

# *Chapter One*

## *Introduction to Computer*

### **Computer**

A computer is an electronic device, operating under the control of instructions stored in its own memory that can accept data (input), process the data according to specified rules, produce information (output), and store the information for future use<sup>1</sup>.

### **Functionalities of a computer<sup>2</sup>**

Any digital computer carries out five functions in gross terms:

- Takes data as input.
- Stores the data/instructions in its memory and use them when required.
- Processes the data and converts it into useful information.
- Generates the output
- Controls all the above four steps.



### **Computer Components**

Any kind of computers consists of **HARDWARE AND SOFTWARE**.

#### **Hardware:**

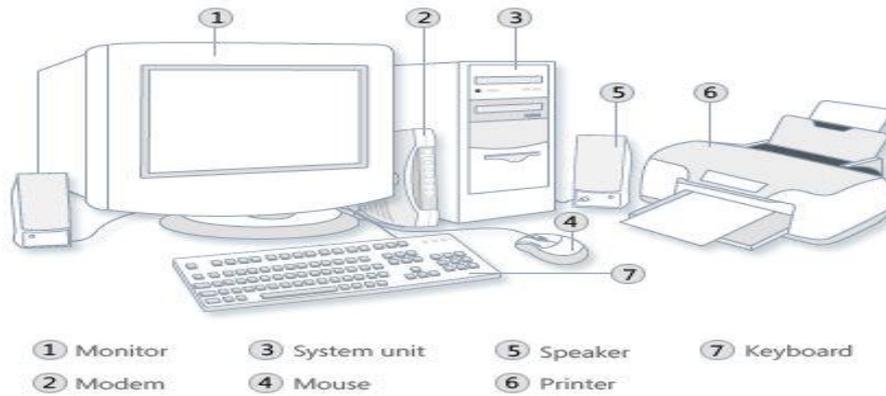
Computer hardware is the collection of physical elements that constitutes a computer system. Computer hardware refers to the physical parts or components of a computer such as the monitor, mouse, keyboard, computer data storage, hard drive disk (HDD), system unit (graphic cards, sound cards, memory, motherboard and chips), etc. all of which are physical objects that can be touched.<sup>3</sup>

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<sup>1</sup> Vermaat, Misty E. Microsoft Office 2013 Introductory. Cengage Learning, p.IT3. 2014

<sup>2</sup> [http://www.tutorialspoint.com/computer\\_fundamentals/computer\\_quick\\_guide.htm](http://www.tutorialspoint.com/computer_fundamentals/computer_quick_guide.htm)

<sup>3</sup> [http://en.wikipedia.org/wiki/Computer\\_hardware](http://en.wikipedia.org/wiki/Computer_hardware)



## Input Devices

Input device is any peripheral (piece of computer hardware equipment to provide data and control signals to an information processing system such as a computer or other information appliance.

Input device Translate data from **form** that humans understand to one that the computer can work with. Most common are keyboard and mouse

Examples of Manual Input Devices			
Keyboard 	Numeric Keypad 	Pointing Device 	Remote Control 
Joystick 	Touch Screen 	Scanner 	Graphics Tablet 
Microphone 	Digital Camera 	Webcams 	Light Pens 

Example of Input Devices:-

1. Keyboard	2. Mouse (pointing device)	3. Microphone
4. Touch screen	5. Scanner	6. Webcam
7. Touchpads	8. MIDI keyboard	9.
10. Graphics Tablets	11. Cameras	12. Pen Input
13. Video Capture Hardware	14. Microphone	15. Trackballs
16. Barcode reader	17. Digital camera	18. Joystick
19. Gamepad	20. Electronic Whiteboard	21.

**Note:** The most common use keyboard is the QWERTY keyboard. Generally standard Keyboard has 104 keys.

## Central Processing Unit (CPU)

A CPU is brain of a computer. It is responsible for all functions and processes. Regarding computing power, the CPU is the most important element of a computer system.

The CPU is comprised of three main parts :

\* **Arithmetic Logic Unit (ALU)**: Executes all arithmetic and logical operations. Arithmetic calculations like as addition, subtraction, multiplication and division. Logical operation like compare numbers, letters, or special characters

\* **Control Unit (CU)**: controls and co-ordinates computer components.

1. Read the code for the next instruction to be executed.
2. Increment the program counter so it points to the next instruction.
3. Read whatever data the instruction requires from cells in memory.
4. Provide the necessary data to an ALU or register.
5. If the instruction requires an ALU or specialized hardware to complete, instruct the hardware to perform the requested operation.

\* **Registers** :Stores the data that is to be executed next, "very fast storage area".

## Primary Memory:-

1. **RAM**: Random Access Memory (RAM) is a memory scheme within the computer system responsible for storing data on a temporary basis, so that it can be promptly accessed by the processor as and when needed. It is volatile in nature, which means that data will be erased once supply to the storage device is turned off. RAM stores data randomly and the processor accesses these data randomly from the RAM storage. RAM is considered "random access" because you can access any memory cell directly if you know the row and column that intersect at that cell.
2. **ROM** (Read Only Memory): ROM is a permanent form of storage. ROM stays active regardless of whether power supply to it is turned on or off. ROM devices do not allow data stored on them to be modified.

## Secondary Memory:-

Stores data and programs permanently :its retained after the power is turned off

1. **Hard drive (HD)**: A hard disk is part of a unit, often called a "disk drive," "hard drive," or "hard disk drive," that store and provides relatively quick access to large amounts of data on an electromagnetically charged surface or set of surfaces.
2. **Optical Disk**: an optical disc drive (ODD) is a disk drive that uses laser light as part of the process of reading or writing data to or from optical discs. Some drives can only read from discs, but recent drives are commonly both readers and recorders, also called burners or writers. Compact discs, DVDs, and Blu-ray discs are common types of optical media which can be read and recorded by such drives. Optical drive is the generic name; drives are usually described as "CD" "DVD", or "Bluray", followed by "drive", "writer", etc. There are three main types of optical media: CD, DVD, and Blu-ray disc. CDs can store up to 700 megabytes (MB) of data and DVDs can store up to 8.4 GB of data. Blu-ray discs, which are the newest type of optical media, can store up to 50 GB of data. This storage capacity is a clear advantage over the floppy disk storage media (a magnetic media), which only has a capacity of 1.44 MB.

### 3. Flash Disk

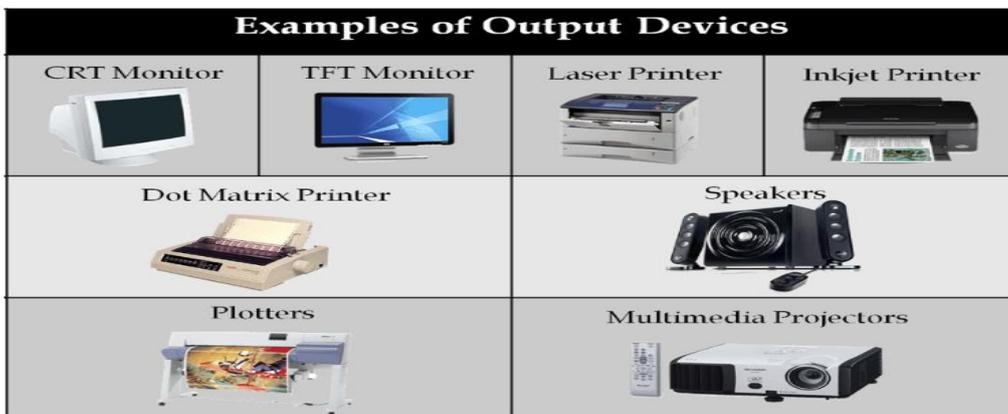
A storage module made of flash memory chips. A Flash disks have no mechanical platters or access arms, but the term "disk" is used because the data are accessed as if they were on a hard drive. The disk storage structure is emulated.

Comparison between Main memory (RAM) and Secondary Memory (Hard disk)

RAM	Hard Disk (Hard Drive)
Memory	Storage
Smaller amount (typically 500 MB-6 GB)	Much larger amount (typically 80GB to 1000 GB)
Temporary storage of files and programs A little like your real desktop - has only your current work on it (which could be ruined by a spill of Coke or coffee!)	Permanent storage of files and programs Like a file cabinet - has long-term storage of work (it's safe from spills!)
Contents disappear when you turn off power to the computer and when the computer crashes	Contents remain when you turn off the power to the computer (they don't disappear unless you purposely delete them), and when the computer crashes
Consists of chips (microprocessors)	Consists of hard disks (platters)
When you want to use a program, a temporary copy is put into RAM and that's the copy you use	Holds the original copy of the program permanently

### Output devices

An output device is any piece of computer hardware equipment used to communicate the results of data processing carried out by an information processing system (such as a computer) which converts the electronically generated information into human-readable form.



Example on Output Devices:

1. Monitor	2. LCD Projection Panels
3. Printers (all types)	4. Computer Output Microfilm (COM)
5. Plotters	6. Speaker(s)
7. Projector	

Note Basic types of monitors are a.Cathode Ray Tube (CRT). B. Liquid Crystal Displays (LCD). c.light-emitting diode (LED).

Printer types: 1-Laser Printer. 2-Ink Jet Printer. 3-Dot Matrix Printer

## Software

Software is a generic term for organized collections of computer data and instructions, often broken into two major categories: system software that provides the basic non-task-specific functions of the computer, and application software which is used by users to accomplish specific tasks.

### *Software Types*

- A. System software** is responsible for controlling, integrating, and managing the individual hardware components of a computer system so that other software and the users of the system see it as a functional unit without having to be concerned with the low-level details such as transferring data from memory to disk, or rendering text onto a display. Generally, system software consists of an operating system and some fundamental utilities such as disk formatters, file managers, display managers, text editors, user authentication (login) and management tools, and networking and device control software.
- B. Application software** is used to accomplish specific tasks other than just running the computer system. Application software may consist of a single program, such as an image viewer; a small collection of programs (often called a software package) that work closely together to accomplish a task, such as a spreadsheet or text processing system; a larger collection (often called a software suite) of related but independent programs and packages that have a common user interface or shared data format, such as Microsoft Office, which consists of closely integrated word processor, spreadsheet, database, etc.; or a software system, such as a database management system, which is a collection of fundamental programs that may provide some service to a variety of other independent applications.

#### Comparison Application Software and System Software

	System Software	Application Software
	Computer software, or just software is a general term primarily used for digitally stored data such as computer programs and other kinds of information read and written by computers. App comes under computer software though it has a wide scope now.	Application software, also known as an application or an "app", is computer software designed to help the user to perform specific tasks.
Example:	1) Microsoft Windows 2) Linux 3) Unix 4) Mac OSX 5) DOS	1) Opera (Web Browser) 2) Microsoft Word (Word Processing) 3) Microsoft Excel (Spreadsheet software) 4) MySQL (Database Software) 5) Microsoft PowerPoint (Presentation Software) 6) Adobe Photoshop (Graphics Software)
Interaction:	Generally, users do not interact with system software as it works in the background.	Users always interact with application software while doing different activities.
Dependency:	System software can run independently of the application software.	Application software cannot run without the presence of the system software.

## Unit of Measurements

**Storage measurements:** The basic unit used in computer data storage is called a bit (binary digit). Computers use these little bits, which are composed of ones and zeros, to do things and talk to other computers. All your files, for instance, are kept in the computer as binary files and translated into words and pictures by the software (which is also ones and zeros). This two number system, is called a “binary number system” since it has only two numbers in it. The decimal number system in contrast has ten unique digits, zero through nine.

Computer Storage units

Bit	BIT	0 or 1
Kilobyte	KB	1024 bytes
Megabyte	MB	1024 kilobytes
Gigabyte	GB	1024 megabytes
Terabyte	TB	1024 gigabytes

### Size example

- 1 bit - answer to an yes/no question
- 1 byte - a number from 0 to 255.
- 90 bytes: enough to store a typical line of text from a book.
- 4 KB: about one page of text.
- 120 KB: the text of a typical pocket book.
- 3 MB - a three minute song (128k bitrate)
- 650-900 MB - an CD-ROM
- 1 GB -114 minutes of uncompressed CD-quality audio at 1.4 Mbit/s
- 8-16 GB - size of a normal flash drive

**Speed measurement:** The speed of Central Processing Unit (CPU) is measured by Hertz (Hz), Which represent a CPU cycle. The speed of CPU is known as Computer Speed.

CPU SPEED MEASURES	
1 hertz or Hz	1 cycle per second
1 MHz	1 million cycles per second or 1000 Hz
1 GHz	1 billion cycles per second or 1000 MHz

## **Computers classification<sup>\*\*\*</sup>**

Computers can be generally classified by size and power as follows, though there is Considerable overlap:

- **Personal computer:** A small, single-user computer based on a microprocessor. In addition to the microprocessor, a personal computer has a keyboard for entering data, a monitor for displaying information, and a storage device for saving data.
- **workstation :** A powerful, single-user computer. A workstation is like a personal computer, but it has a more powerful microprocessor and a higher-quality monitor.
- **minicomputer :** A multi-user computer capable of supporting from 10 to hundreds of users simultaneously.
- **mainframe :** A powerful multi-user computer capable of supporting many hundreds or thousands of users simultaneously.
- **supercomputer :** An extremely fast computer that can perform hundreds of millions of instructions per second.

## **Laptop and Smartphone Computers**

**LAPTOP:** A laptop is a battery or AC-powered personal computer that can be easily carried and used in a variety of locations. Many laptops are designed to have all of the functionality of a desktop computer, which means they can generally run the same software and open the same types of files. However, some laptops, such as netbooks, sacrifice some functionality in order to be even more portable.

**Netbook:** A netbook is a type of laptop that is designed to be even more portable. Netbooks are often cheaper than laptops or desktops. They are generally less powerful than other types of computers, but they provide enough power for email and internet access, which is where the name "netbook" comes from.

**Mobile Device:** A mobile device is basically any handheld computer. It is designed to be extremely portable, often fitting in the palm of your hand or in your pocket. Some mobile devices are more powerful, and they allow you to do many of

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<sup>\*\*\*</sup><http://www.acobas.net/teaching/survival/handouts/pcwebopedia.pdf>

the same things you can do with a desktop or laptop computer. These include tablet computers, e-readers, and smartphones.

**Tablet Computers:** Like laptops, tablet computers are designed to be portable. However, they provide a very different computing experience. The most obvious difference is that tablet computers don't have keyboards or touchpads. Instead, the entire screen is touch-sensitive, allowing you to type on a virtual keyboard and use your finger as a mouse pointer. Tablet computers are mostly designed for consuming media, and they are optimized for tasks like web browsing, watching videos, reading e-books, and playing games. For many people, a "regular" computer like a desktop or laptop is still needed in order to use some programs. However, the convenience of a tablet computer means that it may be ideal as a second computer.

**Smartphones:** A smartphone is a powerful mobile phone that is designed to run a variety of applications in addition to phone service. They are basically small tablet computers, and they can be used for web browsing, watching videos, reading e-books, playing games and more.

## **Data, Information and Knowledge**

**Data:** Facts and figures which relay something specific, but which are not organized in any way and which provide no further information regarding patterns, context, etc. So data means "unstructured facts and figures that have the least impact on the typical manager."

**Information:** For data to become information, it must be contextualized, categorized, calculated and condensed. Information thus paints a bigger picture; it is data with relevance and purpose. It may convey a trend in the environment, or perhaps indicate a pattern of sales for a given period of time. Essentially information is found "in answers to questions that begin with such words as who, what, where, when, and how many".

**Knowledge:** Knowledge is closely linked to doing and implies know-how and understanding. The knowledge possessed by each individual is a product of his experience, and encompasses the norms by which he evaluates new inputs from his surroundings.

The content of the human mind can be classified into four categories:

1. Data: symbols
2. Information: data that are processed to be useful; provides answers to "who", "what", "where", and "when" questions
3. Knowledge: application of data and information; answers "how" questions
4. Wisdom: evaluated understanding.

We need to understand that processing data produced Information and process Information produces Knowledge and so on

### **Characteristics of Computer**

Speed, accuracy, diligence, storage capability and versatility are some of the key characteristics of a computer. A brief overview of these characteristics are

- **Speed:** The computer can process data very fast, at the rate of millions of instructions per second. Some calculations that would have taken hours and days to complete otherwise, can be completed in a few seconds using the computer. For example, calculation and generation of salary slips of thousands of employees of an organization, weather forecasting that requires analysis of a large amount of data related to temperature, pressure and humidity of various places, etc.
- **Accuracy:** Computer provides a high degree of accuracy. For example, the computer can accurately give the result of division of any two numbers up to 10 decimal places.
- **Diligence:** When used for a longer period of time, the computer does not get tired or fatigued. It can perform long and complex calculations with the same speed and accuracy from the start till the end.
- **Storage Capability:** Large volumes of data and information can be stored in the computer and also retrieved whenever required. A limited amount of data can be stored, temporarily, in the primary memory. Secondary storage devices like floppy disk and compact disk can store a large amount of data permanently.
- **Versatility:** Computer is versatile in nature. It can perform different types of tasks with the same ease. At one moment you can use the computer to prepare a letter document and in the next moment you may play music or print a document. Computers have several limitations too. Computer can only perform tasks that it has been programmed to do.

Computer cannot do any work without instructions from the user. It executes instructions as specified by the user and does not take its own decisions.

### **Computer Viruses\***

**Viruses:** A virus is a small piece of software that piggybacks on real programs. For example, a virus might attach itself to a program such as a spreadsheet program. Each time the spreadsheet program runs, the virus runs, too, and it has the chance to reproduce (by attaching to other programs) or wreak havoc.

- E-mail viruses:** An e-mail virus travels as an attachment to e-mail messages, and usually replicates itself by automatically mailing itself to dozens of people in the victim's e-mail address book. Some e-mail viruses don't even require a double-click -- they launch when you view the infected message in the preview pane of your e-mail software [source: Johnson].
- Trojan horses:** A Trojan horse is simply a computer program. The program claims to do one thing (it may claim to be a game) but instead does damage when you run it (it may erase your hard disk). Trojan horses have no way to replicate automatically.
- Worms:** A worm is a small piece of software that uses computer networks and security holes to replicate itself. A copy of the worm scans the network for another machine that has a specific security hole. It copies itself to the new machine using the security hole, and then starts replicating from there, as well.

### **What are some tips to avoid viruses and lessen their impact?\***

- Install anti-virus software from a reputable vendor. Update it and use it regularly.
- In addition to scanning for viruses on a regular basis, install an "on access" scanner (included in most anti-virus software packages) and configure it to start each time you start up your computer. This will protect your system by checking for viruses each time you run an executable file.
- Use a virus scan before you open any new programs or files that may contain executable code. This includes packaged software that you buy from the store as well as any program you might download from the Internet.
- If you are a member of an online community or chat room, be very careful about accepting files or clicking links that you find or that people send you within the community.
- Make sure you back up your data (documents, bookmark files, important email messages, etc.) on disc so that in the event of a virus infection, you do not lose valuable work.

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\*<http://computer.howstuffworks.com/virus.htm>

\*<http://www.us-cert.gov/publications/virus-basics>

# Gmail

Gmail (**Google MAIL**) is a free Web-based e-mail service that provides users with a gigabyte of storage for messages and provides the ability to search for specific messages. The Gmail program also automatically organizes successively related messages into a conversational thread.

Gmail has a greater storage capacity than other special applications such as Microsoft and Yahoo

Creating a **Google account** is needed to access **Gmail** because it is just one of the many services offered by Google to registered users. Signing up for a Google account is free and easy, and naming your new **Gmail address** will be a part of the sign-up process. This means whenever you're signed in to Gmail, you are automatically signed in to your Google account. You'll be able to easily access other Google services like **Google Docs, Calendar, and YouTube**.

## Gmail features

Gmail offers several useful **features** to make your email experience as smooth as possible, including:

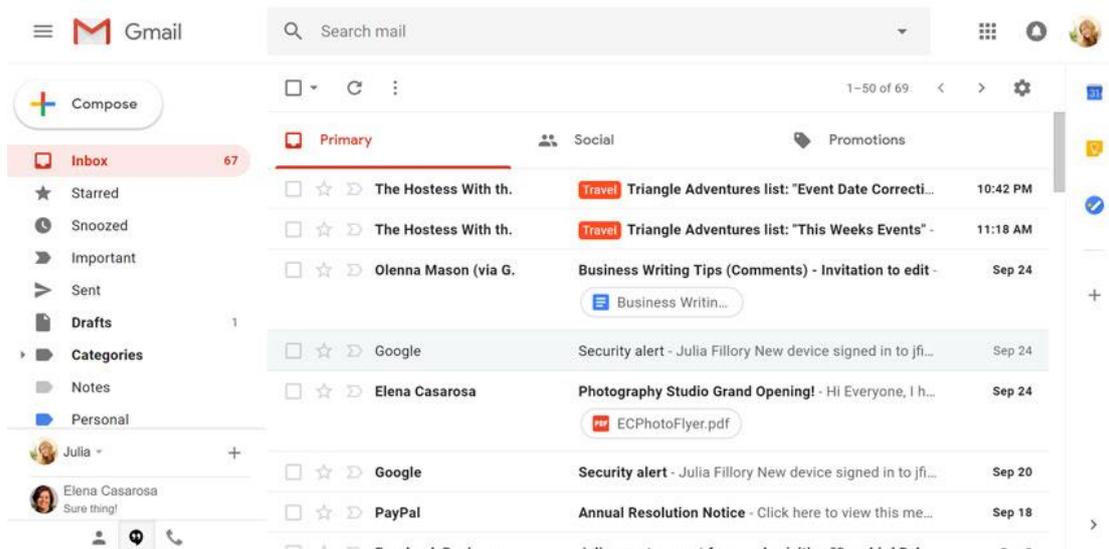
- **Spam filtering.** Spam is another name for junk email. Gmail uses advanced technologies to keep spam out of your inbox. Most spam is automatically sent to a **separate spam folder**, and after 30 days it is deleted.
- **Conversation View.** An email **conversation** occurs whenever you send emails back and forth with another person (or a group of people), often about a specific topic or event. Gmail **groups** these emails together by default, which keeps your inbox more organized.
- **Built-in chat.** Instead of sending an email, you can send someone an **instant message** or use the **voice** and **video chat** feature if your computer has a microphone and/or webcam.
- **Call Phone.** This feature is similar to voice chat, except that it allows you to dial an actual phone number to call **any phone in the world**.

It's **free** to make a call to anywhere in the United States or Canada, and you can make calls to other countries at relatively low rates.

## Gmail interface

When you're working with Gmail, you'll primarily be using the main **Gmail interface**. This window contains your **inbox**, and it allows you to navigate to your **contacts**, **mail settings**, and more. Also, if you use other Google services like **YouTube** or **Calendar**, you'll be able to access them from the top of the Gmail window.

Click the buttons in the interactive below to learn about the different parts of the Gmail interface.

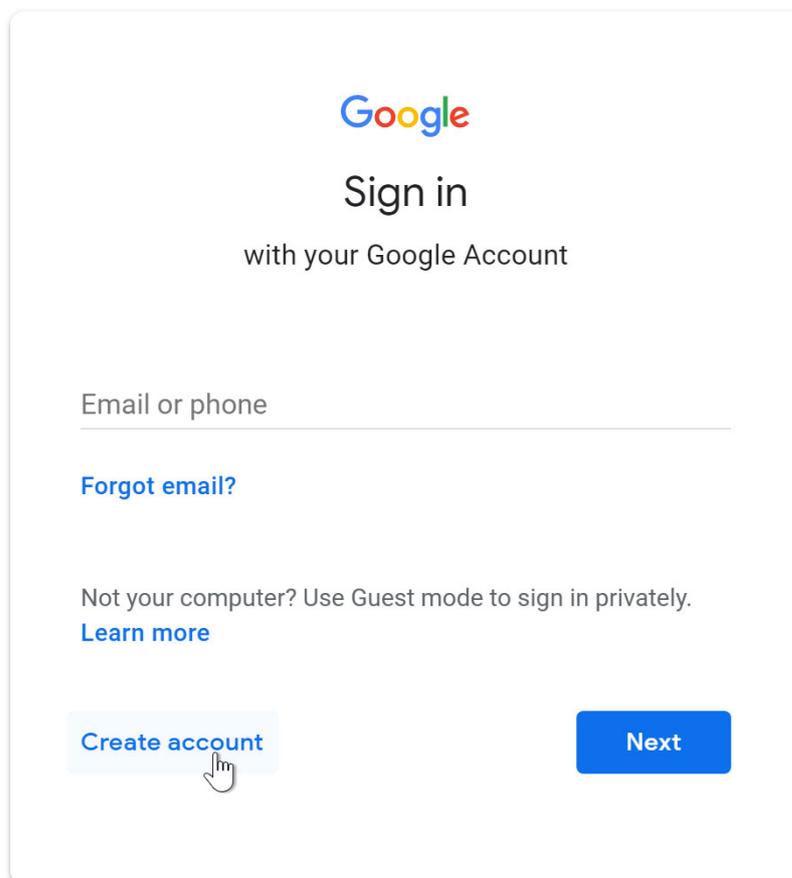


## Setting up a Gmail account

To create a **Gmail** address, you'll first need to create a **Google account**. Gmail will redirect you to the Google account sign-up 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:

- 1- Go to [www.gmail.com](http://www.gmail.com).
- 2- Click **Create account**.



The image shows a screenshot of the Google sign-in page. At the top, the Google logo is displayed in its multi-colored font. Below the logo, the text 'Sign in' is centered, followed by 'with your Google Account'. There is a text input field labeled 'Email or phone' with a horizontal line underneath. Below the input field, there is a blue link that says 'Forgot email?'. Further down, there is a line of text: 'Not your computer? Use Guest mode to sign in privately.' followed by a blue link 'Learn more'. At the bottom of the page, there are two buttons: a light blue button on the left that says 'Create account' with a mouse cursor icon pointing at it, and a solid blue button on the right that says 'Next'.

3- The **sign-up** form will appear. Follow the directions by entering the required information.



## Create your Google Account

First name  Last name

Username  @gmail.com

You can use letters, numbers & periods  
Available:  
[casarosae6](#) [elenacasarosa895](#) [casarosaelena106](#)

[Use my current email address instead](#)

Password  Confirm password  

Use 8 or more characters with a mix of letters, numbers & symbols

[Sign in instead](#)



One account. All of Google working for you.

4- Next, enter your **phone number** to verify your account. Google uses a two-step verification process for your security.



### Verify your phone number

For your security, Google wants to make sure it's really you. Google will send a text message with a 6-digit verification code. *Standard rates apply*

Phone number

 9195559555

[Back](#) [Next](#)



Your personal info is private & safe

5- Next, you will see a form to enter some of your personal information, like your name and birthday.



Elena, welcome to Google



ecasarosa3@gmail.com

Phone number (optional)

 9195559555

We'll use your number for account security. It won't be visible to others.

Recovery email address (optional)

We'll use it to keep your account secure

Month	Day	Year
March	02	1982

Your birthday

Gender

Female



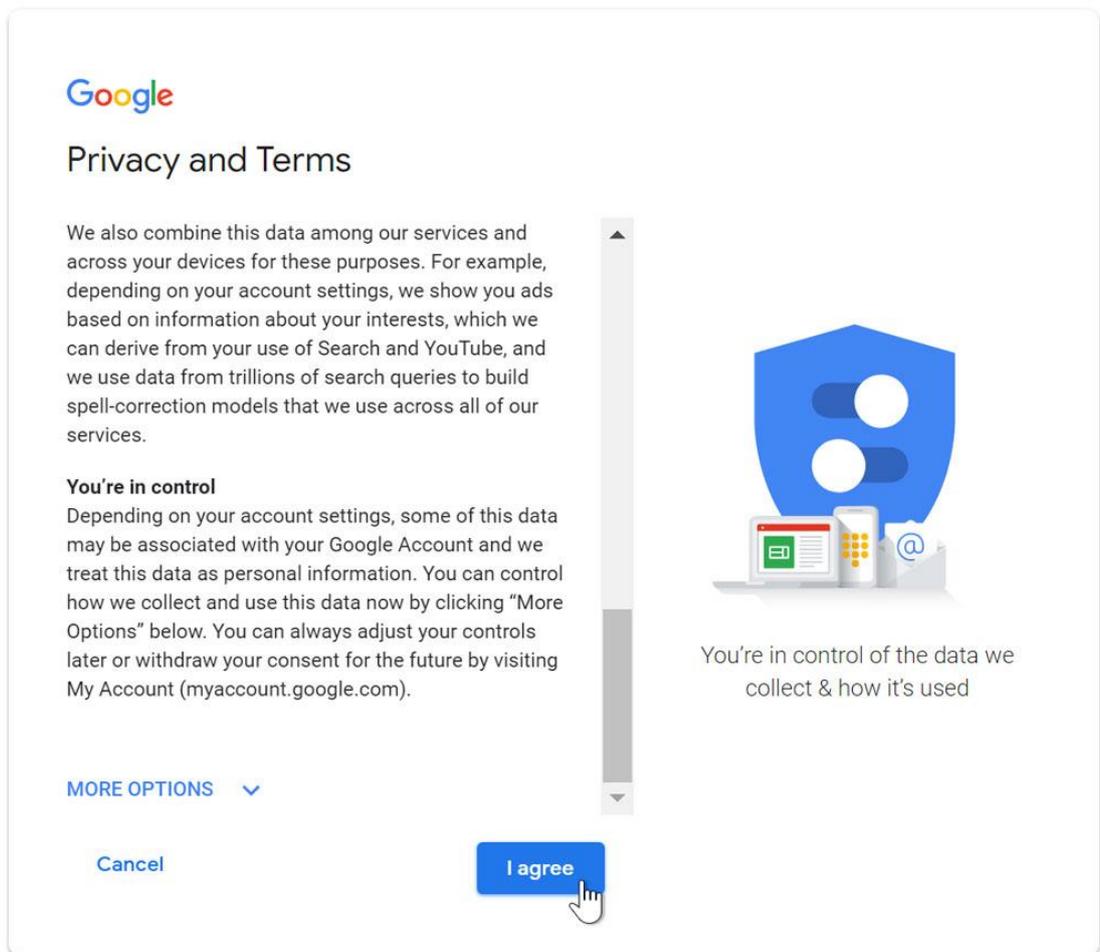
Your personal info is private & safe

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7- Review [Google's Terms of Service](#) and [Privacy Policy](#), then click I agree.



**Google**

## Privacy and Terms

We also combine this data among our services and across your devices for these purposes. For example, depending on your account settings, we show you ads based on information about your interests, which we can derive from your use of Search and YouTube, and we use data from trillions of search queries to build spell-correction models that we use across all of our services.

**You're in control**  
Depending on your account settings, some of this data may be associated with your Google Account and we treat this data as personal information. You can control how we collect and use this data now by clicking "More Options" below. You can always adjust your controls later or withdraw your consent for the future by visiting My Account (myaccount.google.com).

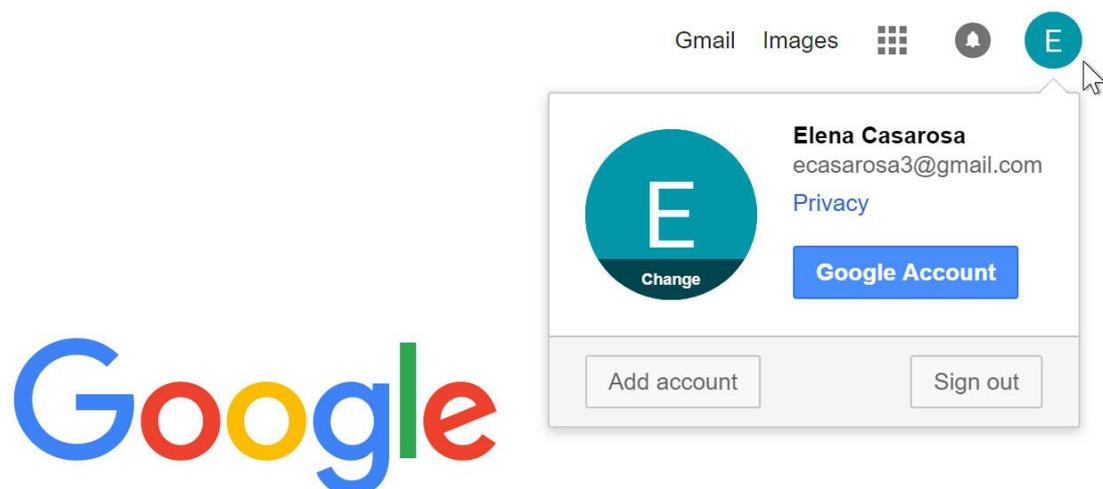
**MORE OPTIONS** ▾

Cancel **I agree**



You're in control of the data we collect & how it's used

8- Your account will be created.



Gmail Images   



**Elena Casarosa**  
ecasarosa3@gmail.com  
[Privacy](#)

**Google Account**

**Google**

Add account Sign out

## Google drive component

Google Drive is a free cloud-based storage service that enables users to store and access files online. The service syncs stored documents, photos and more across all of the user's devices, including mobile devices, tablets and PCs.

Google Drive integrates with the company's other services and systems -- including Google Docs, Gmail, Android, Chrome, YouTube, Google Analytics and Google+. Google Drive competes with Microsoft OneDrive, Apple iCloud, Box, Dropbox and SugarSync.

### How Google Drive works

To get started with Google Drive, the end user must create or sign in to a Google account. Then, the user types "drive.google.com" into browser. "My Drive" will automatically appear, which can contain uploaded or synced files and folders, as well as Google Sheets, Slides and Docs. Then, the user can either upload files from the computer or create files in Google Drive.

Alternatively, the end user can download a Google Drive application to one or more devices. A Google Drive folder will appear along with other folders in each device's file system. Files that the user adds to one folder are available through a Google Drive web app or the Google Drive folder on each device

When the end user creates a file or folder, he or she becomes its owner by default. Then, the owner can control the level of visibility (public or privately shared with specific Google accounts) and transfer ownership to another user using Gmail addresses. The owner can also regulate permissions for both folders and files, using access levels such as "can edit," "can comment" and "can view."

### What are Docs, Slides and Sheets?

Google Docs, Google Slides and Google Sheets make up Google Drive's office suite. Google Docs is a word processor, Google Slides is a presentation program and Google Sheets is a spreadsheet program. Respectively, they can be compared to Microsoft Word, Microsoft PowerPoint and Microsoft Excel. Although the Google versions lack some

capabilities that those Microsoft Office applications have, they are simple, collaborative and free.

Each application in the suite enables users to create and edit documents, presentations and spreadsheets that they can store in Google Drive. Users can access the apps on the web using browsers including Google Chrome, Microsoft Internet Explorer and Edge, Mozilla Firefox and Apple Safari. There are also mobile apps for Google Android and Apple iOS. Each application also enables users to save, edit and share files in Microsoft Office formats.

## What is computer security?

Computer security basically is the protection of computer systems and information from harm, theft, and unauthorized use. It is the process of preventing and detecting unauthorized use of your computer system.

There are various types of computer security which is widely used to protect the valuable information of an organization.

The security precautions related to computer information and access address four major threats

: (1) theft of data, such as that of military secrets from government computers;

(2) vandalism, including the destruction of data by a computer virus;

(3) fraud, such as employees at a bank channeling funds into their own accounts;

and (4) invasion of privacy, such as the illegal accessing of protected personal financial or medical data from a large database. The most basic means of protecting a computer system against theft, vandalism, invasion of privacy, and other irresponsible behaviors is to electronically track and record the access to, and activities of, the various users of a computer system. This is commonly done by assigning an individual password to each person who has access to a system. The computer system itself can then automatically track the use of these passwords, recording such data as which files were accessed under particular passwords and so on. Another security measure is to store a system's data on a separate device or medium that is normally inaccessible through the computer system. Finally, data is often encrypted so that it can be deciphered only by holders of a singular encryption

## What is Computer Security and its types?

One way to ascertain the similarities and differences among Computer Security is by asking what is being secured. For example,

- *Information security* is securing information from unauthorized access, modification & deletion
- *Application Security* is securing an application by building security features to prevent from Cyber Threats such as
- *Computer Security* means securing a standalone machine by keeping it updated and patched

- *Network Security* is by securing both the software and hardware technologies
- *Cybersecurity* is defined as protecting computer systems, which communicate over the computer networks

So, **Computer security** can be defined as controls that are put in place to provide confidentiality, integrity, and availability for all components of computer systems.

### Components of computer system

The components of a computer system that needs to be protected are:

- *Hardware*, the physical part of the computer, like the system memory and disk drive
- *Firmware*, permanent software that is etched into a hardware device's nonvolatile memory and is mostly invisible to the user
- *Software*, the programming that offers services, like operating system, word processor, internet browser to the user

### The CIA Triad

Computer security is mainly concerned with three main areas:



- *Confidentiality* is ensuring that information is available only to the intended audience
- *Integrity* is protecting information from being modified by unauthorized parties
- *Availability* is protecting information from being modified by

unauthorized parties

In simple language, computer security is making sure information

and computer components are usable but still protected from people or software that shouldn't access it or modify it.

