



# Computer Applications

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# Computer

## **Definition - What does *Computer* mean?**

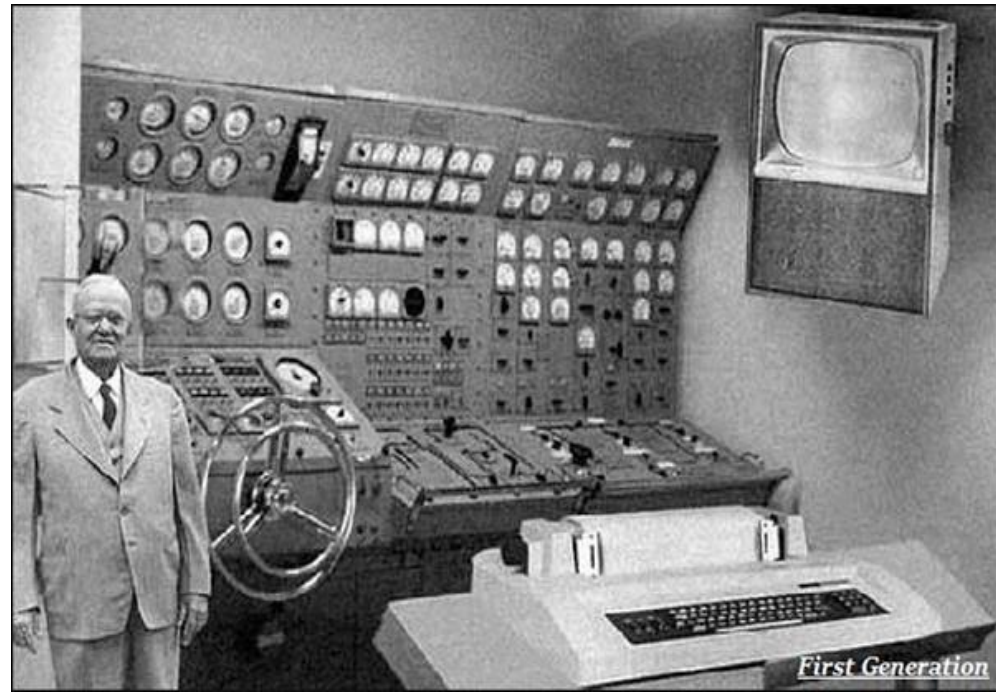
- \* A computer is a machine or device that performs processes, calculations and operations based on instructions provided by a software or hardware program.
- \* It has the ability to accept data (input), process it, and then produce outputs.

# Computer generations

Let us now discuss the development in Computer Technology over the different generations.

## First Generation

- \* The period 1940 to 1956, roughly considered as the First Generation of Computer.
- \* The first generation computers were developed by using *vacuum tube*.
- \* The input of this system was based on punched cards and paper tape.



# Computer generations(cont.)

## Second Generation

- \* The period 1956 to 1963 is roughly considered as the period of Second Generation of Computers.
- \* The second generation computers were developed by using *transistor technology*.
- \* In comparison to the first generation, the size of second generation was smaller and the computing time taken was lesser.



# Computer generations(cont.)

## Third Generation

- \* The period 1963 to 1971 is roughly considered as the period of Third Generation of computers.
- \* It were developed by using the *Integrated Circuit (IC)* technology.
- \* In comparison to the computers of the second generation, the size was smaller, the computing time was lesser, consumed less power and also generated less heat, The maintenance cost was also low.



*Third Generation*



# Computer generations(cont.)

## Fourth Generation

- \* The period 1972 to 2010 is roughly considered as the fourth generation of computers.
- \* It developed by using *microprocessor technology*.
- \* computer became very small in size, it became portable.
- \* The machine started generating very low amount of heat.
- \* It is much faster and accuracy became more reliable.
- \* It became available for the common people as well as.



Fourth Generation

# Computer generations(cont.)

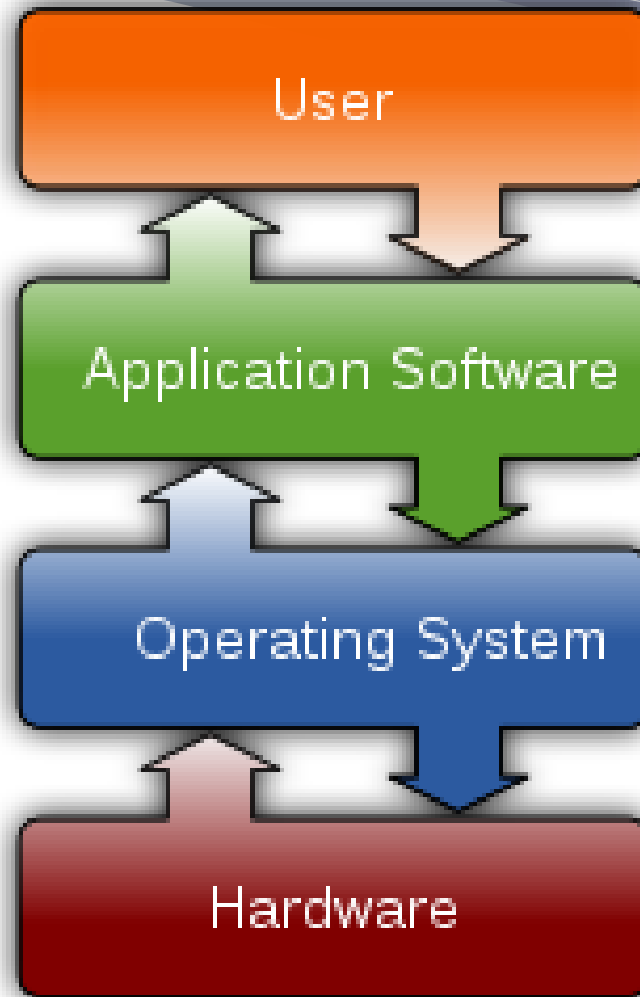
## **Fifth Generation**

- \* The period 2010 to till date and beyond.
- \* It was being categorized on the basis of hardware only, It also included software.
- \* It had high capability and large memory capacity.
- \* It was fast and multiple tasks could be performed .



# Computer component Software & hardware

**Computer Software**  
is a collection  
of instructions and data  
that tell the  
computer how to work.



**Computer hardware**  
includes the physical  
parts of a computer,  
such as the case ,  
central processing  
unit (CPU), monitor,  
mouse ,keyboard ,  
computer data storage  
, graphics card , sound  
card, speaker  
and motherboard



# Software & hardware

## Hardware



## Software



# System software

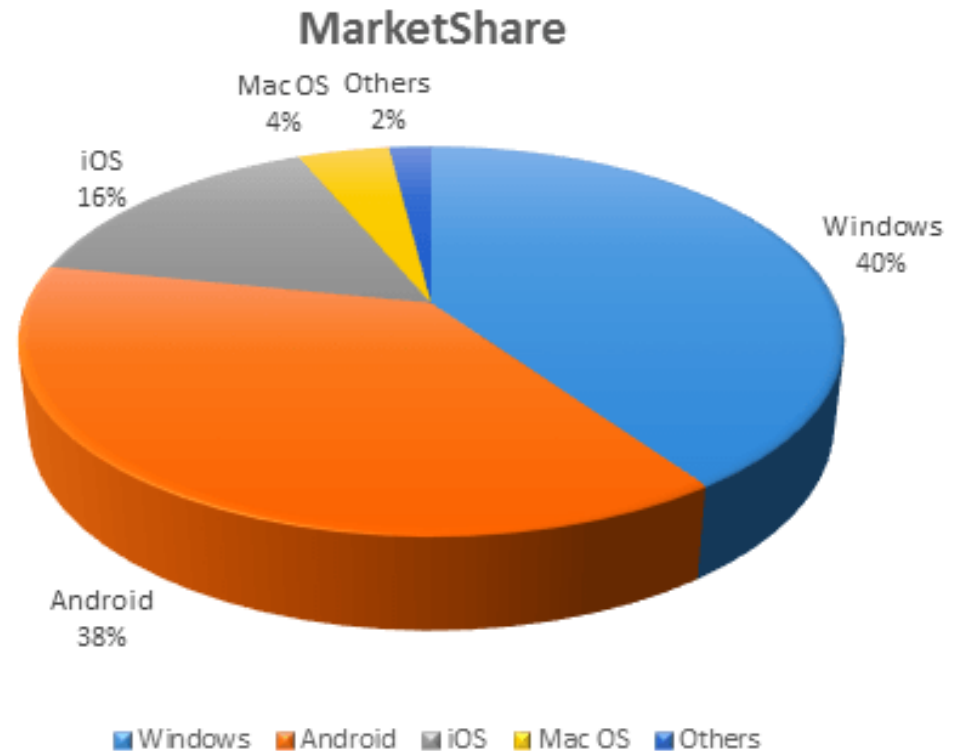
- \* System software refers to the files and programs that make up your computer's **operating system**
- \* Computers without operating systems are exactly like televisions without a signal. They will turn on, but you will be looking at a blank screen
- \* ***The system software is installed on your computer when you install your operating system. You can update the software by running programs such as "Windows Update" for Windows or "Software Update"***

# Application Software

- \* Application software is commonly defined as any program or number of programs designed for end-users.
- \* Examples of application software include items like *Microsoft Word*, *Microsoft Excel*, or any of the web browsers used navigate the Internet...

# Operating system

- \* An **Operating System (OS)** is a software that acts as an interface between computer hardware components and the user.
- \* Every computer system must have at least one operating system to run other programs.



# MS-DOS operating system

- \* A disk operating system : is a computer operating system that resides on and can use a disk storage device, such as a floppy disk, hard disk drive, or optical disc. A disk operating system must provide a file system for organizing, reading, and writing files on the storage disk.



# What is a Command

- \* A command is a set of instructions used to perform a specific work
- \* Interpreted by the OS interpreter to a machine language ◦ E.g. ,,etc.



# DOS Commands

## Types of DOS Commands

- \* ◦ Internal

- \* ◦ External

## Directory

- \* ◦ Root Directory

- \* ◦ Parent Directory

# Types of Command

## ***Internal Command***

- Those commands which are already loaded in the Command.COM file while switching to the MS DOS
- E.g. CLS, VER, DEL, etc.

## ***External Command***

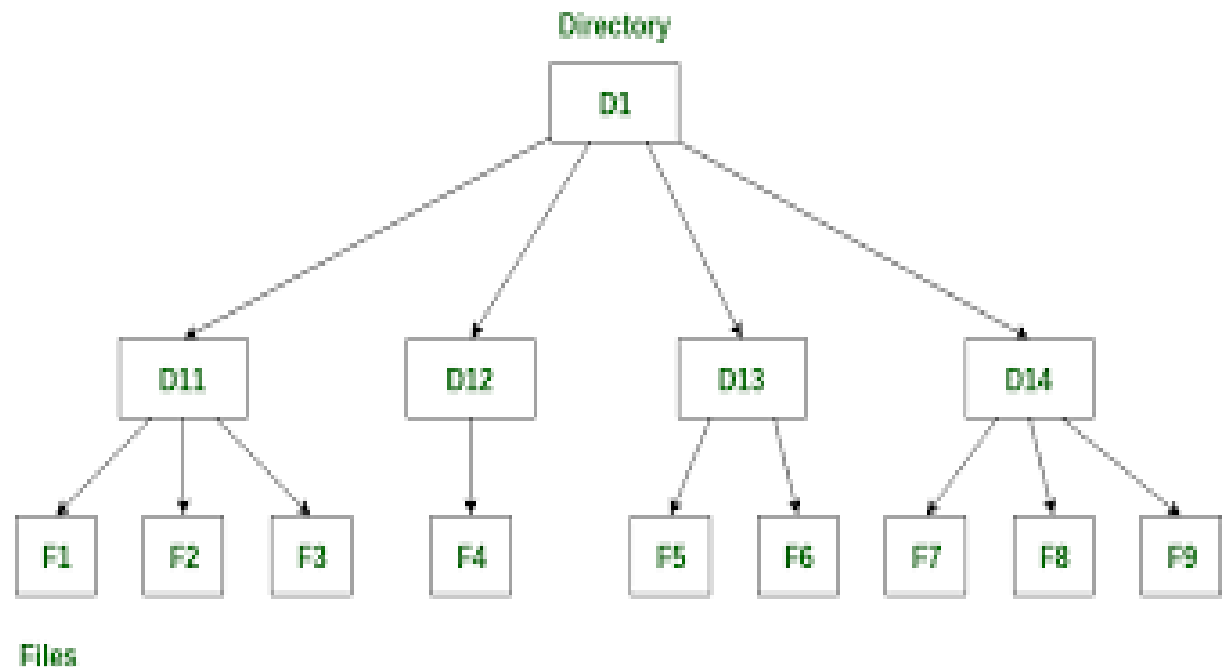
- Those commands which are not loaded when loading the Program but are available in the Disk and can be invoked whenever necessary
- E.g. FORMAT, TREE, XCOPY, etc.

Internal Command	External Command
1. Internal commands are faster than External command.	1. External commands are slow than Internal command.
2. This commands are stored in Internal memory (RAM)	2. This commands are stored in secondary memory (Hard disk).
3. Example: Date, Time, Vol, Ver etc.	3. Example: Label, Exit etc.

# What is a Directory

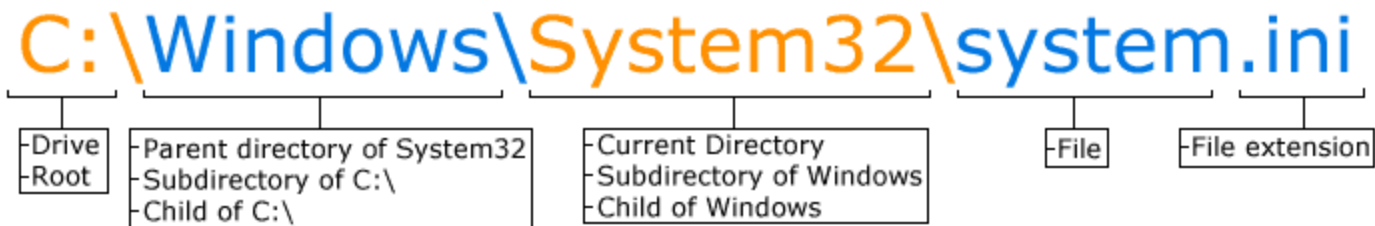
- \* A directory is a list of file which is itself a file stored in the computer's memory so that users can reference it as it is required.

- \* Also called a catalog of files



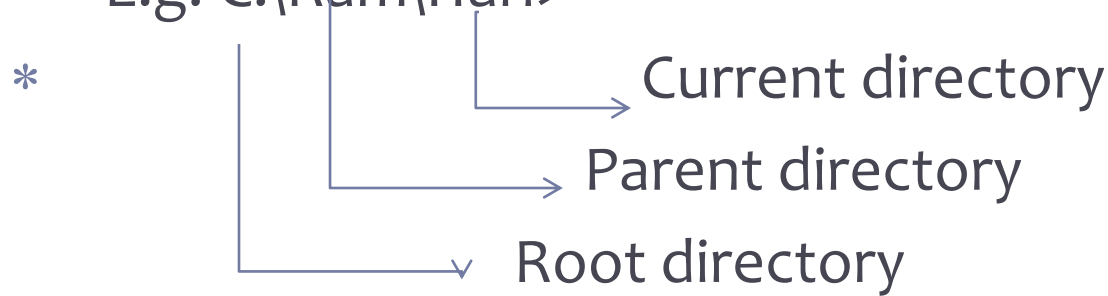
# Root Directory

- \* The Root directory is that directory that is automatically created when the disk is formatted
- \* It is the current drive that we have been working ◦
- \* E.g. A:\, B:\ (for Floppy Disk Drive)
- \* C:\,D:\ etc. (for Hard Disk Drive)



# Current / Parent Directory

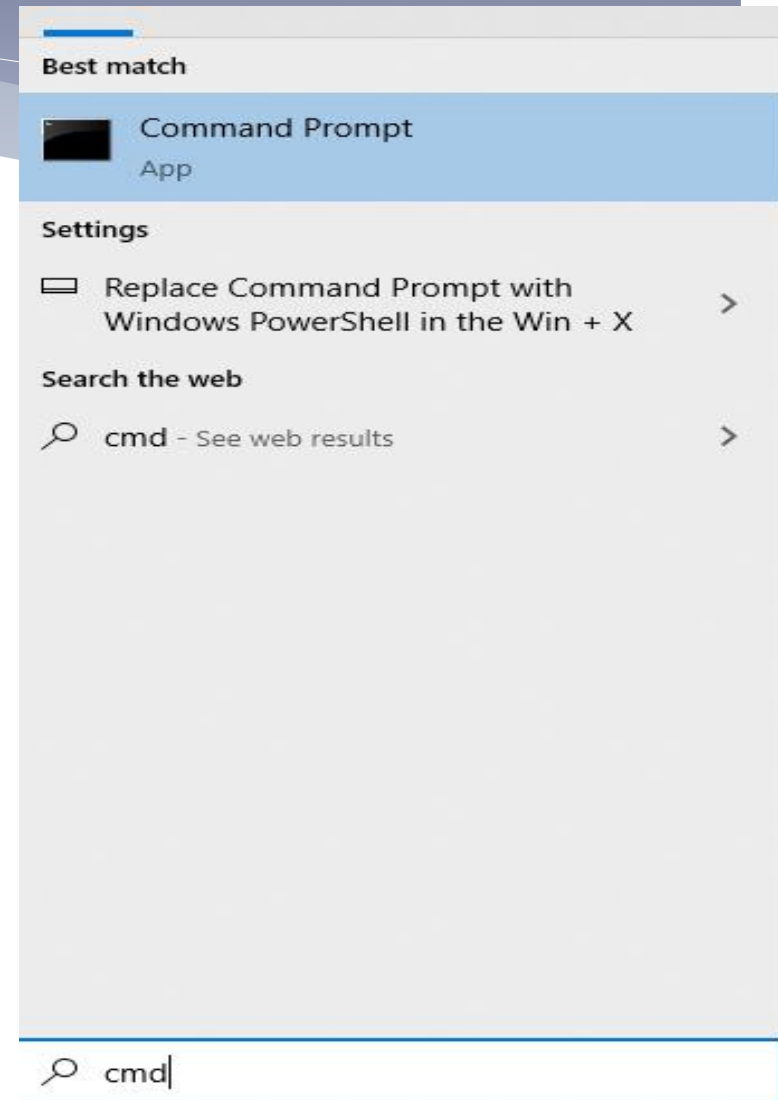
- \* Current directory is that directory in which you are currently working
- \* Parent directory is that directory which is one level up of the current directory
- \* ◦ E.g. C:\Ram\Hari>





# Getting into MS DOS

- \* To start MS DOS, click on the Start button and choose Run
- \* In the Run dialog box, type CMD or COMMAND which is the EXE file for MS DOS
- \* Click on the OK button



# Listing the Directories and Files in MS DOS

- \* For listing the Sub-directories and Files within a directory, we use the DIR command
- \* Syntax :
- \* ◦ DIR/ [Directory\_name]

- \* DIR / P to display page files page
- \* DIR / W to display files in a screen display
- \* DIR / B Displays only index and file names and their type
- \* DIR / L to display index and file names in lowercase
- \* DIR / S to display all files and indexes in the current index
- \* DIR / O Display the indexes and files arranged alphabetically from A to Z
- \* DIR / OS Displays indexes and files arranged by size from smallest to largest
- \* DIR / AH Show only hidden files
- \* DIR / AR Display read-only files and are protected from deletion
- \* DIR / AS Display system files only
- \* DIR / AD Display all indexes only without files
- \* DIR / AA Display only files marked with archive

# Command: VER

- \* Command: VER (which is short for VERSION meaning version), which is an internal command and its function is to query the version number of the MS-DOS operating system.

