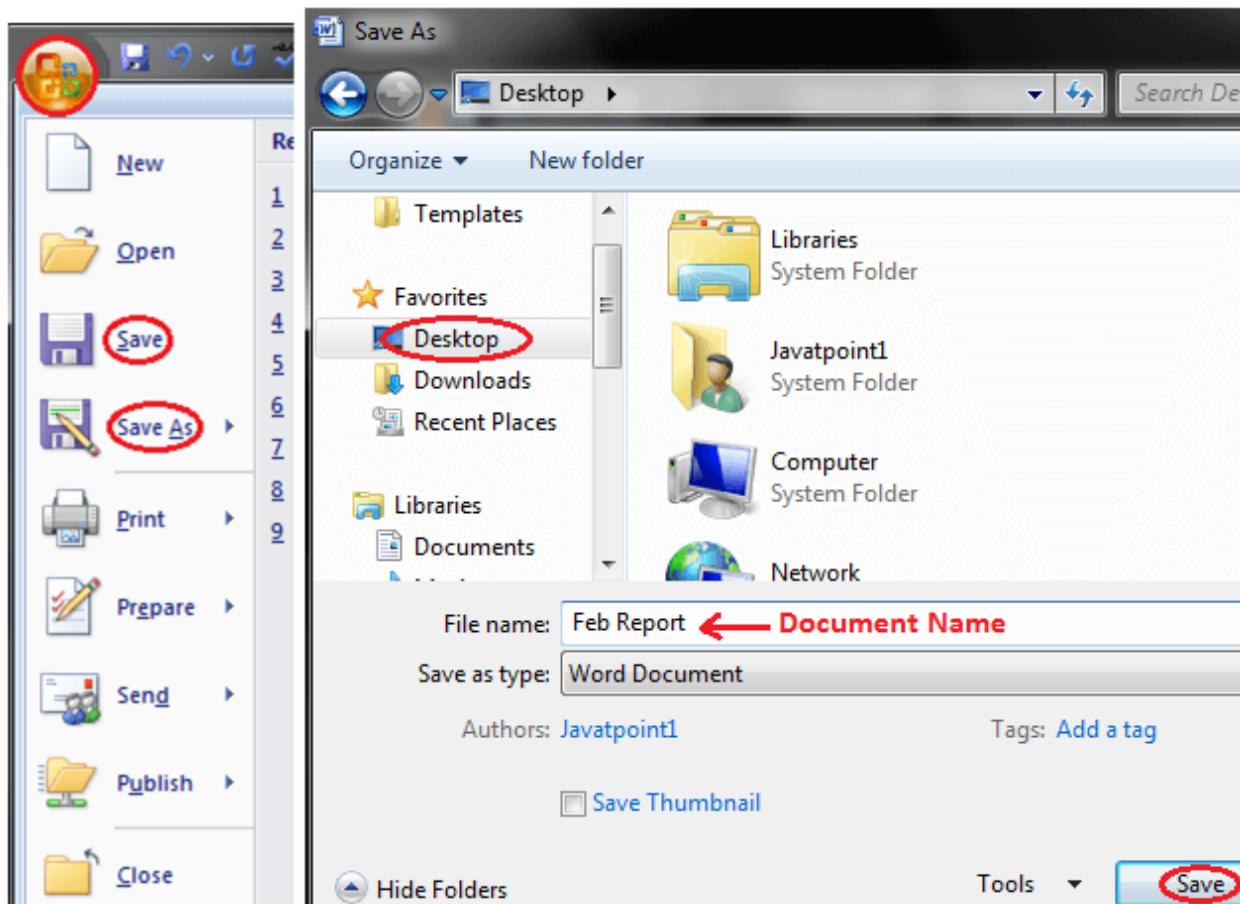
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- Click the Microsoft Office Button
- A list of different commands appears
- Click the 'Save As' command
- it displays 'Save As' Dialogue Box
- Save the document to desired location with a desired name

You can also choose 'Save' command from the list to save the document to its current location with same title. If you are saving a fresh document it displays 'Save As' dialogue box.

The shortcut method to save a document is to press "Ctrl+S" keys. It opens the 'Save As' dialogue box where you can name your document and save it to a desired location.





Experiment#3

Proofing Features

Correct Errors in Ms Word

When you type text in a document, by default the Word informs you if there is any contextual, spelling or grammatical error. Word informs you in different ways for different errors;

If there is any contextual error in the document, it will underline the text with blue line.

If there is any spelling error in the document, it will underline the text with red line.

If there is any grammar error in the document, it will underline the text with green line.

The screenshot shows the Microsoft Word ribbon with the 'Review' tab selected. The 'Editing' section of the ribbon contains icons for 'Quick Styles', 'Change Styles', and 'Editing'. Below the ribbon, the main content area displays a document with several underlined errors:

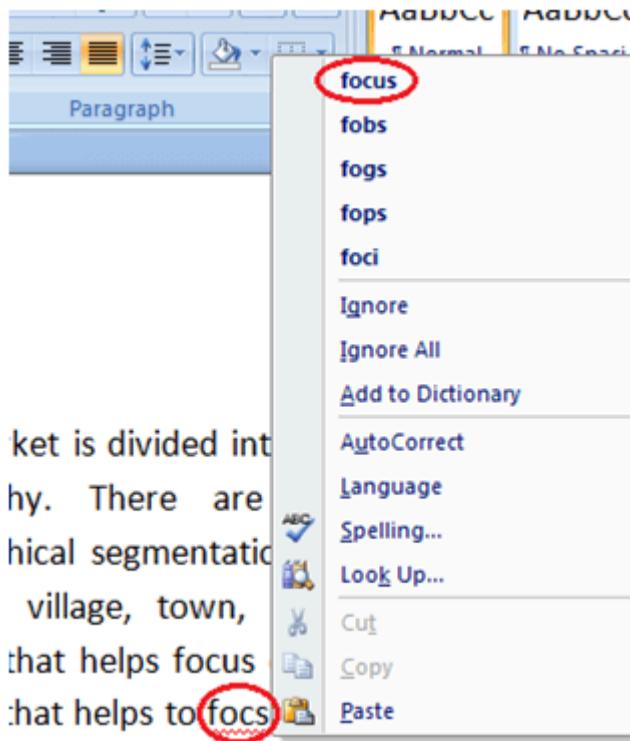
- The word "Deer" is underlined with a blue wavy line, labeled "Contextual Spelling Error".
- The word "is" is underlined with a red wavy line, labeled "Grammatical Error".
- The word "focs" is underlined with a green wavy line, labeled "Spelling Error".

The document text reads:

The market is divided into different segments of buyers on the basis of geography. There is mainly three geographical variables for geographical segmentation. The first variable is region or location that includes village, town, city and country. The second is population density that helps focus on densely populated regions. The third one is climate that helps to focus on regions with similar climatic conditions.



- o Place the cursor over the text that you want to correct
- o Right click the mouse
- o A list of suggestions appears
- o Choose the correct word with a left click



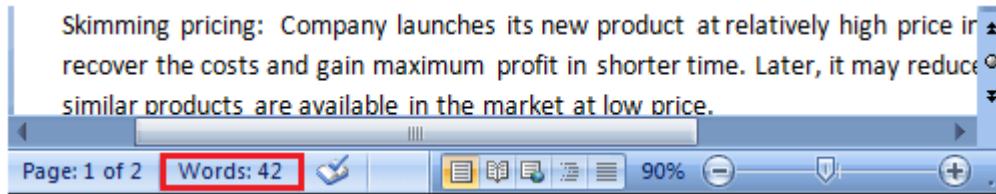
Check Word Count in Ms Word

When you start typing, the Word automatically counts the number of words and number of pages and displays the information on the status bar. If the word count is not available on the status bar, you can right click the status bar and select the Word Count option from the menu. Basic steps to check the word count are listed below;

- o Open the document
- o Look at left bottom corner of the document



- You will see the total word count and the number of pages



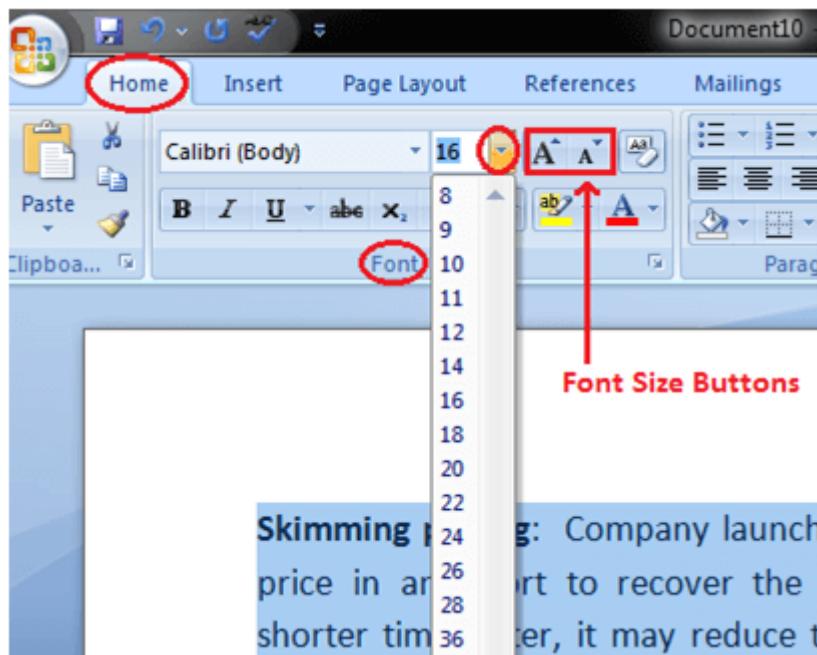
To know the word count of a specific line or paragraph you have to select it then Word will display its word count along with the total word count, e.g. 15/40. In this example, the selection has 15 words out of the total number of words (40).

Formatting Text

Change Font Size in MS Word

You can easily change the font size of your text in the document. The basic steps to change the Font size are listed below;

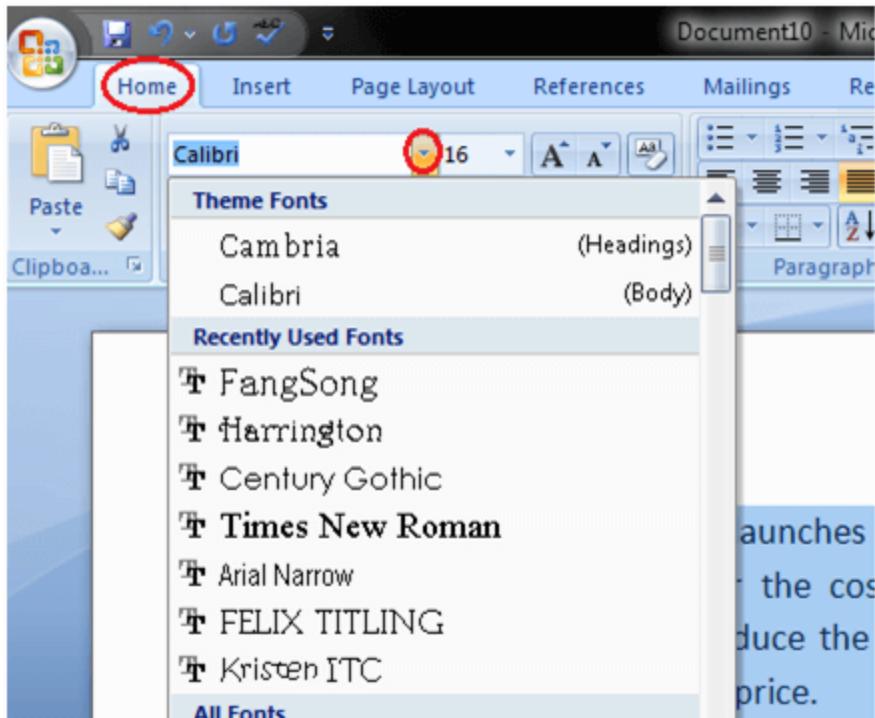
- Select the text that you want to modify
- In Home tab locate the Font group
- In Font group click the drop-down arrow next to font size box
- Font size menu appears
- Select the desired font size with a left click
- Select the text and click the increase or decrease font size buttons



Change Font Style in MS Word

The basic steps to change the font of a text in a document are given below;

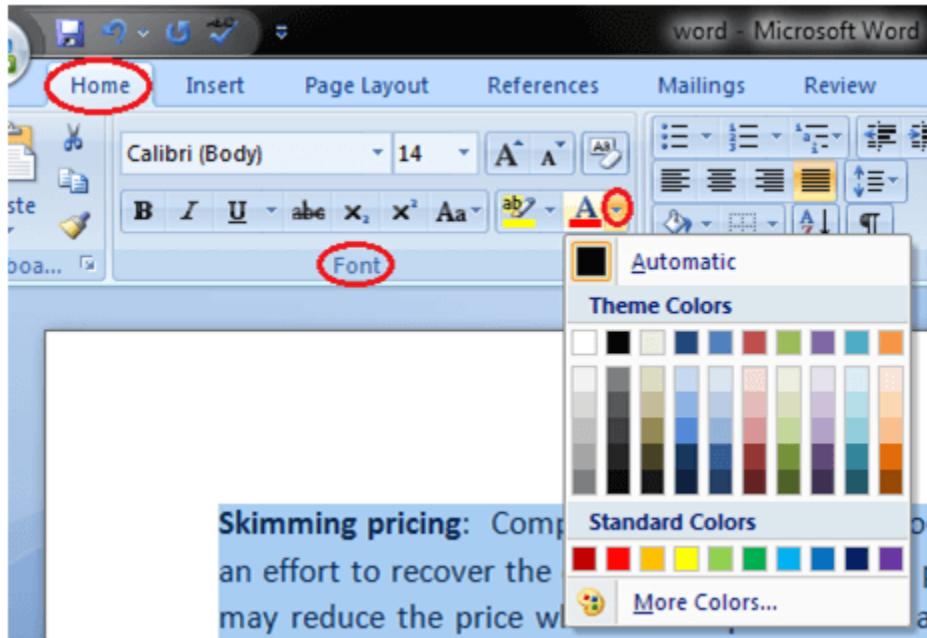
- Select the text you want to modify
- Select the Home tab and locate the Font group
- Click the drop-down arrow next to font style box
- Font style menu appears
- With a left click select the desired font style
- If you want to change the font to bold or italic, click the 'B' or 'T' icons on the format bar.



Format Font Color in MS Word

MS Word allows you to change the Font color of your text. If you want to emphasize a particular word or phrase, you can change its font color. The basic steps to change the Font color are given below;

- Select the text you want to modify
- In Home tab locate the Font group
- Click the drop-down arrow next to Font color button
- Font color menu appears
- Select the desired font color with a left click
- Word will change the Font color of the selected text.



Change Text Case in MS Word

You can easily change the text case in your document by following the steps given below;

- Select the text you want to change
- In Home tab locate the Font group
- Click the drop-down arrow in 'Change Case' button
- It displays text case menu
- Select the desired case with a left click

The case menu offers four options;

Sentence case: It capitalizes the first letter of each sentence.

Lowercase: It changes the text from uppercase to lowercase.

Uppercase: It capitalizes all the letters of your text.

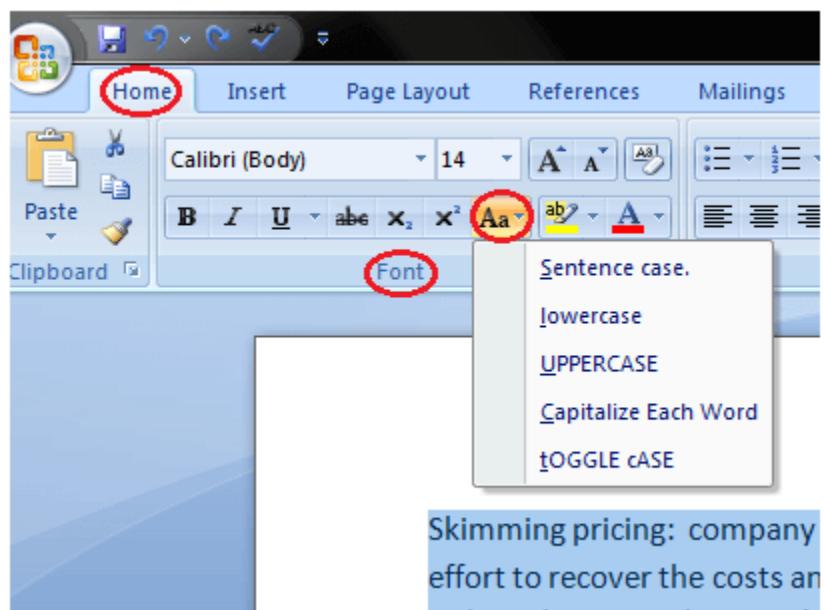


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Capitalize Each Word: It capitalizes the first letter of each word.

Toggle Case: It allows you to shift between two case views, e.g. to shift between Capitalize Each Word and cAPITALIZE eACH wORD .



Change Text Alignment in MS Word

You can change the text alignment in your document to make it more presentable and readable. The basic steps to change the text alignment are given below;

- Select the content you want to modify
- In Home tab locate the Paragraph group
- It has four alignment options ;

Align Text Left: Aligns the text towards left margin

Center: Brings the text at centre

Align Text Right: Aligns the text towards right margin

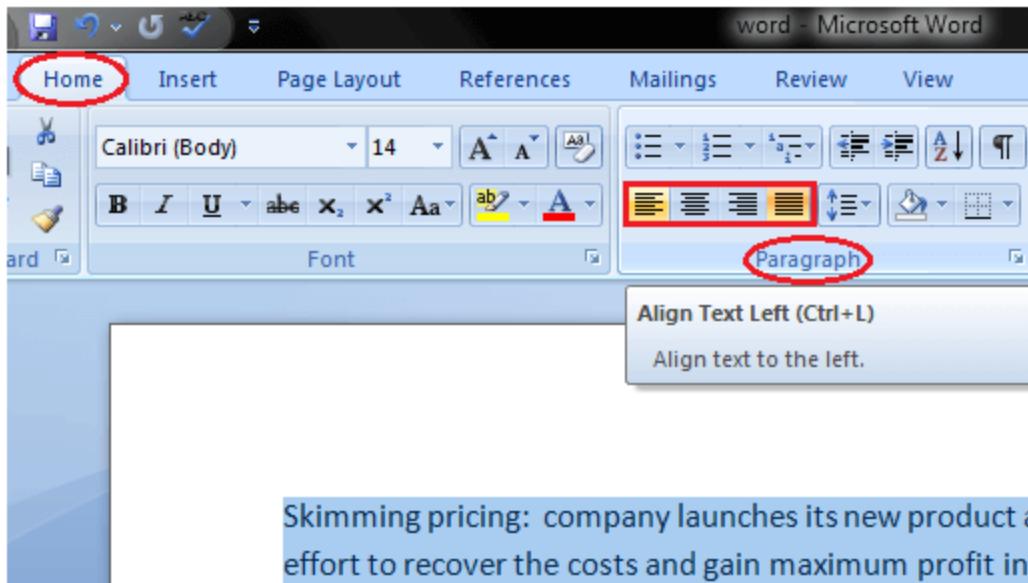
Justify: Aligns the text to both left and right margins



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- Select the desired alignment option with a left click



Insert a Text Box in MS Word

Text box allows you to control the position of a block of text in your document. You can also format them with borders and shading. The two commonly used methods to insert Text Boxes are given below:

Method 1:

- Select the Insert tab
- Locate the Text group
- Click the Text Box button
- It displays Built-In text box menu and an option to draw table
- With a left click select the desired text box format from the menu

Method 2:

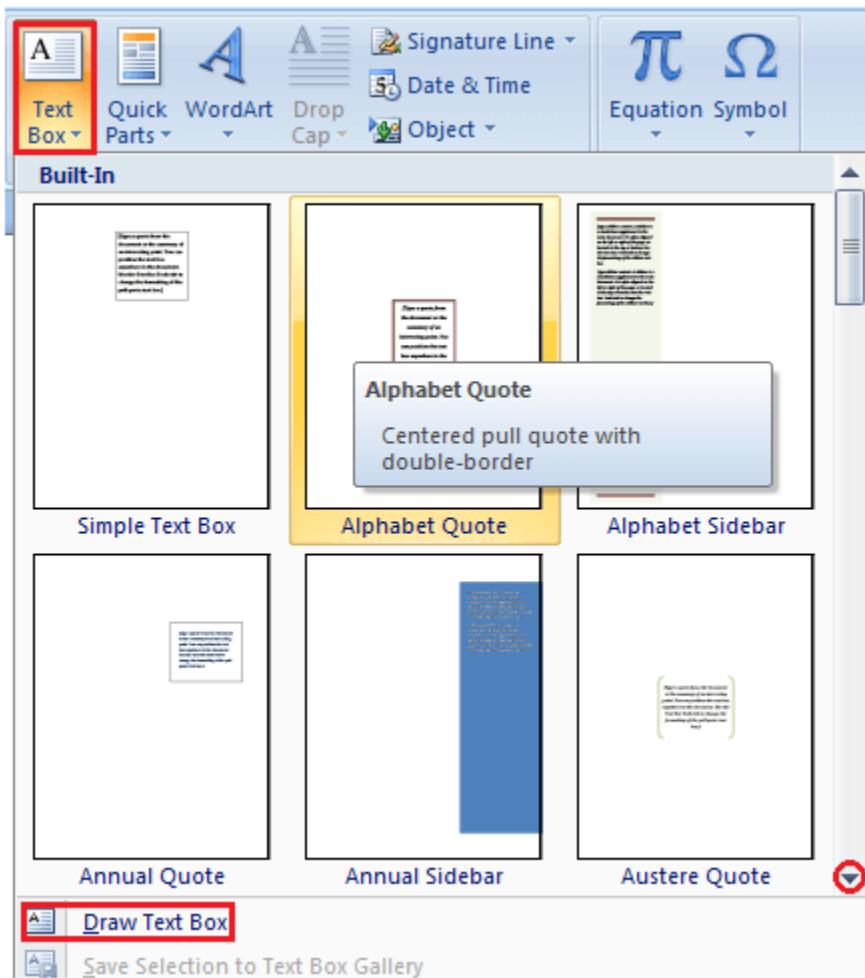
- Select 'Draw Text Box' option
- A cross shaped cursor appears



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- Left click the mouse and holding it down drag it to draw the box of desired dimensions



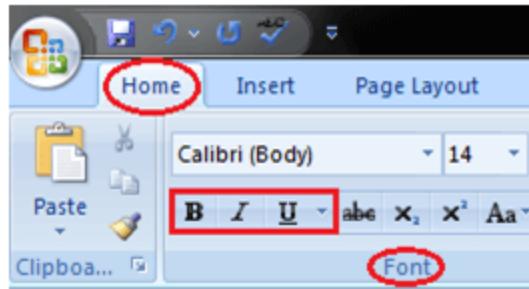
Bold, Italic and Underline Commands in MS Word

These commands are given in the Font group in the Home tab. Their functions are given below;

- **Bold**: It allows you to Bold the text of your document
- **Italic**: It allows you to Italicize the text of your document



- Underline: It allows you to underline the text of your document



Formatting Paragraph

Create First Line Indent in MS Word

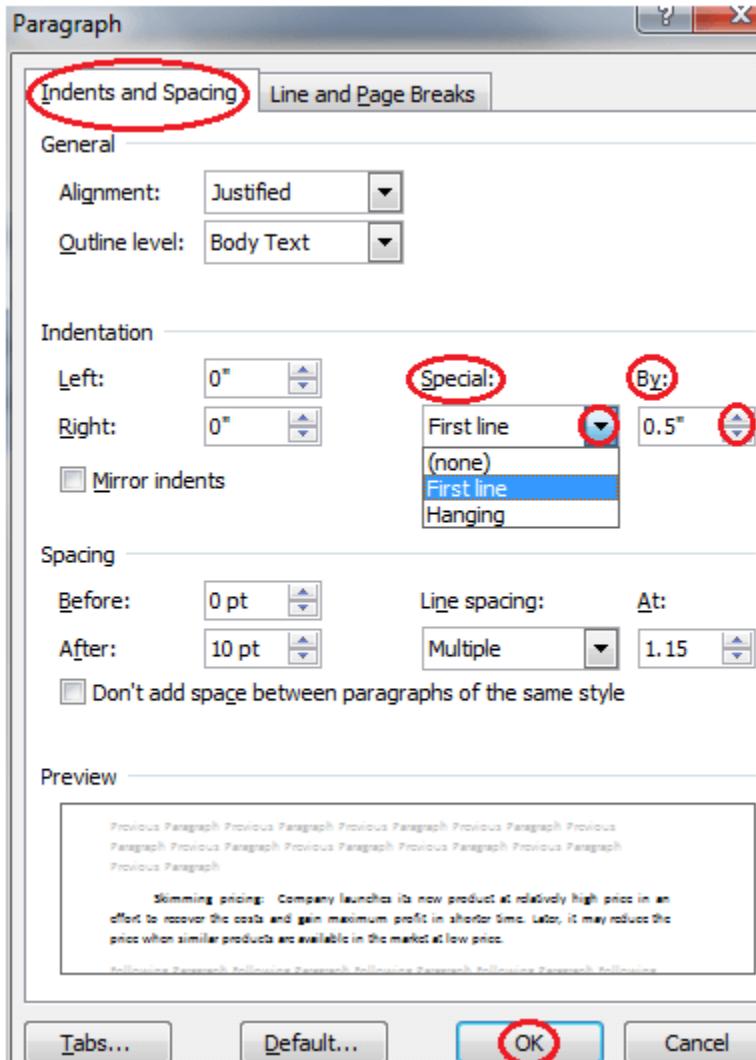
You can create indent within your paragraph by following these steps;

- Select the paragraph or place the cursor anywhere within the paragraph
- Select the Home tab
- Locate the Paragraph group and click the arrow at right bottom corner
- 'Paragraph' dialog box appears
- In 'Indents and Spacing' section click the drop down arrow in 'Special' field
- Select the 'First Line' option
- Enter desired indent in 'By' field and click Ok



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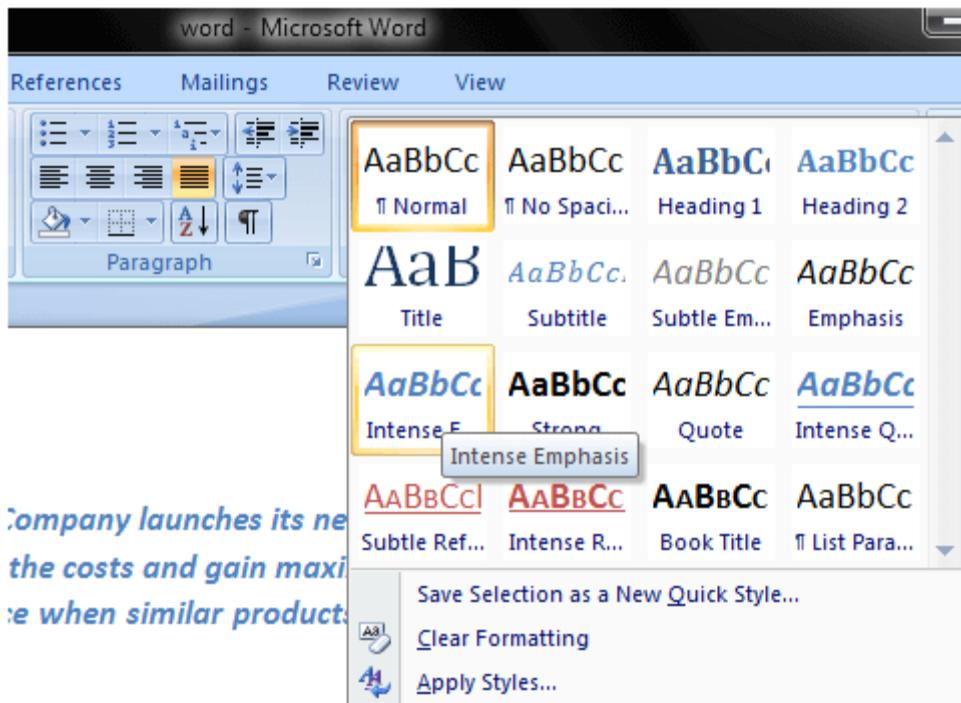
Apply Style in MS Word

You can create professional and presentable documents in MS Word by applying different styles. The basic steps to apply a style in a document are listed below;

- Select the text to which you want to apply the style
- Select the Home tab
- In Styles group you will see different styles;



- To view more styles click the drop-down arrow
- It displays style menu
- Select the desired style with a left-click



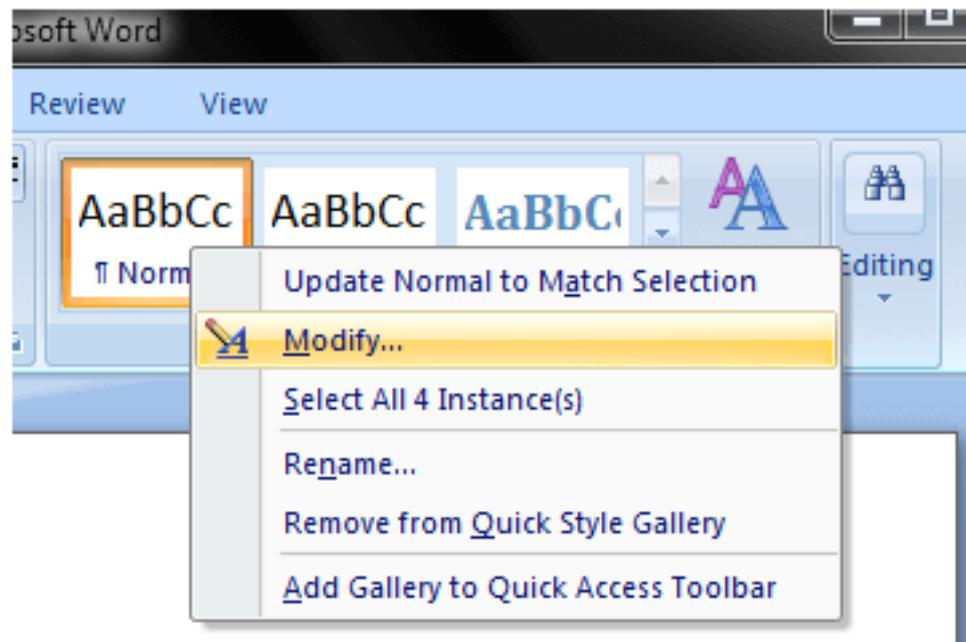
Customize Style in MS Word

If you are looking for formatting options that are not given in the built-in styles, you can modify or customize an existing style to fulfill your needs. The steps to customize a style are as follows;

- Select the style that you want to modify



- o Right click the mouse
- o It displays a list of different commands
- o Select the 'Modify' option;

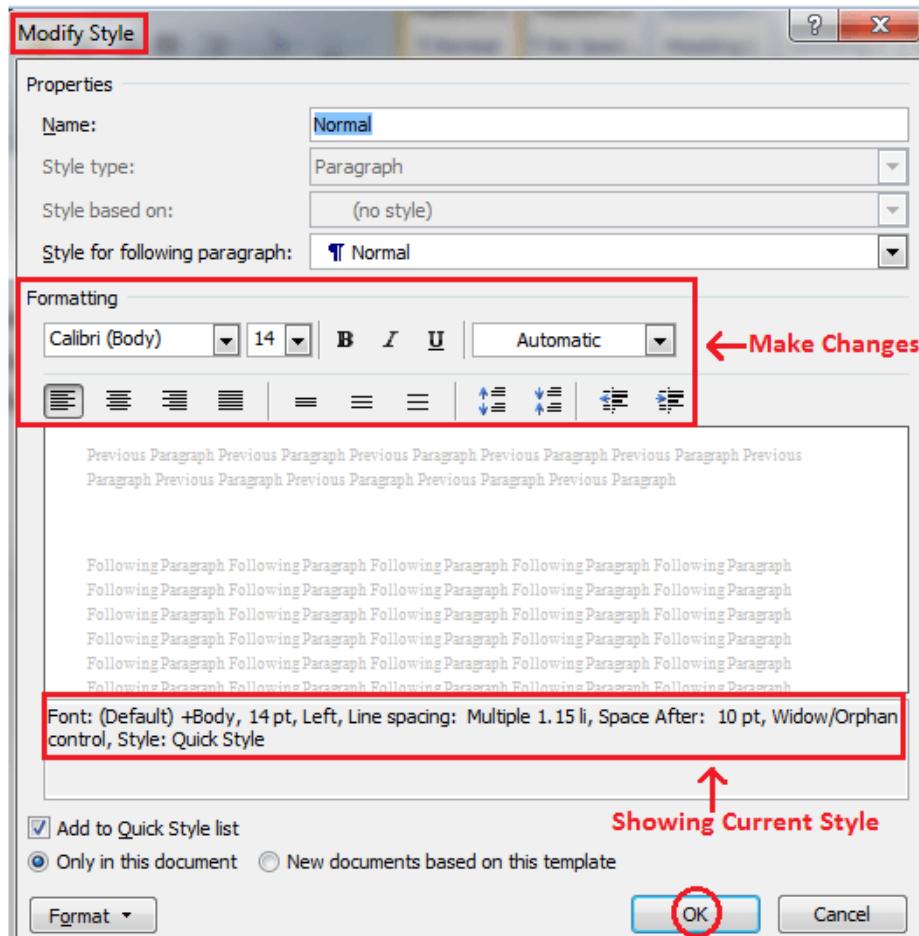


- o 'Modify Style' dialogue box appears



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- Make the desired changes to formatting
- Click OK to apply the changes to style

Create New Style in MS Word

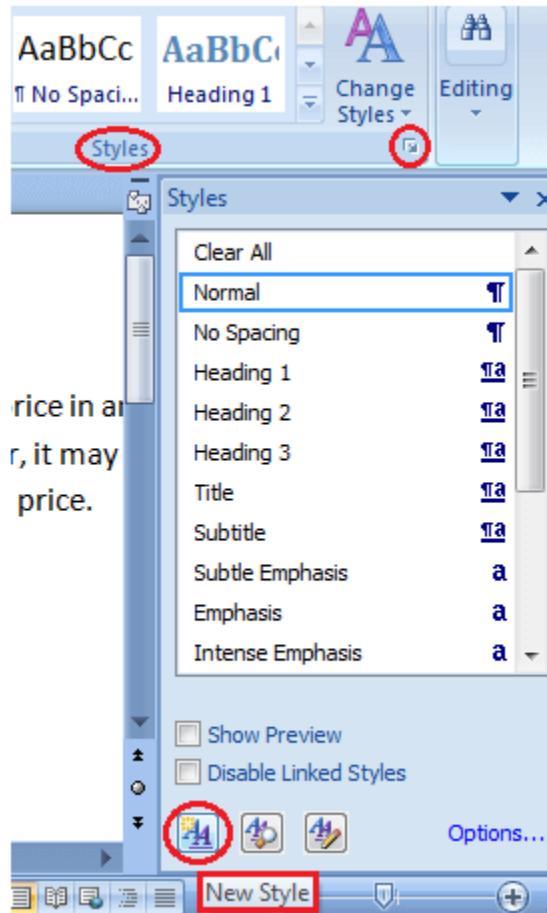
You can add new styles to your list of styles, i.e. Word allows you to set the styles for font, figure, paragraph, etc. It helps you to keep consistency in all the documents of a topic or subject. The steps to create new styles are given below;

- Select the Home tab
- In Styles group click the arrow at the right bottom corner of the group
- It displays the 'Styles' task pane;



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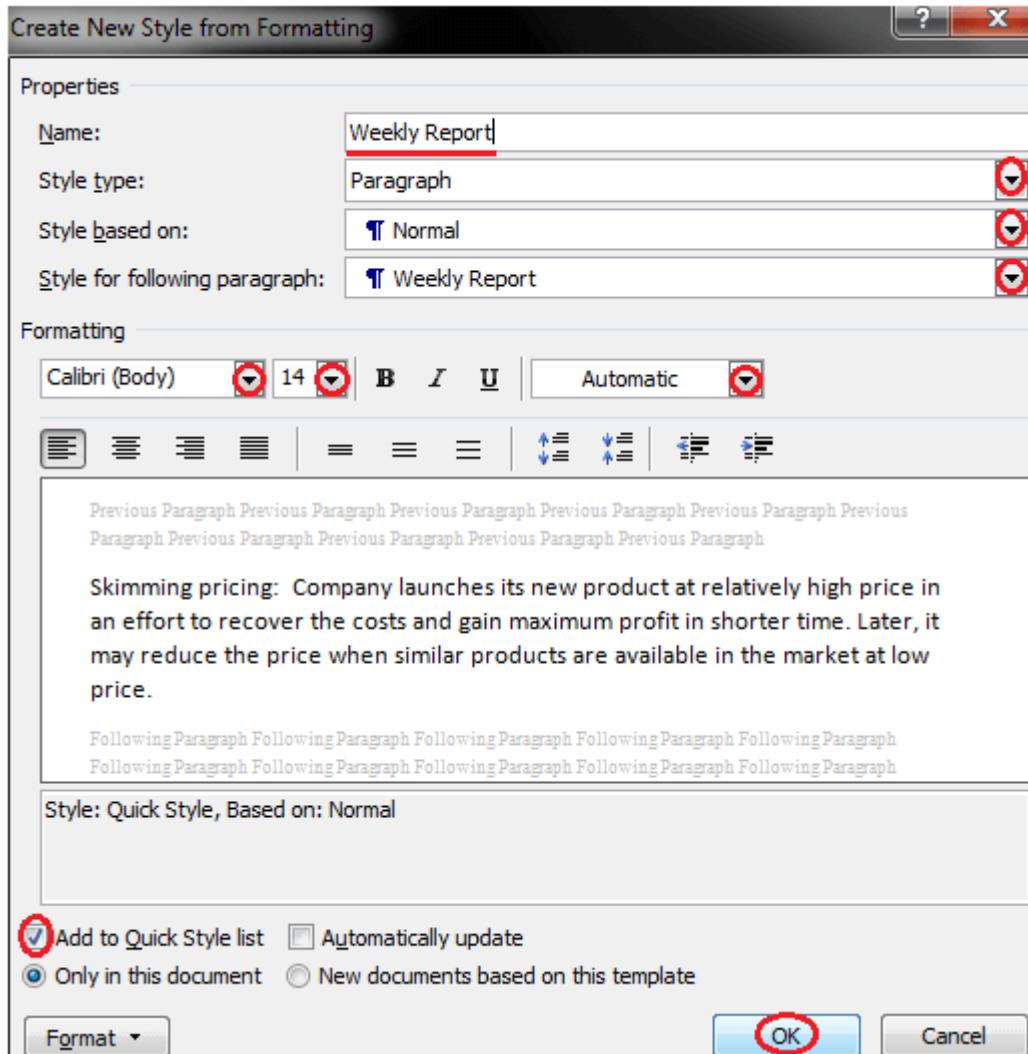
In 'Styles' task pane click the 'New Style' button

It displays 'Create New Style from Formatting' dialogue box;



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- Enter the name for new style and make all the desired changes
- Click OK, the new style will be added to the list of styles



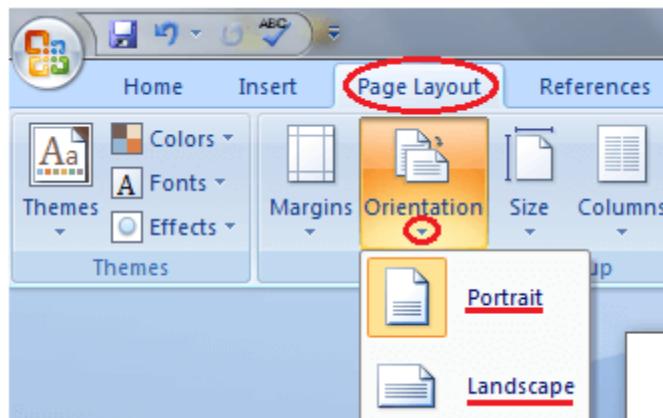
Experiment#4

Modify Page Layout

Change Page Orientation in MS Word

Page Orientation refers to the direction in which a document is displayed. It is of two types; portrait (vertical) and landscape (horizontal). The default orientation is portrait; it can be changed to landscape by following these steps;

- Select the Page Layout tab
- Locate the Page Setup group
- In Page Setup group click the Orientation command
- It displays two options, Portrait and Landscape
- Select the desired page orientation



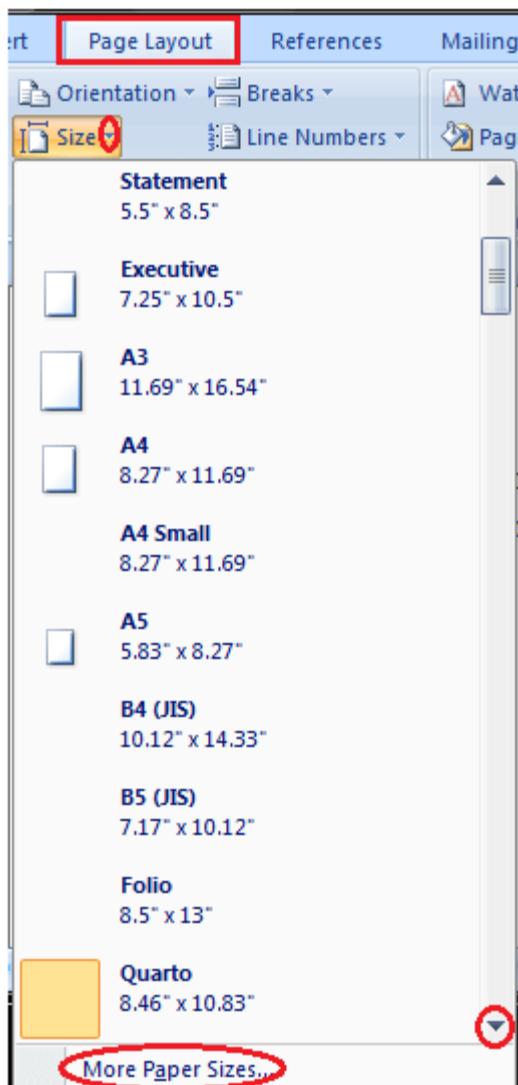
Change Page Size in MS Word

The default paper size in Word is 8.5 x 11 inches which easily fits in printers. This size is not fixed; you can change it if you want a document with different paper size. The steps to change the paper size are given below;

- Click the Page Layout tab
- In Page Setup group click the Size command
- Paper size menu will appear



- o With a left click select the desired paper size
- o To customize page size click the 'More Paper Sizes' option



Change Page Margins in MS Word

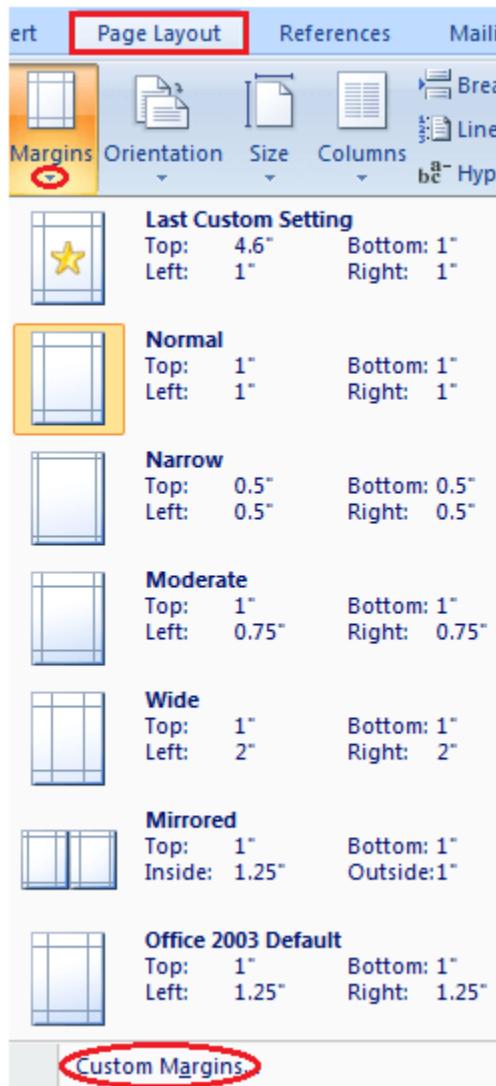
The margin is the space between the text and border of a document. By default, it is a one-inch space. Depending on your needs, it can be changed by following the below-listed steps;



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- o Select the Page Layout tab
- o In Page Setup group click the Margins command
- o A list of Margins appears
- o Select the desired Margin with a left click

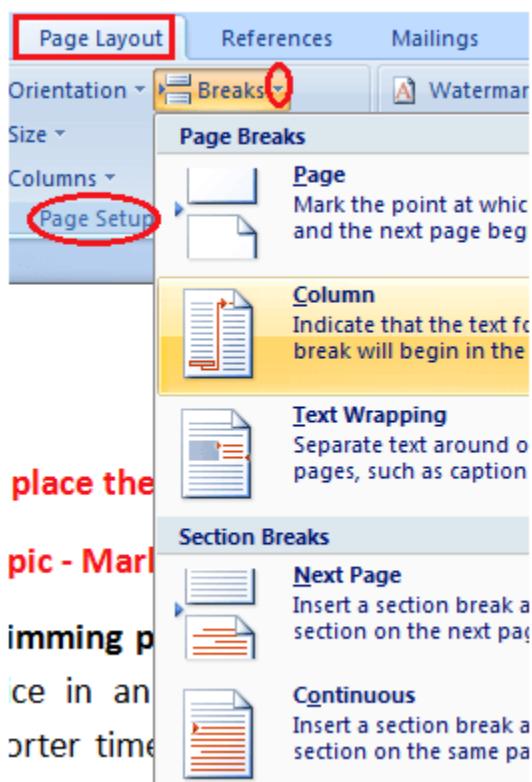




Insert Page Break in MS Word

Word inserts a page break at the end of each page. It also allows you to insert a page break at some other place in the document. The steps to insert page break are given below;

- Place the cursor where you want to insert the break
- Select the Page Layout tab
- In Page Setup group click the 'Breaks' command
- A list of Page Breaks appears
- With a left click select the desired page break from the list





insert a header and footer in Microsoft Word document

In Microsoft Word, Headers and Footers are used to insert additional information such as title, file name, date, page numbers, etc. The presence of both header and footer in the Word document makes your document more professional and easier to read as well as understand.