Now moving forward with this 'What is Computer Security?' article let's look at the most common security threats.

### **Computer security threats**

Computer security threats are possible dangers that can possibly hamper the normal functioning of your computer. In the present age, cyber threats are constantly increasing as the world is going digital. The most harmful types of computer security are:

#### **Viruses**



A computer virus is a malicious program which is loaded into the user's computer without user's knowledge. It replicates itself and infects the files and programs on the user's PC. The ultimate goal of a virus is to ensure that the victim's computer will never be able to operate properly or even at all.

#### **Computer Worm**



A computer worm is a software program that can copy itself from one computer to another, without human interaction. The potential risk here is that it will use up your computer hard disk space because a worm can replicate in great volume and with great speed.

#### **Phishing**



Disguising as a trustworthy person or business, phishers attempt

to steal sensitive financial or personal information through fraudulent email or instant messages. Phishing is unfortunately very easy to execute. You are deluded into thinking it's the legitimate mail and you may enter your personal information.

### **Why is Computer Security Important?**

In this digital era, we all want to keep our computers and our personal information secure and hence computer security is important to keep our personal information protected. It is also important to maintain our computer security and its overall health by preventing viruses and malware which would impact on the system performance.

### **Computer Security Practices**

Computer security threats are becoming relentlessly inventive these days. There is much need for one to arm oneself with information and resources to safeguard against these complex and growing computer security threats and stay safe online. Some preventive steps you can take include:

- Secure your computer physically by:
  - Installing reliable, reputable security and anti-virus software
  - Activating your firewall, because a firewall acts as a security guard between the internet and your local area network
- Stay up-to-date on the latest software and news surrounding your devices and perform software updates as soon as they become available
- Avoid clicking on email attachments unless you know the source
- Change passwords regularly, using a unique combination of numbers, letters and case types
- Use the internet with caution and ignore pop-ups, drive-by downloads while surfing
- Taking the time to research the basic aspects of computer security and educate yourself on evolving cyber-threats
- Perform daily full system scans and create a periodic system backup schedule to ensure your data is retrievable should something happen to your computer.

Apart from these, there are many ways you can protect your computer system. Aspects such as encryption and computer cleaners can assist in protecting your computers and its files.

Unfortunately, the number of cyber threats are increasing at a rapid pace and more sophisticated attacks are emerging. So, having a

good foundation in cybersecurity concepts will allow you to protect your computer against ever-evolving cyber threats.

## E-learning

E-Learning: is the process of sharing knowledge through various channels such as e-books, CDs, webinars, and more.

e-learning allows students, employees in training and casual learners to participate in an organized learning experience regardless of their physical location.



## Why e-learning is important

### Importance of e-learning

- E-learning has been introduced to empower learners to get basic schooling and enhance skills. Also, they can obtain a degree certificate, without actually attending school or university or any other institution.
- Applying e-learning to all levels of schooling helped to ensure students understanding the lessons adequately at a

faster pace.

- According to psychology, the audio-visual method of teaching leads to a disciplined learning environment. There are effective tutor and student engagements.
- One of the importance of e-learning in education is that tutors and participants both can develop advanced learning skills. For example, creating and selling eBooks is one such advancement.
- E-learning has worked towards bringing learners, tutors, experts, practitioners, and other interest groups to one place. Thus, there is a good practice of knowledge sharing followed through different online platforms. This is important in current times as competition is rising and the world is also growing. Hence, quick information helps in the better growth of an individual.

## **Types of eLearning or e-Education**



Digital and self-initiated learning can be acquired at the desired locations. One need not wander in search of learning as e-learning education is versatile and amply equipped to suit all learning methods.

E-Learning is conducted in many forms and at times is the blend of the following methodologies:

- Completed online – no face-to-face meetings
- Provided through Mixed Learning – A blend of online and direct communication

### **Advantage of E-learning**

The following are the advantages of e-learning that you must not miss.

- 1- Online Learning can accommodate everyone's needs
- 2- Classes can be taken from any place and at the time that students or tutors prefer.
- 3- It offers access to exclusive, prolific, and updated content and accessibility is open, secure, and uninterrupted.
- 4- E-Learning lets you be in sync with modern learners and updated with the current trends
- 5- It ensures quick delivery of lessons. Traditional classrooms involve some kind of delay. It is a quick way of learning!
- 6- The scalability of learning, content, and duration that is taken can be reasonably measured. It helps one learn without having to give up the comforts of the environment.
- 7- The method is made available at much-reduced costs. The importance of E-Learning education is that it is quick and does not require much cost. The long training period, infrastructure, stationery, travel expenses, etc. is reduced.
- 8- The effectiveness of the transferred learning is high and powerful. It makes information easy to understanding . The

Audio-Visuals help in remembering knowledge for a longer time. Also, the courses which tutors prepare are well-planned.

9- Mobility assured is a very comfortable and affordable option. Taking revision with different courses is not that simple in traditional classes. Contrary to that, missed lessons can always be taken again online. This makes it easier for tutors to impart the right information.

### **How e-learning works**

Instruction can be delivered by a combination of static methods, such as learning portals, hyperlinked pages, screen cam tutorials, streaming audio/video and live Web broadcasts; and interactive methods, such as threaded discussions, chats and desktop video conferencing.

In its formative years, e-learning tools primarily enabled the delivery of learning material directly from teacher to learner. Now, the e-learning experience has evolved to enable more multi-directional communication using increasingly interactive tools. Students, employees and independent learners alike have greater freedom in choosing how they receive and respond to e-learning content, and any number of peers can be involved.

**There are three main criteria an enterprise should follow to help ensure an effective e-learning program, regardless of the specific platform they end up using:**

- The experience should be mobile-friendly. The use of mobile phones is growing in the enterprise. Phones can be used to send out training prompts, reminders or congratulations on training achievements.
- The experience should implement social features. By using

social media, or a platform that emulates social media's basic features, learners are given a platform to respond to training efforts or general company updates, as well as communicate with their peers and employers.

- The experience should utilize a variety of different mediums to suit diverse learning styles, including quizzes, infographics, podcasts, demonstrations and narrative-based training.

### **Disadvantage of E-learning:**

Online learning is no easy feat. So what is it that makes it so challenging?

1. Reliance on screens: *"I hate spending so much time staring at screens."*

2. Distractions: *"It's hard to stay focused when I can browse other websites/apps on my laptop."*

3. Isolation: *"I feel like I don't know my classmates."*

Studying from home can feel great, but that comfort becomes less beneficial when you go days without physically seeing any of your new classmates, especially if you're in an asynchronous course.

4. Technology issues: *"I've been waiting for this screen to load for hours!"*

5. Quality: *"The course content was not helpful."*

## ❖ google classroom

Google Classroom is a free service that allows you to share files, create assignments, grade assignments and communicate with your students in a paperless way. Google classroom was introduced as a feature of Google Apps for Education following its public release on August 12, 2014.

It's a tool in Google Apps that enables instructors to create and organize assignments quickly, provide feedback efficiently, and easily communicate with their classes.



With Classroom, instructors are able to:

- Create and collect assignments: Classroom weaves together Google Docs, Drive and Gmail to help teachers create and collect assignments peerlessly. They can quickly see who has or hasn't completed the work, and provide direct, real-time feedback to individual students.
- Improve class communications: Teachers can make announcements, ask questions and comment with students in real time 'improving communication inside and outside of class.
- Stay organized: Classroom automatically creates Drive folders for each assignment and for each student. Students can easily see what's due on their Assignments page.

## Other Benefits of Google Classroom

- Google Classroom does not show any advertisements in its interface for students, faculty, and teachers
- Google Classroom is free for educational institutions
- Google Classroom apps are available for iOS and Android devices
- Google Classroom allows sharing from other apps: students can also easily attach images, PDFs and web pages from other apps to their assignments

### ***Classroom is available to:***

- *Schools using G Suite for Education*
- *Organizations using G Suite for Nonprofits*
- *Individuals over 13 years of age with personal Google Accounts.* • *All G Suite domains*

## What is Google Form?

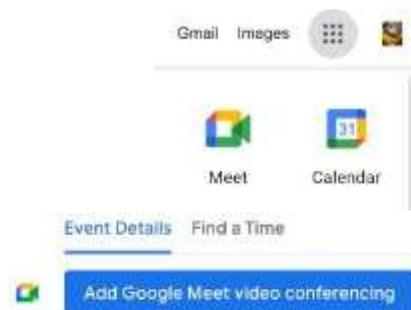
**Google Forms** is a tool that allows collecting information from users through a personalized survey or exam. Google Forms is a free tool from Google that allows you to do the following: Create forms, surveys, quizzes, and such

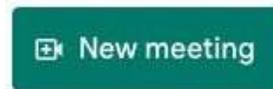
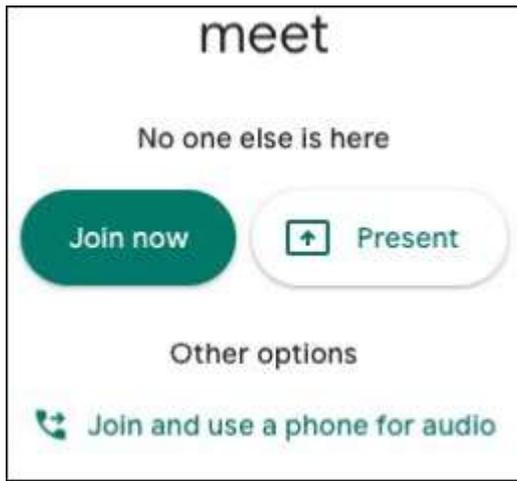
- Share the forms with others
- Allow others to complete the forms online
- Collect all the responses in a spreadsheet
- Provide you with helpful summaries of the collected data with charts and graphs

**Google Meet:** also known as Google Hangouts Meet, is built to let dozens of people join the same virtual meeting, and speak or share video with each other from anywhere with internet access.

It's meant for use by businesses and other organizations, and it's a great way for colleagues who don't work in the same building to communicate.

A Google Meet organizer can share whatever is on their screen with everyone on a call, and any participant can turn their own audio and/or video feed off at any time, participating however they want.





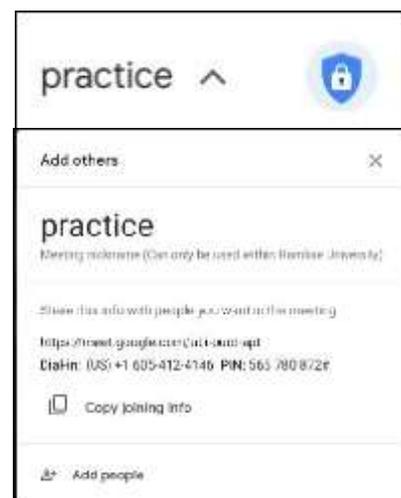
### For users using Meet with a **personal account**

- ❖ .
- ❖ If you have a meeting code, enter a code in the “Enter meeting code” field > click **Join**.
- ❖ If you want to start a new meeting, click **New Meeting**.
- ❖ Choose an option:
  - **Create a meeting for later:** This will generate a meeting link which you can share to meet now or later.
  - **Start an instant meeting:** Creates a meeting that you join now.
  - **Schedule in Google Calendar:** To schedule a meeting, you will be directed to.



### view meeting details

- ❖ The Meeting details panel provides information like the Meeting link, Dial-in number and Pin number. You can also copy the meeting invitation here.
  - Click the lower left hand panel with the up carrot ^. Your meeting nickname should appear here.



## Change your layout

Google Meet automatically switches the layout in a video call to display the most active content and participants. You can change the number of participants you see on your screen. The number of tiles may change depending on the size of your browser window.

- ❖ At the bottom right, click More  >

Change layout .

- **Auto:** The view that Meet chooses for you. By default, you'll see 9 tiles on your screen.
- **Tiled:** The view that can show up to 49 people at the same time. By default, you'll see 16 tiles on your screen. At the bottom of the window, move the slider to the number of tiles you want to see on your screen.
- **Spotlight:** The active speaker or shared screen fills the entire window.
- **Sidebar:** The main image is of the active speaker

thumbnails of additional participants on the side.

### Change layout

Selection is saved for future meetings

Auto

Tiled

Spotlight

Sidebar

#### Tiles

Maximum tiles to display, depending on window size.  
Selection is not saved for future meetings.



## View yourself in a video meeting

You can choose whether or not you would like to see yourself appear alongside other participants in a meeting. You will not see yourself among participants if you select the Spotlight layout or have pinned another participant.

### **Turn on self view in a video call:**

- ❖ On the top right corner of your screen, hover over yourself preview > click Show in a tile . On the People panel, click Show in a tile .

### **Turn off self view in a video call:**

- ❖ On the top right corner of your screen, hover over yourself preview > click Remove tile .
- ❖ On the People panel, click Remove tile . Hover over your tile in the video grid > click Remove tile .

## Mute a participant's microphone

If there is feedback or background noise in a video call, you may want to mute other participant's microphones. For video calls organized through a personal account, only the video call moderator can mute other participants.

- ❖ To mute other people, on the People tab, select the person and tap Mute .
- ❖ **Important:** If you don't see the People tab, long press/tap a participant's thumbnail, tap .
- ❖ **Tip:** For privacy reasons, you cannot unmute another person. Ask the participant to unmute their audio. To mute or unmute yourself, tap Mute .

## Send a chat message during a video call

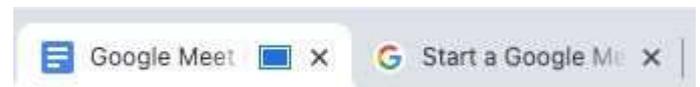
- ❖ Click Chat (upper right corner) .
- ❖ Enter a text message and click the Send icon

**Note:** If you want guests to be able to edit a file, make sure you have shared the Google file with them.



## Present screen during a meeting

- ❖ In the bottom-right corner, select Present now.
- ❖ Select **Your entire screen**, **A window**, or **Chrome tab**. If you present a Chrome tab, it shares that tab's audio by default.
- ❖ **Tip:** If you are sharing audio/video mute your own window to prevent a feedback loop.
- ❖ Sharing is indicated by a blue square on a tab or blue border around a window.
- ❖ To present a different tab, select the tab you want to present, click Share this tab instead. Select Share.
- ❖ **Important:** If your camera is turned on, your video is active while you're presenting.



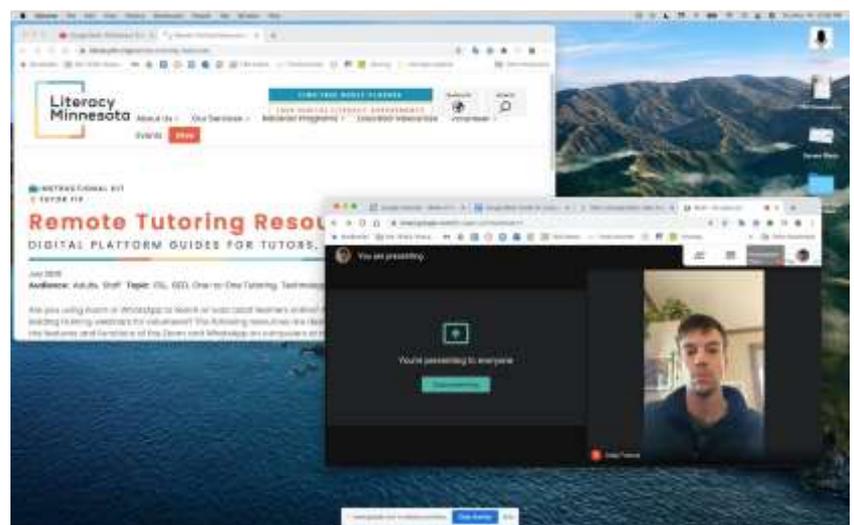
## Stop presenting

- ❖ In the Meet window, click Stop Presenting. In the bottom-right corner, you can also click You are presenting > Stop presenting.

## View participants while simultaneously presenting screen

There are two easy options for viewing your participants at the same time you are sharing content on your screen. These options allow you to monitor student engagement, assess their understanding or to take questions.

❖ **Option 1:** Open a new browser window with the content you'd like to share.





# INTRO TO WINDOWS 10

COMPUTER SCIENCE

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# WHY WINDOWS 10?

- Windows 10 is the Microsoft Operating System.
  - Is replacing Windows 7 on campus
  - Much more friendly than Windows 8
  - More Secure (wannacry virus)
  - Runs better (uses fewer resources)

# WHAT'S NEW IN WINDOWS 10?

## ■ A few feature highlights

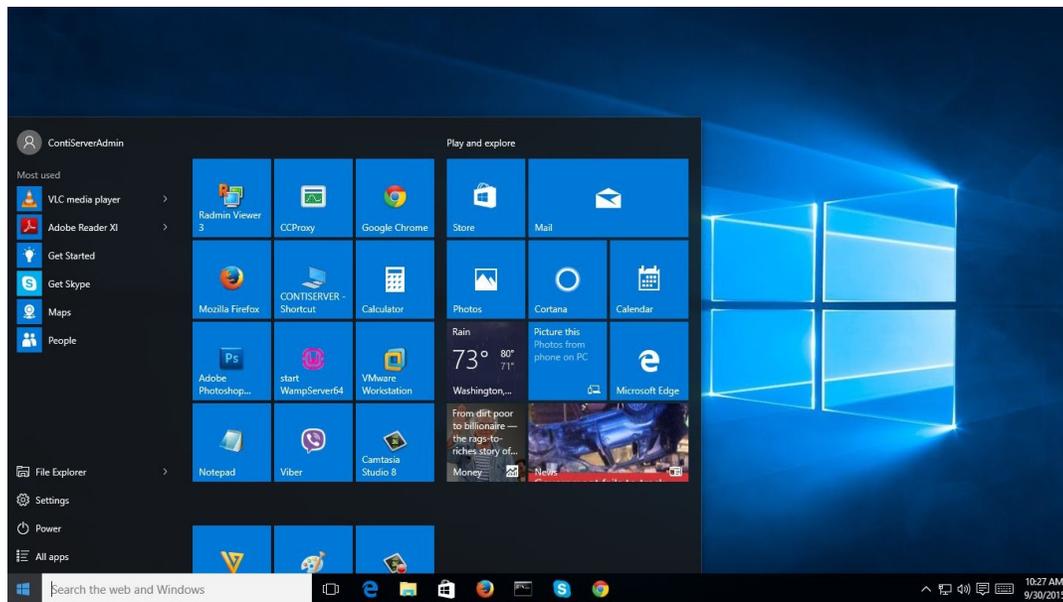
- • Start menu
- • Using tiles
- • How to search
- • Task view
- • Virtual desktops
- • Snap enhancements
- • Quick access tools

## ■ Personalization and Settings

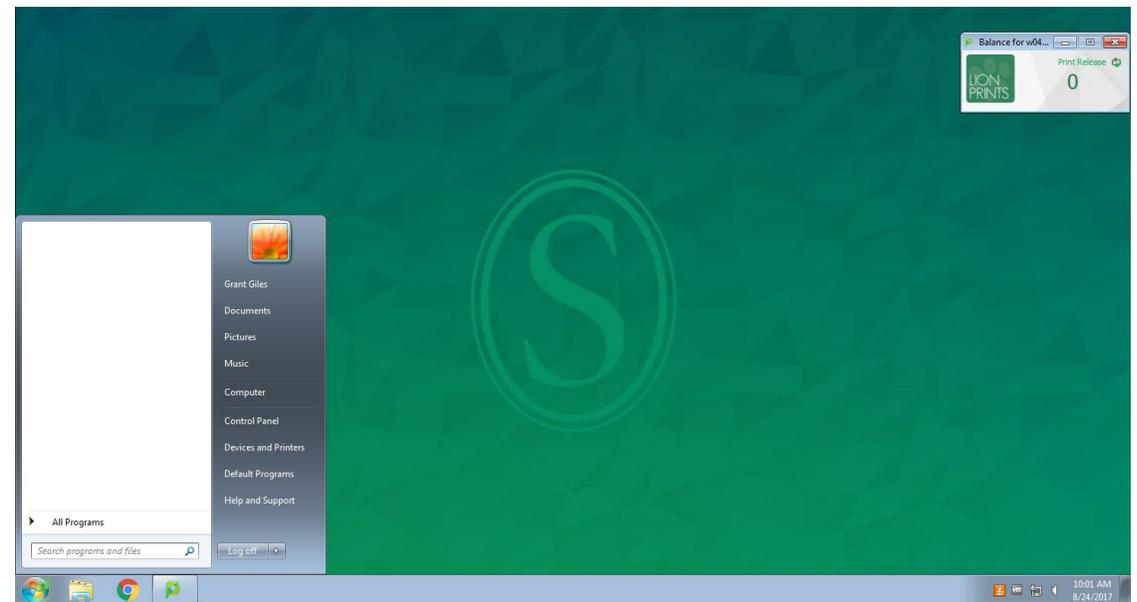
- • A new look
- • Personalize your lock screen
- • Themes
- • Desktop and Colors

# START MENU

## Windows 10:



## Windows 7:



# HOW TO USE THE START MENU:

## To display the Start menu:

Select the **Start** button on the far left of the taskbar. 

—OR—

Press the **Windows logo key** on the keyboard. 

## To shut down, restart, or put your computer to sleep:

1. On the **Start** menu, select Power. 
2. Select the option you want: **Sleep**, **Shut down**, or **Restart**.



# START MENU: USING TILES

- In the right pane of the Start menu, you'll find tiles for some common apps.
- To move a tile, just drag it to another position. You can rearrange them within the pane. You can also drag apps between the tile view and the app list view.

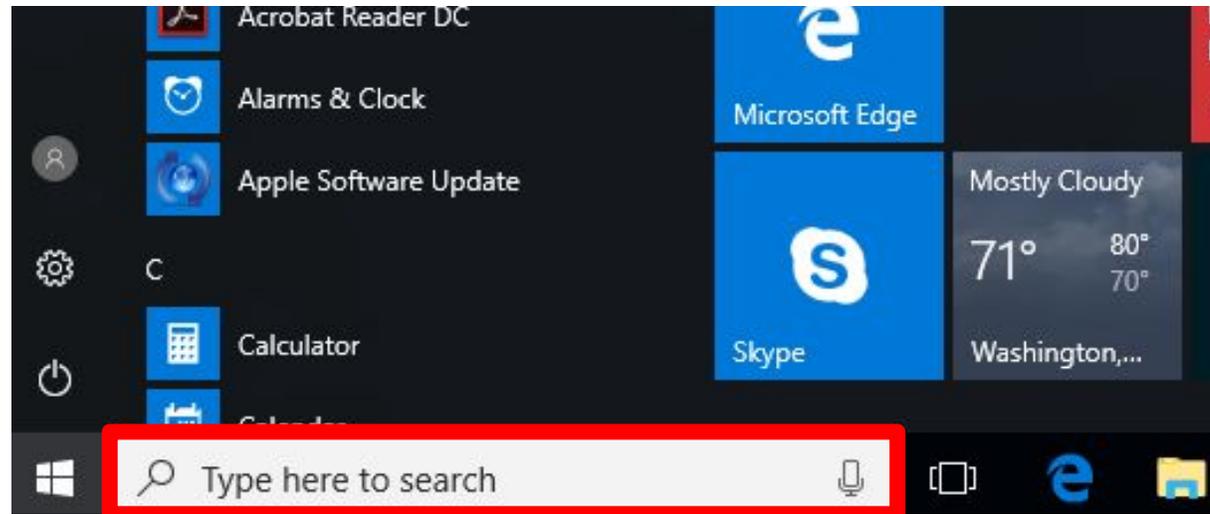
**Right-click a tile to display a menu for performing other actions with that tile, which may include:**

- Unpin from Start
- Resize
- Uninstall
  - More
- Open recent files with the app



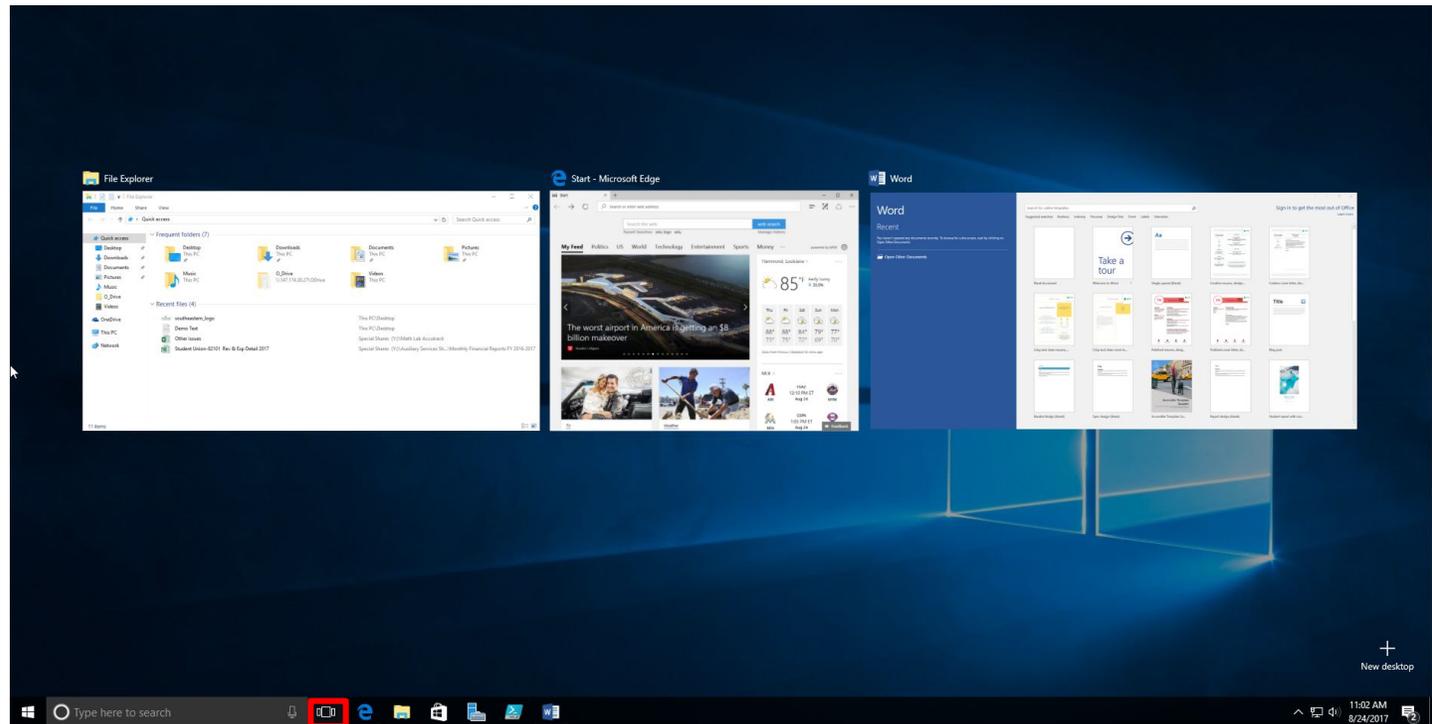
# HOW-TO SEARCH

- Windows 10 Start menu comes with a great Search tool.
  - Search apps
  - Search files
  - Search the web
  - Use Cortana



# TASK VIEW

- One of the best parts of windows.
- Separate all apps into a spread out view to find the window you are looking for.
- Great for organization!
- Also “Windows + TAB”

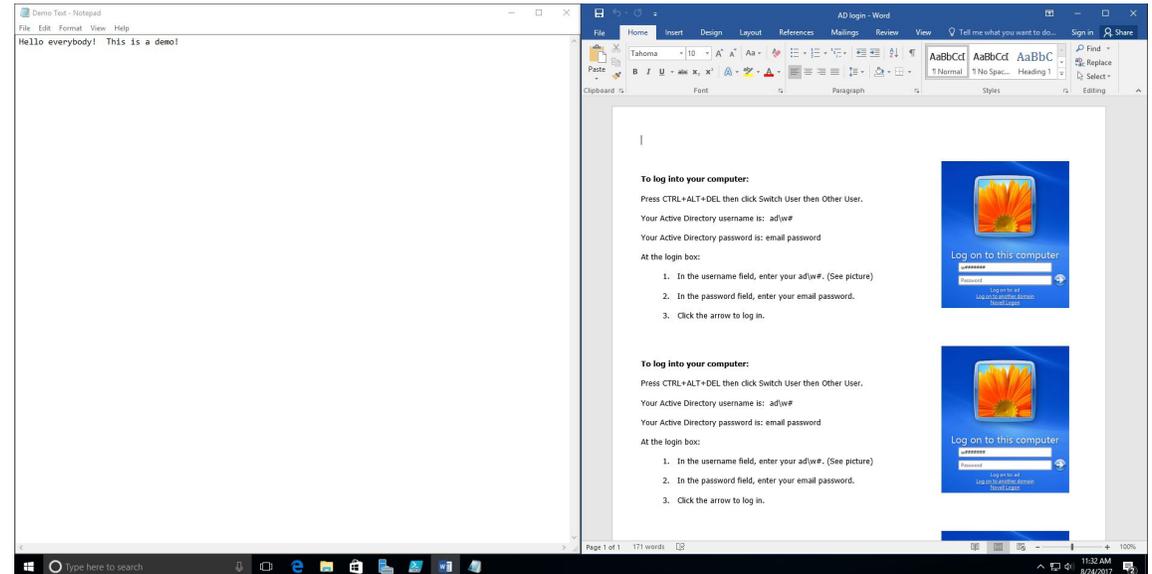


# SNAP ENHANCEMENTS

- What are snap enhancements?
- Split-screen view, up to four ways.

## To snap two windows side by side:

1. Drag the title bar of one window to one side of the screen, until a half-screen outline of the window appears.
2. Release the mouse (or lift your finger) to snap the window into position.
3. Repeat steps 1 and 2 for the other window, using the other side of the screen.



# QUICK ACCESS TOOLS

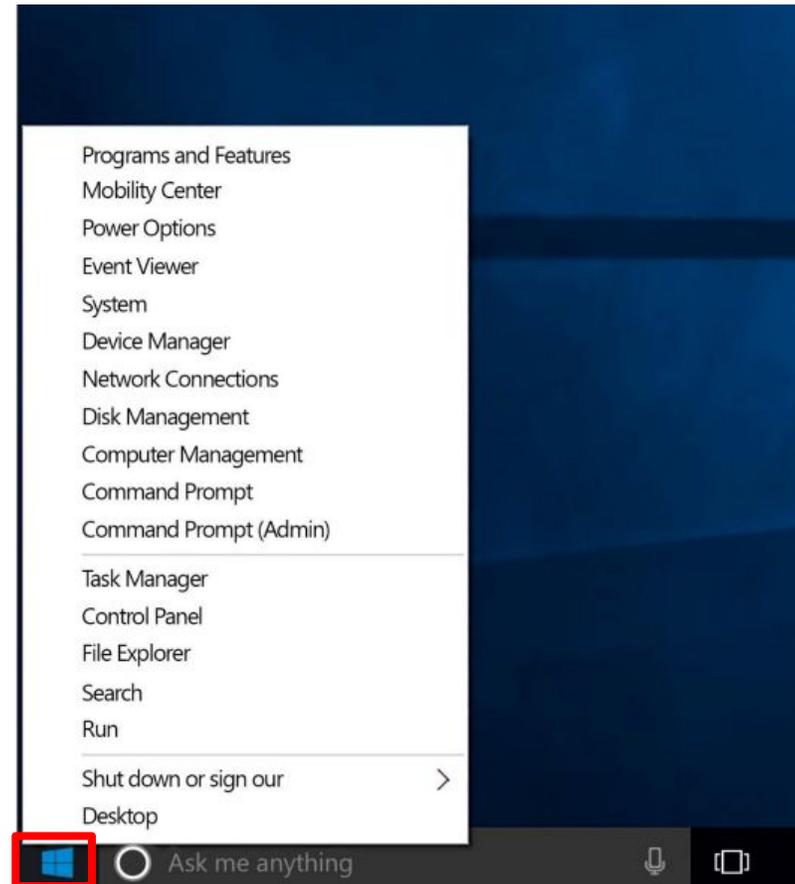
- The Quick Access menu provides access to advanced system tools such as Power Options, Task Manager, and Control Panel.

## To display the Quick Access menu:

Right-click the **Start** button on the far left of the taskbar. 

— OR —

Enter the **Windows key +X** on the keyboard. 



# PERSONALIZATION AND SETTINGS:

- Settings gets a new “modern” look.
- Basically, a condensed “control panel”
  - FYI, control panel is still available.



# SETTINGS IN WINDOWS 7 VS WINDOWS 10

## Windows 10:

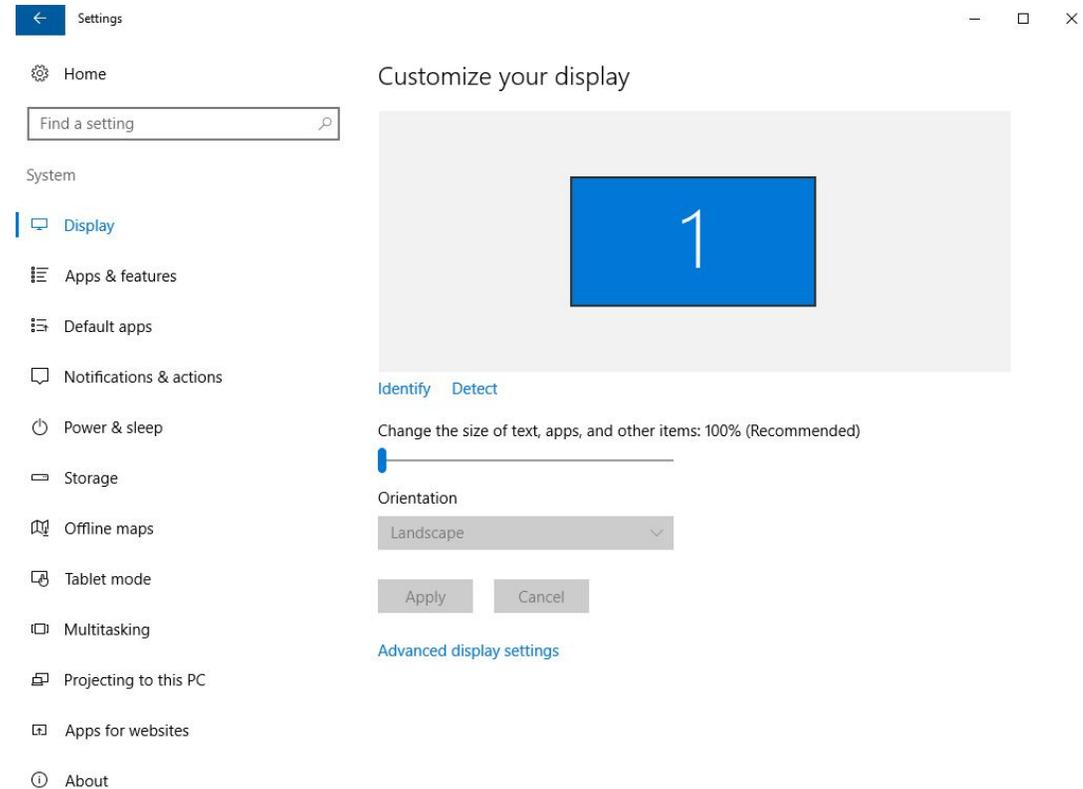


## Windows 7:



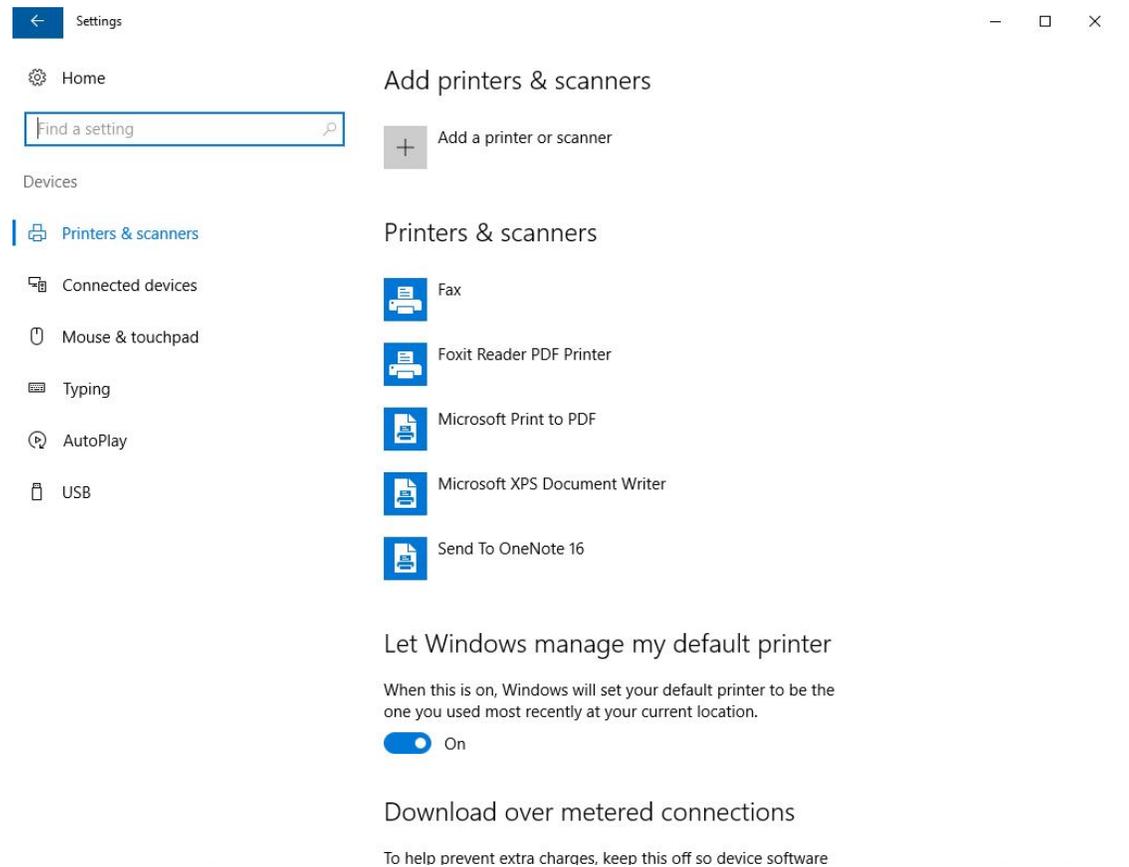
# SETTINGS FOR SYSTEM

- Settings here change system configurations (Display resolution/monitors, default apps, power, etc.)



