



Islamic Republic of Afghanistan  
Ministry of Education  
Ghazni Education Presidency  
Peshgam Academic Center  
English Department



# Computer



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Prepared by: Obaidullah {Jalalzai}  
Guider teacher: Engr. Hamid Shah (Bayat)  
Year.....2022



Islamic Republic of Afghanistan  
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## Recognition of Monograph

My monograph issue is about Computer. Computer is take from compute word which means count and counting or computing. But nowadays computer is not only use for computing it is also use in other part of our life for example we use from computer in the design of home, rood, and in technology like making software, in tele communication, in sending information, in design of airplane and etc. computer is same to other electronic machine but the deferent is this that computer is working by program or computer is programmer machine and computer is divided to two part hardware and software and computer is the best electronic machine that we can solve our problem by computer so essay and also computer is a machine that we can write the book, magazine, news and etc.

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Year: .....2022

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## Thank you note

I am very grateful of almighty Allah who is the solver of all the troubles, that has given me the exporting to pass the second system of English from the big ocean of English, and also I am thankful of my dear parent who supporting me in every parts of my life.

And I must be very thankful from my dear teacher who training me and supporting like my family.

And also I am very thankful from my near, dear, and good friends who are accompanying me in all the arenas of the live.

It is a big pleasure for me and for my friend and for our family that we could successfully passed this fruitful system of English.

The main persons in the background of these succession is the inheritors of prophets of almighty Allah, the teachers who are like light, they are like friends for me and they are guiders of me, I really can't appreciate their toils that faced because of me.

Respectably:

Your student (Obaidullah \*Jalalzai\*)



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# Present!

For respectable mister Engr. Hamid shah (Bayat) who  
is the Manager of Peshgam Academic Center.



Prepared by: Obaidullah {Jalalzai}

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## Preface

In the name of the gracious and the most merciful lord who is the creator of all the creatures.

I am very grateful of almighty Allah that has given me the opportunity and the potential to learn and also granted me my dear parents who helped me that I reach in the same position that I exist.

This monograph that I have prepared, it is the result of the difficulty that I have endured, and hope that this few meager pages be useful for you dear reader.

I have chosen this issue because we all know that this is so important and useful and it is a bout computer. That learning of computer is so good and it's also useful and in if we want to write a book or same thing else this is importune to work by computer.

Now mind if you didn't study as to now start as a today.

## Sincerely:

Obaidullah \* jalalzai\*

## Introduction

computer is an electronic machine which is a collection of software and hardware is called computer. Computer is an electronic machine and it's use for counting and computing. and computer is dived in to two part 1-hardware and 2- software and software is dived in to two-part system software and application system and system software is dived in to three and application system is dived in to six part and computer is working by operating systems like MS Windows, Linux, windows XP, windows vista windows 7 and windows 11.



# Computer

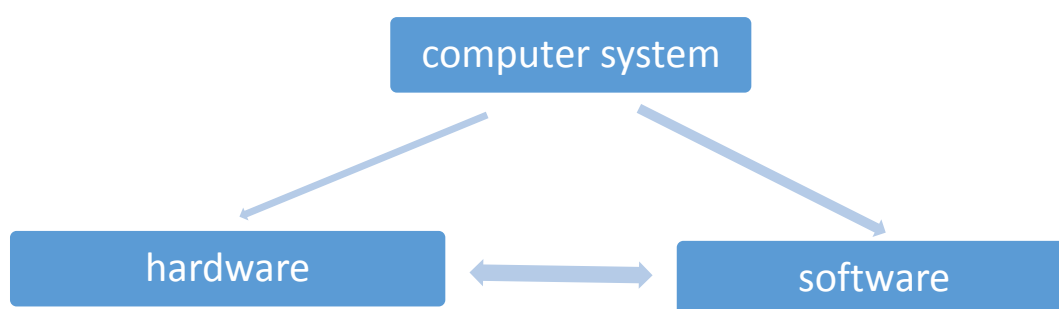
## What is a computer?

**1:** Computer is an electronic machine which has ability to do the long time work and activities at the short time.

**2:** and also computer is an electronic machine and which has ability to do the logic and mathematic activities.

**3:** And the last we can tell: computer is an electronic machine which is a collection of software and hardware.

It means computer is made from two part:



## What is a software?

**1: Software:** is an unphysical part of computer which we cannot touch and can be see it.

**2:** And also all of the programs of computer is called software.

**Like:** programs, games, Data, MS word, power pint or office packet and ...





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Software is divided in to three parts: 1, system software 2, application software 3, programming software.

## Types of Software

**System Software**

**Application Software**

**Programming Software**

**1. System software** – handles tasks specific to technology management and coordinates the interaction of all technology devices.

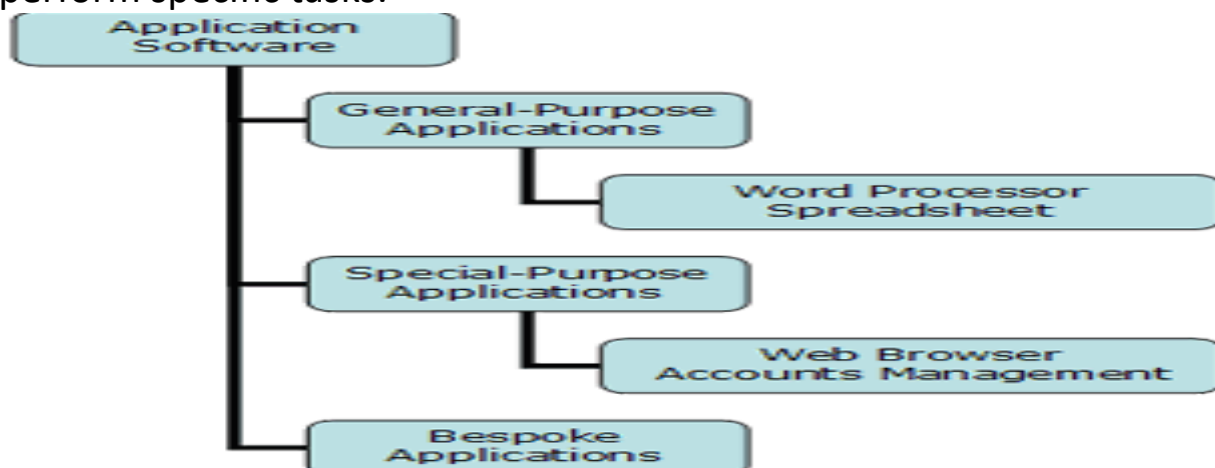
☐ Two main types of system software

☐ Operating system software

☐ Utility software



**2. Application software:** enables you to solve specific problems or perform specific tasks.



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**3. application software/*Operating system software*:** controls application software and manages hardware devices.