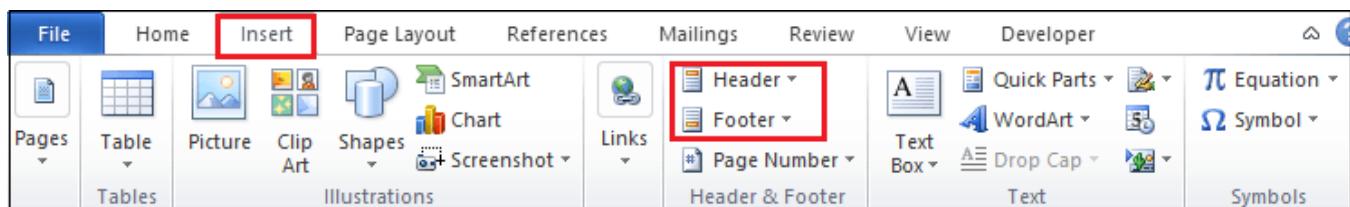
Headers appear at the top margin of the Word document, while Footers appear at the bottom margin of the Word document.

To insert a header and footer in **Microsoft Word**, follow the below given basic steps -

Step 1: Open the new or an existing Word document in which you want to insert header and footer.

Step 2: Go to the Insert tab at the top of the Ribbon.

Step 3: Click on either header or footer drop-down menu in the Header & Footer section.

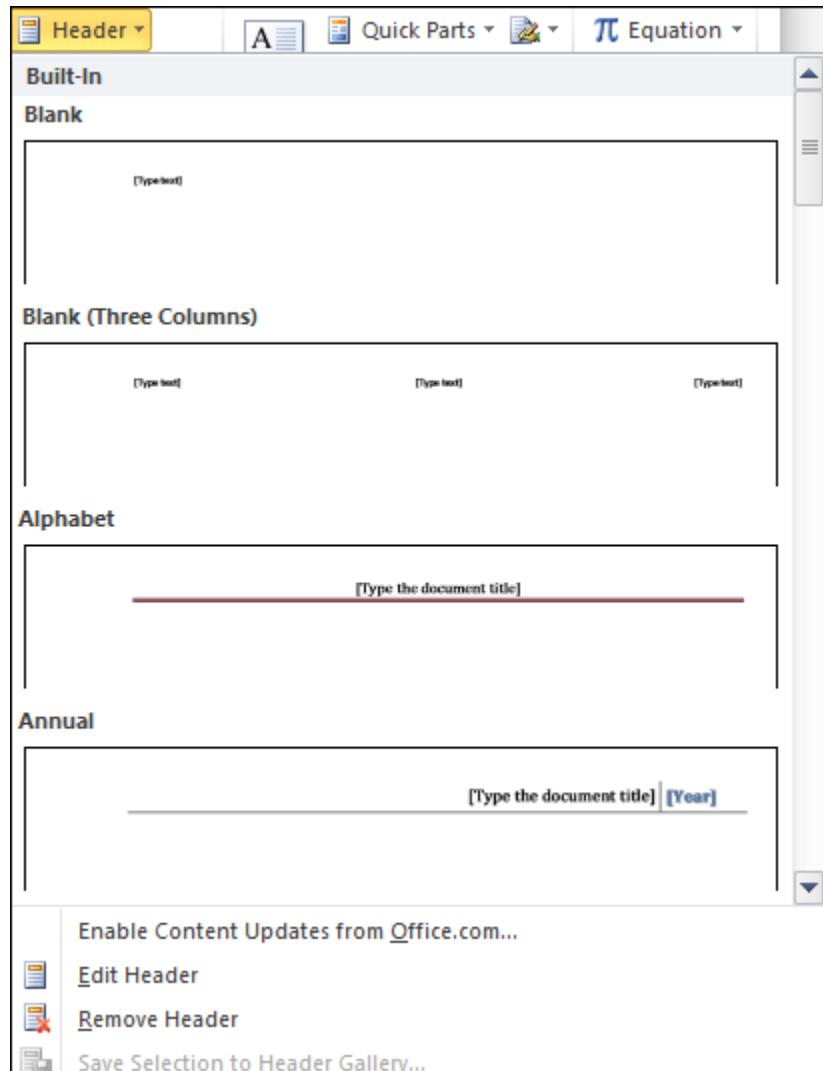


Step 4: A Header or Footer drop-down menu will display on the screen with a list of built-in Header or Footer options. Select your desired option from the Built-in list.

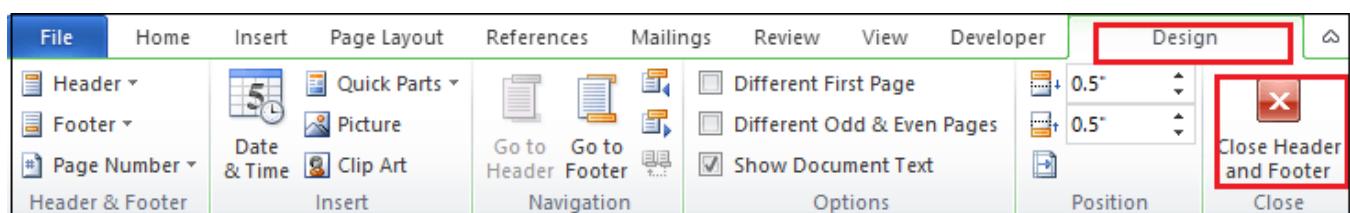


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Step 5: A Design tab with Header & Footer option will appear at the top of the document (on the Ribbon), as shown in the below screenshot.



Step 6: Type your desired information into the header or footer section.



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The screenshot shows the Microsoft Word ribbon with the 'Design' tab selected. In the 'Header & Footer' section, there is a text box containing '[Type text]'. The 'Position' group shows settings for top and bottom margins at 0.5". The 'Close' button is visible in the top right corner of the ribbon.

Step 7: Once you type your desired text in the Header section, click on Close Header and Footer under the Design section on the Ribbon or press the Esc key from the keyboard to remove the dotted underline. Now, you can see that the Header is inserted to the Word document.

The screenshot shows the Microsoft Word ribbon with the 'Home' tab selected. The header area displays the date 'Date: 28/07/2020'. The ribbon also includes sections for Insert, Page Layout, References, Mailings, Review, and Developer.

Insert the Date or Time in a Header or Footer

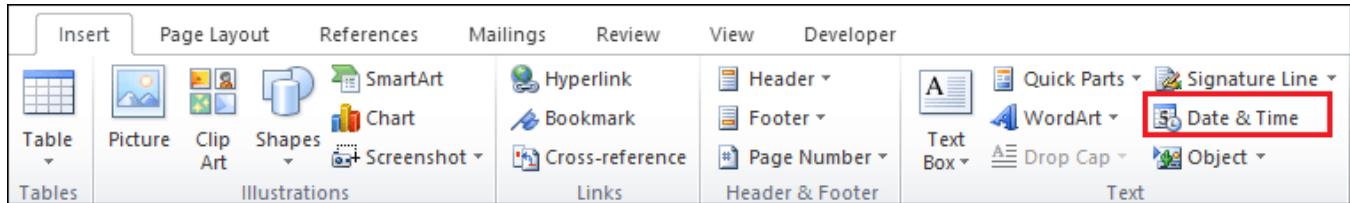
To insert the Date or Time in a Header or Footer, follow the below instructions -

1. Go to the Insert tab on the Ribbon and click on the Date & Time option in the Text section.



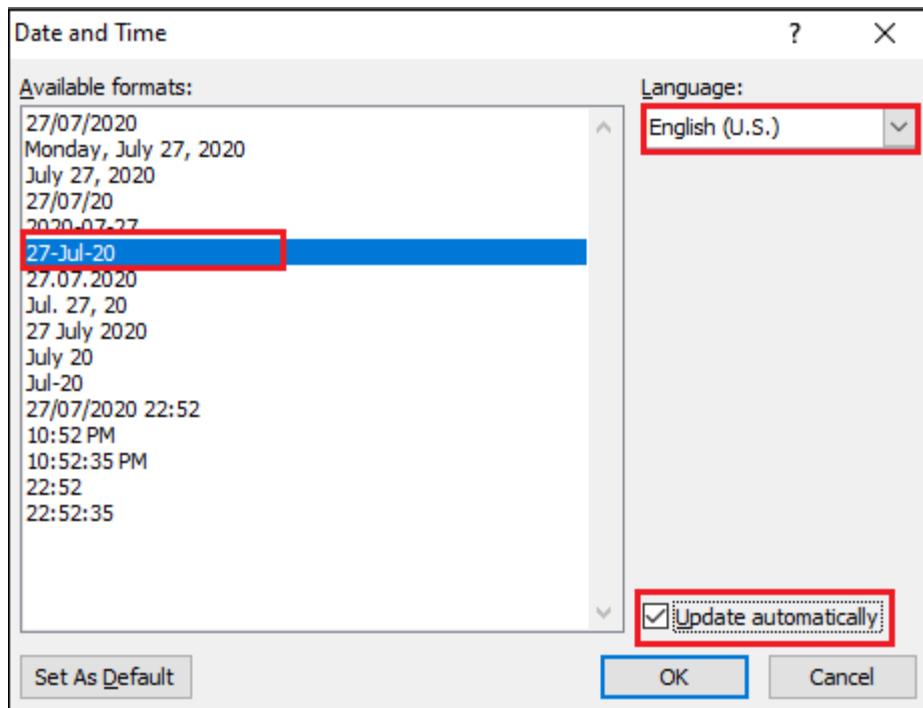
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2. A Date and Time dialog box will appear on the screen in which do the following -

- o Select Date format from the Available format.
- o Select your desired language.
- o Tick on the Update automatically checkbox.
- o Click on the OK button at the bottom of the dialog box.



Now, you can see that your selected format will appear on the Word document.

Edit Header and Footer in Word document

Once you create Header and Footer in Word document, you can also edit it based on your requirement.

There are the following steps to edit Header and Footer in Word document.

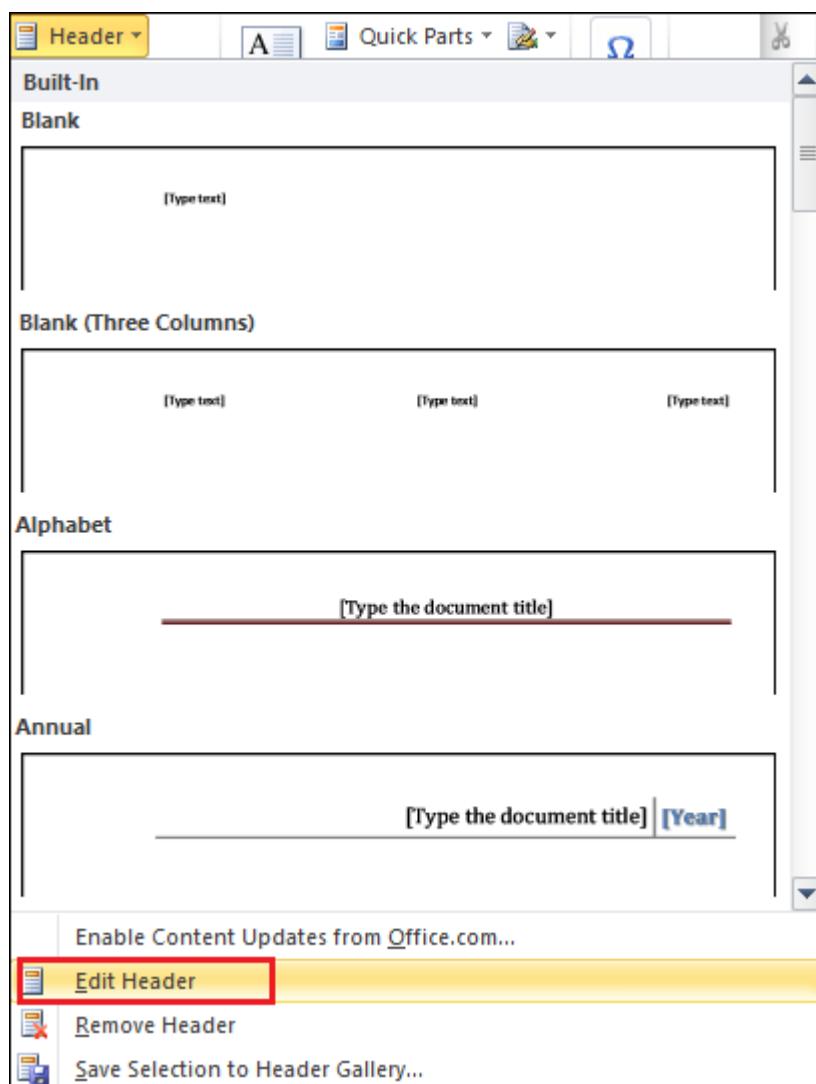


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Step 1: Go to the Insert tab on the Ribbon and click on either Header or Footer drop-down menu that you want to Edit.

Step 2: A Built-In Header option window will appear on the screen. Click on the Edit Header option.

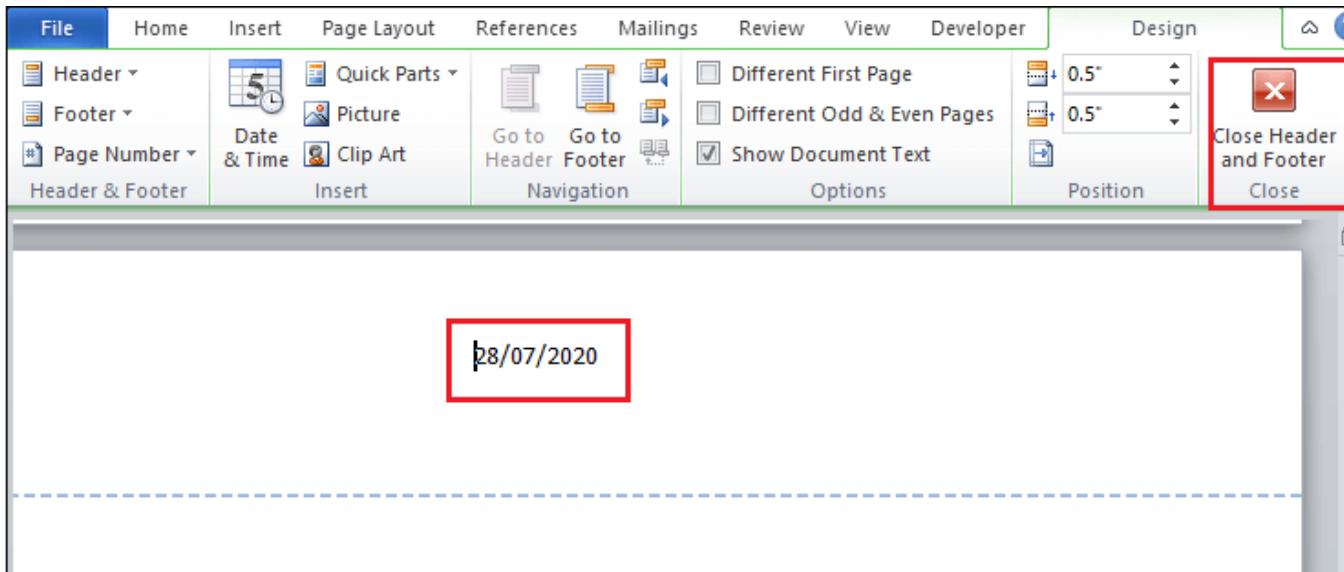


Step 3: Edit Header based on your requirement. Once you edit Header, click on the Close Header and Footer option at the top right corner of the document to disappear the blue dotted lines.

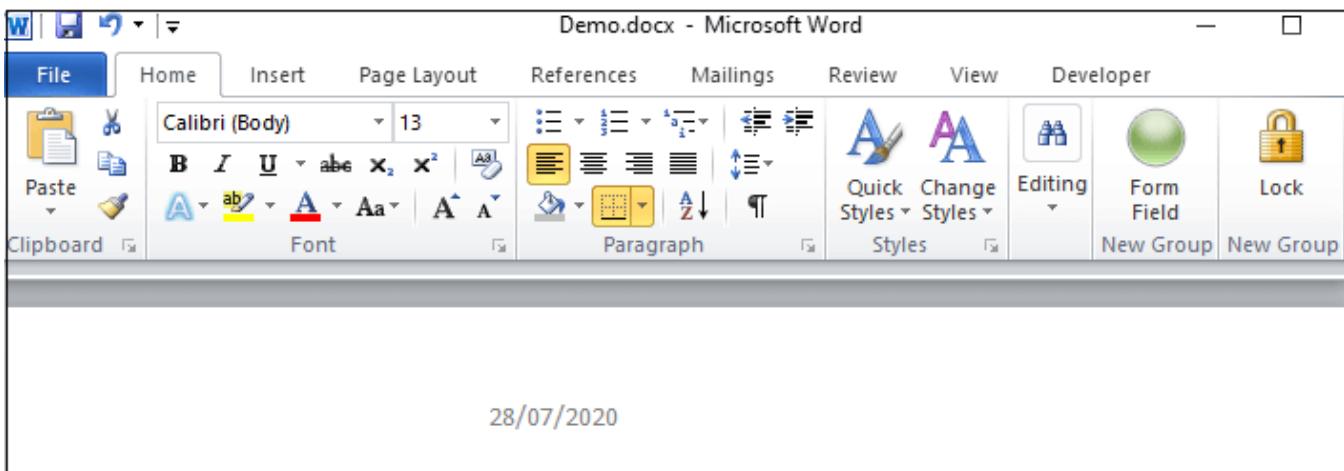


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Now, you can see that Header is edit based on your requirement.



Delete Header and Footer from Word document

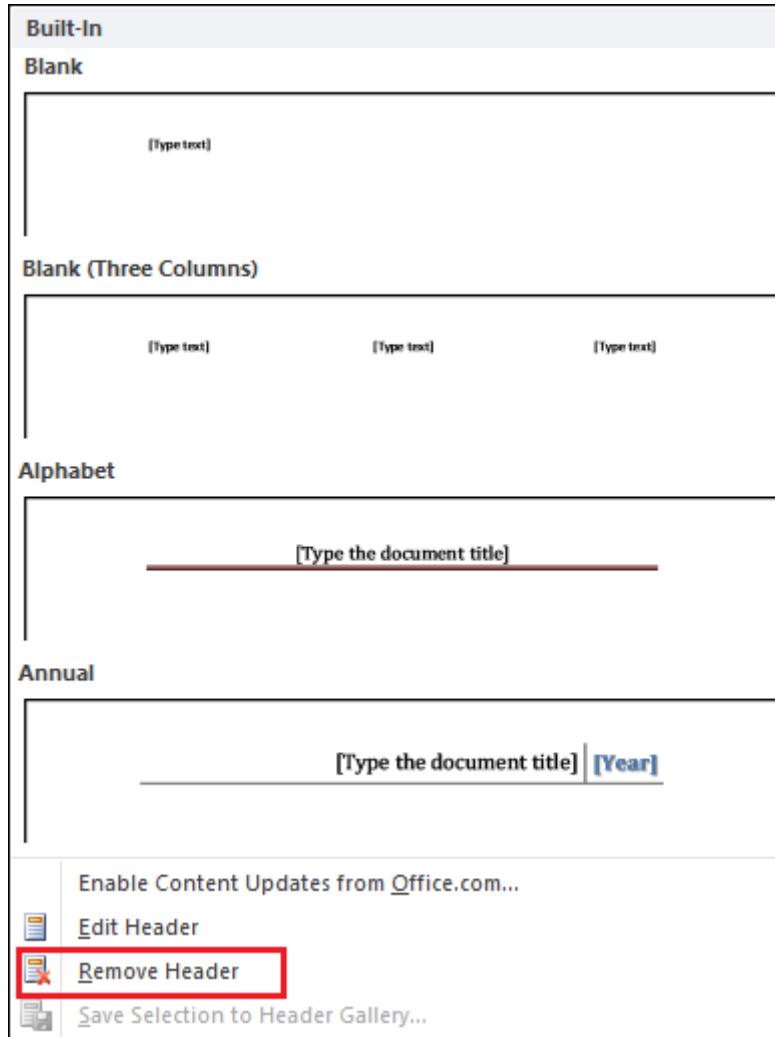
To Delete Header and Footer from Word document, follow the below steps -

1. Go to the Insert tab on the Ribbon and click on the Header & Footer option.
2. A Header or Footer dialog will appear on the screen. Click on the Remove Header or Remove Footer option.



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Working with Tables

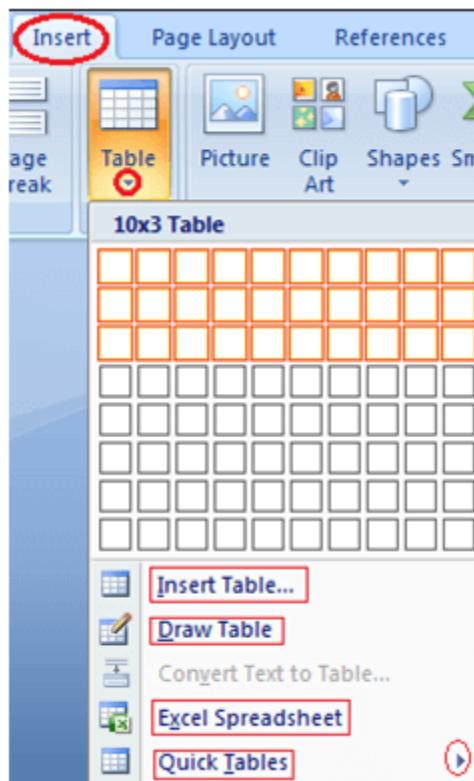
Insert Table in MS Word

Table is a versatile tool of MS Word. It allows you to organize your information, i.e. you can align text, present numerical data and create forms and calendar. The steps to insert table are given below;

- Place the cursor where you want to insert the table
- Select the Insert tab



- o In Tables group click the Table command
- o It displays different options to insert the table
- o Select the desired option to insert the table



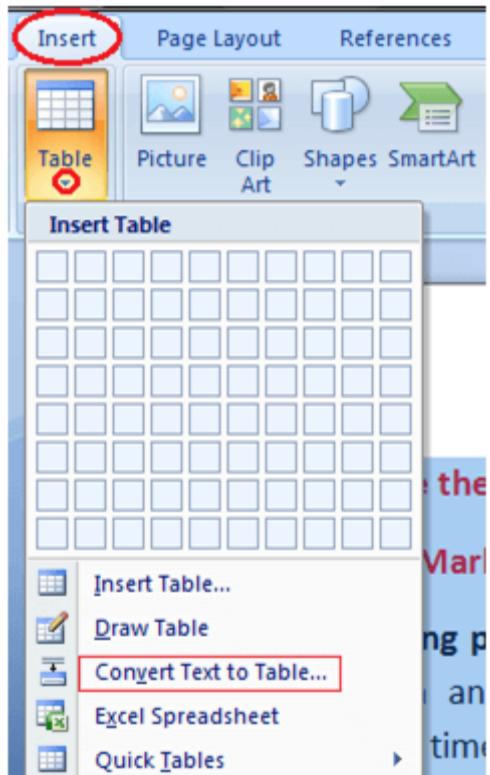
To Convert Text to Table

- o Select the text
- o Select the Insert tab
- o In Tables group click the Table command
- o Select the 'Convert Text to Table' option;

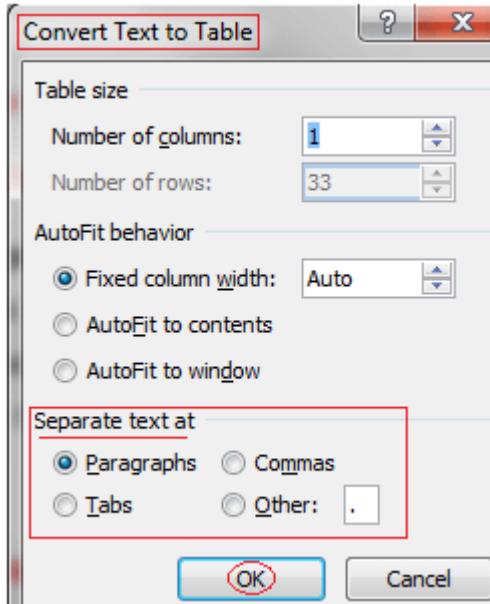


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- It displays a dialog box
- In 'Separate text at' section select the desired option
- Click OK, the text will convert to a table



Add Row in Table

If you want to increase or add a new row in your table, you can follow the steps given below;

- Place the cursor in a row above or below which you want to add row
- Right click the mouse
- A menu appears
- Place the arrow over Insert option
- It will display a menu
- As required select 'Insert Rows Above' or 'Insert Rows Below'

Add Column in Table

If you want to increase or add a new column in your table, you can follow these steps;

- Place the cursor in the column adjacent to which you want to add the column
- Right click the mouse
- It displays a menu
- Place the arrow over Insert option



- o It shows a list of commands
- o As required select 'Insert Columns to the Right' or 'Insert Columns to the Left'

The image consists of two vertically stacked screenshots of Microsoft Word's ribbon interface, showing a table with three columns and four rows. In both screenshots, the rightmost column (labeled 'Mar') is selected. A context menu is open, with the 'Insert' option highlighted in yellow and circled in red. The submenu under 'Insert' contains several options: 'Insert Columns to the Left', 'Insert Columns to the Right', 'Insert Rows Above', 'Insert Rows Below', and 'Insert Cells...'. In the top screenshot, 'Insert Columns to the Right' is also circled in red. In the bottom screenshot, 'Insert Rows Below' is also circled in red.

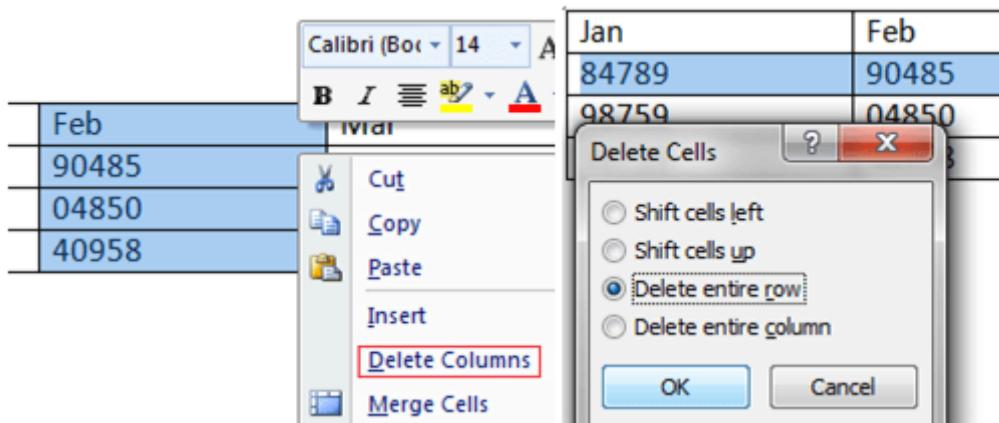
Jan	Feb	Mar
8478		04850
9875		09845
9872		87479

Delete Column or Row in Table

The table command also allows you to delete a column or row in your table. You can delete the unwanted columns or rows by following these steps;



- Select the column or row of the table
- Right click the mouse
- A menu appears
- As required select 'Delete Columns' or 'Delete Rows'



Modify Table

Word allows you to customize tables as per your requirement. You can modify your table in different ways, i.e. you can choose a table style, table design, draw borders. The steps to modify a table are given below;

- Select the table
- Two new tabs Design and Layout appear on the Ribbon
- On Design tab you will see three groups of commands to modify table; Table Style Options, Table Styles and Draw Borders;

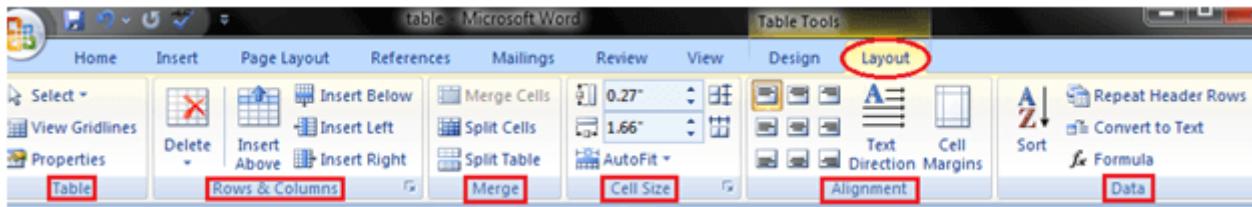


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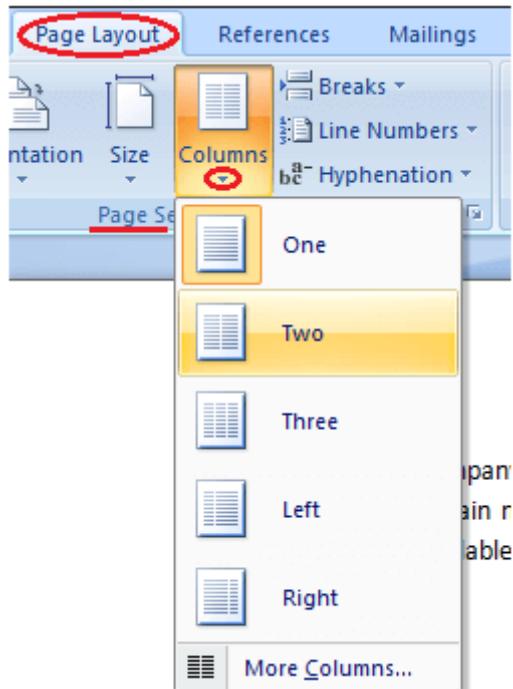
- Layout tab has six groups of commands to format table;



Split Text to Columns

You can split your text to columns as shown in the image given below. It helps you make your text more readable and presentable. The steps involved in this process are given below;

- Open the document
- Select the Page Layout tab
- In Page Setup group click the Columns command
- It displays a list of options to split text into columns
- Select the desired option



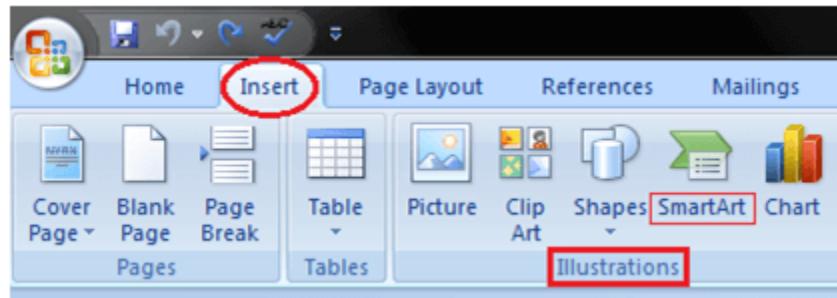
Experiment#5

Inserting Illustrations

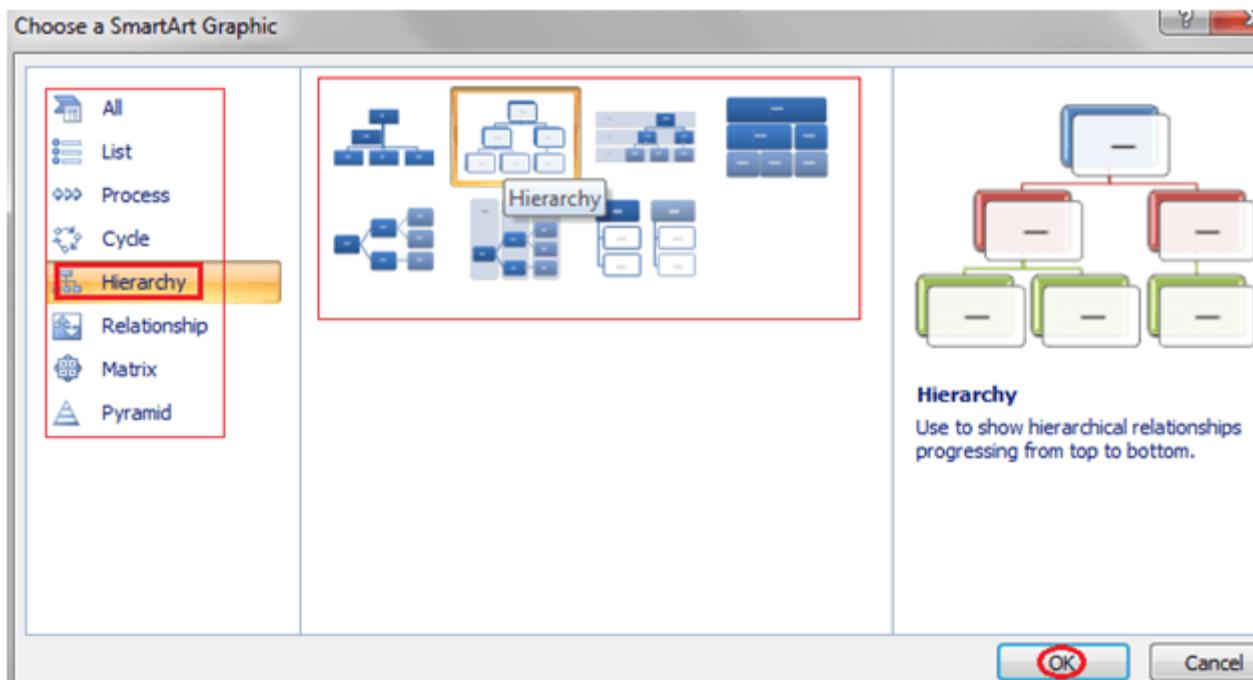
Insert Smart Art Graphics

You can insert Smart Art Graphics in your document to effectively communicate your message. You can insert a process flow, a relationship or an organization hierarchy. The steps to insert smart art graphics are given below;

- Place the cursor in the document where you want to insert graphics
- Select the Insert tab
- In Illustrations group select the 'Smart Art' command;



- On left side, a dialog box appears with list of categories
- In the center you will see the illustrations available in a category
- Select the desired illustration and click Ok



Insert Smart Art Graphics

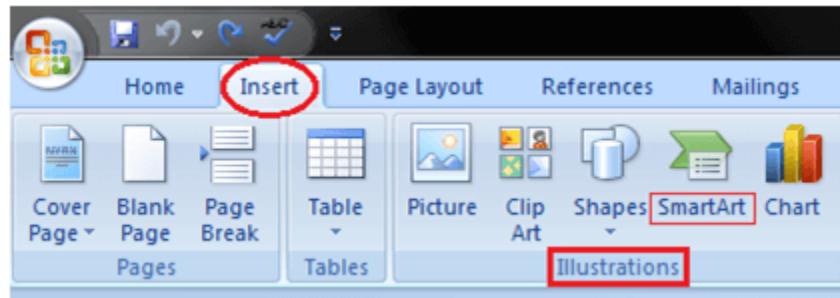


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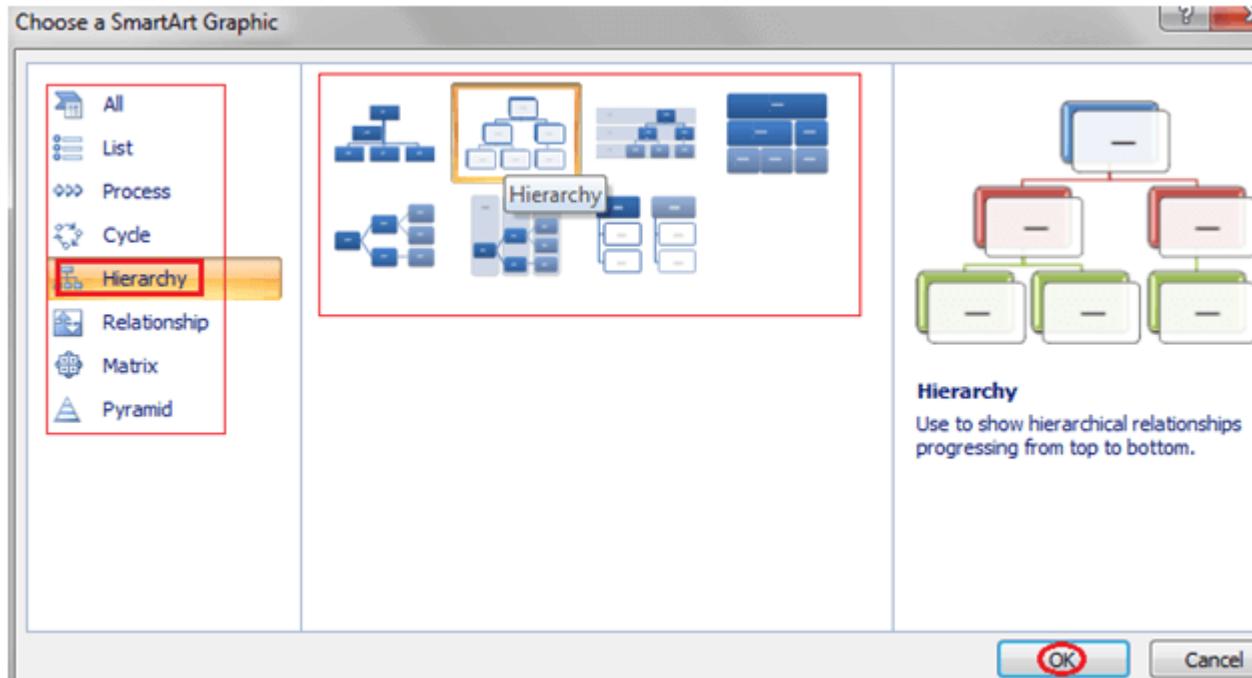
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- Select the Insert tab
- In Illustrations group select the 'Smart Art' command;