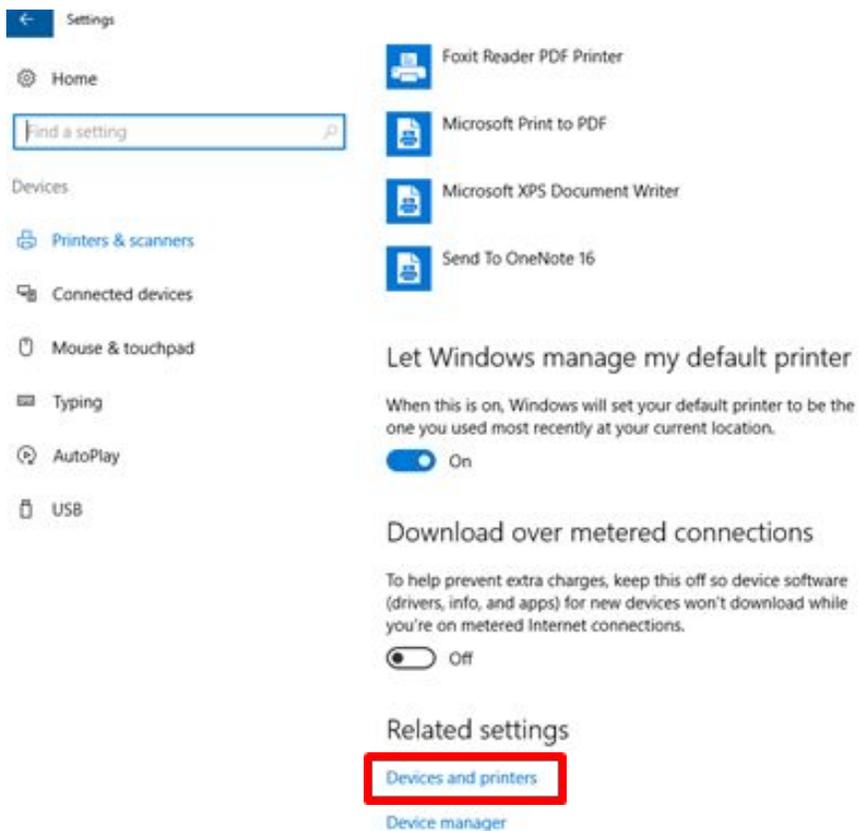
# SETTINGS FOR DEVICES

- Manage settings for external devices (printers, mice, scanners)
  - 95% of time it's printers
  - 95% of time, use old view.



The screenshot shows the Windows Settings application window titled "Settings". The left sidebar contains a list of settings categories: Home, Printers & scanners (highlighted), Connected devices, Mouse & touchpad, Typing, AutoPlay, and USB. A search bar is visible above the sidebar. The main content area is titled "Add printers & scanners" and includes a button "Add a printer or scanner". Below this, the "Printers & scanners" section lists several installed devices: Fax, Foxit Reader PDF Printer, Microsoft Print to PDF, Microsoft XPS Document Writer, and Send To OneNote 16. At the bottom, there are two toggle switches: "Let Windows manage my default printer" (which is turned On) and "Download over metered connections" (which is turned Off).

# SETTINGS FOR DEVICES (CONT.)



The screenshot shows the Windows Settings application. On the left, the 'Settings' sidebar is visible with categories like Home, Printers & scanners, Connected devices, Mouse & touchpad, Typing, AutoPlay, and USB. The 'Printers & scanners' category is selected. The main pane shows a list of installed printers: Foxit Reader PDF Printer, Microsoft Print to PDF, Microsoft XPS Document Writer, and Send To OneNote 16. Below the list, there are two toggle switches: 'Let Windows manage my default printer' (set to On) and 'Download over metered connections' (set to Off). At the bottom, under 'Related settings', the 'Devices and printers' link is highlighted with a red box, and 'Device manager' is listed below it.

Settings

Home

Find a setting

Devices

Printers & scanners

Connected devices

Mouse & touchpad

Typing

AutoPlay

USB

Foxit Reader PDF Printer

Microsoft Print to PDF

Microsoft XPS Document Writer

Send To OneNote 16

Let Windows manage my default printer

When this is on, Windows will set your default printer to be the one you used most recently at your current location.

On

Download over metered connections

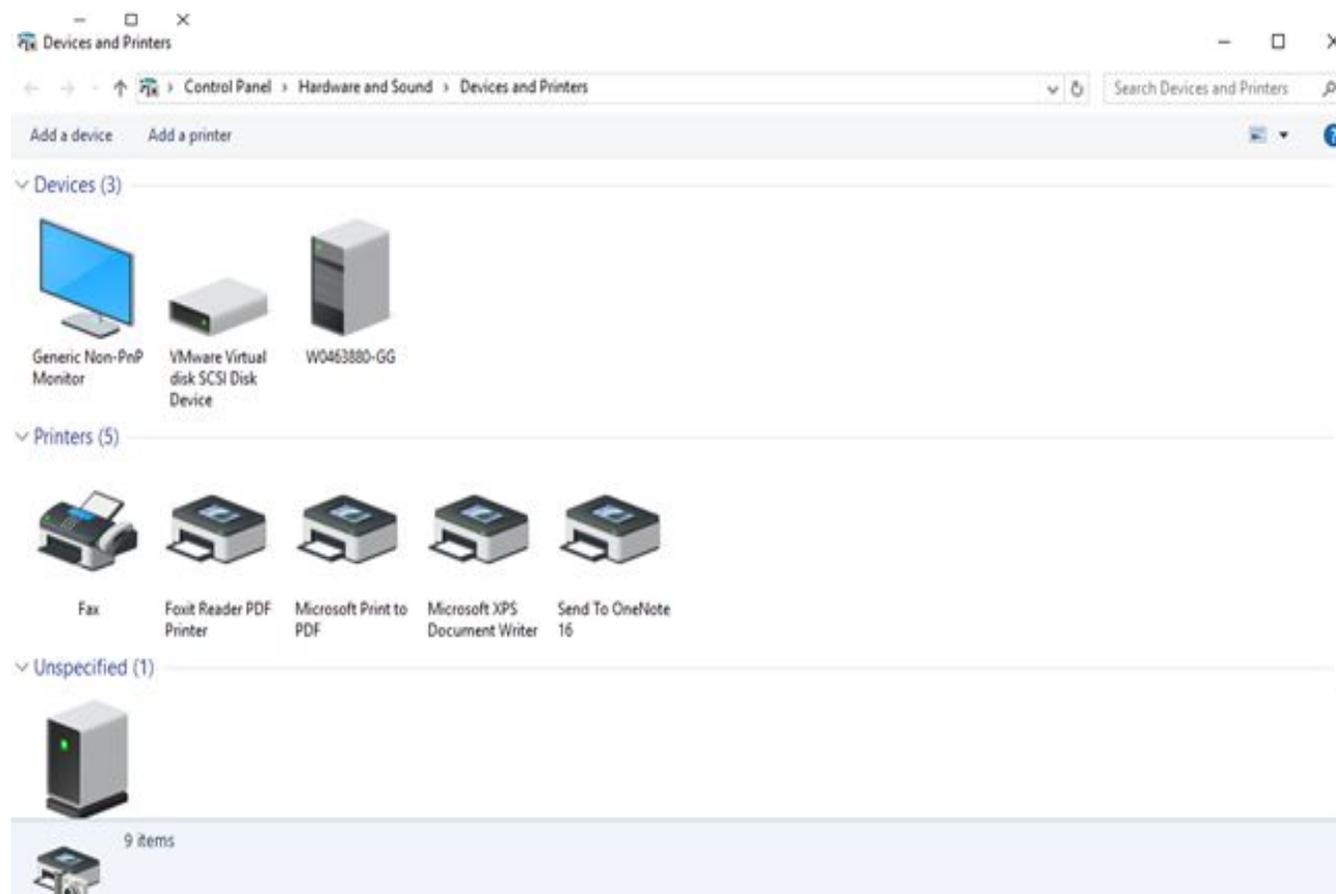
To help prevent extra charges, keep this off so device software (drivers, info, and apps) for new devices won't download while you're on metered Internet connections.

Off

Related settings

**Devices and printers**

Device manager



The screenshot shows the 'Devices and Printers' window in the Windows Control Panel. The breadcrumb path is 'Control Panel > Hardware and Sound > Devices and Printers'. There are buttons for 'Add a device' and 'Add a printer'. The window is divided into three sections: 'Devices (3)', 'Printers (5)', and 'Unspecified (1)'. The 'Devices' section contains a 'Generic Non-PnP Monitor', a 'VMware Virtual disk SCSI Disk Device', and a 'W0463880-GG' device. The 'Printers' section contains five printer icons: 'Fax', 'Foxit Reader PDF Printer', 'Microsoft Print to PDF', 'Microsoft XPS Document Writer', and 'Send To OneNote 16'. The 'Unspecified' section contains one device icon. At the bottom, there is a '9 items' indicator.

Devices and Printers

Control Panel > Hardware and Sound > Devices and Printers

Search Devices and Printers

Add a device Add a printer

Devices (3)

Generic Non-PnP Monitor

VMware Virtual disk SCSI Disk Device

W0463880-GG

Printers (5)

Fax

Foxit Reader PDF Printer

Microsoft Print to PDF

Microsoft XPS Document Writer

Send To OneNote 16

Unspecified (1)

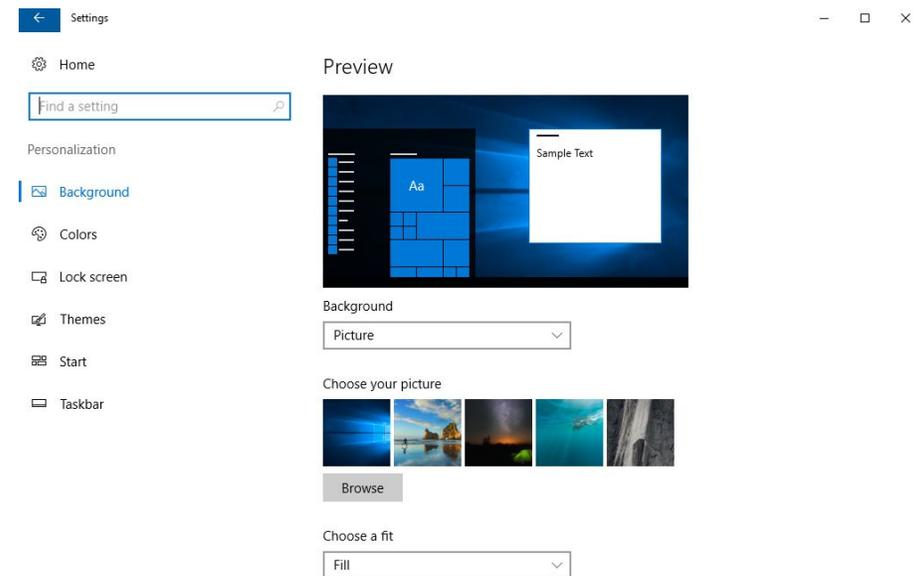
9 items

# PERSONALIZATION SETTINGS

- Tweak your lock screen to your liking. Change the background to a favorite photo or slide show, or show upcoming calendar events, social network updates, and other app and system notifications.

## To customize your lock screen:

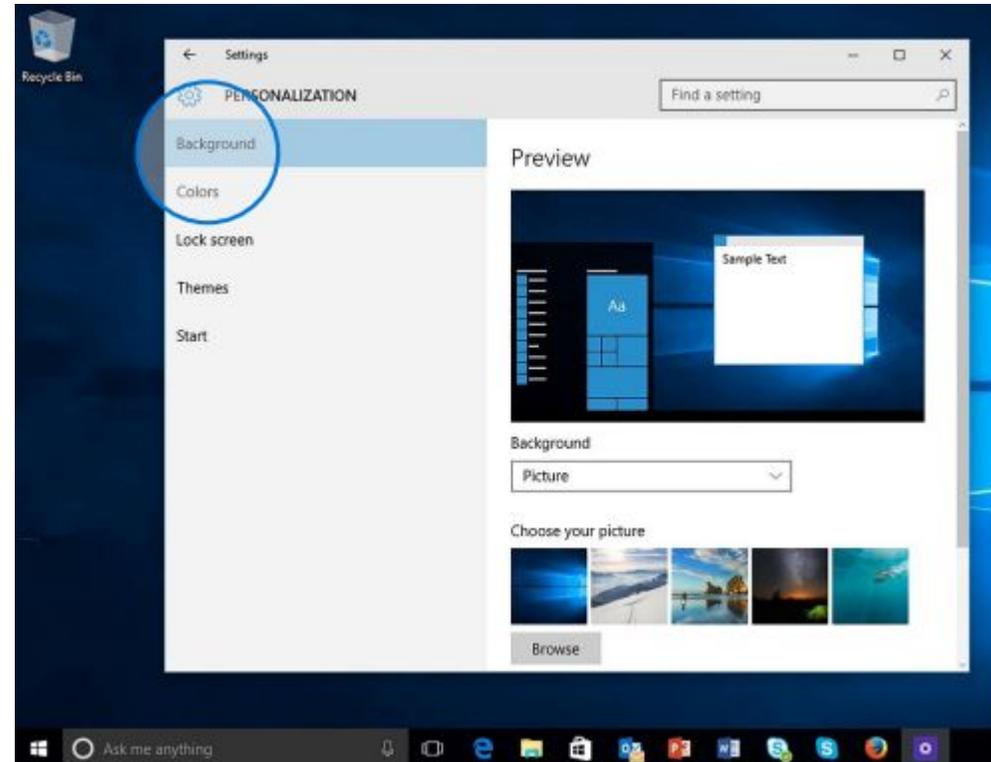
1. Go to Start, and then select **Settings > Personalization > Lock screen**.
2. Change your device background and choose any combination of detailed and quick status notifications.



# PERSONALIZATION SETTINGS (CONT.)

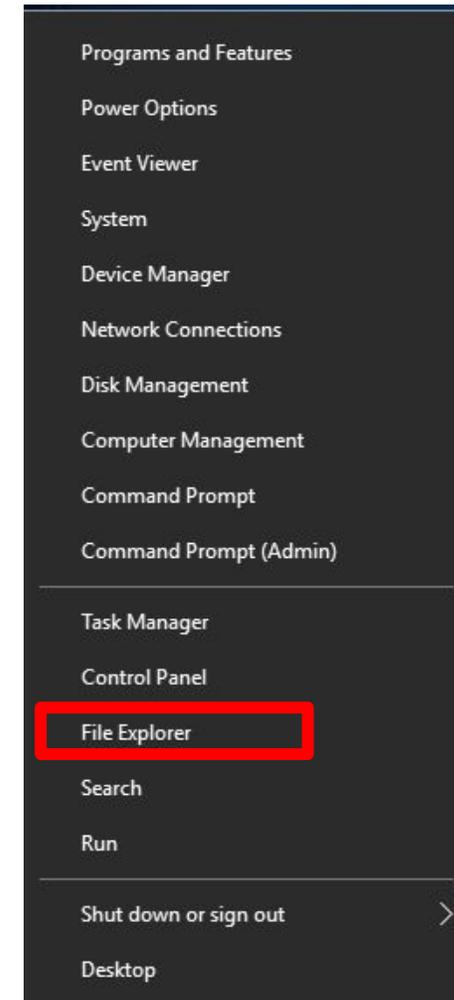
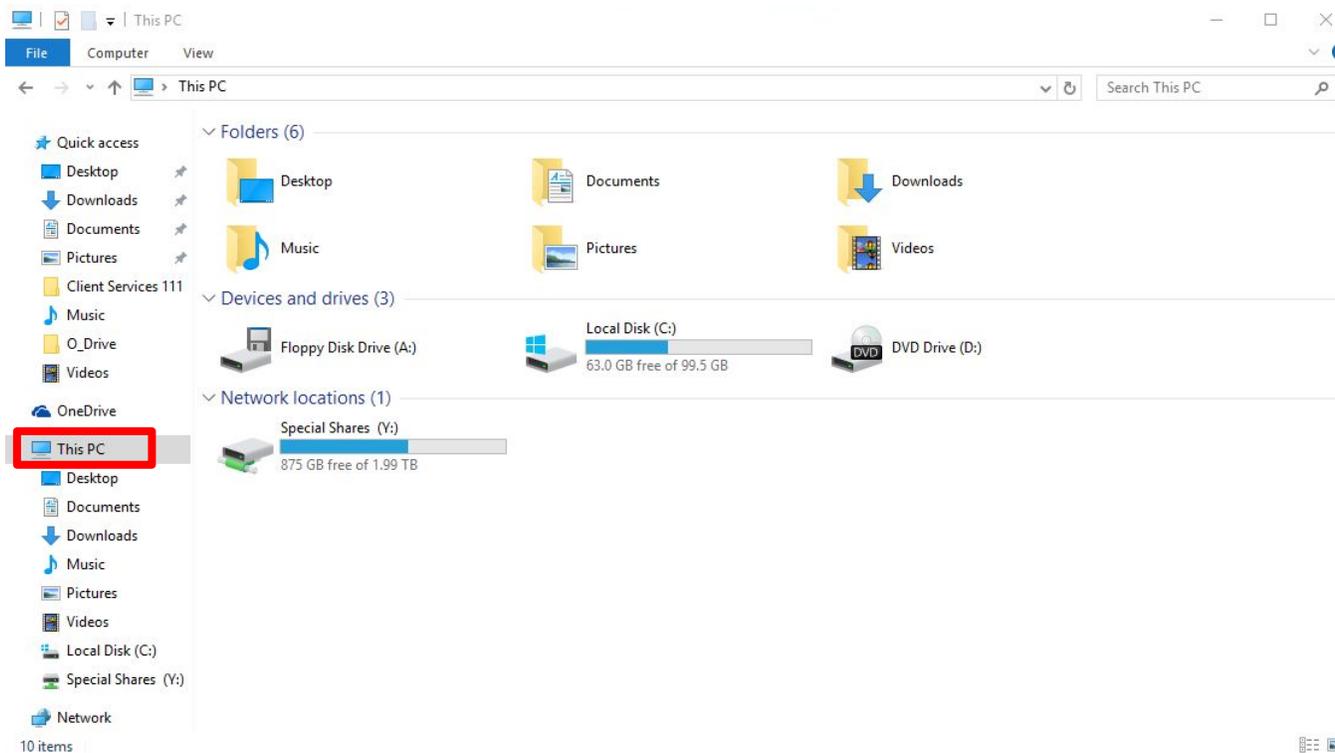
- Choose a picture worthy of gracing your desktop background, and to change the accent color for Start, the taskbar, and other items. The preview window gives you a sneak peek of your changes as you make them.

1. Go to **Start**, and then select **Settings** > **Personalization**. 
2. Select **Background** to select a picture or a solid color, or create a slide show of pictures.
3. Select **Colors** to let Windows pull an accent color from your background, or choose your own color adventure.



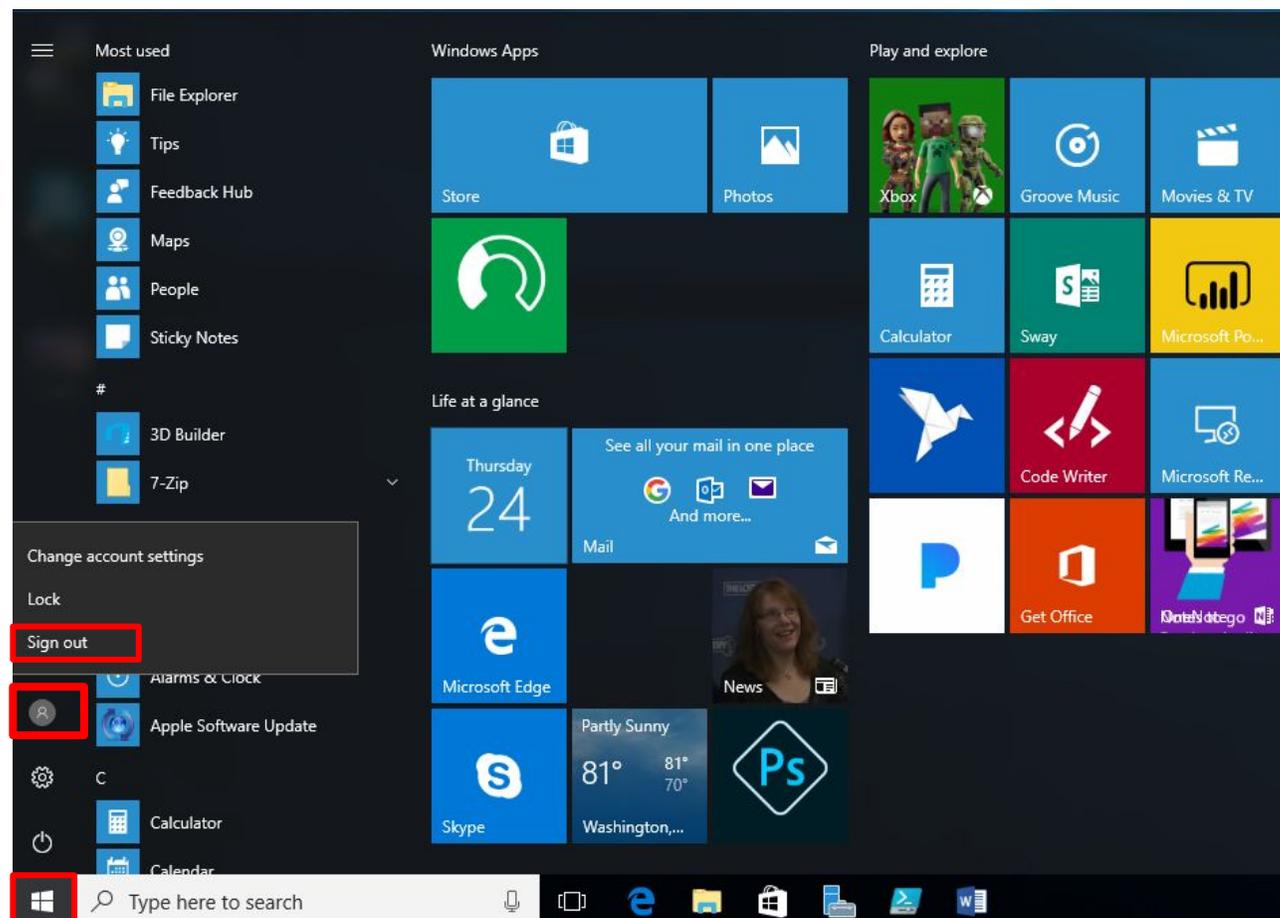
# WHERE IS “MY COMPUTER”?

- Right-click the start button > Select File Explorer
  - Click “This PC” to get to your drives.



# HOW DO I “LOGOUT”?

- Click the start button
  - Click the user icon
    - Select sign out.

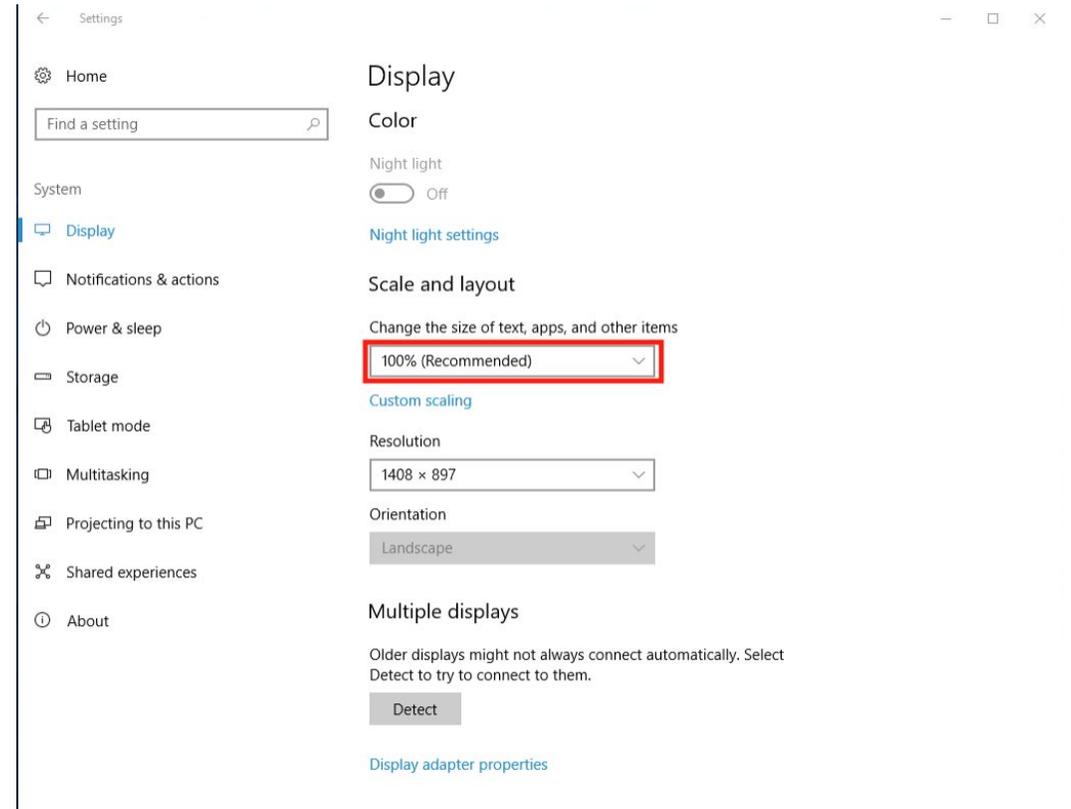


# ADDING SHORTCUTS TO DESKTOP

- Click the Start button
- Scroll to the app you want
- Hold down the left mouse button
- Drag the app to the desktop

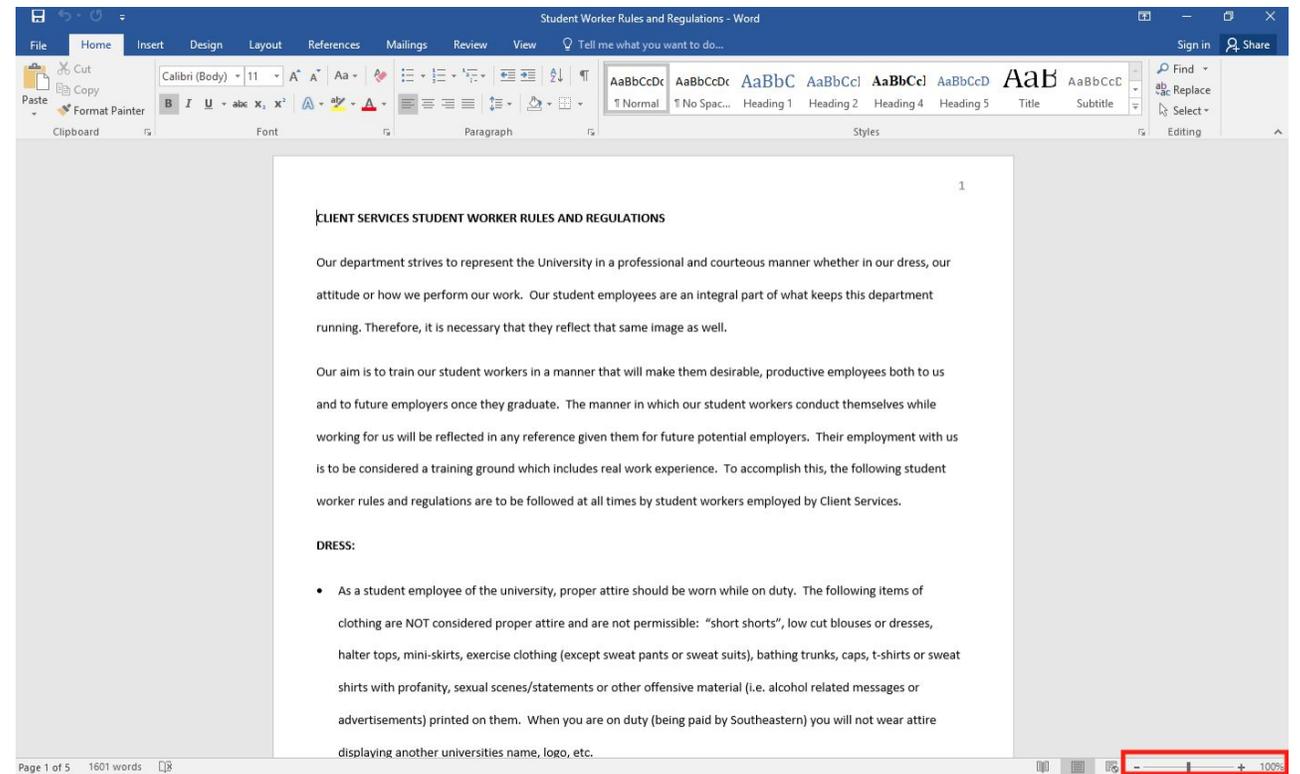
# WHY IS EVERYTHING HARD TO SEE?

- Display options are allowed in all versions of Windows.
- Under Settings > System > Display
  - Choose “Scale and Layout”
  - The dropdown allows you to enlarge text, apps, and other items.



# WHY IS EVERYTHING HARD TO SEE? (PT. 2)

- In common apps such as Microsoft Word, there is a way to increase the size of the document, without formatting the document itself.
- The “View Slider” in the bottom right-hand corner allows a user to increase/decrease the magnification of a document.



**college of dentistry**

**COMPUTER SCIENCE**

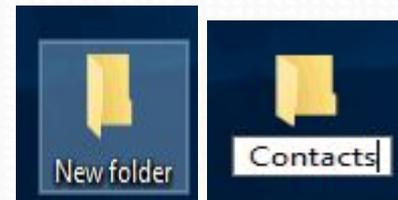
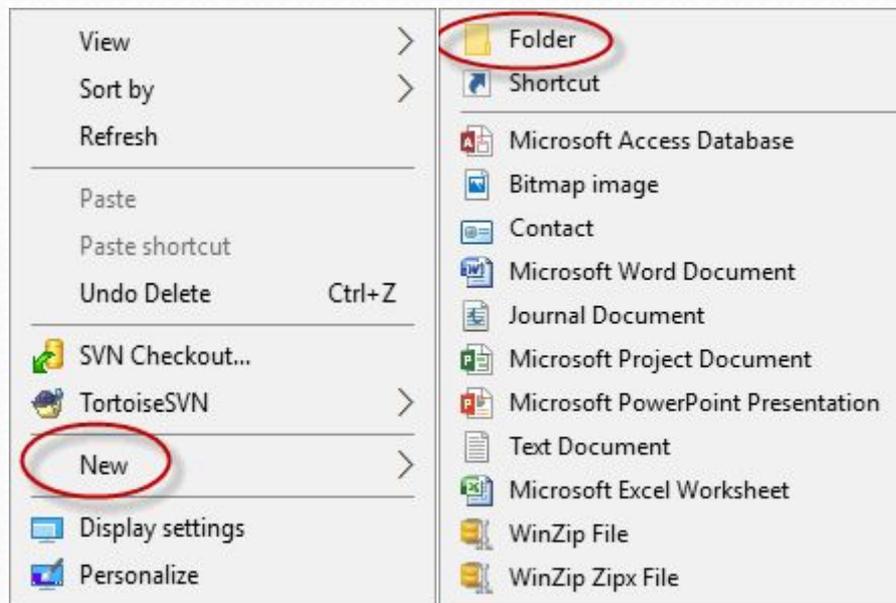
**first stage**

BY

**Lamia Faris**

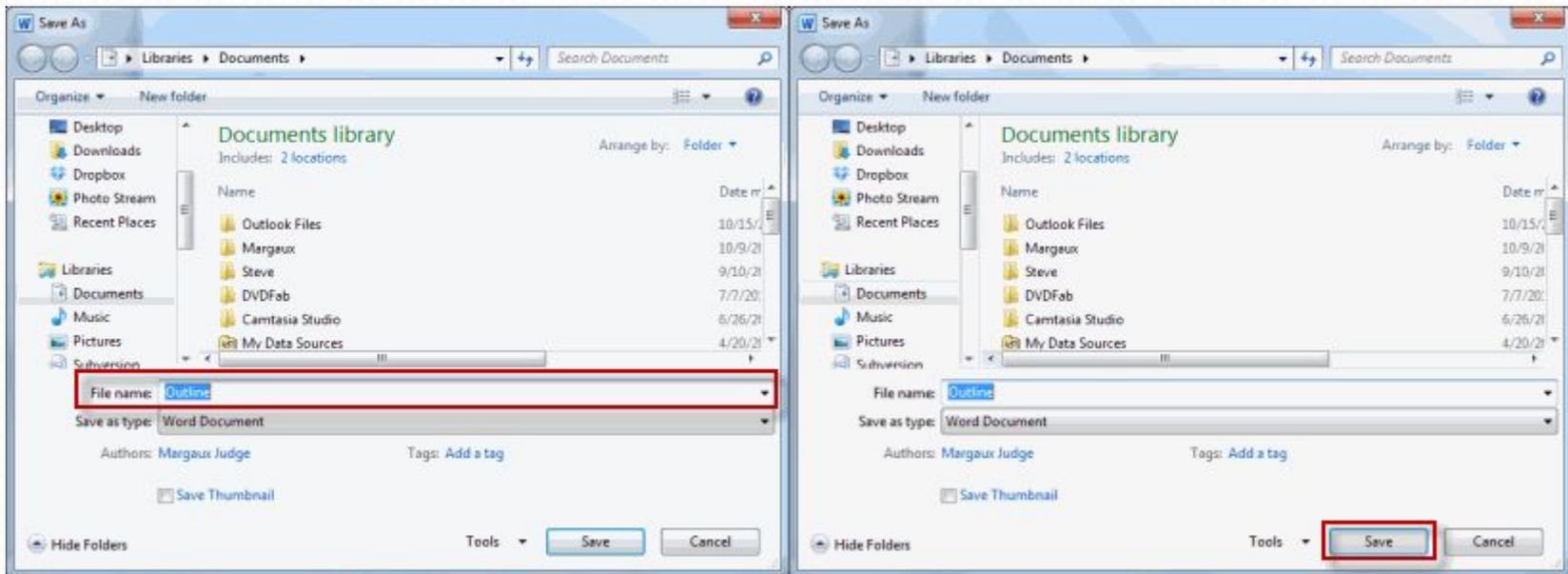
## How to Create a New Folder in Windows 10

- Creating a Folder
- Navigate to the location where you want to place the new folder.
- Right-click and select New, Select Folder then Enter to change the folder name



# Saving a New File

- select the Save option. Save Button 
- In the Save As dialog box, type a new file name for your file



# Find operating system info in Windows 10

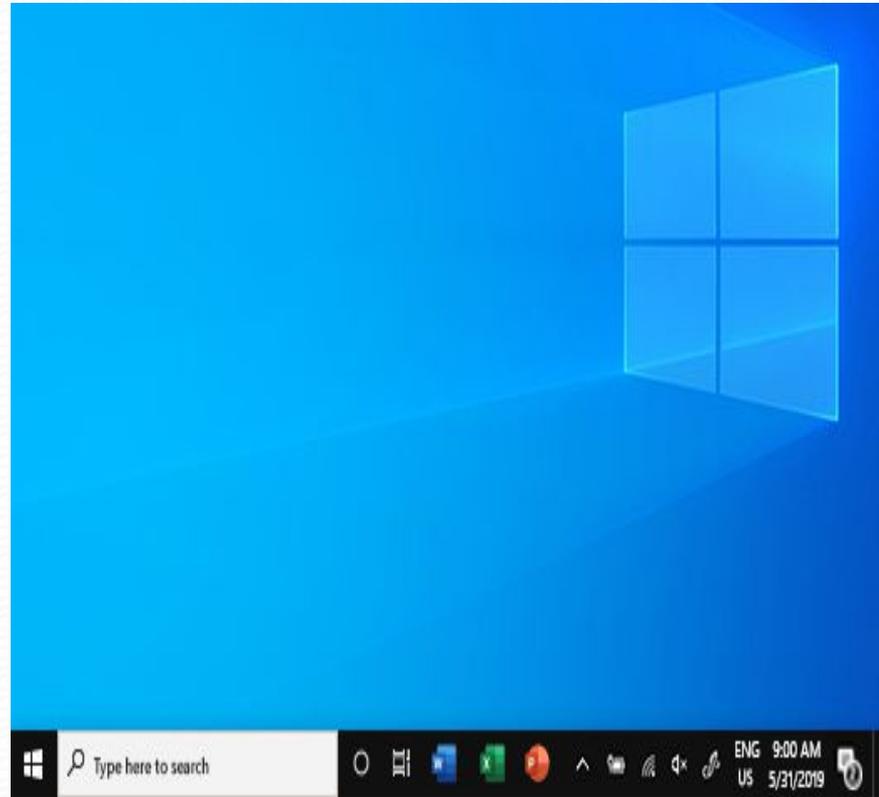
- To find out which version of Windows your device is running, press the Windows logo key + R, type winver in the Open box, and then select OK.
- Here's how to learn more:
- Select the Start button > Settings > System > About .
- Open About settings
- Under Device specifications > System type, see if you're running a 32-bit or 64-bit version of Windows.
- Under Windows specifications, check which edition and version of Windows your device is running.