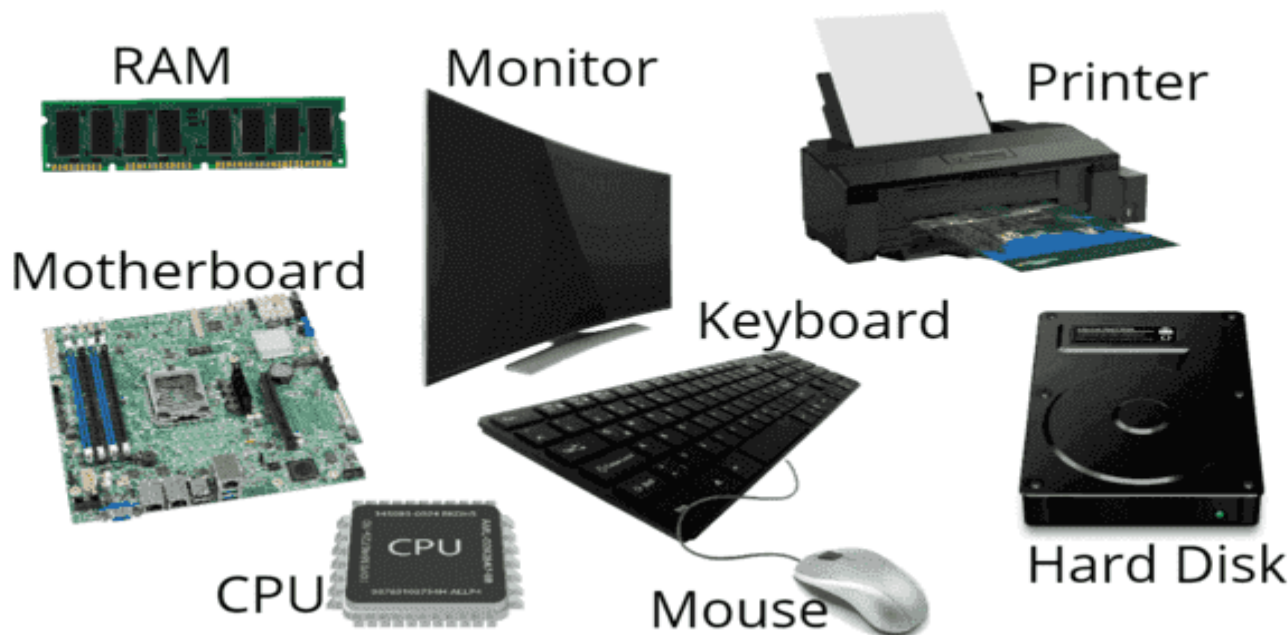


### What is a hardware?

**1: hardware:** is a physical part of computer which we can touch and can be see it.

**2:** And also the hardware is a part of computer which is active the software of computer.

**Like:** mouse, keyboard, out of screen, USB, battery and ...



### Generations of Computers

A generation of computers refers to the specific improvements in computer technology with time. In 1946, electronic pathways called circuits were developed to perform the counting. It replaced the gears and other mechanical parts used for counting in previous computing machines. In each new generation, the circuits became smaller and more advanced than the previous generation circuits. The miniaturization helped increase the speed, memory and power of computers. There are five generations of computers which are described below:

## **First Generation Computers**

The first generation (1946-1959) computers were slow, huge and expensive. In these computers, vacuum tubes were used as the basic components of CPU and memory. These computers were mainly depended on batch operating system and punch cards. Magnetic tape and paper tape were used as output and input devices in these generation; Some of the popular first generation computers are;

1. **ENIAC** (Electronic Numerical Integrator and Computer)
2. **EDVAC** (Electronic Discrete Variable Automatic Computer)
3. **UNIVACI** (Universal Automatic Computer)
4. **IBM-701**
5. **IBM-650**

**Second Generation Computers:** The second generation (1959-1965) was the era of the transistor computers. These computers used transistors which were cheap, compact and consuming less power; it made transistor computers faster than the first generation computers. In this generation, magnetic cores were used as the primary memory and magnetic disc and tapes were used as the secondary storage. Assembly language and programming languages like COBOL and FORTRAN, and Batch processing and multiprogramming operating systems were used in these computers. Some of the popular second generation computers are;

1. **IBM 1620**
2. **IBM 7094**
3. **CDC 1604**
4. **CDC 3600**
5. **UNIVAC 1108**

## **Third Generation Computers**

The third generation computers used integrated circuits (ICs) instead of transistors. A single IC can pack huge number of transistors which increased the power of a computer and reduced the cost. The computers also became more reliable, efficient and smaller in size. These generation computers used remote processing, time-sharing, multi programming as operating system. Also, the high-level programming languages like FORTRON-II TO IV, COBOL, PASCAL PL/1, ALGOL-68 were used in this generation. Some of the popular third generation computers are:

- 1) **IBM-360 series**

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**2) Honeywell-6000 series**

**3) PDP (Personal Data Processor)**

**4) IBM-370/168**

**5) TDC-316**

### **Fourth Generation Computers**

The fourth generation (1971-1980) computers used very large scale integrated (VLSI) circuits; a chip containing millions of transistors and other circuit elements. These chips made these generation computers more compact, powerful, fast and affordable. These generation computers used real time, time sharing and distributed operating system. The programming languages like C, C++, and DBASE were also used in this generation.

Some of the popular fourth generation computers are:

- I. DEC 10**
- II. STAR 1000**
- III. PDP 11**
- IV. CRAY-1(Super Computer)**
- V. CRAY-X-MP (Super Computer)**

### **Fifth Generation Computers**

In fifth generation (1980-till date) computers, the VLSI technology was replaced with ULSI (Ultra Large Scale Integration). It made possible the production of microprocessor chips with ten million electronic components. These generation computers used parallel processing hardware and AI (Artificial Intelligence) software. The programming languages used in this generation were C, C++, Java, .Net, etc.

Some of the popular fifth generation computers are;

- 1. Desktop**
- 2. Laptop**
- 3. Notebook**
- 4. Ultra Book**
- 5. Chrome Book**

### **What is the Data?**

**Data:** unmeaning full things write, picture, and ... which we want to enter to computer is called Data.

### **What is an Information?**

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**Information:** The meaning full form of the data is called information which we can see in the screen of computer.

**Like:** result of operation  $2+2=4$

In this example we can pretend the 2 Data and the other 2 data too but the + is a sign which has alone other name it is not according to we now and the 4 is information in this example.

### Computer Components

There are 5 main computer components that are given below:

1. Input Devices
2. CPU
3. Output Devices
4. Primary Memory
5. Secondary Memory

The operations of computer components are given below:

**1) Inputting:** It is the process of entering raw data, instructions and information into the computer. It is performed with the help of input devices.



Keyboard



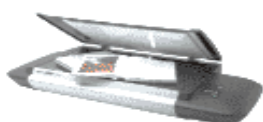
Mouse



Joystick



Trackball



Scanner



Touchscreen



Webcam



Microphone

### Common Input Devices of Computer

**2) Storing:** The computer has primary memory and secondary storage to store data and instructions. It stores the data before sending it to CPU for processing and also stores the processed data before displaying it as output.

A. RAM (Random Access Memory/Read-Write Memory)





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## B. ROM (Read-only-memory)



## Secondary memory (storage devices)

A. Hard Disk (Local Disk)

B. Optical Disks: CD-R, CD-RW, DVD-R, DVD-RW

C. Pen Drive

D. Zip Drive

E. Floppy Disks

F. Memory Cards

G. External Hard

A. Hard Disk (Local Disk)	
B. Optical disk	
C. Pen Drive	
D. Zip Disk (super disk)	
E. Floppy Disk	
F. Memory Cards	
G. External Hard Disk	

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**3) Processing:** It is the process of converting the raw data into useful information. This process is performed by the CPU of the computer. It takes the raw data from storage, processes it and then sends back the processed data to storage.