Syntax :

C:\ver

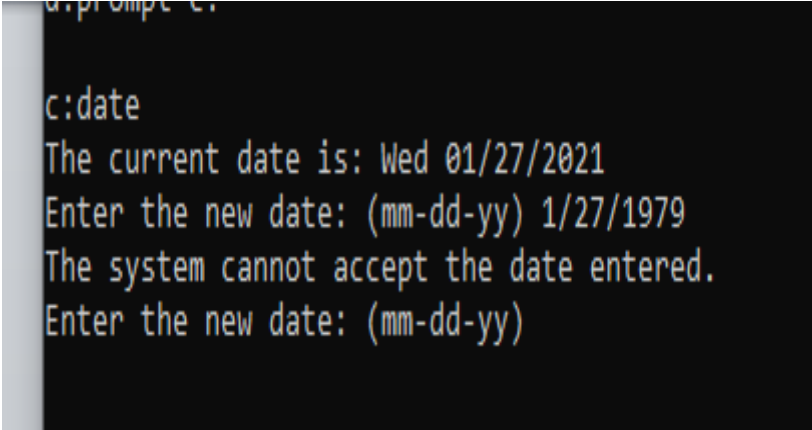
- \* Then by pressing ENTER, MS-DOS VER 6.22 will appear.

# The command: DATE (date)

- \* The command: DATE (date) is an internal command and its function is to display the date on the device with the ability to modify it.

Syntax :

C:\date

A screenshot of a DOS command prompt window. The prompt is 'c:\date'. The output shows the current date as 'Wed 01/27/2021'. It then prompts for a new date: 'Enter the new date: (mm-dd-yy) 1/27/1979'. The system responds with an error: 'The system cannot accept the date entered.' and prompts again: 'Enter the new date: (mm-dd-yy)'.

```
c:\date
The current date is: Wed 01/27/2021
Enter the new date: (mm-dd-yy) 1/27/1979
The system cannot accept the date entered.
Enter the new date: (mm-dd-yy)
```

Conditions for writing the date in DOS:

- \* 1- The operating system does not accept any date before 1980.
- \* 2- Hijri date cannot be used.
- \* 3- The months cannot be written in letters.
- \* 5- To use in writing the American system date (mm-dd-yy) month, day, and year

# Checking the Date/Time

- \* For checking the date from the system in MS DOS, we use the DATE command. It returns the current system date.
- \* Similarly, the TIME command returns the current time from the system.
- \* Syntax :
- \* ◦ C:\>DATE
- \* E.g. C:\>DATE



# Command: TIME (time)

- \* Command: TIME (time), which is an internal Command, and its function is to display the time recorded inside the computer with the ability to modify it.

```
c:\time  
The current time is:  0:17:04.94  
Enter the new time:
```

EnterNew Time to modify, by first recording hours, then minutes, then seconds, then breaking seconds, then setting the time in the morning or evening. If you do not want to write a new time, it is sufficient for you to press ENTER without typing anything .

# Creating a Directory in MS DOS

- \* Command: MD (which is short for Make Directory), which is an internal command and its function is to create a sub-index from the main index or create a sub-index from another sub-index.

# Command: CD

- \* Command: CD (which is an abbreviation of the word Change Directory). It is one of the internal commands and its function:
  - \* 1- Knowing the current index
  - \* 2- Moving between indexes either from:
    - \* Main to Secondary
    - \* Sub to main

# The RD command

- \* The RD command (Remove Directory), which is an internal command, and its function is to delete or remove the sub-index, and to delete or remove any sub-index, there are two conditions:
  - \* 1- Remove all files and programs within the sub-index to be removed.
  - \* 2- The sub-index to be removed should not be the one we are standing on now, but rather we must be on another index higher than it.

# Switching between Directories

- \* For switching between the directories we use the CD..  
Or CD\ commands
- \* CD.. Command switches from the current directory to the Parent directory
- \* CD\ command switches from the current directory to the Root directory

# Command: CLS

- \* Command: CLS (clearing the screen), and it is one of the internal commands and its function is to clean the screen of all the data on it and return the start prompt to the first line on the screen regardless of its location during the execution of the command.
- \* type the command CLS in DOS:
- \* Then by pressing the ENTER key, the screen will be cleaned of the data on it, not the data.

```
Command Prompt
C:\>dri\p
The system cannot find the path specified.

C:\>ddir/p
'ddir' is not recognized as an internal or external command,
operable program or batch file.

C:\>dir/p
Volume in drive C has no label.
Volume Serial Number is 7C56-5B2A

Directory of C:\

01/28/2021  09:49 AM    <DIR>          Intel
11/23/2020  06:58 PM    <DIR>          output
12/07/2019  12:14 PM    <DIR>          PerfLogs
02/02/2021  11:16 AM    <DIR>          Program Files
01/08/2021  06:17 PM    <DIR>          Program Files (x86)
02/02/2021  03:45 PM    <DIR>          suad
09/22/2020  08:51 AM    <DIR>          Users
01/18/2021  11:16 PM    <DIR>          Windows
             0 File(s)          0 bytes
             8 Dir(s) 100,101,652,480 bytes free

C:\>cls
```



# What is a File

A group of organized data (records) which are assembled for one particular purpose and considered as one unit



# File types and extensions

- \* All files ending in one of the following supplies: BAT, EXE, COM are directly downloadable and executable.
- \* Here are some of the types that need their full filenames:
  - \* . Bat Batch file commands in batch (batch).
  - \* .COM program file (COMMAND).
  - \* .EXE file ready (executable).
  - \* .DOC text or document file (????????).
  - \* .ASM is a program source file written in assembly language (ASSEMBLY).
  - \* .BAK backup file (BACKUP).
  - \* .BAS Program File (BASIC).
  - \* .DBF DATABASE FILE (DBASE FILE).
  - \* .PAS is a program file written in Pascal (PASCAL) language.
  - \* .SYS System Configuration File (SYSTEM).
  - \* .C source file written in C language.

# Symbols used to name files:

- \* 1- The alphabet from A to Z (whether small or large).
  - \* 2- Numbers from 0 to 9.
  - \* 3- Some signs like: ({}), (), &,% , \$, #,!).
- 
- \* 1- The length of the main file name is 1-8 characters long.
  - \* 2- The extended name - if any - should not exceed 3 characters.
  - \* 3- To separate the basic name from the extended name - if any - with a period sign (.).
  - \* 4- To write the basic name and the extended name without spaces.
  - \* 5- Do not use the control keys (ALT, CTRL, ESC) in any name.
  - \* 6- Do not use the reserved names for the operating system, such as CON for keyboard and display, or PRN for the name of the printer.
  - \* 7- Not to use symbols of special significance for the operating system, which are \*, /, \, +, =, ?).

# Creating Files in MS DOS

For creating the files in DOS, the command COPY CON is used

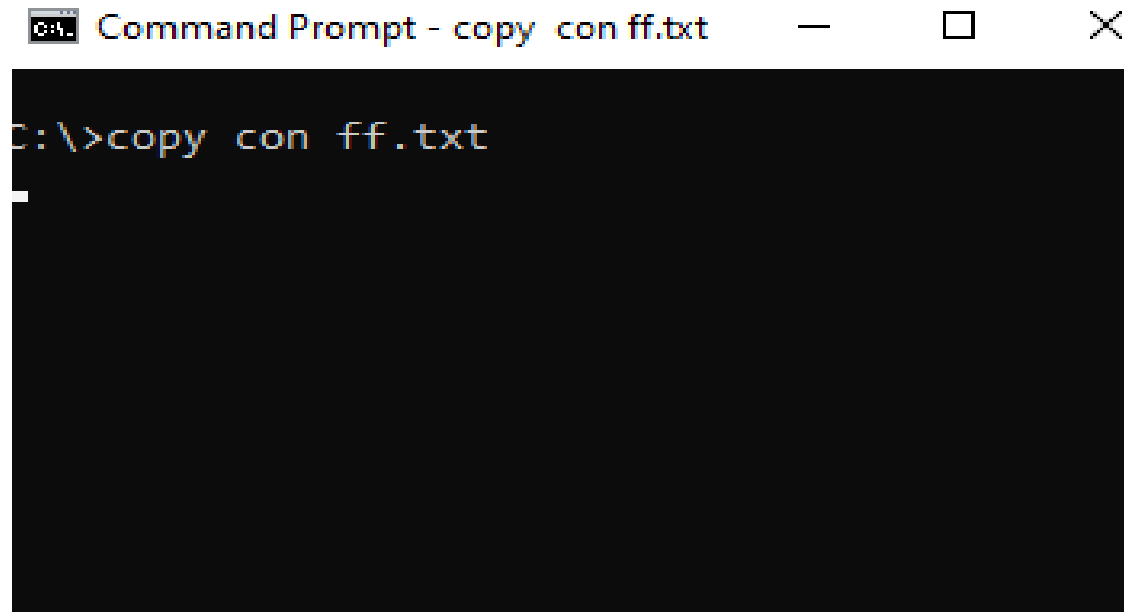
Syntax:

- COPY CON (path of filename. Extension)

Note: File name should not exceed eight characters excluding three characters for extension

- example

```
c:\ copy con c:\ ff.txt
```



```
Command Prompt - copy con ff.txt  
C:\>copy con ff.txt
```

# Reading Files in MS DOS

- \* For reading the Pre-created files in MS DOS, we use the TYPE command.
- \* It displays all the contents that are in the file>
- \* Syntax :
- \* ◦ TYPE (path of the file . Extension)

# command: COPY

- \* The command: COPY is an internal command and its function is to copy a file into the same index, another index, or on another disk.
- \* C:\> copy (the path of file in current location ) (the path of file in new location )

## \* Example

```
Volume Serial Number is F652-62F5

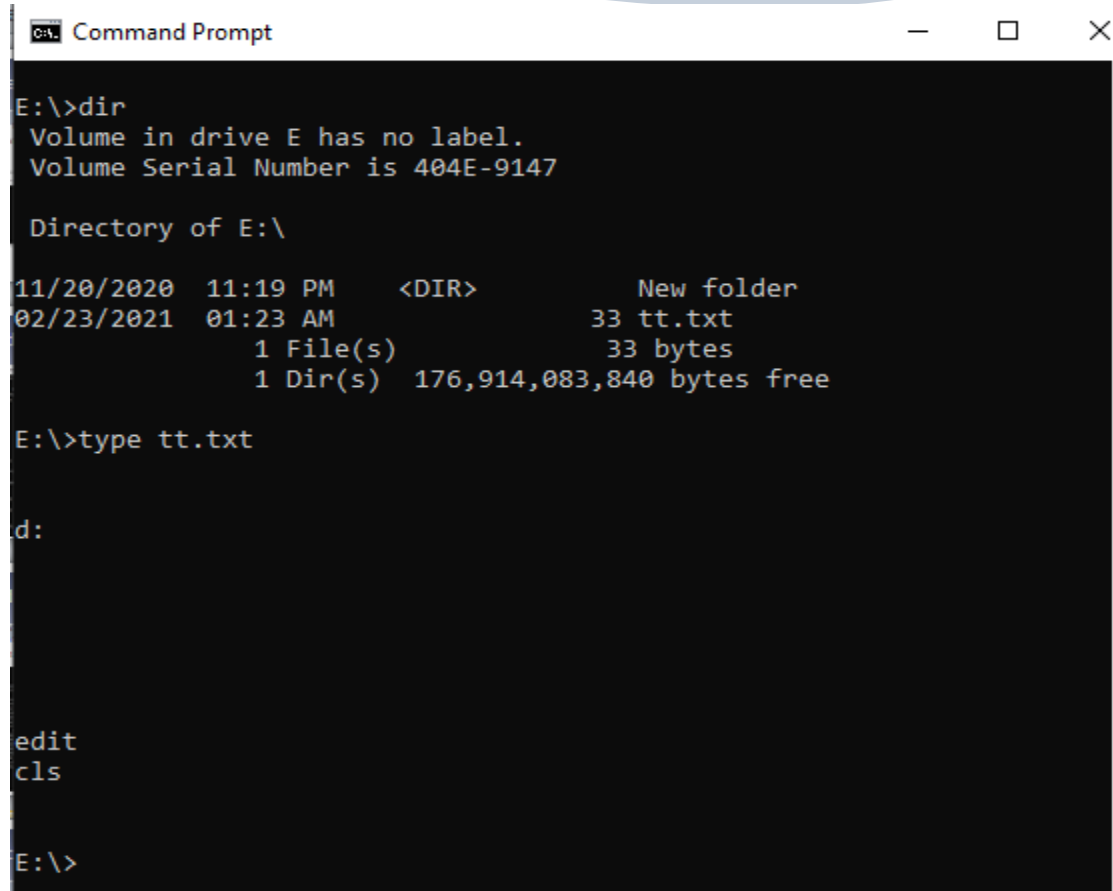
Directory of D:\
10/20/2020  01:16 PM           116,289,536  111???? ????-???? 2019-????.xls
11/24/2020  01:51 PM           1,381,569   1677-4086-1-PB_NewEngine.docx
02/23/2021  12:43 AM           <DIR>         a
11/10/2020  11:29 PM             98,341     adsa.pdf
10/28/2020  04:45 PM           2,870,704   Configure EndNote.exe
09/29/2020  10:51 PM           <DIR>         CPU-Z
01/06/2021  11:01 PM           102,559,592 EN20Inst.exe
01/06/2021  11:54 PM           <DIR>         endnote
01/03/2021  11:39 PM           <DIR>         EveryonePiano
11/23/2020  07:04 PM           <DIR>         PDFToWordConverter
02/23/2021  01:23 AM              33         tt.txt
12/17/2020  09:48 PM           <DIR>         ?????? ??????????
01/08/2021  08:19 PM           <DIR>         ??????
02/11/2021  12:25 PM           <DIR>         ?????? ??????????
02/15/2021  09:29 AM           6,634,650   ???? ?????.rar
12/04/2020  09:27 PM           <DIR>         ?????? ??????????
10/20/2020  01:30 PM           46,817,792  ??? ?????-????- 2019-???????????? 2222.xls
            8 File(s)      276,652,217 bytes
            9 Dir(s)   175,057,715,200 bytes free

D:\>copy d:\tt.txt e:\
        1 file(s) copied.

D:\>
```