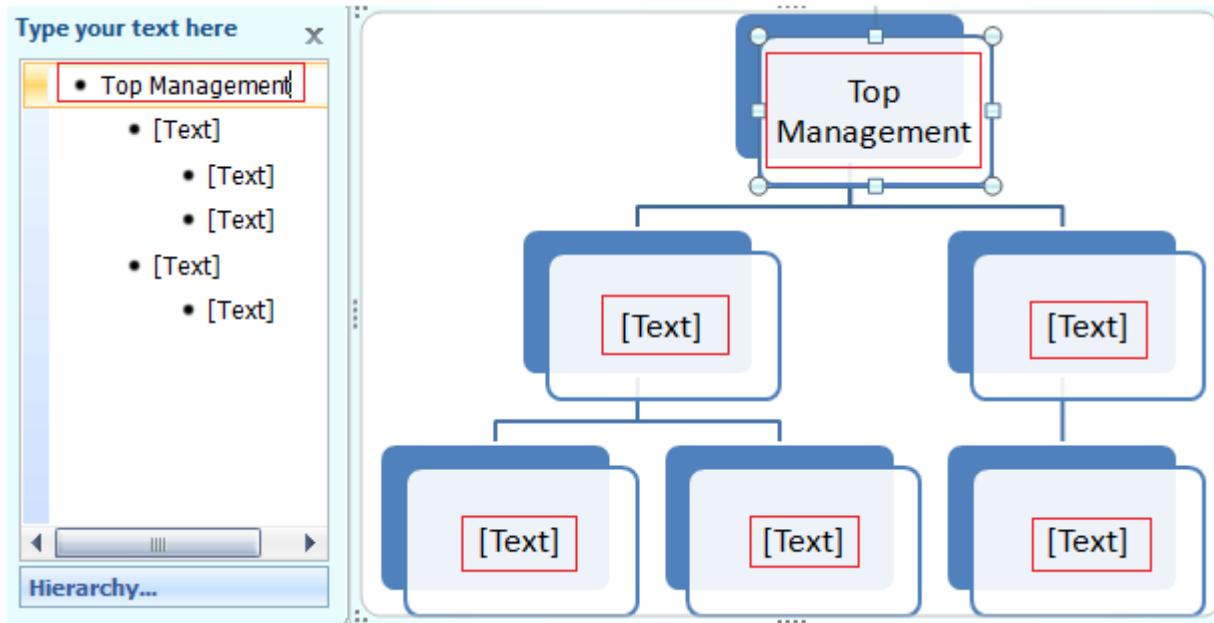
- On left side, a dialog box appears with list of categories
- In the center you will see the illustrations available in a category
- Select the desired illustration and click Ok



Add Text in Smart Art Graphics

Word also allows you to add text in Smart Art Graphics; you can add facts, figures and any other information. The steps to add smart art graphics are given below;

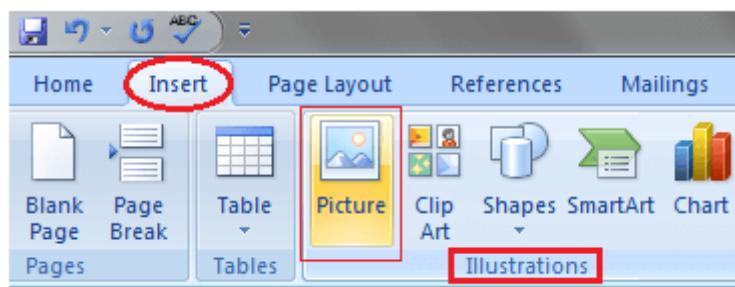
- Select the graphic
- Task pane appears on the left side if it is not visible then click the arrow on left side of graphic
- Type the text in task pane fields it will appear in the graphic
- You can also directly type the text in the graphic in text area
- Close the task pane after entering the text and click outside the graphic



Insert Picture in Document

Pictures make our text more attractive and readable. You can insert relevant pictures in your text by following these steps;

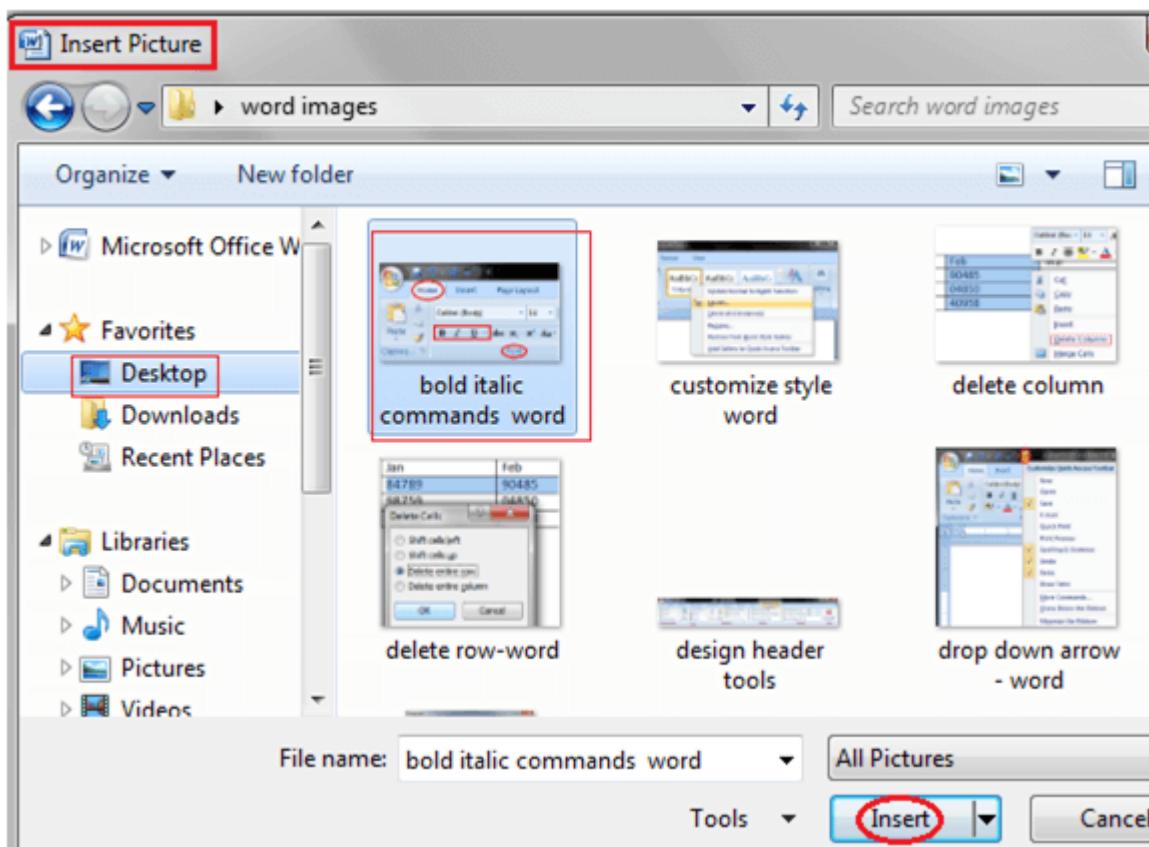
- Place the cursor where you want to insert the picture
- Select the Insert tab on Ribbon
- In Illustrations group click the Picture command;



- It displays 'Insert Picture' dialog box



- o Select the desired image
- o Click Insert to insert the picture



Insert Clip Art

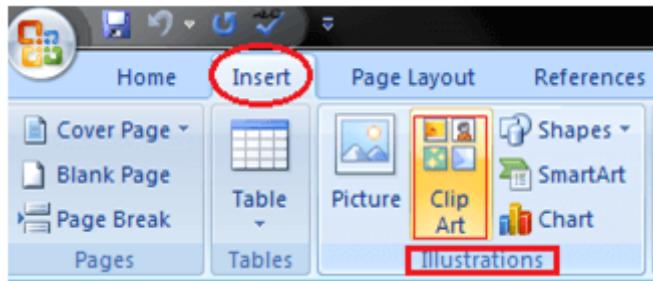
Clip art refers to a graphic or a picture that you can insert in your document. It comes in different formats and styles. It is used to enhance the appearance of a document. The steps to insert a clip art are given below;

- o Place the cursor where you want to insert the clip art
- o Select the Insert tab
- o In Illustrations group click the Clip Art command;

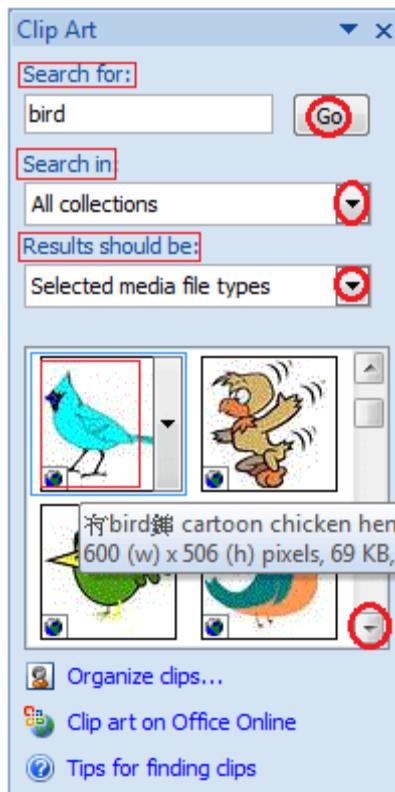


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- A task pane appears on the right side of document
- Enter the keyword in 'Search for' field and select the suitable option in 'Search in' and 'Results should be' fields
- Click Go, clip art menu will appear
- Select the desired clip art with a left click

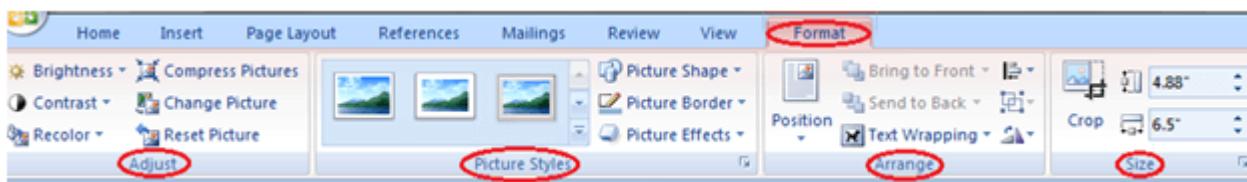




Format Picture or Clip Art

You can change the appearance of your picture or clip art to enhance its visual impact. The format tab offers you various options for formatting pictures like contrast, changing color, line style, cropping, etc. The steps to format picture or clip art are given below;

- Select the picture or clip art that you want to format
- Format tab appears in the Ribbon
- Click the Format tab
- It displays four groups of related commands to modify or format picture or clip art



Bulleted and Numbered Lists

Bullets and numbers are used to make a list more presentable and readable. A bulleted list attracts more than a simple list. Word offers you various styles of bullets and numbers. The steps to create bulleted lists are given below;

- Select the text you want to convert to bulleted or numbered list
- Select the Home tab
- In Paragraph group click the Bullets or Numbering command
- It displays Bullets or Numbering menu
- With a left click select the desired Bullet or Numbering style
- To increase the list place the cursor at the end of list and press Enter key



Document5 - Microsoft Word

Home Insert Page Layout References Mailings Review View

Clipboard

Font

Recently Used Bullets

• ○

Bullet Library

None • ○ ■ ⚡ ⚡

➤ ✓

Document Bullets

• ■ ○

Change List Level Define New Bullet...

Product life cycle is composed of four stages:

- Introduction
- Growth
- Maturity
- Decline



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Experiment#6

Open Ended Lab



Experiment#7

Microsoft Excel

Microsoft Excel is one of the most suitable spreadsheet functions that help us manage data, create optically logical charts, and thought-provoking graphs. Microsoft Excel is supported by both Mac and PC platforms. Microsoft Excel can also be used to balance a checkbook, create an expense document, build formulas, and edit them.

It mainly comprises tabs, groups of commands, and worksheets. The worksheet is made of rows and columns that intersect each other to form cells where data is entered. It is capable of performing multiple tasks like calculations, data analysis, and integrating data.

Microsoft Office button, ribbon, and quick access toolbar are the three main features of excel that you need to focus on while learning excel.

Open Microsoft Excel

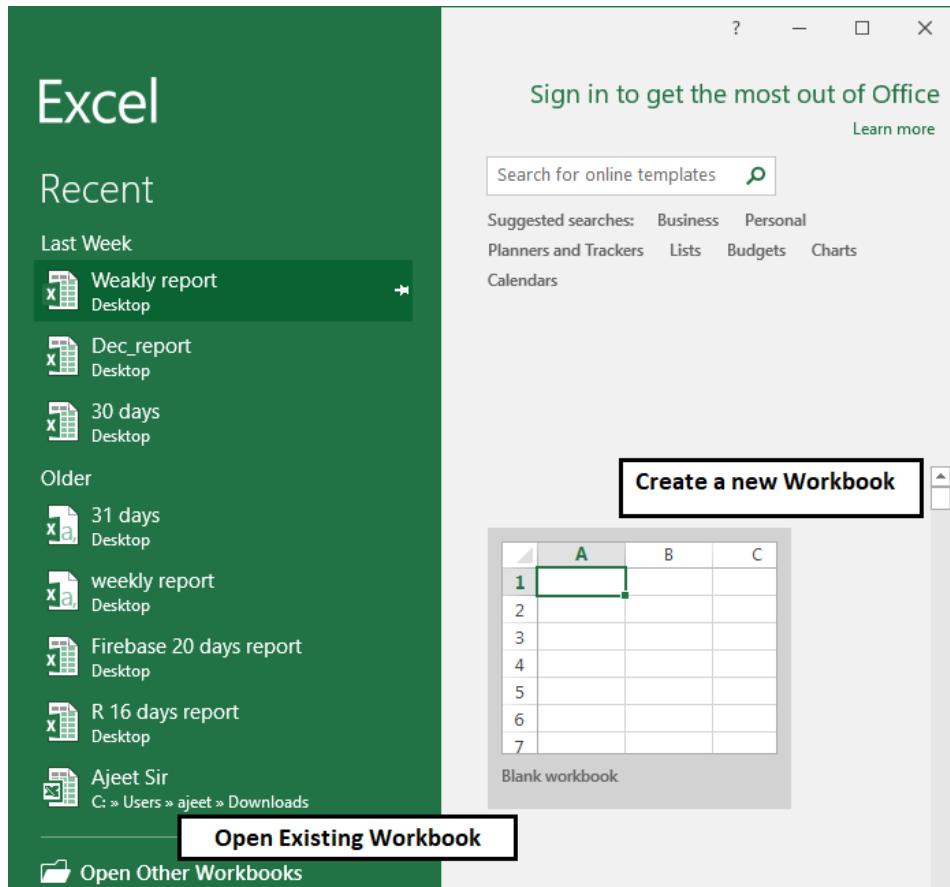
When you open Excel 2016 for the first time, the Excel Start Screen will occur. From here, we'll be able to create a new workbook, choose a template, and access our recently edited workbooks.

1. From the Excel Start Screen, locate and select the Blank workbook to create the Excel interface.
2. To click Open Other Workbooks to work on an existing workbook.



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To set up Excel, so it automatically accessible a new workbook

1. Click File then Options.
2. On the General tab, under the Startup option, uncheck the display the Start screen when this program starts box.
3. The next time we start Excel, it opens a blank workbook automatically same to older versions of Excel.

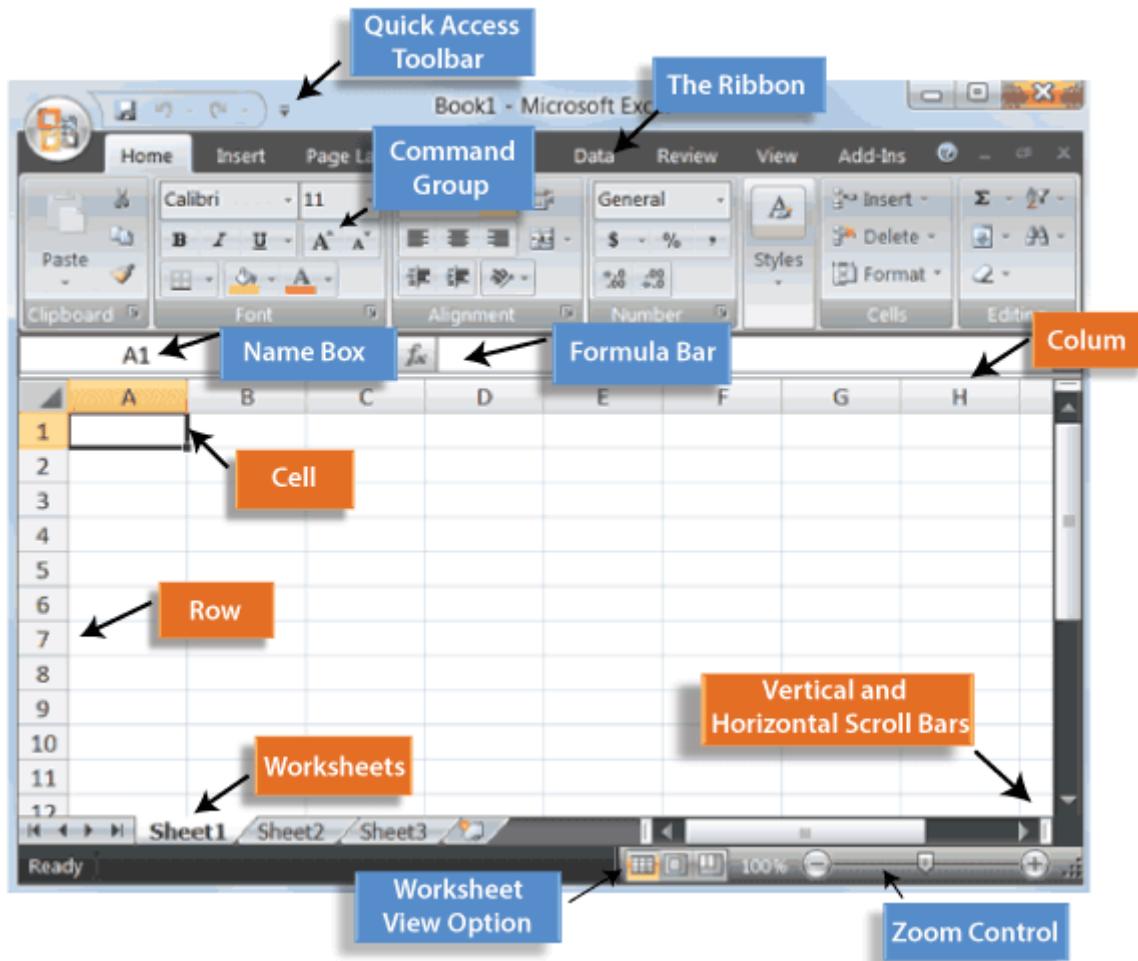
Excel Interface

After starting Excel, we will see two windows - one within the other. The outer window is the Application Window, and the inner window is a Workbook Window. When maximized, the Excel Workbook Window composite in with the Application Window.



After completing this module, we should be able to:

- Identify the components of the Application Window.
- Identify the components of the Workbook Window.



Application Window

The Application Window provides the space for our worksheets and workbook items, such as charts. The components of the Application Window are defined below.

Quick Access Toolbar



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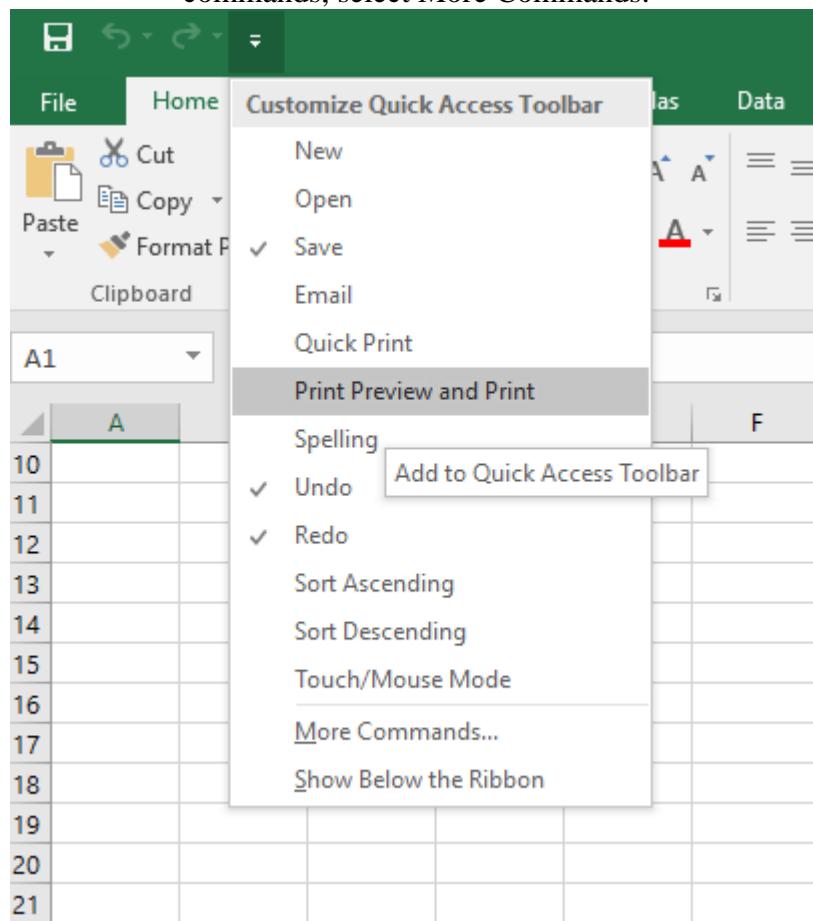
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The Quick Access Toolbar lets us access common commands no matter which tab is selected.

By default, it involves the Save, Undo, and Repeat commands. We can add other commands depending on our preference.

To add the command to the Quick Access toolbar

1. To click the drop-down arrow to the right of the Quick Access toolbar.
- 2.
3. Select the command we wish to add from the drop-down menu. To choose from more commands, select More Commands.

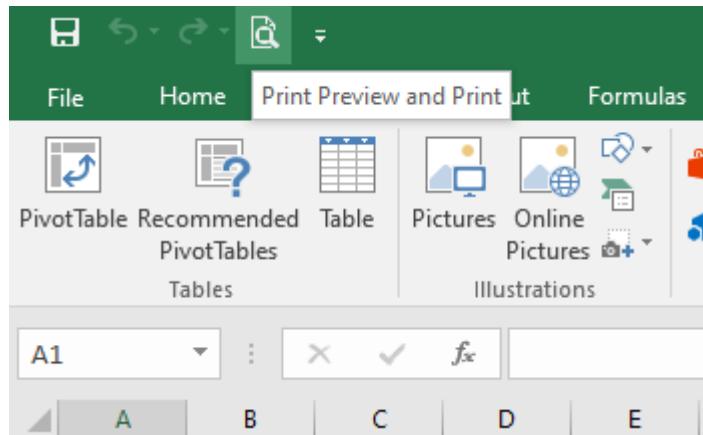


4. The command will be joined to the Quick Access toolbar.



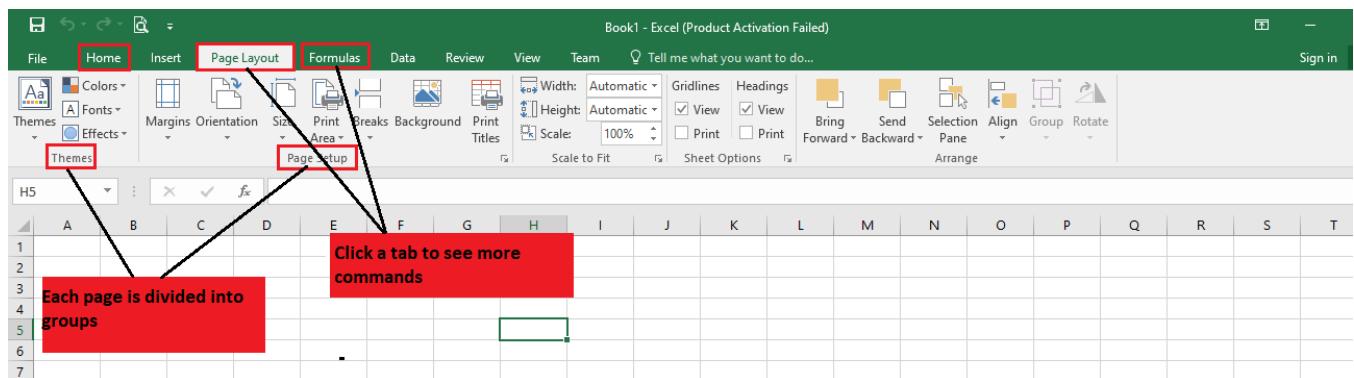
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The Ribbon

Excel 2016 utilizes a **tabbed Ribbon system** instead of traditional menus. The **Ribbon** includes multiple tabs, each with several **groups of commands**. We will use these tabs to perform the most common function in Excel.



To minimize and maximize the Ribbon

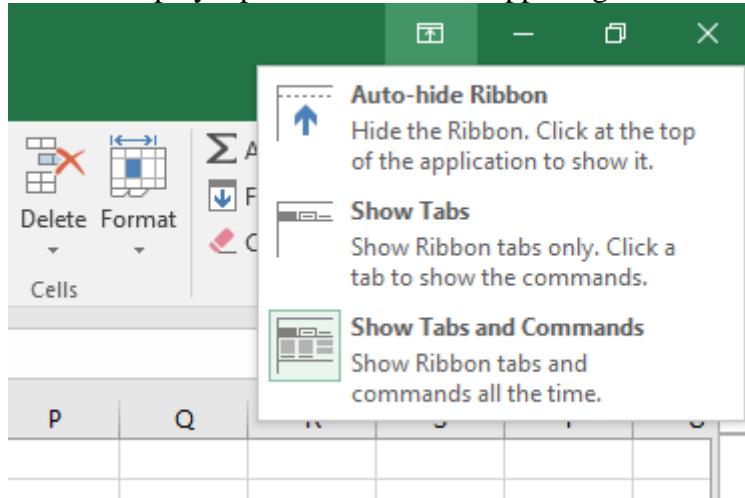
The Ribbon is designed to respond to our current function, but we can choose to minimize it if we find that it takes up too much screen space.



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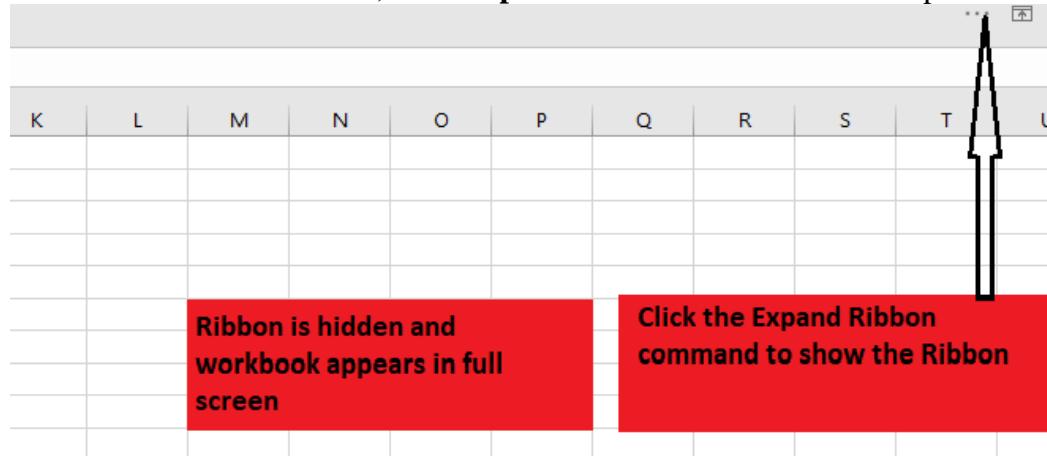
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1. To click the Ribbon Display Options arrow in the upper-right corner of the Ribbon.



2. Select the desired minimizing options from the drop-down menu:

- o **Auto-hide Ribbon:** Auto-hide shows our workbook in full-screen mode and completely hides the Ribbon. To **show the Ribbon**, click **Expand Ribbon** command at the top of the screen.



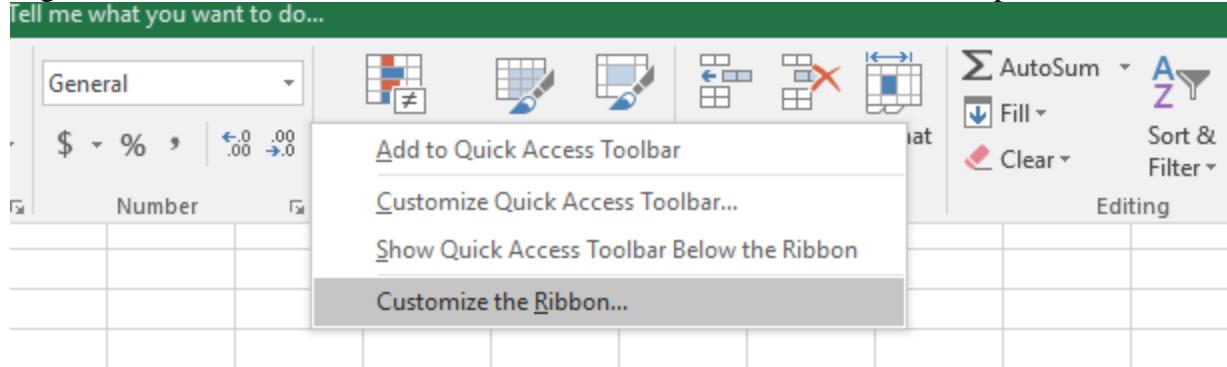
- o **Show Tabs:** This option hide all command groups when not in use, but **tabs** will remain clear. To **show the Ribbon**, simply click the tab.
- o **Show Tabs and Commands:** This option maximize the Ribbon. All of the tabs and command will be clear. This option is selected by default when we open Excel for the first time.



To Customize the Ribbon in Excel 2016

We can customize the Ribbon by creating your **tabs** with whichever commands we want. Commands are always housed within a **group**, and we can create as many groups as we want to keep our tab organized. If we want, we can even add commands to any of the default tabs, as long as we create a custom group in the tab.

1. Right-click the **Ribbon** and then choose **Customize the Ribbon** from the drop-down menu.

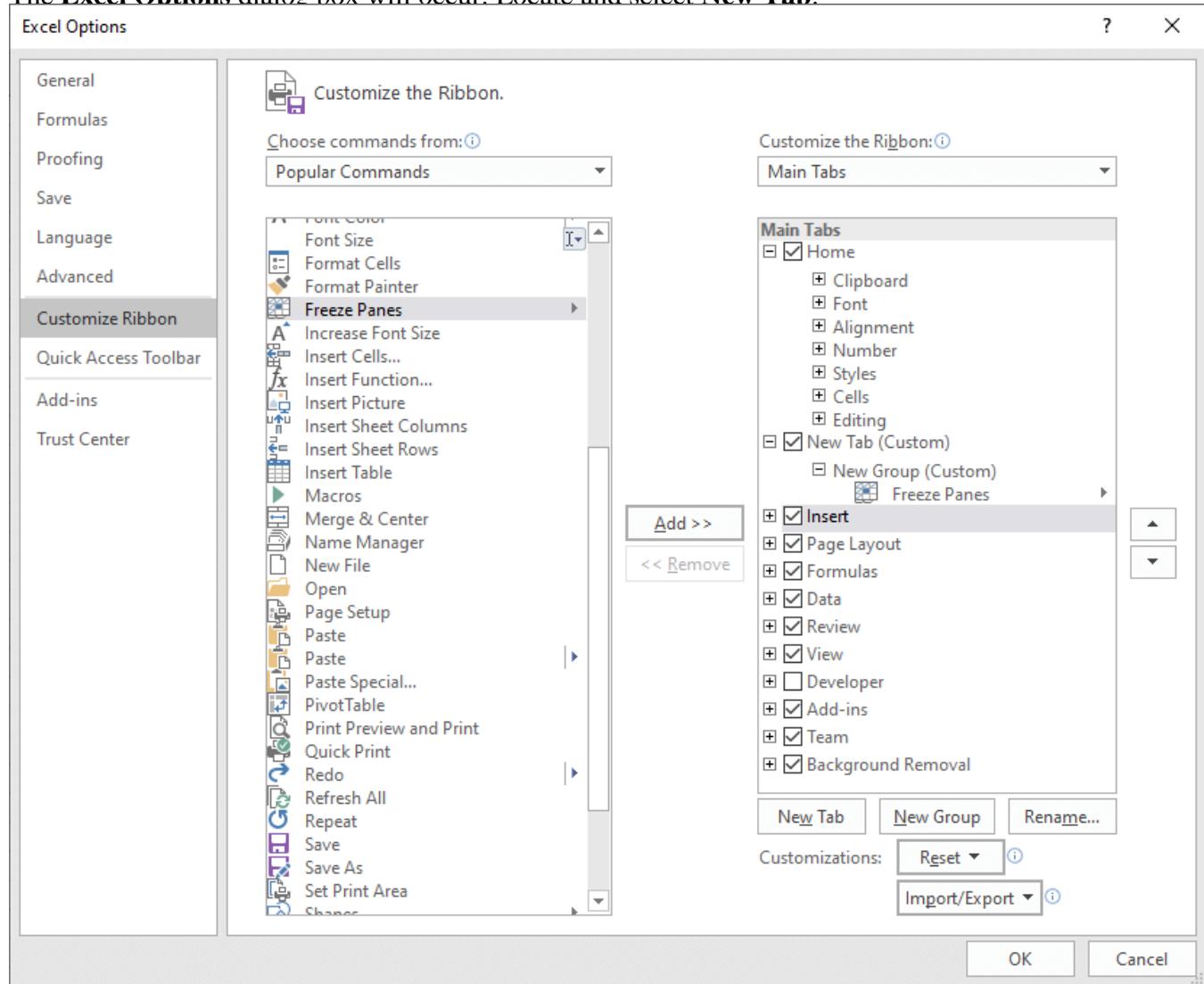




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2. The **Excel Options** dialog box will occur. Locate and select **New Tab**.



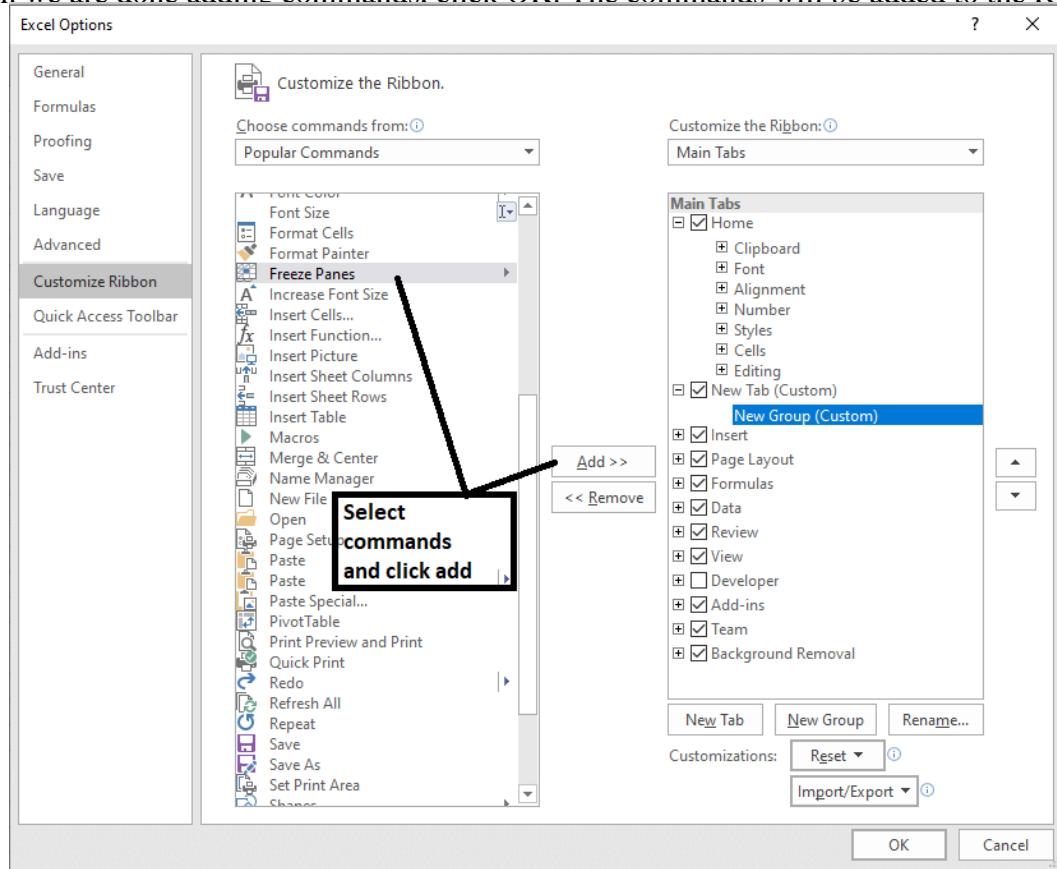
3. To make sure the New Group is selected, select a command, and then click Add. We can also drag commands directly into a group.



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- When we are done adding commands, click OK. The commands will be added to the Ribbon.



The Formula Bar

In the **formula bar**, we can enter or edit data, a formula, or a function that will occur in a specific cell.

In the image below, cell C1 is selected, and 2000 is entered into the formula bar. Note how the data contains in both the formula bar and in cell C1.



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	A	B	C	D	E	F	G
1			2000				
2							
3							

The Name Box

The Name box present the location or "**name**" of a **selected cell**.

In the image below, cell B4 is selected. Noted that cell B4 is where column B and row 4 intersect.

	A	B	C	D	E
1					
2					
3					
4					
5					

The Backstage View (The File Menu)

Click the **File** tab on the Ribbon. The **Backstage view** will emerge.



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The screenshot shows the Microsoft Excel ribbon at the top with tabs like File, Home, Insert, Page Layout, Formulas, and Data. Below the ribbon is a clipboard area with icons for Cut, Copy, Paste, and Format Painter. The main area shows a blank worksheet with rows 4, 5, 6, and 7 visible.

The 'File' menu is open, displaying various options:

- Info**: Contains information about the current workbook. You can also inspect the workbook and set protection controls.
- New**: Returns to Excel or creates a new, blank workbook or chooses from a large selection of templates.
- Open**: Opens recent workbooks or workbooks saved to OneDrive or your computer.
- Save**: Saves the workbook to your computer or to Office 365.
- Save As**: Allows saving the workbook under a different name or location.
- Print**: Changes print settings and prints the workbook.
- Share**: Invites people to view and collaborate on the workbook, or emails it as an attachment.
- Export**: Converts the workbook to another format like PDF/XPS or Excel 1997-2003.
- Publish**: Publishes the workbook to the web.
- Close**: Closes the current workbook.
- Account**: Accesses Microsoft account information, modifies theme, and signs out.
- Options**: Changes various Excel options like Quick Analysis preferences, Auto Recover settings, or Language preferences.

On the right side of the 'File' menu, there's a 'Today' section showing recent documents: 'charts.xlsx' (modified 8/22/2015 12:00 PM), 'chart1.docx' (modified 8/22/2015 10:08 PM), 'chart2.xlsx' (modified 8/21/2015 9:48 PM), 'chart3.xlsx' (modified 8/21/2015 8:47 PM), 'chart4.xlsx' (modified 8/21/2015 2:26 PM), and 'chart5.xlsx' (modified 8/21/2015 2:26 PM).

The Worksheet Views

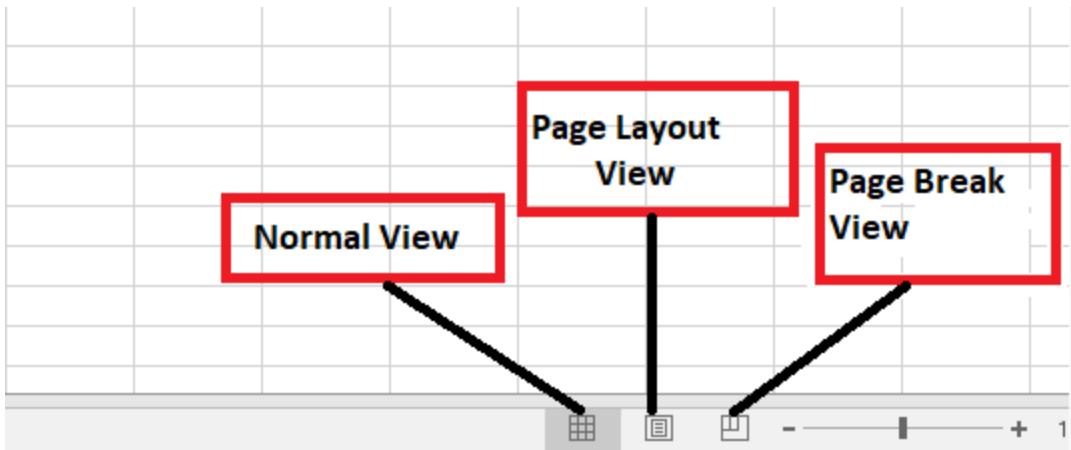


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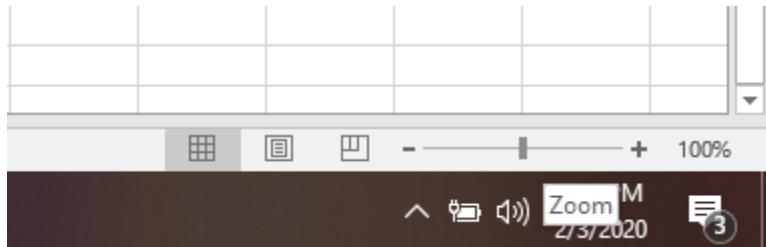
Excel 2016 has a variety of displaying options that change how our workbook is showed. We can choose to view any workbook in the **Normal view**, **Page Layout view**, or **Page Break view**. These views can be useful for several tasks, especially if we're planning to **print** the spreadsheet.