# Rename your Windows 10 PC

- Rename your device to make it easier to identify if you use multiple computers with your Microsoft account.
- Select Start > Settings > System > About.
- Select Rename this PC.
- Enter a new name and select Next. You may be asked to sign in.
- Select Restart now or Restart later.

# How to use the taskbar in Windows 10

- Use the taskbar for more than seeing your apps and checking the time.
- You can personalize it in many ways—change the color and size, pin your favorite apps to it, move it around on your screen, and rearrange or resize taskbar buttons. You can also lock the taskbar, check your battery status, and minimize all open programs momentarily so that you can take a look at your desktop

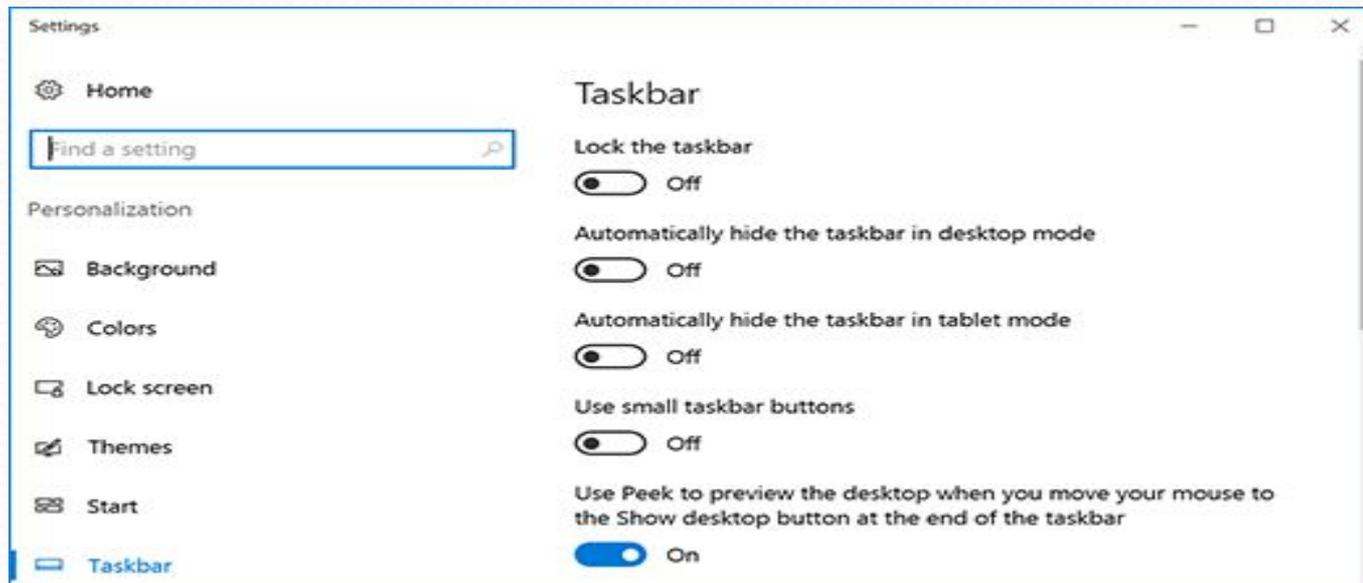


# Pin an app to the taskbar

- Pin an app directly to the taskbar for quick access when you're on the desktop.
- Pin an app from Start
- In the search box on the taskbar, type the name of the app you want to pin to the taskbar. Select More > Pin to taskbar . If you're unpinning, follow the same steps and select Unpin from taskbar
- Change the color of your taskbar
- To change the color of your taskbar, select Start > Settings > Personalization > Colors > Show accent color on the following surfaces. Select Start, taskbar, and action center. This will change the color of your taskbar to the color of your overall theme.

# Change your taskbar settings

- If you want to change multiple aspects of the taskbar at one time, use Taskbar settings. Press and hold or right-click any empty space on the taskbar, and then select Taskbar settings .

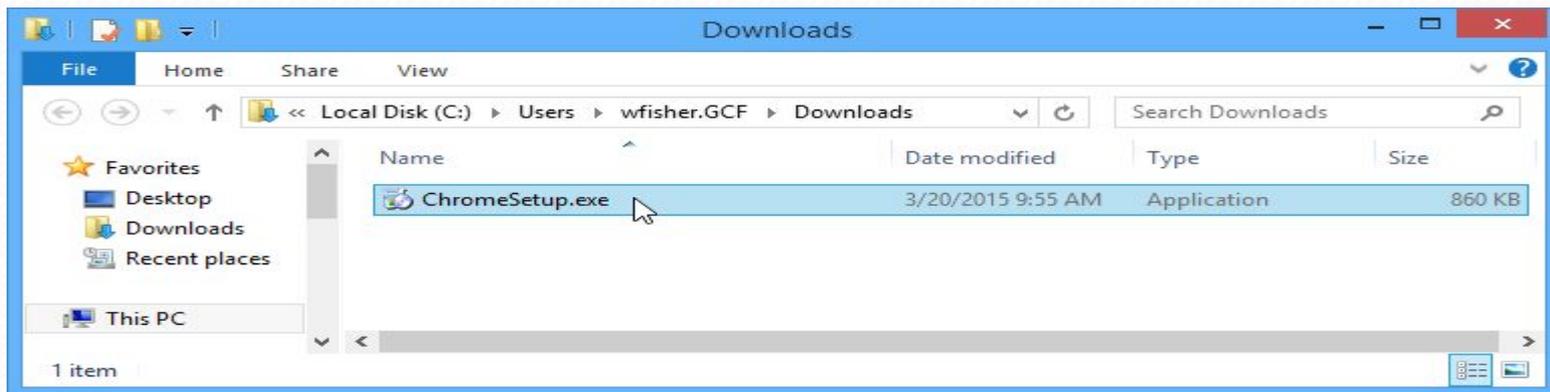


# Change the taskbar location

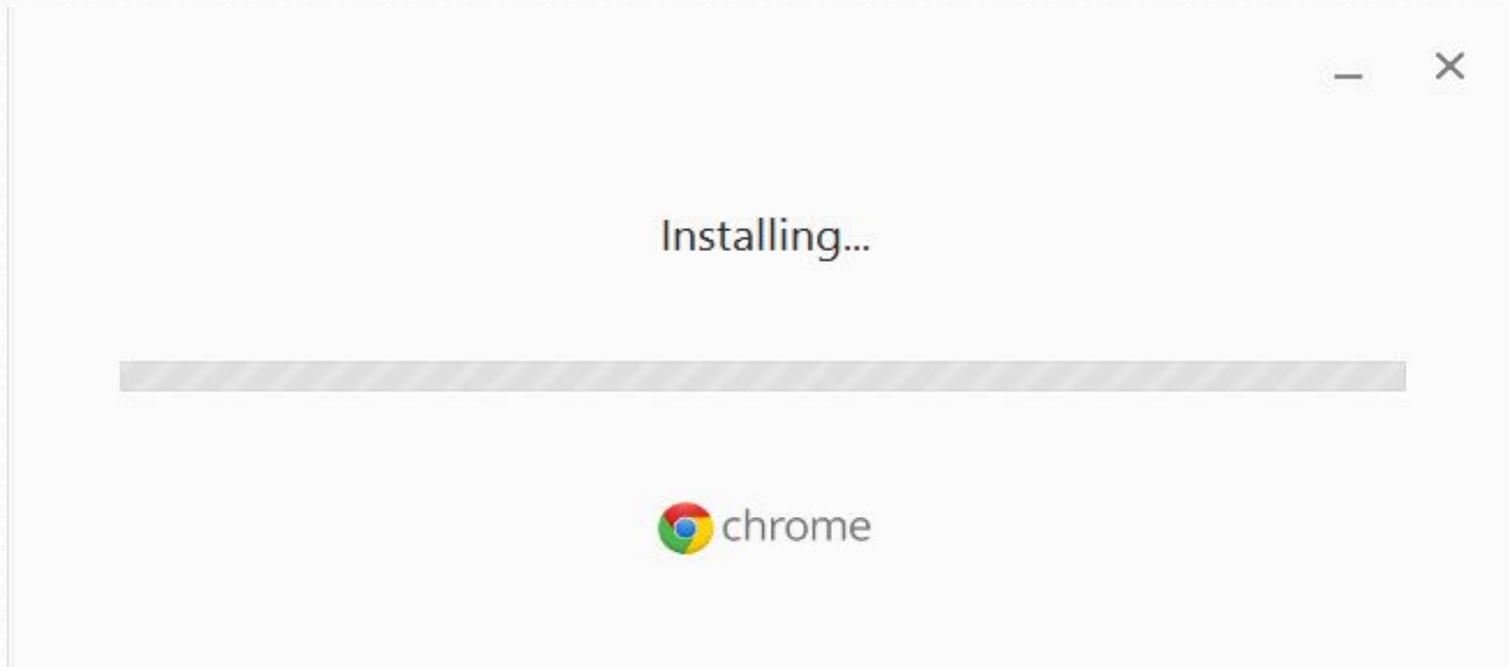
- Typically, the taskbar is at the bottom of the desktop, but you can also move it to either side or the top of the desktop.
- When the taskbar is unlocked, you can change its location. See [Lock and unlock the taskbar](#) to find out if yours is locked.
  
- When you've confirmed that your taskbar is unlocked,
- press and hold or right-click any empty space on the taskbar.
- Select [Taskbar settings](#) > [Taskbar location on screen](#), and then select [Left](#), [Top](#), [Right](#), or [Bottom](#).

# Installing software from the Web

- Applications like Microsoft Office and Adobe Photoshop can now be downloaded right to your computer from internet
- For example, if you wanted to install the Google Chrome web browser, you can visit this page <https://www.google.com/chrome/>
- and click the Download button.
- The installation file will be saved to your computer in .exe format ,Locate and double-click the .exe file. (It will usually be in your Downloads folder.)

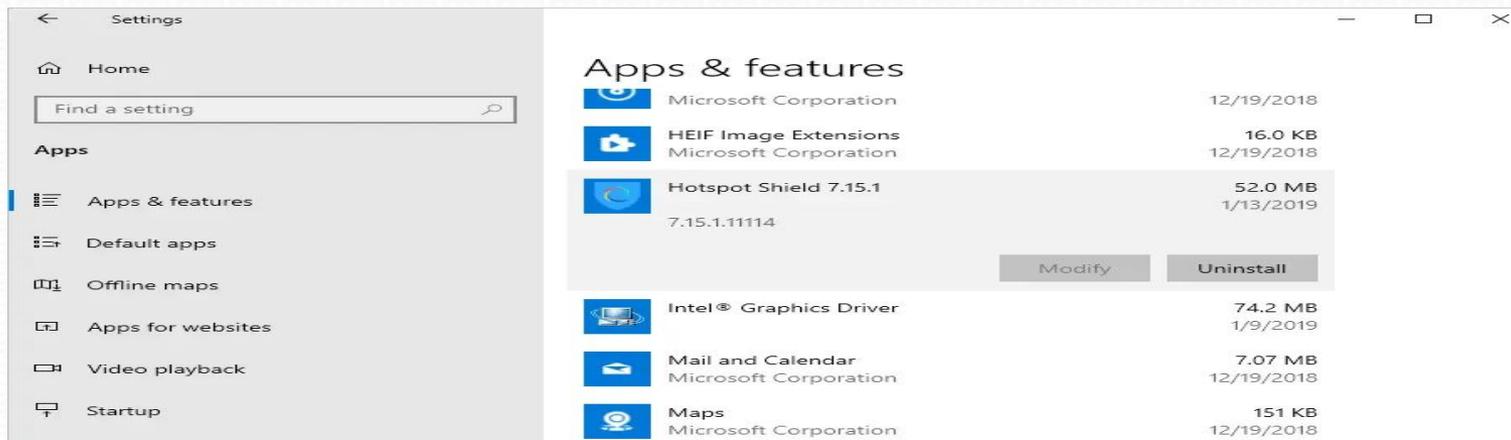


dialog box will appear. Follow the instructions to install the software.



# Uninstall Programs in Windows 10

- Open the Windows settings and then go “Apps” settings.
- Select “Apps and features” on the left-side pane and scroll down the page to find the program you want to install from the program list.
- Click on the program and then the “Uninstall” button.



# Install a printer in Windows

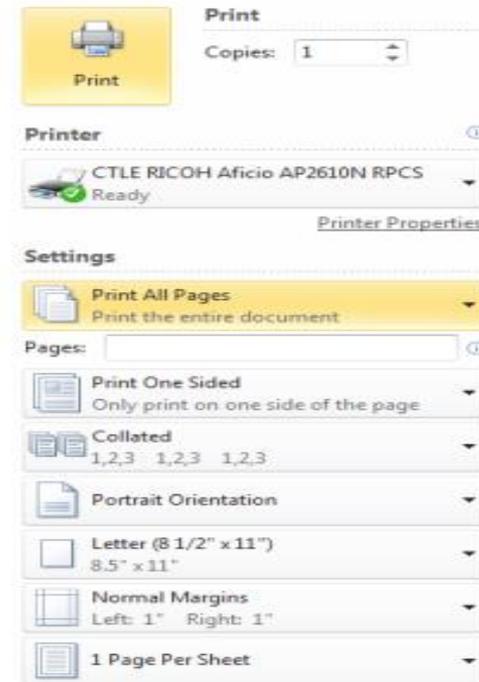
## 10

- Select the Start button, then select Settings > Devices > Printers & scanners.
- Open Printers & scanners settings
- Select Add a printer or scanner. Wait for it to find nearby printers, then choose the one you want to use, and select Add device.
- If your printer isn't in the list, select The printer that I want isn't listed, and then follow the instructions to add it manually using one of the options

# Microsoft WORD 2

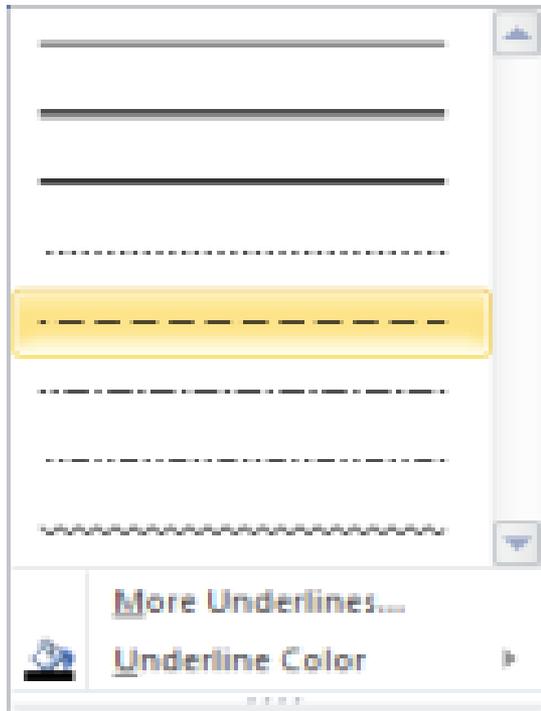
# Printing documents

1. Select the number of copies you would like to print by adjusting the number to the right of the print button.
2. Select the printer that you would like to print to from the drop down menu.
3. By clicking the Print All Pages button dropdown arrow, you can select to print the entire document, a section that you have selected, the current page, or a custom page range.
4. Another option to print a page range is by typing in the page range in the box to the right of where it says Pages:.
5. The Print One Sided button dropdown menu will give you the option to print on both sides, if your printer has this capability.
6. Selecting the Collated button will give you the opportunity to select between collated printing and uncollated printing.
7. The Orientation button allows you to select between landscape and portrait orientated printing.
8. If you are going to print on different sized paper, the page size button (often seen as Letter (8 ½" x 11")) is where you can select the particular size.



# How to format text bold, italics, underline, strike-through, subscript, or superscript.

- 1. From the Home Tab, find the Font toolbox.
- 2. From the Font menu , you can change selected text to bold, italics, underline, strike-through, subscript, or superscript.
- 3. The dropdown arrow next to the underline (U) icon gives you the ability to select from several types of underlining lines. You can even change the color of the line if so desired.

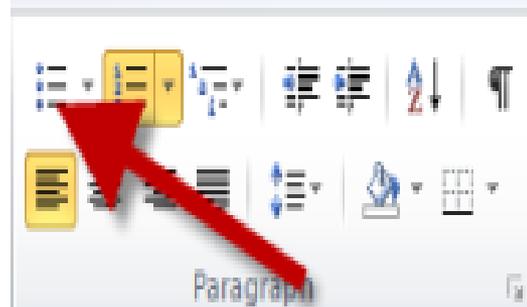


# How to change selected text with Text Effects

- 1. From the Home Tab, find the Font toolbox.
- 2. You can apply visual effects such as outline, shadow, reflection, and glow by clicking the
- icon. This will bring up the Text Effects menu and several styles to consider.
- 3. Click the style you desire from the available choices.
- . It is also possible to modify the outline, shadow, reflection, and glow settings by selecting those
- items.

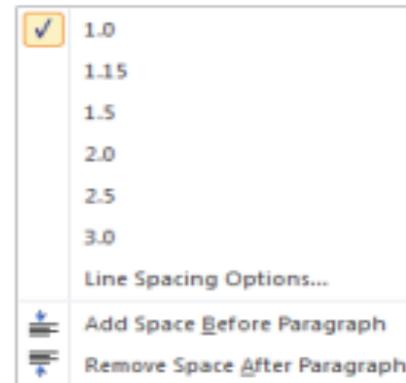
# How to add or numbered item bullets

- ❖ 1. From the Home Tab, find the Paragraph toolbox.
2. Select the text that you would like to have bulleted.
3. Click the bullets icon in the Paragraph group would like to
4. select a different style of bullet, click the dropdown arrow to the right of the icon and select the bullet of your choice.
5. The next time you hit the Enter key, a new bullet will display



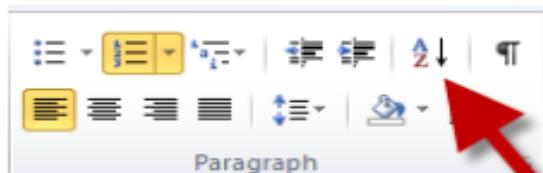
# How to change the line and paragraph spacing

- 1. From the Home Tab, find the Paragraph toolbox.
- 2. Select the text that you would like to change the spacing.
- 3. Select the icon for line and paragraph spacing. The dropdown arrow will allow you to see the different choices for line and paragraph spacing.



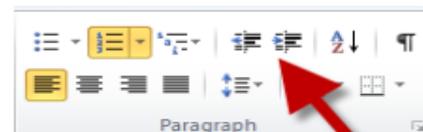
## How to sort items in a list with one click

1. From the Home Tab, find the Paragraph toolbox.
2. Select the text that you would like to alphabetize or put in numbered order.
3. Click the Sort icon. Then select how you would like to sort the items



## How to increase or decrease the indent of a paragraph

- 1. From the Home Tab, find the Paragraph toolbox.
- 2. Select the text that you would like to increase the indentation of.
- 3. Click either the increase or decrease indent button.

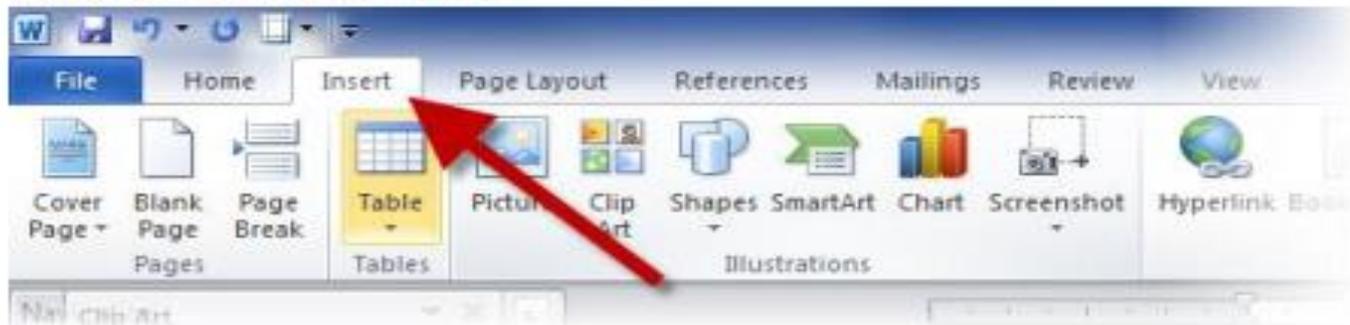


# How to change the style of text

- Changing the style of text can make your document look amazing as well as prepare your document for a table of contents page.
- 1. From the Home Tab, find the Styles toolbox.
- Select the text that you would like to change the style of.
- 3. Click the style that you would like to change the text to.
- 4. To see all options, click the arrow in the lower right corner of the Styles section.



## All about the Insert Tab



### How to add a Cover Page

1. From the Insert Tab, in the Pages toolbox, click the Cover Page button.
2. Select the cover page of your choice.
3. Add in important information by editing the text that displays on the cover page.
4. There are several built in cover pages, but you can select the More Cover Pages from Office.com to see even more options.

### How to add a blank page

1. From the Insert Tab, add a blank page by clicking the Blank Page button in the Pages toolbox.

### How to add a page break

1. From the Insert Tab, add a page break by placing your cursor in the location that you would like to have a page break.

### How to add tables

1. From the Insert Tab, click the Table icon in the Tables toolbox.

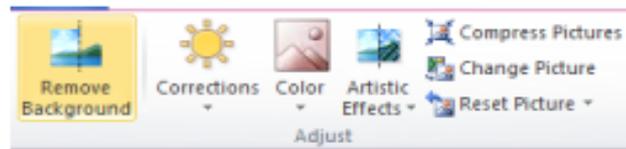


## How to add pictures

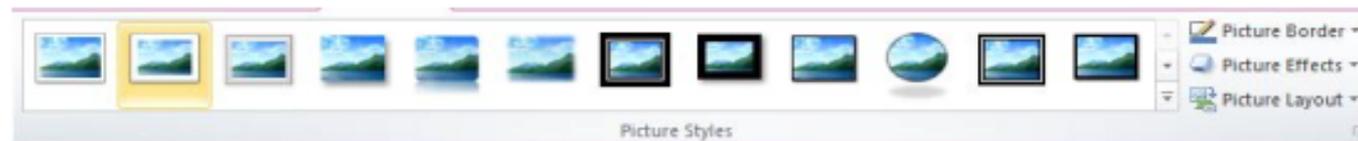
1. From the Insert Tab, click the Picture button in the Illustrations toolbox.
2. Once the navigation window opens, find the picture that you would like to add, then click insert.

## What can be found on the Picture Tools Format Tab

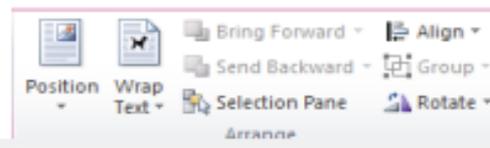
Once you have added a picture to your document while the picture is still selected you will see a new tab display on the ribbon. These are the Picture Tools. From the Adjust toolbox you can Remove picture backgrounds, modify colors, add artistic effects, and change pictures.



The Picture Styles toolbox gives you the opportunity to format your pictures using excellent picture presets. Click the dropdown arrow to view all of the available presets. From the Picture Styles toolbox you can also add picture borders, effects, and modify picture layouts.

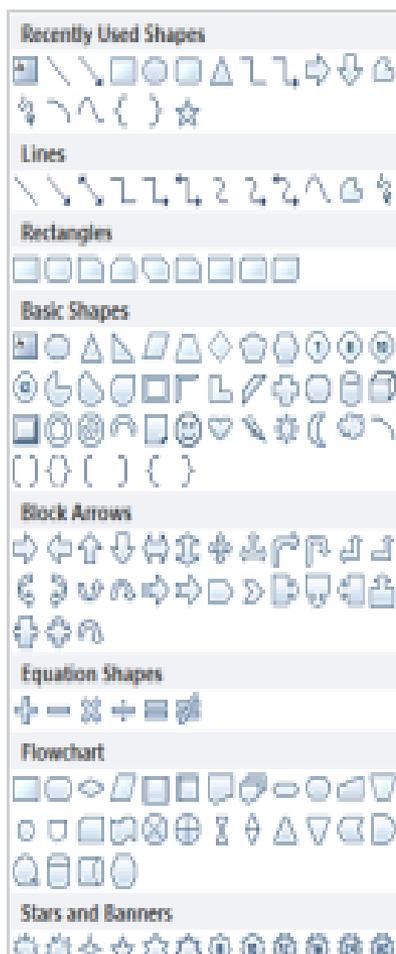


The Arrange toolbox allows you to change positions of pictures and modify how text flows around pictures. You can also arrange, align, and rotate pictures from this toolbox.



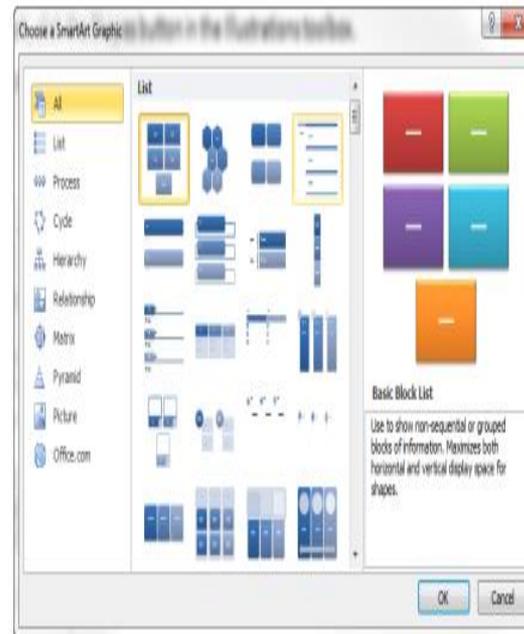
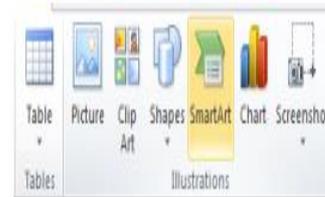
## How to add shapes to your document

1. From the Insert tab, click the Shapes button in the Illustrations toolbox.
2. Select the shape you desire from the options available.



# How to add SmartArt graphics

- From the Insert tab, in the illustrations toolbox, select Smart Art.
- 2. When the menu displays, select the type of graphic which conveys the information you would like to share with your audience.
- 3. Click the Ok button to insert your Smart Art graphic.
- 4. Click and edit the graphic as desired.



# How to add a chart

- 1. From the Insert tab, in the illustrations toolbox, select Chart.
- 2. From the menu which displays, select the chart design you would like to use and then click Ok.
- 3. An Excel file will display. Modify the Excel sheet to include the data that you would like to have on your chart.
- In Excel, your data should be arranged in rows and columns. Be sure to have row labels to the
- left and column labels at the top, above the data.
- 5. You can also copy and paste a chart from Excel into Word.



# How to add a Hyperlink

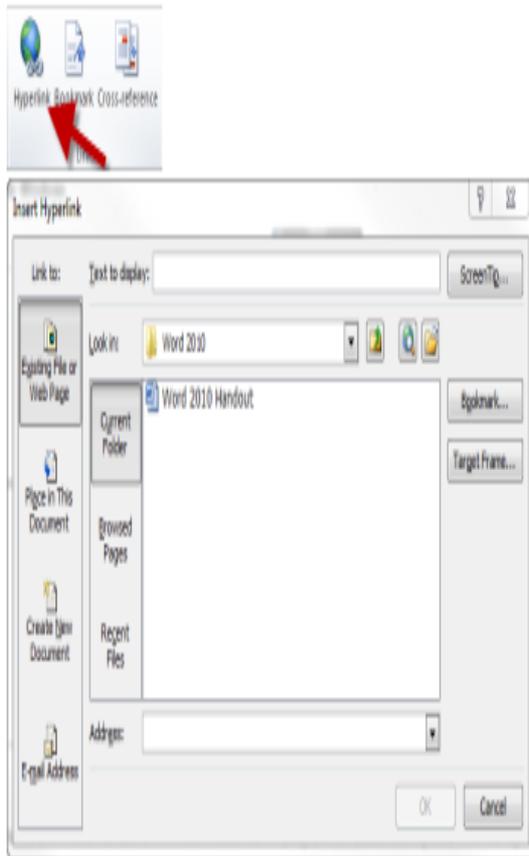
1. Select the text or object that you would like to create a hyperlink out of.

2. From the Insert tab, in the links toolbox, select Hyperlink.

The selected text will display in the Text to display box. If you have an object selected (shape, picture, etc) it will display <<Selection in Document>>.

4. To add a hyperlink which will take you to an outside source, in the address bar, add the external hyperlink (copied and pasted from a web page, etc).

5. To add a hyperlink which will take you to another part of your document click the button on the left which says Place in this Document. You should be given a list of potential places in your document to link to.



# How to add a Header and footer

- 1. From the Insert Tab, in the Header & Footer toolbox, click Header.
  - 2. From select the menu that displays, she header of your choice.
  - 3. Once the header displays, you may click to edit its parts.
  - 4. In order to get out of the header area double click the main body of the document.
  - 5. If you would like to return to the header area you can double click in the header area of the document
- 1. From the Insert Tab, in the Header & Footer toolbox, click Footer.
  - 2. From the menu that displays, select the footer of your choice.
  - 3. Once the footer displays, you may click to edit its parts.
  - 4. In order to get out of the footer area double click the main body of the document.
  - 5. If you would like to return to the footer area you can double click in the footer area of the document.

# How to add Page Numbers

- 1. From the Insert Tab, in the Header & Footer toolbox, click Page Number.
- 2. From the dropdown menu, select the location where you would like to place your page numbers.
- How to insert a Text Box
- 1. From the Insert Tab, in the Text toolbox, click Text Box.
- 2. In the resulting Built-in menu, select the textbox style of your choice.

## **Introduction of MS Office:**

MS-Office is the most up-to-date product of Microsoft which is mainly designed for Domestic/Official/Development purpose PC-Users. Microsoft has already launched this product as its older version like Office 4.3, Office 95, Office 97, Office 2000, Office 2002 XP Professional, Office 2003 & latest Office 2007. Each Version launched with some new and advance options. The given editions are mainly available as per the requirements of users at different levels. The part software of MS Office 2000 & 2003 (currently in use) are listed as:

1. *MS-Access*
2. *MS-Excel*
3. *MS-InfoPath*
4. *MS-Outlook*
5. *MS-Power Point*
6. *MS-Publisher*
7. *MS-Word*

In older versions, MS info Path and MS publisher were not available. We have MS Front Page as web development tool in older versions which are to be installed separately in case of installation of MS Office 2003 and 2007.

## **Word Processor:**

Microsoft Word is a text processing application. It allows the user to configure the attributes of a document, such as layout and the styles of content, and to add their content in a variety of ways and formats to produce

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## The fundamentals

### How to create a new word document

1. Click the **File** tab and then click **New**.
2. Click **Create**.

### How to open a document

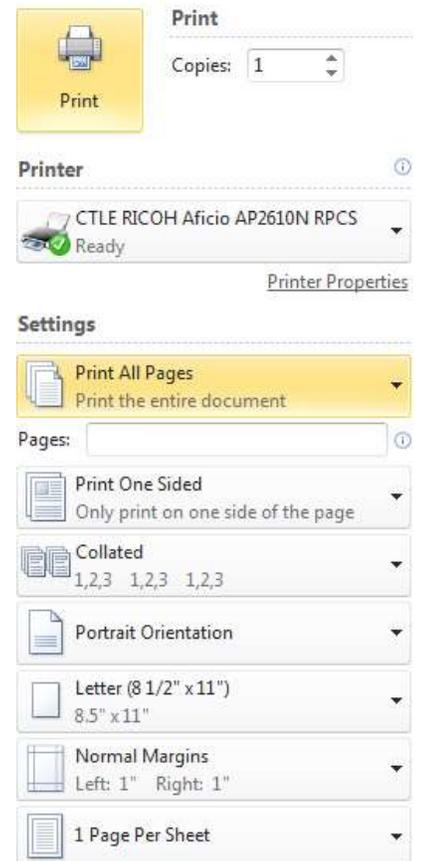
1. Click **File** then **Open**.

### How to save a document

1. Click the **Save** button on the Quick Access Toolbar.
2. Give the presentation a name and save it into a memorable location.

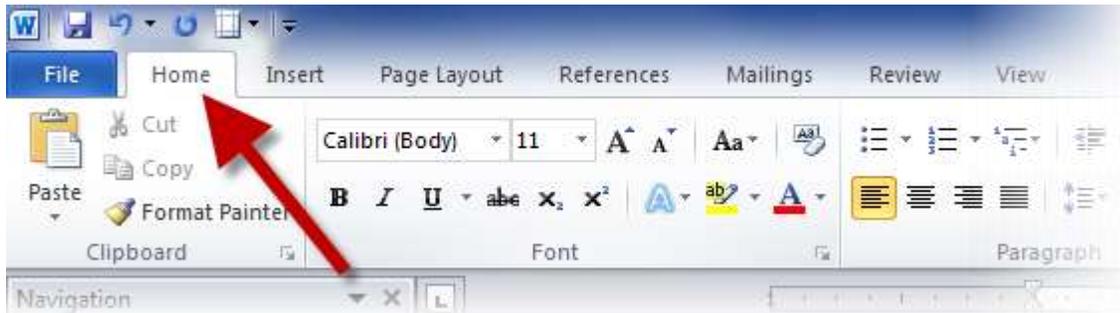
### Printing documents

1. Select the number of copies you would like to print by adjusting the number to the right of the print button.
2. Select the printer that you would like to print to from the drop down menu.
3. By clicking the Print All Pages button dropdown arrow, you can select to print the entire document, a section that you have selected, the current page, or a custom page range.
4. Another option to print a page range is by typing in the page range in the box to the right of where it says Pages:.
5. The Print One Sided button dropdown menu will give you the option to print on both sides, if your printer has this capability.
6. Selecting the Collated button will give you the opportunity to select between collated printing and uncollated printing.
7. The Orientation button allows you to select between landscape and portrait orientated printing.
8. If you are going to print on different sized paper, the page size button (often seen as Letter (8 1/2" x 11")) is where you can select the particular size.



9. You can adjust margins by clicking the margins button.
10. You can also select the number of pages you would like to print on one sheet of printer paper by clicking the 1 page per sheet button.

## All about the Home Tab



## The Font Menu

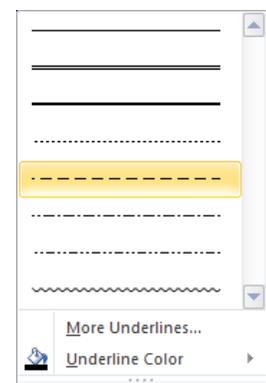
### How to change fonts



1. From the Home tab, in the Font menu area, you can find a dropdown menu that allows you to select different fonts. In the above screenshot, it is the area that says Calibri (Body).
2. The number to the right of the font name indicates the size of the font that you are typing in. If you have selected a block of text and you find blanks in these sections it indicates that there are multiple fonts and/or sizes being used in the selected text.

### How to format text bold, italics, underline, strike-through, subscript, or superscript.

1. From the Home Tab, find the Font toolbox.
2. From the Font menu **B I U**, you can change selected text to bold, italics, underline, strike-through, subscript, or superscript.
3. The dropdown arrow next to the underline () icon gives you the ability to select from several types of underlining lines. You can even change the color of the line if so desired.



### How to change selected text with Text Effects

1. From the Home Tab, find the Font toolbox.

2. You can apply visual effects such as outline, shadow, reflection, and glow by clicking the  icon. This will bring up the Text Effects menu and several styles to consider.
3. Click the style you desire from the available choices.