# Command: TYPE

- \* Command: TYPE, which is an internal command and its function is to display the contents of text files on the screen.
- \* Note: This command displays text files, but EXE-COM-SYS files cannot be displayed.



```
Command Prompt
E:\>dir
Volume in drive E has no label.
Volume Serial Number is 404E-9147

Directory of E:\

11/20/2020  11:19 PM    <DIR>          New folder
02/23/2021  01:23 AM             33 tt.txt
              1 File(s)        33 bytes
              1 Dir(s)  176,914,083,840 bytes free

E:\>type tt.txt

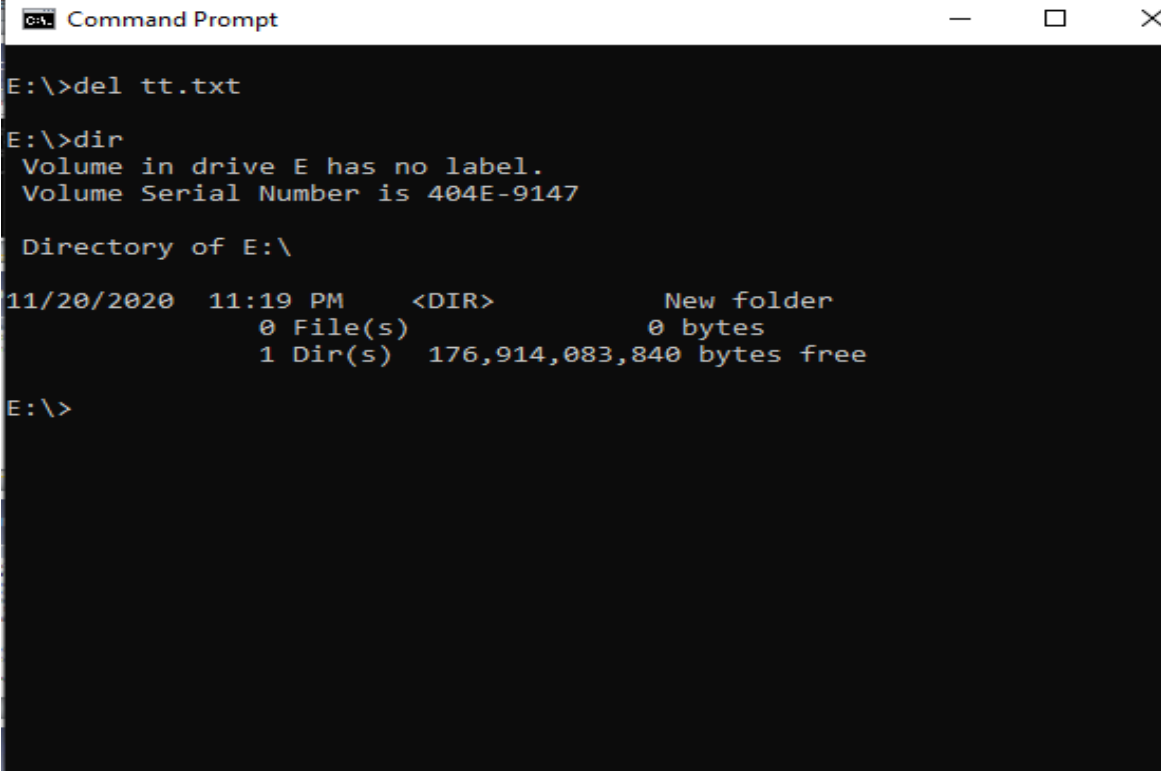
d:

edit
cls

E:\>
```

# Command: DEL

- \* Command: DEL (which is an abbreviation of the word DELETE), which is an internal command and its function is to delete a file or in the same index, in another index, or in another disk.



```
Command Prompt
E:\>del tt.txt
E:\>dir
Volume in drive E has no label.
Volume Serial Number is 404E-9147

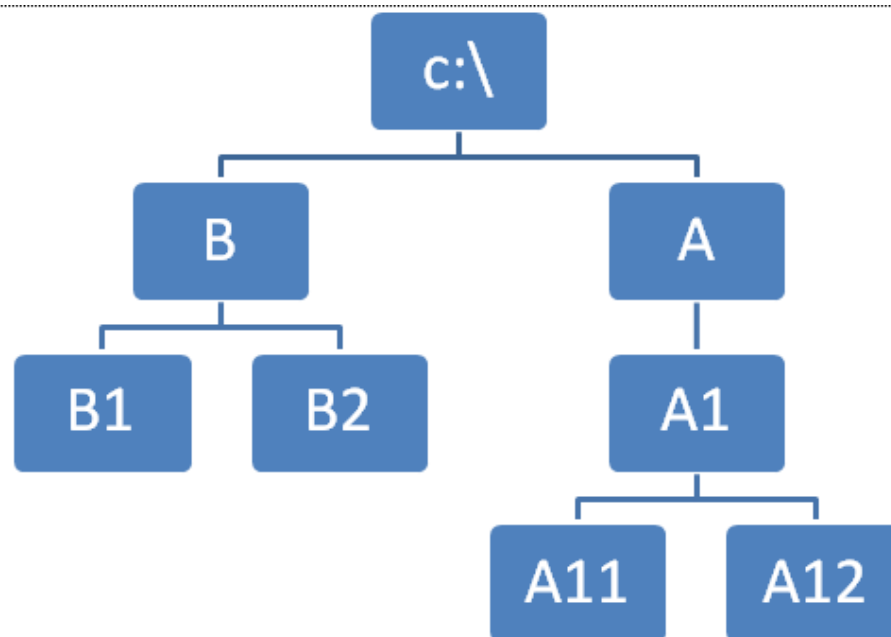
Directory of E:\

11/20/2020  11:19 PM    <DIR>          New folder
              0 File(s)          0 bytes
              1 Dir(s)    176,914,083,840 bytes free

E:\>
```



# امتحان يومي 16/2/2021



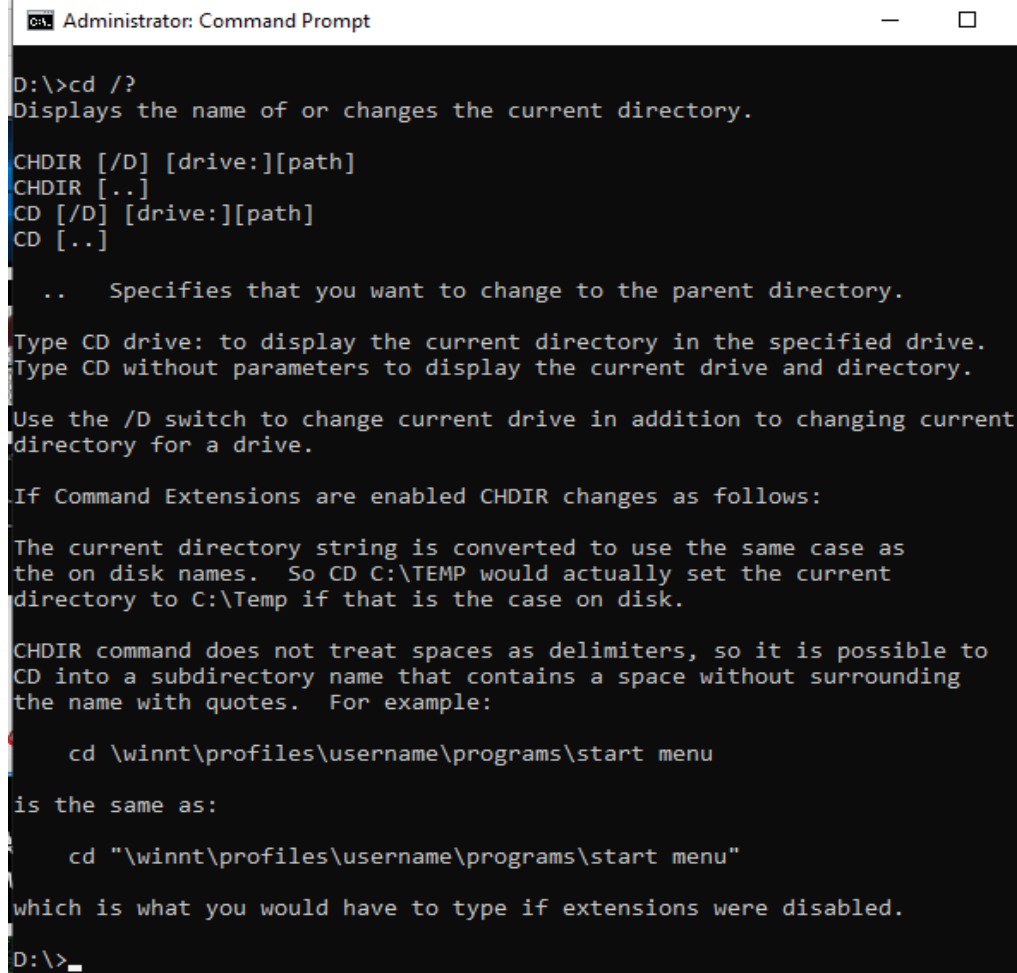
# command: help

\* For help in implementing any order, we can write the command and then /?

\* Example

\* `D:/>cd /?`

\* `D:\> cls /?`



```
Administrator: Command Prompt
D:\>cd /?
Displays the name of or changes the current directory.

CHDIR [/D] [drive:][path]
CHDIR [..]
CD [/D] [drive:][path]
CD [..]

    .. Specifies that you want to change to the parent directory.

Type CD drive: to display the current directory in the specified drive.
Type CD without parameters to display the current drive and directory.

Use the /D switch to change current drive in addition to changing current
directory for a drive.

If Command Extensions are enabled CHDIR changes as follows:

The current directory string is converted to use the same case as
the on disk names. So CD C:\TEMP would actually set the current
directory to C:\Temp if that is the case on disk.

CHDIR command does not treat spaces as delimiters, so it is possible to
CD into a subdirectory name that contains a space without surrounding
the name with quotes. For example:

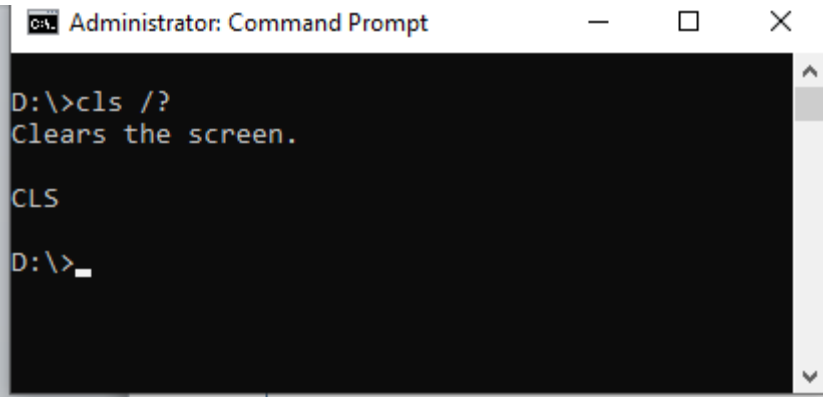
    cd \winnt\profiles\username\programs\start menu

is the same as:

    cd "\winnt\profiles\username\programs\start menu"

which is what you would have to type if extensions were disabled.

D:\>
```



```
Administrator: Command Prompt
D:\>cls /?
Clears the screen.

CLS

D:\>
```

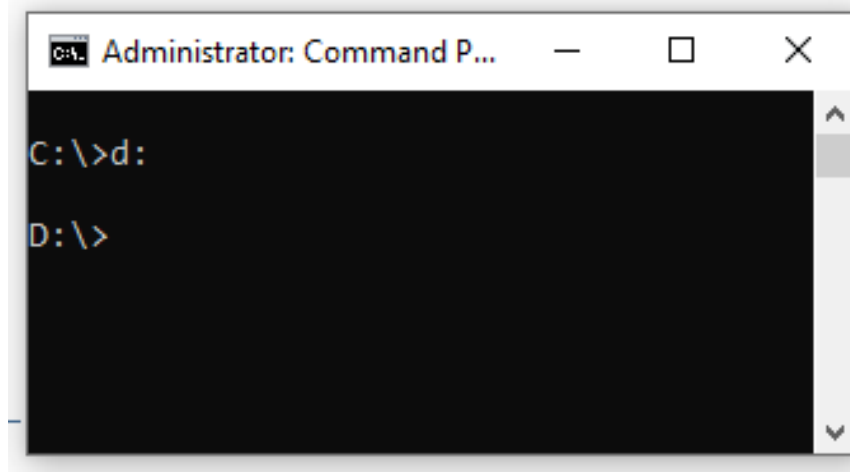
# Transfer between hard drives

\* In order to move from one drive to another

The drive must be written and then: then enter

Example

C:/>d:



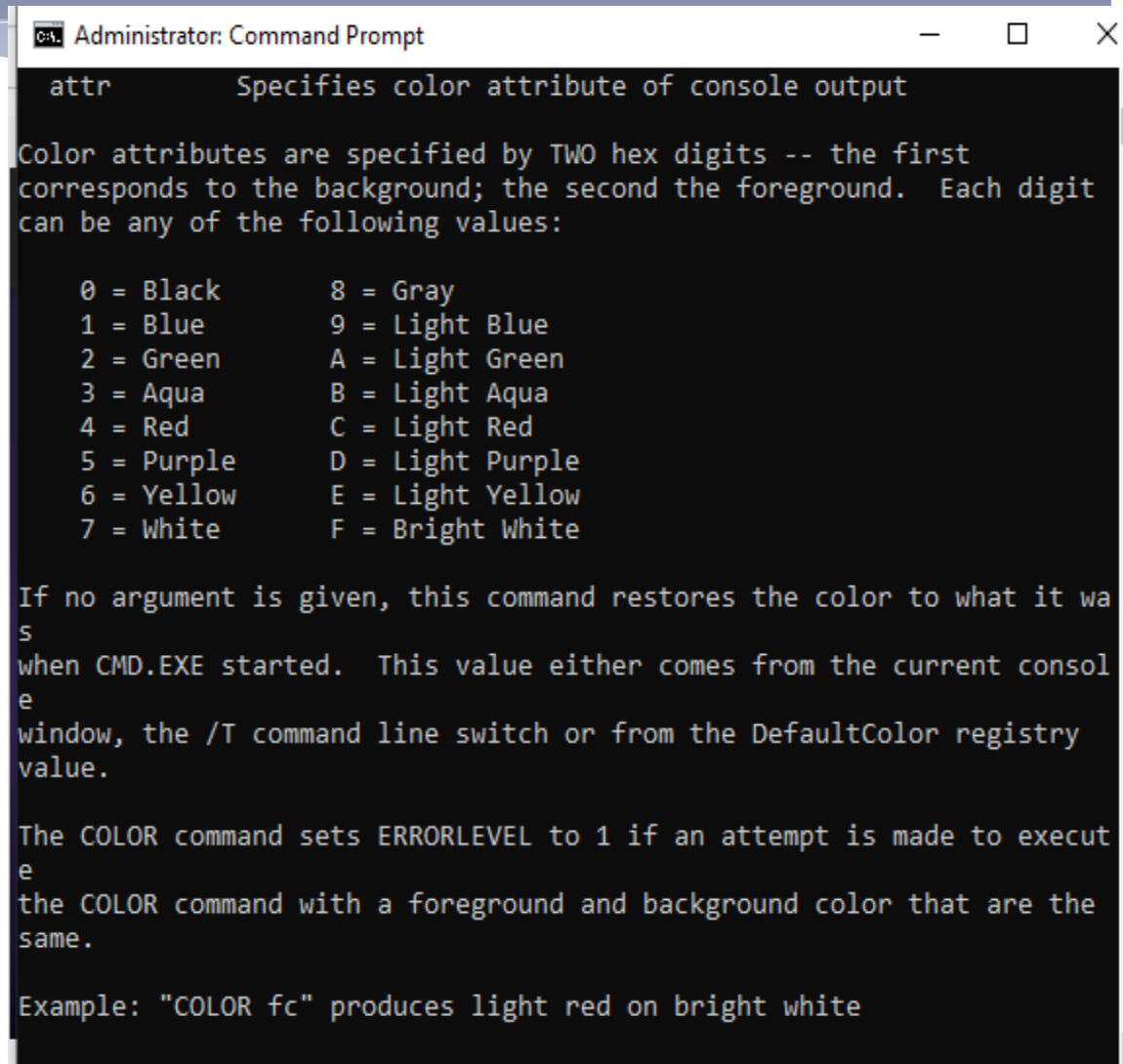
```
Administrator: Command P...  
C:\>d:  
D:\>
```

# Command : color

\* The color command is used to change the color of text to any color we want It by using the following numbers(0-f) which indicates the colors.

To change the background color, we write two numbers with the color command, the first indicating the text color and the second the background color.

C:/> color 45



```
Administrator: Command Prompt

attr          Specifies color attribute of console output

Color attributes are specified by TWO hex digits -- the first
corresponds to the background; the second the foreground.  Each digit
can be any of the following values:

    0 = Black          8 = Gray
    1 = Blue           9 = Light Blue
    2 = Green          A = Light Green
    3 = Aqua           B = Light Aqua
    4 = Red            C = Light Red
    5 = Purple         D = Light Purple
    6 = Yellow         E = Light Yellow
    7 = White          F = Bright White

If no argument is given, this command restores the color to what it wa
s
when CMD.EXE started.  This value either comes from the current consol
e
window, the /T command line switch or from the DefaultColor registry
value.

The COLOR command sets ERRORLEVEL to 1 if an attempt is made to execut
e
the COLOR command with a foreground and background color that are the
same.

Example: "COLOR fc" produces light red on bright white
```

# The command: PATH

- \* is an internal command, and its function is to open a path or several paths on a specific set of indexes on one or several cylinders in order to facilitate dealing with the files located on it from any site and insert the PATH command into the Autoexec.bat file in one line (if the command is repeated and in a different way it will be saved It contains only the last image of it in the last line) and describes inside all the indexes that we want to deal with directly without using the CD command to access them.
- \* -Important Notes:
- \* 1- Put PATH command inside Autoexec.bat file in one line.
- \* 2- It is possible to write the PATH command on any CD drive every time you open your computer.
- \* For example, type the command PATH on the DOS to know the name of the path in the machine

# Command: PROMPT

- \* Command: PROMPT is an internal command whose function is to change the appearance of the launch prompt for the operating system.
- \* Among the most important uses of the PROMPT command are the following:
  - \* PROMPT \$ D Change the shape of the prompt C to today's date mark
  - \* PROMPT \$ T Change the shape of the trigger C to the current-time mark
  - \* PROMPT \$ Q Change the shape of the stimulus C to the = sign
  - \* PROMPT \$\$ - Change the shape of the inductor C to the \$ sign
  - \* PROMPT \$ V Change the look of the prompt C to the OS version number
- \* **To return to the original case we just write *prompt***

# External Commands

- \* External Commands Those commands which are not loaded when loading the Program but are available in the Disk and can be invoked whenever necessary
- \* E.g. FORMAT, TREE, XCOPY, etc.