**CPU** – hardware that interprets and executes software and coordinates all hardware.



**RAM** – temporary holding area for information and software



**Generally, a CPU has three components:**

1. ALU (Arithmetic Logic Unit)
2. Control Unit
3. Memory or Storage Unit

**Memory:** It is called Random access memory (RAM). It temporarily stores data, programs and intermediate and final results of processing.

**Control Unit:** It controls and coordinates the functioning of all parts of computer. It does not involve in processing and storing data.

**ALU:** It performs arithmetic and logical functions. Arithmetic functions include addition, subtraction, multiplication and division. Logical functions mainly include selecting, comparing and merging the data.

**4) Outputting:** It is the process of presenting the processed data through output devices.

like monitor, printer and speakers.



**5) Controlling:** This operation is performed by the control unit that is part of CPU. The control unit ensures that all basic operations are executed in a right manner and sequence.

### Input Devices

Input device enables the user to send data, information or control signals to computer. Central processing unit of computer receives the input and processes it to produce output.

Some of the popular input devices are:

1. Keyboard
2. Mouse
3. Scanner
4. Joystick
5. Light Pen
6. Track ball
7. Digitizer
8. Microphone
9. Magnetic Ink Character Recognition (MICR)
10. Optical Character Reader (OCR)

### What is a Mouse?

**Mouse:** mouse is the part of the input, output device of computer by which we can three actions.



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## Keyboard

It is a basic input device that is used to enter data by pressing keys. It has different sets of keys for letters, numbers, characters and functions. Qwerty keyboard is the commonly used keyboard to enter data.

**Keyboard:** is a part of the input of computer by which we can enter the written data in to the computer.

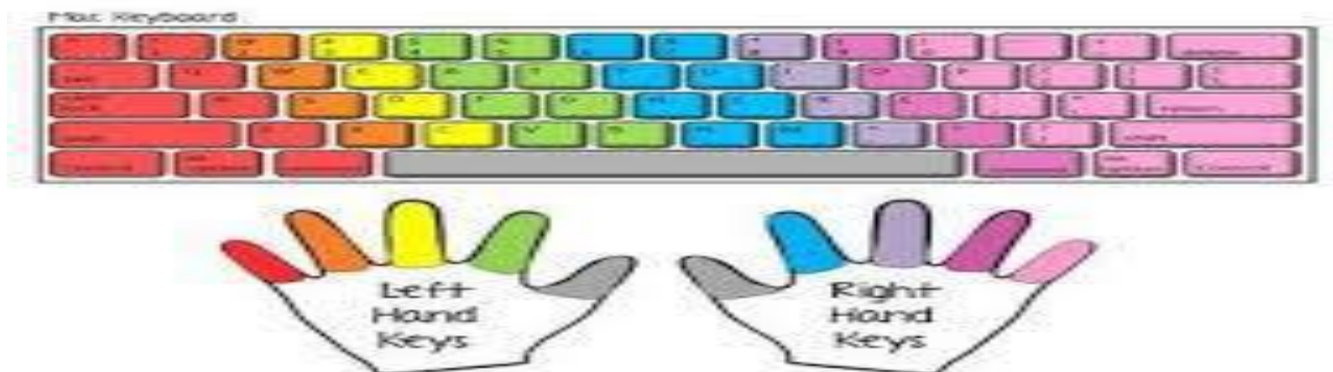
### Part of the keyboard Buttons...

- 1: alphabetical buttons..... (A---Z)
- 2: numeric buttons..... (0---9)
- 3: functions buttons..... (f1---f12)
- 4: cursor control buttons. (UP, Down, Left, Right)
- 5: special functions buttons (alt, shift, enter, ...)
- 6: Arrow keys..... (left, right, down, up)



### Typing keys:

These keys include the letter keys (A-Z) and digits keys (0-9) which generally give same layout as that of typewriter.



### Numeric keys:

It is used to enter numeric data or cursor movement. Generally, it consists of a set of 17 keys.



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### Function keys:

The Twelve function keys are present on the keyboard which is arranged in a row at the top of the keyboard.

Each function keys have unique meaning and it is used for some specific purpose. For e.g. F1, F2, F9, F12 etc.



### Control keys:

These keys provide cursor and screen control. It includes four directional arrows keys.

Control keys also include Home, End, Insert, Delete, Page up, Page down, control(Ctrl), Alternate(Alt), Escape(Esc).

### Special purpose keys:

Keyboard also contains some special purpose keys such as Enter, Shift, Caps Lock, Num Lock, Space bar, Tab and print screen.

### Microphone

Microphone is a computer input device that is used to input the sound. It receives the sound, converts it into audio signals. The audio signals are converted into digital data and stored in the computer. The microphone also enables the user to telecommunicate with others. It is also used to add sound to presentations and with webcams for video conferencing.





### **Magnetic Ink Character Recognition (MICR)**

MICR computer input device is designed to read the text printed with magnetic ink. It is widely used in banks to process the checks. The details on the bottom of the check (MICR No.) are written with magnetic ink. The device reads the details and sends to computer for processing. It can process three hundred checks in a minute with hundred-percent accuracy.



### **Optical Character Reader (OCR)**

OCR computer input device is designed to convert the scanned images of handwritten, typed or printed text into digital text. It is widely used in offices and libraries to convert documents and books into electronic files. The converted documents can be edited if required.



**Output Devices** Output device displays the result of processing of raw data that is entered in computer through an input device. There are number of output devices that display output in different ways such as text, images, hard copies and audio or video. Some of the popular output devices are:

1. Monitor

1. CRT Monitor
2. LCD Monitor
3. LED Monitor
4. Plasma Monitor

2. Printer

1. Impact Printers
2. Character Printers
3. Dot Matrix printers
4. Daisy Wheel printers
5. Line printers
6. Drum printers
7. Chain printers
8. Non-impact printers
9. Laser printers
10. Inkjet printers

3. Projector

**Monitor**

Monitor is the display unit or screen of the computer. It is the main output device that displays the processed data or information as text, images, audio or video.

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The types of monitors are given below.

### **CRT Monitor**

CRT monitors are based on the cathode ray tubes. Cathode rays tube produces beam of electrons that strikes on the inner phosphorescent surface of screen to produce images on the screen.



### **LCD Monitor**

LCD monitor is a flat panel screen that is compact and light weight as compared to CRT monitors. It is based on liquid crystal display technology. It has two layers of polarized glass with liquid crystal solution between them. When the light passes through first layer an electric current aligns the liquids crystals. The aligned liquid crystals allow varying level of light to pass through the second layer to create images on the screen.



### **LED monitor**

LED monitors also have flat panel display and use liquid crystal display technology like the LCD monitors. The difference between them lies in the source of light to backlight the display. The LED monitors use light emitting

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diodes to backlight the display and LCD monitors use cold cathode fluorescent light to backlight the display.



## Plasma Monitor

It is also a flat panel display that is based on plasma display technology. It has small tiny cells between two glass panels. These cells contain mixtures of gases. When voltage is applied the gas in the cells turns into plasma and emits ultraviolet light that creates images on the screen.



## Printer

Printer produces hard copies of the processed data. It enables the user to print images, text or any other information on paper. Based on the printing mechanism, the printers are of two types: Impact Printers and Nonimpact printers.