4. It is also possible to modify the outline, shadow, reflection, and glow settings by selecting those items.

### How to highlight text

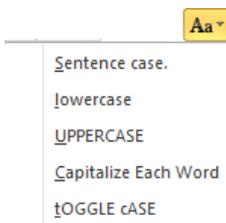
1. From the Home Tab, find the Font toolbox.
2. Select the text that you would like to highlight and then click the  icon.
3. If you would like a different highlighter color, select the drop down menu to the right of the icon and select the color of your choice.

### How to change the font color

1. From the Home Tab, find the Font toolbox.
2. Select the text that you would like to change the color of and then click the  icon.
3. If you would like a different font color, select the drop down menu to the right of the icon and select the color of your choice.

### How to change the case of text

1. From the Home Tab, find the Font toolbox.
2. Select the text that you would like to change the case of and then click the  icon.
3. From the dropdown menu choose the style that you would like the case of the text to be.



## How to add bullets

1. From the Home Tab, find the Paragraph toolbox.
2. Select the text that you would like to have bulleted.
3. Click the bullets icon in the Paragraph group.



4. If you would like to select a different style of bullet, click the dropdown arrow to the right of the icon and select the bullet of your choice.
5. The next time you hit the Enter key, a new bullet will display.

## How to add numbered items

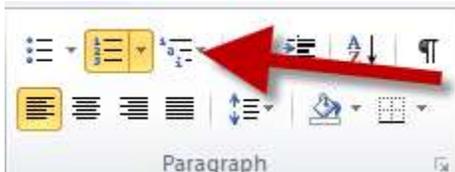
1. From the Home Tab, find the Paragraph toolbox.
2. Select the text that you would like to be numbered.
3. Click the numbering icon in the Paragraph group.



4. If you would like to select a different style of numbering, click the dropdown arrow to the right of the icon and select the numbering style of your choice.
5. The next time you press the Enter key, a new numbered item will display.

## How to create a Multilevel-List

1. From the Home Tab, find the Paragraph toolbox.
2. Select the text that you would like to turn into a multilevel list.
3. Click the multilevel-list icon in the Paragraph group.

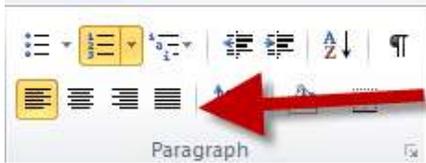


4. If you would like to select a different style of list, click the dropdown arrow to the right of the icon and select the style of your choice.
5. The next time you hit the Enter key, a new listed item (bullet or number) will display.

## How to align text

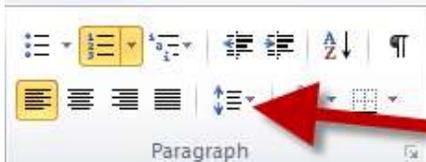
1. From the Home Tab, find the Paragraph toolbox.
  2. Select the text that you would like to align.
-

3. Select the icon for left, center, right, or plain justify, justification. Your text will have the justification of your choice.

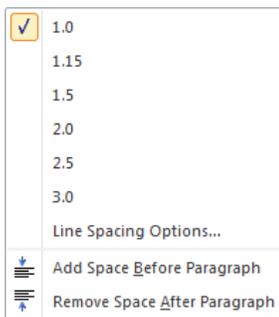


### How to change the line and paragraph spacing

1. From the Home Tab, find the Paragraph toolbox.
2. Select the text that you would like to change the spacing.



3. Select the icon for line and paragraph spacing. The dropdown arrow will allow you to see the different choices for line and paragraph spacing.



### How to increase or decrease the indent of a paragraph

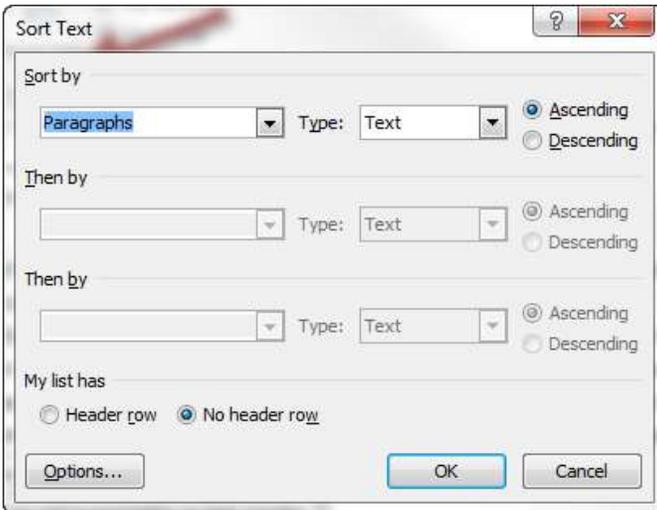
1. From the Home Tab, find the Paragraph toolbox.
2. Select the text that you would like to increase the indentation of.
3. Click either the increase or decrease indent button.



### How to sort items in a list with one click

1. From the Home Tab, find the Paragraph toolbox.
2. Select the text that you would like to alphabetize or put in numbered order.
3. Click the Sort icon. Then select how you would like to sort the items.

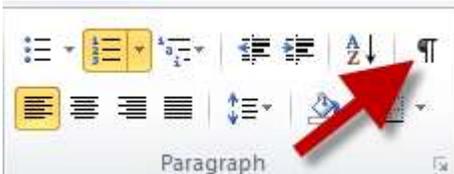




4. Click ok.

### How to see paragraph marks and hidden formatting symbols

1. From the Home Tab, find the Paragraph toolbox.
2. Click the Show/Hide paragraph and formatting symbols button.



3. To turn it off, click the button again.

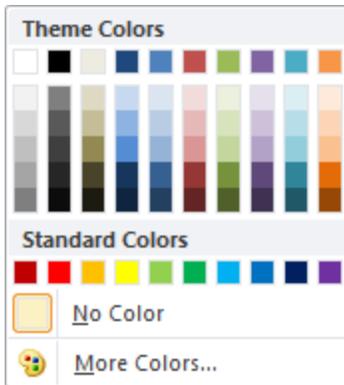
### How to change the fill color of objects on the page (not text objects)

1. From the Home Tab, find the Paragraph toolbox.
2. Click the shape that you would like to change the fill color of.



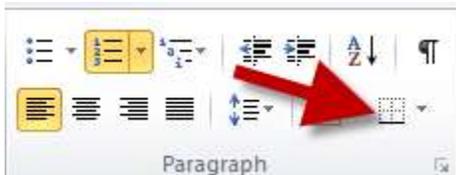
3. Click the paint bucket button and then select the color of your choice.



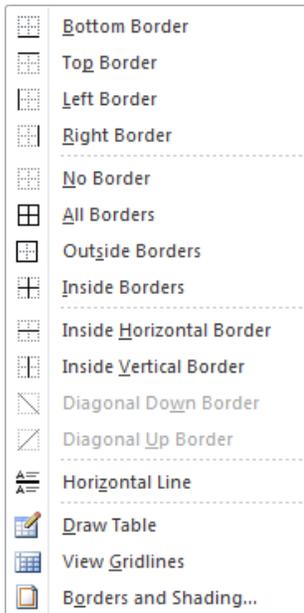


## How to fill in the borders of tables

1. From the Home Tab, find the Paragraph toolbox.
2. Select the cell of a table that you would like to add a border to.



3. Click the border line that you would like the cell(s) of your table to have filled in.



## How to turn on/off widow and orphan control

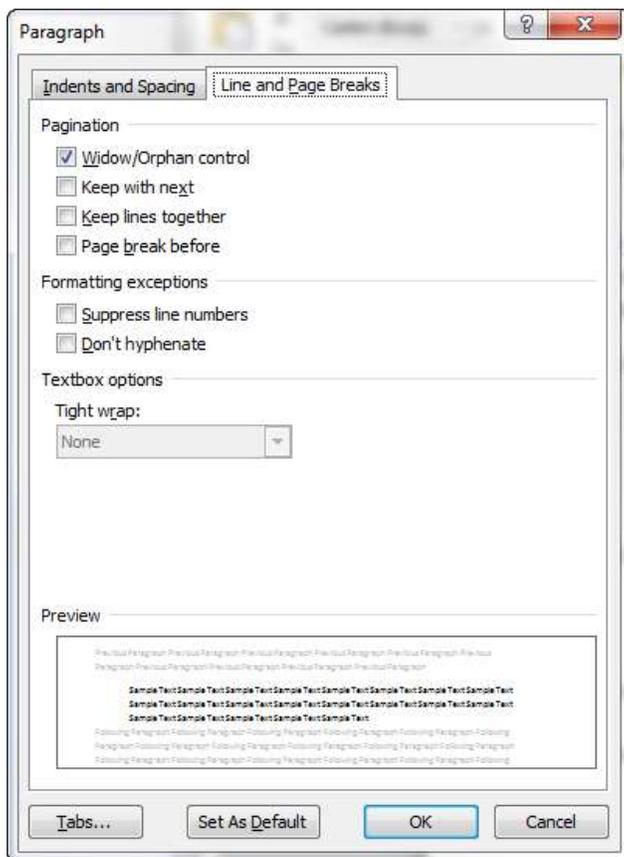
Widows and orphans are the words or short lines that are at the beginning or end of a paragraph which are left at the top or bottom of a column of text. Turning on Widow/Orphan control will keep a line from being marooned on page 1 with the rest of the paragraph's lines on page 2. If you have a strict page count requirement for a document and seem to have a lot more to write than you have room for you may consider turning these off.

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1. From the Home Tab, find the Paragraph toolbox.
2. Click the expander icon in the lower right corner of the Paragraph section.



3. Click the tab titled Line and Page Breaks.
4. In the Pagination section click the checkbox to the left of Widow/Orphan control.
5. The other options available are a bit more straight forward.
  - a. Keep with next will keep the paragraph on the same page as the next paragraph.
  - b. Keep lines together will keep all of the lines of a paragraph on the same page (unless, that is, it is longer than a single page.).
  - c. Page break before will make sure that the paragraph will start on a new page.

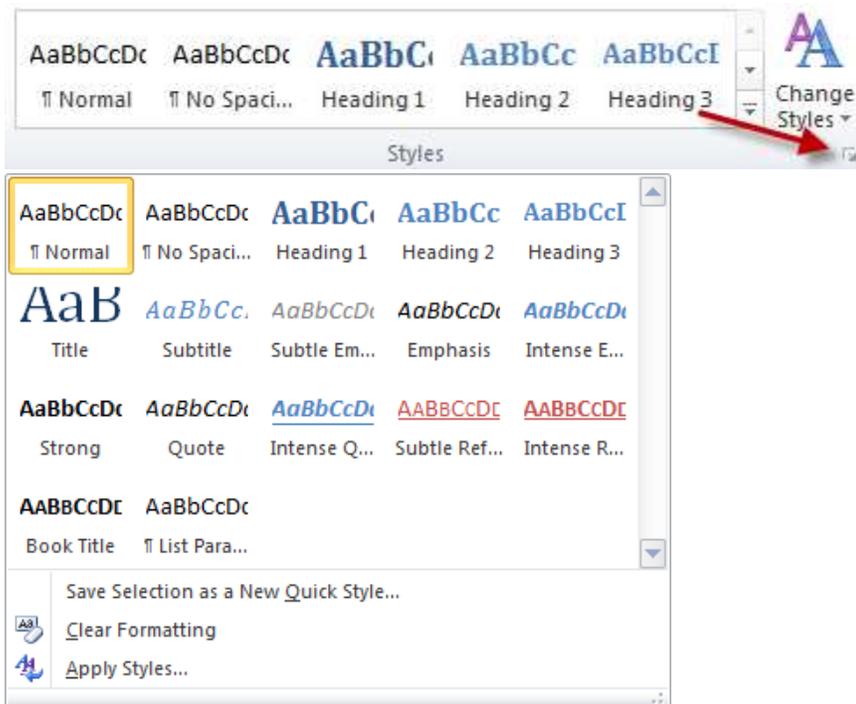


## How to change the style of text

Changing the style of text can make your document look amazing as well as prepare your document for a table of contents page. (See the section on how to create a table of contents for more on this) You have several choices to choose from.

1. From the Home Tab, find the Styles toolbox.
-

2. Select the text that you would like to change the style of.
3. Click the style that you would like to change the text to.
4. To see all options, click the arrow in the lower right corner of the Styles section.



5. You can also change Styles of text, paragraphs, default styles, etc by selecting the dropdown menu of the Change Styles icon.



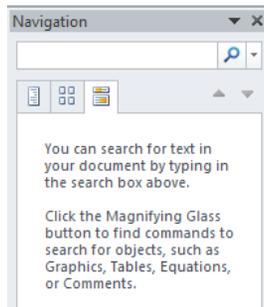
## The Editing Toolbox

The editing toolbox allows access to the Find tool. This tool allows you to locate certain words in your document. You can also access the Replace tool which allows you to replace words of your choice.



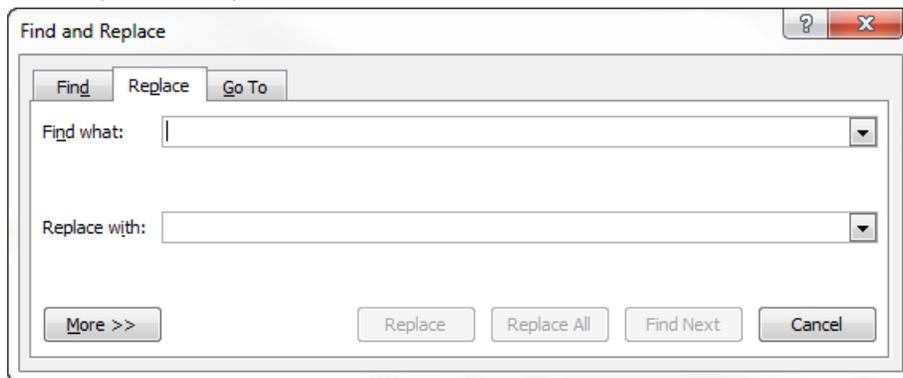
## How to use the Find button

- a. From the Home Tab locate the editing toolbox at the far right of the ribbon.
- b. Click the Find button and you will see a Navigation pane open up on the screen. This give you the opportunity to search the document for a particular word or phrase.
- c. To close the navigation pane, click the X in its upper right corner.



## How to use the Replace button

- From the Home Tab locate the editing toolbox at the far right of the ribbon.
- Click the Replace button in the Editing toolbox. The Find and Replace dialog box will display.
- Type in the word to find and then type in the word you would like to replace it with.
- Click Replace or Replace all.

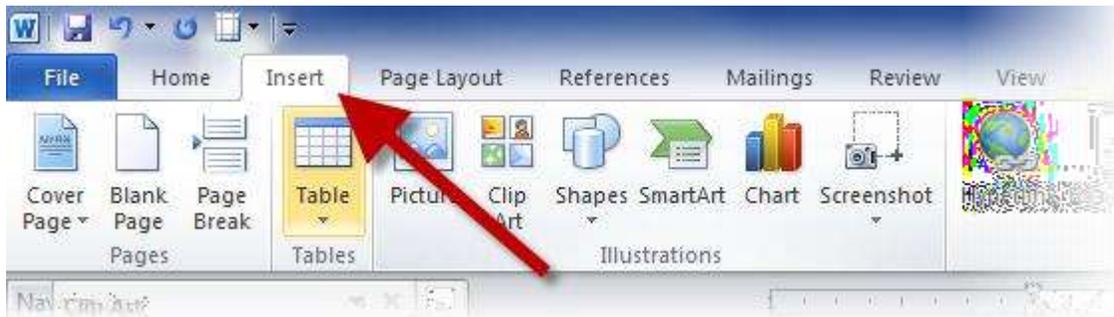


## How to use the Select button.

- From the Home Tab locate the editing toolbox at the far right of the ribbon.
- The Select button gives you the option to select items in your document.
- Click the button to access the available options for selection.



## All about the Insert Tab



### How to add a Cover Page

1. From the Insert Tab, in the Pages toolbox, click the Cover Page button.
2. Select the cover page of your choice.
3. Add in important information by editing the text that displays on the cover page.
4. There are several built in cover pages, but you can select the More Cover Pages from Office.com to see even more options.

### How to add a blank page

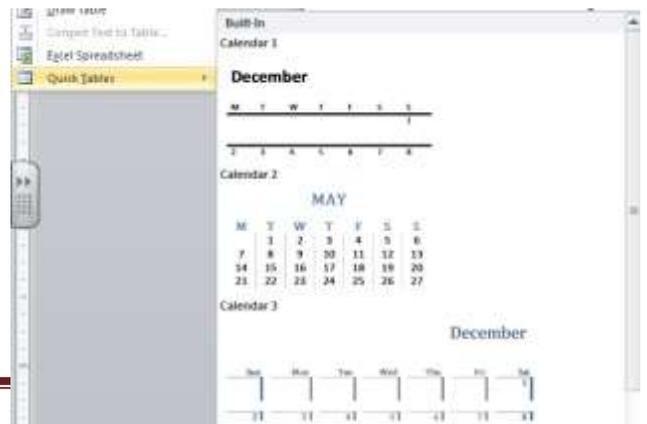
1. From the Insert Tab, add a blank page by clicking the Blank Page button in the Pages toolbox.

### How to add a page break

1. From the Insert Tab, add a page break by placing your cursor in the location that you would like to have a page break.

### How to add tables

1. From the Insert Tab, click the Table icon in the Tables toolbox.
2. Click and drag over the small boxes to determine the number of columns and rows for your table. Optionally, you can click the Insert Table menu item to type in the number of columns and rows. You can also click the Draw Table button to use a pencil tool to draw cells of a table.
3. You can also add a previously created Excel spreadsheet by clicking Excel Spreadsheet.
4. Add preconfigured tables by selecting the Quick Tables menu

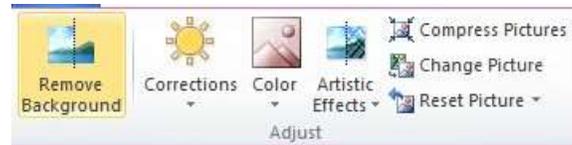


## How to add pictures

1. From the Insert Tab, click the Picture button in the Illustrations toolbox.
2. Once the navigation window opens, find the picture that you would like to add, then click insert.

## What can be found on the Picture Tools Format Tab

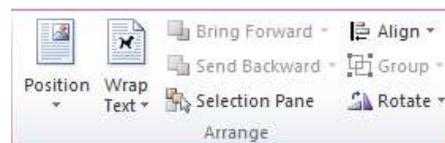
Once you have added a picture to your document while the picture is still selected you will see a new tab display on the ribbon. These are the Picture Tools. From the Adjust toolbox you can Remove picture backgrounds, modify colors, add artistic effects, and change pictures.



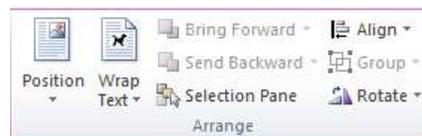
The Picture Styles toolbox gives you the opportunity to format your pictures using excellent picture presets. Click the dropdown arrow to view all of the available presets. From the Picture Styles toolbox you can also add picture borders, effects, and modify picture layouts.



The Arrange toolbox allows you to change positions of pictures and modify how text flows around pictures. You can also arrange, align, and rotate pictures from this toolbox.

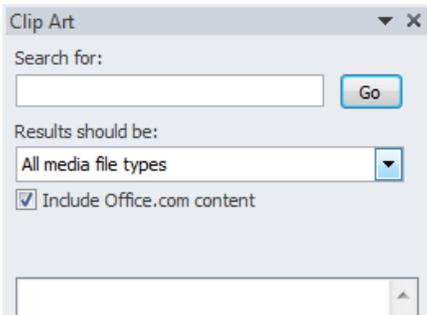


The Size toolbox allows you to change the height and width of pictures as well as gives you access to the cropping tool.



## How to add Clip Art

1. From the Insert tab, click the Clip Art button in the Illustrations toolbox.
2. A Clip Art pane will display on the screen. From the search bar type in the clip art you are looking for and click Go. You can adjust the media type by clicking the dropdown menu of the Results should be: section.



3. If you would like to continue your search at Office.com, select that choice at the bottom of the Clip Art pane.



## How to add shapes to your document

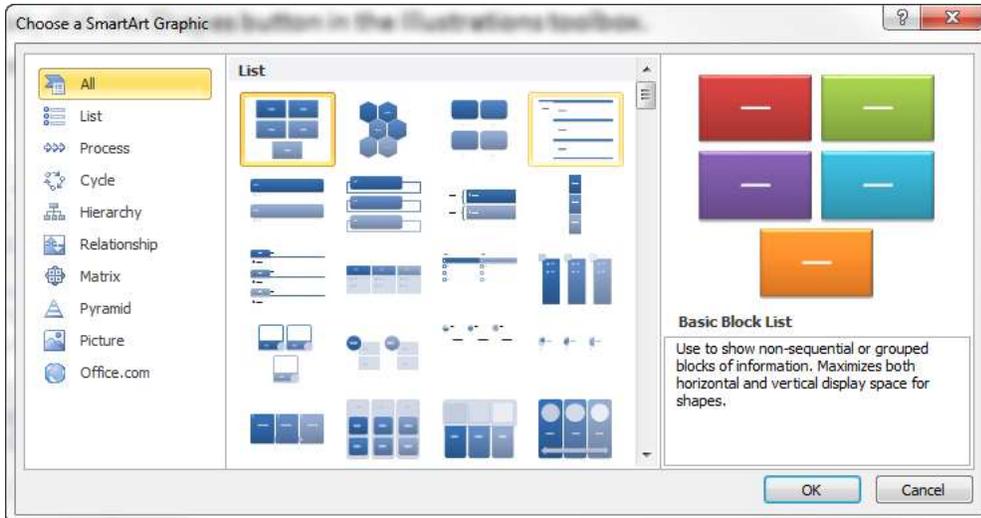
1. From the Insert tab, click the Shapes button in the Illustrations toolbox.
2. Select the shape you desire from the options available.



## How to add SmartArt graphics

Smart Art graphics are visual representations of information that you can create easily. There are many layouts to consider. To use Smart Art graphics effectively, be sure to select the option which will convey the information that you are presenting in your document. Most shapes in Smart Art graphics are text boxes that you can edit.

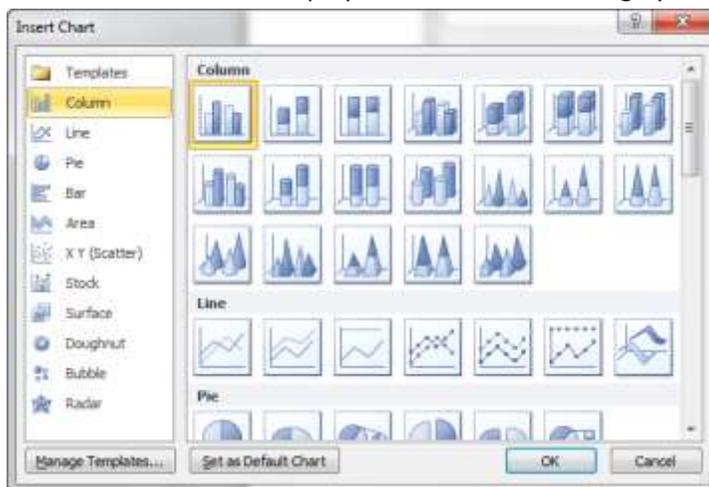
---



1. From the Insert tab, in the illustrations toolbox, select Smart Art.
2. When the menu displays, select the type of graphic which conveys the information you would like to share with your audience.
3. Click the Ok button to insert your Smart Art graphic.
4. Click and edit the graphic as desired.

## How to add a chart

1. From the Insert tab, in the illustrations toolbox, select Chart.
2. From the menu which displays, select the chart design you would like to use and then click Ok.

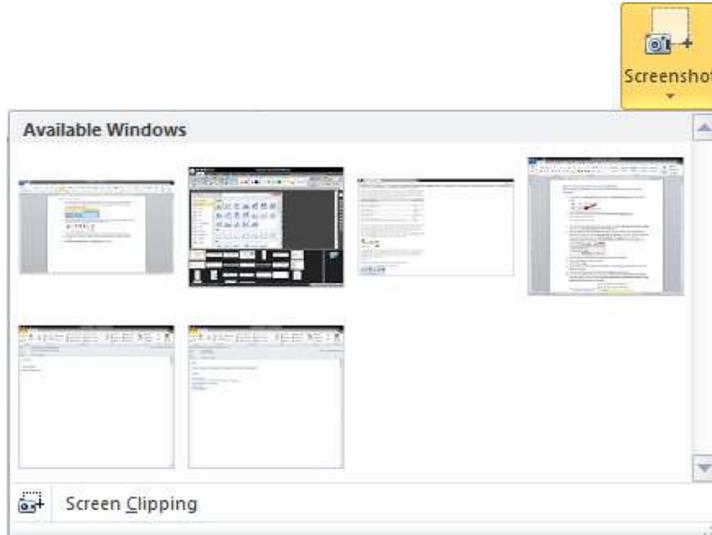


3. An Excel file will display. Modify the Excel sheet to include the data that you would like to have on your chart.

4. In Excel, your data should be arranged in rows and columns. Be sure to have row labels to the left and column labels at the top, above the data.
5. You can also copy and paste a chart from Excel into Word.

## How to use the Screenshot tool

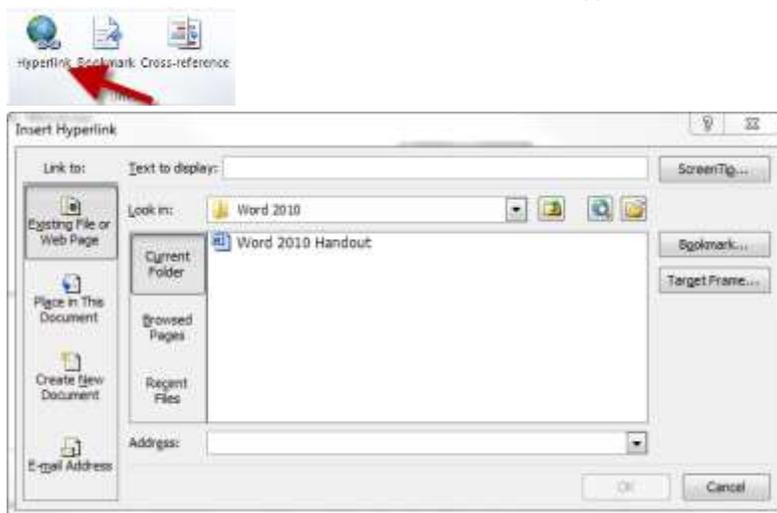
1. From the Insert tab, in the illustrations toolbox, select Screenshot.



2. A menu of all the available Windows currently open on your computer will display. Select the window that you would like a screen shot of.
3. You can also use the Screen Clipping tool which allows you to take a screenshot of a smaller section of a window.

## How to add a Hyperlink

1. Select the text or object that you would like to create a hyperlink out of.
2. From the Insert tab, in the links toolbox, select Hyperlink.



3. The selected text will display in the Text to display box. If you have an object selected (shape, picture, etc) it will display <<Selection in Document>>.
4. To add a hyperlink which will take you to an outside source, in the address bar, add the external hyperlink (copied and pasted from a web page, etc).
5. To add a hyperlink which will take you to another part of your document click the button on the left which says Place in this Document. You should be given a list of potential places in your document to link to.
6. You can also create a new document to connect to by clicking the Create New Document button on the left. Edit the new document to include what ever information you would like to connect to. This is an external link, but only external to the document which you are already creating and not on the network or internet.
7. You can also add an email address by clicking on the Email Address button on the left and then including the email address on the address bar.

## How to add Bookmarks

Bookmarks allow you to quickly navigate to predetermined places in your document.

1. Select the text that you would like to turn into a bookmark.
2. From the Insert tab, in the Links toolbox, select Bookmark.

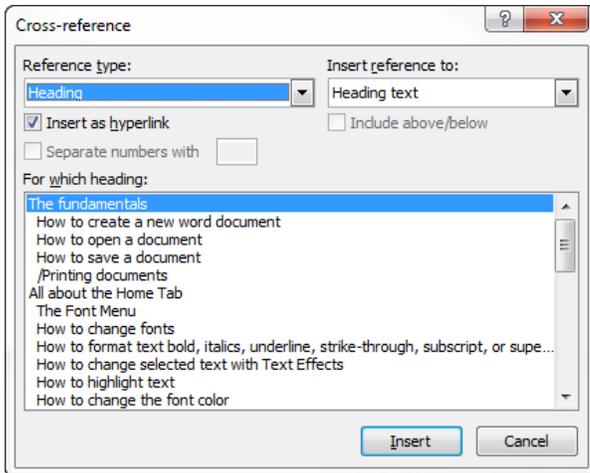


3. Type in the name of the new bookmark then click Add. Add as many bookmarks as you would like.
4. To navigate to a bookmarked item, click the bookmark button, and then select the bookmark title of your choice and then click the Go To button.

## How to add a Cross-Reference

Cross-Reference allows you to create a link in your document which will take you to another section. It creates link to this other section which is clickable (ctrl – click). These links will update automatically as changes are made to the document.

1. Place your cursor at the location that you would like to insert a Cross-referenced link.
  2. From the Insert Tab, in the Links toolbox, click Cross-reference.
  3. Select your desired reference type from the drop down menu.
  4. Select the Insert Reference to: item that you would like the reference to point to.
  5. In the For which heading section, select the location in the document that you are referencing.
  6. Select insert.
-



## How to add a Header

1. From the Insert Tab, in the Header & Footer toolbox, click Header.
2. From the menu that displays, select the header of your choice.
3. Once the header displays, you may click to edit its parts.
4. In order to get out of the header area double click the main body of the document.
5. If you would like to return to the header area you can double click in the header area of the document.



## How to add a Footer

1. From the Insert Tab, in the Header & Footer toolbox, click Footer.
2. From the menu that displays, select the footer of your choice.
3. Once the footer displays, you may click to edit its parts.
4. In order to get out of the footer area double click the main body of the document.
5. If you would like to return to the footer area you can double click in the footer area of the document.



## How to add Page Numbers

1. From the Insert Tab, in the Header & Footer toolbox, click Page Number.
2. From the dropdown menu, select the location where you would like to place your page numbers.

## How to insert a Text Box

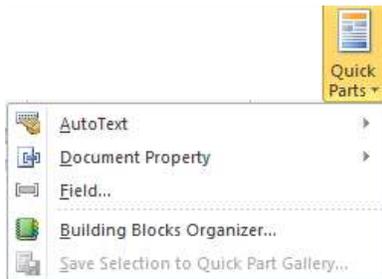
1. From the Insert Tab, in the Text toolbox, click Text Box.
2. In the resulting Built-in menu, select the textbox style of your choice.





## How to add Quick Parts

Quick parts are reusable pieces of content which can be stored and added to documents as needed.



## Quick Parts – Auto Text

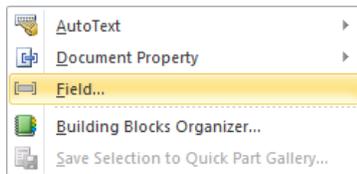
1. From the Insert Tab, in the Text toolbox, click Quick Parts.
2. To add Auto Text, in the dropdown menu, click Auto Text.
3. Select the item that you would like to add.

## Quick Parts – Document Property

1. From the Insert Tab, in the Text toolbox, click Quick Parts.
2. Click Document Property to choose from a list of properties that you would like to add to your document.
3. Fill in the document property box to create properties that will travel with your document.



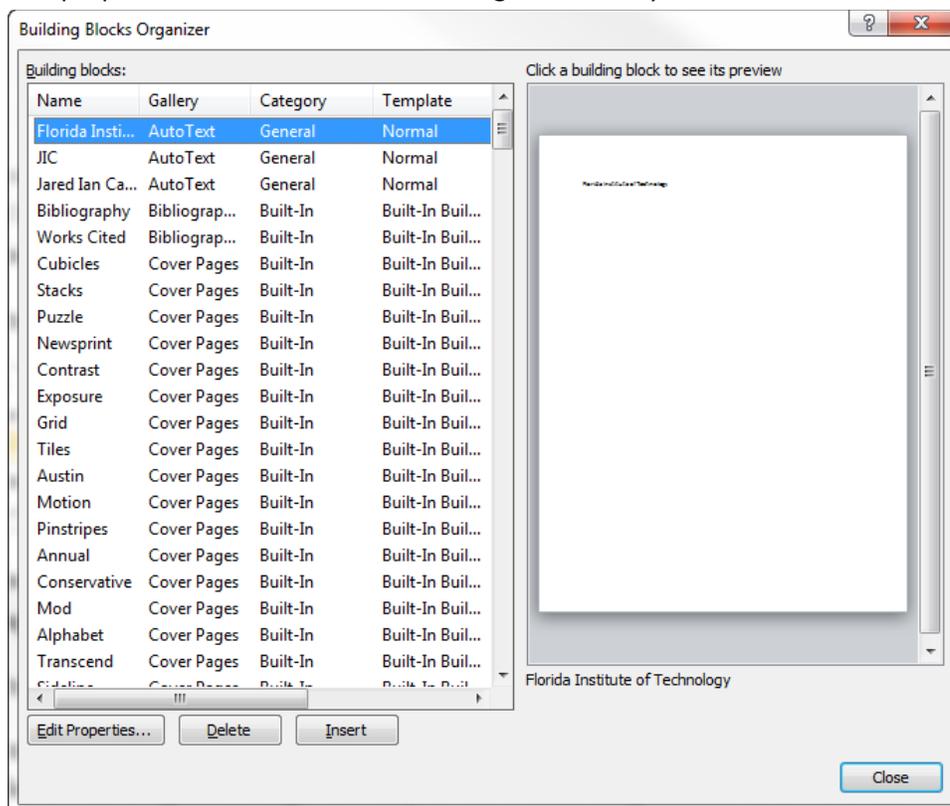
## Quick Parts – Field



1. From the Insert Tab, in the Text toolbox, click Quick Parts.
2. Use field codes to insert fields that will provide auto-updated information such as the time, title, page numbers, etc.

## Quick Parts – Building Blocks Organizer

1. From the Insert Tab, in the Text toolbox, click Quick Parts.
2. Click on Building Blocks Organizer to preview the building blocks that are available. You can also edit properties, delete, and insert building blocks into your document.



## How to save a selection to the Quick Part Gallery

1. From the Insert Tab, in the Text toolbox, click Quick Parts.
  2. Select the text that you would like to save as a quick part.
  3. From the Insert Tab, in the Text toolbox, click Quick Parts.
  4. Select Save Selection to Quick Part Gallery.
-



5. You can now reuse this Quick Part by choosing the selection from the gallery.

## How to add Word Art

1. From the Insert Tab, in the Text toolbox, click Word Art.
2. Select the format of your choice from the available options.



3. In the text box that displays, add the text that you would like to be in the WordArt format that you selected.

## How to add Drop Cap Text

1. Select a paragraph from your document.
2. From the Insert Tab, in the Text toolbox, click Drop Cap.

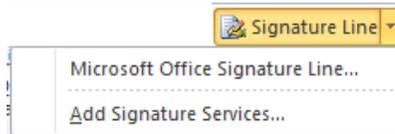


3. Select the DropCap option of your choice from the menu.

## How to add a Signature Line

1. Place your cursor in the location that you would like a signature line to be added.
2. From the Insert Tab, in the Text toolbox, click Signature Line.





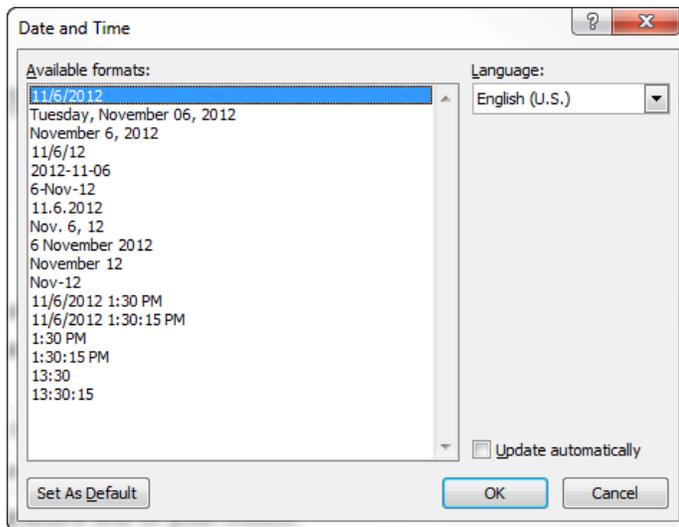
3. Select the signature line of your choice.

## How to add Date & Time

1. Place your cursor in the location that you would like the Date & Time to be added.
2. From the Insert Tab, in the Text toolbox, click Date & Time.