# The FORMAT Command

- \* The FORMAT command prepares a new disk for use by organizing the disk into magnetic tracks and sectors
- \* Syntax :
- \* ◦ A:\>FORMAT [Drive\_name]
- \* E.g.
- \* ◦ C:\>FORMAT A:





# Command: EDIT

- \* Command: EDIT, an external command, which is a text editor for DOS, through which you can write and modify files.
- \* -Important Notes:
- \* This command addresses all the drawbacks of the COPY CON command. Using it, the following can be done:
  - \* 1- Opening and modifying a previously saved file.
  - \* 2- Move inside the file left, right, up and down.
  - \* 3- The file is saved using Alt + F, then we choose Save command, then write the file name.
- \* We exit the command using Alt + F, then choose Exit.
- For the EDIT command to work, the QBASIC.EXE file is required

# The EDIT Command

- \* The EDIT command in MS DOS is used to edit the files. It provides a different full screen Editor window with a few menu options.
- \* Syntax :
- \* ◦ C:\>EDIT [filename]
- \* E.g.
- \* ◦ C:\>EDIT file1



# The PRINT Command

The PRINT Command in MS DOS is used to print the text files

Syntax :

- PRINT Filename

E.g.

- PRINT File1.txt

# The Command :XCOPY

- \* Copies files and directory trees.
- \* XCOPY **source** [**destination**] [/A | /M] [/D[:date]] [/P] [/S [/E]] [/V] [/W]  
\*/C] [/I] [/Q] [/F] [/L] [/G] [/H] [/R] [/T] [/U]
- \* **source** : Specifies the file(s) to copy.
- \* **destination** : Specifies the location and/or name of new files.
- \* /A Copies only files with the archive attribute set, doesn't change the attribute.
- \* /M Copies only files with the archive attribute set, turns off the archive attribute.
- \* /S Copies directories and subdirectories except empty ones.
- \* /E Copies directories and subdirectories, including empty ones.

# The Command :CHKDSK

- \* Checks a disk and displays a status report.
- \* CHKDSK [**volume**[[path]**filename**]] [/F] [/V] [/R] [/X] [/I] [/C]
- \* **volume** Specifies the drive letter (followed by a colon), mount point, or volume name.
- \* **filename** FAT/FAT32 only: Specifies the files to check for fragmentation.
- \* /F Fixes errors on the disk.
- \* /V On FAT/FAT32: Displays the full path and name of every file on the disk.  
On NTFS: Displays cleanup messages if any.
- \* /R Locates bad sectors and recovers readable information

**Northern Technical University**  
**College of Health and Medical Technical**  
**Department of Medical Laboratories**

**Subject | Computer applications**  
**Time | two hours**  
**Date | 3-31-2021**



# Windows Operating System

- \* The Windows Operating System can be defined as one of the computer operating systems that was developed by Microsoft, and it is the most widespread operating system, where about 90% of computers work on versions of Windows
- \* In 1985 AD, the first version of Windows provided DOS users with visually navigating a virtual desktop, in addition to the ability to open graphic windows displaying the contents of electronic folders and files with one click using the mouse button, and then later versions became multi-functional and larger



# Windows versions



1.0 (1985)



3.1 (1992)



95 (1995)



XP (2001)



Vista (2006)



7 (2009)



8 (2012)



10 (2015))

# Versions of the operating system

- \* It is currently being released in a version called “Microsoft Windows 10, and Past versions include: “Windows 95,” “Windows 98,” “Windows ME,” “Windows XP,” “Windows Vista,” “Windows 8,” “Windows 7.” Many people continue to use Windows Vista and Windows 7.
- \* It is important to know that there are different versions of Windows, because different features (such as the Start Menu) may look different in different versions.
- \* Latest release
- \* 10.0.19042.928  
(April 13, 2021)

# Advantages of the Windows operating system

- \* There are a set of features that make the Windows operating system one of the best operating systems:
  - 1- Speed and efficiency** when a modern version of Windows is developed, it is usually faster and more efficient than previous versions, for example Windows 10 Faster than Windows 8.1, which was faster than Windows 7
  - 2- The ideal user interface** :The Windows operating system has an easy to deal with user interface, where a task can be performed by a few clicks
  - 3- Low hardware requirements:** The Windows operating system can be activated on most computers, as Windows does not require large specifications compared to other operating systems
  - 4- Compatibility with most devices** The Windows operating system has the ability to run most devices attached to the computer such as; Printers and scanners.
  - 5-Distinguish the taskbar (Start menu)** : as this menu helps the user to access programs, folders and system settings very quickly.

# System Requirements for windows

- \* **If you want to run Windows 7 on your PC, requirements:**
- \* 1- processor 1 gigahertz (GHz) or faster 32-bit or 64-bit \*
- \* 2- 1 gigabyte (GB) RAM (32-bit) or 2 GB RAM (64-bit)
- \* 3- 16 GB available hard disk space (32-bit) or 20 GB (64-bit)

# Logging On

- \* Once you turn the computer on, the computer will go through a series of automated tasks before it is ready for you to interact with it; this process is called “startup.” This process will last between one and two minutes.
- \* If the computer is not working correctly, you may see an error message during startup.

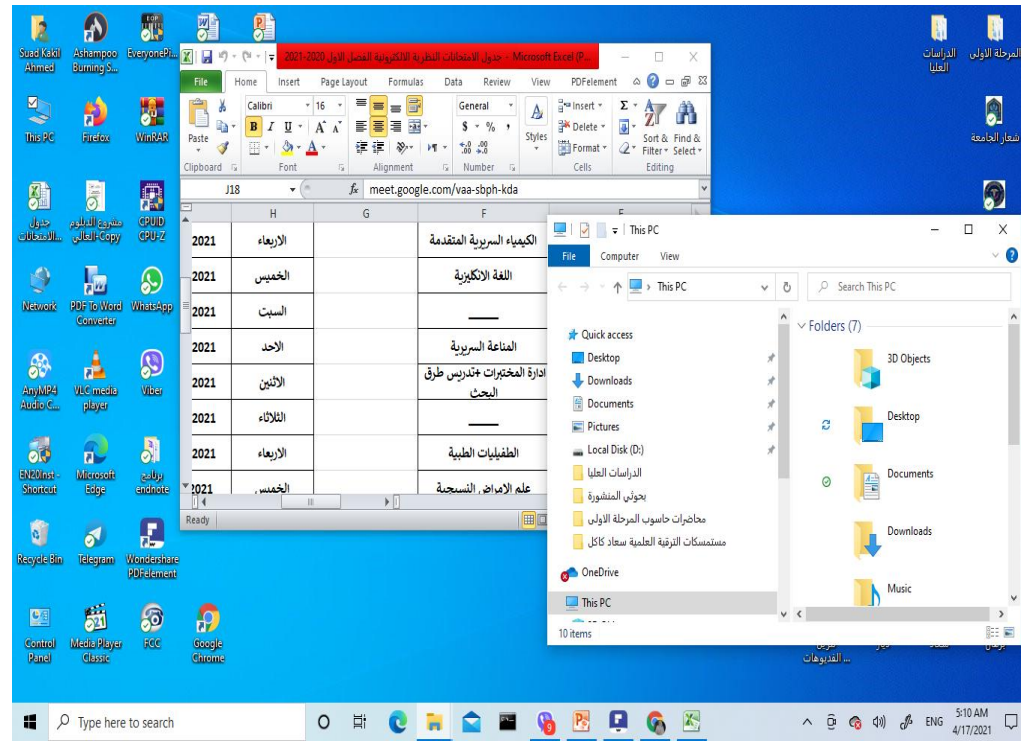
# Desktop

- \* After you log on, the computer will display what is known as your desktop within a few seconds to a few minutes (if your computer is newer, this will probably go faster).
- \* Here you will see a digital representation of something similar to a reallife office space, complete with
  - a workspace, files
  - and file folders, and
  - even a recycling bin!

# Managing “Windows”

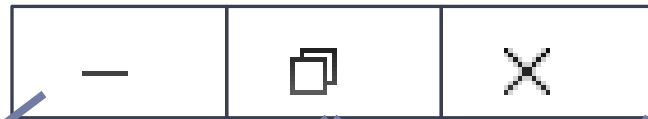
- \* Microsoft Windows is called “Windows” for a reason. Programs appear on your screen as “Windows” (rectangular shapes) and are laid 3- dimensionally on top of one another.

- \* The desktop is your work surface, and all of your open windows appear on top of it.



# Managing “Windows”

- \* If you can see a window, that means the program is open and running. It is possible to make the window bigger, smaller, or close it using the buttons in the top right corner of any window.



**Minimize:** Left-click this button to shrink the window down to a small button that will appear in the task bar

**Maximize:** Left-click this button to make the window as large as it can be—it should take up your entire screen

**Restore Down:** Left-click this button to make the window smaller without minimizing it.

**Close:** Left-click this button to close the window. The program will close and stop running. Make sure you save your work first!



# Desktop components

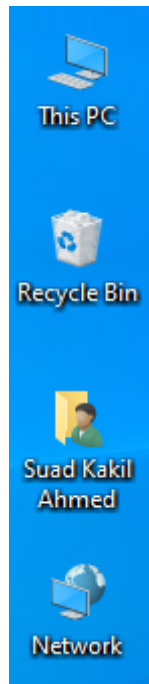
- \* Desktop components are the group of components that make up the desktop, the most important of which are:
- \* Icons
- \* start menu
- \* Taskbar

# Icons

\* **They are the small shapes, so each application that is loaded on the computer must be linked to a specific icon, and** the desktop icons are divided into two types:

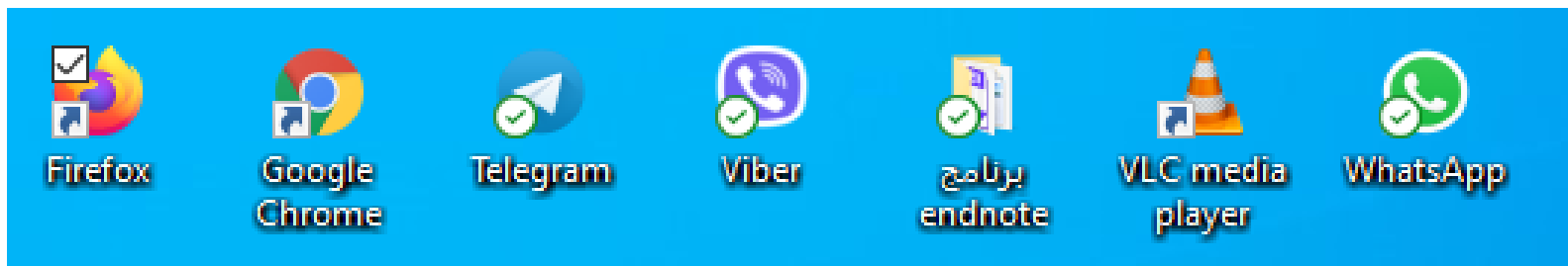
**1- Windows system icons:** They are all the application icons that come with the Windows operating system:

- my computer icon*
- recycle bin icon*
- *my document icon*
- network icon*



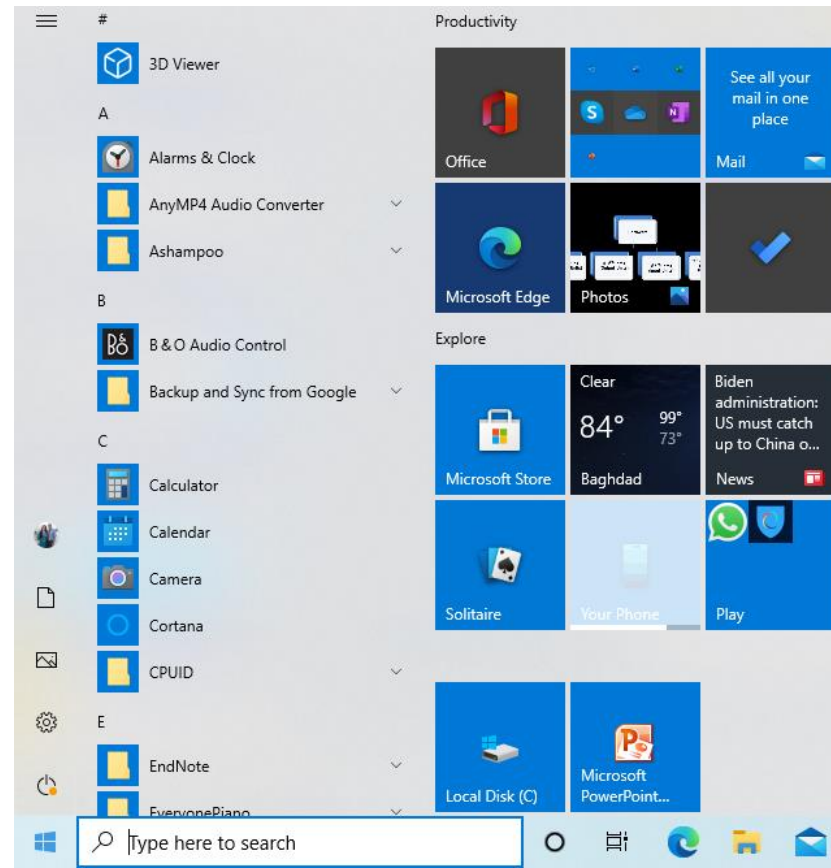
# Icons(cont.)

**2- Other application icons:** They are the icons that are related to the applications that the computer user uses, and after downloading any application on the computer, a shortcut to its icon will appear on the desktop directly, referred to by the English term (Shortcut)



# Start Menu

- \* It is the main menu on the desktop, which provides the user with control over all applications and icons on the computer, and it also provides the ability to use a set of utilities for the computer user, including applications that provide control of computer settings, and the design of the Start menu differed with each version of Windows.



# The taskbar

- \* The taskbar is the bar that is usually located at the bottom of the desktop, and **the Start menu** is part of it, and the taskbar contains the applications that the computer user uses almost always, and the bar also contains *an electronic clock*, and a small bar that launches It is called *the notification bar*, so informational messages appear from a group of applications that are constantly running.

# The concept of the taskbar

- \* The taskbar is known as a moving bar, that can be hidden and worked to adjust, located on the end of the user's graphical interface, and it is used as an operating platform for applications and programs, and is considered to be the carrier of icons that indicate running programs.



# How to use the taskbar

\* The taskbar can be used for many services, can benefit from are the following:

**1- Install or uninstall the user's favorite applications and programs, where the user to access it quickly. through the Start menu, by the following steps:**

*A- right-click on the application.*

*B-Click More.*

*C- Pin to taskbar.*

**2- Modify and change the taskbar settings, which are as follows:**

*A- Change the location of the taskbar, where the taskbar is located at the bottom of the screen, but the user can move it to the top or sides.*

*B- The ability to modify the order of the application buttons on the taskbar, by dragging the button from its current location to another location.*

# Computer mouse

- \* A **computer mouse**: is a hand-held pointing device that detects two-dimensional motion relative to a surface.
- \* This motion is typically translated into the motion of a pointer on a display, which allows a smooth control of the graphical user interface of a computer.