To change the worksheet views, locate and choose the desired worksheet view command in the bottom-right corner of the Excel window.



Zoom Control

To use a **Zoom control**, click and drag the **slider**. The number to the right of the slider reverse the **zoom percentage**.





Excel Calculation

Do addition in Excel

See the image, showing the addition of 10, 20 and 30.

Choose the cell where you want the result to appear as cell C6 in this example. Then type = sign in the cell, now select first cell C3 then type "+" sign then select second cell C4, again type + and select third cell C5. Now press the enter key, you will get the sum of these three numbers.

The screenshot shows a Microsoft Excel spreadsheet. The ribbon at the top has tabs for Home, Insert, Page Layout, Formulas, and others. The Home tab is selected. The ribbon also includes icons for Cut, Copy, Paste, Format Painter, and Clipboard. The main area shows a grid of cells labeled A through E and 1 through 8. Cell C6 contains the formula '=C3+C4+C5'. Cells C3, C4, and C5 contain the values 10, 20, and 30 respectively. A red arrow points from the formula in C6 down to the value 60 in cell C6, indicating the result of the addition.

The red arrow is showing the result of addition.



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	A	B	C	D	E
1					
2					
3			10		
4			20		
5			30		
6			60		
7					
8					

Using Sigma Button to do addition in Excel

Select the cell to display the result then in Home tab click on the Sigma button, on the right end of the ribbon. You will see the image given below:

	A	B	C	D	E	F	G	H
1								
2								
3								
4								
5								
6	Total		=SUM()					
7			SUM(number1, [number2], ...)					
8								
9								
10								
11								
12								



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Now select the list of data you want to add. You will see the image shown below, and then press the Enter key to get the result.

The screenshot shows a Microsoft Excel spreadsheet titled "Book1 - Microsoft Excel". The formula bar at the top displays "=SUM(E3:E5)". The spreadsheet has columns A through H and rows 1 through 12. Cell C6 contains the formula "=SUM(E3:E5)". A red arrow points from cell C6 to a callout box labeled "List" which contains the values 10, 20, and 30. The status bar at the bottom shows "Point".

Do subtraction in Excel

It is similar to addition just replace the plus "+" sign with minus sign "-".

Choose the cell where you want the result to appear as cell C6 in this example. Then type = sign in the cell, now select first cell C3 then type "-" sign then select second cell C4. Now press the enter key, you will get the subtraction of these two numbers.



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The screenshot shows a Microsoft Excel window titled "Book1 - Microsoft Excel". The formula bar at the top displays "=C3-C4". The spreadsheet has columns A through G and rows 1 through 11. Row 3 contains "Price" in cell C3 with the value 20. Row 4 contains "Cost" in cell C4 with the value 10. Row 6 contains the formula "Profit=Price-Cost" in cell C6, which is currently selected and shows the formula text. A red arrow points upwards from the formula bar towards the cell C6.

A	B	C	D	E	F	G
1						
2						
3	Price	20				
4	Cost	10				
5						
6	Profit=Price-Cost	=C3-C4				
7						
8						
9						
10						
11						

To calculate average in Excel

Select the cell to display the result e.g. cell C9 in the image shown below. Now type "=" sign in the cell and type "average" then type opening parenthesis. Now select the data, cells from C4 to C7 then press the Enter key to get the result.



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The screenshot shows a Microsoft Excel window titled "Book1 - Microsoft Excel". The ribbon menu is visible at the top. The Home tab is selected, showing various toolbar icons for Paste, Font, Alignment, Number, Styles, Cells, and Editing. In the formula bar, the text "SUM" is followed by a dropdown arrow and the formula "=average(C4:C7)". The main worksheet area contains the following data:

	A	B	C	D	E	F	G
1							
2							
3		Subjects	Marks				
4		English	90				
5		Math	80				
6		Science	90				
7		Social studies	80				
8							
9		Average	=average(C4:C7)				
10			AVERAGE(number1, [number2], ...)				
11							
12							

The cell C9 contains the formula "=average(C4:C7)". A red arrow points to the small arrow next to the Sigma button in the formula bar. The status bar at the bottom shows "Point".

Using Sigma Button to calculate average in Excel

Select the cell to display the result. In the Home tab click on the small arrow next to the Sigma button and left click on the Average option. You will see the image shown below. Then press the Enter key to get the result.



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A screenshot of Microsoft Excel showing a table of subjects and marks. The table has columns for Subjects (A3:A8) and Marks (B3:B8). Row 9 is labeled 'Average' and contains the formula `=AVERAGE(C4:C8)`. A red arrow points to the formula in the formula bar.

	A	B	C	D	E	F	G
1							
2							
3		Subjects	Marks				
4		English	90				
5		Math	80				
6		Science	90				
7		Social studies	80				
8							
9		Average	=AVERAGE(C4:C8)				
10			AVERAGE(number1, [number2], ...)				

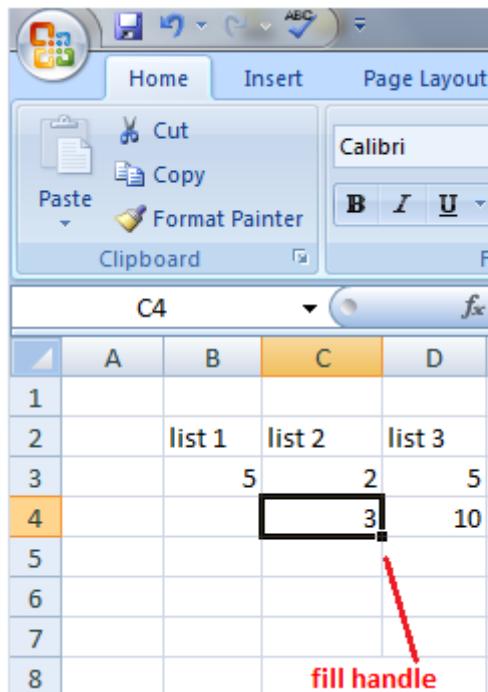


Experiment#8

Excel Fill Handle

The fill handle is a convenient Excel tool that is used to fill data with a specific pattern. You can extend a series of numbers, dates and text combinations to desired number of cells.

To use fill handle bring the mouse cursor at right bottom corner of the cell it will change into a + sign. Now left click on it and drag it downward to the desired range of cells.



If you select one cell the value in the cell will be copied to other cells and if you choose multiple cells with specific pattern like difference between cells then the same pattern will be copied to other cells. See the image shown below.



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	A	B	C	D	E	G
1						
2		list 1	list 2	list 3		
3		5	2	5		
4		5	3	10		
5		5	4	15		
6		5	5	20		
7		5	6	25		
8						
9	no difference		difference of 1		difference of 5	
10						

Excel Fill Handle with Text

Fill handle works in a similar way with texts. It helps repeat the text to desired range of cells.

	A	B	C	D	E	F
1						
2		company		net	task	
3			profit		is	
4					complete	
5						
6						
7						
8	fill handle		fill handle		fill handle	
9						

The text is selected and then copied to other cells using fill handle.



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A screenshot of Microsoft Excel showing a table with 11 rows and 6 columns. The columns are labeled A through F. Rows 1 and 11 are empty. Rows 2 through 10 contain text. Row 2: company, net, task. Row 3: company, profit, is. Row 4: company, net, complete. Row 5: company, profit, task. Row 6: company, net, is. Row 7: profit, complete, task. Row 8: net, task, is. Row 9: profit, complete. Row 10: company, net, is, complete.

	A	B	C	D	E	F
1						
2	company		net		task	
3	company		profit		is	
4	company		net		complete	
5	company		profit		task	
6	company		net		is	
7			profit		complete	
8			net		task	
9			profit		is	
10					complete	
11						

Excel Fill Handle with Text and Numbers

Fill handle also works with cells containing both text and number. In this case, the text does not change but the number increases by one for every cell you select.

A screenshot of Microsoft Excel showing two columns of data. Column A contains numbers from 1 to 7. Column B contains text: "sector 1" through "sector 5". The fill handle is being used to drag from cell B3 down to B7, creating a series of identical cells with the text "sector 1". A red arrow points to the fill handle with the label "fill handle".

	A	B
1		
2		
3	3	sector 1
4		sector 2
5		sector 3
6		sector 4
7		sector 5
8		



Excel Formula

Creating Formulas

In cell C5 enter the number 20, now in cell E5 type the formula: =C5+5 then press the Enter key. You will get the result. The formula says 5 is added to the value entered in the cell C5 as the value is 20 the result is 25. See the image:

The screenshot shows a Microsoft Excel spreadsheet. The ribbon menu is visible at the top with tabs like Home, Insert, Page Layout, Formulas, Data, Review, and View. The Home tab is selected. The clipboard section of the ribbon shows 'Cut', 'Copy', 'Paste' (with a dropdown arrow), 'Format Painter', and 'Clipboard'. Below the ribbon is a toolbar with icons for font size (11), bold, italic, underline, alignment, and other styling options. The formula bar shows 'SUM' and '=C5+5'. The main area is a grid of cells labeled A through G and 1 through 13. Cell C5 contains the value '20'. Cell E5 contains the formula '=C5+5'. A red arrow points from the text 'type the formula' to the formula bar. The cell E5 is highlighted with a yellow background.

In a similar way other formulas can be created:

=C2*5 for multiplication, the value in the cell C2 is multiplied with 5.

=C2-5 for subtraction, 5 is subtracted from the value in the cell C2.

More formulas can be created by typing = in the cell then selecting the appropriate values and typing correct mathematical symbol in between.

See the formula created to calculate the distance in the image given below:



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The screenshot shows a Microsoft Excel spreadsheet with the following data:

	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7	Speed (km/hr)	time (hours)	distance (km)		
8	40		=B8*C8		
9					
10					
11					
12					
13					

A red arrow points from the text "formula" to the formula bar at the top of the screen, which displays `=B8*C8`. The cell D8 contains the formula `=B8*C8`, and the cell C8 contains the value 2. The cells B8 and C8 are highlighted in green, indicating they are part of the current selection.

Relative Referencing

Relative referencing tells that you don't need to type the formula separately for each calculation in a column or a row. See the image:

Type the formula in the first cell D3 and press Enter key to get the result, then use the fill handle. The formula will change automatically in the respective cells and all values of list 1 will get multiplied with respective values of list 2.



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The screenshot shows a Microsoft Excel spreadsheet with the following data:

	A	B	C	D	E	F	G
1							
2		List 1	List 2	multiplication			
3		3	4	12			
4		6	5	30			
5		5	6	30			
6		7	7	49			
7		8	8	64			
8		4	9	36			
9		5	10	50			
10		3	11	33			
11							
12							

The formula bar at the top shows $=B5*C5$. A red arrow points from the formula bar to the cell D5, which contains the value 30. Another red arrow points from the text "formula in D5" to the same cell D5.

This way you can easily multiply values of list 1 with respective values of list 2 but if you want to multiply all cells of list 1 with a single cell of list 2 such as C3 then it won't work.

Absolute Referencing

Absolute referencing helps multiply multiple values with a particular value.

See the image shown below. The list 1 values are multiplied by 4, value of cell C3. In this case, we will use symbol \$ in the formula.

So we have to modify the formula for that after entering the formula press F4 key. \$ Sign will appear in the formula. See cell D3 in the image. Then press Enter key to get the result. Now drag the fill handle from cell D3 till cell D10. All values of list 1 will get multiplied with 4.



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The screenshot shows a Microsoft Excel spreadsheet with the following data:

	A	B	C	D	E	F	G
1							
2	List 1	List 2		multiplication			
3	3	4	=B3*\$C\$3				
4	6						
5	5						
6	7						
7	8						
8	4						
9	5						
10	3						
11							
12							
13							

Annotations in red text and arrows highlight specific elements:

- "formula" points to the formula bar showing `=B3*C3`.
- "\$ appears in the formula" points to the dollar signs in the formula `=B3*C3`.

In a similar way, in the image shown below, the bonus marks are added to the marks of the students by modifying the formula from `=C5+E2` to `=C5+E2`.



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The screenshot shows a Microsoft Excel spreadsheet with the following data:

	A	B	C	D	E	F
1						
2				Bonus Marks	10	
3						
4	Name	Marks	Total Marks			
5	Peter	60	=C5+\$E\$2			
6	Tom	70				
7	John	80				
8	Rocky	65				
9						
10						
11						
12						

The formula `=C5+E2` is highlighted in green. A red arrow labeled "formula" points to the formula bar, and another red arrow labeled "pull handle" points to the small square at the bottom-right corner of the selected cell.



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The screenshot shows a Microsoft Excel spreadsheet titled "calculating phone bill". The formula $=C7*C6+C5$ is being typed into cell C10. A red arrow points from the status bar at the bottom of the screen to the formula in the status bar, which also displays $=C7*C6+C5$. The status bar also shows other statistics: Average: 150, Count: 900, and Sum: 0.2.

	A	B	C	D
1				
2				
3	calculating phone bill			
4				
5	Arrear (rupees)		150	
6	Call duration (minutes)		900	
7	Cost per minute (rupees)		0.2	
8				
9				
10	Total Bill		=C7*C6+C5	
11				
12				
13				
14				

There are some quick functions in Excel that can provide you the statistics of your worksheet without using formulas such as Status Bar quick functions.

See the image given below, as soon as you select the desired range you will get the statistics in the status bar, the average of numbers, the number of cells that contain values and the sum of numbers.



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The screenshot shows a Microsoft Excel window titled "Book1 - Microsoft Excel". The ribbon menu is visible at the top. A 4x2 grid of numbers is displayed in cells B5 through C8. The first row contains headers "list 1" and "list 2". The data is as follows:

	list 1	list 2
5	10	20
6	20	20
7	20	40
8	10	10

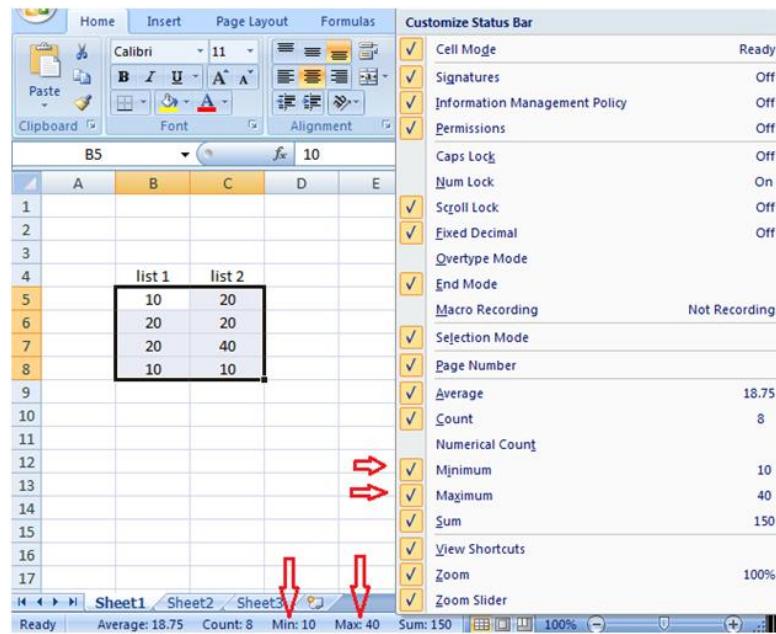
The status bar at the bottom of the Excel window displays three pieces of information: "Average: 18.75", "Count: 8", and "Sum: 150". Three red arrows point to the status bar from the right side of the image.

By a right click on the status bar you can customize it. You can add more functions in the status bar. Select the function from the menu which you want to add in the status bar. See the image shown below, status bar is customized. It is also showing maximum and minimum of the numbers.



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Experiment#9

Excel If Function

The IF function or IF statement in Excel is composed of three parts separated by commas.

- A condition
- What to display if the condition is fulfilled
- What to display if the condition is not fulfilled

See how the "IF function" is created step by step to find the safe and unsafe travelling speeds in the following example.

The screenshot shows a Microsoft Excel spreadsheet with the following data:

	A	B	C	D	E
1					
2		Driving Speed(km/hr)	Safe or Unsafe		
3					
4		40	=if(B4>70,"Unsafe","Safe")		
5		60			
6		70			
7		90			
8		100			
9		80			
10					
11					
12					

Annotations on the right side of the formula cell (C4) explain the components of the formula:

- A blue box surrounds the value "40" in cell B4.
- A red bracket labeled "formula" encloses the entire formula string "=if(B4>70,"Unsafe","Safe")".
- A red bracket labeled "pull handle" points to the bottom-right corner of the formula cell, indicating where it can be dragged to fill the formula down the column.

- Select the cell in which you want to create the "IF function"
- Type the code in the cell: =if(
- Type the condition with comma: B4>70,
- Type what you want to show if condition is fulfilled. If you want to display text then write it within quotation marks: "Unsafe"



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- Type a comma: ,
- Type what you want to show if the condition is not fulfilled within quotation marks: "Safe"
- Then close the bracket and press the Enter key.

The IF function created above will look like this: =if(B4>70,"Unsafe","Safe")

So the IF function says if the speed or value in the cell B4 is more than 70 then display Unsafe and if it is less than 70 then display Safe.

After pressing the Enter key you will get the result for cell B4. Drag the fill handle downward till cell C9 to get status for other speeds of column B.

Excel If Function with Calculations

"IF function" can be used in complex calculations. See the example:

If a sales executive sells more than 5 items, the company will pay incentive 40 rupees per item sold and if the sales executive sells less than 5 items, the company will pay 20 rupees per item sold.

See how the "IF function" is used with the calculation:



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The screenshot shows a Microsoft Excel spreadsheet. The ribbon at the top has tabs for Home, Insert, Page Layout, Formulas, Data, and Review. The Home tab is selected. The clipboard group on the ribbon includes Cut, Copy, Paste, and Format Painter. Below the ribbon is the formula bar with 'SUM' and the formula '=if(C4>5,40*C4,20*C4)'. The main area is a table with columns labeled A, B, C, D, and E. Row 3 contains column headers: Sales Executive, Items Sold, and Incentive. Rows 4 through 8 contain data: Peter (Items Sold: 5, Incentive: =if(C4>5,40*C4,20*C4)), Tom (Items Sold: 7), Jhon (Items Sold: 4), Mike (Items Sold: 6), and Rocky (Items Sold: 8). A red arrow points from the text 'pull handle' to the bottom-right corner of the formula entry in cell D4, indicating where to drag to apply the formula to other cells.

	A	B	C	D	E
1					
2					
3	Sales Executive	Items Sold	Incentive		
4	Peter	5	=if(C4>5,40*C4,20*C4)		
5	Tom	7			
6	Jhon	4			
7	Mike	6			
8	Rocky	8			
9					

- Select the cell in which you want to create the "IF function"
- Type the code in the cell: =if(
- Type the condition with comma: C4>5,
- Type what you want to show if condition is fulfilled: 40*C4
- Type a comma: ,
- Type what you want to show if the condition is not fulfilled: 20*C4
- Then close the bracket and press the Enter key.

The IF function will look like this: =if(C4>5,40*C4,20*C4)

So the IF function says if value in cell C4 is greater than 5 then multiply it with 40. If it is less than 5 then multiply it with 20.

The IF function can be modified to perform different calculations:



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Suppose in the above example the company wants to pay rupees 50 along with incentive to those employees who have completed probation period of 5 months or their job duration is more than 5 months.

In this case, we can insert one more column in the worksheet for job months and modify the IF function accordingly to get the results.

The modified IF function is: =if(C4>5,50+E4,E4)

It says if the value in cell C4 is greater than 5 then add 50 to E4 which is incentive of Peter. And if it is less than 5 then keep the incentive, the value of cell E4 same. See the image shown below:

	A	B	C	D	E	F	G
1							
2							
3		Sales Exe.	Job months	Items Sold	Incentive	Final Incentive	
4	Peter	6	5	100	=if(C4>5,50+E4,E4)		
5	Tom	4	7	280			
6	Jhon	3	4	80			
7	Mike	8	6	240			
8	Rocky	7	8	320			

Few more examples of IF Function:

=if(B2>5,B2*2,B2*4)

The IF function can also be composed in this way: =IF(B2>5,2*B2,4*B2)



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A screenshot of Microsoft Excel showing a table with 8 rows and 4 columns. The columns are labeled A, B, C, D, E, F. Row 1 contains the text "list". Row 2 contains the value 4 in column B and 16 in column C. Rows 3 through 8 contain values 6, 12; 3, 12; 7, 14; 2, 8; and 8, 16 respectively. The formula bar shows the formula =IF(B2>5,B2*2,B2*4). A red arrow points from the formula bar to the value 16 in cell C2.

	A	B	C	D	E	F
1		list				
2		4	16			
3		6	12			
4		3	12			
5		7	14			
6		2	8			
7		8	16			
8						

=IF(B2<=50,B2*120%,B2)

The IF function says if the value of cell B2 is less than 50 or equal to 50 then increase it by 20% else display the same value without any change. See the image given below:

A screenshot of Microsoft Excel showing a table with 8 rows and 4 columns. The columns are labeled A, B, C, D, E, F. Row 1 contains the text "list". Row 2 contains the value 10 in column B and 12 in column C. Rows 3 through 8 contain values 20, 24; 30, 36; 40, 48; 50, 60; and 60, 60 respectively. The formula bar shows the formula =IF(B2<=50,B2*120%,B2). A red arrow points from the formula bar to the value 12 in cell C2.

	A	B	C	D	E	F
1		list				
2		10	12			
3		20	24			
4		30	36			
5		40	48			
6		50	60			
7		60	60			
8		70	70			

=IF(B2=60,"",C4*D3+5)



The IF function says if the value of cell B2 equals to 60 then leave the cell blank else multiply the cell C4 with D3 and add 5 to it. See the image given below:

	A	B	C	D	E	F
1						
2		60				
3				10		
4			20			
5						
6						
7						
8						
9						
10						

Count, Countif, And Countifs Function:

Excel COUNT

The COUNT function returns the absolute number of cells that include numbers. This count contains both Numbers and Dates.

Syntax

1. **COUNT** (value1, [value2]...)

Where the parameters, value1, [value2], etc. can be any values or authority to cell ranges.

Example 1: The following illustration returns the number of integer values in a given range.



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A screenshot of Microsoft Excel demonstrating the COUNT function. The formula bar shows =COUNT(A1:B4). The cell C1 contains the value 4, which is highlighted with a red circle. A callout box points to this cell with the text "COUNT formula". Another callout box points to the formula bar with the text "Returns 4 since there are 4 numeric values in the given range." The spreadsheet contains the following data:

	A	B	C	D	E	F
1	5	0	4			
2	text	Tom		3		
3	03-04-2015			3		
4	FALSE	80				
5						
6						

Example 2: The following illustration count integer Values in the range A1: A4 and B1:B2.

A screenshot of Microsoft Excel demonstrating the COUNT function with multiple ranges. The formula bar shows =COUNT(A1:A4,B1:B2). The cell C2 contains the value 3, which is highlighted with a red circle. A callout box points to this cell with the text "COUNT formula". Another callout box points to the formula bar with the text "Returns 3 since there are three numeric values in the given range." The spreadsheet contains the following data:

	A	B	C	D	E	F
1	5	0	4			
2	text	Tom	3			
3	03-04-2015			3		
4	FALSE	80				
5						
6						
7						

The Excel COUNTIFS function takes in at least one cell range and returns the total counts if criteria are fulfilled.

Syntax

1. COUNTIFS (criteria_range1, criteria1, [criteria_range2, criteria2],...)



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Where criteria_range1: Arrays of values (or ranges of cells including values) to be examined against the particular criterial1, criterial2 ... (The provided criteria_range arrays must all have the similar length).

criterial1: The conditions to be examined against the values in the criteria_range1, [criteria_range2],....

Example 1: The following example displays the use of the COUNTIFS function.

In this example, we want to count the number of persons who fulfilled these two criteria.

1. A person should be female.
2. A grade should be $\leq D$, which is between A to C.

The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F
1	Name	Gender	Grade		COUNTIFS formula	
2	Carl	Male	A			
3	Sima	Female	C		2	
4	Rohan	Male	F		2	
5	Devansh	Male	D			
6	Pearl	Female	B			
7	Kria	Male	B			
8	Mohan	Male	A			
9	Bella	Female	F			

The formula in cell D3 is `=COUNTIFS(C2:C9,"<D",B2:B9,"Female")`. The result of this formula, 2, is displayed in cell E3. A callout box with a red border and arrow points from the text "It returns the no of females who have grades from A to C." to the value 2 in cell E3.

Example 2: Count the total number of candidates who have failed in the exam. "*male" is utilized to discover the cells which end with a male.



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The screenshot shows a Microsoft Excel spreadsheet with the following data:

	A	B	C	D	E	F
1	Name	Gender	Grade			
2	Carl	Male	A			
3	Sima	Female	C			
4	Rohan	Male	F	2		
5	Devansh	Male	D			
6	Pearl	Female	B			
7	Kria	Male	B			
8	Mohan	Male	A			
9	Bella	Female	F			
10						

The formula bar at the top shows the formula `=COUNTIFS(C2:C9,"F",B2:B9,"*male")`. The cell D4 contains the value "2", which is highlighted with a red circle. A callout box points to this cell with the text: "It counts the no of students whether male or female who have failed the exam." The cell E4 also contains the value "2".



Experiment#10

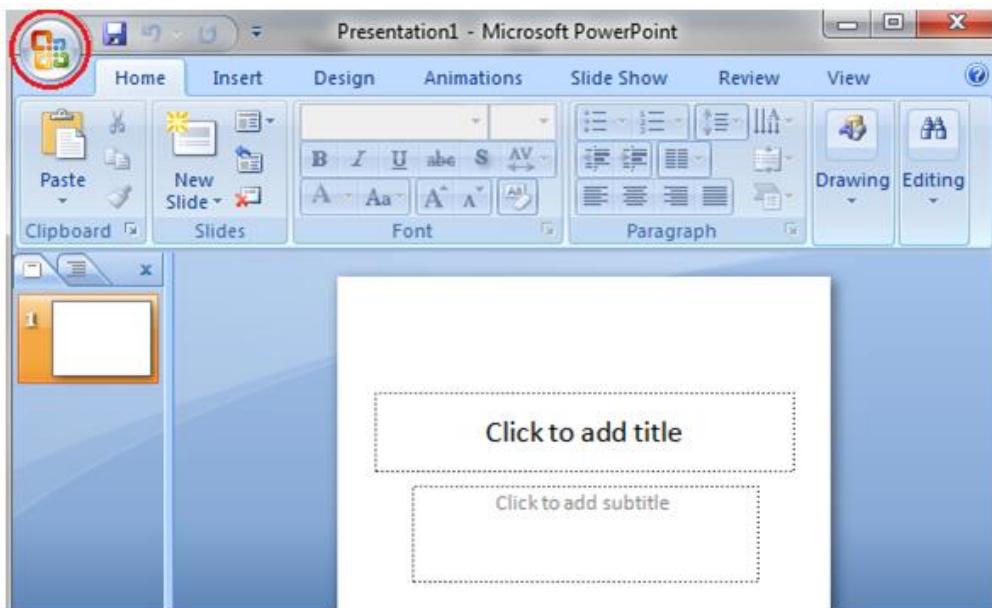
MS PowerPoint

Microsoft PowerPoint is a software program developed by Microsoft to produce effective presentations. It is a part of Microsoft Office suite. The program comprises slides and various tools like word processing, drawing, graphing and outlining. Thus it can display text, table, chart, graphics and media in the slides.

There are three main features of the Microsoft PowerPoint window that you need to focus upon while learning PowerPoint. These features are Microsoft Office Button, Quick Access Toolbar and Ribbon.

Microsoft Office Button

Microsoft Office Button is located on the upper-left corner of the PowerPoint window.

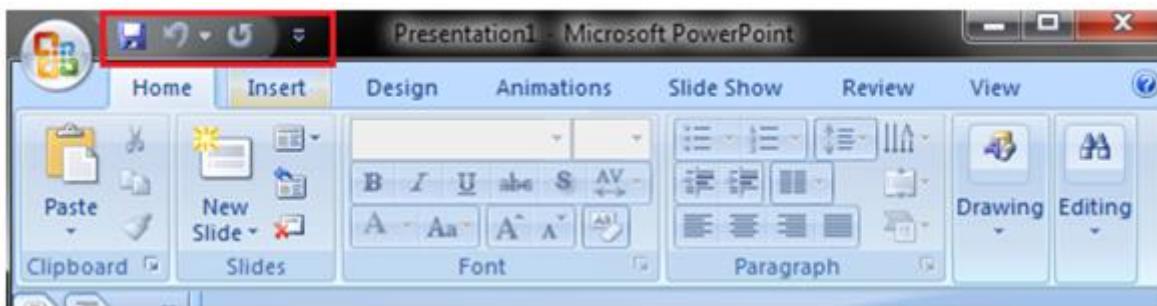




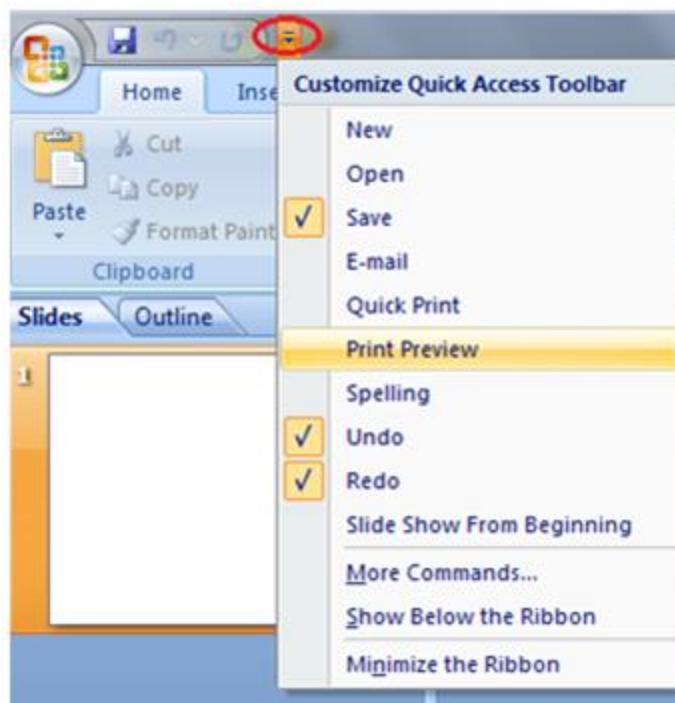
Quick Access Toolbar

It is located beside the Microsoft Office Button. By default it shows three commands; Save, Undo and Redo.

See the image:

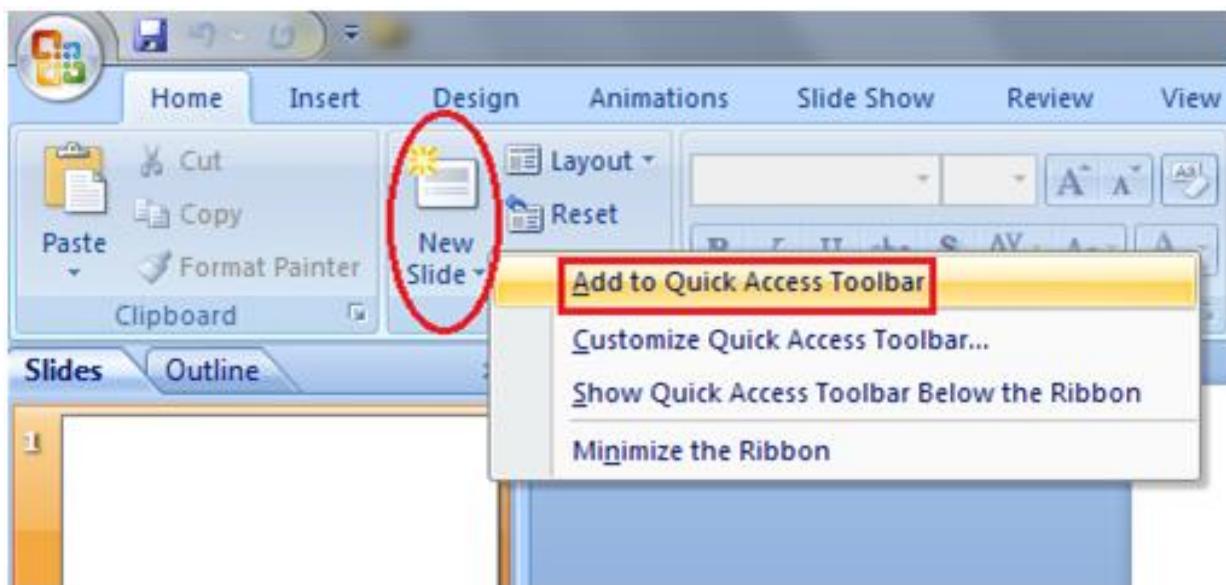


When you click the drop-down arrow at the right end of Quick Access Toolbar it offers more commands. The desired command out of these commands can be added to Quick Access Toolbar with a left click on it.





You can also add the Office Button and Ribbon commands. Just right click the command and select the "Add to Quick Access Toolbar" option. See the image, the command New Slide is added to Quick Access Toolbar.

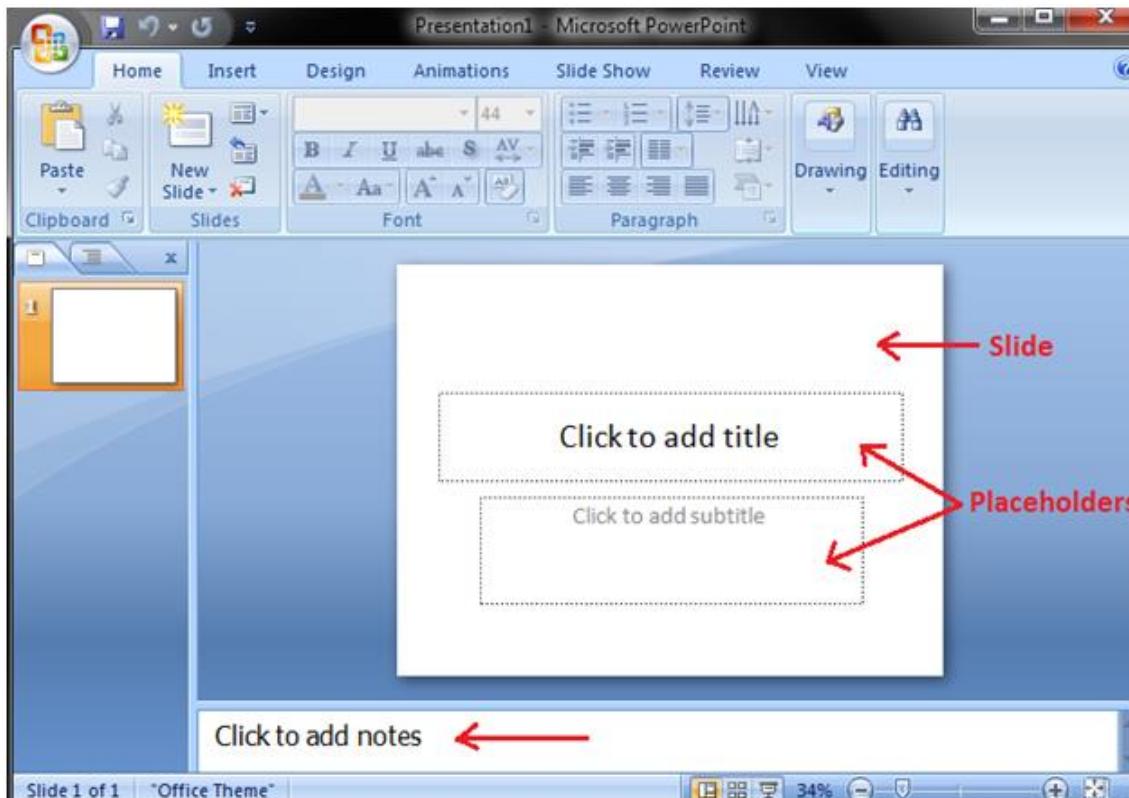


Slide, Placeholder and Notes

Slide: Presentation is created on slides. It lies in the centre of the PowerPoint window.

Placeholder: By default two placeholders appear in the slide when you open the PowerPoint.

Click to add notes: This space is provided to create notes if needed.



Creating a Presentation

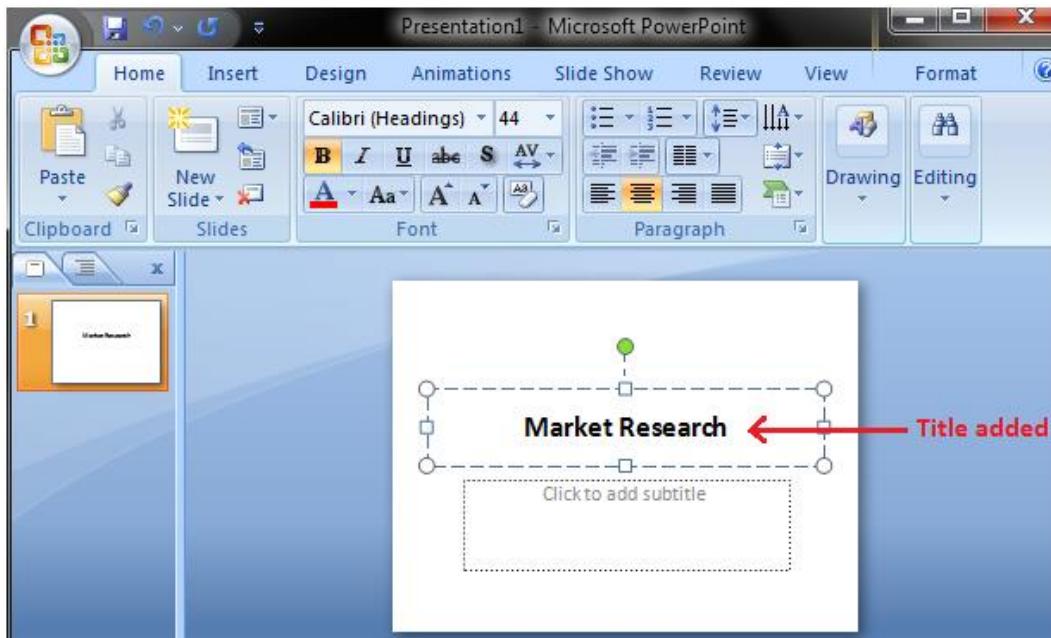
When you open PowerPoint window by default a slide appears. The slide has two placeholders or text boxes. Additional text boxes can be added from the Insert tab.

To start creating presentation click on the placeholder or text box a blinking cursor will appear. Then type the title and click outside the box. The text box will disappear.

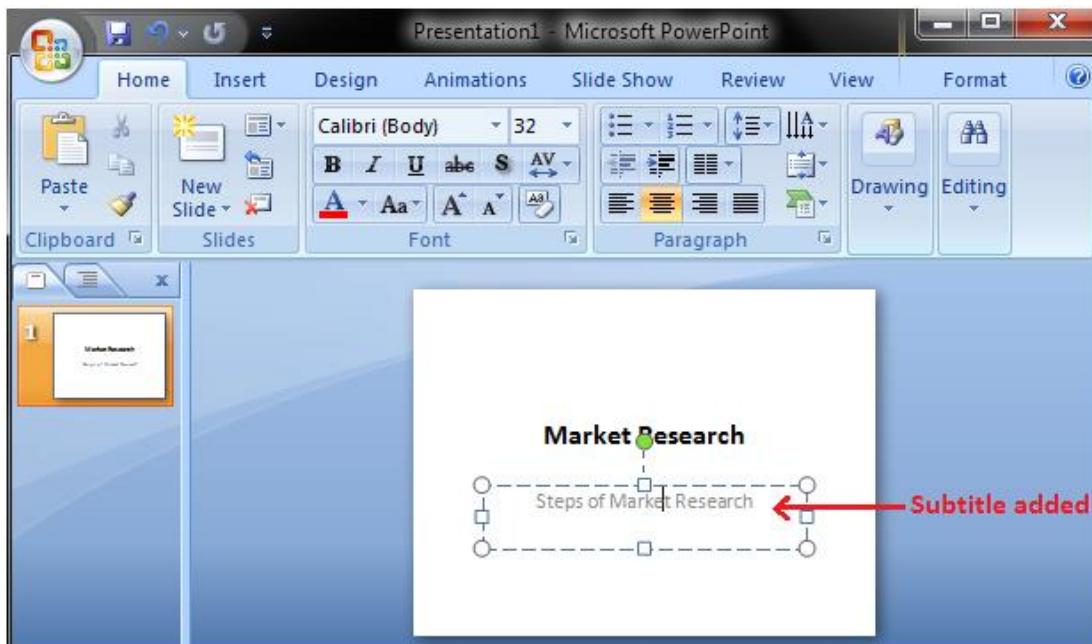


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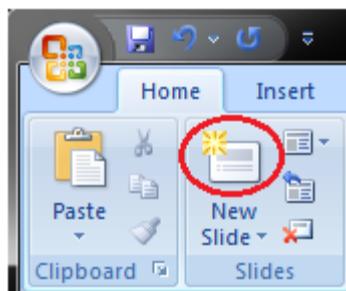
In a similar way, add text or subtitle to the other text box.