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## 1. Impact Printers

### A. Character Printers

1. Dot Matrix printers
2. Daisy Wheel printer

### B. Line printers

1. Drum printers
2. Chain printers

## 2. Non-impact printers

1. Laser printers
2. B. Inkjet printers

### Impact Printer

Impact printer uses hammer or print head to print the character or images on the paper. The hammer or print head strikes or presses an ink ribbon against the paper to print characters and images. Impact printers are further divided into two types.

#### A. Character Printers

#### B. Line printers

### Character Printers

Character printer prints a single character at a time or with a single stroke of print head or hammer. Dot Matrix printer and Daisy Wheel printer are examples of character printers.

### Dot Matrix Printer

It is an impact printer. The characters and images printed by it are pattern of dots. These patterns are produced by striking the ink soaked ribbon against the paper with print head.



### Daisy Wheel Printer

It consists of a wheel or disk that has spokes or extensions. At the end of extensions, molded metal characters are mounted. To print a character, the printer rotates the wheel and when the desired character is on print location



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the hammer hits disk and the extension hits the ink ribbon against the paper to create the impression.



**Important:** if we pretend the computer to Human we must be tell to the CPU the big bone of the Computer.

**User:** user is a one of the part of computer if it be not computer be not having any mean.

### **Who is a User?**

I am you are and they are who is stand to use the computer these are user in the last the user of Computer is Human but some time the user be without Human.

### **What is Application?**

**Application:** is one of the most important thing for computer, Telephone, and other machines.

### **What Is a windows?**

**Windows:** is an Application which is so important for one computer and without windows we cannot be used computer. Because the windows are an operating system for computer.

### **What is an office?**

**Office:** office is the one of the desktop Application which is made by micro soft company and we can have used it for some specific goals.

### **Office programs:**

the office programs are 1: Micro soft Word 2: Micro soft Excel 3: Micro soft power point 4: micro soft Access.

**Note:** and now the some of the office are which come to Bazar now has a few other programs whit out the above program.

### **What is a computer Language?**

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Computer languages are the collection of the programs which are out from the windows and office and other.

### What is the goals of languages?

The goals and aims of the computer languages is the made for the deferent Applications.

### Computer Languages & Scripting:

1. Low Level Language
2. Machine Level Language
3. Assembly Language

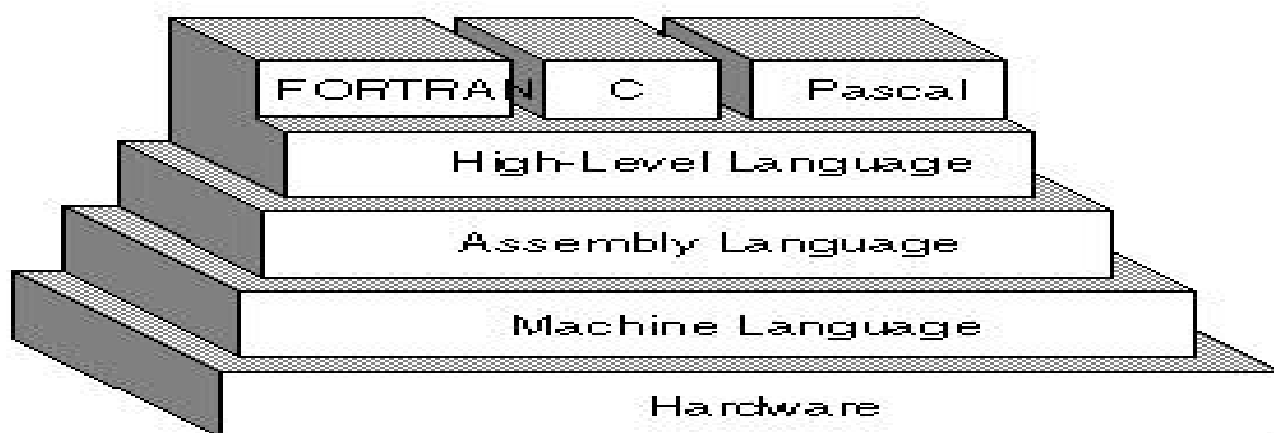
**Machine language:** These language instructions are directly executed by CPU.

**Assembly language:** The endeavor of giving machine language instructions a name structure that means bit strings of instructions of machine language are given name here

**High Level Language:** The user friendly language ...more natural language than assembly language.

**Assembler** is needed to convert assembly language into machine language

**Compiler** is needed to convert high level to machine language



### What is the BCS?

This is a very important for the one student of computer.

**It means:** B= Bachler, C= Computer, S= science.

It means: The Bachler of computer science.

### How department BCS has?

the BSC has a deferent departments and some of that are this.

**Like:** Software, network, Databases and other.

### What is a network?

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**Network:** is the one of the department of BCS which is discusses About Connection of a machines.

**Network:** the connection of a few devices is called network.

**What is Databases?**

**Databases:** is a one of the department of the BCS which is talk about database and tables.

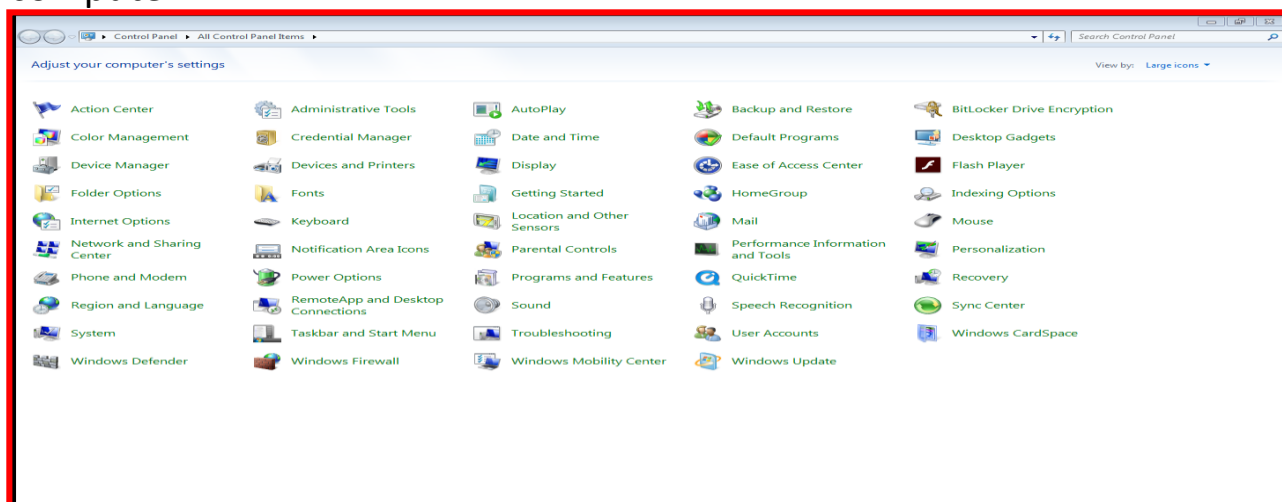
**What is a Control panel?**

**Control panel:** is a setting of the computer which is a so need for all of the student to understand by it matter.

**What we can by control panel?**

What we cannot by control panel it means can be all of the activities by control panel.

**Goals of the Control Panel:** Setting of the drives, devotion of the drives, install, uninstall of the Applications, setting the time and Date, and can be other activities of the computer which are accord to the setting of the computer.