3. Choose from the list of available formats and then click OK.



## How to add Equations

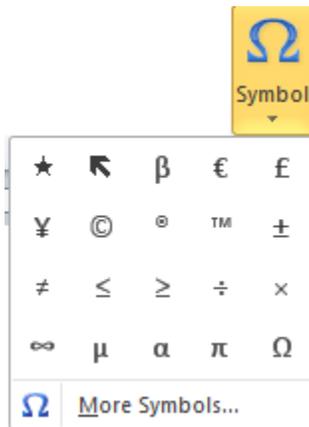
The Microsoft Equation Editor allows you to create formatted equations for your document.

1. Place your cursor in the location that you would like the equation to be added.
2. From the Insert Tab, in the Symbols toolbox, click Equation.
3. Select from one of the premade equations to add them to your document. To edit the equation, click on the symbol or number that you would like to change and edit as you would text.
4. If you would like to use a self created equation, after selecting Equation, scroll down to Insert New Equation. A new tab named Equation tools will display. Use the available tools to create and edit your equation.



## How to add a Symbol

1. Place your cursor in the location that you would like the symbol to be added.
2. From the Insert Tab, in the Symbols toolbox, click Symbol.



3. Select the symbol of your choice from the available options.
4. If you don't find the symbol at first, click the More Symbols option and select from the choices made available.

## All about the Page Layout Tab

### How to use a Theme

The Themes toolbox consists of colors, fonts, and effects. You can select themes to create matching documents as all of Microsoft Office software uses the same available themes. They will affect the look of charts, tables, and more.

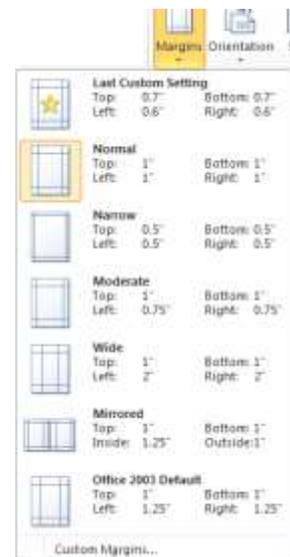
1. From the Page Layout Tab, in the Themes toolbox, select the theme of your choice by selecting the Theme dropdown menu and selecting the theme.
2. You can also select colors to use in your theme, but selecting the colors button.
3. Fonts can be selected here as well from the fonts button.
4. You can also select effects for shapes by clicking the Effects button.

### How to adjust the margins of your document

1. From the Page Layout Tab, in the Page Setup toolbox, select Margins.
2. From the dropdown menu that displays, select the margins you would like to use.

### How to change the orientation of your document.

1. From the Page Layout Tab, in the Page Setup toolbox, select Orientation.
2. Choose from either Portrait or Landscape.

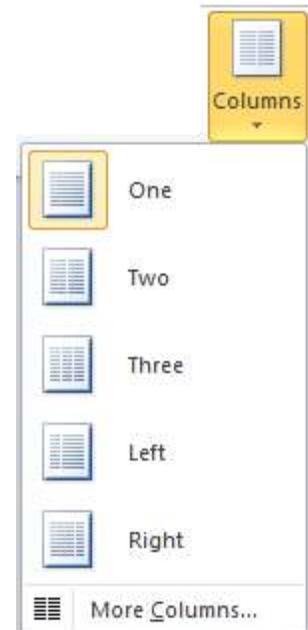


## How to change the size of the document being created

1. From the Page Layout Tab, in the Page Setup toolbox, select Size.
2. Select from the list of available page sizes.

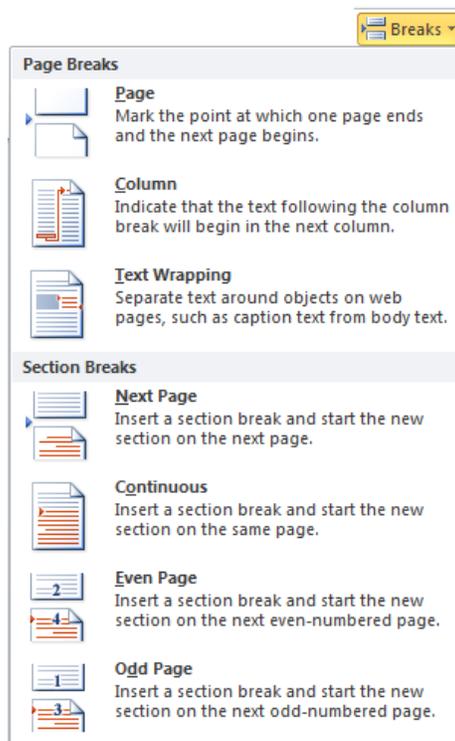
## How to add columns to your document.

1. Select the text that you would like to put into columns.
2. From the Page Layout Tab, in the Page Setup toolbox, select Columns.
3. Select the number of columns you would like to have.



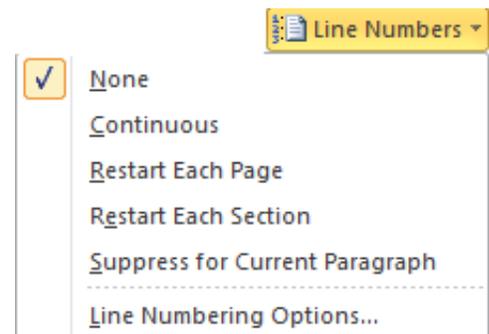
## How to add Page Breaks and Section Breaks

1. Place your cursor where you would like to put a break in your document.
2. From the Page Layout Tab, in the Page Setup toolbox, select Breaks.
3. From the available breaks, select the one that you would like to use.



## How to add Line Number

1. From the Page Layout Tab, in the Page Setup toolbox, select Line Numbers.
2. From the available options, click the style of line numbering you want.

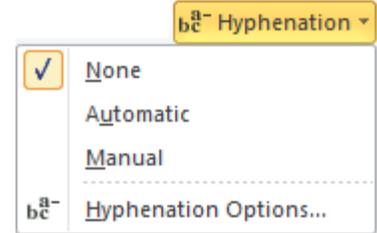


## How to adjust Hyphenation settings

1. From the Page Layout Tab, in the Page Setup toolbox, select

Hyphenation.

2. From the available options, click the style of hyphenation you want.

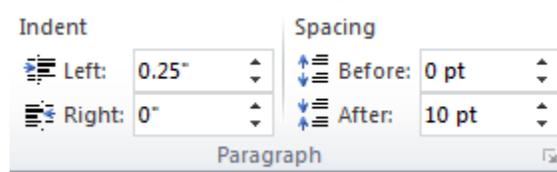


## How to add Watermarks, Adjust Page Color, and add Page Borders

1. From the Page Layout Tab, in the Page Background toolbox, select the tool of your choice.

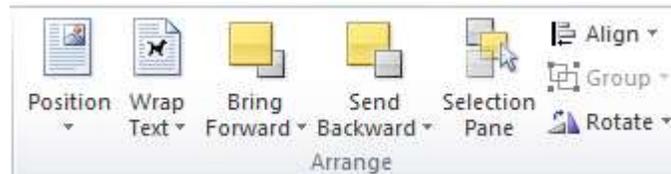
## How to set the default indentation and line spacing of your document

1. From the Page Layout Tab, in the Paragraph toolbox, select and modify the measurements for indentation and line spacing.



## Tools available for Arranging your document

1. Select the object that you would like to adjust the arrangement of.
2. From the Page Layout Tab, in the Arrange toolbox, select the tool of your choice.



3. Modify the position, how text wraps around pictures and other objects, send the object forward or backward, the object's alignment. You can also group objects together by selecting multiple objects and then selecting the Group button. Rotate objects by selecting the rotate tool.



# Working with Tables in Word 2010

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## Insert or create a table

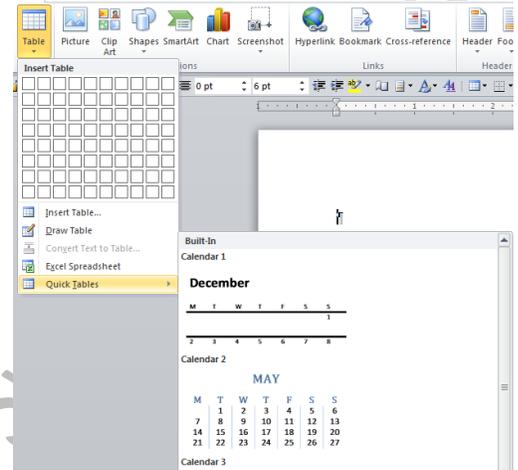
In Microsoft Word, you can insert a table by in three ways:

- Choose from a gallery of preformatted table templates.
- Use the Table menu to specify the number of rows and columns that you want.
- Use the Insert Table dialog box.

### Use table templates (Quick Tables)

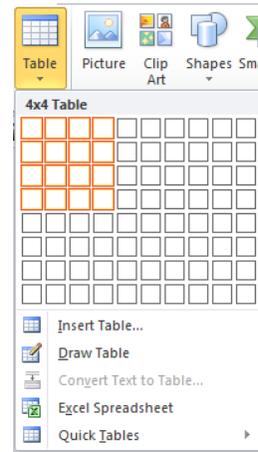
You can use table templates to insert a table that is based on a gallery of preformatted tables. Table templates contain sample data to help you visualize what the table will look like when you add your data.

- 1) Click where you want to insert a table.
- 2) On the **Insert** tab, in the **Tables** group, click **Table**, point to **Quick Tables**, and then click the template that you want.
- 3) Replace the data in the template with the data that you want



### Use the Table menu

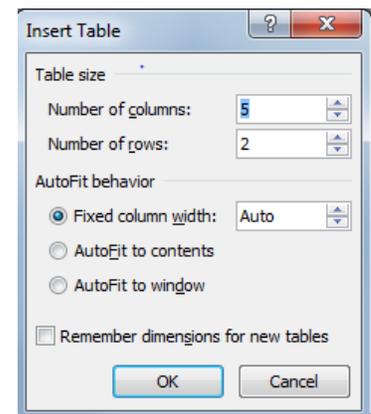
- 1) Place your insertion point where you want to insert a table.
- 2) On the **Insert** tab, in the **Tables** group, click **Table**, and then, under **Insert Table**, drag to select the number of rows and columns that you want.
- 3) The table will be empty and the cursor will appear in the first row of the first column.



### Use the Insert Table command

You can use the **Insert Table** command to choose the table dimensions and format before you insert the table into a document.

- 1) Place your insertion point where you want to insert a table.
- 2) On the **Insert** tab, in the **Tables** group, click **Table**, and then click **Insert Table**.
- 3) Under **Table size**, enter the number of columns and rows.
- 4) Under **AutoFit behavior**, choose options to adjust the table size.

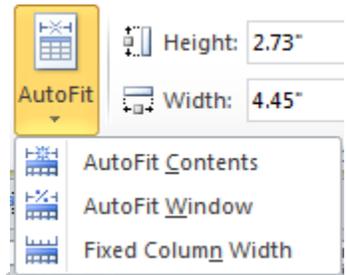


## Know your AutoFit options

The **AutoFit** option currently associated with your table may affect your table width when adding a column. The **AutoFit** options are located in the **Cell Size** group of the **Layout** tab.

When you first create a table, it will automatically fit between the margins — that setting is called **AutoFit Window**. When you use this setting, if you add a column before you add text, the size of the columns automatically adjusts to keep the table within the margins.

Another **AutoFit** option is **AutoFit Contents**, which changes column width based on what's inside the cells. If you don't have any text in the cells and choose this option, your cells will shrink to about a character width. If you begin adding text to a new table, and haven't chosen an **AutoFit** option, your table will adjust column widths to accommodate your content.



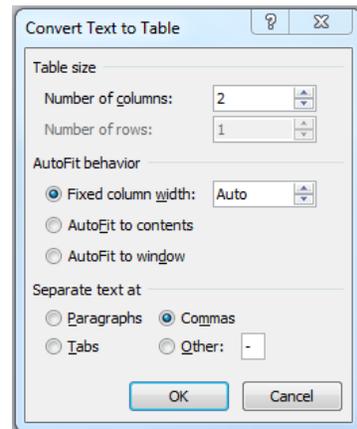
If you want your columns to remain the same width, you can use the **Fixed Column Width** option.

## Convert text to a table or vice versa

### *Create a table out of text*

The first step you do when converting text to a table is to decide what character to use to separate the columns. Common characters to use are tabs and commas, but you can use others. Paragraph marks are what separate the rows. Make sure that the character and paragraph marks are between the parts of the text that you want to convert to a table.

- 1) Insert separator characters to indicate where you want to divide the text into columns. Use paragraph marks to indicate where you want to begin a new row.
  - a) For example, in a list with two words on a line, insert a comma or a tab after the first word to create a two-column table.
- 2) Select the text that you want to convert.
- 3) On the **Insert** tab, in the **Tables** group, click **Table**, and then click **Convert Text to Table**.
- 4) In the **Convert Text to Table** dialog box, under **Separate text at**, click the option for the separator character that is in your text.
- 5) In the **Number of columns** box, check the number of columns.
  - a) If you don't see the number of columns that you expect, you may be missing a separator character in one or more lines of text.
- 6) Select any other options that you want.
- 7) Click **OK**.
  - a) If your table isn't what you've expected, confirm that you have characters where you want the columns.

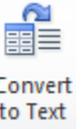


### *Remove your table and keep your text*

Sometimes, you may decide that you don't want to have a table in your document, even though you've already entered information in it. You could cut and paste the information out of the table and into the text of the document, but there's an easier way.

You can remove the table, but keep the information that you've entered with the **Table to Text** command. This is great to know about if you need to save the entire document as a text file.

To convert an existing table to text, select the table or parts of the table that you want to convert. Then select the **Layout** tab and click **Convert to Text** from the **Data** group.



## Copy a Word table into Excel

When you want to move data from a Microsoft Office Word table to Microsoft Office Excel, you can avoid having to retype that data by copying it from Word directly into Excel. When you copy data from a Word table into an Excel worksheet, the data in each Word table cell is pasted in an individual cell on the worksheet.

**Important:** After pasting the data, you may have to clean it up so that you can take advantage of the calculation features in Excel. For example, there may be unwanted extra spacing in cells, numbers may have been pasted as text rather than as numeric values that you can calculate, or dates are not displayed correctly.

- 1) In a Word document, select the rows and columns of the table that you want to copy to an Excel worksheet / copy the selection.
- 2) In the Excel worksheet, select the upper-left corner of the worksheet area where you want to paste the Word table.

**Important:** Make sure that the paste area is empty before you paste the data. Data in Word table cells will replace any existing data in worksheet cells in the paste area. If necessary, review the table first in Word to verify its dimensions.

- 3) On the **Home** tab, in the **Clipboard** group, click **Paste**.

- a) To adjust the formatting, click **Paste Options**  next to the data that you pasted, and then do the following:
  - To use the formatting that is applied to the worksheet cells, click **Match Destination Formatting**.
  - To use the formatting of the Word table, click **Keep Source Formatting**.

## Working with Tables

### About the Table Tools contextual tabs

You will need to know where the **Design** and **Layout Table Tools** contextual tabs are when working on the design and structural layout of a table. The **Design** and **Layout** tabs are only visible after you have clicked inside of a table, and appear at the top of the screen on the ribbon.

The **Layout** tab enables you to change a table's structure, like adding and deleting rows or columns.

The **Design** tab has lots of predefined table styles that will allow you to easily change the look of an entire table.



### Table Properties

#### *Resize and align a table on a page*

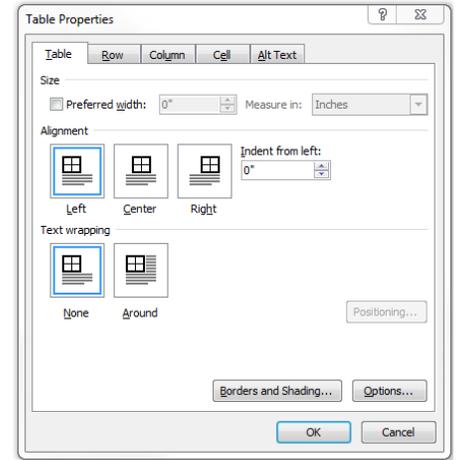
Use the **Table Properties** box to quickly resize the table to a specific measurement or a specific percentage of the page. To access **Table Properties**, click the **Layout** tab and click **Properties** from the **Table** group.

**Note:** If you're trying to resize a table to fit its contents or to fit the page, try the **AutoFit** options.

On the **Table** tab, select the **Preferred width** check box and then enter the width you want. In the **Measure in** box, select either your default unit of measurement (such as inches or millimeters, set in Word Options) or **Percent** if you want the width to be a percentage of the entire table.

By default, tables are aligned against the left margin of the page. Tables can also be centered, or right-aligned on the page.

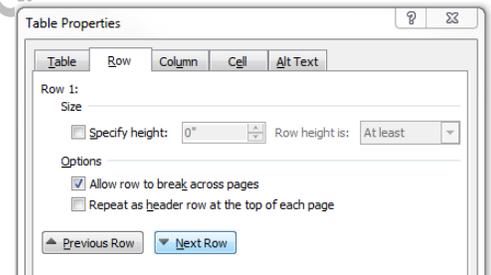
From the **Table** tab, you can also adjust whether text wraps around the table, change the table's cell default margins, or access the **Borders and Shading** box.



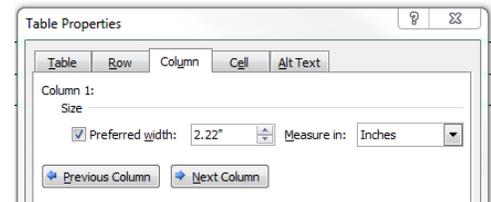
### ***Resize and align a row, column or cell***

Besides the **Table** tab, the **Table Properties** box has three other tabs for formatting columns, rows, and cells. Use these tabs to quickly resize a row or column to a specific measurement, or to easily resize several rows or columns.

On the **Row** tab, select the **Specify height** check box and then enter the height you want. In the **Row height is** box, select **Exactly** if you want exactly that height, or **At least** if you want the height to grow taller if the content requires.

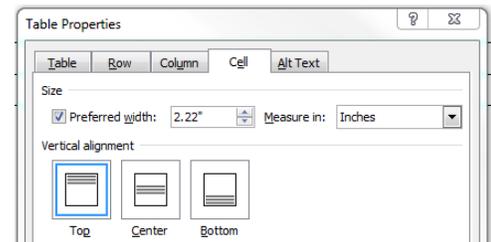


On the **Column** tab, you can set column width by choosing a specific measurement using your default unit of measurement or as a percentage of your table size.



For instance, if you want a three-inch column in a table that measures six inches across, you can either enter **3** and choose **Measure in inches** or you can enter **50** and choose **Measure in Percent**. Click **Next Column** or **Previous Column** to resize other columns without exiting the dialog box.

On the **Cell** tab, you also can choose the default cell width in either the default unit of measurement or percentage of the entire table. You can also choose vertical alignment. The **Options** button on this tab allows you to choose cell margins that are different from the table's margins.



Although you can use the Table Properties dialog box to resize rows, columns and cells, the easiest way to change the width or height of a column or row is to rest the pointer over the right edge of the column or the bottom edge of the row until your pointer changes to a double-headed arrow, then just click and drag to resize.

**Be careful:** If you select a single cell, only that cell will change size.

## ***Distribute rows and columns evenly***

If you prefer, you can distribute all of the rows and columns evenly.

- 1) Click in the table.
- 2) Under **Table Tools**, on the **Layout** tab, in the **Cell Size** group, click **Distribute Rows** or **Distribute columns**.

## **Add a row above or below**

- 1) Click in a cell above or below where you want to add a row.
- 2) Under **Table Tools**, on the **Layout** tab, do one of the following:
  - a) To add a row above the cell, click **Insert Above** in the **Rows and Columns** group.
  - b) To add a row below the cell, click **Insert Below** in the **Rows and Columns** group.

## **Delete a row**

- 1) Select the row that you want to delete by clicking its left edge.
- 2) Under **Table Tools**, click the **Layout** tab.
- 3) In the **Rows & Columns** group, click **Delete**, and then click **Delete Rows**.

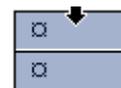


## **Add a column to the left or right**

- 1) Click in a cell to the left or right of where you want to add a column.
- 2) Under **Table Tools**, on the **Layout** tab, do one of the following:
  - a) To add a column to the left of the cell, click **Insert Left** in the **Rows and Columns** group.
  - b) To add a column to the right of the cell, click **Insert Right** in the **Rows and Columns** group.

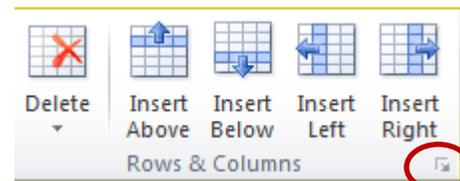
## **Delete a column**

- 1) Select the column that you want to delete by clicking its top gridline or top border.
- 2) Under **Table Tools**, click the **Layout** tab.
- 3) In the **Rows & Columns** group, click **Delete**, and then click **Delete Columns**.



## **Add a cell**

- 1) Click in a cell that is to the right of or above where you want to insert a cell.
- 2) Under **Table Tools**, on the **Layout** tab, click the **Rows & Columns** Dialog Box Launcher.
- 3) Click one of the following options.



<b>Click</b>	<b>To</b>
Shift cells right	Insert a cell and move all other cells in that row to the right. <b>Note:</b> Word does not insert a new column. This may result in a row that has more cells than the other rows.
Shift cells down	Insert a cell and move the existing cells down one row. A new row is added at the bottom of the table.
Insert entire row	Insert a row above the cell that you clicked in.
Insert entire column	Insert a column to the left of the cell that you clicked in.

## Delete a cell

- 1) Select the cell that you want to delete by clicking its left edge. 
- 2) Under **Table Tools**, click the **Layout** tab.
- 3) In the **Rows & Columns** group, click **Delete**, and then click **Delete Cells**.
- 4) Click one of the following options:

Click	To do this
Shift cells left	Delete a cell and shift all other cells in that row to the left. <b>Note:</b> Word does not insert a new column. Using this option may result in a row that has fewer cells than the other rows.
Shift cells up	Delete a cell and move the remaining existing cells in that column up one row each. A new, blank cell is added at the bottom of the column.
Delete entire row	Delete the entire row that contains the cell that you clicked in.
Delete entire column	Delete the entire column that contains the cell that you clicked in.

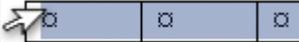
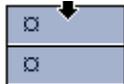
## Delete a table

The **Delete** key on your keyboard just deletes the text in your table or parts of your table, but there is a way to delete text and structure all at once.

Put your cursor anywhere in the table that you want to delete, and then click **Delete Table** from the **Rows and Columns** group in the **Layout** tab. Be careful, your deletions do not move to the clipboard.

**Note:** Using the **BACKSPACE** key on your keyboard will also delete the table and its contents.

## Select the contents of a table

To select	Do this
A cell	Click the left edge of the cell. 
A row	Click to the left of the row. 
A column	Click the column's top gridline or border. 
Contiguous cells, rows, or columns	Drag the pointer across the cells, rows, or columns that you want.
Noncontiguous cells, rows, or columns	Click the first cell, row, or column that you want, hold down <b>CTRL</b> , and then click the next cell, row, or column that you want.
Text in the next cell	Press the <b>TAB</b> key.
Text in the previous cell	Press <b>SHIFT+TAB</b> .
The entire table	In Print Layout view, rest the pointer over the table until the table move handle  appears, and then click the table move handle.

## Clear the contents of a table

- 1) Select the items that you want to clear.
- 2) Press **DELETE**.

## Change default margins and alignment

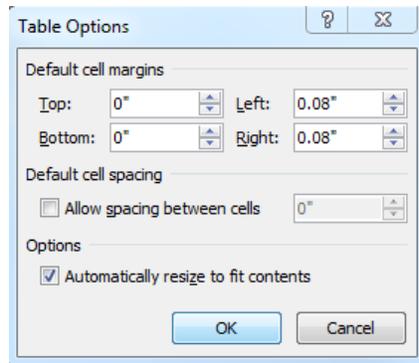
Every cell in a table behaves like its own page with its own margins and alignment. You can change cell margins and alignment for either the entire table or for selected cells.

By default, the alignment and margins for cells in a table are identical. However, if you select a built-in style, you may affect text alignment.

You can change a table's margins (the default cell margins) by selecting the table, clicking the **Layout** tab, and choosing **Cell Margins** from the **Alignment** group.

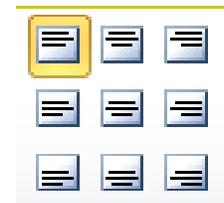


The Table Options dialog box opens.



The **Tables Property** box has other alignment and margin options.

You can change text alignment for a cell, a group of cells, or the entire table by choosing one of the text alignment buttons in the **Alignment** group.

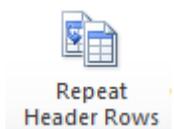


## Repeat your headings

When you work with a very long table, it will be divided into several pages. You can make adjustments to the table so that the table headings appear on each page. A heading, or header, identifies the type of data in each column. Not all tables need heading rows.

Repeated table headings are visible only in Print Layout view or when you print the document.

- 1) Select the heading row or rows. The selection must include the first row of the table.
- 2) Under **Table Tools**, on the **Layout** tab, in the **Data** group, click **Repeat Header Rows**.



**Note:** Microsoft Office Word automatically repeats table headings on new pages that result from automatic page breaks. Word does not repeat a heading if you insert a manual page break within a table.

## Merge cells

You can combine two or more table cells located in the same row or column into a single cell. For example, you can merge several cells horizontally to create a table heading that spans several columns.

You can merge any number of cells — they don't need to be heading cells or even be in the same row. They can be any number of adjacent cells anywhere in your table.

Keep in mind, however, that because a table is an organizing tool, simplicity is important. Merge cells only for small alterations.

- 1) Select the cells that you want to merge by clicking the left edge of a cell and then dragging across the other cells that you want.
- 2) Under **Table Tools**, on the **Layout** tab, in the **Merge** group, click **Merge Cells**.

## Split cells

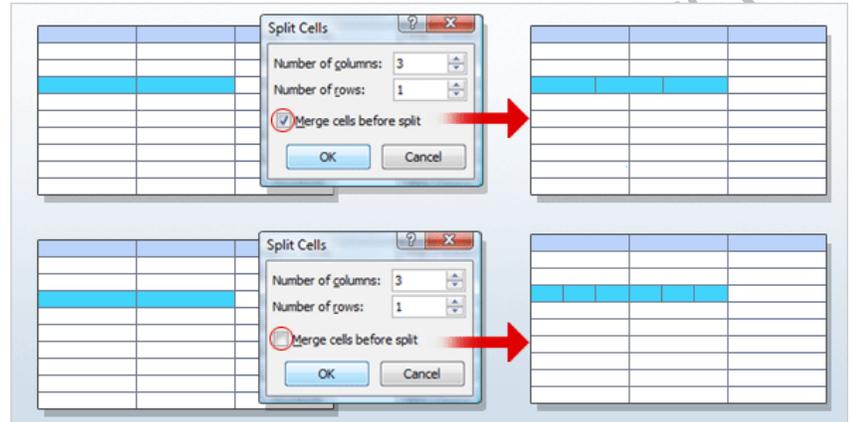
Splitting one cell is pretty straightforward. You just place your cursor in the cell you want split, click the **Layout** tab, and click **Split**. Then choose the number of columns and rows you want to split that cell into.

If you split more than one cell at a time, you will need to decide whether to check or clear the **Merge cells before split** check box. If you check **Merge cells before split**, Word merges the cells before dividing them. If you don't select the check box, Word splits each of the cells.

For example, if you select two cells, check **Merge cells before split**, and then select **3** for **Number of columns**, you will end up with three columns (cells) in the space where the two cells were. If you clear the check box, you will end up with six columns (cells) in the space where the two cells were.

**Tip:** The default number in the **Number of columns** box varies depending on whether **Merge cells before split** is selected.

Determine whether you want the selected cells to merge before choosing the number of columns and rows you want.



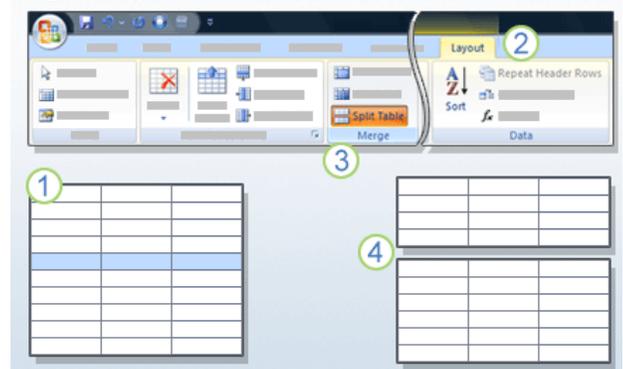
- 1) Click in a cell, or select multiple cells that you want to split.
- 2) Under **Table Tools**, on the **Layout** tab, in the **Merge** group, click **Split Cells**.
- 3) Enter the number of columns or rows that you want to split the selected cells into.

## Split a table

Splitting a table can be useful if you decide you want a table to be split into smaller sections. Splitting a table is also handy if you want to format a section of a table. When working with a table, the larger the portion of the table that you can format at once, the less work you will end up doing

Splitting a table has four steps.

- 1) Highlight or place your cursor in the row that you want to become the first row of the new table.
- 2) Click the **Layout** tab.
- 3) Click **Split Table** from the **Merge** group.
- 4) A paragraph will separate the two tables.



## Add text and graphics to a table

To add text to any cell in your table, click in the cell and begin typing. When you're finished with that cell, move to the next cell by pressing the **TAB** key. Or just click in any cell.

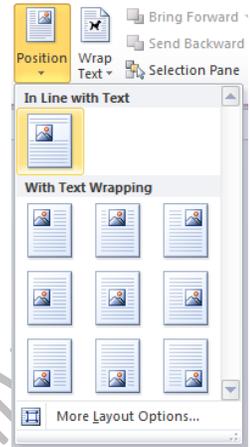
If you're at the last cell of a table, clicking the **TAB** key adds a new row to your table.

If you want to move backwards using the keyboard, hold down the **Shift** key and press **TAB**. This moves you back one cell at a time. Of course, you can also use the arrow keys to move throughout the table.

You can add more than just text to a table. You can insert a graphic into a table cell just as you do in the body of your document with the **Insert Picture** function.

When you place a picture into a table using Insert Picture, the picture is formatted to be **In Line with Text**. This setting causes your picture to act just like a text character — you can format it by using font and paragraph formatting, and it will sit securely in your table cell.

You can also paste a picture from another program, but when you do, the picture may not be formatted to be **In Line with Text**. It's easy to change this layout option: just select the graphic, select **Position** from the **Format** tab, and click **In Line with Text**.



## Move or copy items in a table

- 1) Select the item that you want to move or copy.
- 2) Do one of the following:
  - a) To move the selected item, drag it to the new location.
  - b) To copy the selected item, hold down **CTRL** while you drag it to the new location.

## Sort the contents of a table

In a table, you can enter information in any order and then sort by any column. If you have headings in your table, you pick the headings to sort by. If you don't have headings, you can sort by columns, numbered from left to right.

- 1) In Print Layout view, move the pointer over the table until the table move handle  appears.
- 2) Click the table move handle to select the table that you want to sort.
- 3) Under **Table Tools**, on the **Layout** tab, in the **Data** group, click **Sort**.
- 4) In the **Sort** dialog box, select the options that you want.

## Sort a single column in a table

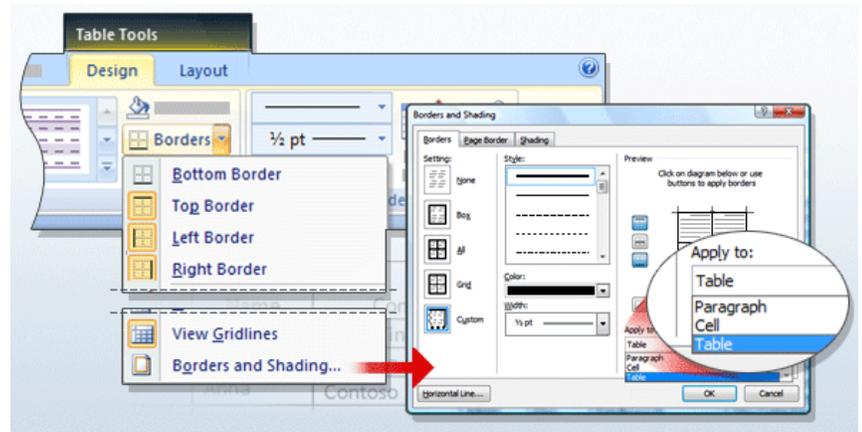
- 1) Select the column that you want to sort.
- 2) Under **Table Tools**, on the **Layout** tab, in the **Data** group, click **Sort**.
- 3) Under **My list has**, click **Header row** or **No header row**.
- 4) Click **Options**.
- 5) Under **Sort options**, select the **Sort column only** check box.
- 6) Click **OK**.

## Adjust borders and backgrounds

Borders and shading are a part of a table's style. Even if you may have already selected a table's style, you can modify borders or shading. You can apply borders or shading to the entire table, individual cells, or even individual paragraphs within a table.

To remove or change the borders of a table, cell, or group of cells, highlight the cells and open the **Borders** list in the **Table Styles** group of the **Design** tab. Select from the buttons to make a change or click **Borders and Shading**.

In the **Borders and Shading** box, pay careful attention to the **Apply to** list. The **Apply to** options vary, depending on what table parts you've selected. If you accidentally selected a cell, but wanted to apply a border for the entire table, you can change the selection in the **Apply to** list.



### ***Turn on the gridlines***

If your table doesn't have borders, you might have trouble seeing the edges of the cells. Gridlines allow you to easily see cell edges. To turn on gridlines, click anywhere within the table, and then click **View Gridlines** in the **Table** group of the **Layout** tab.

**Note:** the gridlines do not print.

# What is PowerPoint?

- PowerPoint is a closed source commercial presentation program developed by Microsoft.

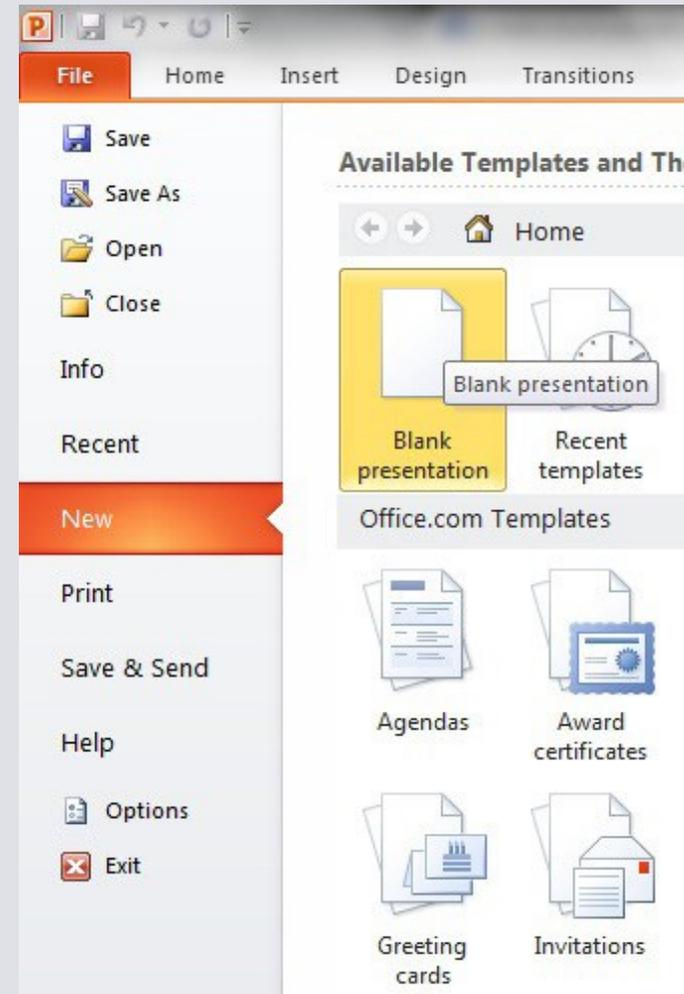
# PowerPoint Ribbon



- During this presentation, we will refer to the PowerPoint “Ribbon” in terms of navigating the program.
- The Ribbon is the strip of buttons across the top of the main window.
- Users can access anything the program has to offer through the Ribbon.