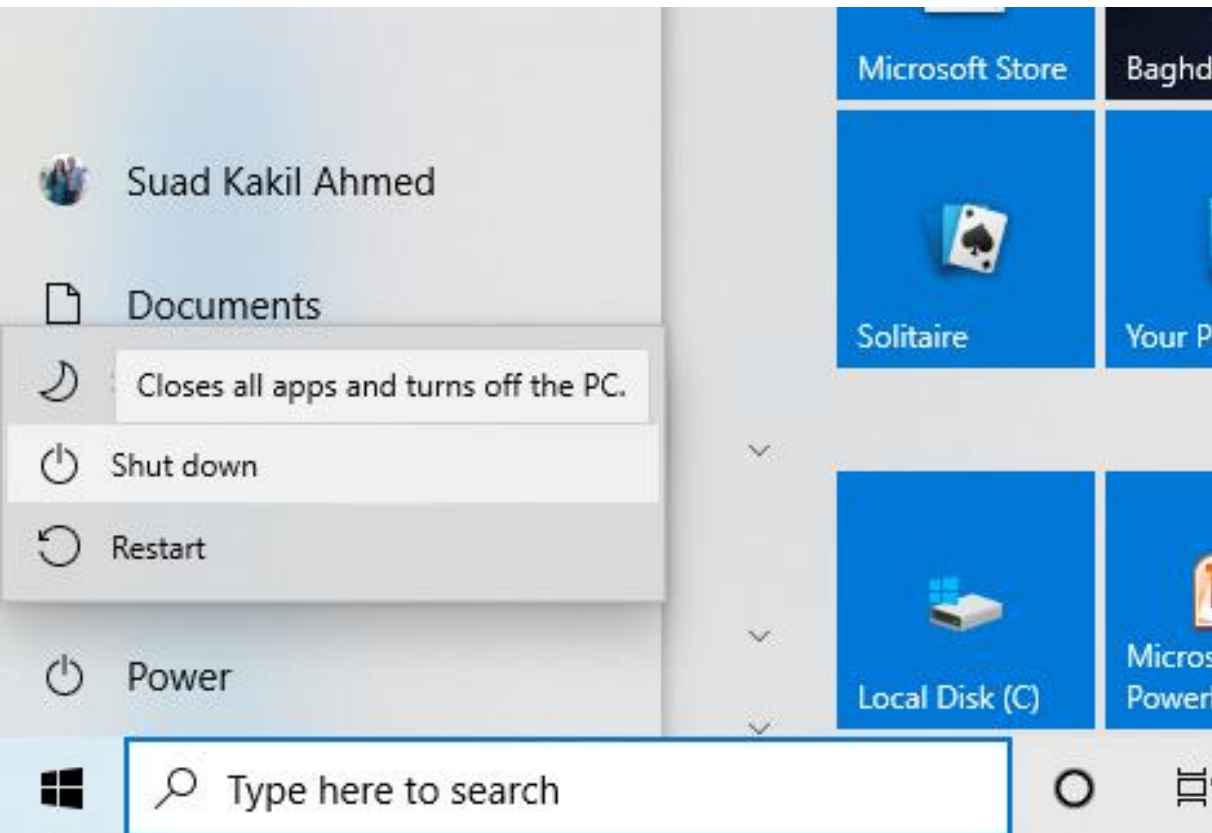


# The functions of mouse

- \* Click: pressing and releasing a button.
  - \* (left) Single-click: clicking the main button ( selection)
  - \* (left) Double-click: clicking the button two times( execute) .
  - \* (left) Triple-click: clicking the button three times in quick ( To choose a paragraph)
  - \* Right-click: clicking the secondary button. In modern applications, this frequently opens a list of orders.
- \* Drag: pressing and holding a button, and moving the mouse before releasing the button. This is frequently used to move or copy files or other objects via drag and drop;

# SHUTTING DOWN THE COMPUTER

- \* To log off or shut down the computer, click the Start button



# ICON :My Computer (This PC)

- \* **My Computer** is a Microsoft Windows feature first found in [windows 95](#) and included with all later versions that allows you to explore and manage the contents of your computer drives. The image shows examples of the My Computer icon in Microsoft [Windows XP](#), [Vista](#) and [Windows 7](#), and the "**This PC**" icon in [Windows 8](#) and in [Windows 10](#). Although the name has changed, "This PC" still has the same functionality as "My Computer."
- \* In all Windows versions, you can use the keyboard to open My Computer without using the Mouse. Pressing the shortcut keys [Windows key](#)+E opens My Computer (Explorer). Your computer's drives and any installed devices are listed under the "This PC" section on the left.

## Quick access

- Desktop
- Downloads
- Documents
- Local Disk (D:)
- Pictures
- المرحلة الاولى
- بحوثي المنشورة
- محاضرات حاسوب المرحلة الاولى
- نسخة من بحث ماجستير وورد

## OneDrive

- This PC
- 3D Objects
- Desktop
- Documents
- Downloads
- Music

29 items

## Frequent folders (9)

- Desktop  
OneDrive
- Downloads  
This PC
- Documents  
OneDrive
- Local Disk (D:)  
This PC
- Pictures  
OneDrive
- المرحلة الاولى  
OneDrive\Desktop
- بحوثي المنشورة  
Local Disk (D:)
- محاضرات حاسوب المر...  
OneDri...\المرحلة الاولى
- ...نسخة من بحث ماجستير  
Local ...\بحوثي المنشورة

## Recent files (20)

- مفردات حاسبة  
OneDri...\المرحلة الاولى

# ICON : Document

- \* Not to be confused with a written document, **My Documents** and **Documents** are Microsoft Windows folders that store computer documents and other files associated with programs on your computer. For example, when saving a file in Microsoft Word, the default folder is My Documents. Saving all your files into the My Documents folder makes them easier to backup and locate.

## Showing Documents through Windows Explorer

- \* Open Windows Explorer.
- \* Double-click the **Libraries folder**
- \* Double-click the **Documents** folder.
- \* Double-click the **My Documents** folder.

- 📁 Pictures
  - 📁 المرحلة الاولى
  - 📁 بحثي المنشورة
  - 📁 محاضرات حاسوب المرحلة الاولى
  - 📁 نسخة من بحث ماجستير وورد

OneDrive

This PC

- 📁 3D Objects
- 📁 Desktop
- 📁 Documents
- 📁 Downloads
- 📁 Music
- 📁 Pictures
- 📁 Videos

Folders (7)

- 📁 3D Objects
- 🔄 📁 Desktop
- ☑️ 📁 Documents
- 📁 Downloads
- 📁 Music
- 📁 Pictures

# Icon :The recycle bin

- \* The recycle bin is an [icon](#) on the [Windows desktop](#) that represents a [directory](#) where deleted files are temporarily stored. This enables you to retrieve files that you may have accidentally deleted. From time to time, you'll want to [clear](#) the recycle bin to free up space on your [hard disk](#).



Recycle Bin

File Home Share View Manage Recycle Bin Tools

Empty Recycle Bin properties Restore all items Restore the selected items

Manage Restore

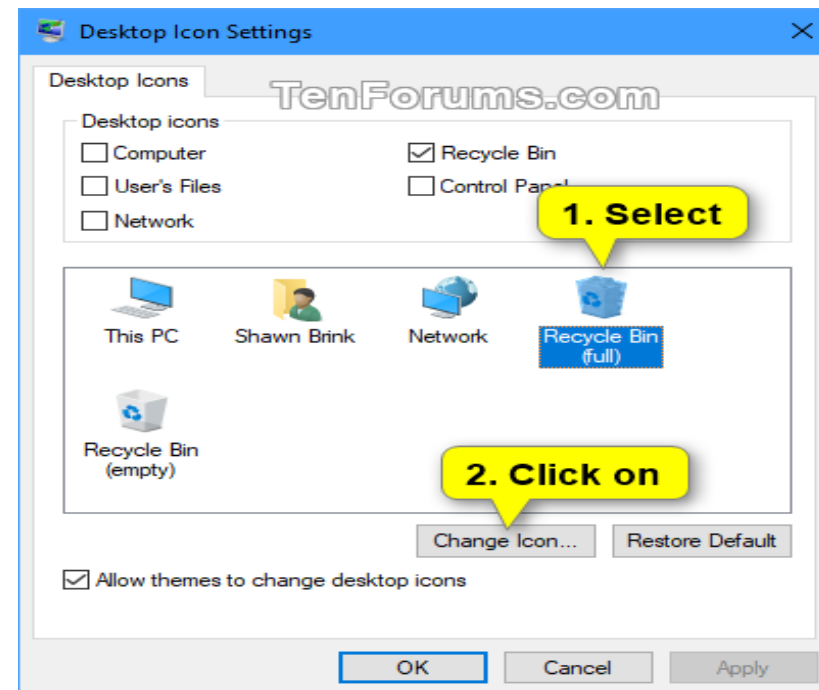
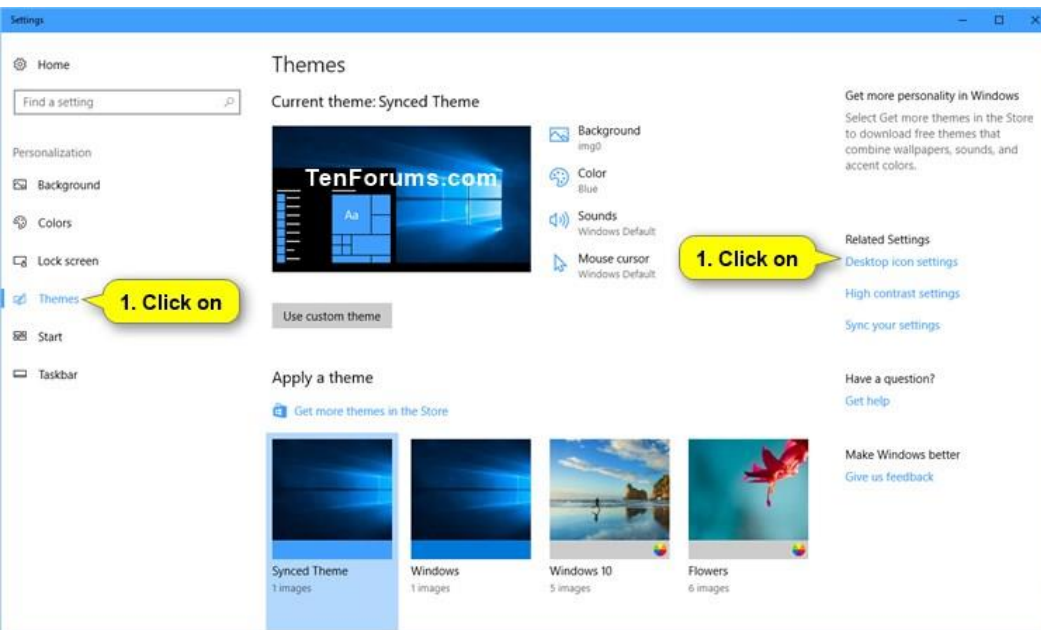
Desktop	2_5308049866654485198	C:\Users\silvertaj company\OneDrive\De...	4/17/2021 1:36 PM
Downloads	1234	C:\Users\silvertaj company\OneDrive\De...	4/19/2021 9:49 PM
Documents	Γ•Π•ΕΙ•Ε_144VT•	C:\Users\silvertaj company\OneDrive\De...	4/17/2021 4:29 AM
Local Disk (D:)	55555555	C:\Users\silvertaj company\OneDrive\De...	4/19/2021 9:49 PM
Pictures	aa	C:\Users\silvertaj company\OneDrive\De...	4/9/2021 5:51 PM
المرحلة الاولى	border-frame-decoration_22185...	C:\Users\silvertaj company\OneDrive\De...	4/14/2021 10:47 AM
بحوثي المنشورة	Doc1	C:\Users\silvertaj company\OneDrive\De...	4/13/2021 10:32 AM
محاضرات حاسوب المرحلة الاولى	download	C:\Users\silvertaj company\OneDrive\De...	4/17/2021 5:47 PM



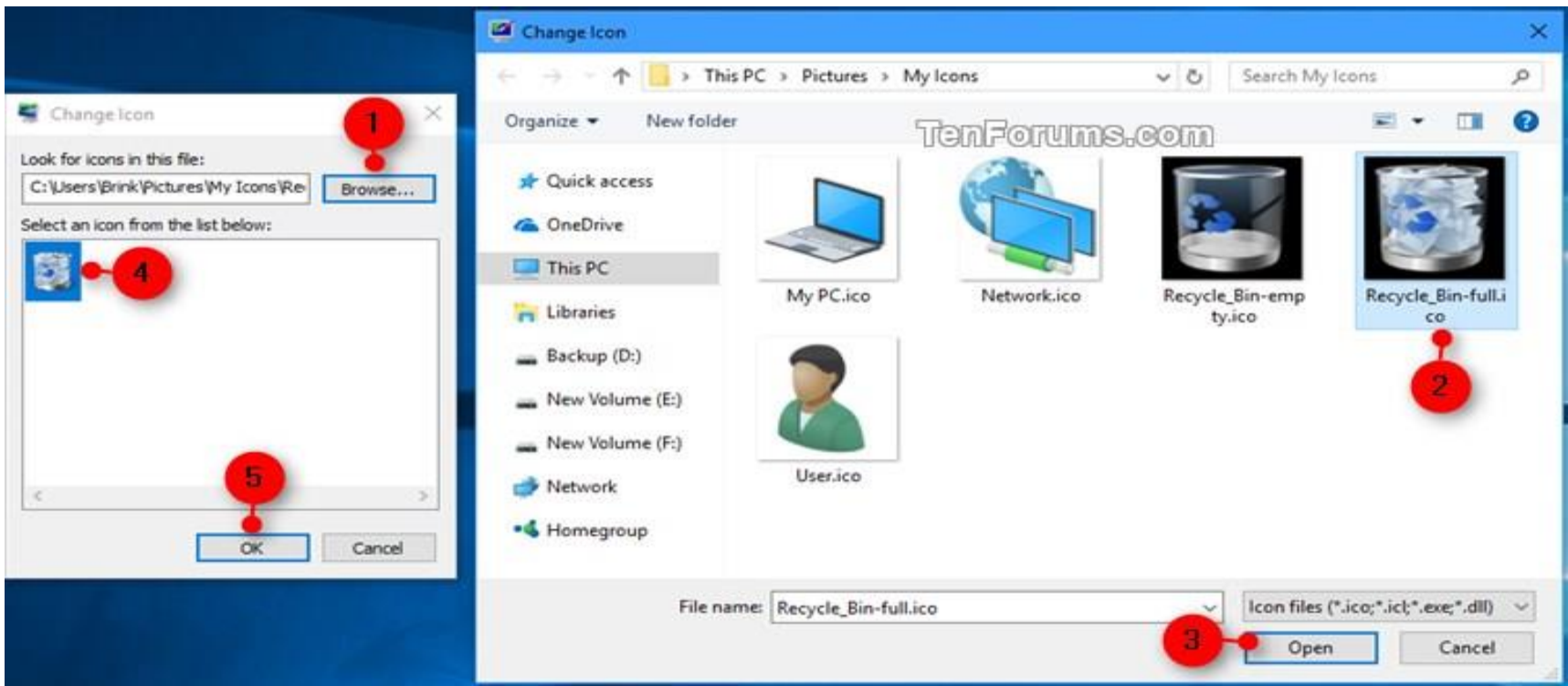
# To Change Default Recycle Bin Full and Empty Icons in Desktop Icon Settings

- \* Right click → tap on the **Personalization** icon
- \* Click on **Themes** on the left side, and click on the **Desktop icon settings**

Select the **Recycle Bin (full)** icon, and click/tap on the **Change Icon** button



- \* Click on the **Browse** button, navigate to and select the **.ico** file or file that contains the icon you want, click on **Open**, select the icon you want, and click on **OK**.



# Recycle Bin

- \* When you delete one of the indexes or files, it is placed in this Recycle Bin, and if we want to delete or retrieve it, it is done through this icon.
- \* The Recycle Bin is a temporary place for storing deleted files, through which those folders or files can be returned to their previous location in the event that the user needs them again, and if the user is sure that the user does not need those folders or files, the Recycle Bin can be emptied from that Folders or files so that they do not accumulate in the memory of the hard disk, thus occupying a large part of this memory on the hard disk. By pointing to the icon and clicking with the mouse on the right, a menu containing a set of commands appears, and we choose the command Empty Recycle Bin:

# My Computer window

- \* The icon can be opened by double-clicking on the computer icon. A window will appear that contains the hard disk, floppy disk, CD-ROM drive and drives mapped to the network, and Control Panel.

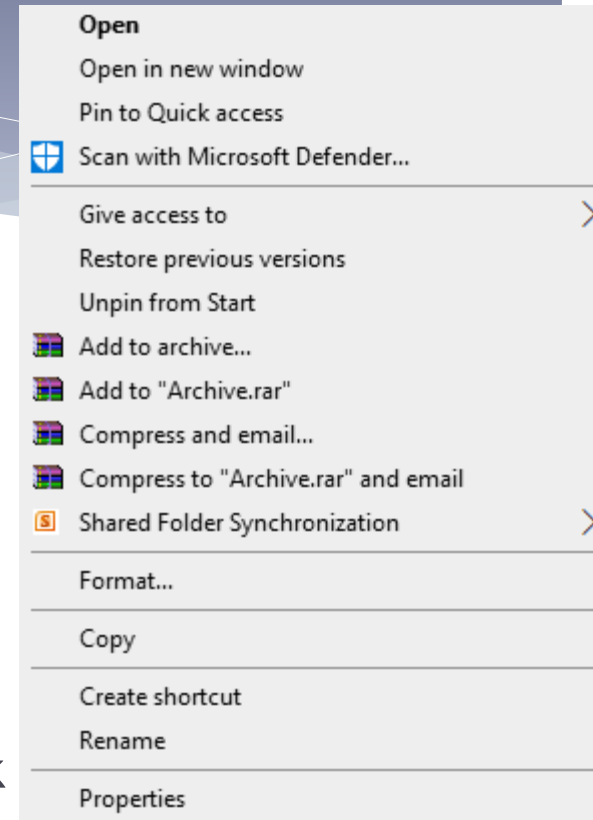
## ***This window contains the following icons:***

- Floppy A drive or floppy disk drive.
- drive or disk drive request C, D, E, F.
- CD or CD drive.
- files stored on the computer.

# Right-click on the hard disk drive

The following commands appear:

- **Open:** Open the contents of the hard drive.
- **Format:** Format the hard or floppy disk.
- **Copy:** copying the files or folders on the disk.
- **Create Short Cut:** Create a short cut.
- **Rename:** Rename the hard drive.
- **Properties:** View the properties of the hard disk such as the disk capacity and the used and remaining space in it.