**What is a PC?**

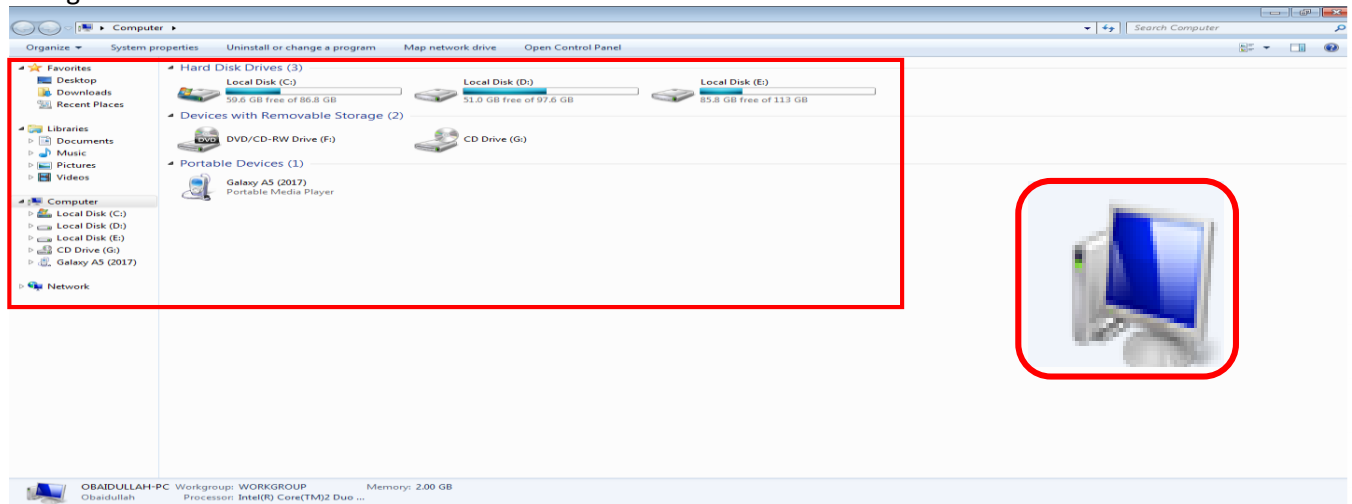
**What is the mean of the PC?**

**PC:** is the Home of the deferent Data in computer.

**PC:** The P= personal, C= Computer.

We can be devoid the Pc in to some drives like removable Disk (d), removable Disk (c), removable Disk (E) and other drives. It means it is a home of the data and we can save the data in this place and part of Computer.

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In the time I am delete some data from computer and after a few minutes I want to return these Data What should I do in this time? It is Basic (recycle bin) ...

What is a recycle bin?

**Recycle bin:** if we find a dirty and out form a workable thing in the Home we take It in the place of the dirty thigs we must be pretend the recycle bin in to the dirty things place of the computer.

But in the time we delete some data from computer it be unworkable it must be go to one place that is called recycle bin, and if we want to return this data we go to recycle bin and restore that, that data will be go to own place in which place it pick before.



**What is an Icon?**

1: Icons: are a like picture the collection of some data which are show in the face of computer it means it show and we can see it in the screen of computer.

2: The PC, recycle bin, and other picture like things which we see it in the screen of one computer is called icons.



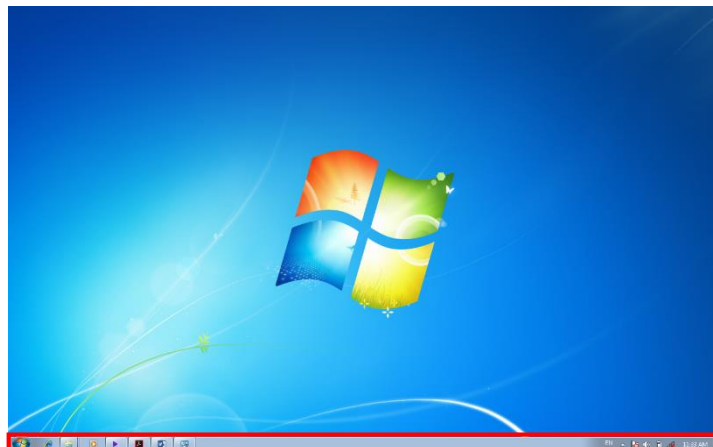
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## **we can to make a one Icon?**

**Answer:** why not Actually we can be make from MS word, MS excel, any player, one Game, control panel and other data can be make we one icon.

## **In the under of the computer we see one color line what is that?**

**Taskbar:** taskbar is the part of the screen of the computer by which we can set the design of computer, set the time and date of computer, set the sound, see information about battery, set the language of computer by short way.



**It is not being clear we see in the corner of this taskbar a one button what is this?**

**Start Button:** the place of the start of the Menu of computer is called start menu, and start button. By the click of start button we can go to find all of the program of computer and can be all of the work we want that.



## **Types of Computer**

We can categorize computer by two ways: data handling capabilities and size.

**On the basis of data handling capabilities,** the computer is of *three* types:

1. Analogue Computer
2. Digital Computer
3. Hybrid Computer

### **1) Analogue Computer**

Analogue computers are designed to process the analogue data. Analogue data is continuous data that changes continuously and cannot have



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discrete values such as speed, temperature, pressure and current. The analogue computers measure the continuous changes in physical quantity and generally render output as a reading on a dial or scale. Analogue computers directly accept the data from the measuring device without first converting it into numbers and codes.

1. Thermometer



2. Speedometer



3. Petrol Pump Indicator



4. Mustimeter



## 2) Digital Computer:

Digital computer is designed to perform calculations and logical operations at high speed. It accepts the raw data as digits or numbers and processes it with programs stored in its memory to produce output. All modern computers like laptops and desktops that we use at home or office are digital computers.



### 3) Hybrid Computer

Hybrid computer has features of both analogue and digital computers. It is fast like analogue computer and has memory and accuracy like digital computers. It can process both continuous and discrete data. So it is widely used in specialized applications where both analogue and digital data is processed. For example, a processor is used in petrol pumps that converts the measurements of fuel flow into quantity and price.



**The computer accord to size and Ability.**

**On the basis of size, the computer can be in five types:**

#### 1) Supercomputer

Supercomputers are the biggest and fastest computers. They are designed to process huge amount of data. A supercomputer can process trillions of instructions in a second. It has thousands of interconnected processors. Supercomputers are particularly used in scientific and engineering applications such as weather forecasting, scientific simulations and nuclear energy research. First supercomputer was developed by Roger Cray in 1976.





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## 2) Mainframe computer

Mainframe computers are designed to support hundreds or thousands of users simultaneously. They can support multiple programs at the same time. It means they can execute different processes simultaneously. These features of mainframe computers make them ideal for big organizations like banking and telecom sectors, which need to manage and process high volume of data.



## 3) Mini computer

It is a midsize multiprocessing computer. It consists of two or more processors and can support 4 to 200 users at one time. Mainframes computers are used in institutes and departments for the tasks such as billing, accounting and inventory management.



#### 4) Workstation

Workstation is a single user computer that is designed for technical or scientific applications. It has faster microprocessor, large amount of RAM and high speed graphic adapters. It generally, performs a specific job with great expertise; accordingly, they are of different types such as graphics workstation, music workstation and engineering design workstation.