Add Slide

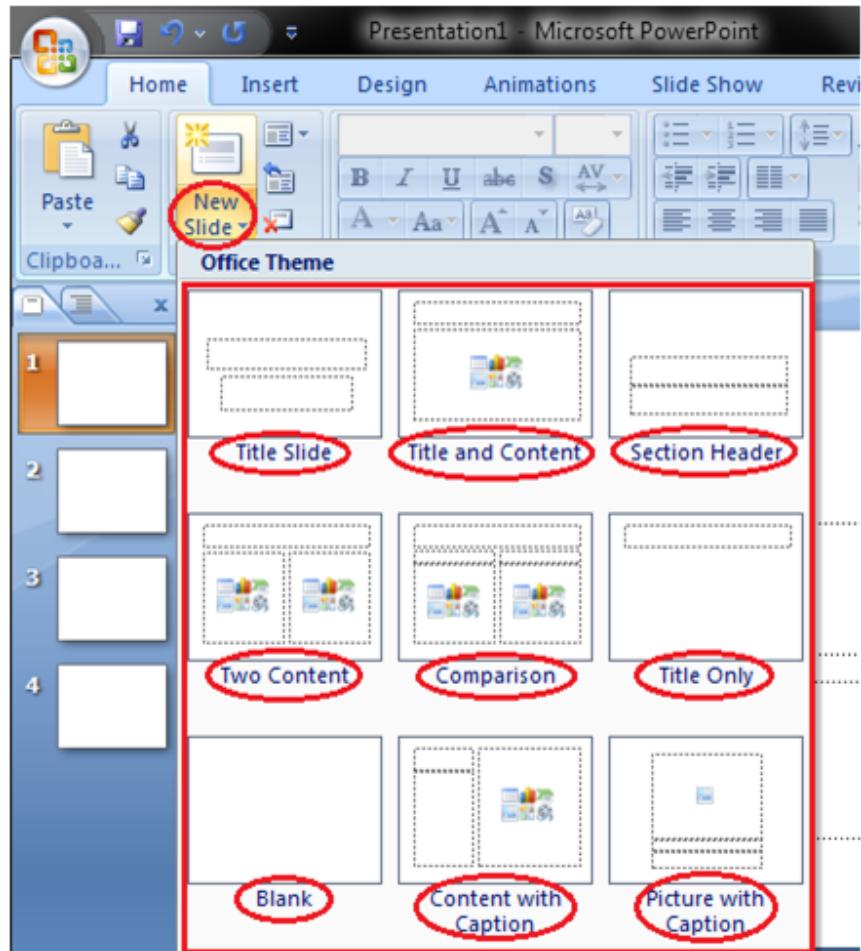
There are multiple ways to add slide in PowerPoint presentation. The frequently used option is to click the New Slide button.



The other ways to add a slide are: Office Themes, Duplicate Selected Slide and Reuse Slides.

1) Using Office Themes to add slide:

- Select the slide next to which you want the new slide to appear
- In Home tab, click the drop-down arrow on the New Slide button
- It will display the office themes
- Select the slide choice that suits your requirement

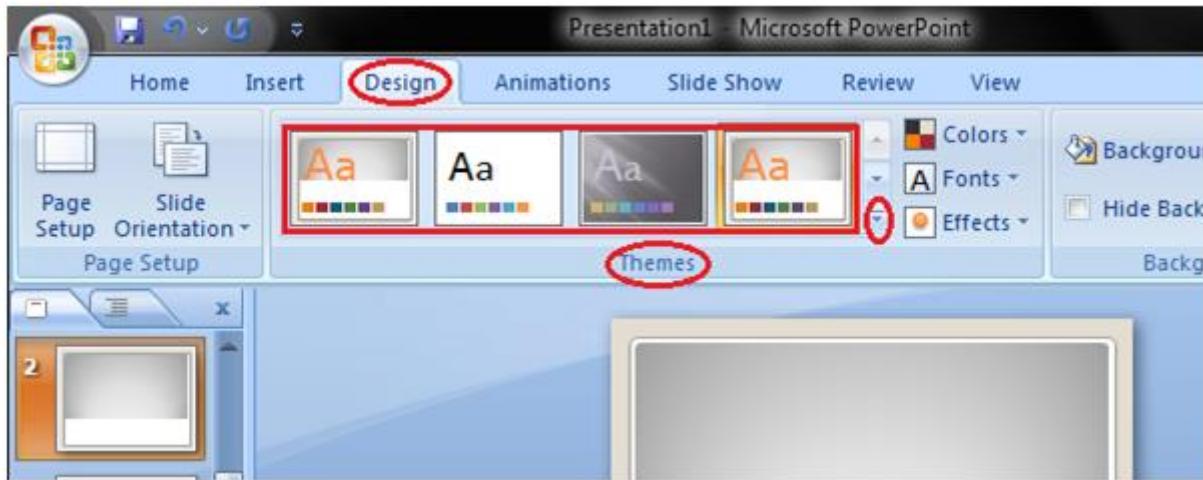


Apply Themes

Themes are design templates that make the presentation colorful and stylist. With a single click you can apply a theme to the entire presentation.

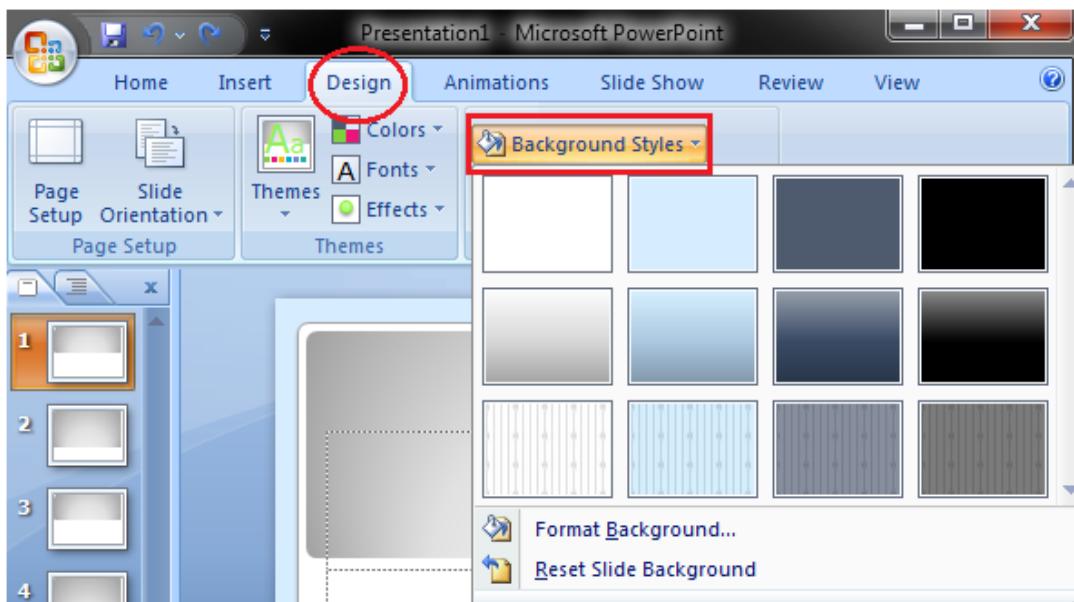
- Open the Design tab
- Locate the Themes group
- Click the desired theme
- Theme will be added to the entire presentation

To see all available Themes click the drop-down arrow on the right bottom corner of the Themes group.



Change the Background of a Theme

- o Open the Design tab
- o Locate the Background group
- o Click the Background Styles button
- o Select the desired background style





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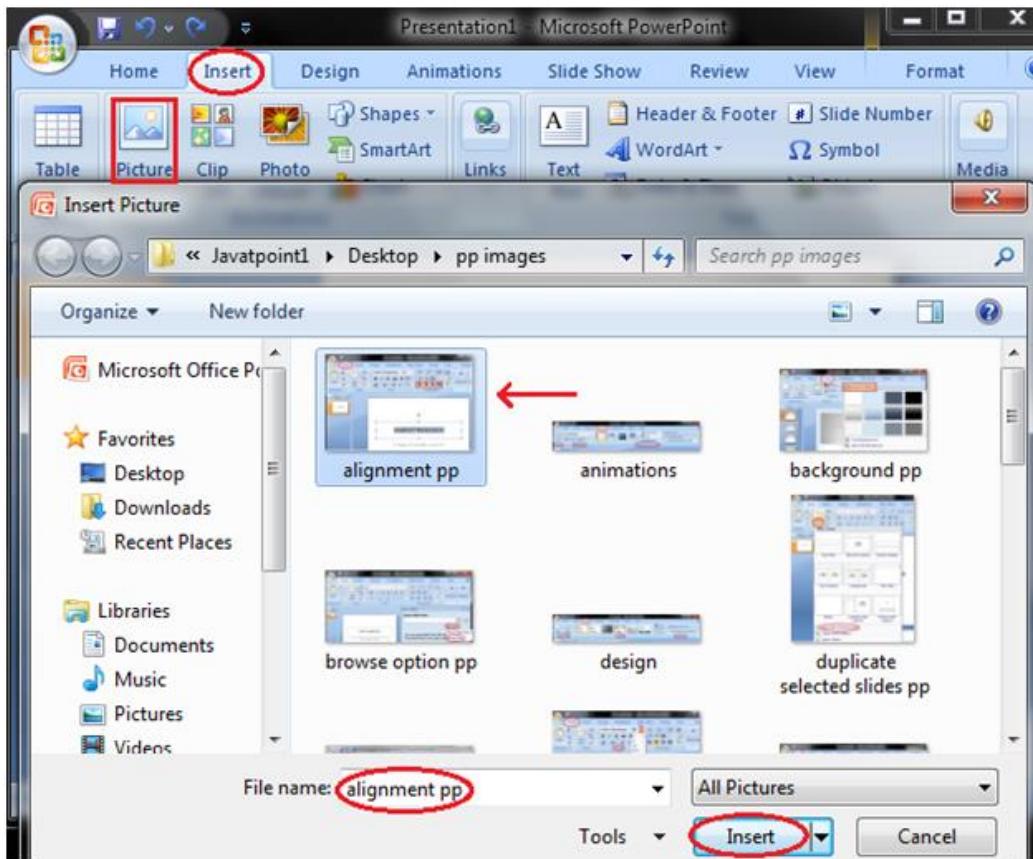


Experiment#11

Insert Picture and Clip Art

To Add Picture:

- Click the Insert tab
- In Illustrations group click on the Picture button
- Insert Picture dialogue box appears
- With a click select the desired picture
- Click Insert, the picture will be added to the slide
- Click and drag the picture to move it to desired location



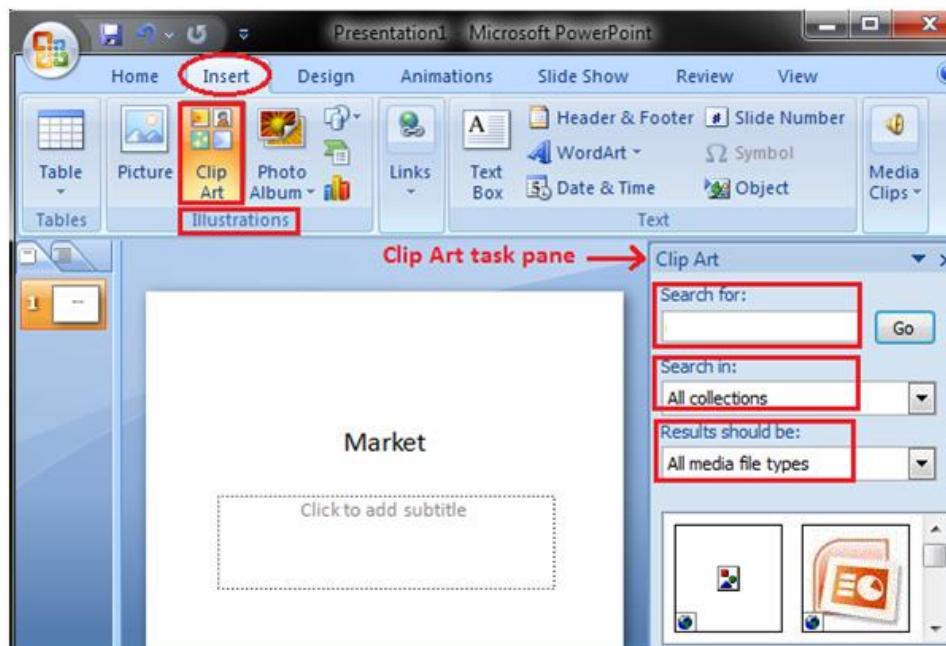


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To Add Picture:

- Click the Insert tab
- In Illustrations group click the Clip Art button
- Clip Art task pane appears on the right side
- In task pane you will notice three fields: Search for, Search in, Results should be



In "Search Field" you can enter the keyword related to clipart you want to insert

In "Collection Field" click the drop-down arrow. It gives four options. Choose the option that suits your requirement.

Edit Picture and Clip Art

- Select the Picture or Clip Art that you want to edit
- Format tab appears in the Ribbon next to View tab
- It displays four groups of commands; Adjust, Picture Styles, Arrange and Size group

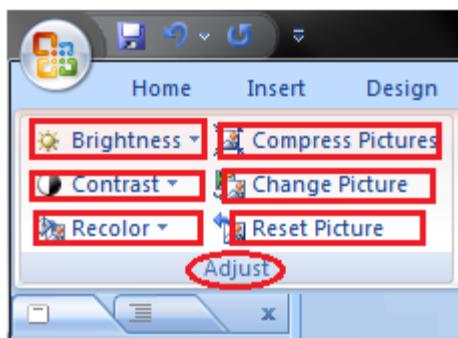


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The Adjust group displays six commands.



- Brightness: To increase and decrease the picture brightness
- Picture Contrast: To increase or decrease the picture contrast
- Recolor: To recolor the picture to give it special effect
- Compress Picture: To compress picture to reduce its size
- Change Picture: To change the picture
- Reset Picture: To discard all the changes made to the picture

The Picture Styles group displays picture styles and three commands.





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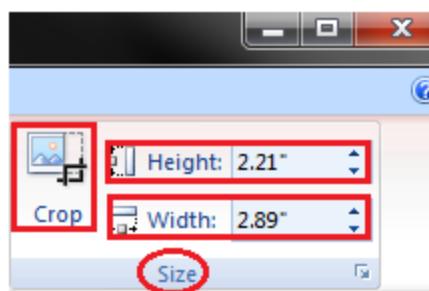
- Picture Styles: To apply a picture style to the picture or clip art
- Picture Shape: To change the shape of the picture or clip art
- Picture Border: To give colors to the picture border
- Picture Effects: To apply visual effect to the picture

The Arrange group has six commands:



- Bring to Front: To bring the picture in front of all other objects
- Send to Back: To send the picture behind other objects
- Selection Pane: It displays selection pane with various options to format and change order of picture
- Align: To align the multiple pictures on the slide. You can distribute them evenly across the slide.
- Group: To group different objects together
- Rotate: To rotate the text or objects

The Size group has three commands.

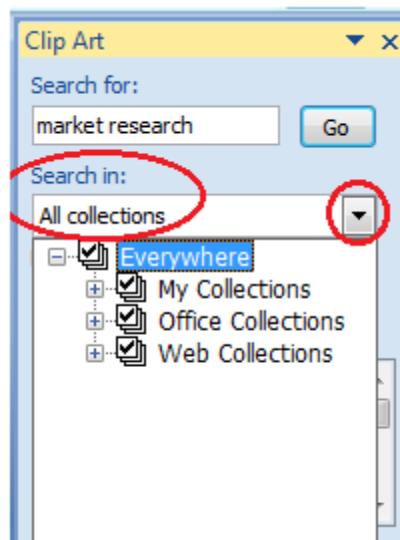




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- o Crop: To remove unwanted parts of the picture
- o Height: To change the height of the picture
- o Width: To change the width of the picture



In "Results should be" filed click the drop-down arrow, you will find five options. Choose the option that suits your requirement.

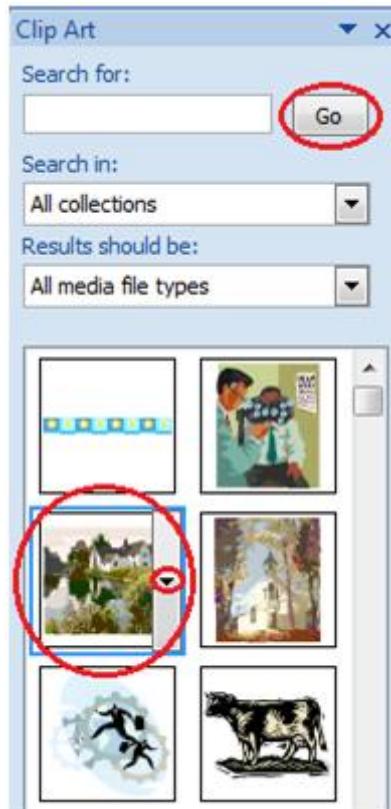


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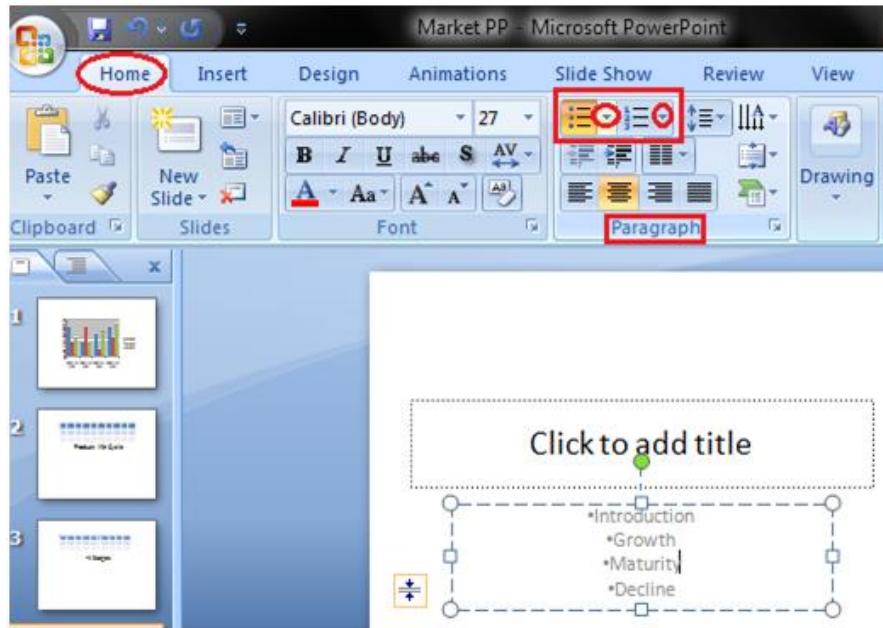


Now click the "Go". Clip Art menu will appear. Select the desired clip art or click the drop- down arrow next to clip art, it will display Insert option to add the clip art.



Create Bulleted or Numbered lists

- Select the text or list to which you want to add bullets or numbering
- Select Home tab and locate the Paragraph group
- Click the Bullets or Numbering button or click the drop-down arrow next to these buttons to see more bullet styles and numbering formats
- Select the style you want to apply to text



Working with Charts

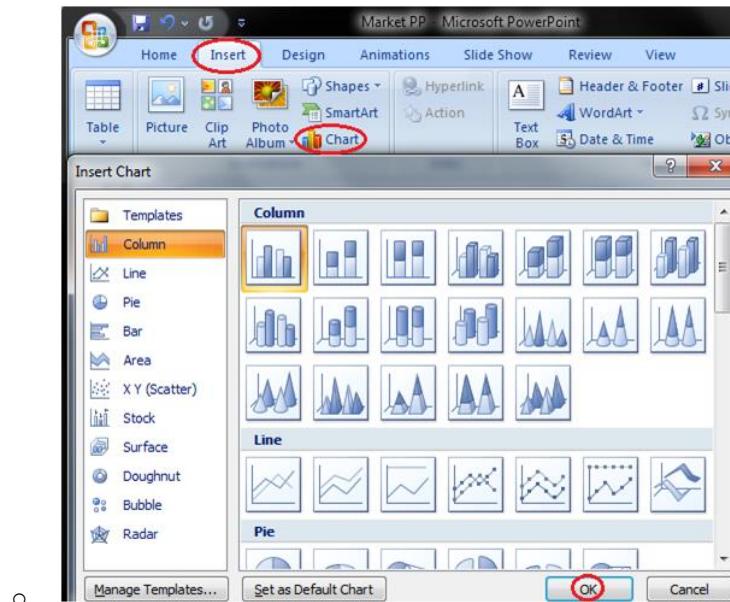
Insert Chart

- Select the Insert tab
- In Illustrations group click on Chart command
- An Insert Chart dialogue box appears
- Select the desired Chart style and click Ok
- Chart will be added to slide and an Excel worksheet appears on right side of the slide



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The screenshot shows a Microsoft Excel spreadsheet titled 'Chart in Mic...'. On the left, there is a bar chart with three series: Series 1 (blue), Series 2 (green), and Series 3 (red). The chart has four categories labeled 'Category 1' through 'Category 4'. On the right, there is a data table with columns labeled 'Series 1', 'Series 2', and 'Series 3'. The rows represent the categories from the chart. A red box highlights the data table, and a red arrow points to it with the text 'Placeholder Data'. Another red arrow points to the bottom-right corner of the table with the text 'Placeholder Data'. The text 'To resize chart data range, drag lower right' is also visible.

	Series 1	Series 2	Series 3
Category 1	4.3	2.4	2
Category 2	2.5	4.4	2
Category 3	3.5	1.8	3
Category 4	4.5	2.8	5



Enter Chart Data

We can't enter data directly in charts. To enter data in chart we have to type it in excel spreadsheet that appears when you add Chart or click Edit Chart option.

The data that you enter in spreadsheet automatically appears in the Chart. Select the cell of spreadsheet and type the data it will appear in the slide. Repeat the process to enter the entire data.

The screenshot shows two windows side-by-side. On the left is a Microsoft PowerPoint slide with a bar chart titled 'Quarter Sales' comparing three teams (Team A, Team B, Team C) across four quarters. The chart has a light blue background with white bars. An annotation 'Chart Data Appears in Slide' with a red arrow points to the chart area. On the right is a Microsoft Excel spreadsheet showing the same data in a table format:

	A	B	C	D	E
1		Team A	Team B	Team C	
2	1 Quarter Sales	40	20	28	
3	2 Quarter Sales	20	40	20	
4	3 Quater Sales	30	10	35	
5	4 Quarter Sales	40	24	45	
6					
7					↑ Chart Data Entered
8					To resize chart data range, drag lower
9					
10					

Annotations in the Excel window include a red arrow pointing to cell D7 labeled 'Chart Data Entered' and text below it stating 'To resize chart data range, drag lower'.

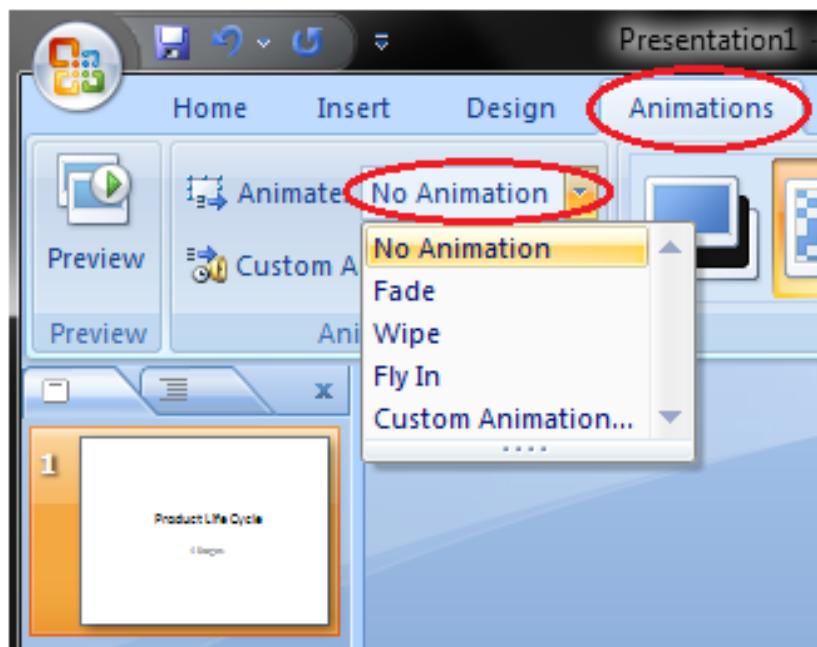


Experiment#12

Slide Effects

Apply Animation Effect

- Select the text or object you want to animate
- Select the Animations tab
- In Animations group click the drop-down arrow next to Animate option
- Animation options will appear
- Move the cursor over different options to see live preview on the slide
- Select the desired animation





Apply Slide Transition Effects

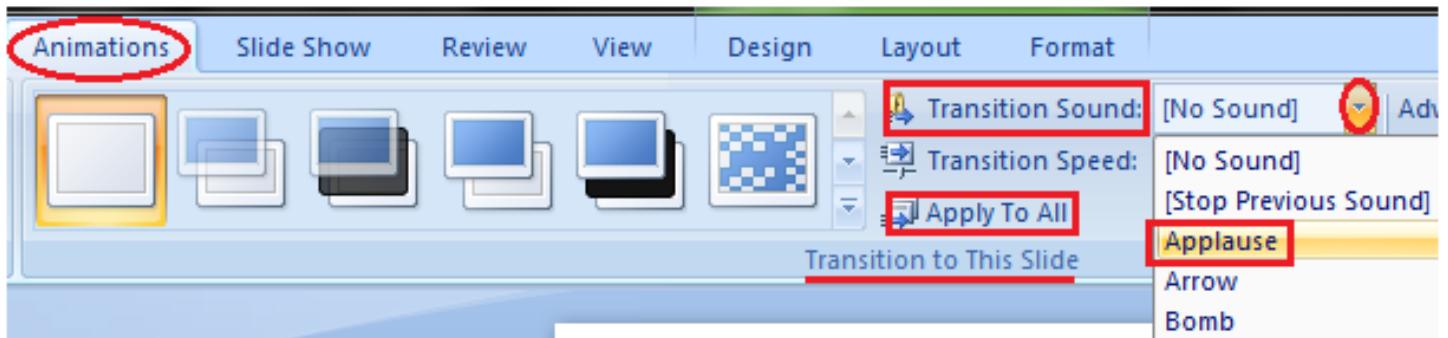
Transition effects appear when one slide changes into next slide in a Slide Show.

- Select the slide to which you want to apply the effect
- Select the Animation tab
- In Transition to This Slide group you will see the transition effects
- Click the drop-down arrow to see menu of transition effects
- Select the desired transition effect
- Click Apply To All to apply the effect to all slides



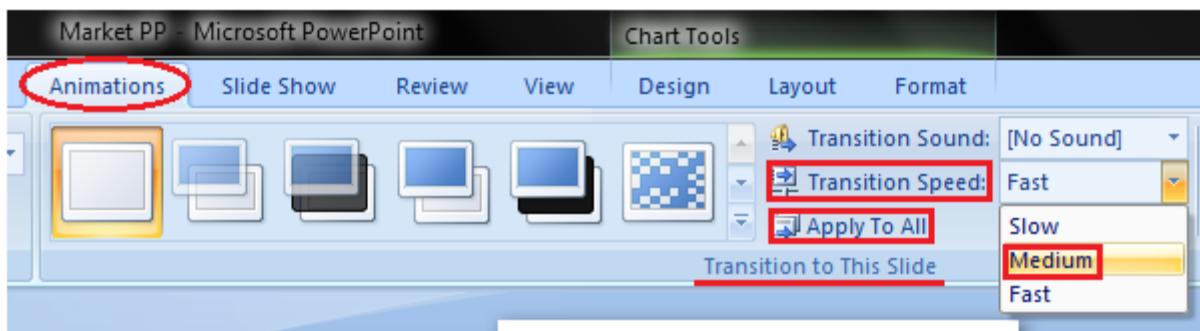
Set Slide Transition Sound

- Select the slide to which you want to add the transition sound
- Select the Animation tab
- In Transition to This Slide group click the drop-down arrow next to Transition Sound option
- A list of different transition sounds appears
- Select the desired transition sound
- Click Apply To All to apply the effect to all slides



Set Slide Transition Speed

- Select the slide
- Select the Animation tab
- In Transition to This Slide group click the drop-down arrow next to Transition Speed option
- It will display three options for transition speed
- Select the desired transition speed
- Click Apply To All to apply the same transition speed to all slides

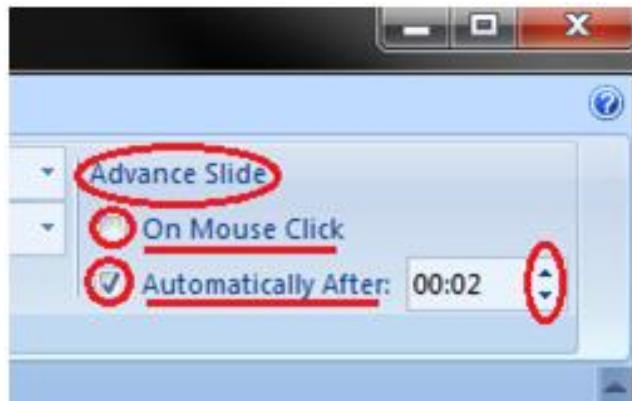


How to Advance Slides

- Select the slide
- Select the Animations tab
- In Transition to This Slide group locate the Advance Slide section



- It shows two options; On Mouse Click and Automatically After
- Enter the desired time for the selected slide in Automatically After option
- Select the next slide and choose the desired time
- Click Apply To All If you want to apply the same timing to all slides



Viewing Slides

Once you create the presentation you can view it in different ways.

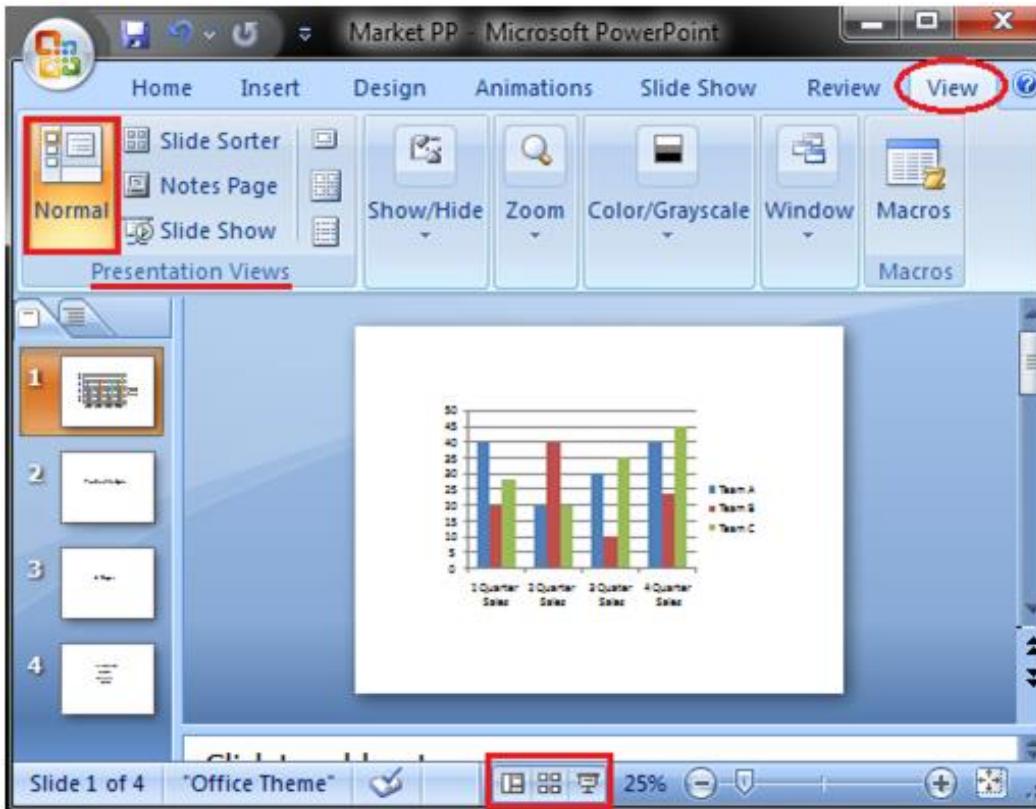
Select the View tab. Locate the Presentation Views group. It displays four options to view presentations; Normal View, Slide Sorter View, Slide Show View and Notes Page View.

Normal View: The normal view appears by default when we open the PowerPoint window. We create and edit slides in Normal View. This view also offers three view options out of four options in the form of buttons on the status bar.



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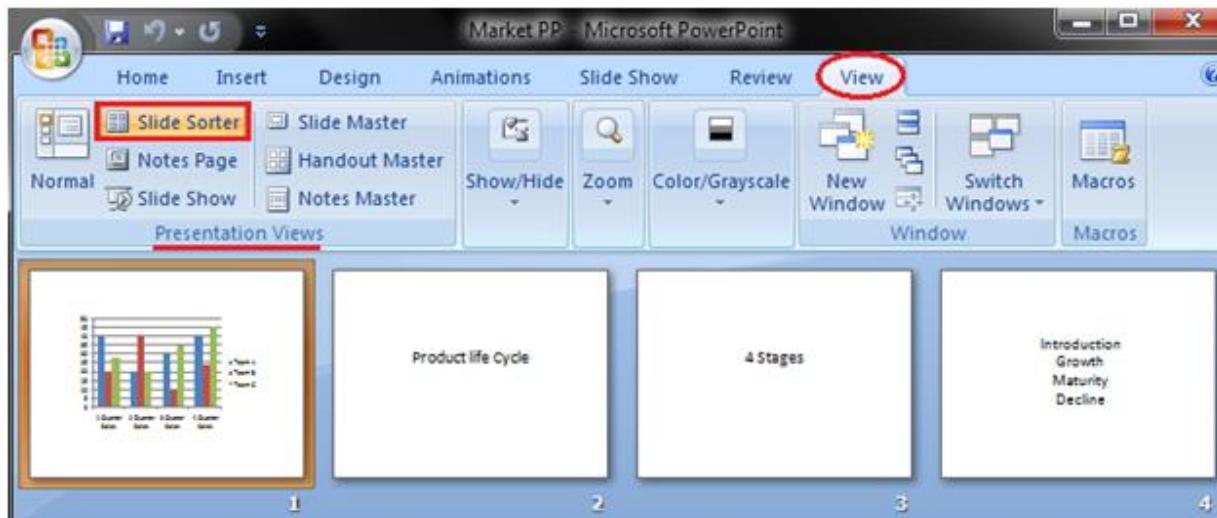


Slide Sorter View: It offers miniature or thumbnail version of all slides. You can see all your slides at one time in the screen. You can also drag or delete the slides to rearrange them.

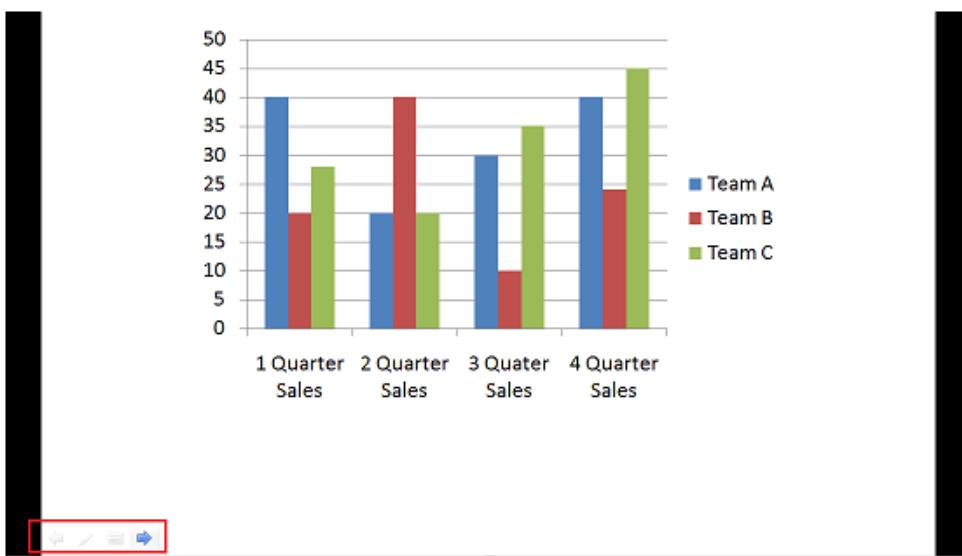


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Slide Show View: It displays your presentation in full screen mode. It also offers an additional menu at the left bottom corner of the slide.



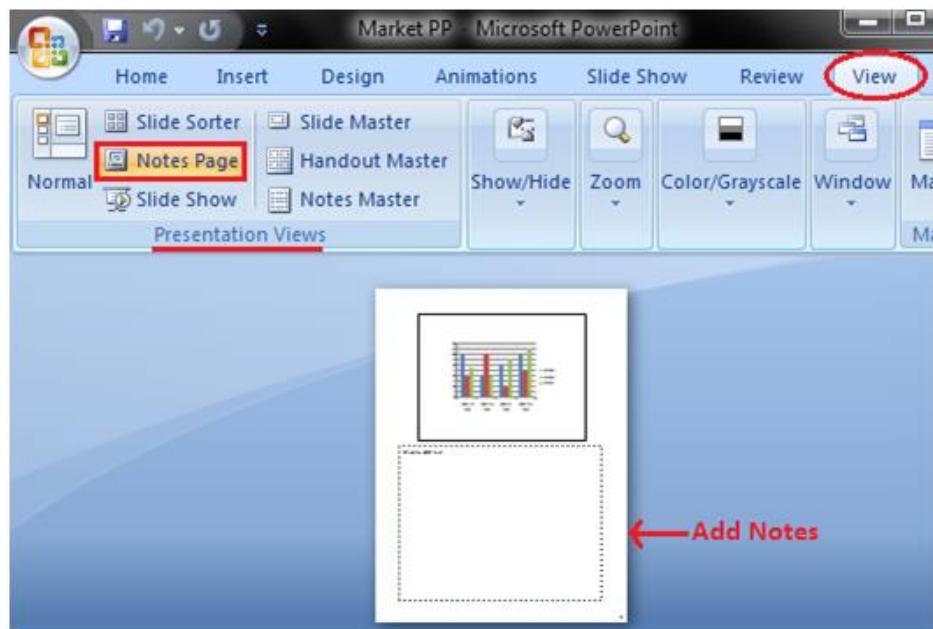
Notes Page View

This view provides space below the slide to add notes.



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Experiment#13

Microsoft Access

Microsoft Access is a Database Management System offered by Microsoft. It uses the Microsoft Jet Database Engine and comes as a part of the Microsoft Office suite of application.

Microsoft Access offers the functionality of a database and the programming capabilities to create easy to navigate screens (forms). It helps you analyze large amounts of information, and manage data efficiently.

Database File:

It is a file which stores the entire database. The database file is saved to your hard drive or other storage devices.

Datatypes:

Datatypes are the properties of each field. Every field has one datatype like text, number, date, etc.

Table

- A Table is an object which stores data in Row & Column format to store data.
- A Table is usually related to other tables in the database file.
- Each column must have Unique name
- We can also define Primary Key in a table.

Query

- Queries answer a question by selecting and sorting and filtering data based on search criteria.
- Queries show a selection of data based on criteria (limitations) you provide.
- Queries can pull from one or more related Tables and other Queries.
- Types of Query can be SELECT, INSERT, UPDATE, DELETE.

Form

- A form is a database object that you can use to create a user interface for a database application.
- Forms help you to display live data from the table. It mainly used to ease the process of data entry or editing.



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Report

- A report is an object in desktop databases primarily used for formatting, calculating, printing, and summarizing selected data.
- You can even customize the report's look and feel.

Macros

Macros are mini computer programming constructs. They allow you to set up commands and processes in your forms, like, searching, moving to another record, or running a formula.

Modules:

Modules are procedures(functions) which you can write using Visual Basic for Applications (VBA).

Start Microsoft Access

Note: We assume you have the latest Microsoft Access installed which comes bundled with Microsoft Office 365 package.

There are two ways to Start MS Access.

1. From Windows, 'Start' button.
2. From Desktop, Right Click> 'New' option.

Now in this Microsoft Access tutorial, let's have a look of starting MS Access using both the ways:

Option 1) From Windows, Start button.

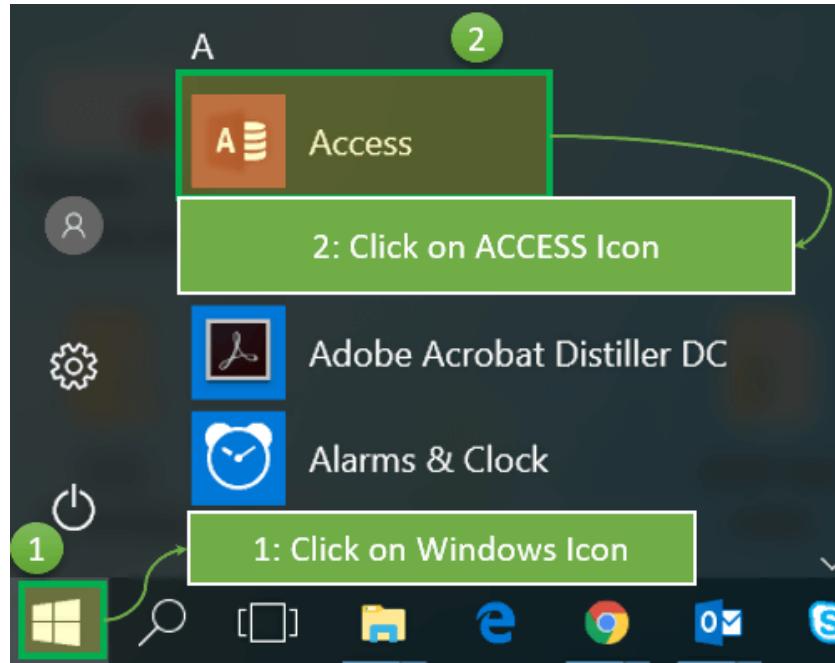
Step 1) Click on the 'Windows' icon. You will find the list of installed programs.