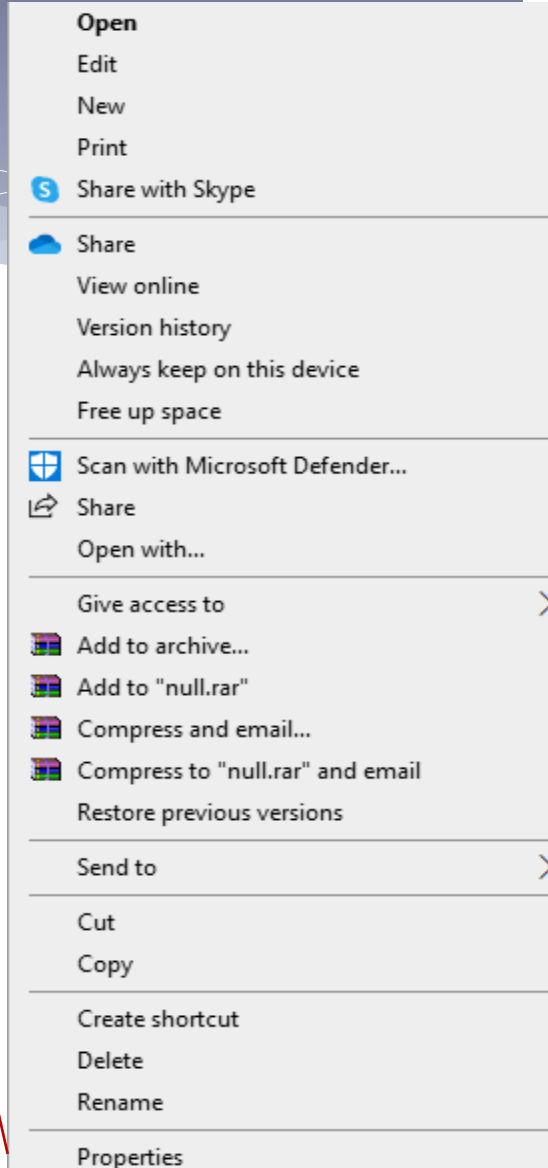
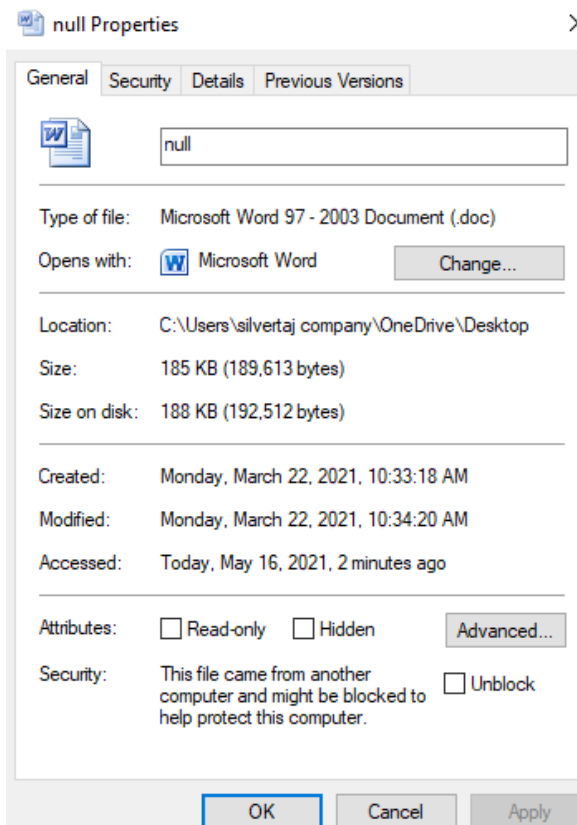
# A table showing the copy, cut, and paste function

Cut	Copy	Paste	History
Control + X or Right click → cut	Control + C or Right click → copy	Control + V or Right click → paste	In Windows 10 if enabled: ⊞ Win + V
	click-and-drag to highlight	middle mouse button	
To move files or folders in any location to any other location. It does not keep a copy in its old location	copy files or folders in any location to any other location. And keep a copy in its old location		

# The properties of the file or folder

- \* To see the properties of the file or folder, we click on the right-click.

A window will appear in which a list of a set of commands such as:

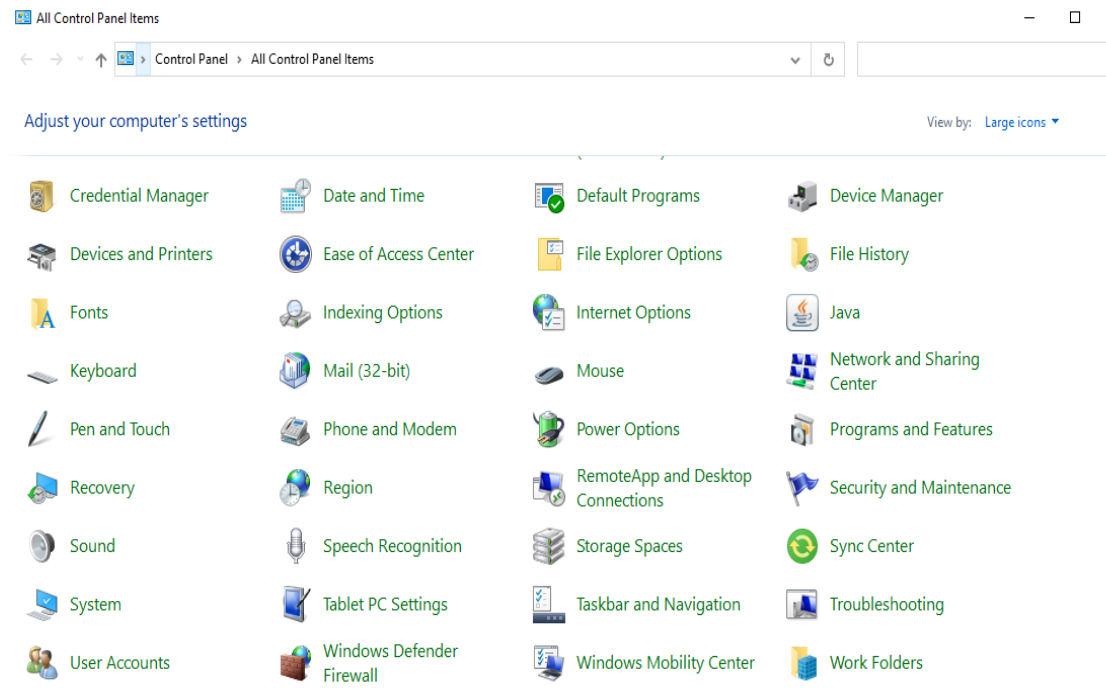


# Control Panel

- \* The **Control Panel** is a component of Microsoft windows that provides the ability to view and change system settings.
- \* It consists of a set of applets that include adding or removing hardware and software, controlling user account, changing accessibility options, and accessing networking settings.
- \* Many of the individual Control Panel applets can be accessed in other ways.

- accessed by right-clicking on an empty area of the desktop and choosing *Properties*.

-The Control Panel can be accessed from a command prompt by typing control panels.





# 1-personalize

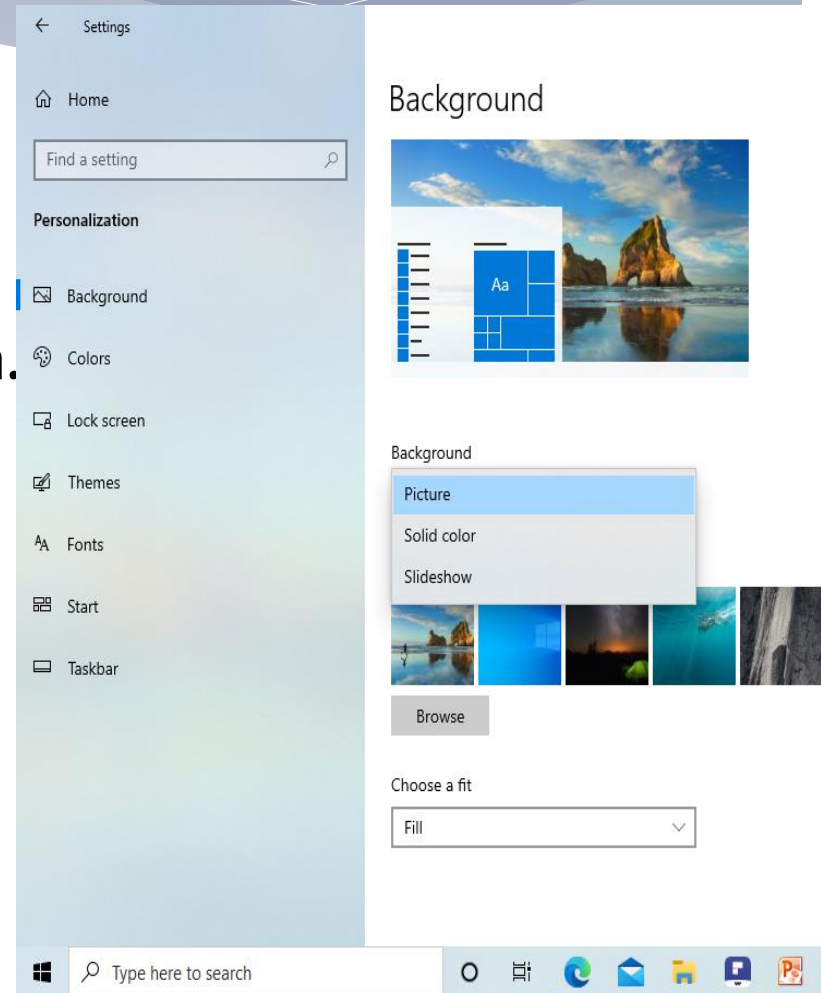


# A-Background

-Also known as (a **desktop wallpaper, desktop background, desktop picture** on computers) is a digital image (photo, drawing etc.) used as background of Desktop screen.

When you click on the background menu appears:

- Picture
- Solid color
- slideshow

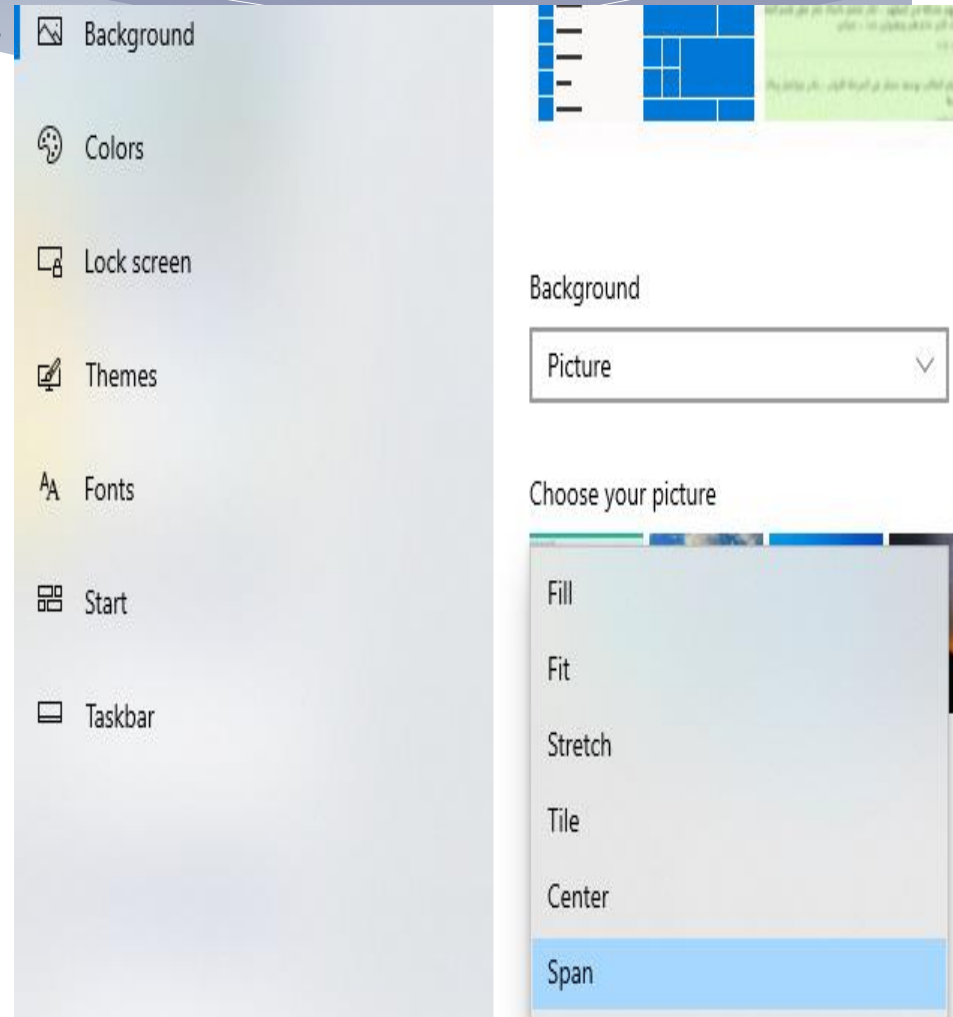


# A-Background(cont.)

\* In the field choose your photos

We click on the small arrow,  
a menu with a set of options will  
appear on how the image  
will appear:

- Fill
- Fit
- Stretch
- Tile
- Center
- span



# B-themes

Home

## Themes

Find a setting

### Personalization

Background

Colors

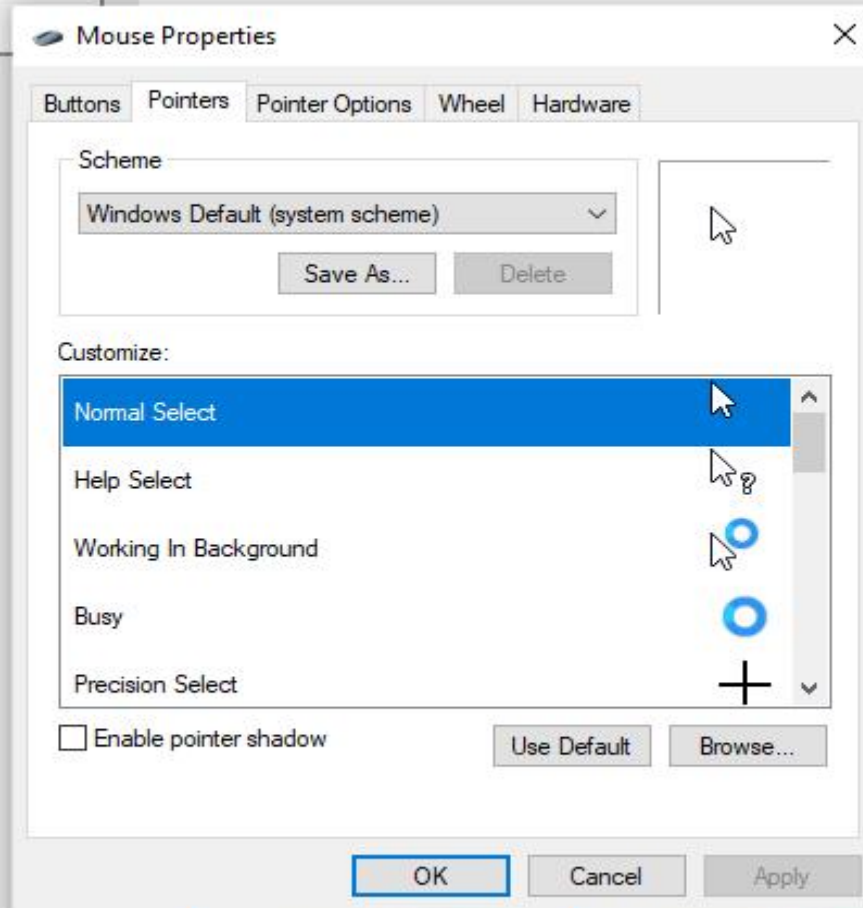
Lock screen





Themes

Fonts

Start

Taskbar



-  Background  
img2
-  Color  
Default blue
-  Sounds  
Windows Default
-  Mouse cursor  
Windows Default



# Mouse properties

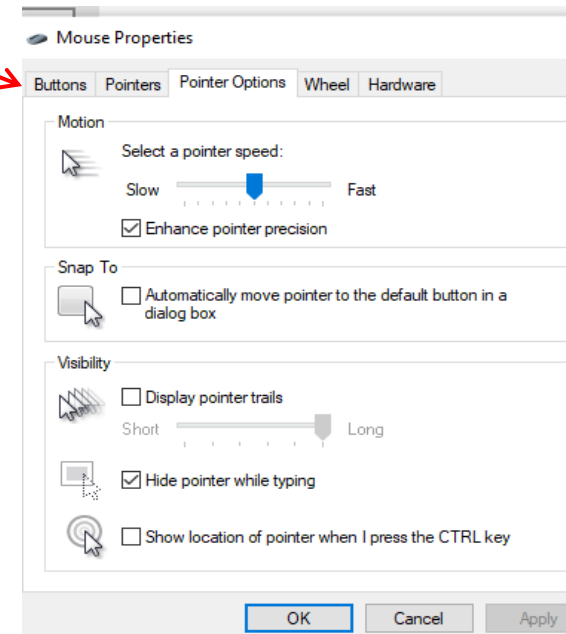
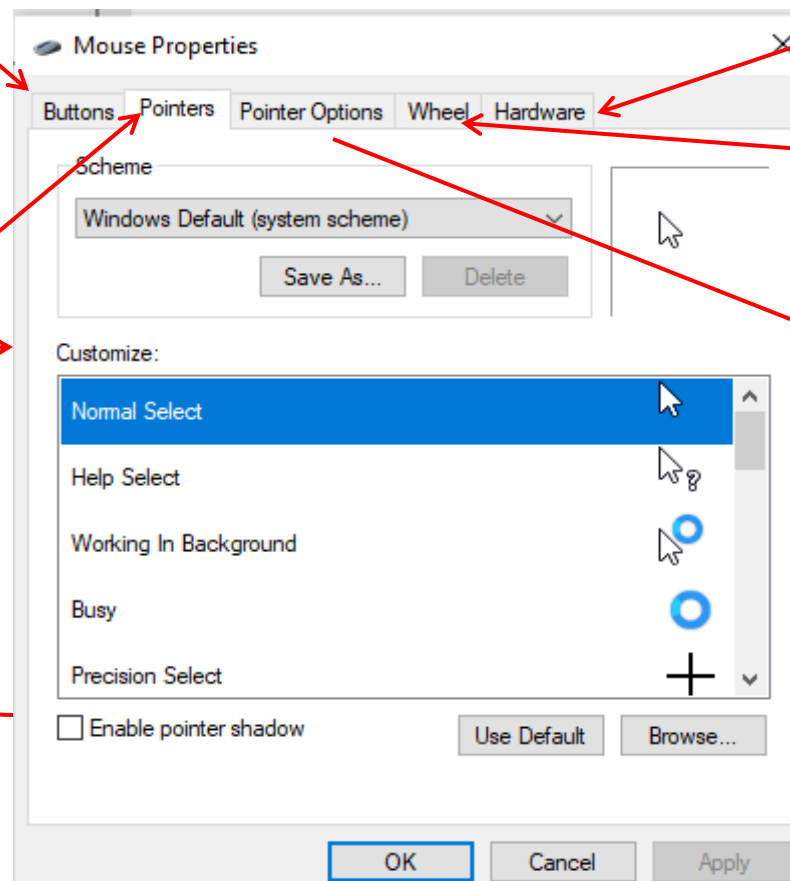
Change the functions of the buttons