#### 5) Microcomputer

Microcomputer is also known as personal computer. It is a general purpose computer that is designed for individual use. It has a microprocessor as a central processing unit, memory, storage area, input unit and output unit. Laptops and desktop computers are examples of microcomputers.

##### Micro Computer

- i. **Desktop Computer:** a personal or micro-mini computer sufficient to fit on a desk.



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- ii. **Laptop Computer:** a portable computer complete with an integrated screen and keyboard. It is generally smaller in size than a desktop computer and larger than a notebook computer.



- iii. **Palmtop Computer/Digital Diary /Notebook /PDAs:** a hand-sized computer. Palmtops have no keyboard but the screen serves both as an input and output device.



### What is a Computer password?

**Computer Password:** a code for the opening of the computer is called computer password.





## Have to use computer

The best way for using of computer is this that we should use computer by the rule and by the usage and so this is the usage of computer.



## What is a computer virus?

There are many types of computer viruses including file viruses, boot sector viruses and Trojan Horse programs.

- **File virus** - Most viruses fall into this category. A virus attaches itself to a file, usually a program file.
- **Boot sector virus** - These viruses infect floppy and hard drives. The virus program will load first, before the operating system.
- **Trojan Horse** - These programs appear to be something other than what they are, for example a "virus" that is disguised as a legitimate software program. Some virus experts do not classify Trojan Horse programs as true viruses, because they generally don't replicate.

Computer Virus: are the small programs that damage the data.



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## ports

A port is a physical docking point using which an external device can be connected to the computer.



A port is also being a programmatic docking point through which information flow from a program to computer or over the internet.

### Characteristics of ports:

1. External device is connected to a computer using cable and ports.
2. Ports are slots on the motherboard into which a cable of external device is plugged in.
3. Example of external device attached via ports or mouse, keyboard, monitor, microphone, speakers etc.

### Types of ports:

1. Serial port
2. Parallel port
3. Ps/2 port
4. USB port
5. VGA port
6. Power connector port
7. Fir wire port
8. Modem port
9. Ethernet port
10. Game port
11. DVI port
12. Sockets

### Serial port:

Used for external modems and older computer mouse.

Two versions: 9pin, 25pin model.

Data travels at 115 kilobits per second.

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### Parallel port:

Used for scanner and printers.

Also call printer port.

25 pin model.

Also known as IEEE 1284-complaint centroids port.



### Ps/2 port:

Used for old computer keyboard and mouse.

Also called mouse port.

Most of the old computers provide two ps/2 port, each of mouse and keyboard.

Also known as IEEE 1284-complaint centroids port.



### USB port:

- It can connect all kinds of external USB devices such as external hard disk, printer, scanner, mouse, keyboard, etc.
- It was introduced 1997.
- Most of computer provide two USB ports as minimum.
- Data travels 12 megabits per seconds.

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- USB complaint devices can get power from USB port.

### VGA port:

- Connect monitor to a computer's video card.
- Have 15 hole.



- Similar to serial port connector but serial port connector has pins, it has holes.

### Power connector:

- Three-pronged plug.
- Connect to the computer power cable that plugs into a power bar or wall socket.



### Fire wire port:

- + Transfer large amount of data at very fast speed.
- + Connect camcorders and video equipment to the computer.
- + Data travels at 400 to 800 megabits per seconds.
- + Invented by apple.
- + Three variants: 4-pins fire wire 400 connector, 6-pin fire wire 400 connectors and 9-pin fire wire 800 connector.

### Modem port:

Connects a pc's modem to the telephone network.

Modem Port

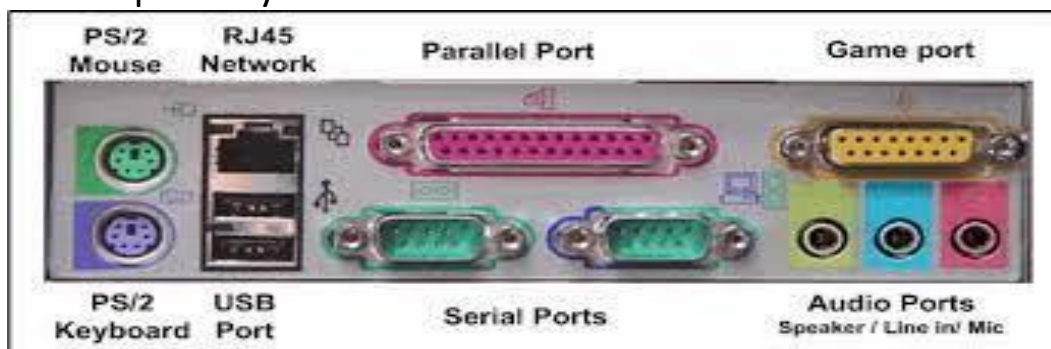




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## Ethernet port:

- ☞ Connects to a network and high speed internet.
- ☞ Connect network cable to a computer.
- ☞ This port resides on an Ethernet card.
- ☞ Data travels at 10 megabits to 1000 megabits per seconds depending upon the network bandwidth.
- ☞ **Game port:**
- ☞ Connect a joystick to a pc.
- ☞ Now replace by USB.



## DVI port:

- ☞ DVI port stands for Digital Video Interface port.
- ☞ Connect flat panel LCD monitor to the computer's high end video graphic card.



## Sockets:

- ★ connect microphone, speakers to sound card of the computer.

## Important information

### How to make shortcut for switch user?

- 1- Right click on desktop
- 2- Goes to new
- 3- Goes to shortcut



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4- and write this

5- c:\Windows\system32\rundll32.exe User32.dll, LockWorkStation

6- click next

7- click finish

### **How to give restriction to the USB?**

1- Come to run and write reedit

2- Press Enter

3- Click on HKEY\_LOCAL\_MACHINE

4- Click on SYSTEM

5- Click on Current Control Set

6- Click on Services

7- Click on USB Store

8- Double Click on Start

9- And change the Value to 4

10- Click on OK

11- And Close the program

### **How to Speed up Shutdown time?**

1- Come to run and write reedit

2- Press Enter

3- Click on HKEY\_LOCAL\_MACHINE

4- Click on System

5- Click on Current Control Set

6- Click on Control

7- Double Click on Wait to kill Services

8- And change the value to 2000 (as you wish)