Step 2) Check and click on Access Icon.



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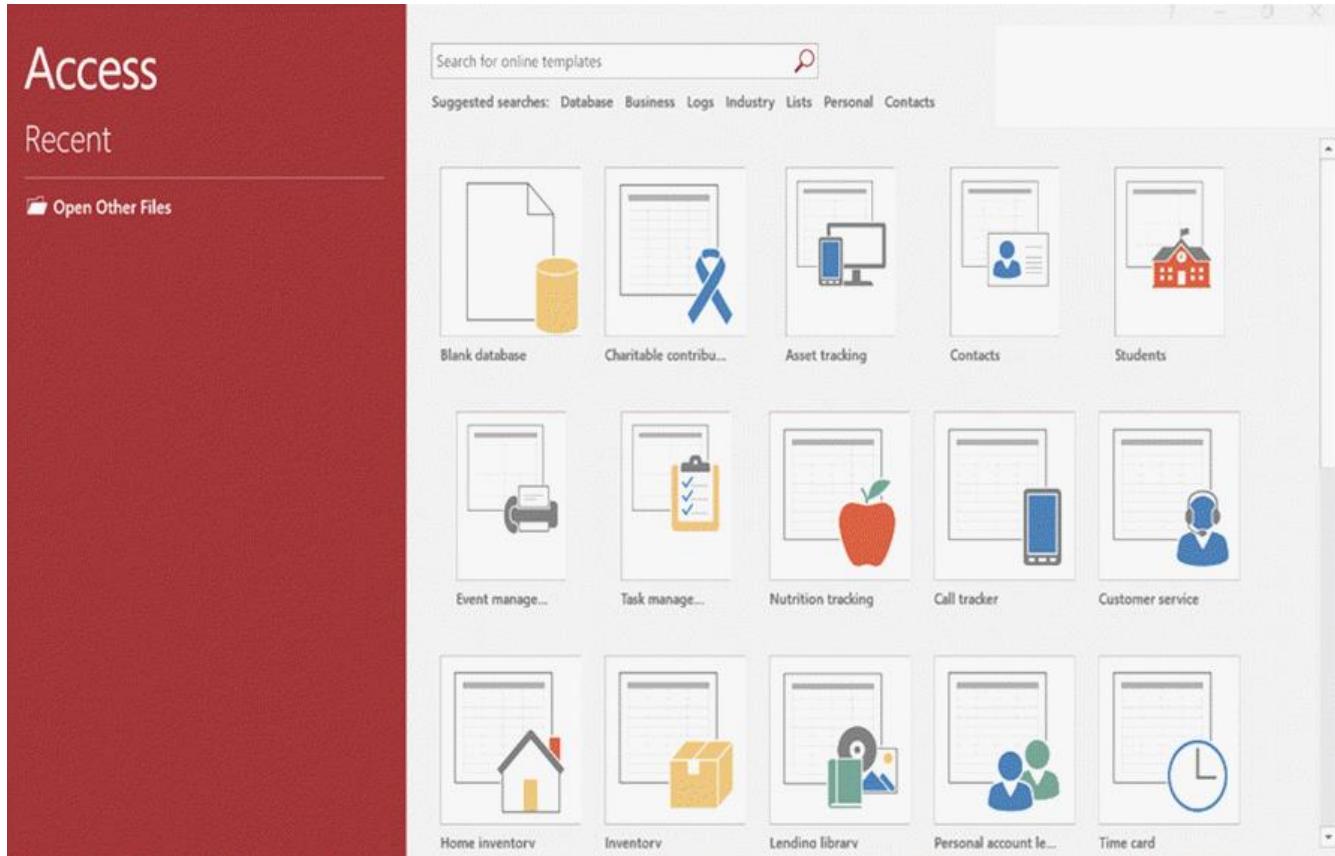


Step 3) MS Access Application window will appear



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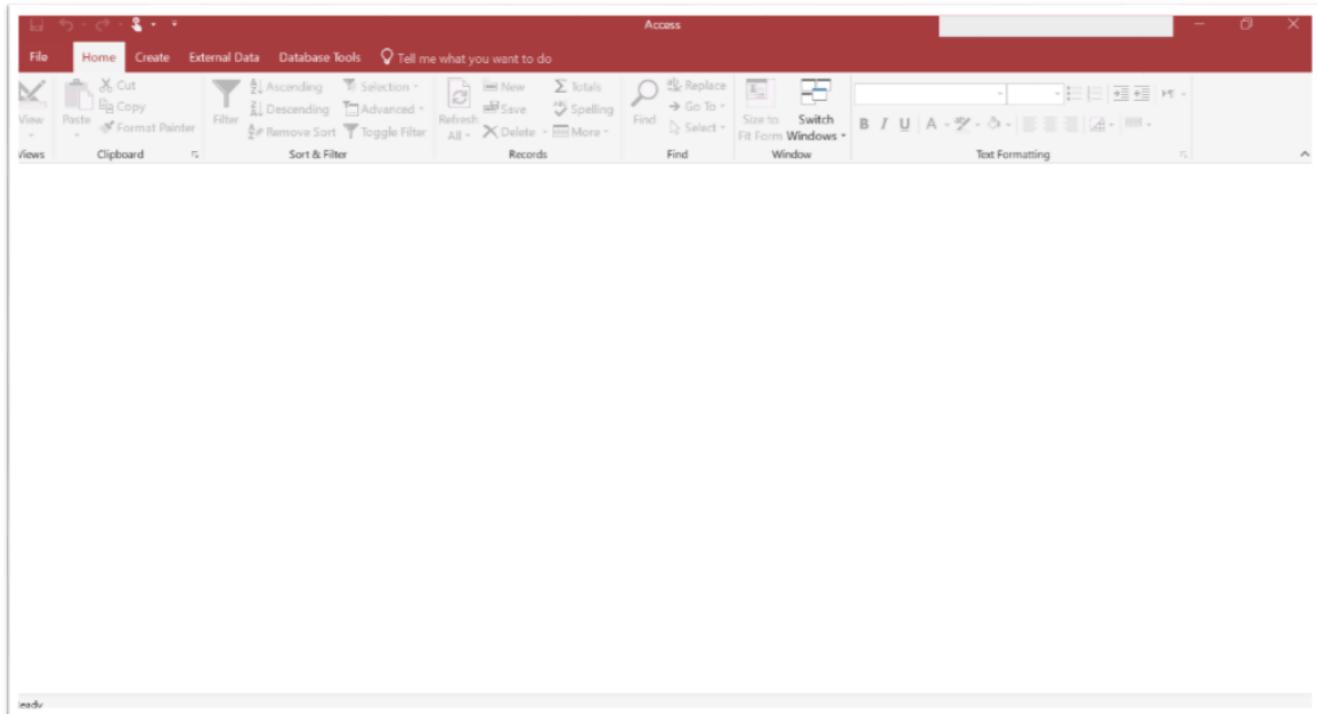
Steps 4) Press 'Esc'

Result: This will open the MS Access windows application



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Option 2) From Desktop, 'New' option.

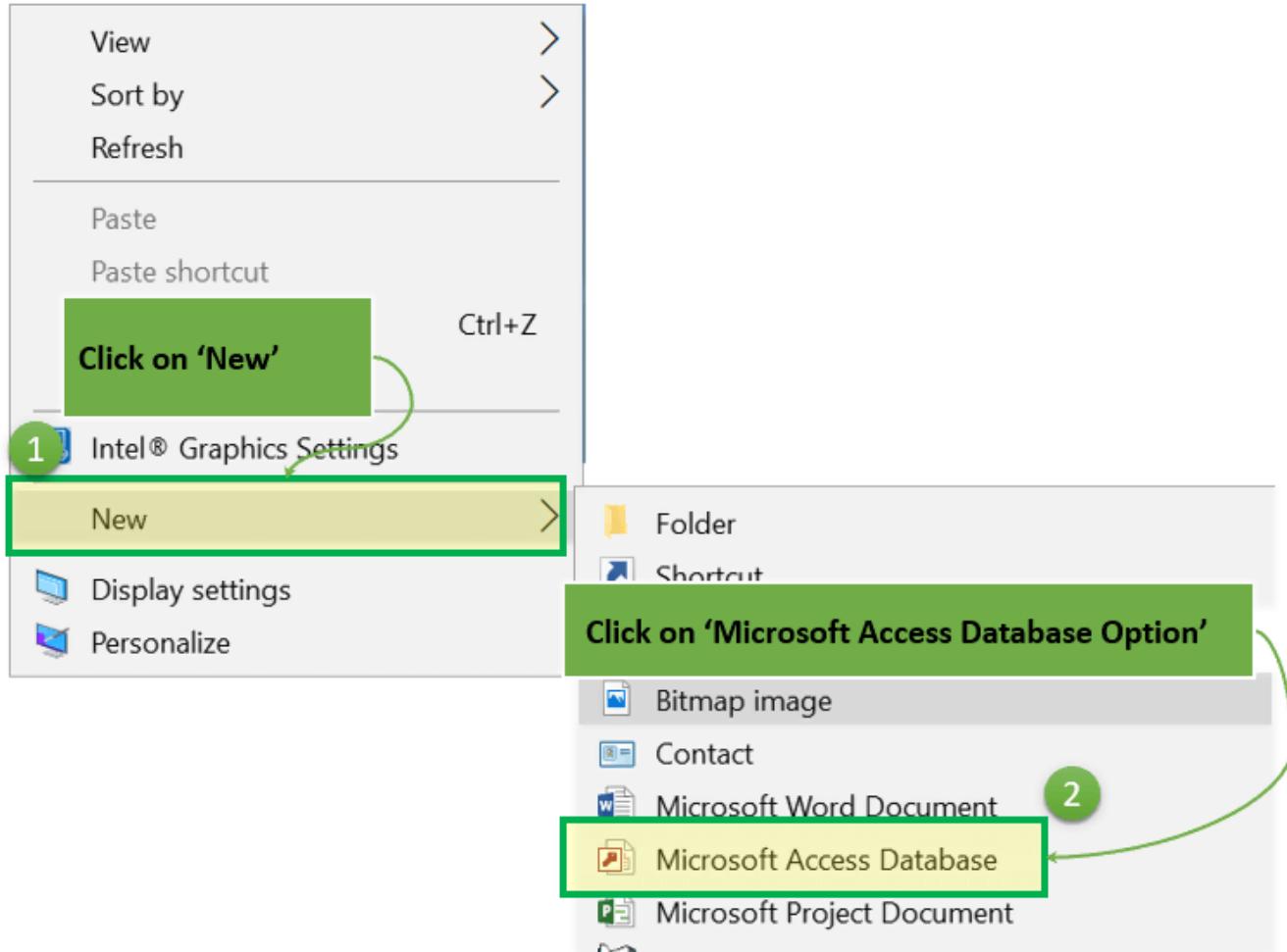
Step 1) Right Click from Desktop and Click 'New'

Step 2) Click on 'Microsoft Access Database Option'



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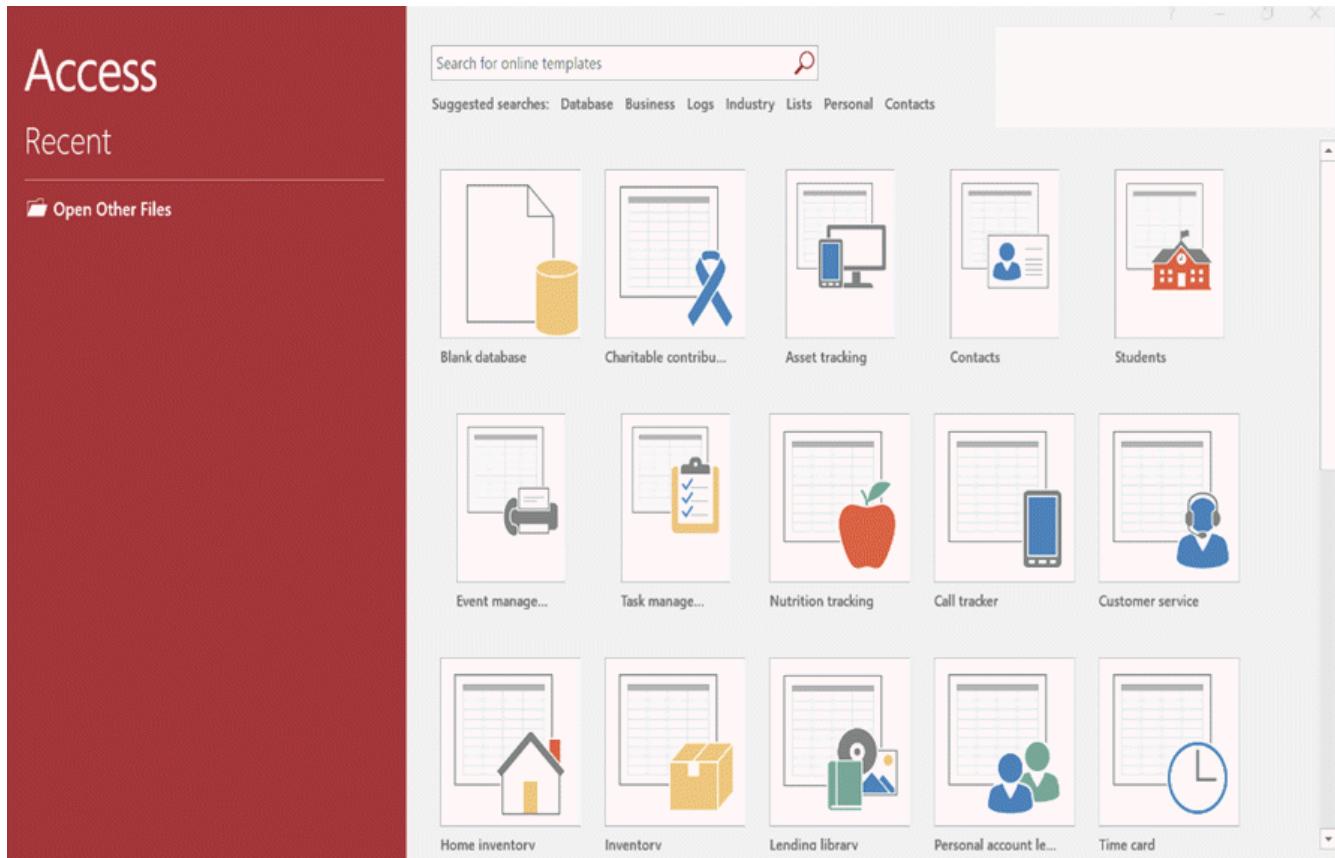


Step 3) Below MS Access Application window will appear



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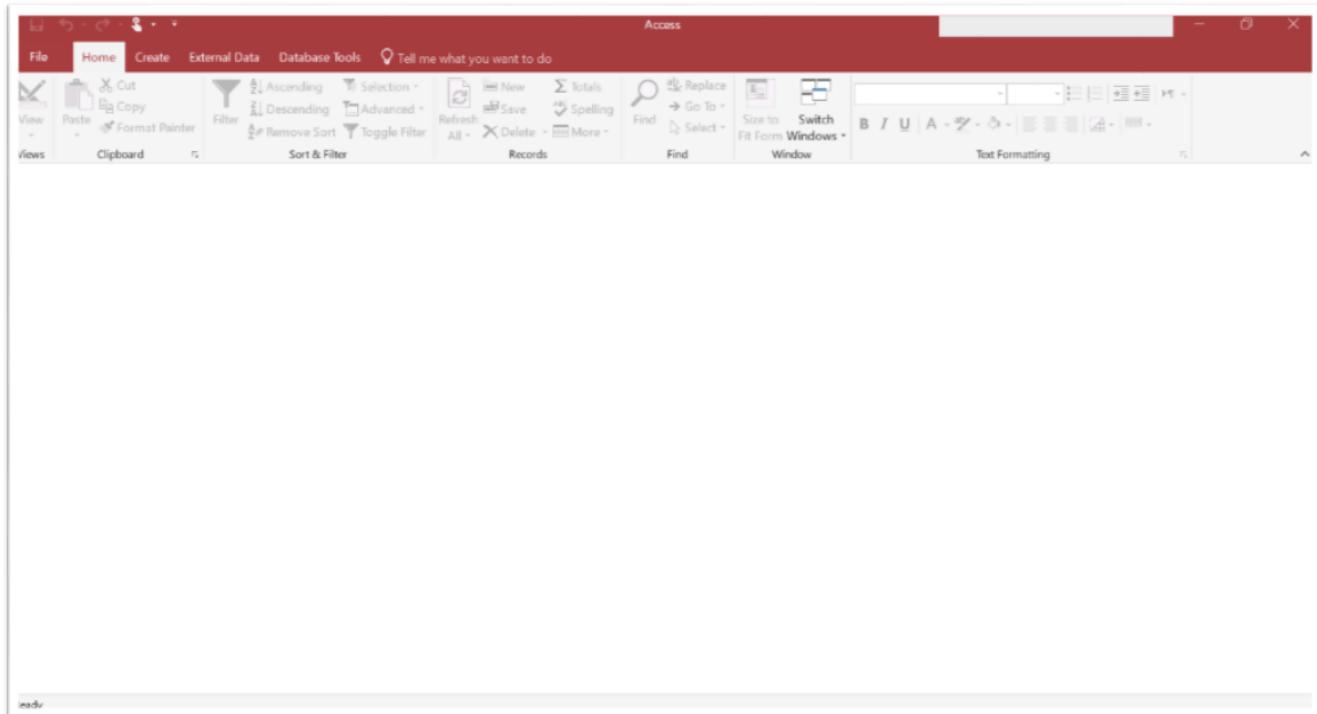
Step 4) Press 'Esc'

Result: This will open the MS Access windows application



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Create Database from Template

- There are many situations where we need to start with some readymade database template for given requirements.
- MS Access provides many ready to use templates for such types of databases requirements where the data structure is already defined.
- You can keep customizing the template structure further as per our requirement.
- MS Access Databases example includes Contacts, Student, Time tracking, etc.

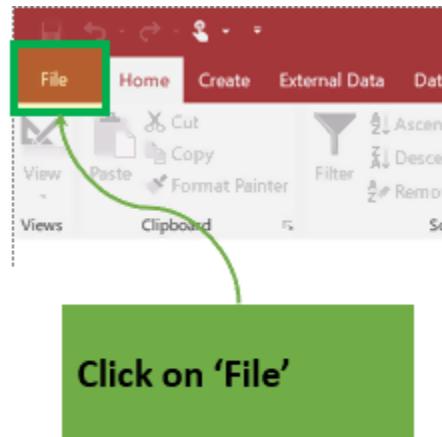
Steps to create Database from Template

Step 1) With MS Access application open, Click on File.

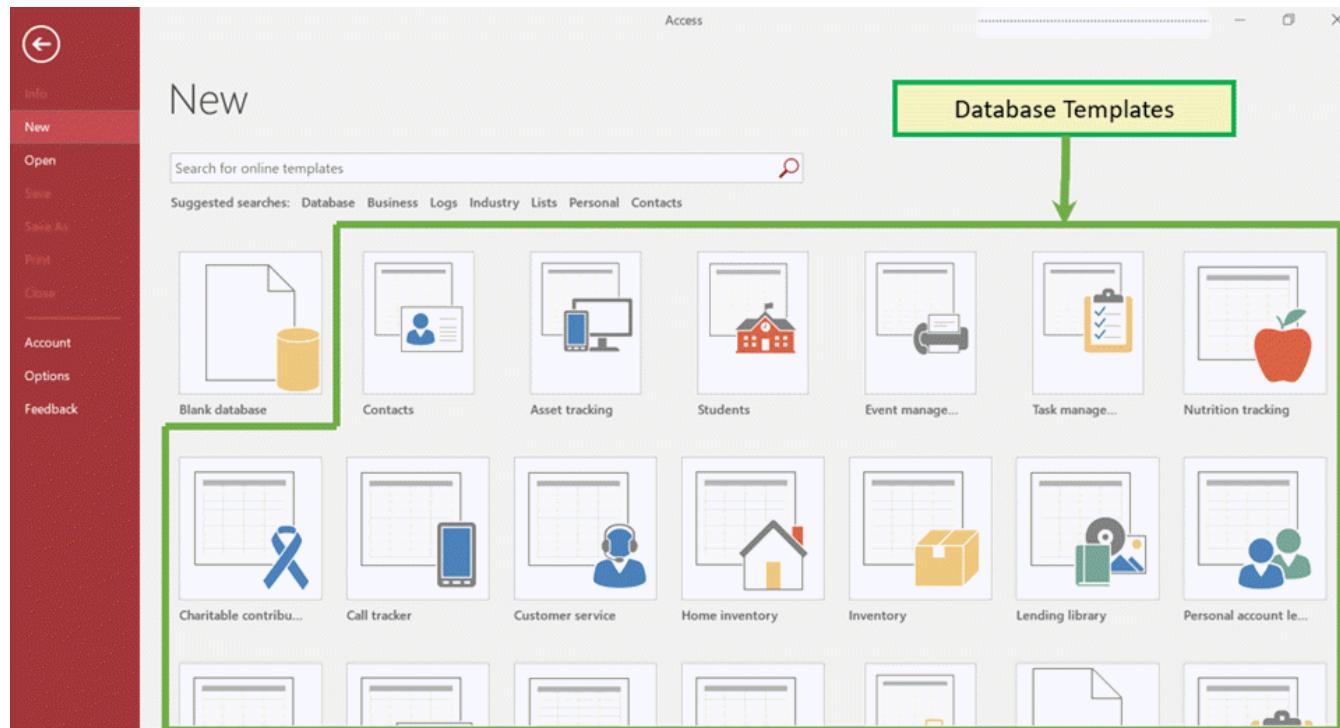


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Result: The below window will appear. All the Database templates are displayed below.

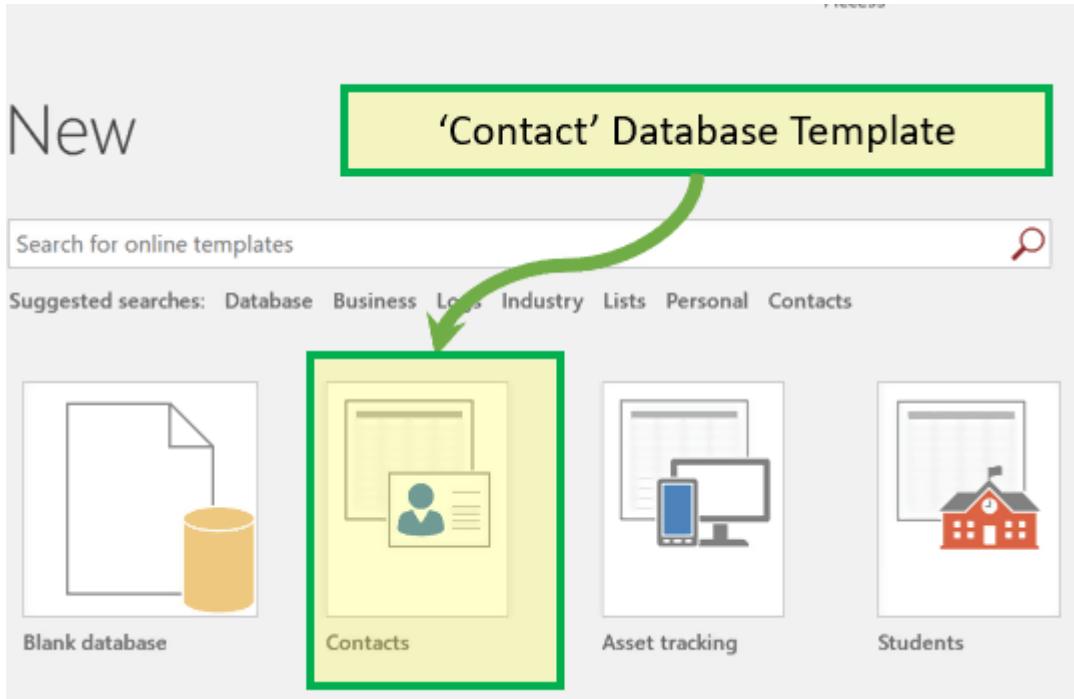


Step 2) We can select any template by clicking on it. Click on Contact Template for further reverence.



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Step 3) File name box will appear with the default file name.

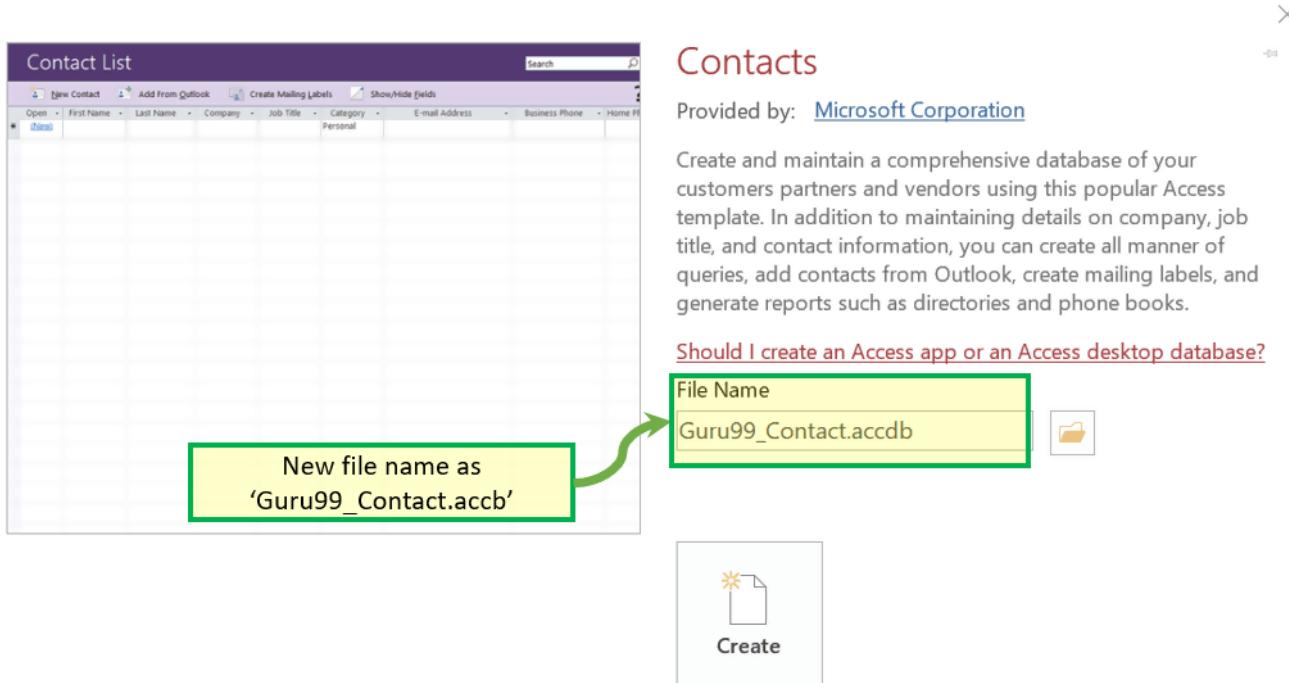
The screenshot shows the Microsoft Access 'Contact List' screen. On the right, there is a 'Contacts' section with text about the template and a link to 'Should I create an Access app or an Access desktop database?'. Below this is a 'File Name' dialog box with the text 'Database1.accdb' and a folder icon. A green box highlights the text 'Default File Name as 'Database1.accb'' on the left. A green arrow points from the 'File Name' dialog box to this highlighted text. At the bottom right, there is a 'Create' button with a document icon.



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Step 4) Enter the new Name.



Step 5) Click on 'Create.'



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Contact List

New Contact Add From Outlook Create Mailing Labels Show/Hide Fields

Open First Name Last Name Company Job Title Category E-mail Address Business Phone Home Phone

Personal

(Blank)

Contacts

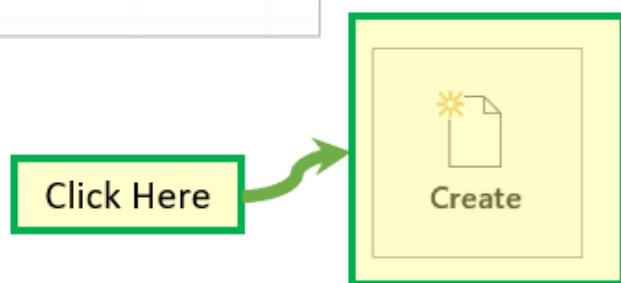
Provided by: [Microsoft C](#)

Create and maintain a contact list for customers, partners and vendors. Use a template. In addition to managing contact information, title, and contact information, you can perform queries, add contacts from other sources, and generate reports such as contact lists.

[Should I create an Access Database?](#)

File Name

Guru99_Contact.accdb



Result: Guru99_Contact Database created and below window will appear.



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The screenshot shows the Microsoft Access application interface. The top ribbon has tabs for File, Home, Create, External Data, Database Tools, and a search bar. The Home tab is selected. The left side features the 'All Access Objects' navigation pane, which is highlighted with a green border. It lists categories like Tables, Queries, Forms, Reports, Macros, and Modules, with specific objects like 'Contact List' under Forms and 'Directory' under Reports. A green arrow points from the 'Contact List' item in the navigation pane to the 'Contact List' form window on the right. The 'Contact List' form has fields for First Name, Last Name, Company, Job Title, Category, E-mail Address, and Business. A green callout box labeled 'Default Object:' contains a numbered list of object types and their corresponding default names:

Default Object:

- 1) **Tables:** Contact, Settings
- 2) **Queries:** Contacts Extended
- 3) **Forms:** Contact details, Contact List, Welcome
- 4) **Reports:** Directory, Phone book
- 5) **Macros:** Auto Exec, Search
- 6) **Module:** modMapping

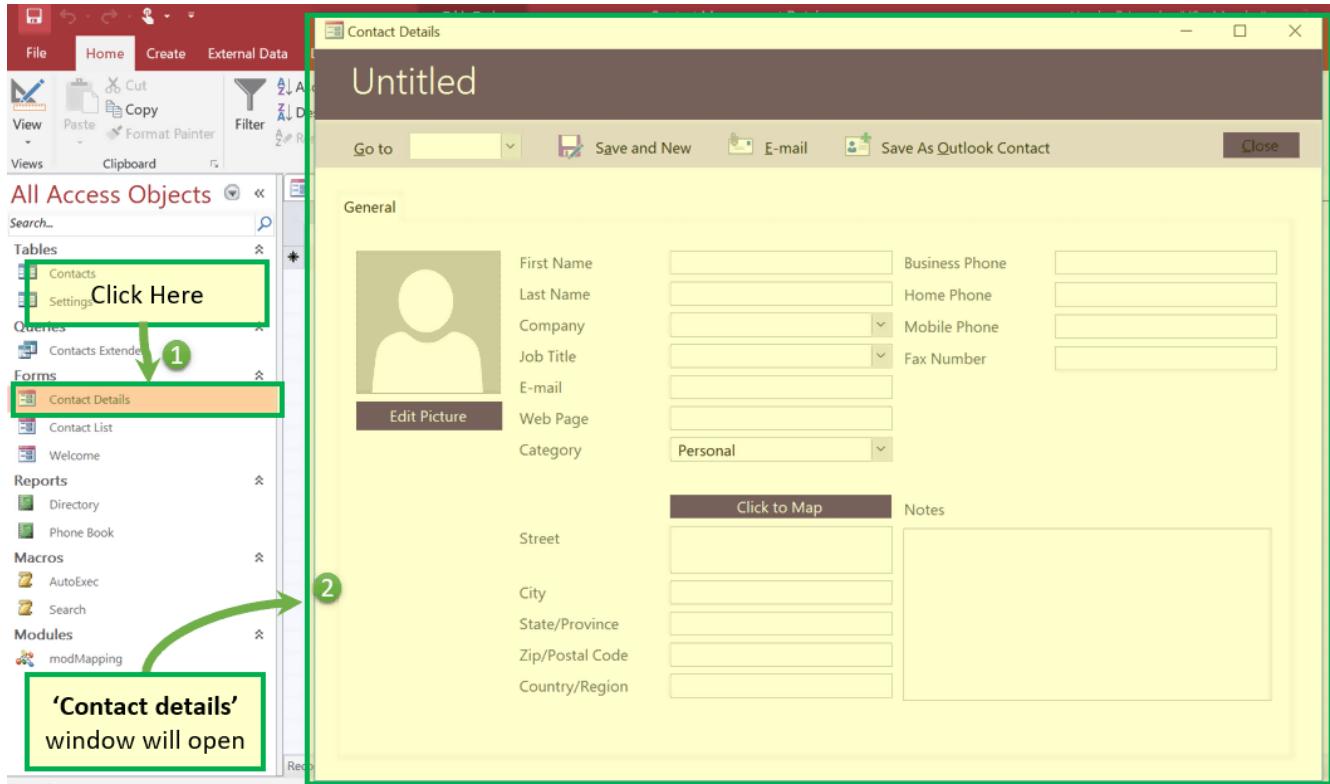
Step 6) Optionally, you can click on any of the objects from left navigation pane and open that object for further references and work.

For, E.g., Clicking on 'Contact Detail' form will open 'Contact Detail' form as displayed below.



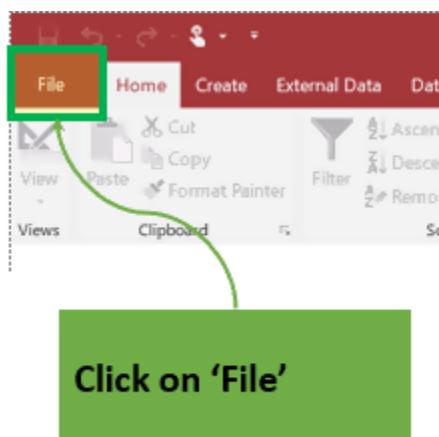
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Create a Blank Database

Step 1) With MS Access application open, Click on File > New

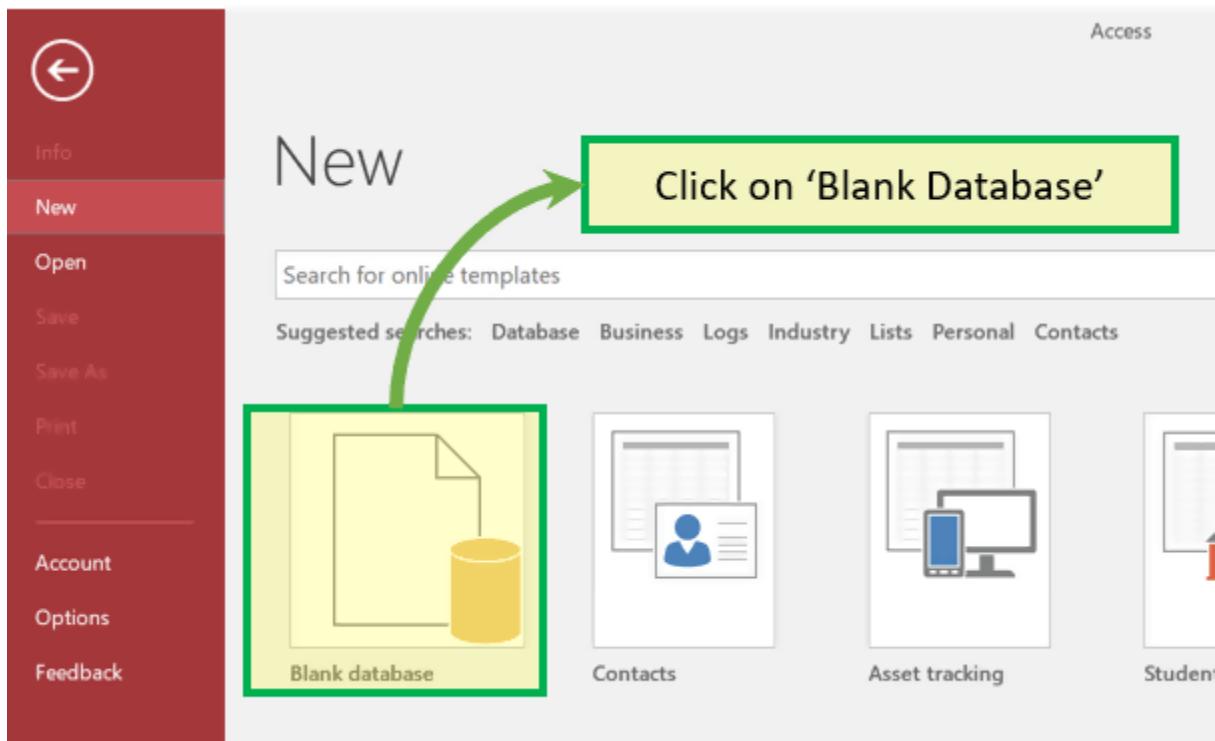




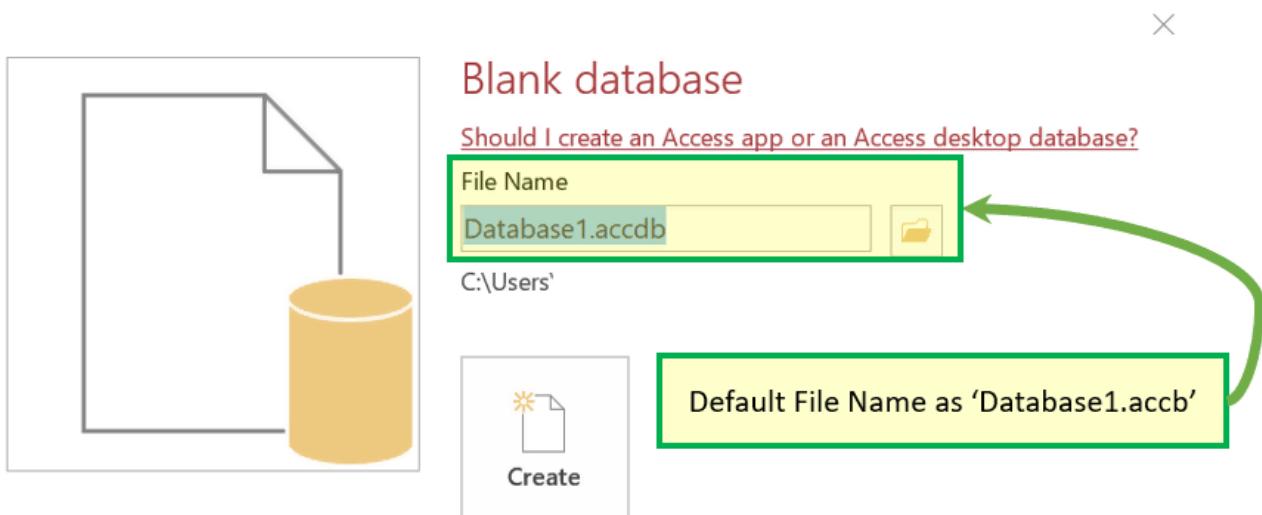
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Step 2) Click on 'Blank Database.'



Step 3) File name box will appear with the default file name.