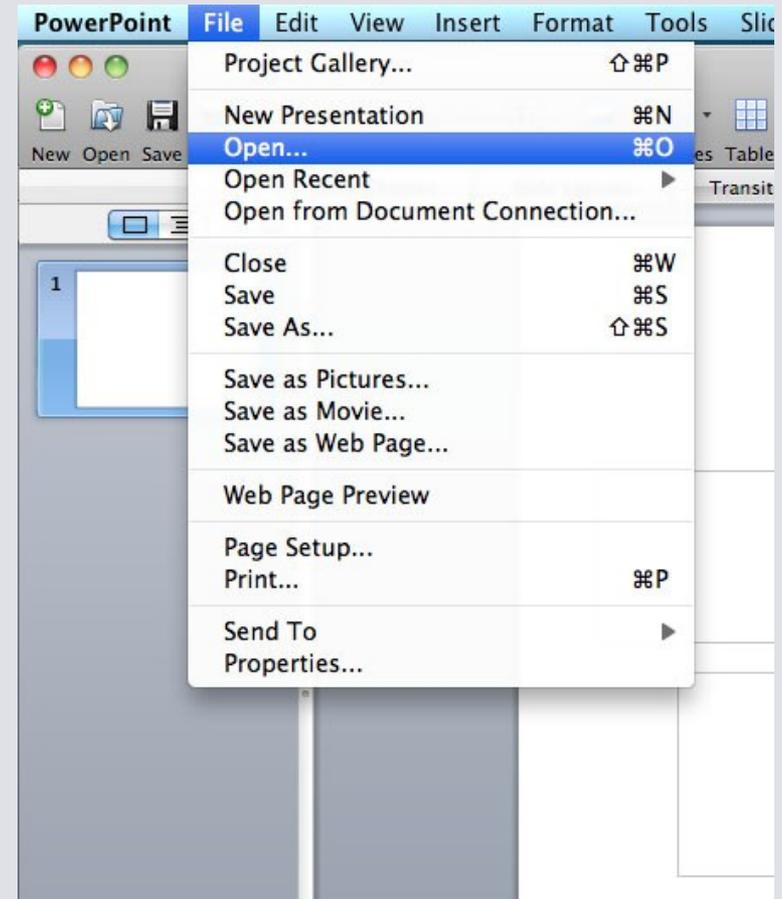
# Create a New Presentation

- Select “File” then “New”
- Shortcut: Hold the Control button, then press ‘N’ for “New”



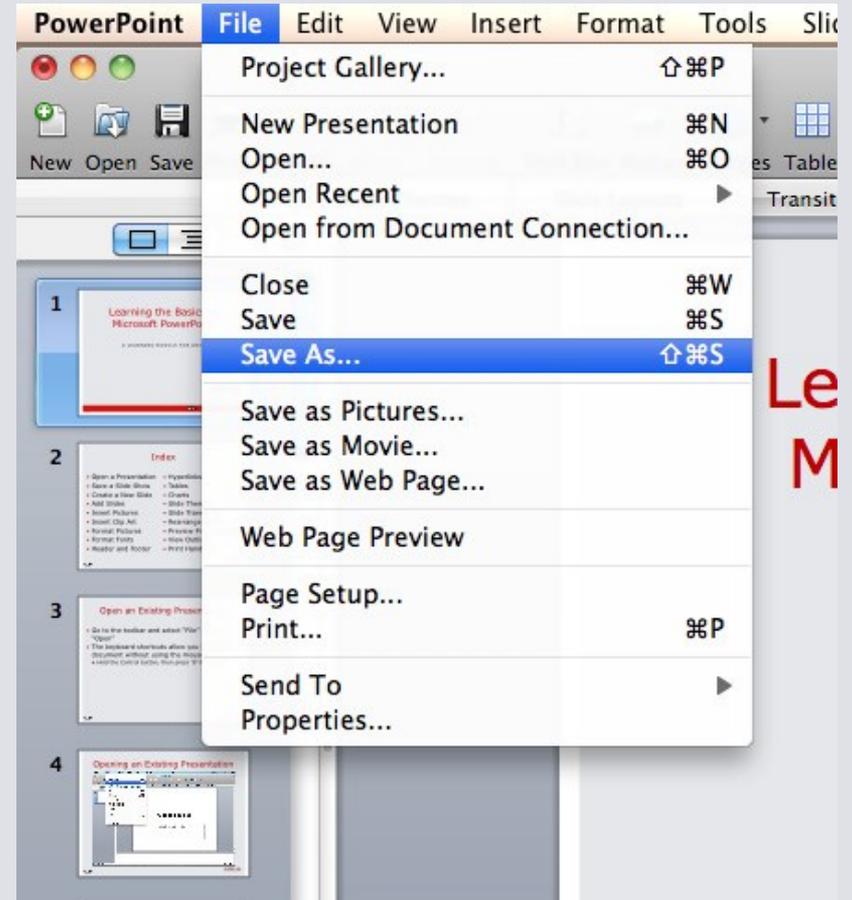
# Open an Existing Presentation

- Select “File” then “Open”
- Shortcut: Hold the Control button, then press ‘O’ for “Open”



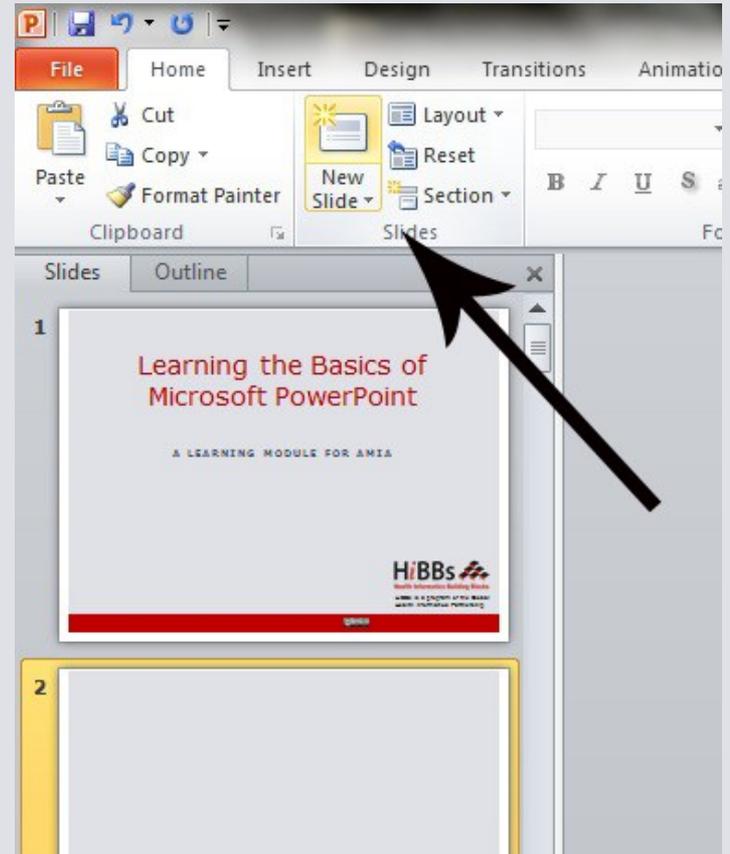
# Saving a Presentation

- Select “File” then “Save As”
- Shortcut: Press f12 to Save the file with a new name



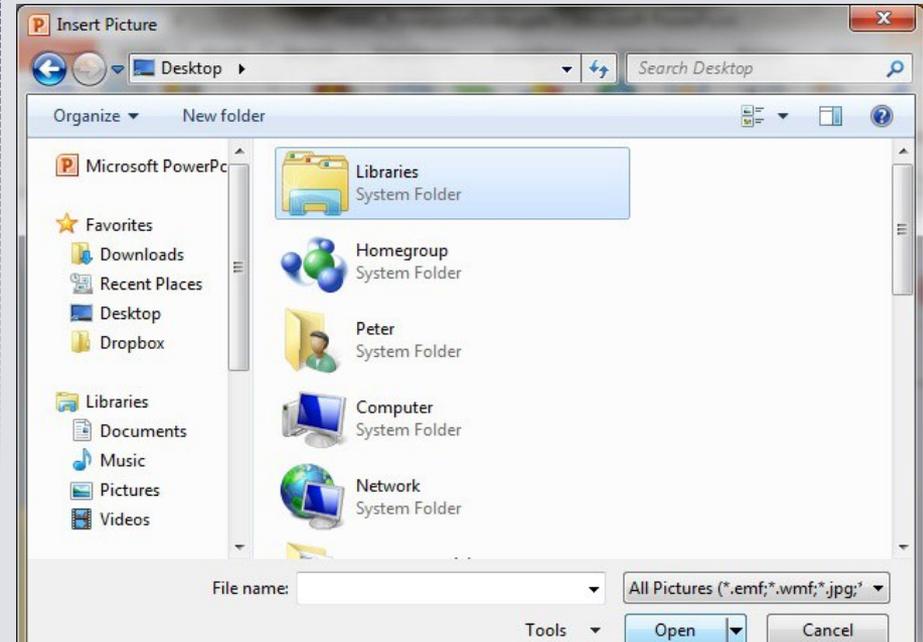
# Add a Slide

- Go to the “Home” ribbon and select the “New Slide” button
- Select the Slide Pane and press “Enter”



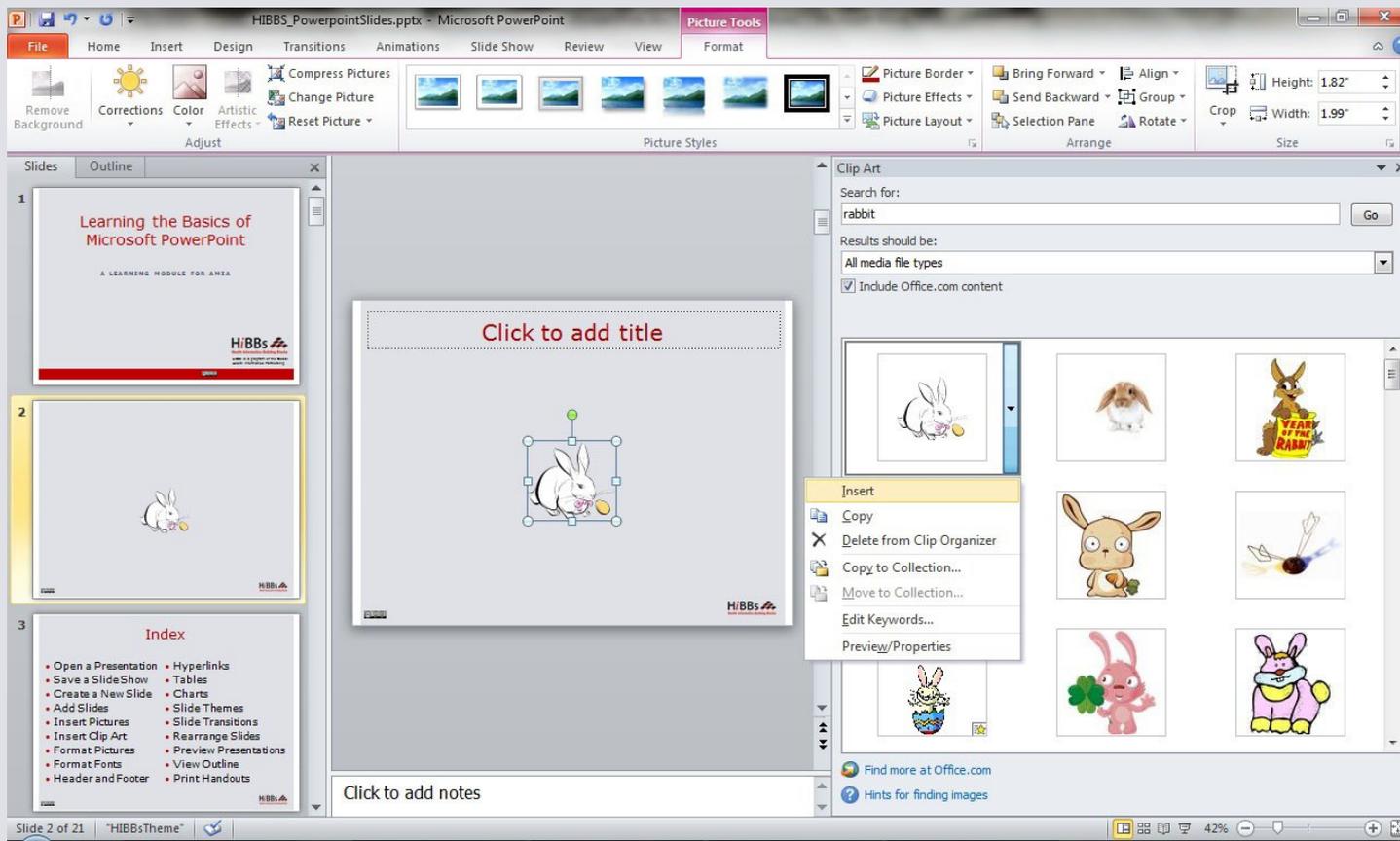
# Insert Pictures from Files

- Go to the “Insert” ribbon then select “Picture”
- Locate the image file from the folder to where it is saved.
- Select “Insert” from the dialog box.



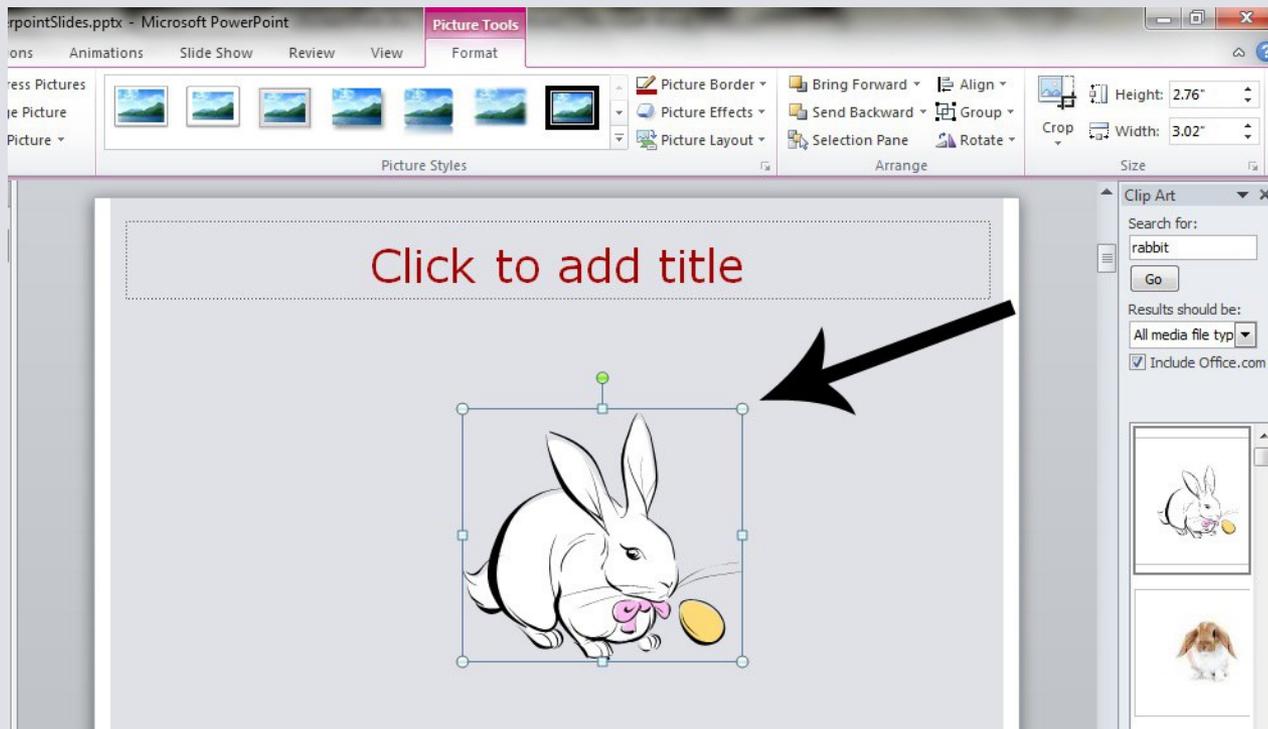
# Insert Clip Art

- Go to the “Insert” ribbon then select “Clip Art”
- Enter search terms in Clip Art search pane on the right and select image.



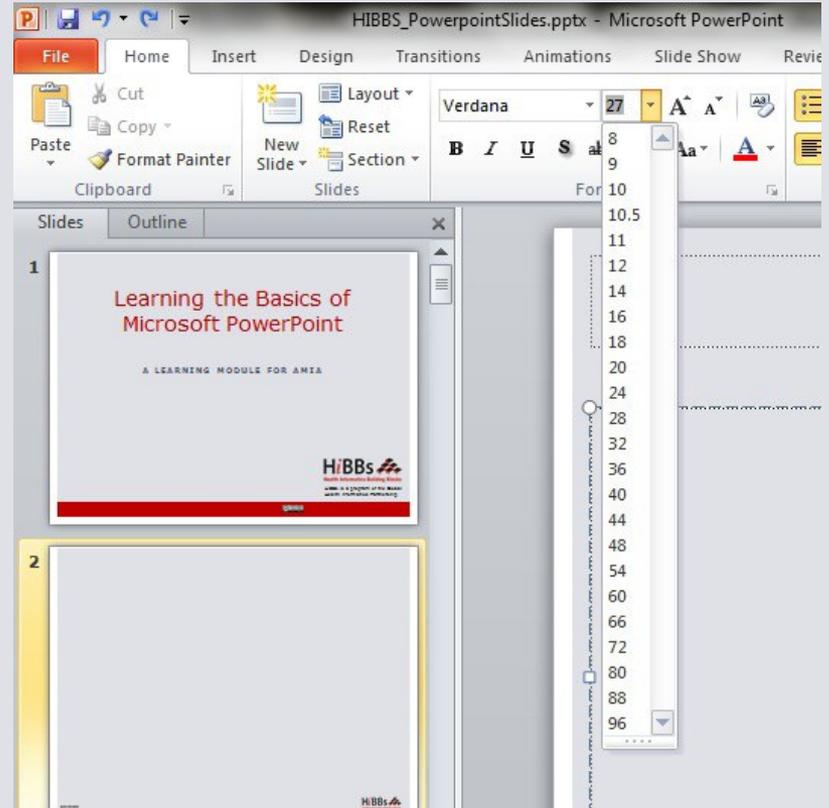
# Format Pictures

- To resize the image, click on the picture to surround the image with a blue box.
- Drag the corner dot away from the center to make it larger and toward the center to make it smaller.



# Format Fonts

- Go to the “Home” ribbon then make changes to the font size and style of the text.
- This Home tab also allows you to change all aspects of the font size and style.



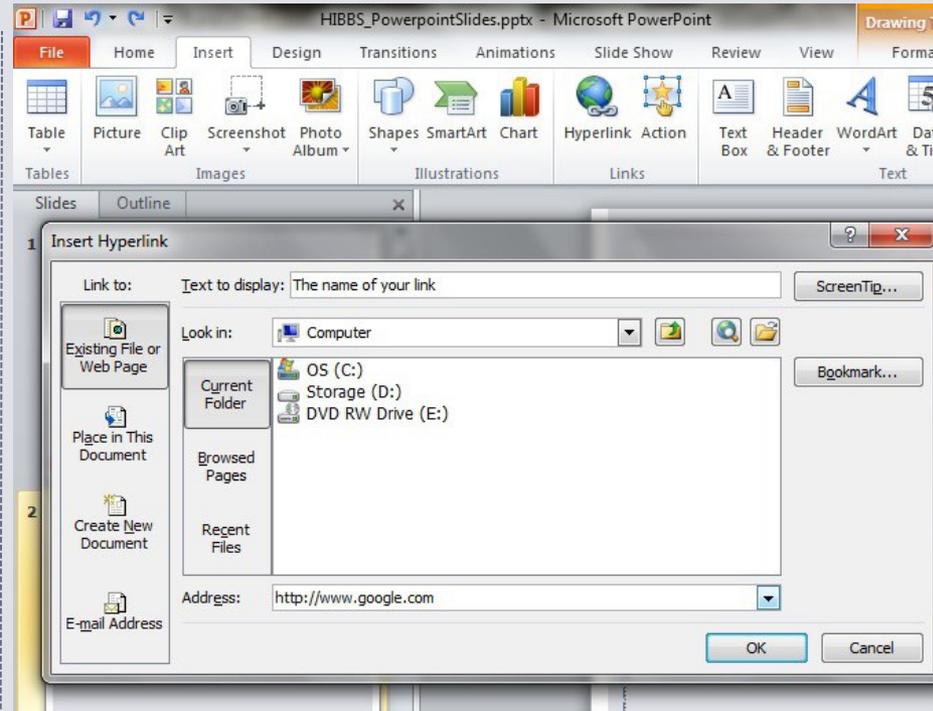
# Insert a Header and Footer

- Go to “Insert” then “Header and Footer”
- This dialog box allows you to add a date and time on the slide.



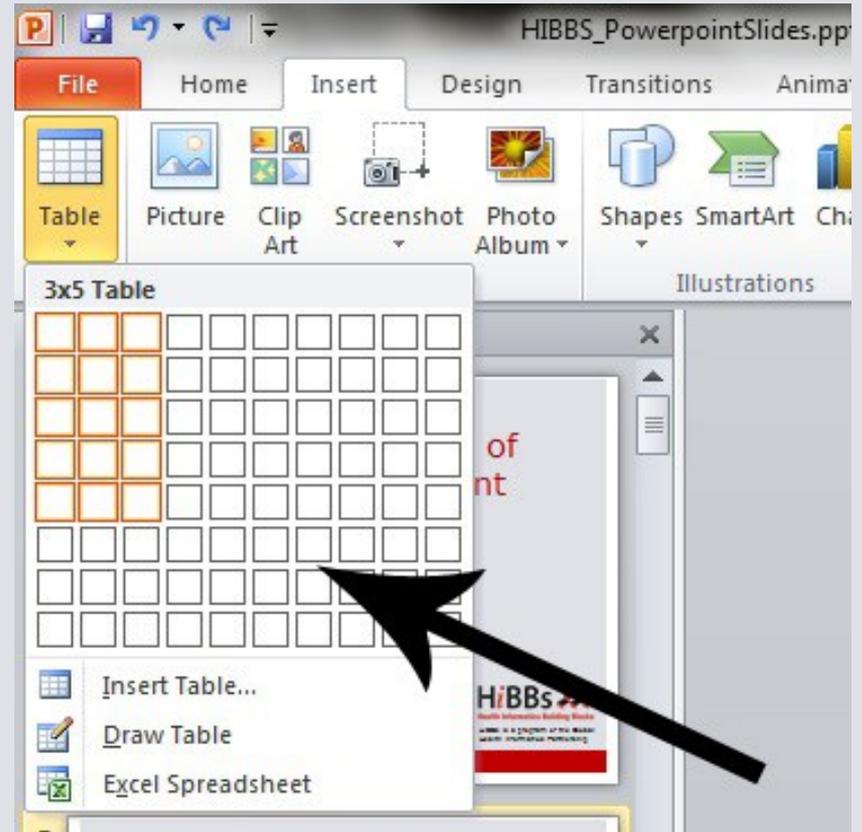
# Insert a Hyperlink

- Go to the “Insert” ribbon then hover over “Links” then select “Hyperlink”
- Copy and Paste the Link from the website into the “Link” box.



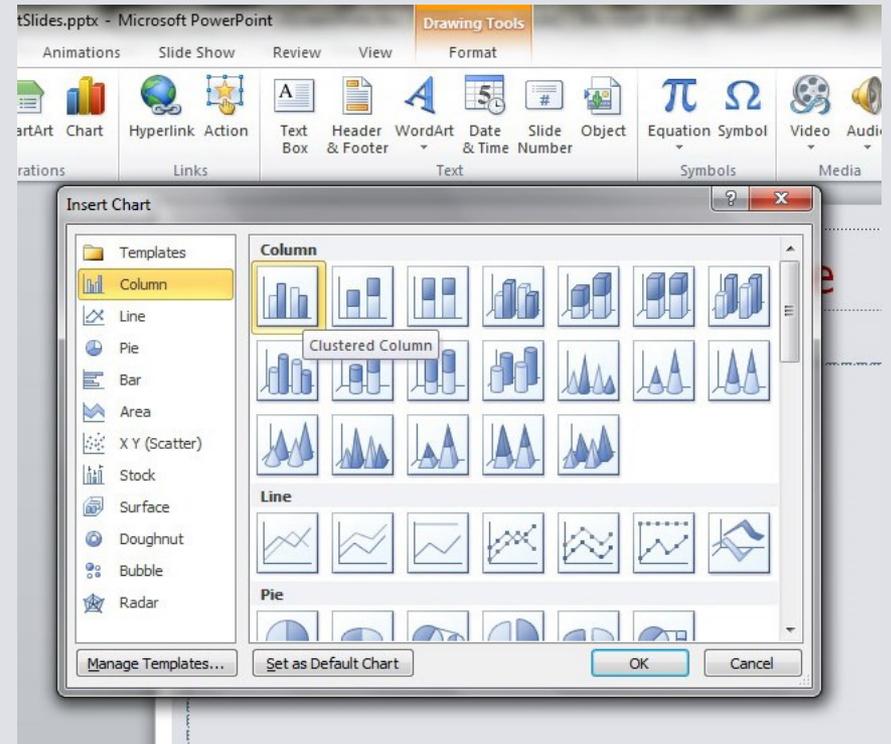
# Insert Tables

- Go to the “Insert” ribbon then select “Table”
- Move the mouse over the table illustration to select the size of the table you would like to use.



# Insert Charts

- Go to the “Insert” ribbon then select the “Chart” button.
- Option to choose from Area, Bar, Line, Pie and several other Chart Options.



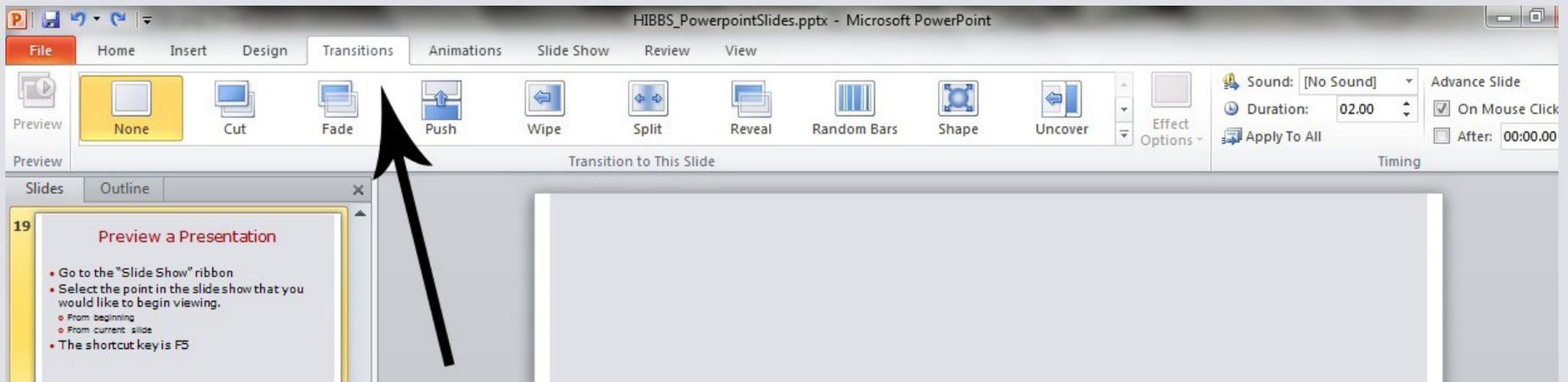
# Add a Slide Theme from Gallery

- Go to the “Design” ribbon
- Select a design theme from the Theme toolbar.



# Slide Transitions

- Go to the “Transitions” ribbon
- Select desired Transition from toolbar



# Rearrange Slides

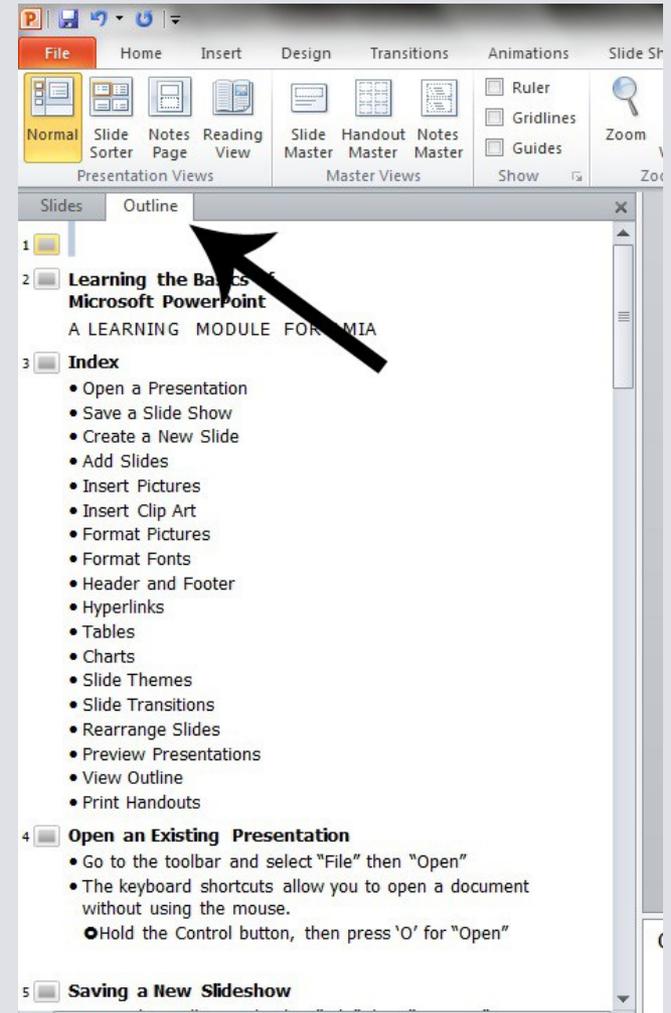
- To move a slide, click on the slide thumbnail in the left column
  - Drag and drop the slide at the desired location.
- To move consecutive slides at one time, click and hold the Shift key as you select the slides you want to move.
  - Drag and drop the slides at the desired location.

# Preview a Presentation

- Go to the “Slide Show” ribbon
- Select the point in the slide show that you would like to begin viewing.
  - From beginning
  - From current slide
- The shortcut key is F5

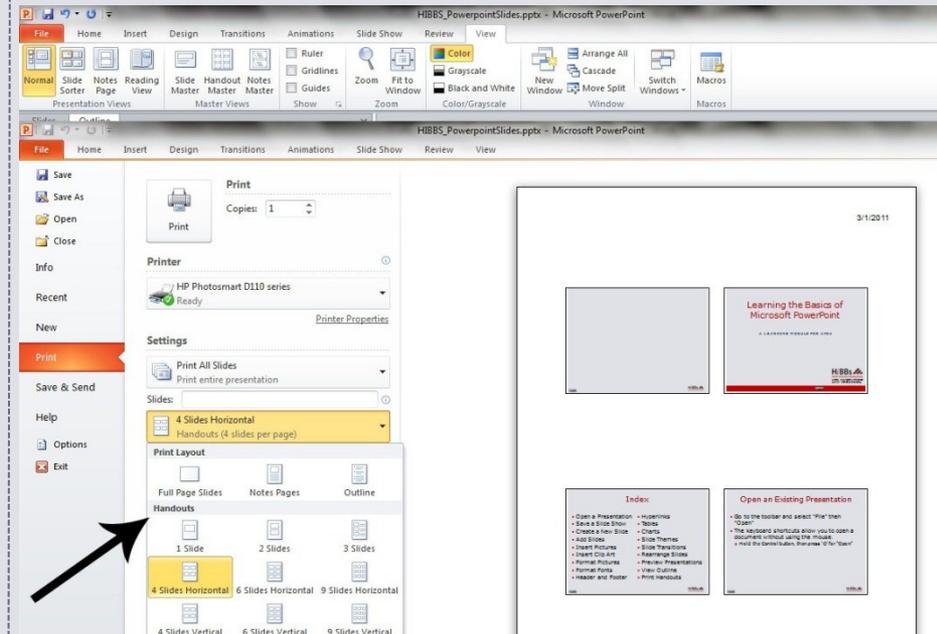
# View Slides vs. Outlines

- The default view is Slides
- The second option is Outline view to show the slide show as outline notes



# Print Handouts

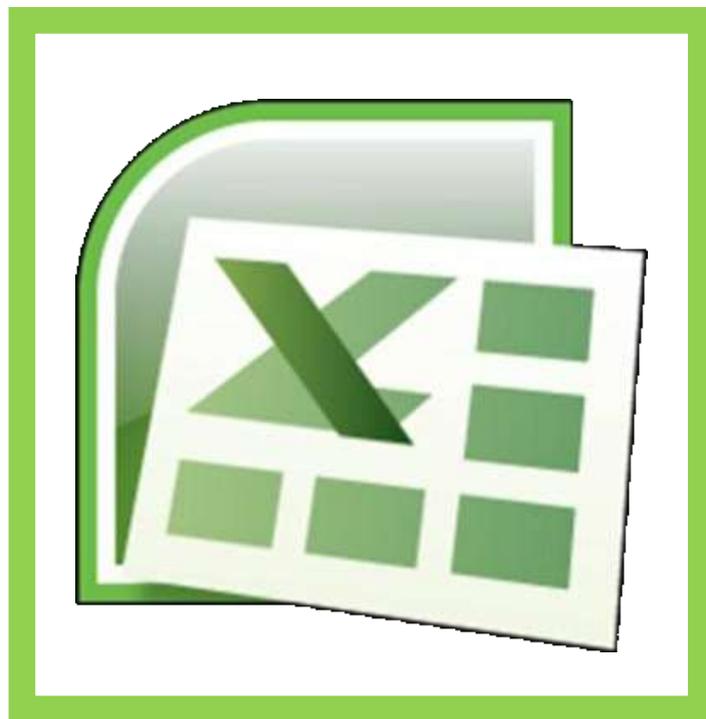
- Select “File” then select “Print”
  - A dialog box appears that allows you to change the printer and select the number of copies to be printed.
- You can also select to print handouts of the slideshow.



# IGCSE ICT – SECTION 14

## DATA ANALYSIS

# MICROSOFT EXCEL



## 14.1–What is a data model?

For data analysis you will use a **spreadsheet model** to explore different possible answers. Models are sometimes called a **‘What if’** scenario.

Models let you change data in the spreadsheet to see what will happen to the results.

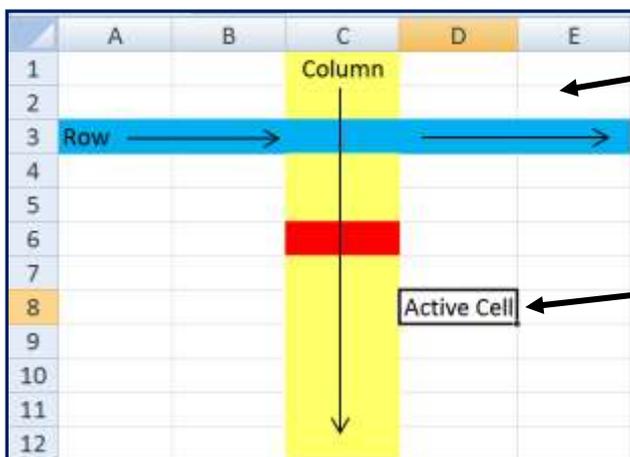
**NOTE:** In the practical examination you will be asked to build a simple spreadsheet model and make changes within it to produce different results.

### 14.1a – Spreadsheet Basics

You will use the spreadsheet software **Microsoft Excel** to create your data models.

#### Layout of a spreadsheet

A spreadsheet is a table which is split into **rows** and **columns**. The table is made up of a number of **cells**. It looks like this.



a number of **cells**. It looks like this.

#### The Active Cell

The **Active Cell** is the cell which you have currently selected. It will have a darker outline around it so you can easily see which cell you are currently using.

#### Cell References

Each cell has a **unique address**. This address is known as the **‘Cell Reference’** and it helps us identify cells for use in formulae. The cell reference comes from the **Column Letter followed by the Row Number**.

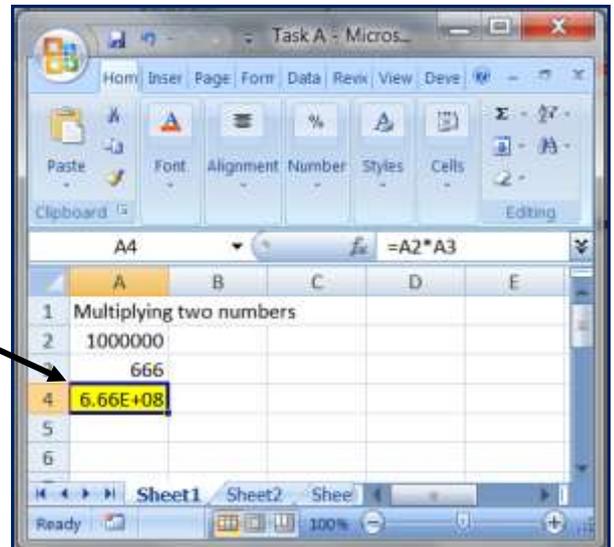
For example, the **red cell** in the picture above has a cell reference of **C6**. The **active cell** has a cell reference of **D8**.

**NOTE:** If you created the spreadsheet as shown, you should be able to change the contents of cells A2 and A3 to multiply any two numbers together.

The changing of cells to see new results is called **modelling**.