9- And close the program

### **How to set Picture on Drive?**

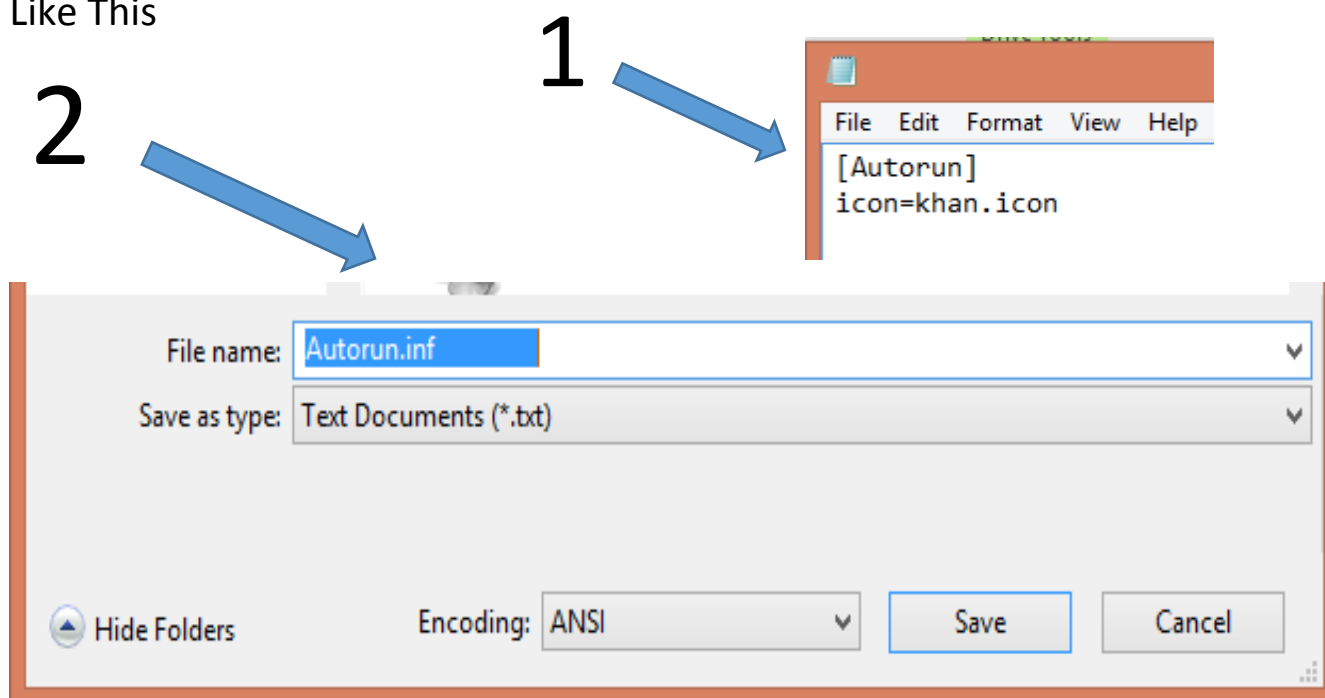
1- Which picture you want to set in the Drive first edit the picture come to Resize (Horizontal =30) (Vertical = 30) Resize is as you wish

2- Then set the name of picture and at the end of picture name add. icon Like khan.ico and save as the type of 24\_bit Bitmap

3- Write on Notepad [Autorun] press Enter write icon=khan.ico (first write icon then add = symbol then add the picture name which name we save picture then write at the end of. icon and save as the file at the name of Autorun.inf then close

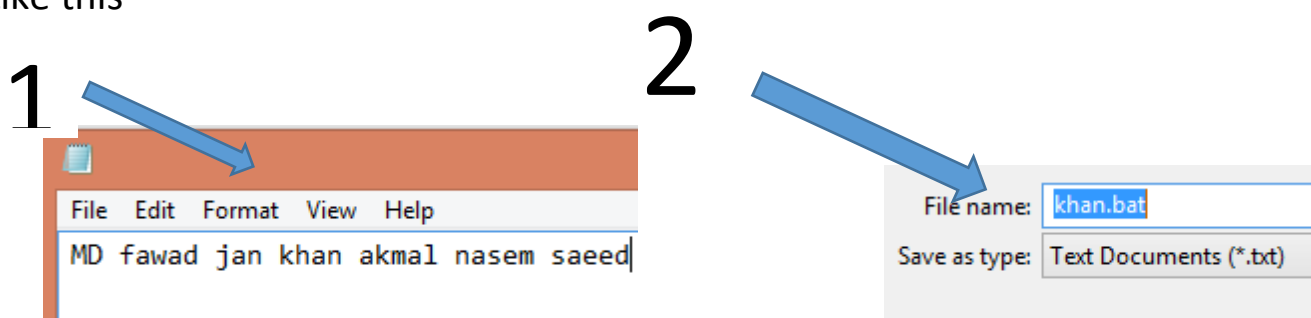
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Like This



### How to made many folders by one click?

- 1- Got to Notepad
  - 2- write MD space
  - 3- Write folders name (MD Kamal Jan Jamal Saeed ...etc.)
  - 4- Save the file by the extension .bat
  - 5- Double click on file we can see all folder which we can create
- Like this



Fore Remove folders change MD to rmdir then save the file.

### How to made folder in the name con?

- 1- Go to run cmd
- 2- Writ on cmd cd desktop (desktop mean where we create folder (Desktop is the place of folder) press Enter
- 3- Write mkdir con\ press Enter
- 4- Write Exit

### How to Remove con folder?

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- 1- Go to run and write cmd
- 2- Write on cmd cd desktop and press Enter
- 3- Write rmdir con\ and press Enter
- 4- Write Exit

### How to hide a folder?

- 1- Write on run attrib +s +h D:/OBAIDULLAH

Drive Name

Folder Name

### How to unhide a folder?

- 1- Write on run attrib -s D:/OBAIDULLAH

Folder Name

Folder Name

### How to lock desktop?

- 1- Go to run and writ gpedit.msc
- 2- Click on Administrator template
- 3- Click on Desktop
- 4- Click on Desktop
- 5- Double click on Desktop wallpaper
- 6- Click on Enable
- 7- Add name click ok

### How to format corrupt USB?

- 1- Go to run and write cmd
- 2- Write diskpart [?] Enter
- 3- Write list disk [?] Enter
- 4- Write select disk 1 [?] Enter
- 5- Write clean [?] Enter
- 6- Write create partition primary [?] Enter
- 7- Write select partition 1 [?] Enter
- 8- Write format fs=fat32 Quick [?] Enter
- 9- Write Exit [?] Enter
- 10- Write Exit [?] Enter

### How to lock USB?

- 1- Go to run and write cmd
- 2- Write diskpart [?] Enter

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3- Write list disk [?] Enter

4- Write select disk 1 [?] Enter

5- Write attributes disk set readonly [?] Enter

6- Write Exit [?] Enter

7- Write Exit [?] Enter

### **How to unlock USB?**

1- Go to run and writ cmd

2- Write diskpart [?] Enter

3- Write list disk [?] Enter

4- Write select disk 1 [?] Enter

5- Write attributes disk clear readonly [?] Enter

6- Write Exit [?] Enter

7- Write Exit [?] Enter

### **Have to shutdown computer**

1. Go to run

2. Write. shutdown -s -t 00 + enter

### **Microsoft Windows Shortcut keys**

- (1) Open drive menu (Win +E)
- (2) Start menu (Win key)
- (3) Rename the item or folder (F2)
- (4) Create new folder (Ctrl + Shift + N)
- (5) Refresh the computer (F5)
- (6) Delete icon or folder from window (Delete key)
- (7) Delete icon or folder from computer (Shift + Delete)
- (8) Copy the item or folder (Ctrl + C)
- (9) Past the item or folder (Ctrl + V)
- (10) Cut the item or folder (Ctrl + X)
- (11) Undo the item or folder (Ctrl + Z)
- (12) Redo the item or folder (Ctrl +Y)
- (13) Go to Back (Ctrl + left arrow key)
- (14) Forward (Ctrl + Right arrow key)
- (15) Change the language (Alt + Shift)
- (16) Switch the window (Alt + Tab)
- (17) Lock the window (Win + L)
- (18) Close the ear rent windows (Alt +F4)
- (19) Open the Run (Win + R)
- (20) Select all items or folders (Ctrl + A)
- (21) Display help (F1)
- (22) Open Task manager (Ctrl + Alt + Delete)

# Summary of monograph

## computer

The term computer is derived from the word 'compute' this mean to calculate. But today's computers are not just calculating devices. The computer is an electronic device used to store information and process that.