It shows the hardware type for the indicator

The shape of the cursor has changed

Models of cursor shapes

roll the wheel one notch to scroll

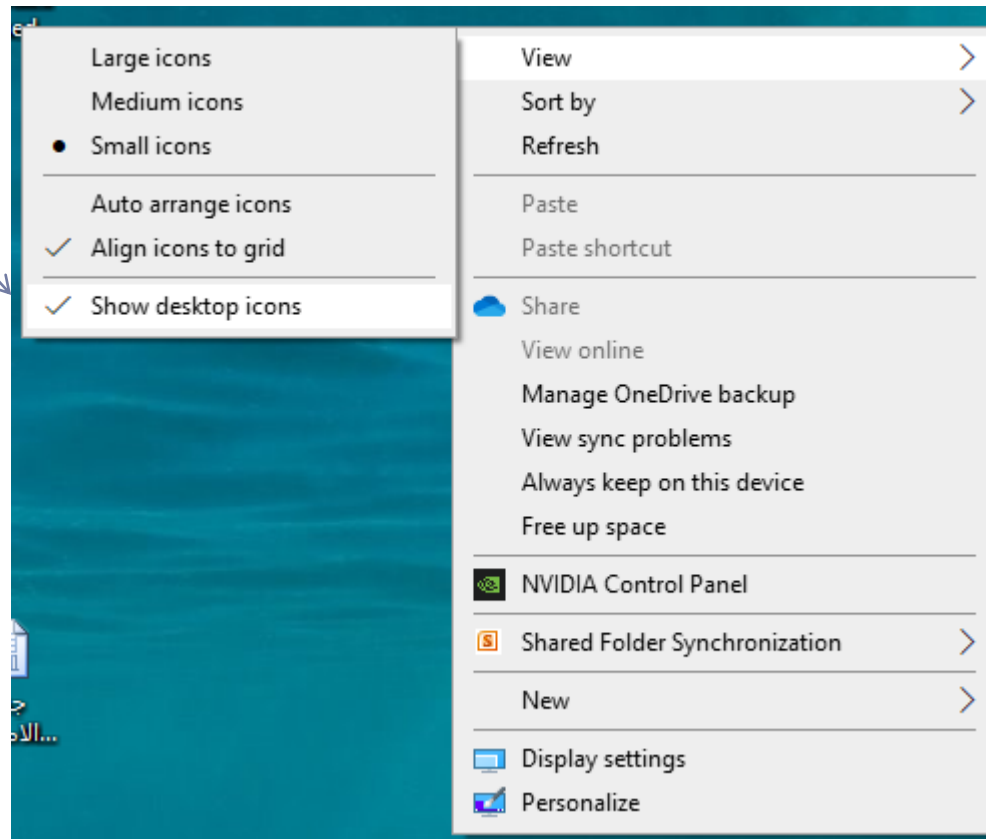




# To show or hide desktop icons

- \* Right-click (or press and hold) the desktop, point to **View**, and then select **Show desktop icons** to add or clear the check mark.

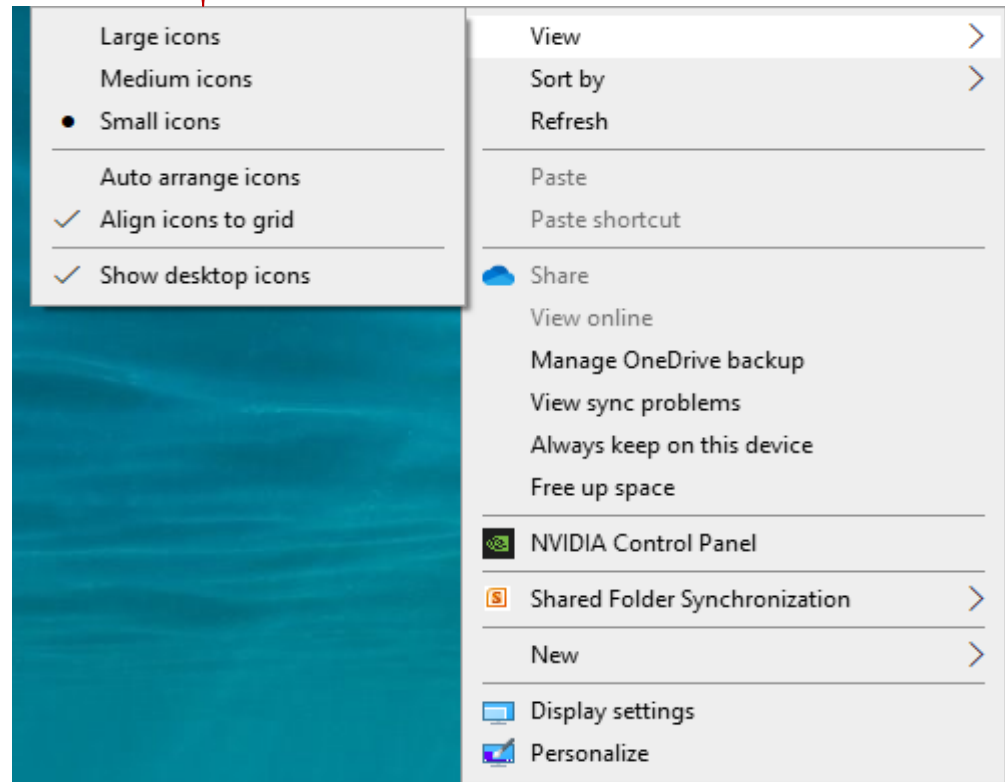
- \* **Note:** Hiding all the icons on your desktop doesn't delete them, it just hides them until you choose to show them again.



# To resize desktop icons

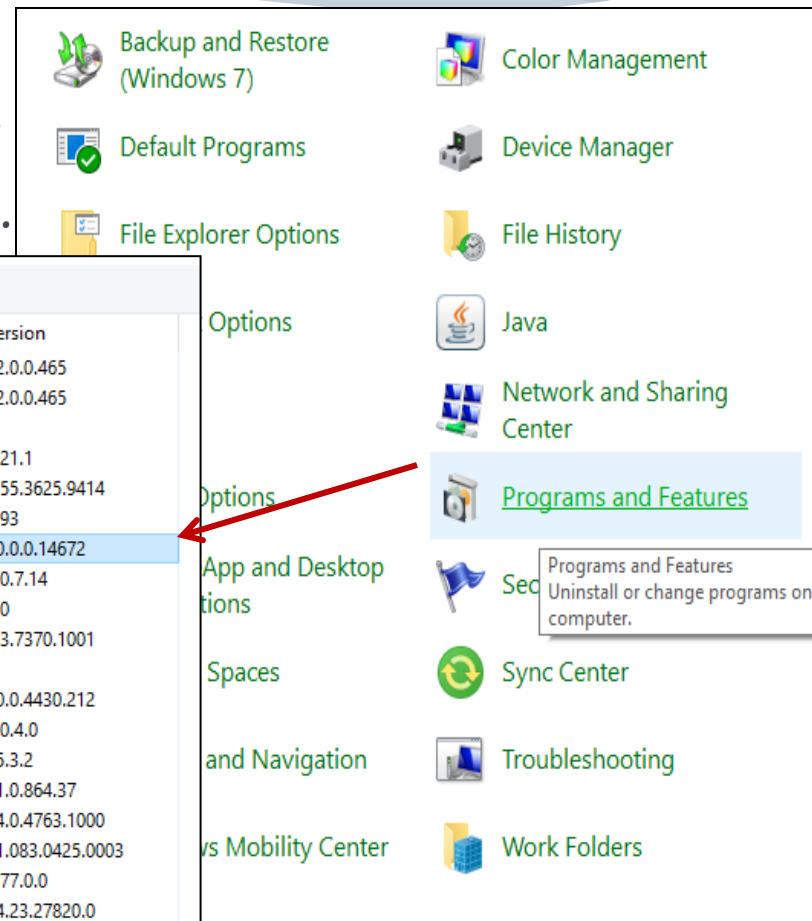
- \* Right-click (or press and hold) the desktop, point to **View**, and then select **Large icons**, **Medium icons**, or **Small icons**

**Tip:** You can also use the scroll wheel on your mouse to resize desktop icons. On the desktop, press and hold **Ctrl** while you scroll the wheel to make icons larger or smaller



# How to Manually Remove Programs from the Add/Remove Programs List

1. In the search box on the taskbar, type **Control Panel** and select it from the results.
2. Select **Programs > Programs and Features**.
3. Press and hold (or right-click) on the program you want to remove and select **Uninstall** or **Uninstall/Change**. Then follow the directions on the screen.

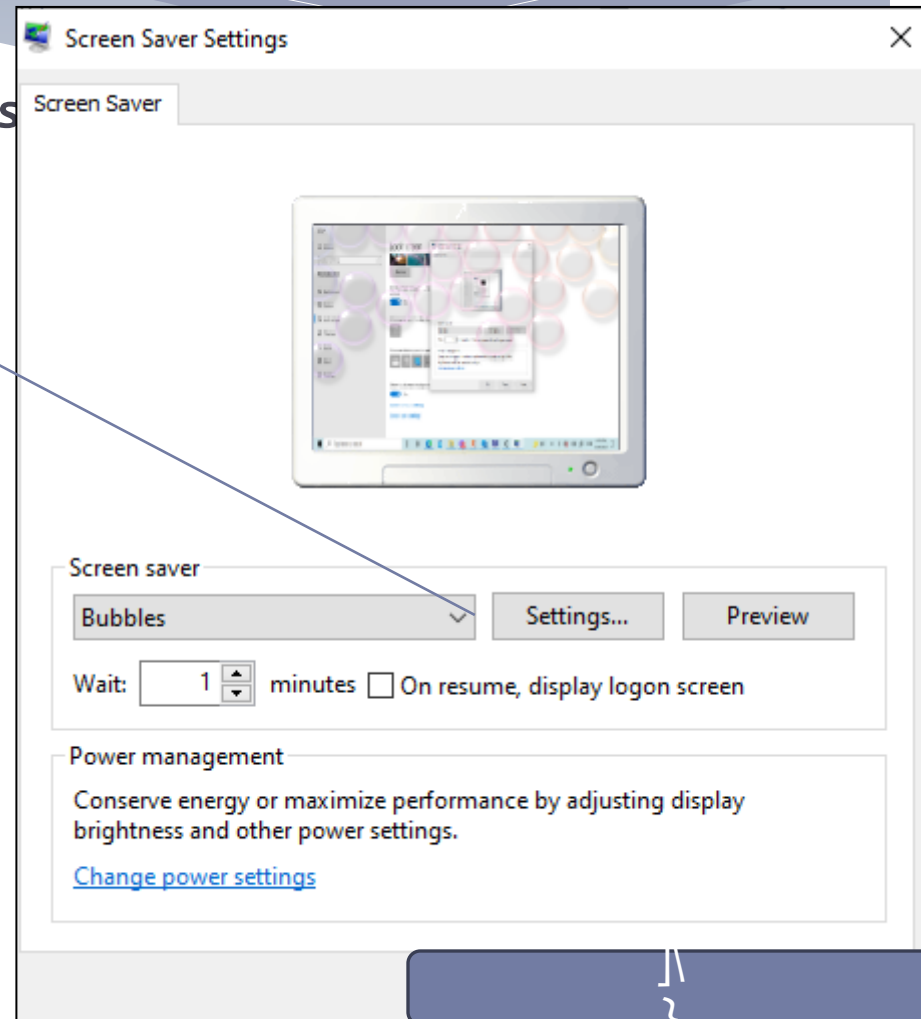
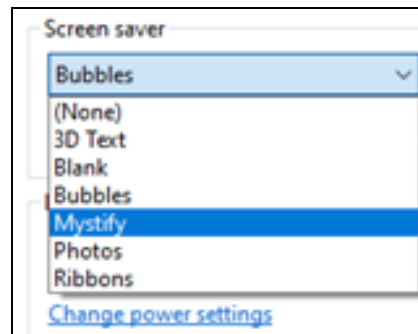


Name	Publisher	Installed On	Size	Version
Adobe Flash Player 32 NPAPI	Adobe	12/14/2020	5.95 MB	32.0.0.465
Adobe Flash Player 32 PPAPI	Adobe	12/14/2020	4.85 MB	32.0.0.465
AnyMP4 Audio Converter		9/22/2020	121 MB	
Ashampoo Burning Studio 2020	Ashampoo GmbH & Co. KG	9/22/2020	236 MB	1.21.1
Backup and Sync from Google	Google, Inc.	3/24/2021	60.5 MB	3.55.3625.9414
CPUID CPU-Z 1.93	CPUID, Inc.	9/29/2020	4.61 MB	1.93
<input checked="" type="checkbox"/> EN EndNote 20	Clarivate Analytics	1/8/2021	101 MB	20.0.0.14672
EveryonePiano 2.0	EveryonePiano.com	1/3/2021		2.0.7.14
Excel	Excel	11/20/2020		1.0
FCC 3.3.7370.1001 (current user)	FreeConferenceCall LLC	3/8/2021	24.1 MB	3.3.7370.1001
Font Halkawt	Akam Company	9/22/2020		2
Google Chrome	Google LLC	9/22/2020	58.0 MB	90.0.4430.212
Java 9.0.4 (64-bit)	Oracle Corporation	9/22/2020	205 MB	9.0.4.0
K-Lite Codec Pack 15.3.2 Full	KLCP	9/22/2020	170 MB	15.3.2
Microsoft Edge	Microsoft Corporation	5/29/2021		91.0.864.37
Microsoft Office Professional Plus 2010	Microsoft Corporation	9/22/2020		14.0.4763.1000
Microsoft OneDrive	Microsoft Corporation	5/28/2021	149 MB	21.083.0425.0003
Microsoft Update Health Tools	Microsoft Corporation	4/4/2021	1.09 MB	2.77.0.0
Microsoft Visual C++ 2015-2019 Redistributable (x...	Microsoft Corporation	9/22/2020	20.1 MB	14.23.27820.0



# Change your screen saver settings

- \* Right click > **Personalization** > **Lock screen**, and select **Screen saver settings**
- In the Screen Saver Settings window, choose a screen saver from the drop-down list.



We can also change the amount of time that elapses before the logon screen saver starts. When we press the space stick, the screen saver will be cut off and a desktop top appears.