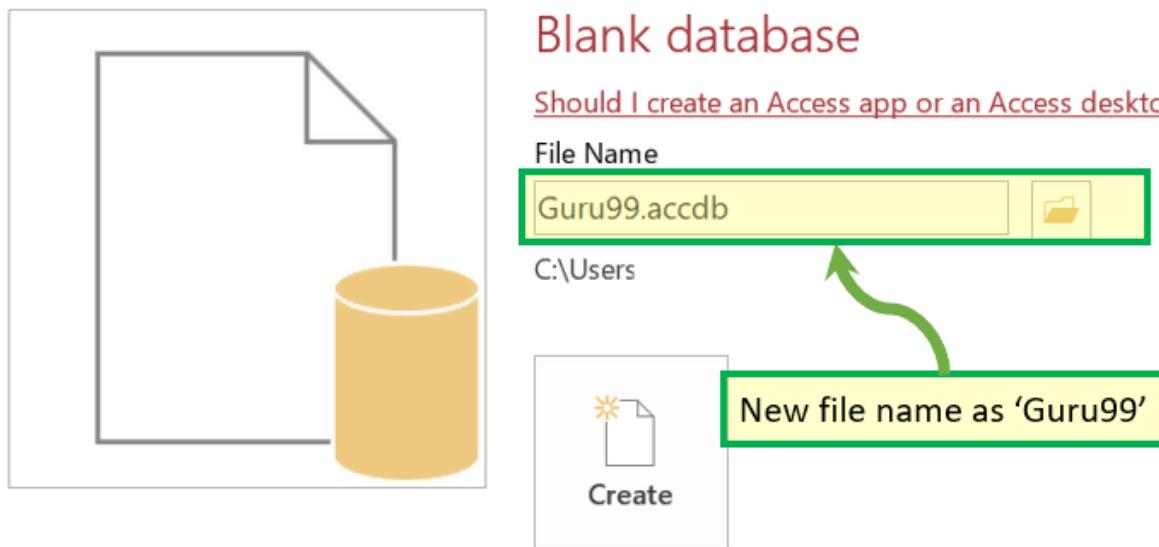




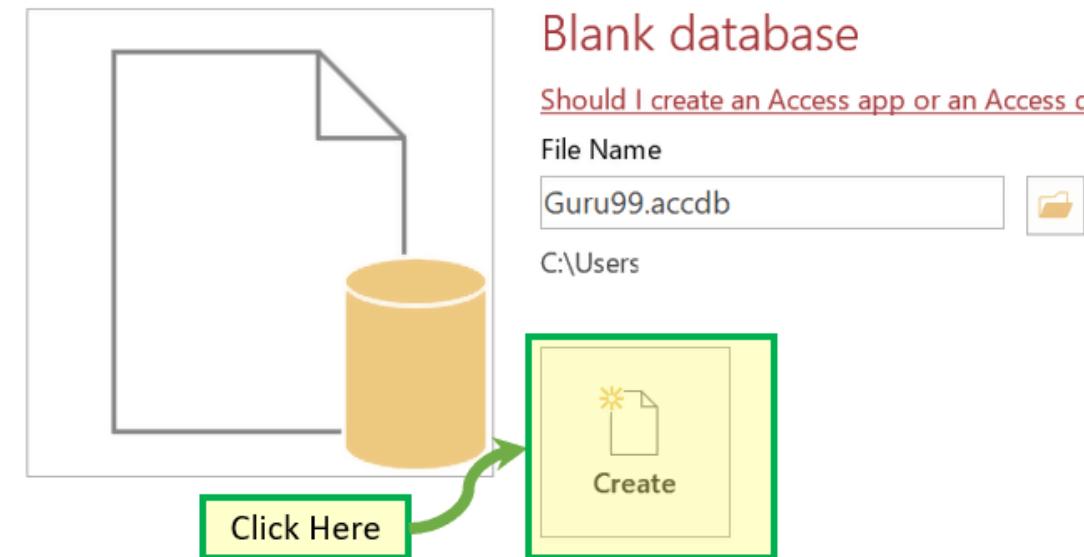
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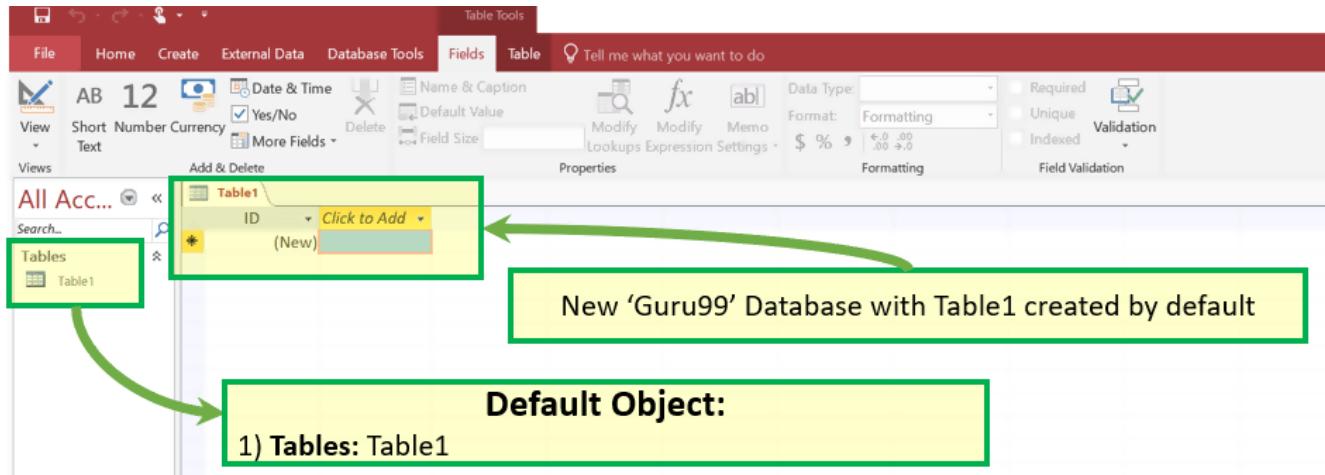
Step 4) Enter the new name.



Step 5) Click on 'Create.'

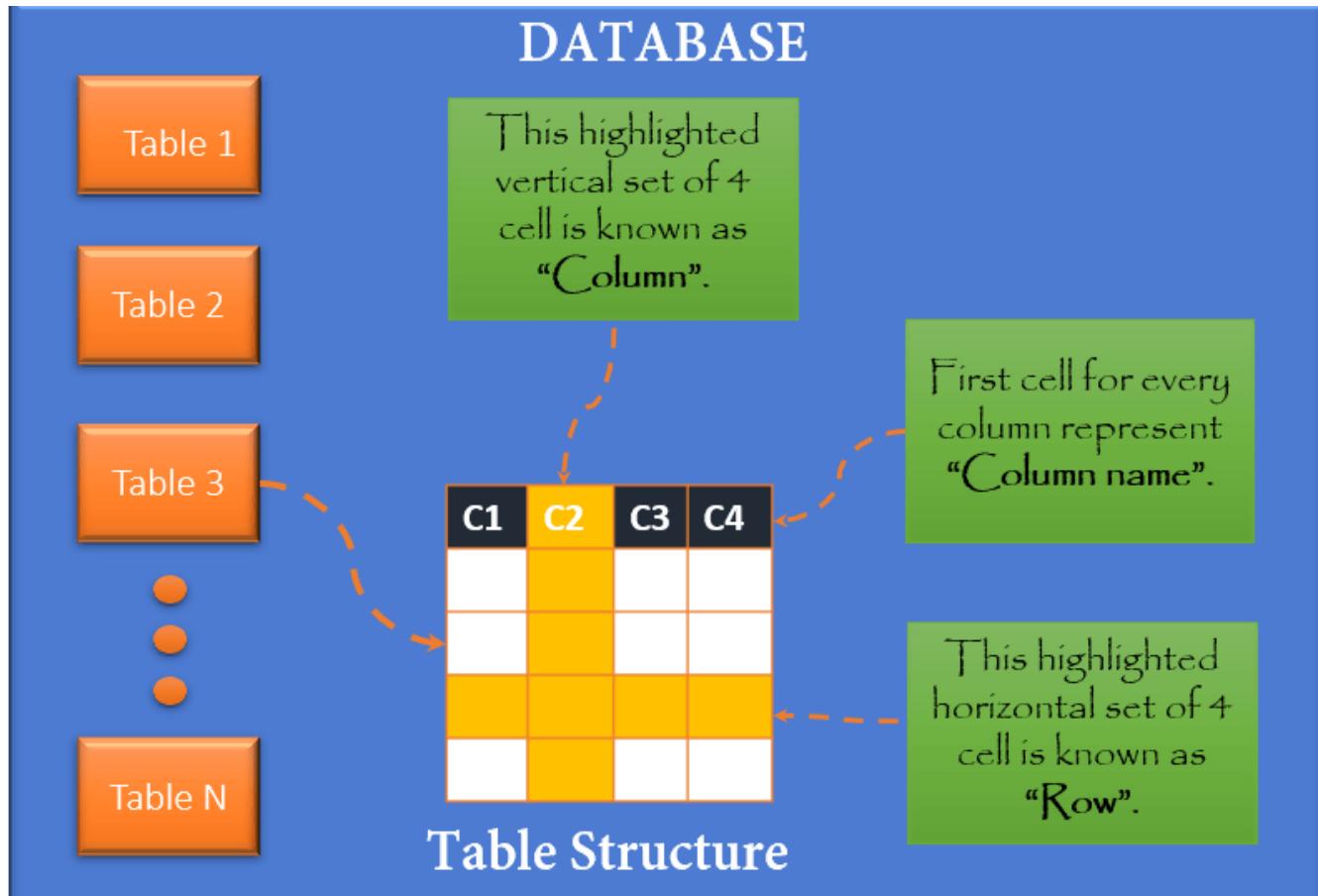


Result: Guru99 Database created and below window will appear.



How to Create Table

The first step in this Microsoft Access tutorial to store data in the database is creating a Table where data will reside. Post creation of the table, we can keep inserting the rows in the table.



There are two ways to create Database in MS Access

1. Create a Table from Design View
2. Create a Table from Datasheet View

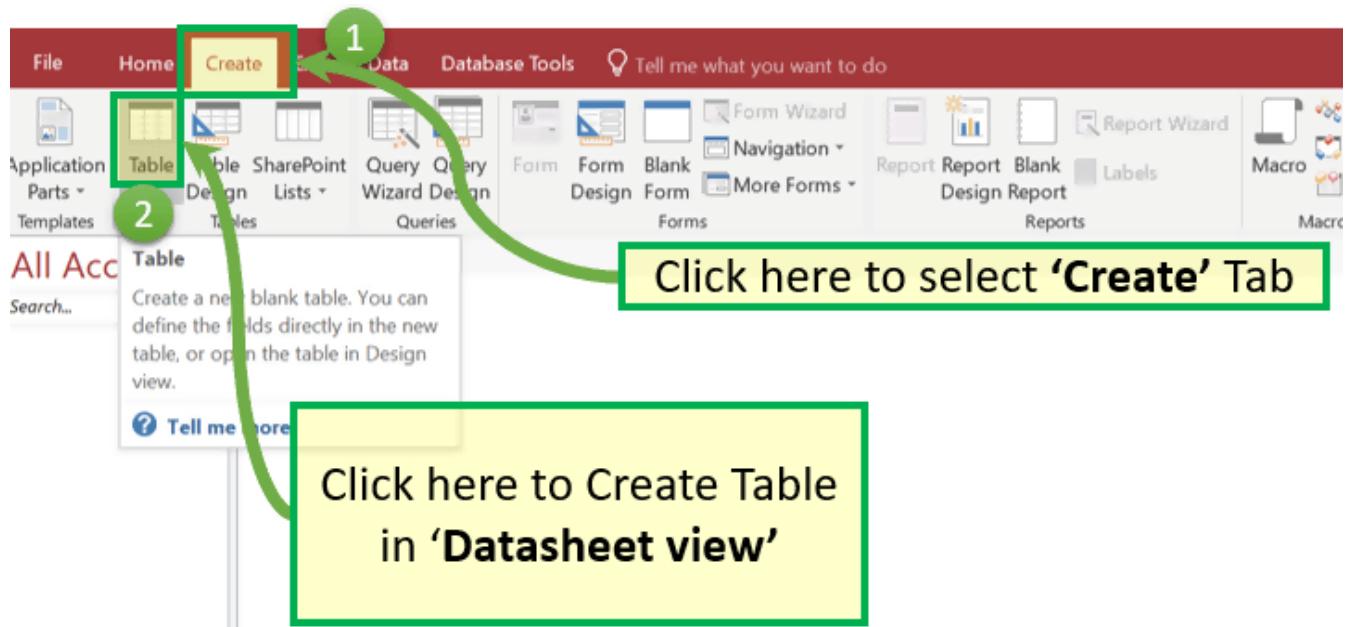
Create Table – Datasheet View

Step 1) First Click Create tab. Then from Tables group, click Table.

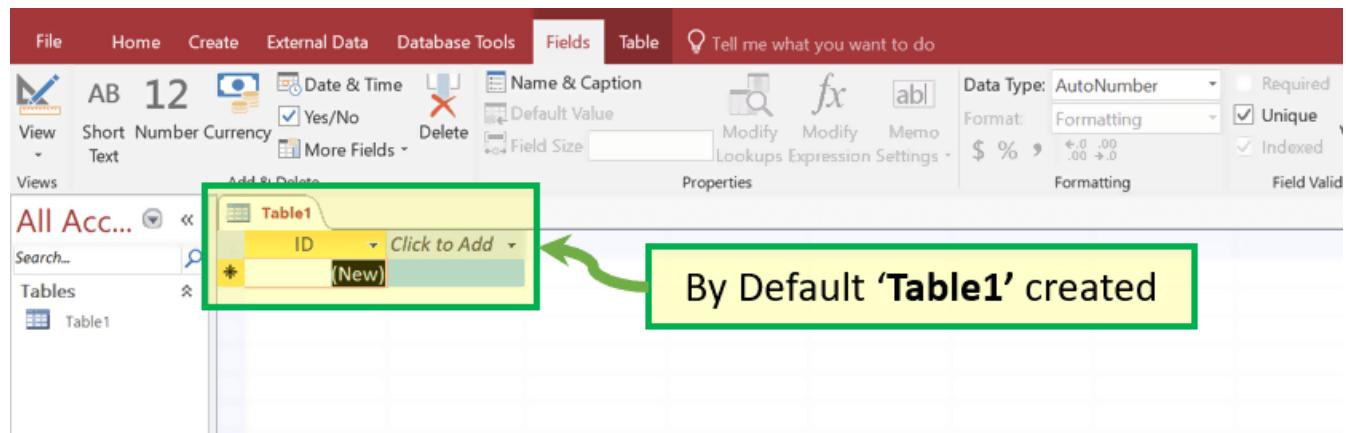


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Step 2) System will display the default table created with 'Table1' name.



Step 3) To Rename Column, double click on Column Header and enter the new column Name.



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The screenshot shows the Microsoft Access 'Fields' ribbon tab selected. In the 'Add & Delete' group, there is a 'Click to Add' button highlighted with a green box. A callout box with a green border and arrow points to it, containing the text: 'Double click and enter new column name as 'Course_ID''.

Note that the Data type of Course_ID is 'AutoNumber.' Hence this is also the Unique Key of the table.

The screenshot shows the Microsoft Access 'Fields' ribbon tab selected. The 'Data Type' dropdown menu is open, showing 'AutoNumber' selected. A callout box with a green border and arrow points to the 'Data Type' dropdown, containing the text: 'Data type of Course_ID is Auto Number'.

Step 4) You can Add Column by clicking on any category from the 'Add & Delete' group. Alternatively, you can also add a column by clicking on 'Click to Add'

For Example, click on 'Short Text' from the 'Add & Delete' group.

The screenshot shows the Microsoft Access 'Fields' ribbon tab selected. The 'Add & Delete' group is highlighted with a green box. A callout box with a green border and arrow points to it, containing the text: 'Click 'Short Text' from Add & Delete Group'.



Step 5) Column will be added with the default name as 'Field1.'

The screenshot shows the Microsoft Access ribbon with the 'Fields' tab selected. In the main workspace, 'Table1' is open, and a new column named 'Field1' is highlighted with a green border. A callout box with a green border contains the text: 'New Column will be added with default name as 'Field1''. The 'Tables' pane on the left shows 'Table1' and 'Table2'.

Step 6) Click on Header and rename as 'COURSE_NAME.'



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The screenshot shows the Microsoft Access ribbon with the 'Fields' tab selected. A new column 'COURSE_NAME' is being added to 'Table1'. A green callout box with a curved arrow points from the text 'Enter the new name as 'COURSE_NAME'' to the 'COURSE_NAME' field.

All Acc... View

AB 12 Delete

Short Number Currency Name & Caption

Text Default Value

Date & Time Field Size

Yes/No Modify

More Fields Lookups Expressions

Add & Delete Properties

COURSE_ID COURSE_NAME Click to Add

(New)

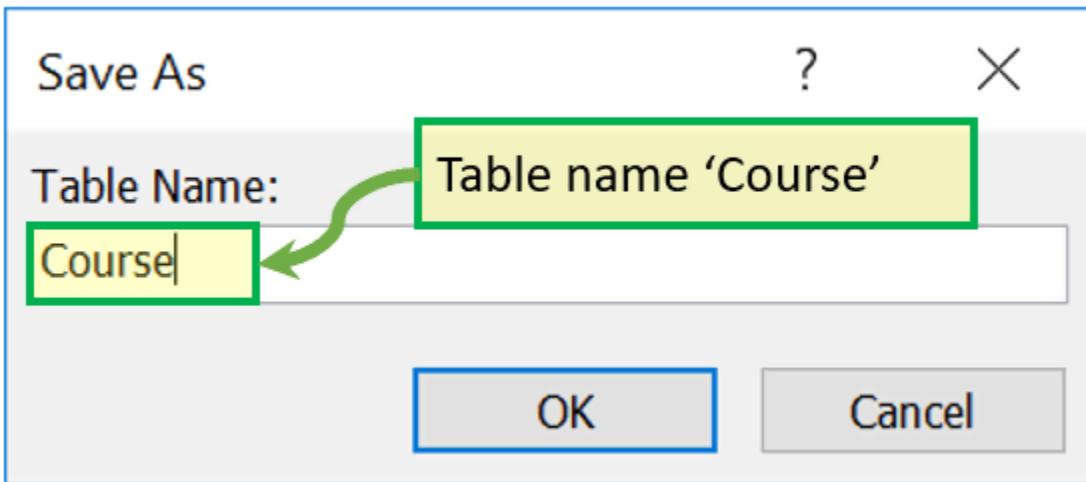
Tables *

Table1 *

Table2

Enter the new name as
'COURSE_NAME'

Step 7) Press 'Ctrl + S' and Enter the new table name to save the table.



Step 8) You can also save new Name, Caption and Short description for any Column by clicking on 'Name and Caption.' Click on it



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Click here to select 'Field' Tab

Click here Name and Caption Dialog Box.

Step 9) Dialog Box will appear. Add the following and Click on 'OK'

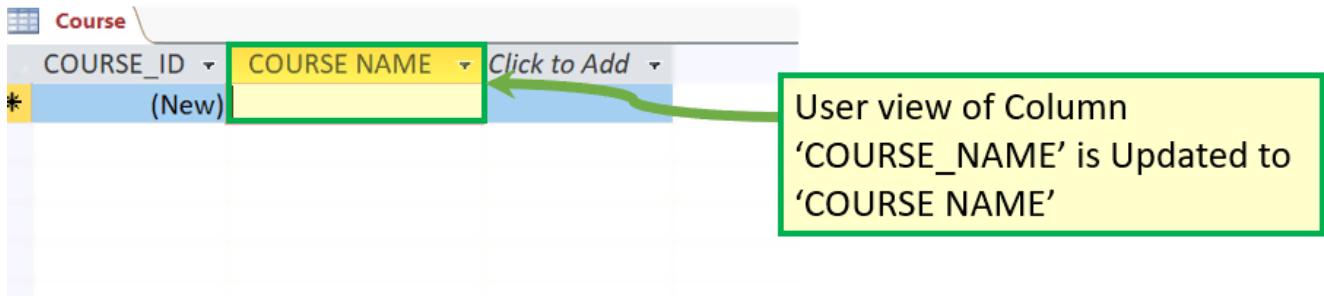
- 'Name' - This is the actual name of the column.
- 'Caption' - This is the user view name of the column.
- 'Description' - This is the short description of the column name.

Actual Name of the Column: 'COURSE_NAME'

User Viewable name of Column: 'COURSE NAME'

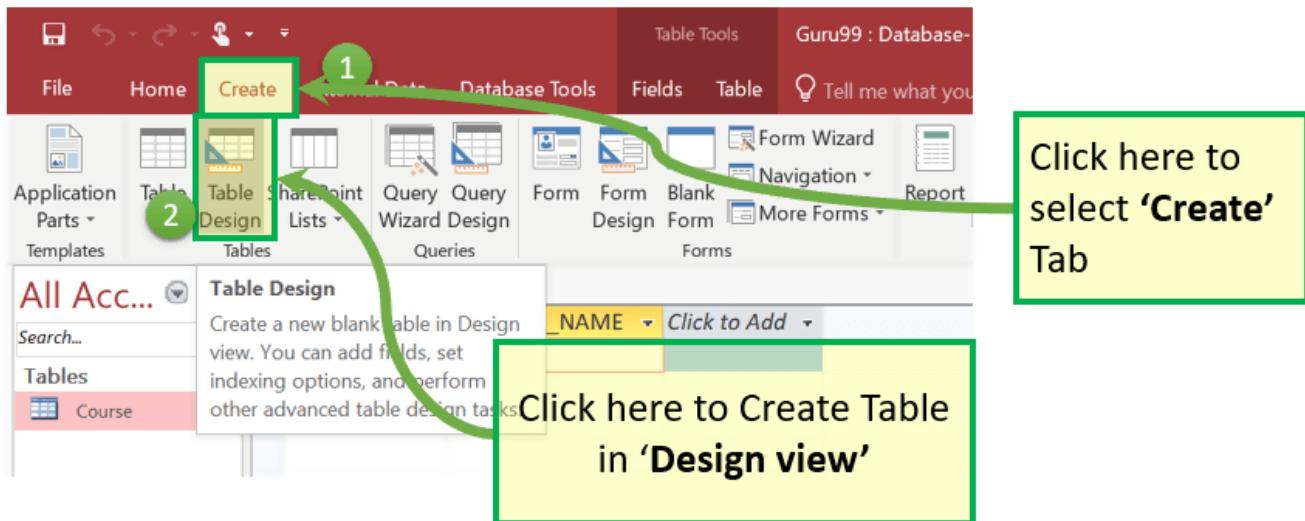
Short Description of Column

Result: Name, Caption, and Description now exist.



Create Table – Design View

Step 1) First Click Create tab. Then from Tables group, click Table.



Step 2) Table Dialog box appears. For each Field enter Filed Name, Data Type and Description.



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The screenshot shows the Microsoft Access 'Field Properties' dialog for a table named 'Table1'. The 'Field Name' section contains two fields: 'Course_ID' and 'Course_Strength'. A green box labeled 'New Column Name' highlights 'Course_ID'. A green box labeled 'Data Type of respective Column selected from Drop Down menu.' highlights the dropdown menu under 'Data Type' which is set to 'Number'. A green box labeled 'Short Description of each Column' highlights the 'Description (Optional)' field which contains the text 'This is Course_ID' and 'This is Strength of Students of the given Course_ID'. A green arrow points from the 'New Column Name' box to the 'Course_ID' field. Another green arrow points from the 'Data Type of respective Column selected from Drop Down menu.' box to the 'Data Type' dropdown. A third green arrow points from the 'Short Description of each Column' box to the 'Description (Optional)' field.

Steps 3) To Add Course_ID as Primary Key, select it and Click on 'Primary Key.' Course_Id will be Preceded by KEY ICON as shown below:

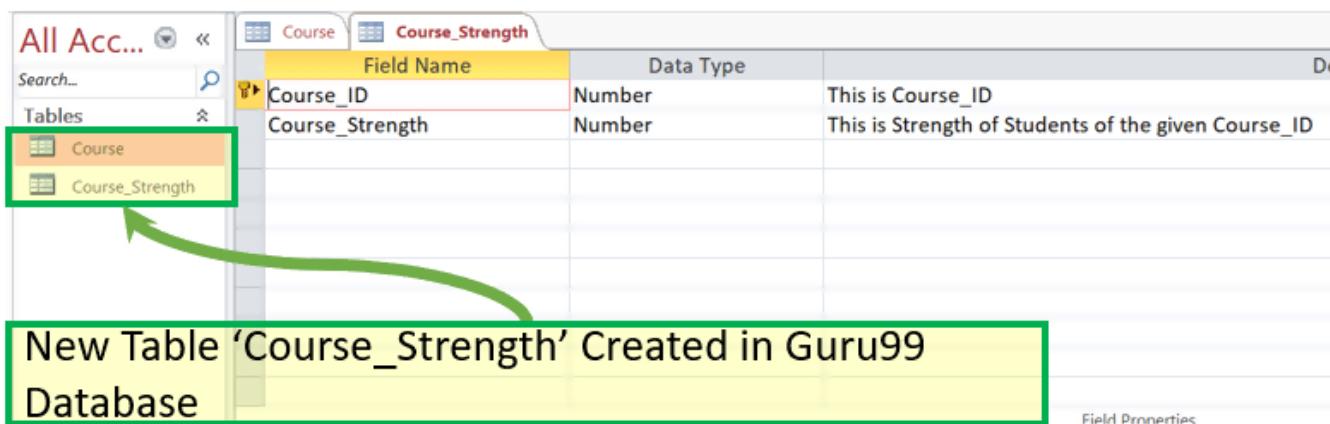
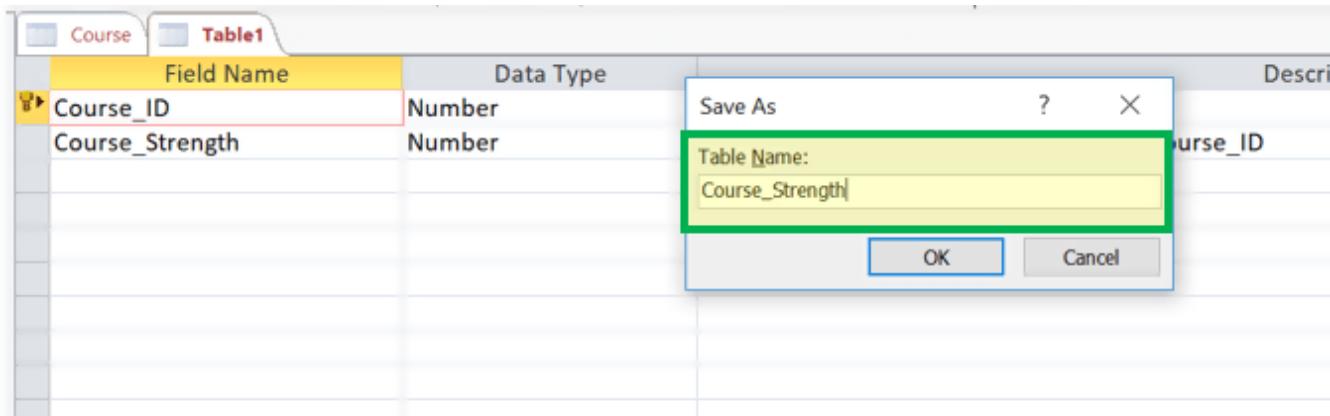
The screenshot shows the Microsoft Access ribbon with the 'Design' tab selected. In the 'Primary Key' section of the ribbon, a green box labeled 'Click on \'Primary Key\'' highlights the 'Primary Key' button. Below the ribbon, the 'Table1' design grid shows two fields: 'Course_ID' and 'Course_Strength'. The 'Course_ID' field has a green box labeled 'Key Icon for \'Primary Key\'' highlighting its key icon. A green arrow points from the 'Click on \'Primary Key\'' box to the 'Primary Key' button in the ribbon. Another green arrow points from the 'Key Icon for \'Primary Key\'' box to the key icon in the 'Course_ID' field.



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Steps 4) Press 'Ctrl+S.' Enter the Table Name and Click OK



How to Switch views between Datasheet and Design

Now in this MS Access tutorial, we will learn how to switch views between Datasheet and Design:

To switch views, between the datasheet (spreadsheet view) and the design view, click the 'View' button in the top-left hand corner of the Access Ribbon (shown in the Home/Help/Design Tabs). And Click on the View you need to display.

For Example: Let's Assume You want to switch to the newly created table 'Course_strength' from 'Design view' to 'Data Sheet' View.

Step 1) Click on Datasheet View



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1

Design View

Datasheet View

Course Course_Strength

Field Name Data Type Description (O)

Course_ID Number This is Course_ID

Course_Strength Number This is Strength of Students of the given Course_ID

Click on 'Datasheet View' to switch from 'Design view' to 'Datasheet view'

Result:

All Acc...

Search...

Tables

Course

Course_Strength

Records

Course Course_Strength

Course_ID Course_Strength Click to Add

*

0 0

Course_Strength Table changed to Data sheet view with Same two column as 'Course_ID' and 'Course_Strength'

MS Access- Adding Data

- You have created tables Course and Course_Strength.
- There are two ways to add data. One is Datasheet view and other from Form. We will learn to add data from Datasheet view in this section.
- There is no need to save the data manually. Once you click other rows, Access automatically saves the data.



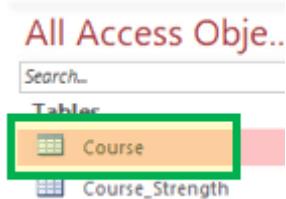
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- The only thing you need to take care while adding data is, you should enter the correct data type, i.e., if Column is defined as Number we can add only number and not text.

Let's add some data in your table by opening the Access database you have created earlier.

Step 1) Select the 'Course' table



Steps 2) Select the Datasheet view option in the ribbon and add some data by entering the values in It. Updated Data will be Autosaved.



COURSE_ID	COURSE NAME	Click to Add
1	MS ACCESS	
2	MS SQL	
3	PL/SQL	
4	MY SQL	
*	(New)	

New **Course name** added by clicking on each row.
Since **Course_ID** is of '**AutoNumber datatype**', it will automatically **increment its value by 1**

Now let's say You want to delete 4th row with 'My SQL' as Course name.

Step 3) Select the row by clicking on the leftmost column and Right Click on the row. The options menu will appear with the 'Delete Record' Option



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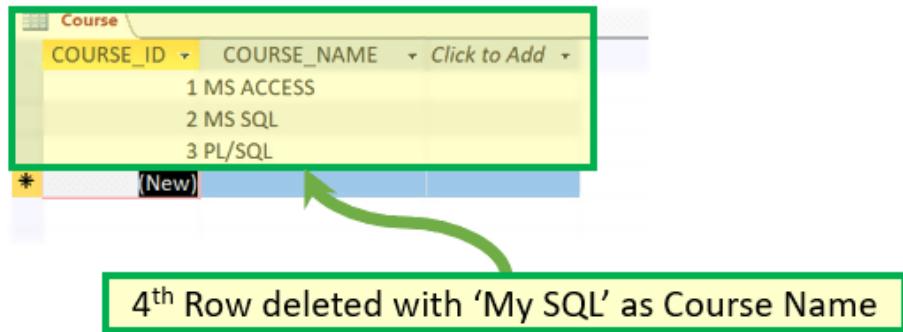
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Select the row and right Click on 'Delete Record'

Step 4) Popup Window will appear to confirm the deletion of the record. Click 'OK'

Click Here

Result:



Summarizing views:

Datasheet View:

Displays in the view, which allows you to enter raw data into your database table.

Design view:

Displays the view, which allows you to enter fields, data types, and descriptions into your database table.

Experiment#14

Forms in MS Access

- A form is a database object that you can use to create a user interface for a database application.
- It mainly used to ease the process of data entry or editing.
- Data in a form can be selected from one or more tables.
- Forms can also be used to control access to data, like which fields or rows of data are visible to which users.
- Forms have a Form View.
- Help you to display live data with easy creation of new data.

To understand form lets first create two new Record in Contact Table (from the prebuilt Contact Database discussed [here](#))

Step 1) Select the 'Contact' table from Left Navigation.

Step 2) Create two rows by entering some relevant data in two rows.



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The screenshot shows the Microsoft Access application interface. On the left, the navigation pane lists 'Tables' (with 'Contacts' selected), 'Queries', 'Forms', and 'Reports'. The main area displays the 'Contacts' table in Datasheet view. A green box highlights the 'Contact' table, and a callout points to it with the text 'Select 'Contact' Table'. Another green box contains the instruction 'Enter data in two rows, by clicking on each individual cell and entering respective value'. The table has columns: ID, Company, Last Name, First Name, E-mail Address, Job Title, Business Phc, Home Phone, Mobile Phon, Fax Number, and Address. Two rows of data are visible: Row 1 (ID 1) with values Guru99, Guru, Guru, xyz@gmail.com, Consultant, 989897878, 564564564, 346456464, 123-1232323, Rosa Roya; Row 2 (ID 2) with values Edu99, Edu, Guru, abc@yahoo.com, Business Analyst, 457457575, 567567557, 575757575, 575-34345335, Hamilton.

create Form, and then we will see how forms can be leverage for easy display, editing, and creation of new data.

How to Create a form

There are four primary ways to create the form as mentioned below:

- Form Wizard
- Form
- Multiple Item
- Split Form

Let's have a look at each option to create the form, one by one:

1. Create using Form Wizard

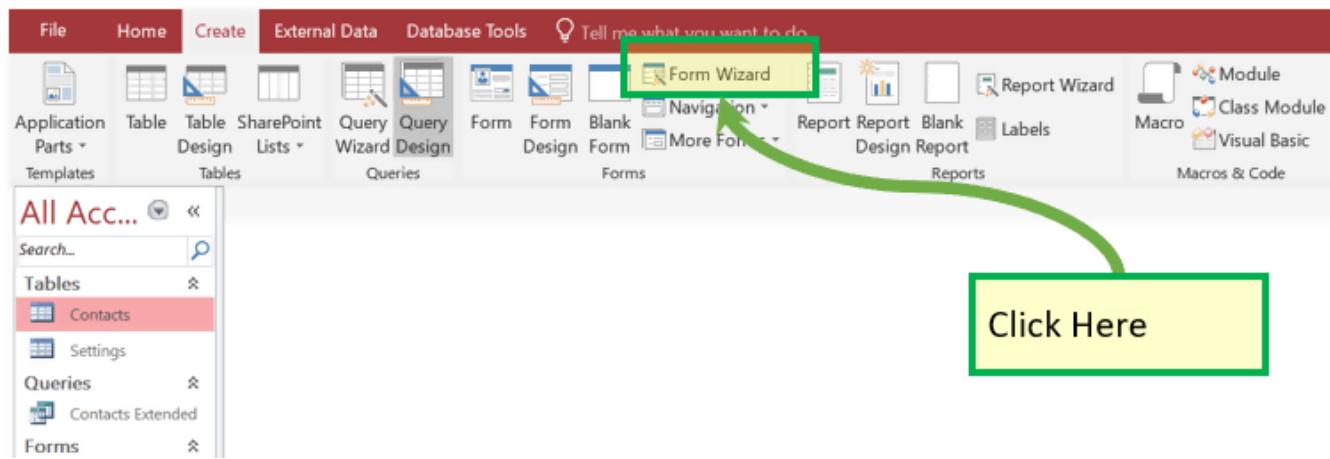
This option allows the user to create the form with the wizard and select the column from the available list of column form in legacy Select window format.

Step 1) Click on 'Form Wizard.'



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Step 2) System will display below the screen.



Form Wizard

Which fields do you want on your form?
You can choose from more than one table or query.

Tables/Queries
Table: Contacts

Available Fields: 2

Selected Fields:

All Columns displayed from selected table 'Contact' above.

Cancel < Back Next > Finish

1 Available tables list which can be selected from 'Tables/Queries' Dropdown

2 All Columns displayed from selected table 'Contact' above.

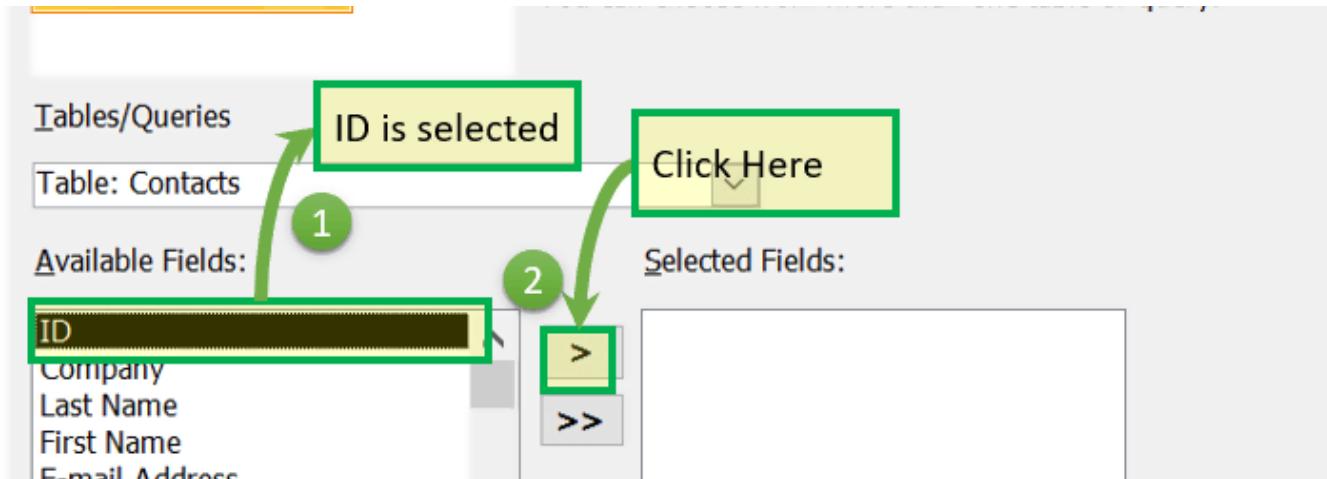
The screenshot shows the Microsoft Access Form Wizard Step 3: "Select Fields". It displays a list of fields from the "Contacts" table in the "Available Fields" list box. The "Selected Fields" list box contains all the fields from the "Contacts" table. A green box highlights the "Available Fields" list box, and another green box highlights the "Selected Fields" list box. A callout bubble labeled "1" points to the "Available Fields" list box, explaining it's a dropdown for selecting tables. A callout bubble labeled "2" points to the "Selected Fields" list box, explaining it displays all columns from the selected table.

Step 3) Select the columns which you want to be there in final form.

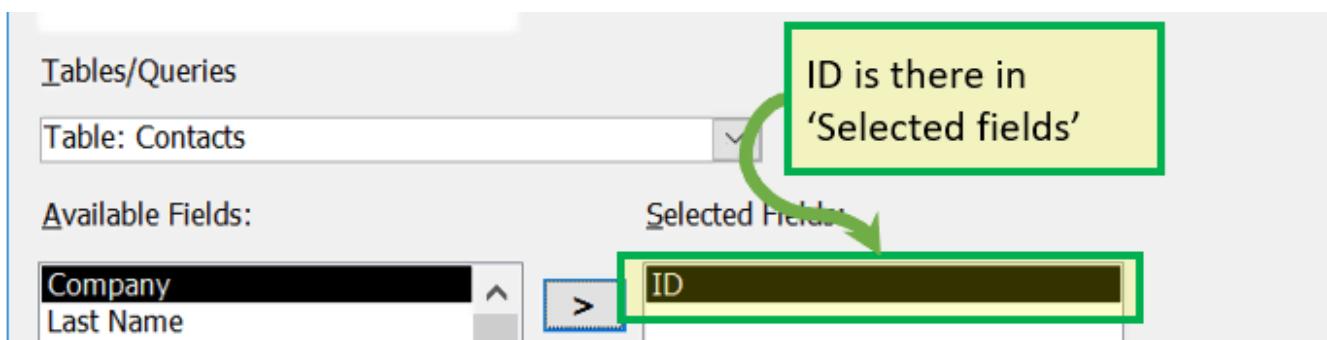


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Result: ID is selected

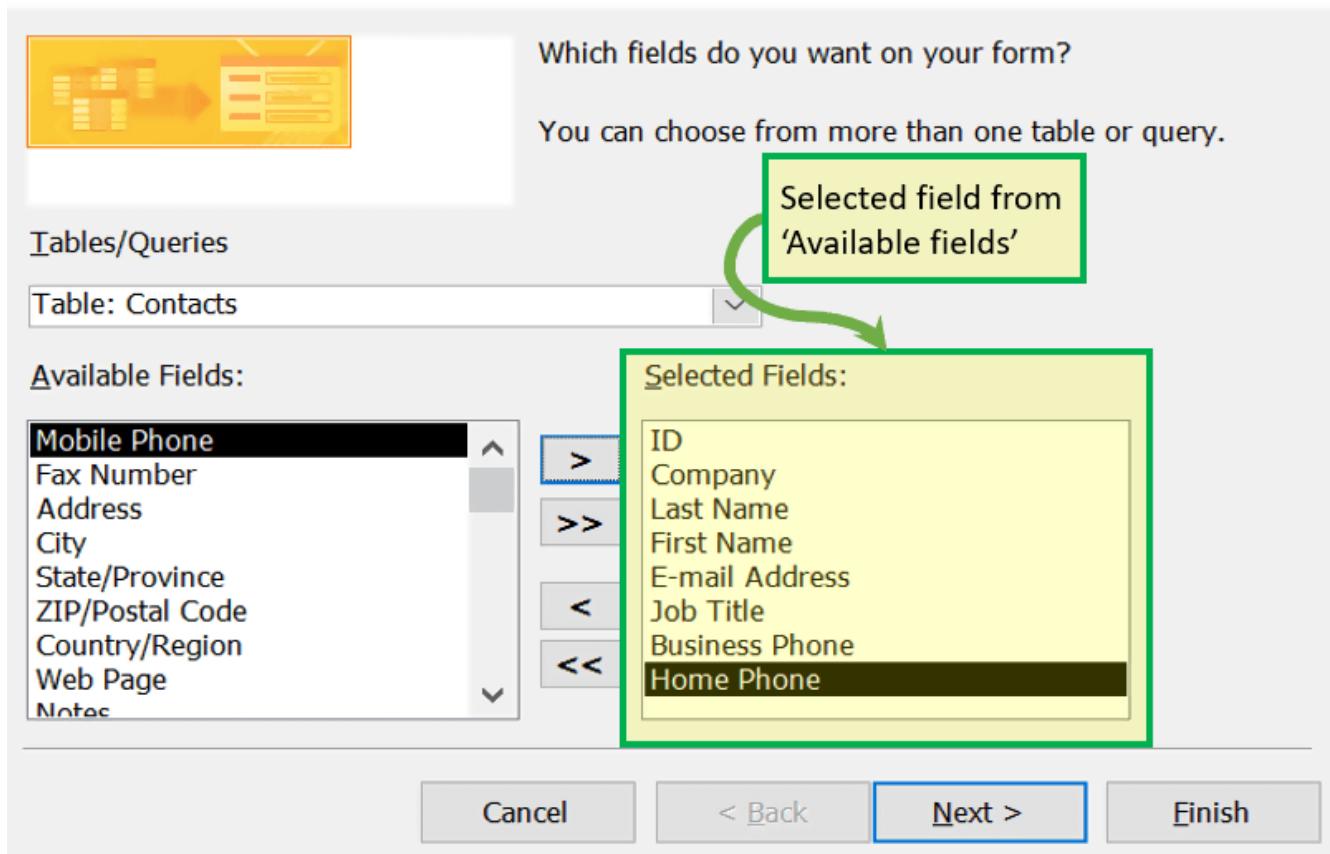


Step 4) Keep selecting all required column as explained in Step 3 above and then click 'Next.'