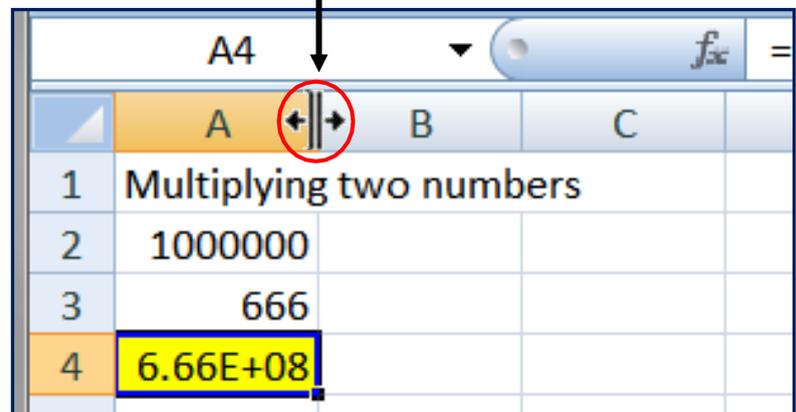
### 14.1 b – Resizing Column Widths

If you enter large numbers into cells A2 and A3 you may not get the result you were expecting. It may look like this:



This tells you that the number is too big to fit into the column and you need to expand it.

Move the cursor to the end of column A like this.



Double click the left mouse button which will expand the column width to fit the contents of the longest item.

You should now be able to see all of the data.

	A	B	C
1	Multiplying two numbers		
2	1000000		
3	666		
4	666000000		

Save the spreadsheet as **Data Analysis – Task A**

## 14.2 – Using Formulae

Simple mathematical operators can be used to:

-  Add (+)– Also known as SUM
-  Subtract (-)
-  Divide (/)
-  Multiply (\*)
-  Calculate Indices (powers) of a number (^)

### 1. Addition Calculation:

Move the cursor into cell **B4**. You need to insert formula that **adds (sums)** the **contents of cell B1 and cell B2**.

Enter the following formula: **=B1+B2**

Hit the **<Enter>** key to set the formula.

### 2. Subtraction Calculation:

Move the cursor into cell **B5**. You need to insert formula that calculates the **difference between the two numbers**. (Difference being number 1 minus number 2)

Enter the following formula: **=B1-B2**

Hit the **<Enter>** key to set the formula.

### 3. Multiplication Calculation:

Move the cursor into cell **B6**. You need to insert formula that calculates the **product of the two numbers**. (Product means to multiply number 1 and number 2)

Enter the following formula: **=B1\*B2**

Hit the **<Enter>** key to set the formula.

#### **4.Division Calculation:**

Move the cursor into cell **B7**. You need to insert formula that calculates the contents of cell **B1 divided by cell B2**.

Enter the following formula: **=B1/B2**

Hit the **<Enter>** key to set the formula.

#### **5.Indices Calculation:**

Move the cursor into cell **B8**. You need to insert formula that calculates the **contents of cell B1 to the power of the contents of cell B2**.

Enter the following formula: **=**

Hit the **<Enter>** key to set the formula.

**NOTE:** The ^ symbol is usually found by pressing <Shift> and '6'.

## **SUM Function**

The **SUM** function is used to **add more than two numbers** together.

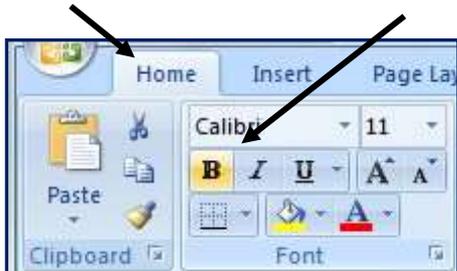
### **NOTE:**

If you **only have two numbers to add** together (**A1 and A2** for example) then it is more efficient to simply add them **without** using the **SUM** function (**=A1 + A2**).

However, if there were **three or more numbers to add**, using the **SUM** function is **quicker and more efficient**.

Open a new spreadsheet and copy the labels and values exactly as shown in the task.

Select the **Home** tab and use the **Bold** icon to embolden the cells shown.



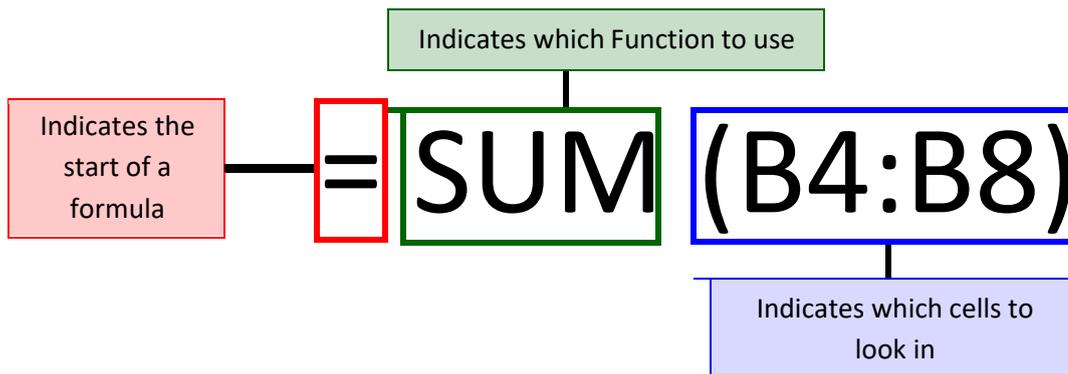
To find the total number of hours worked you need to click in cell **B9**.

Enter the formula **=SUM(B4:B8)** the press **<Enter>**.

This should give the value **80**.

	A	B
1	Rate of Pay	\$12.80
2		
3	Name	Hours
4	Aaron Kane	26
5	Jeff Leathley	20
6	Jonathan Harrington	17
7	James Mitchell	4
8	Sue Gray	13
9	Total:	=SUM(B4:B8)

### Breakdown of the formula



### AVERAGE Function

To find the AVERAGE number of hours worked, click into cell **B10**.

Enter the formula **=AVERAGE(B4:B8)**.

This should give the value **16**.

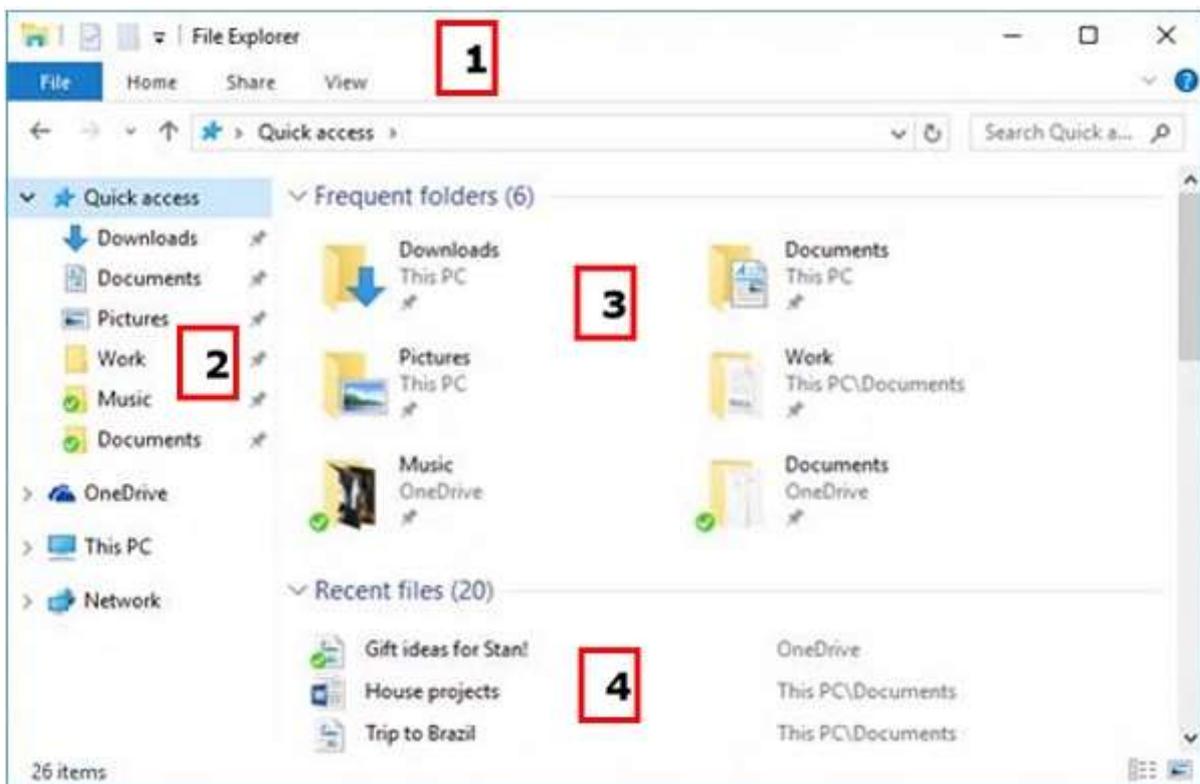
	A	B	C
1	Rate of Pay	\$12.80	
2			
3	Name	Hours	
4	Aaron Kane	26	
5	Jeff Leathley	20	
6	Jonathan Harrington	17	
7	James Mitchell	4	
8	Sue Gray	13	
9	Total:	80	
10	Average:	=AVERAGE(B4:B8)	

## File Explorer in Windows 10

File Explorer is the file management application used by Windows operating systems to browse folders and files. It provides a graphical interface for the user to navigate and access the files stored in the computer.

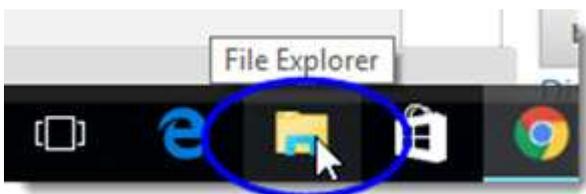


The main way to access the File Explorer is by clicking the folder icon in the Taskbar. After clicking the icon, the File Explorer window will open.

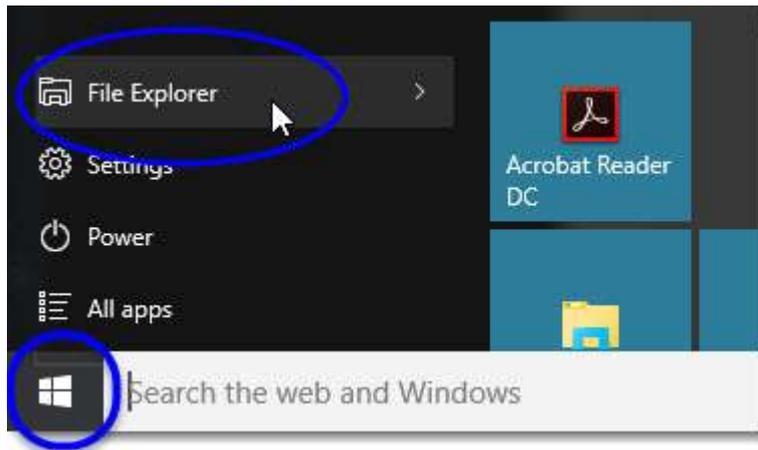


Opening File Explorer

To open File Explorer, click on the File Explorer icon located in the taskbar.



Alternatively, you can open File Explorer by clicking on the Start button and then clicking on **File Explorer**.

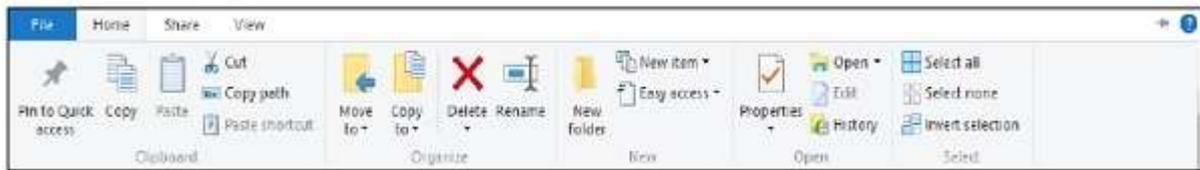


The initial File Explorer window is comprised of the following sections –

- The **File Explorer ribbon**, which resembles the ribbon featured in Microsoft Office. The ribbon contains buttons for common tasks to perform with your files and folders.
- The **Navigation Pane** gives you access to your libraries of documents and pictures, as well as your storage devices. It also features frequently used folders and network devices.
- The **Frequent folders** section on the right features the folders you've worked with recently to allow for quick access to them.
- The **Recent files section** in the lower part of the window features files and documents that you've opened recently.

## The File Explorer Ribbon

In Windows 10, the File Explorer features a new ribbon toolbar, similar to the one featured in the recent versions of Microsoft Office. This ribbon contains buttons and commands for the most common tasks.



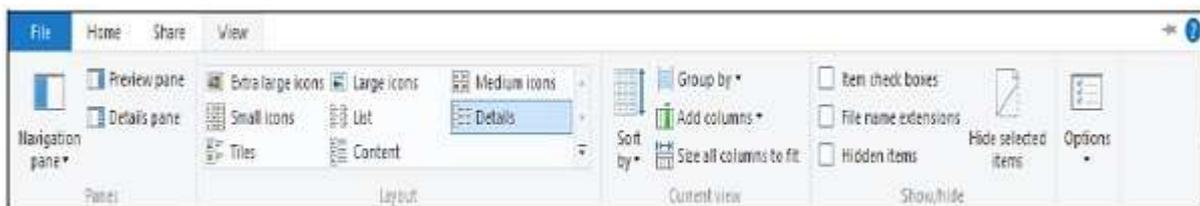
The Ribbon features four tabs, each with different commands. Among the tasks you can perform from the **Home** tab are –

- Copying and pasting files and folders from one place to another.
- Moving files and folders to another location.
- Copying files and folders to another location.
- Deleting a file or folder permanently or sending it to the Recycle Bin.
- Renaming a file or folder.
- Creating a new folder or other new items.
- Verifying or modifying the Properties of a document or folder.
- Opening a file or folder.
- Different options to select one or various files and folders.



The **Share** ribbon gives you different options to share your files and folders. For example –

- E-mailing or messaging a file.
- Compressing (“Zip”) a folder to take less space.
- Printing or faxing documents.
- Sharing with other users or networks.



The **View** ribbon allows you to change the way Windows displays your files and folders. Some of the changes you can make here are –

- Adding additional panes to show a preview or details of your files.
- Changing the layout of the files and folders from icons to list, and others.
- Sorting and arranging the contents of your folder.
- Hiding selected folders or files.

The **File** tab opens a menu with different options like –



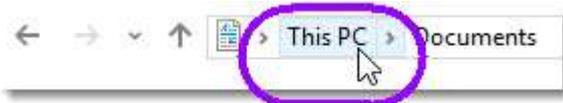
Viewing Previously Visited Folders in the Address Bar

To view folders you've been to previously, you can do any of the following:

Click on the Forward or Back buttons. (These buttons work just like the Forward and Back buttons on a Web browser.)

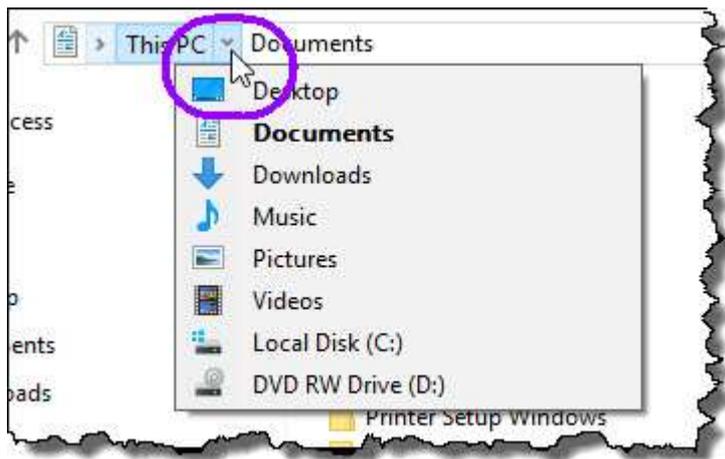


Click on a folder name in the Address bar.



Viewing the Contents of a Folder in the Address Bar

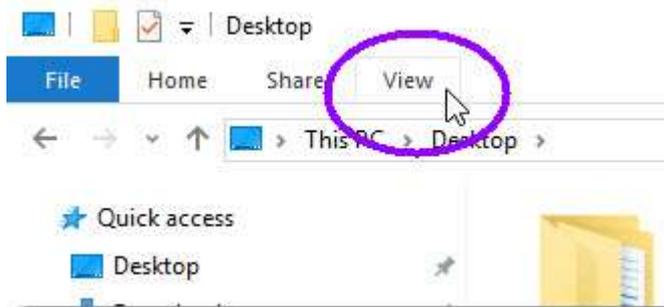
Click on the right-pointing arrow next to the folder whose subfolders you want to view. The arrow changes to a downward-pointing arrow, and a drop-down list of the subfolders will be displayed.



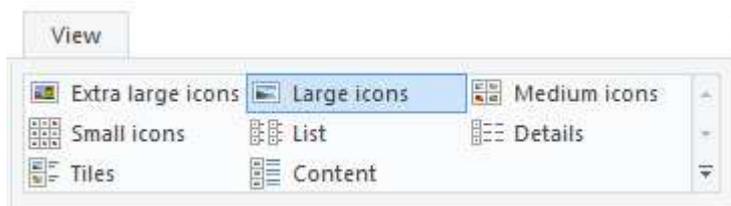
## Changing How Your Files and Folders are Displayed

You can change how your folder and file icons look, as well as display different information about them. **Note:** Changes you make will apply to the contents of the current folder only.

1. Navigate to the folder whose display you want to change.
2. Click on the **View** tab to display the Ribbon.



In **View**, you'll see the following available display options:



(**Note:** If some of your files or folders are hidden when the Ribbon is displayed, you can pin the Ribbon to File Explorer (keep it displayed, or expanded, in File Explorer even if you're doing another task) by clicking on the up-pointing arrow on the top right-hand side of your File Explorer window; once you pin the Ribbon, you'll be able to see those previously hidden files or folders.)

3. Move your mouse over each option to see a quick preview of that option in the area where your files and folders are displayed. To choose an option, just click on it. The following table lists and briefly describes each display option.  
(**Note:** To show more information about files and folders from display views that show little or no information (e.g., Large icons), you can open the Details Pane by clicking on the **View** menu, and then clicking on **Details Pane**. Click on an item to view the details of that item in the Details Pane.)

**COLLEGE OF DENTISTRY  
COMPUTER SCIENCE**

**LECTURE THREE**

**NETWORKS AND VIRUSES**

**BY**

**LAMIA FARIS**

# RING TOPOLOGY

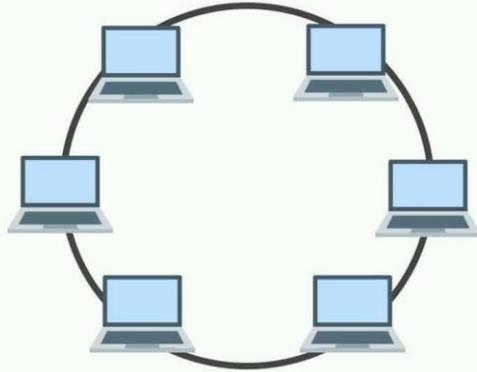
## Ring Topology

–A ring topology is a network configuration where device connections create a circular data path. Each networked device is connected to two others, like points on a circle. Together, devices in a ring topology are referred to as a ring network.

– Ring networks are most commonly wired in a star configuration

•In a ring network, packets of data travel from one device to the next until they reach their destination.

Most ring topologies allow packets to travel only in one - direction, called a unidirectional ring network. Others permit data to move in either direction, called bidirectional.

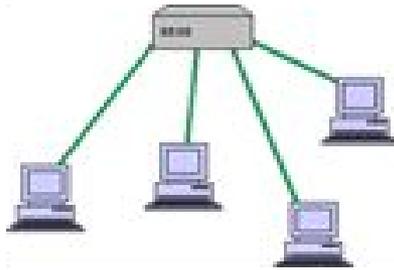


# Ring Topology

Advantages	Disadvantages
Cable faults are easily located, making troubleshooting easier	Expansion to the network can cause network disruption
Ring networks are moderately easy to install	A single break in the cable can disrupt the entire network.

# STAR TOPOLOGY

- **All computers/devices connect to a central device called hub or switch.**
- **Each device requires a single cable**
- **point-to-point connection between the device and hub.**
- **Most widely implemented**
- **Hub is the single point of failure**



# Star Topology

Advantages	Disadvantages
Easily expanded without disruption to the network	Requires more cable
Cable failure affects only a single user	A central connecting device allows for a single point of failure
Easy to troubleshoot and isolate problems	More difficult to implement

# MESH TOPOLOGY

Each computer connects to every other. •

High level of redundancy. •

Rarely used. •

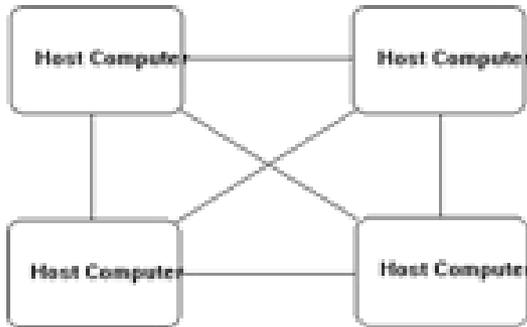
Wiring is very complicated –

Cabling cost is high –

Troubleshooting a failed cable is tricky –

A variation hybrid mesh – create point to point connection –  
between specific network devices, often seen in WAN  
implementation.

# Mesh Topology

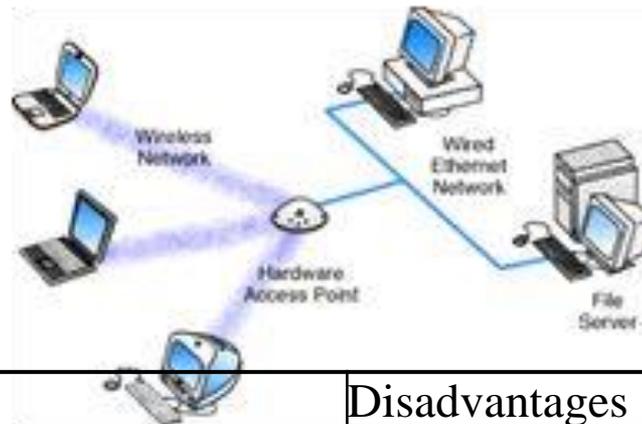


Advantages	Disadvantages
Provides redundant paths between devices	Requires more cable than the other LAN topologies
The network can be expanded without disruption to current uses	Complicated implementation

# **WIRELESS NETWORKING**

- **Do not require physical cabling**
- **Particularly useful for remote access for laptop users**
- **Eliminate cable faults and cable breaks.**
- **Signal interference and security issue.**

# Wireless networking



## Advantages

Allows for wireless remote access

Network can be expanded without disruption to current users

## Disadvantages

Potential security issues associated with wireless transmissions

Limited speed in comparison to other network topologies



computer science  
college of dentistry  
first stage

Lecture 2

# Network Topologies

**Ass.lecture Lamia Faris  
2020-2021**

# Network topology

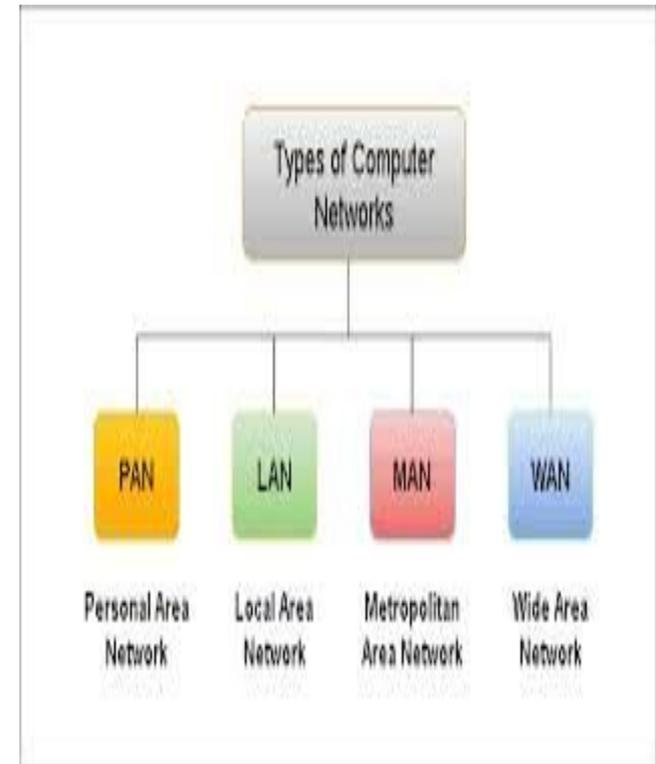
- The configuration, or topology, of a network is key to determining its performance. Network topology is the way a network is arranged, including the physical or logical description of how links and nodes are set up to relate to each other.

# ?What Is Network Topology

- There are two approaches to network topology: physical and logical.
- Physical network topology, as the name suggests, refers to the physical connections and interconnections between nodes and the network—the wires, cables, and so forth.
- Logical network topology, referring to the conceptual understanding of how and why the network is arranged the way it is, and how data moves through it

# Types of Computer Network

- There are mainly three types of computer networks based on their size:
- 1. Local Area Network (LAN)
- 2. Metropolitan Area Network (MAN)
- 3. Wide area network (WAN)
- (WAN)
- 4- Personal Area Network (PAN)



# Network Topologies

- LANs and WANs - Geographical coverage
- LANs
  - A single geographical location, such as office building, school, etc
  - Typically High speed and cheaper.
- WANs
  - Spans more than one geographical location often connecting separated LANs
  - Slower
  - Costly hardware, routers, dedicated leased lines and complicated implementation procedures.

# Metropolitan Area Network (MAN)

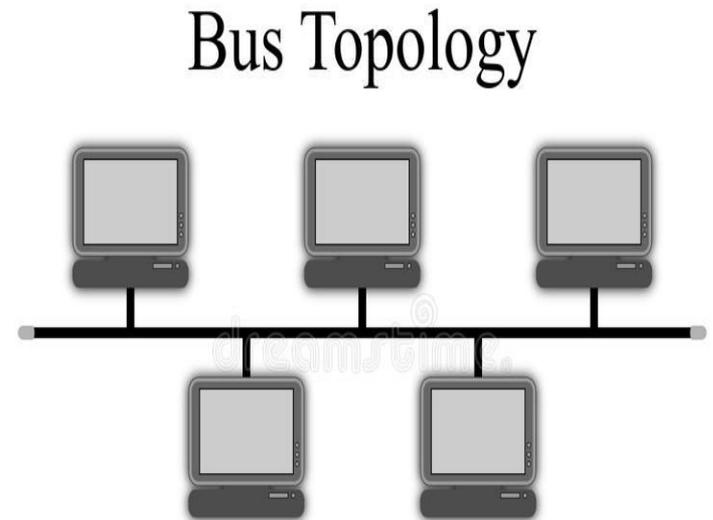
- MAN network covers larger area by connections LANs to a larger network of computers
- The size of the MAN is larger than LANs and smaller than WANs.
- MANs covers the larger area of a city or town.

# :Common topologies

- Network Topologies
- Topology - Physical and logical network layout
  - – Physical – actual layout of the computer cables and other network devices
  - – Logical – the way in which the network appears to the devices that use it.
- Common topologies:
  - – Bus, ring, star, mesh and wireless

# Bus topology

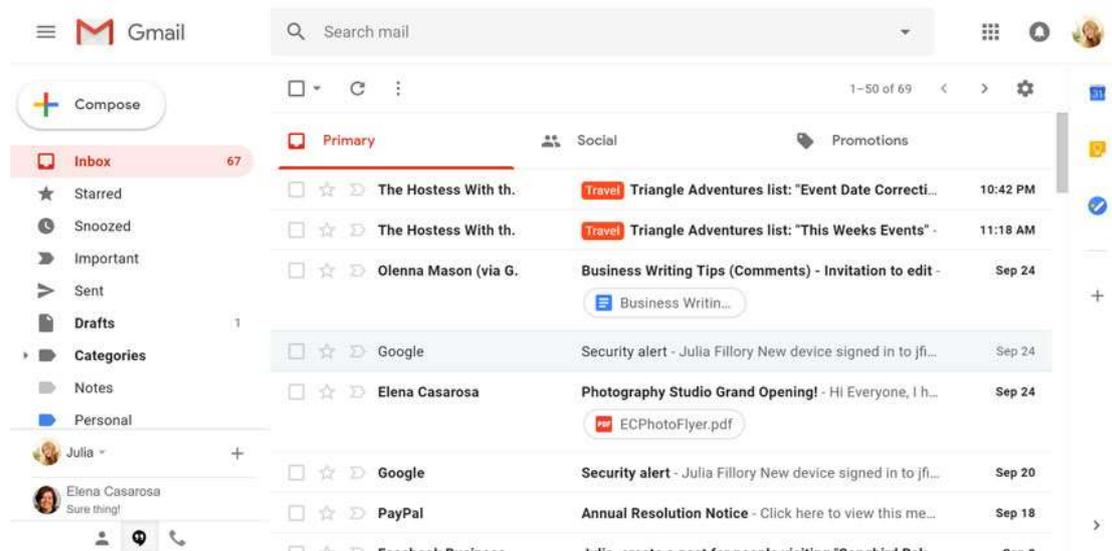
- Uses a trunk or backbone to which all of the computers on the network connect.
- Systems connect to this backbone using T connectors or taps.



# Bus Topology

Advantages	Disadvantages
Cheap and easy to implement	Network disruption when computers are added or removed
Require less cable	A break in the cable will prevent all systems from accessing the network
Does not use any specialized network equipment	Difficult to troubleshoot

# Gmail

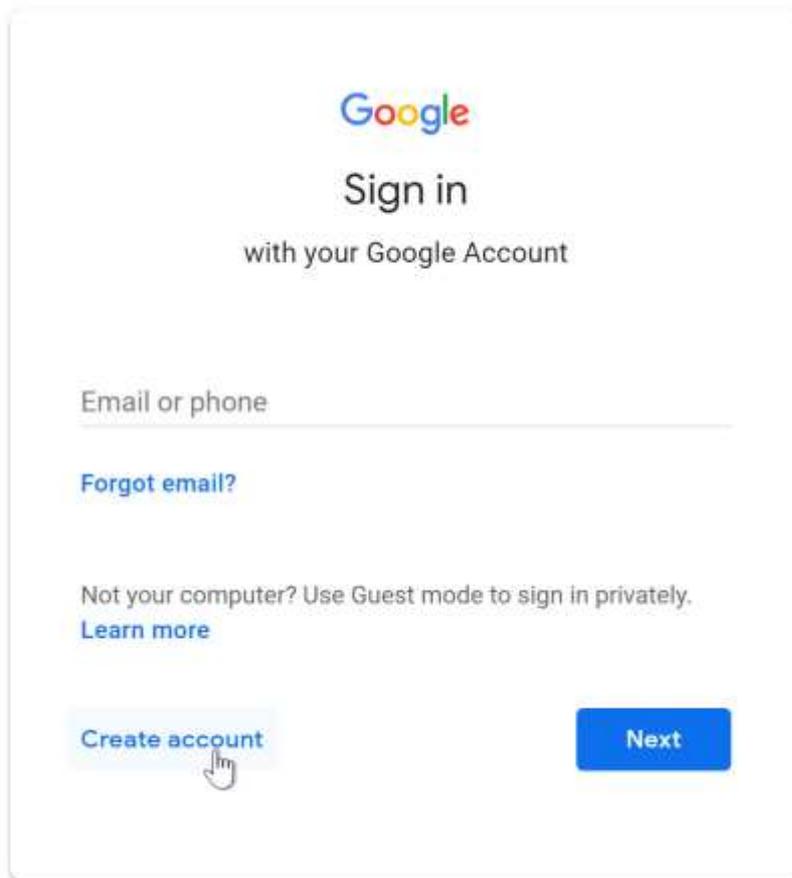


## Setting up a Gmail account

To create a **Gmail** address, you'll first need to create a **Google account**. Gmail will redirect you to the Google account sign-up 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:

- 1- Go to [www.gmail.com](http://www.gmail.com).
- 2- Click **Create account**.



The image shows the Google sign-in interface. At the top is the Google logo. Below it, the text reads "Sign in with your Google Account". There is a text input field labeled "Email or phone". Below the input field are two links: "Forgot email?" and "Not your computer? Use Guest mode to sign in privately. Learn more". At the bottom, there are two buttons: "Create account" (with a hand cursor icon) and "Next".

Google

Sign in  
with your Google Account

Email or phone

[Forgot email?](#)

Not your computer? Use Guest mode to sign in privately.  
[Learn more](#)

[Create account](#) [Next](#)

3- The **sign-up** form will appear. Follow the directions by entering the required information.



## Create your Google Account

First name:  Last name:

Username: @gmail.com

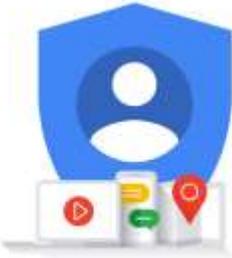
You can use letters, numbers & periods  
Available: [casarosae6](#) [elenacasarosa895](#) [casarosaelena106](#)

[Use my current email address instead](#)

Password:  Confirm password:  

Use 8 or more characters with a mix of letters, numbers & symbols

[Sign in instead](#)



One account. All of Google working for you.

4- Next, enter your **phone number** to verify your account. Google uses a two-step verification process for your security.



## Verify your phone number

For your security, Google wants to make sure it's really you. Google will send a text message with a 6-digit verification code. *Standard rates apply*

Phone number



9195559555

Back

Next



Your personal info is private & safe

5- Next, you will see a form to enter some of your personal information, like your name and birthday.



Elena, welcome to Google



ecasarosa3@gmail.com

Phone number (optional)



9195559555

We'll use your number for account security. It won't be visible to others.

Recovery email address (optional)

We'll use it to keep your account secure

Month

Day

Year

March

02

1982

Your birthday

Gender

Female



Your personal info is private & safe

Why we ask for [this information](#)

[Back](#)

[Next](#)

7- Review [Google's Terms of Service](#) and [Privacy Policy](#), then click I agree.

**Google**

## Privacy and Terms

We also combine this data among our services and across your devices for these purposes. For example, depending on your account settings, we show you ads based on information about your interests, which we can derive from your use of Search and YouTube, and we use data from trillions of search queries to build spell-correction models that we use across all of our services.

**You're in control**  
Depending on your account settings, some of this data may be associated with your Google Account and we treat this data as personal information. You can control how we collect and use this data now by clicking "More Options" below. You can always adjust your controls later or withdraw your consent for the future by visiting My Account ([myaccount.google.com](https://myaccount.google.com)).

**MORE OPTIONS** ▾

Cancel **I agree**



You're in control of the data we collect & how it's used

8- Your account will be created.

Gmail Images   





**Elena Casarosa**  
ecasarosa3@gmail.com  
[Privacy](#)

**Google Account**

Add account Sign out

# Google drive



To reach Google Classroom **without G-Suite for education** you must be signed

into a **Gmail account**.

After signing into your **Gmail or G-Suite account**, use the link **<https://classroom.google.com>** and the following screen appears.

BACT Page 4 Introduction to Google Classroom

## Create A Class

The first thing you need to do is to **create a class**. You can create one class or several classes for each subject you teach or each group of students you teach.

In order to create a class, you are going to click on the **plus + sign** up in the top right corner and then click on **Create Class**.

If your school does not already have a G-Suite for Education account, you will be prompted with a message asking your school or district to sign up.

BACT Page 5 Introduction to Google Classroom

You will then enter the **Class Name, Section Subject and Room** number but the

only required item is **Class Name**

**Tip:** *You could use your personal name for the Class such as **Ken Dickinson's Excel***

***Class** to personalize it for your students.*

Click on **Create** and you are re-directed to the **Class page**.

## Invite Students to the Class

Click on **People** to invite students to the class

BACT Page 6 Introduction to Google Classroom

Click on the **Plus sign** to invite students to the class or give them the **class code**

Type in an **email address** or search for an existing name in your contact list

## Students Can Join a Class on their Own

Find the **class code** under the **class name**

Click on the **Display square** to zoom up the code

BACT Page 7 Introduction to Google Classroom

To Join a class, students go to **their google classroom**, find the class and instead

of clicking on the create class option, they will choose the **join class option**.

Enter the **class code** and select **join**

Once a student joins a class once, it will always remain in their classroom until you

**remove** the student from the class, or you **archive** the class.

## Features of the Class Page

You can change the **Theme** of the class by clicking on the **Select Theme** button in

the bottom right corner of the Class masthead

BACT Page 8 Introduction to Google Classroom

You can choose a new theme from the choices presented

You can use one of the created themes from google or you can personalize by

uploading a photo from the upload photo option

**Tip:** *You can use a different color for each class or subject area to easily differentiate the classes*

## The Stream Tab

The **Stream Tab** hosts all the activity that has taken place in your classroom such

as any announcements or assignments you have posted as a teacher and any

comments or posts from student if you allow them with the most recent appearing at the top.

You can easily post announcements or attachments to the stream page by clicking

on the **Share something with your class** box

BACT Page 9 Introduction to Google Classroom

Share a class material with your class by clicking on **Add**

You can either type a message to your students or attach files from your computer by clicking on **File**, or **Google Drive**, you can add **YouTube** videos or

**Links** and then post directly to your Stream pag