# How to take advantage of **RUN** commands

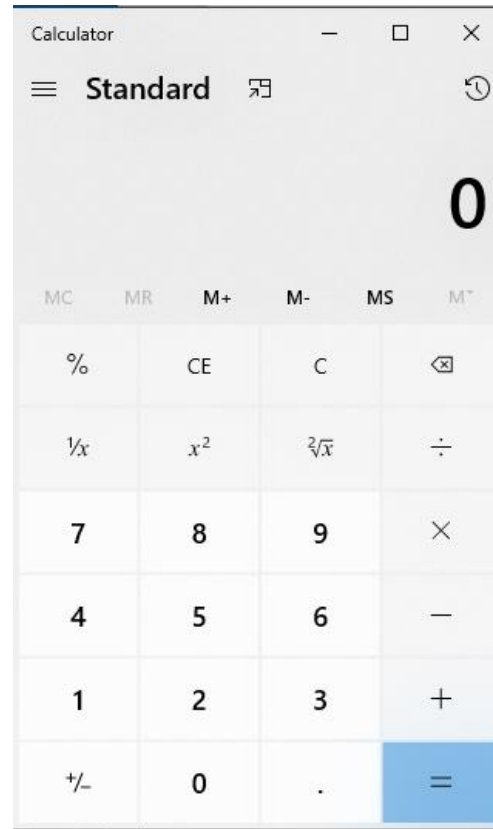
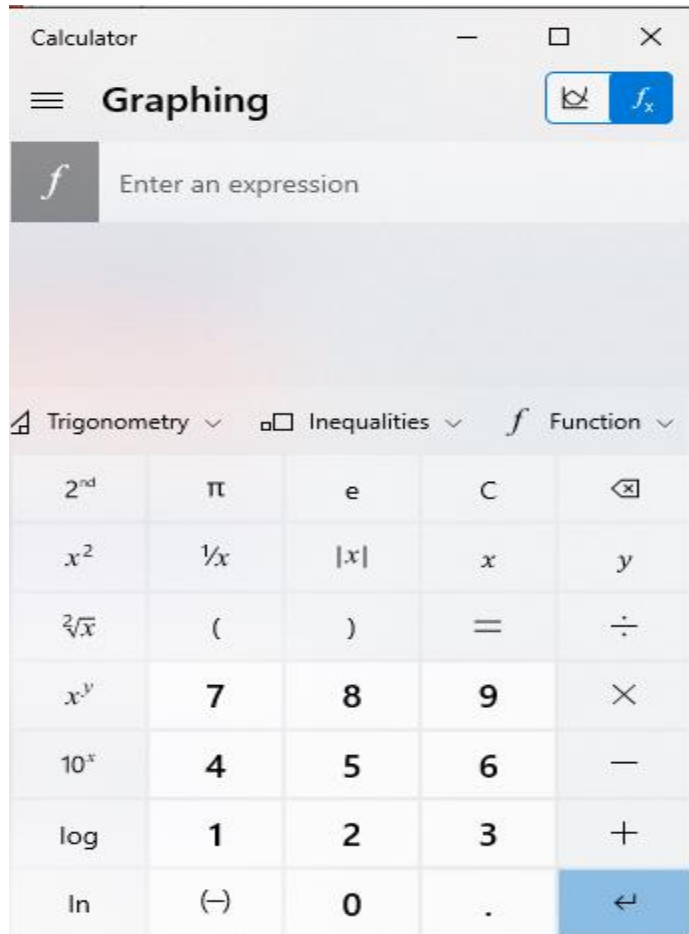
## Most used Windows Tools

Action	Run Command	Action	Run Commands
Windows explorer	explorer	Adobe acrobat	acrobat
Explorer C: Drive	C:	Adobe Photoshop	Photoshop
Registry editor	regedit	Ccleaner	ccleaner
Windows services	services.msc	Chrome	chrome
Task manager	taskmgr	Microsoft Excel	excel
System configuration utility	msconfig	Microsoft Access	access
Remote Desktop	mstsc	Microsoft PowerPoint	powerpnt
Log off windows	logoff	Microsoft Word	winword
Shuts down windows	Shutdown	Windows Media Player	wmplayer
Calculator	calc	Wordpad	Write
Command Prompt	cmd	Paint	mspaint
Notepad	notepad		

# Using accessories such as Windows media player to play movies

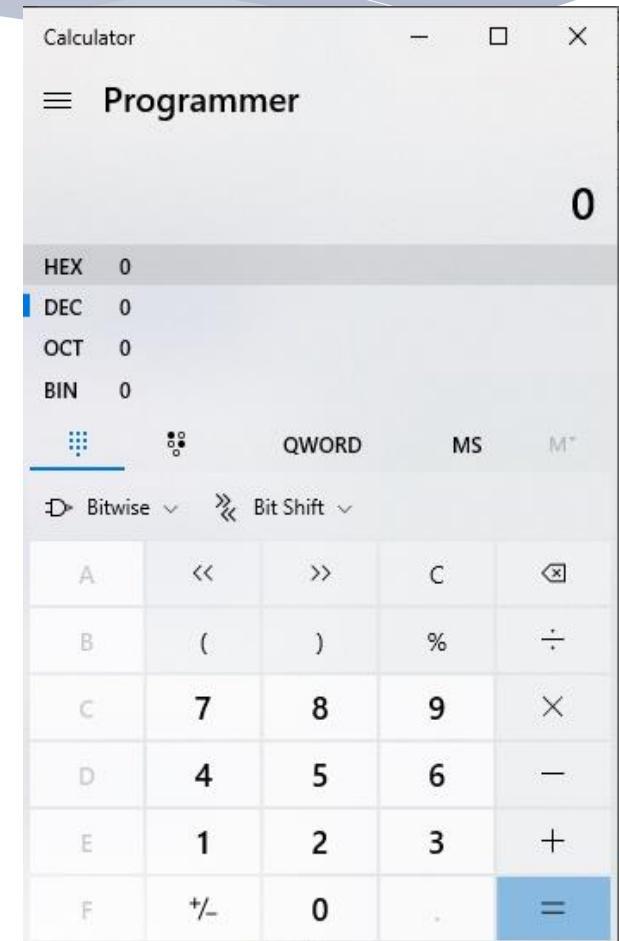
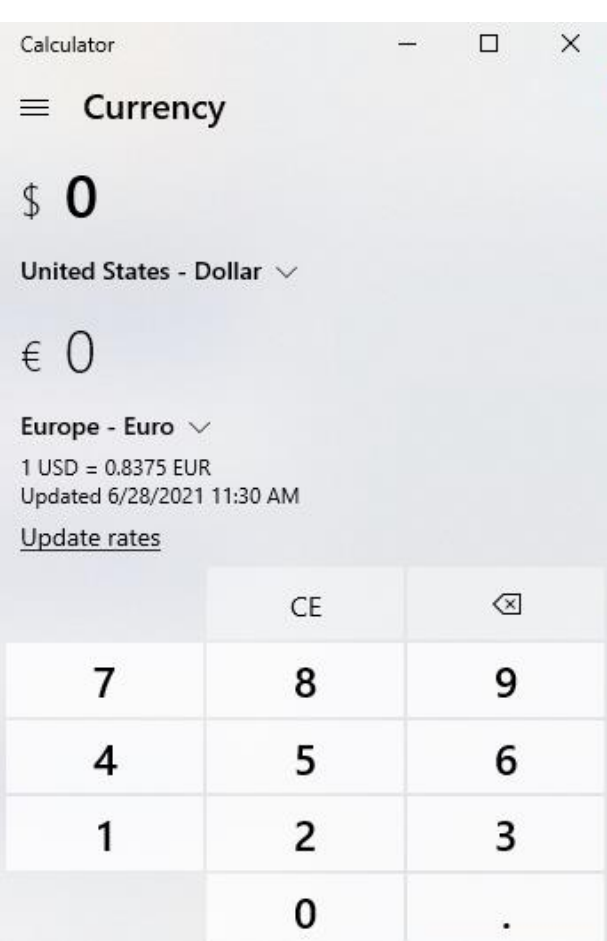
- \* Windows Media Player (WMP) is a media player and media library application developed by Microsoft that is used for playing audio, video and viewing images on personal computers
- \* Windows Media Player 11 is available for [Windows XP](#) and included in [Windows Vista](#) and [Windows Server 2008](#). The default file formats are
- \* [Windows Media Video](#) (WMV),
- \* [Windows Media Audio](#) (WMA),
- \* [Advanced Systems Format](#) (ASF),

# Types of calculator



# Types of calculator(cont.)

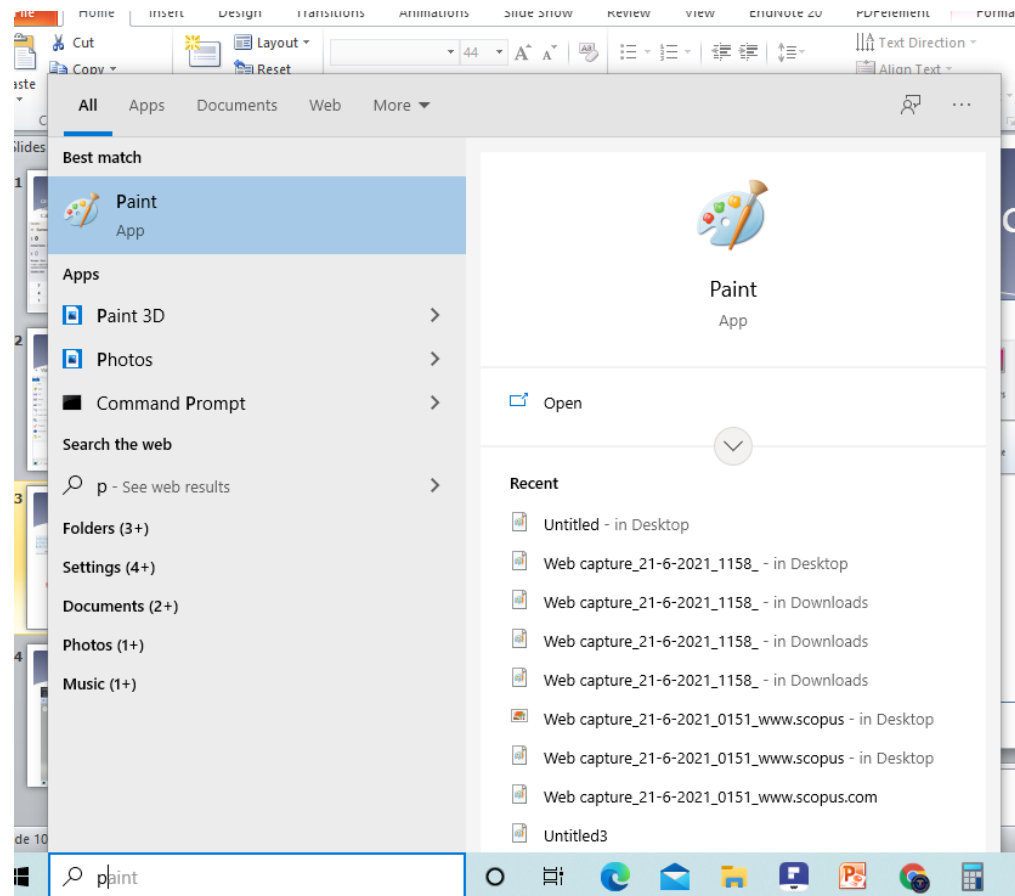
- \* One of the components of the accessories that come with Windows :We can access it through Start Menu and then Calculator



# Paint program

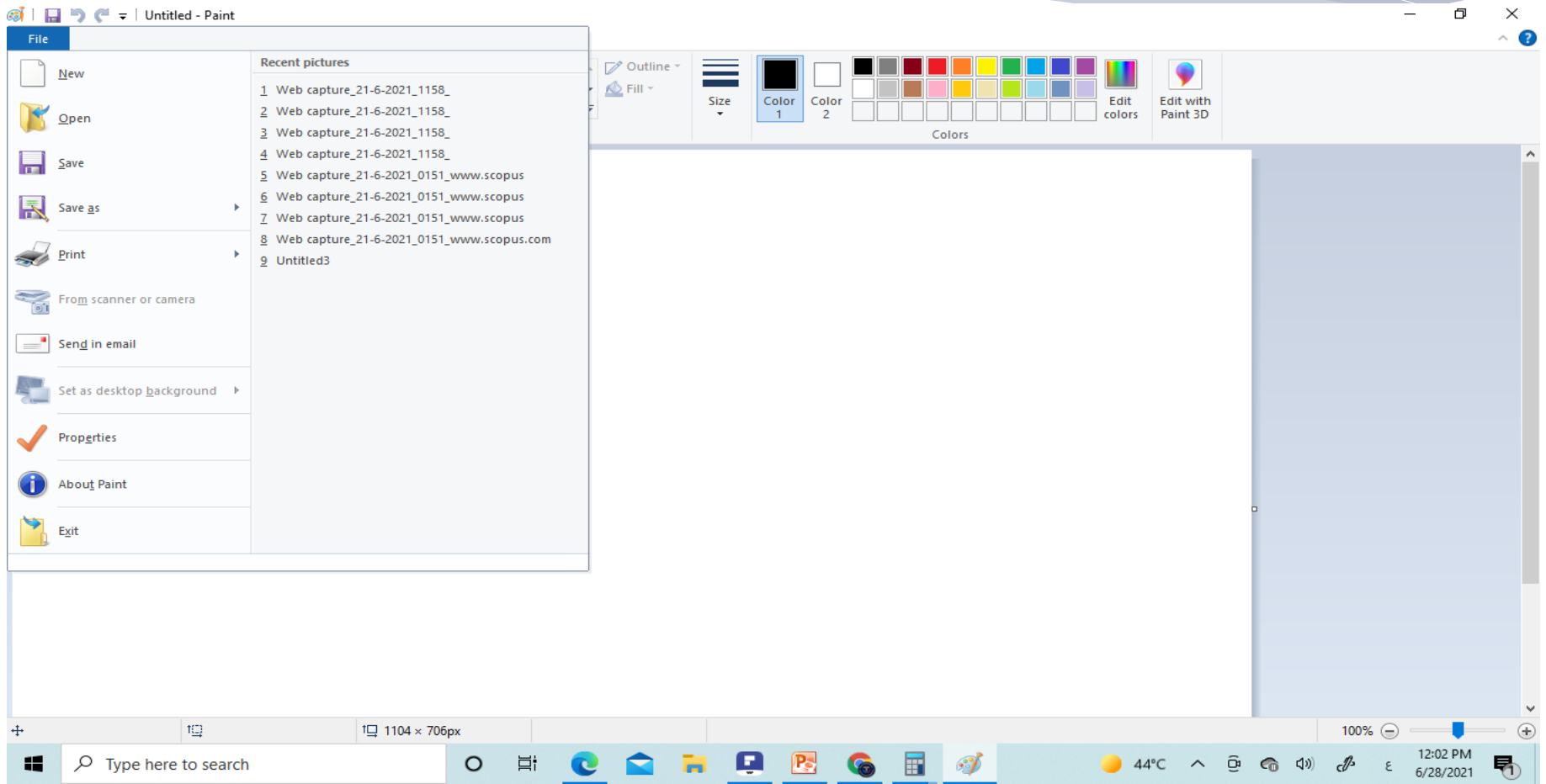
One of the components of the accessories that come with Windows:

-We can access it through Start Menu and then Paint program

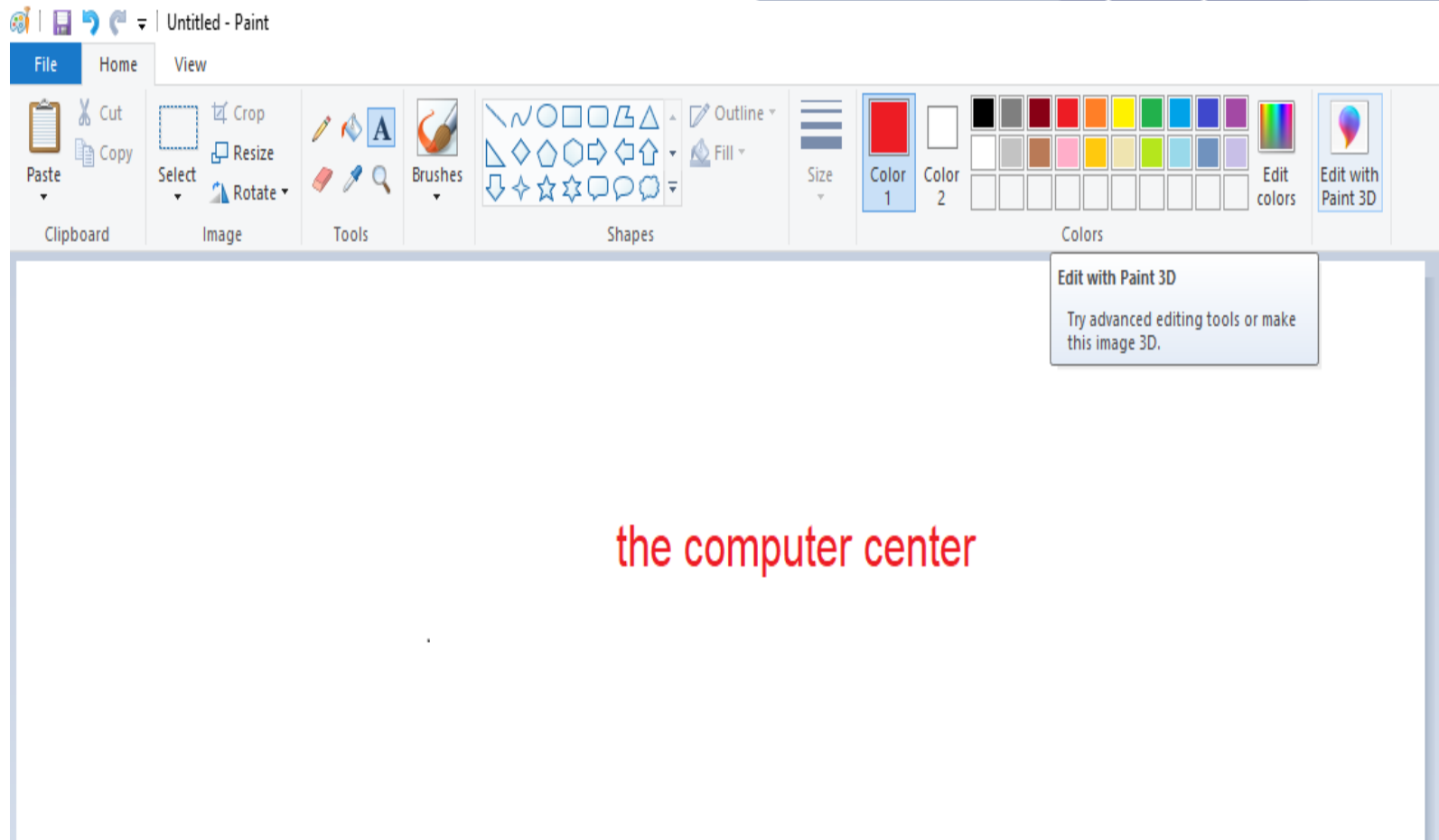


# Paint program

## \* Program interface



# Paint 2D to 3D



the computer center



# 3D paint

Untitled.png\* - Paint 3D

Menu    Brushes    2D shapes    3D shapes    Stickers    Text    Effects    Canvas    3D library    Paste    Undo    History    Redo

Select    Crop    Magic select    Mixed reality    3D view    57%

**3D selection**

- Edit color
- Select
  - Select all
  - Multiselect
- Grouping
  - Group
  - Ungroup
- Edit
  - Cut
  - Copy
  - Paste
  - Delete
- Rotate and flip
  - Rotate
  - Flip
  - Flip
  - Flip
- Texturing
  - Smooth

the computer center

Windows taskbar: Type here to search, 44°C, 12:06 PM 6/28/2021