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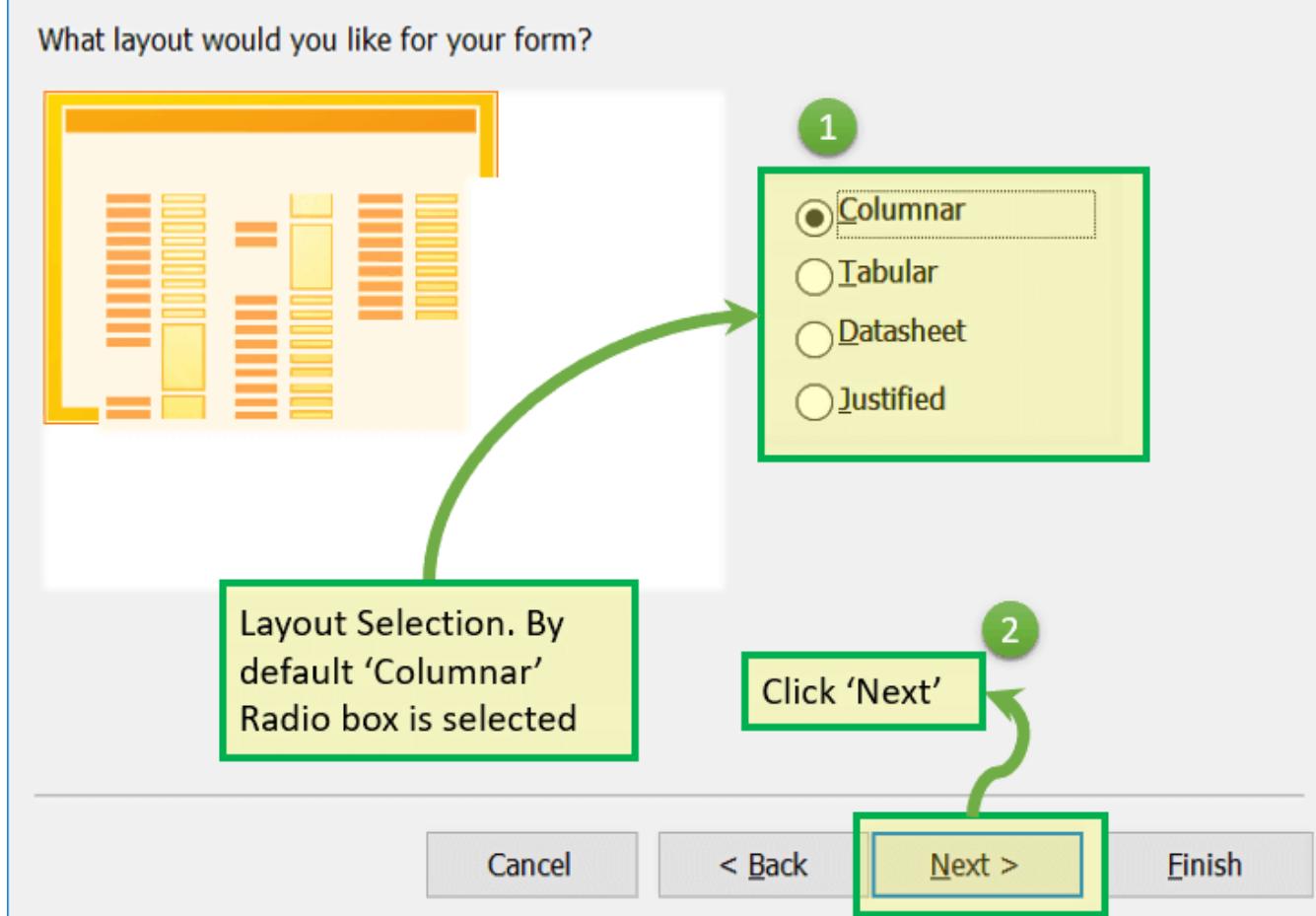
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Step 5) Layout selection box will appear which allows the user to select the different type of form layout.
Click 'NEXT'



Form Wizard



Step 6) Enter the name of the form as "Contact_Form" and click 'Finish.'



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Form Wizard

What title do you want for your form?

Contacts_Form

Enter the Form name as 'Contact_Form'

That's all the information the wizard needs to create your form.

Do you want to open the form or modify the form's design?

Open the form to view or enter information.
 Modify the form's design.

Cancel < Back Next > **Finish**

Result: Contact_Form now exist with all column displayed which are there in step 4 in the Selected column list.



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The screenshot shows the Microsoft Access ribbon interface. In the left pane, under the 'Forms' section, a new form named 'Contact_Form' is highlighted with a green box and a circled '2'. In the center pane, a preview of the 'Contact_Form' is shown with a circled '1'. The form contains fields for ID, Company, Last Name, First Name, E-mail Address, Job Title, Business Phone, and Home Phone, all populated with sample data. A callout box points to the preview area with the text: 'New Form with name as 'Contact_Form' has been created under "Forms" section.' Another callout box points to the right side of the preview area with the text: 'New Form with name as 'Contact_Form'' is displayed and all the column selected is now present in 'Contact_Form' form.'

2. Create using Form

It is the simplest way to create the form which will:

- By default, populate all the column from the selected table in 'form view,'
- The user can delete non-required column manually

Step 1) Select the table for which we want to create the form and click on 'Form.'



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File Home Create External Data Database Tools Datasheet Tell me what you want to do

Application Parts Application Tables SharePoint Design Lists Query Wizard Design Queries Form Design Form Blank Navigation More Forms Reports Report Design Report Blank Labels Reports Report Macro Class Module Visual Basic Macros & Code

All Acc... Contacts

Search... Tables

1 Contacts

2

ID Company Last Name First Name E-mail Address Job Title Bus

1 Guru Guru Guru xyz@gmail.com Consultant 989

2 Edu99 Edu Guru abc@yahoo.com Business Analyst 457

Setting

Queries

Contact Details

Contact List

Contacts_Form

Welcome

Reports

Directory

Phone Book

Macros

Click on Form

Select 'Contact' Table.

Step 2) Below window will appear.

Contacts | Contacts1

Contacts

ID	1	Address	Rosa Royal
Company	Guru	City	Helena
Last Name	Guru	State/Province	Montana
First Name	Guru	ZIP/Postal Code	3434343
E-mail Address	xyz@gmail.com	Country/Region	US
Job Title	Consultant	Web Page	
Business Phone	989897878	Notes	
Home Phone	564564564	Attachments	
Mobile Phone	346456464	Category	Personal
Fax Number	123-1232323		

All Column of Table 'Contacts' appear by default with values of first row.



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Step 3) Right-click on any cell which we don't want to be part of final forms and click on 'Delete.'

The screenshot shows the Microsoft Access ribbon with the 'Design' tab selected. On the left, the navigation pane lists 'Tables' (Contacts is selected), 'Forms' (Contact Details is selected), and 'Reports'. The main area displays a 'Contacts' form with fields for ID, Company, Last Name, First Name, E-mail Address, Job Title, Business Phone, Home Phone, Mobile Phone, and Fax Number. The 'Fax Number' field contains the value '123-1232323'. A context menu is open over this field, showing options like Cut, Copy, Paste, Paste Formatting, Insert, Merge/Split, Layout, Select Entire Row, Select Entire Column, Sort A to Z, Sort Z to A, Clear filter from Fax Number, Text Filters, Equals "123-1232323", Does Not Equal "123-1232323", Contains "123-1232323", Does Not Contain "123-1232323", Delete Row, Delete Column, Change To Position, Gridlines, Anchoring, and Form Properties. The 'Delete' option is highlighted with a green box and has a green arrow pointing to it from a callout bubble containing the text: 'Right click on 'Fax Number' and click on 'Delete' to Delete 'Fax Number' field from form.'

Result: 'Fax Number' field does not exist now.



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Contacts

ID	1	Address	Kosa Royal
ID	1	Address	Kosa Royal
Company	Guru	City	Helena
Last Name	Guru	State/Province	Montana
First Name	Guru	ZIP/Postal Code	3434343
E-mail Address	xyz@gmail.com	Country/Region	US
Job Title	Consultant	Web Page	
Business Phone	989897878	Notes	
Home Phone	564564564	Attachments	
Mobile Phone	346456464	Category	Personal

A green arrow points from the 'Fax Number' field area to a yellow box containing the text: 'Fax Number' field deleted.

Step 4) Press 'Ctrl+S' and enter new Form Name as 'Contact_Form2'. Click 'OK'.

Save As

Form Name: Contact_Form2

New Form Name

OK Cancel

Contacts

ID	1	Address	Kosa Royal
Company	Guru	Address	Kosa Royal
Last Name	Guru	City	Helena
First Name	Guru	State/Province	Montana
E-mail Address	xyz@gmail.com	ZIP/Postal Code	3434343
Job Title	Consultant	Country/Region	US
Business Phone	989897878	Web Page	
Home Phone	564564564	Notes	
Mobile Phone	346456464	Attachments	
		Category	Personal

Result: New form with the name as 'Contact_Form2' exists under the "Forms" section.



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The screenshot shows the Microsoft Access interface. On the left, the 'Forms' section is highlighted, and a new form named 'Contact_Form2' is listed. A green arrow points from this entry to a callout box containing the text: 'New Form with name as 'Contact_Form2' has been created under "Forms" section.'

All Access Obj...

Tables: Contacts, Settings, Contacts Extended.

Queries: Contacts Extended.

Forms: Contact Details, Contact List, **Contacts_1** (highlighted), **Contact_Form2** (highlighted), Welcome.

Reports: Directory, Phone Book.

Macros: AutoExec, Search.

Modules: modMapping.

Layout View.

Record: 2 of 2 | Previous | Next | Last | First | Filter | Search |

ID	Company	Last Name	First Name	E-mail Address	Job Title	Business Phone	Home Ph
1	Guru	Guru	Guru	xyz@gmail.com	Consultant	989897878	56456454
2	Edu99	Edu	Guru	abc@yahoo.com	Business Analyst	457457575	56756751
(New)							

3. Create form by 'Multiple Item.'

It is another type wherein All the records already created will be displayed in Form with an option to Add new record.

Step 1) From the 'Create' tab. Click on 'More forms' and select 'Multiple Items.'

The screenshot shows the Microsoft Access interface with the 'Create' tab selected. In the ribbon, the 'More Forms' button is highlighted, and a dropdown menu shows 'Multiple Items' selected. A green arrow points from this selection to a callout box containing the text: 'Click on 'More Forms' and then select 'Multiple Items''.

File Home Create External Data Database Tools Datasheet Tell me what you want to do

Application Parts Templates Tables Design Lists SharePoint Query Wizard Design Reports Queries Blank Form Form Blank Report Wizard Labels Macro Class Module Visual Basic Macros & Code

More Forms Multiple Items

Multiple Items

Create a form that shows multiple records at once.

Job Title Business Phc Home Phone Mobile Phon Fax Number Address

Consultant 989897878 564564564 346456464 123-1232323 Rosa Royal

Business Analyst 457457575 567567557 575757575 575-34345335 Hamilton

Datasheet Split Form Modal Dialog

All Acc... Contacts ID Company Last Name

1 Guru Guru

2 Edu99 Edu

(New)

Tables: Contacts, Settings, Contacts Extended.

Queries: Contacts Extended.

Forms: Contact Details, Contact List.

Result: Below Multiple lines, the window will appear



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ID	Company	Last Name	First Name	E-mail Address	Job Title	Business Phone	Home Phone
1	Guru	Guru	Guru	xyz@gmail.com	Consultant	989897878	5645645
2	Edu99	Edu	Guru	abc@yahoo mail.co m	Business Analyst	457457575	5675675
(New)							

Multiple line view with line for each record exist in 'Contact' table.
3rd Row provide the option to Add new row in this form view

Step 2) Press 'Ctrl+S'. Enter the new form name and click 'OK.'

Enter New Form name and click 'OK'

Result: New Form with the name as 'Contact_Form_Multiple_Item' exists under the "Forms" section.



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The screenshot shows the Microsoft Access interface. On the left, the navigation pane lists various objects: Tables (Contacts, Settings), Queries (Contacts Extended), Forms (Contact Details, Contact List, Contacts_F... 1, Contacts_Form_Multiple_Item, Contacts_Forms, Welcome), Reports (Directory, Phone Book), Macros (AutoExec, Search), and Modules (modMapping). The 'Contacts_Form_Multiple_Item' form is highlighted with a green box and a green arrow points from it to a yellow callout box containing the text: 'New Form with name as 'Contact_Form_Multiple_Item' has been created under "Forms" section.' The main workspace displays a 'Contacts' table with columns: ID, Company, Last Name, First Name, E-mail Address, Job Title, and Birth Date. There are three rows: Row 1 (ID 1) contains 'Guru' in all fields; Row 2 (ID 2) contains 'Edu99' in the Company field and 'Edu' in the Last Name field; Row 3 (marked with an asterisk) is labeled '(New)'.

4. Create form by 'Split from'.

It is a mix of simple form and split form in a way that this form provides the view of Form and datasheet in a split window.

Whatever the user enters in Form is visible directly in Datasheet view immediately and vice versa.

Step 1) From the 'Create' tab, click on 'More forms' and select 'Split Form.'

The screenshot shows the Microsoft Access ribbon with the 'Create' tab selected. In the 'Forms' section of the ribbon, a green box highlights the 'More Forms' dropdown. A green arrow points from the text 'Click on "More Forms" and then select "Multiple Items"' to the 'Multiple Items' option in the dropdown menu. The 'Multiple Items' option is highlighted with a yellow background.

All Acc... Contacts

ID Company Last Name Job Title Business Phc Home Phone Mobile Phon Fax Number Address

ID	Company	Last Name	Job Title	Business Phc	Home Phone	Mobile Phon	Fax Number	Address
1	Guru	Guru	Assistant	989897878	564564564	346456464	123-1232323	Rosa Royal
2	Edu99	Edu	Business Analyst	457457575	567567557	575757575	575-34345335	Hamilton
*	(New)							

Search...
Tables
Queries
Forms
Application Parts - Templates
Table Design Lists - Wizard Design Queries
SharePoint Design Form Blank Form
Query Design Form Reports
Form Design Form Reports
Wizard Design Form Reports
Blank Form Reports
Report Repo Design Reports
Labels Reports
Module Macro Class Module Visual Basic Macros & Code

More Forms Multiple Items

Create a form that shows multiple records at once.

Split Form Modal Dialog

Click on 'More Forms' and then select 'Multiple Items'



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Result: Below window will appear with the Form and data sheet together.

The screenshot shows a Microsoft Access application window with two panes. The left pane, titled 'Contacts', displays a form with fields for ID (1), Company (Guru), Last Name (Guru), First Name (Guru), E-mail Address (xyz@gmail.com), Job Title (Consultant), Address (Rosa Royal), City (Helena), State/Province (Montana), ZIP/Postal Code (3434343), Country/Region (US), and Web Page. The right pane, titled 'Datasheet view', displays a table with columns: ID, Company, Last Name, First Name, E-mail Address, Job Title, Business Phc, Home Phone, Mobile Phon, and Fax Number. The table contains two rows: Row 1 with ID 1, Company Guru, Last Name Guru, First Name Guru, E-mail xyz@gmail.com, Job Title Consultant, Business Phc 989897878, Home Phone 564564564, Mobile Phon 346456464, and Fax Number 123-1232323; Row 2 with ID 2, Company Edu99, Last Name Edu, First Name Guru, E-mail abc@yahoo.com, Job Title Business Analyst, Business Phc 457457575, Home Phone 567567557, Mobile Phon 575757575, and Fax Number 575-34345335. A green box labeled 'Form View' points to the left pane, and a green box labeled 'Datasheet view' points to the right pane.

ID	Company	Last Name	First Name	E-mail Address	Job Title	Business Phc	Home Phone	Mobile Phon	Fax Number
1	Guru	Guru	Guru	xyz@gmail.com	Consultant	989897878	564564564	346456464	123-1232323
2	Edu99	Edu	Guru	abc@yahoo.com	Business Analyst	457457575	567567557	575757575	575-34345335
(New)									

Step 2) Press 'Ctrl+S' and enter the new form name. Click 'OK.'



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Result: New Form with the name as 'Contact_Form_Split' exists under the "Forms" section.

The screenshot shows the Microsoft Access interface. On the left, the 'Tables' section is highlighted, containing the 'Contacts' table. The 'Forms' section is also visible, showing the newly created 'Contact_Form_Split' form. The main area displays the 'Contact_Form_Split' form with fields for ID, Company, Last Name, First Name, E-mail Address, Job Title, Address, City, State/Province, ZIP/Postal Code, Country/Region, and Web Page. Below the form is a table view showing two records: ID 1 (Guru) and ID 2 (Edu99). A green callout box points to the 'Contact_Form_Split' entry in the 'Forms' list, indicating it was created.

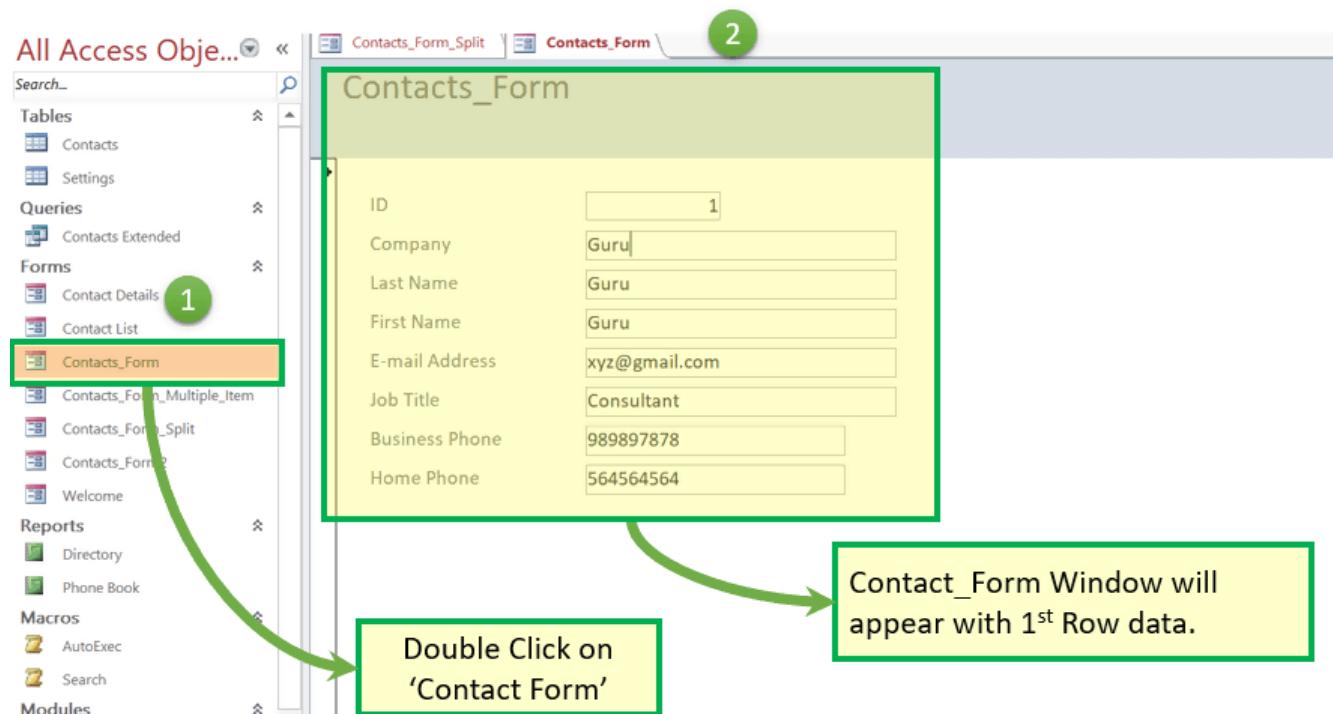


Edit the existing record via Form.

- One of the features of forms is that we can edit the values and data directly from the form.
- It is more user-friendly because as compared to row format in the table, forms have better visibility of selected fields and the user can do the direct updates.
- These values updated from forms will also be reflected in original tables immediately.

Let's have a look at how to edit value from the form:

Step 1) Click on 'Contact_Form'



Step 2) Update some values on 'Contact_Form' value



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Contacts_Form

ID	1
Company	Guru99
Last Name	Edu
First Name	Guru
E-mail Address	xyz@gmail.com
Job Title	Consultant
Business Phone	989897878
Home Phone	564564564

Update Company name from Guru to 'Guru99' and Last name from 'Guru' to 'Edu'

Step 3) Double Click on 'Contact' table.

The screenshot shows the Microsoft Access object browser window. The title bar says "All Access Obj...". The left pane is titled "Tables" and contains two items: "Contacts" and "Settings". The "Contacts" item is highlighted with a pink background. The right pane lists other objects: "Queries", "Forms", and "Reports". Under "Queries", there is "Contacts Extended". Under "Forms", there are "Contact Details", "Contact List", and "Contacts_Form".

Result: Updated value is present in the original table record.



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ID	Company	Last Name	First Name	E-mail Address	Job Title	Business Phc	Home Phone	Mobile Phon	Fax Number
1	Guru99	Edu	Guru	xyz@gmail.com	Consultant	989897878	564564564	346456464	123-1232323
2	Edu99	Edu	Guru	abc@yahoo mail.com	Business Analyst	457457575	567567557	575757575	575-34345335
*	(New)								

In Table 'Contact' - Company name from updated to 'Guru99' from 'Guru99' and Last name updated from 'Guru' to 'Edu'

Add a record to a Form.

- Forms also give the flexibility to Add records.
- Again, this is a user-friendly and appealing way of adding records as compared to adding records in a row form.
- Here, we will take the Microsoft Access databases example of Split from 'Contact_Form_Split' created above.

Step 1) Open 'Contact_Form_Split'

The screenshot shows the Microsoft Access interface. On the left, there's a navigation pane with 'Forms' containing 'Contact Details', 'Contact List', 'Contacts_Form', 'Contacts_Form_Multiple_Item', and 'Contacts_Form_Split' (which is highlighted with a green box). Below that are 'Reports', 'Macros', and 'AutoExec'. On the right, the main area displays a split-form view. The top half is a form with fields for 'Last Name' (Guru), 'State/Province' (Montana), 'First Name' (Guru), 'ZIP/Postal Code' (3434343), 'E-mail Address' (xyz@gmail.com), 'Country/Region' (US), 'Job Title' (Consultant), and 'Web Page'. The bottom half is a table with columns 'ID', 'Company', 'Last Name', 'First Name', 'E-mail Address', and 'Job Title'. It contains two rows: one for 'Guru' and another for 'Edu99'. A green arrow points from the 'Contact_Form_Split' entry in the navigation pane to the 'Click Here to open 'Contact_Form_Split'' button in a yellow box at the bottom right.

Forms

- Contact Details
- Contact List
- Contacts_Form
- Contacts_Form_Multiple_Item
- Contacts_Form_Split**
- Contacts_Form2
- Welcome

Reports

- Directory
- Phone Book

Macros

- AutoExec
- Search

Last Name Guru State/Province Montana

First Name Guru ZIP/Postal Code 3434343

E-mail Address xyz@gmail.com Country/Region US

Job Title Consultant Web Page

ID	Company	Last Name	First Name	E-mail Address	Job Title
1	Guru	Guru	Guru	xyz@gmail.com	Consultant
2	Edu99	Edu	Guru	abc@yahoo mail.com	Business Analyst
*	(New)				

Click Here to open 'Contact_Form_Split'



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Step 2) To Add record, click on 'New (blank) Record Icon.'

The screenshot shows the Microsoft Access 'Contacts' form and its corresponding datasheet view. At the top, there is a ribbon with tabs: 'Contacts_Form', 'Contacts', 'Contacts_Multiple_Item', 'Contacts_Form2', and 'Contacts_Form_Split'. The main window title is 'Contacts'. Below the title, there are six input fields for a new contact: ID (1), Address (Rosa Royal), Company (Guru99), City (Helena), Last Name (Edu), State/Province (Montana), First Name (Guru), ZIP/Postal Code (3434343), E-mail Address (xyz@gmail.com), Country/Region (US), Job Title (Consultant), and Web Page. Below the form is a grid showing two existing records and one new record entry. The new record has an asterisk (*) and '(New)' next to the ID field. A green callout box with a curved arrow points from the 'New (blank) Record' icon (a small yellow square with a plus sign) in the bottom-left corner of the form area to the text 'Click Here to Add New Record'.

ID	Company	Last Name	First Name	E-mail Address	Job Title	Business Phc	Home Phone
1	Guru99	Edu	Guru	xyz@gmail.com	Consultant	989897878	564564564
2	Edu99	Edu	Guru	abc@yahoo.com	Business Analyst	457457575	567567557
*	(New)						

Record: 1 of 2 No Filter Search

Result: New record window appear in:

1. Form View and
2. Datasheet View.



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The screenshot shows the Microsoft Access interface with the 'Contacts' form open. The top ribbon has tabs for File, Home, Create, External Data, Database Tools, and a search bar. Below the ribbon is a toolbar with various icons for application parts, tables, queries, forms, reports, macros, and code. A green callout box labeled '1' points to the 'New Record' button in the top-left corner of the form, which is highlighted in yellow. Another green callout box labeled '2' points to the 'New Record' button in the data sheet view at the bottom of the screen, also highlighted in yellow. The left sidebar lists 'All Access Objec...' with categories like Tables, Queries, Forms, Reports, Macros, and Modules. The 'Forms' category is expanded, showing 'Contact Details', 'Contact List', 'Contacts_Form', and 'Contacts_Form_Split'. The 'Tables' category is also expanded, showing 'Contacts' and 'Settings'. The 'Reports' category is expanded, showing 'Welcome', 'Directory', and 'Phone Book'. The 'Macros' category is expanded, showing 'AutoExec' and 'Search'. The 'Modules' category is expanded, showing 'mrufilemanager'. The main window displays the 'Contacts' form with fields for ID, Company, Last Name, First Name, E-mail Address, Job Title, Address, City, State/Province, ZIP/Postal Code, Country/Region, and Web Page. Below the form is a data sheet view showing three records:

ID	Company	Last Name	First Name	E-mail Address	Job Title	Business Phn	Home Phone	Mobile Phon	Fax Numbe
1	Guru99	Edu	Guru	xyz@gmail.com	Consultant	989897878	564564564	346456464	123-123232
2	Edu99	Edu	Guru	abc@gmail.com	Business Analyst	457457575	563567557	575757575	575-343453
[New]									

Step 3) Manually fill the data from Form. Note that in split form all data will be automatically reflected in below data sheet as well.



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1 Manually fill data for record 3 here.

ID	3	Address	Fiona
Company	Education	City	Helena
Last Name	Krish	State/Province	Montana
First Name	Krish	ZIP/Postal Code	3456342
E-mail Address	abc@gmail.com	Country/Region	US
Job Title	UI Developer	Web Page	

2 All Data filled in Form is automatically reflected in Data sheet view

ID	Company	Last Name	First Name	E-mail Address	Job Title	Business Phc	Home Phone	Mobile Phon	Fax Number
1	Guru99	Edu	Guru	xyz@gmail.com	Consultant	989897878	564564564	346456464	123-1232323
2	Edu99	Edu	Guru	abc@yahoomail.com	Business Analyst	457457575	567567557	575757575	575-34345335
3	Education	Krish	Krish	abc@gmail.com	UI Developer	457647567557	457646756	934945945	234-19383334
*	(New)								

Step 4) Double Click on 'Contact' table.



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Templates | Tables

All Access Obj...

Search...

Tables

- Contacts
- Settings

Queries

- Contacts Extended

Forms

- Contact Details
- Contact List
- Contacts_Form

Result: New Record updated to 'Contact' Table added from Form 'Contact_Form_Multiple_Item'

All Access Obj...

Search...

Tables

- Contacts
- Settings

Queries

- Contacts Extended

Forms

- Contact Details
- Contact List
- Contacts_Form
- Contacts_Form_Multiple_Item
- Contacts_Form_Split
- Contacts_Form2

ID	Company	Last Name	First Name	E-mail Address	Job Title	Business Phc	Home Phone	Mobile Phon	Fax Number
1	Guru99	Edu	Guru	xyz@gmail.com	Consultant	989897878	564564564	346456464	123-1232323
2	Edu99	Edu	Guru	abc@yahoo.com	Business Analyst	457457575	567567575	575757575	575-24245325
(New)	3 Education	Krish	Krish	abc@gmail.com	UI Developer	457647567557	457646756	934945945	234-19383334

New Record updated to 'Contact' Table added from Form 'Contact_Form_Multiple_Item'



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Report

- A report is an object in MS Access that is designed for formatting, calculating and printing selected data in an organized way.
- It contains information from tables and also information that are there in the report design.
- Reports are helpful as they allow you to present all information of your database in an easy-to-read format.

Let's take an MS Access databases example of 'Contact' DB default report – 'Phone Book.'

Step 1) Click on 'Phone Book' under 'Report' section. The system will open the inbuilt 'Phone Book' report.

It will display Contact Name, Home, Business and Mobile name displayed

for each record present.



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The screenshot shows the Microsoft Access interface. On the left, the 'Reports' section of the navigation pane is open, with the 'Phone Book' report highlighted and circled with a green number '1'. In the center, the 'Phone Book' report is displayed. The title 'Phone Book' is at the top, followed by a section header '(UNCATEGORIZED)'. Below it are three tables: 'BUSINESS', 'PERSONAL', and another unnamed table. Each table has columns for Contact Name, Home, Business, and Mobile. The data is as follows:

Contact Name	Home	Business	Mobile
Krish Krish	457646756	457647567557	934945945
Guru Edu	567567557	457457575	575757575
Guru Edu	564564564	989897878	346456464

A green arrow points from the 'Phone Book' report in the navigation pane to the report preview area. Another green arrow points from the report preview area to a callout box containing the following text:

In built 'Phone Book' report is displayed with Contact Name, Home, Business and Mobile name displayed for each records present

Step 2) Now suppose that we want to edit the report Heading from 'Home' to 'Home Number.' Right click and click on 'Design View.'



Phone Book

(UNCATEGORIZED)

Contact Name	Home	Business	Mobile
Krish Krish	457646756	457647567557	934945945
BUSINESS			
Contact Name	Report View	Business	Mobile
Guru Edu	Layout View	457457575	575757575
PERSONAL			
Contact Name	Design View	Business	Mobile
Guru Edu	Print Preview	989897878	346456464

A context menu is displayed over the 'Guru Edu' entry in the BUSINESS section. The 'Design View' option is highlighted with a green box and a green arrow points from it to a yellow box containing the text 'Click on \'Design View\''.

Click on 'Design View'

The system will open the Report in Design view.



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Report Header

Page Header

=Date()								=Page." & [Page] & ".of. =n o r m a l . f o r m
Phone Book								

Category Header

=UCase([Category])

Contact Name	Home	Business	Mobile
--------------	------	----------	--------

Detail

Contact Name	Home Phone	Business Phone	Mobile Phone
--------------	------------	----------------	--------------

Page Footer

Report Footer

Column Name in Design name. Here we can change the headings.

Step 3) Edit the name you want to update and Press 'Ctrl+S'.



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The screenshot shows a report design interface with the following structure:

- Contact List** and **Phone Book** tabs at the top.
- Report Header**: Contains fields for Date and Page Number.
- Page Header**: Contains fields for Date and Page Number.
- Section Header**: Displays "Phone Book".
- Category Header**: Shows categories: Contact Name, Home Phone (highlighted with a yellow box), Business, and Mobile.
- Detail**: Shows columns for Contact Name, Home Phone, Business Phone, and Mobile Phone.
- Page Footer** and **Report Footer**: Both are empty.

A green arrow points from the "Home Phone" label in the Category Header to a callout box containing the text "Updated 'Home' to 'Home Phone'".

Step 4) Double click 'Phone book' under reports

Result: Label is updated from 'Home' to 'Home Phone.'



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All Access Obj...

Search...
Tables
Queries
Forms
Reports
Macros
Modules

Contact List Phone Book by Group

4/8/2019 Page 1 of 1

Phone Book

(UNCATEGORIZED)

Contact Name	Home Phone	Business	Mobile
Krish Krish	457646756	457647567557	934945945

BUSINESS

Contact Name	Home Phone	Business	Mobile
Guru Edu	567567557	457457575	575757575

PERSONAL

Contact Name	Home Phone	Business	Mobile
Guru Edu	564564564	989897878	346456464

1 Double Click on 'Phone Book' Report

2 'Home' is updated to 'Home Phone'



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Experiment#15

Open Ended Lab



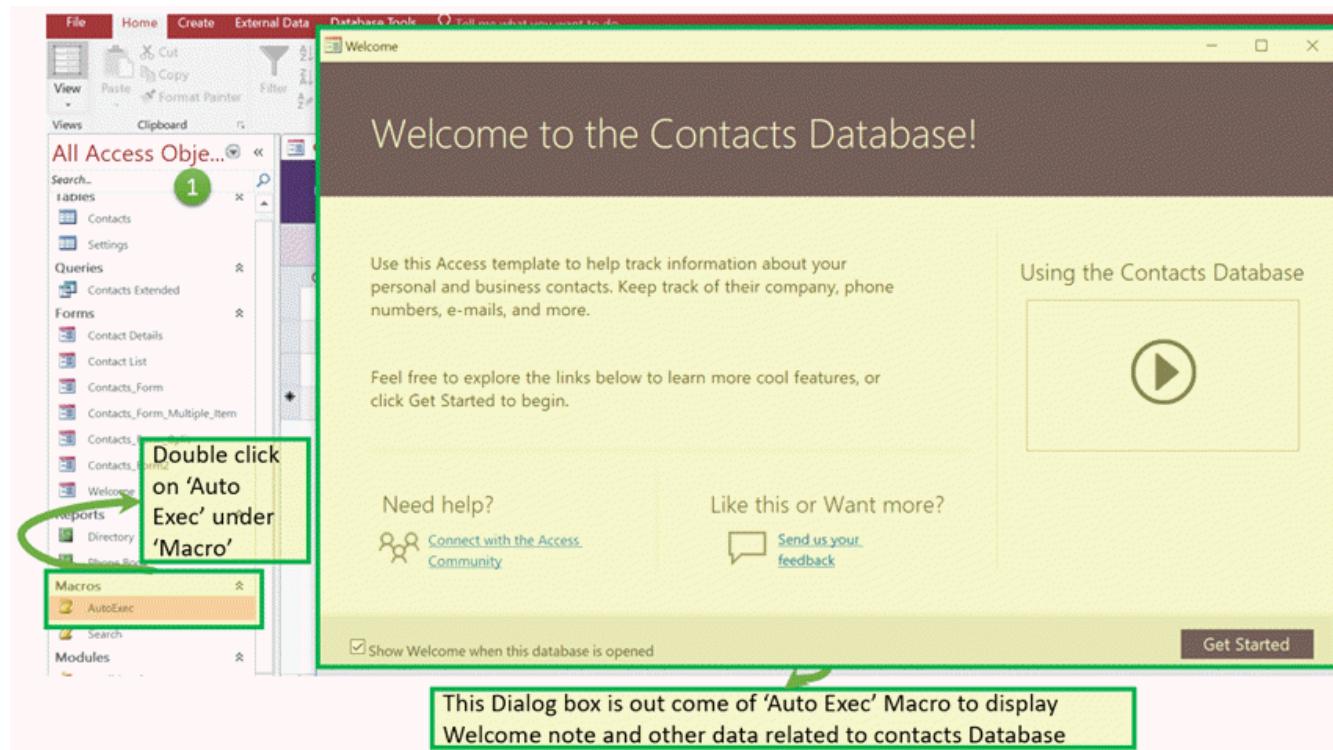
Experiment#16

Macro

- Macro in MS Access is a time-saving feature that allows you to add functionality or automate simple tasks.
- Steps that are of frequently used can be automated using a macro
- It can add a quick and easy approach to link all other objects together to create a simple database application.

Let take an Microsoft Access databases example of 'Contact' DB default Macro – 'AutoExec.'

Step 1) Click on 'AutoExec' under 'Report' section. The system will open the inbuilt 'Welcome' Macro. It will display Welcome note and other data related to contacts Database which has its code into default 'AutoExec' Macro

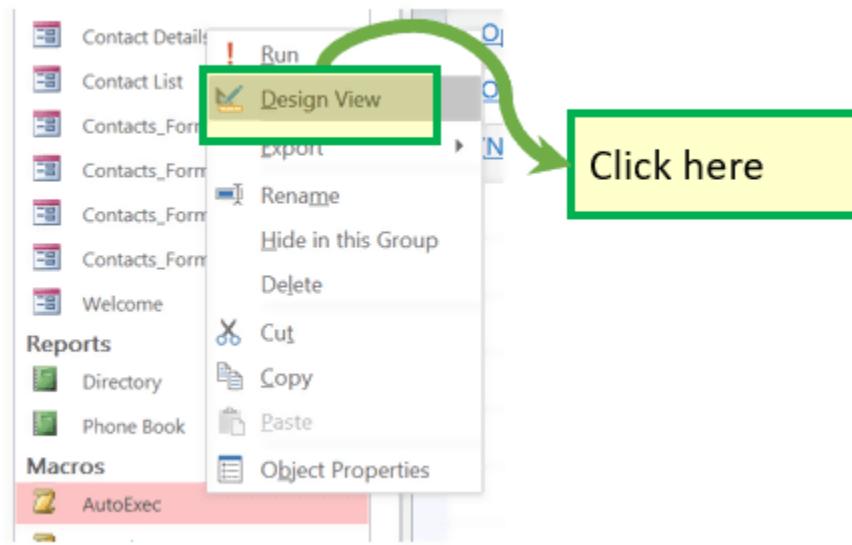


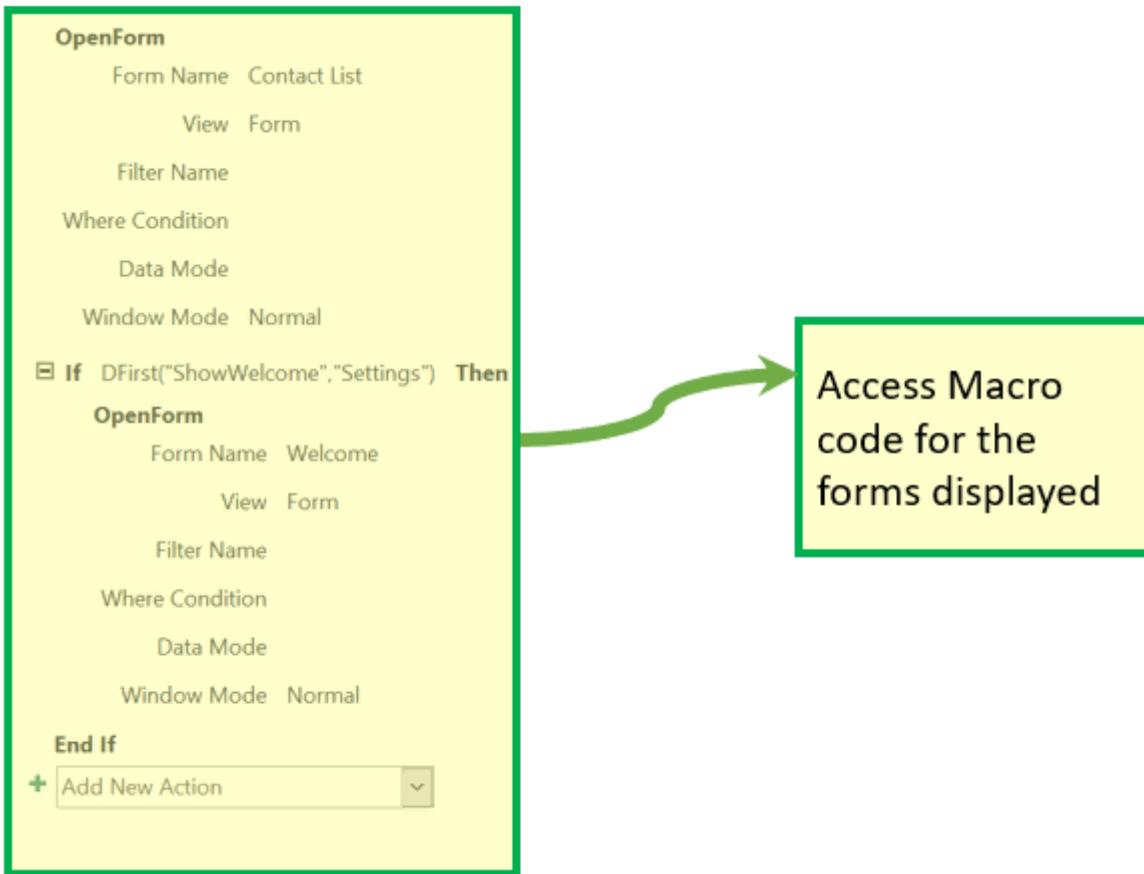
Step 2) If you want to see the code behind this macro right click.



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Module

- It is a collection of user-defined functions, declarations, statements, and procedures that are stored together as a unit.
- It perhaps a standalone object having functions that you can call from anywhere in your Access database.

MS Access databases example from 'Contact' DB

Step 1) Click on 'modMapping'



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All Access Obj...

Search...

Tables

- Contacts
- Settings

Queries

- Contacts Extended

Forms

- Contact Details
- Contact List
- Contacts_Form
- Contacts_Form_Multiple_Item
- Contacts_Form_Split
- Contacts_Form2
- Welcome

Reports

- Directory
- Phone Book

Macros

- AutoExec
- Search

Modules

- modMapping

Click Here



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```
Microsoft Visual Basic for Applications - Guru99 - [modMapping (Code)]
File Edit View Insert Debug Run Tools Add-Ins Window Help
Project - Desktop Contacts Modified Template (Guru99)
Properties - modMapping
modMapping Module
Alphabetic Categorized
(Name) modMapping

Option Compare Database
Option Explicit

Function OpenMap(Address, City, State, Zip, Country)

    Dim strAddress As String
    strAddress = Nz(Address)
    strAddress = strAddress & IIf(strAddress = "", " ", ", ") & Nz(City)
    strAddress = strAddress & IIf(strAddress = "", " ", ", ") & Nz(State)
    strAddress = strAddress & IIf(strAddress = "", " ", ", ") & Nz(Zip)
    strAddress = strAddress & IIf(strAddress = "", " ", ", ") & Nz(Country)

    If strAddress = "" Then
        MsgBox "There is no address to map."
    Else
        Application.FollowHyperlink "http://maps.live.com/default.aspx?where1=" & strAddress
    End If
End Function
```

Module , VB Script code to Open MAP of given address