A computer is an electronic device that manipulates information or data. It has the ability to store, retrieve, and process data and gives the output in a desired manner.

### What is a software?

**1: Software:** is an unphysical part of computer which we cannot touch and can be see it.

**2:** And also all of the programs of computer is called software.

**Like:** programs, games, Data, MS word, power pint or office packet and ...

Software is divided in to three parts: 1, system software 2, application software 3, programming software.

**1. System software** – handles tasks specific to technology management and coordinates the interaction of all technology devices.

☐ Two main types of system software

☐ Operating system software

☐ Utility software

**2. Application software:** enables you to solve specific problems or perform specific tasks.

**3. application software/Operating system software:** controls application software and manages hardware devices.

### What is a hardware?

**1: hardware:** is a physical part of computer which we can touch and can be see it.

**2:** And also the hardware is a part of computer which is active the software of computer.

**Like:** mouse, keyboard, out of screen, USB, battery and ...

## Generations of Computers

A generation of computers refers to the specific improvements in computer technology with time. In 1946, electronic pathways called circuits



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were developed to perform the counting. It replaced the gears and other mechanical parts used for counting in previous computing machines. In each new generation, the circuits became smaller and more advanced than the previous generation circuits. The miniaturization helped increase the speed, memory and power of computers. There are five generations of computers which are described below:

### **First Generation Computers**

The first generation (1946-1959) computers were slow, huge and expensive. popular first generation computers are;

**ENIAC** (Electronic Numerical Integrator and Computer)

**EDVAC** (Electronic Discrete Variable Automatic Computer)

**UNIVACI** (Universal Automatic Computer)

**IBM-701**

**IBM-650**

**Second Generation Computers:** The second generation (1959-1965) was the era of the transistor computers.

Some of the popular second generation computers are;

**IBM 1620**

**IBM 7094**

**CDC 1604**

**CDC 3600**

**UNIVAC 1108**

### **Third Generation Computers**

The third generation computers used integrated circuits (ICs) instead of transistors.

**IBM-360 series**

**Honeywell-6000 series**

**PDP (Personal Data Processor)**

**IBM-370/168**

**TDC-316**

### **Fourth Generation Computers**

The fourth generation (1971-1980) computers used very large scale integrated (VLSI) circuits

**DEC 10**

**STAR 1000**

**PDP 11**

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## **CRAY-1(Super Computer)**

## **CRAY-X-MP (Super Computer)**

### **Fifth Generation Computers**

The fourth generation (1971-1980) computers used very large scale integrated (VLSI) circuits.

Some of the popular fourth generation computers are:

**DEC 10**

**STAR 1000**

**PDP 11**

**CRAY-1(Super Computer)**

**CRAY-X-MP (Super Computer)**

### **Fifth Generation Computers**

In fifth generation (1980-till date) computers, the VLSI technology was replaced with ULSI (Ultra Large Scale Integration).

Some of the popular fifth generation computers are;

**Desktop**

**Laptop**

**Notebook**

**Ultra Book**

**Chrome Book**

There are 5 main computer components that are given below:

1. Input Devices
2. CPU
3. Output Devices
4. Primary Memory
5. Secondary Memory

### **Input Devices**

Input device enables the user to send data, information or control signals to computer. Central processing unit of computer receives the input and processes it to produce output.

Some of the popular input devices are:

1. Keyboard
2. Mouse
3. Scanner
4. Joystick
5. Light Pen

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6. Track ball

7. Digitizer

8. Microphone

9. Magnetic Ink Character Recognition (MICR)

10. Optical Character Reader (OCR)

**Output Devices** **Output device** displays the result of processing of raw data that is entered in computer through an input device. There are number of output devices that display output in different ways such as text, images, hard copies and audio or video. Some of the popular output devices are:

1. Monitor

5. CRT Monitor

6. LCD Monitor

7. LED Monitor

8. Plasma Monitor

2. Printer

11. Impact Printers

12. Character Printers

13. Dot Matrix printers

14. Daisy Wheel printers

15. Line printers

16. Drum printers

17. Chain printers

18. Non-impact printers

19. Laser printers

20. Inkjet printers

3. Projector

**Monitor**

Monitor is the display unit or screen of the computer. It is the main output device that displays the processed data or information as text, images, audio or video.

The types of monitors are given below.

1. CRT Monitor

2. LCD Monitor

3. LED monitor

4. Plasma Monitor

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## Printer

Printer produces hard copies of the processed data. It enables the user to print images, text or any other information on paper. Based on the printing mechanism, the printers are of two types: Impact Printers and Nonimpact printers.

### 1. Impact Printers

#### A. Character Printers

1. Dot Matrix printers
2. Daisy Wheel printer

#### B. Line printers

1. Drum printers
2. Chain printers

### 2. Non-impact printers

1. Laser printers
2. Inkjet printers

## Computer Languages & Scripting:

1. Low Level Language
2. Machine Level Language
3. Assembly Language

**Machine language:** These language instructions are directly executed by CPU.

**Assembly language:** The endeavor of giving machine language instructions a name structure that means bit strings of instructions of machine language are given name here

**High Level Language:** The user friendly language ...more natural language than assembly language.

**Assembler** is needed to convert assembly language into machine language.

**Compiler** is needed to convert high level to machine language.

## Types of Computer

We can categorize computer by two ways: data handling capabilities and size.

**On the basis of data handling capabilities**, the computer is of *three* types:

1. Analogue Computer
2. Digital Computer
3. Hybrid Computer

### 1) Analogue Computer

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Analogue computers are designed to process the analogue data.

## **2) Digital Computer:**

Digital computer is designed to perform calculations and logical operations at high speed.

## **3) Hybrid Computer**

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Mainframe computers are designed to support hundreds or thousands of users simultaneously. They can support multiple programs at the same time. It means they can execute different processes simultaneously

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Microcomputer is also known as personal computer. It is a general purpose computer that is designed for individual use. Laptops and desktop computers are examples of microcomputers.

### **ports**

A port is a physical docking point using which an external device can be connected to the computer.

A port is also being a programmatic docking point through which information flow from a program to computer or over the internet.

### **Characteristics of ports:**



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4. External device is connected to a computer using cable and ports.
5. Ports are slots on the motherboard into which a cable of external device is plugged in.
6. Example of external device attached via ports or mouse, keyboard, monitor, microphone, speakers etc.

### **Types of ports:**

13. Serial port
14. Parallel port
15. Ps/2 port
16. USB port
17. VGA port
18. Power connector port
19. Fire wire port
20. Modem port
21. Ethernet port
22. Game port
23. DVI port
24. Sockets

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- 5- Write clean ↵ Enter
- 6- Write create partition primary ↵ Enter
- 7- Write select partition 1 ↵ Enter
- 8- Write format fs=fat32 Quick ↵ Enter
- 9- Write Exit ↵ Enter
- 10- Write Exit ↵ Enter

# Reference

computer hardware and software book

high school computers book

[www.software kind.com](http://www.softwarekind.com)

computer history book

computer important book

computer importation book

Windows information

Computer Fundamentals book

# About aouthar:

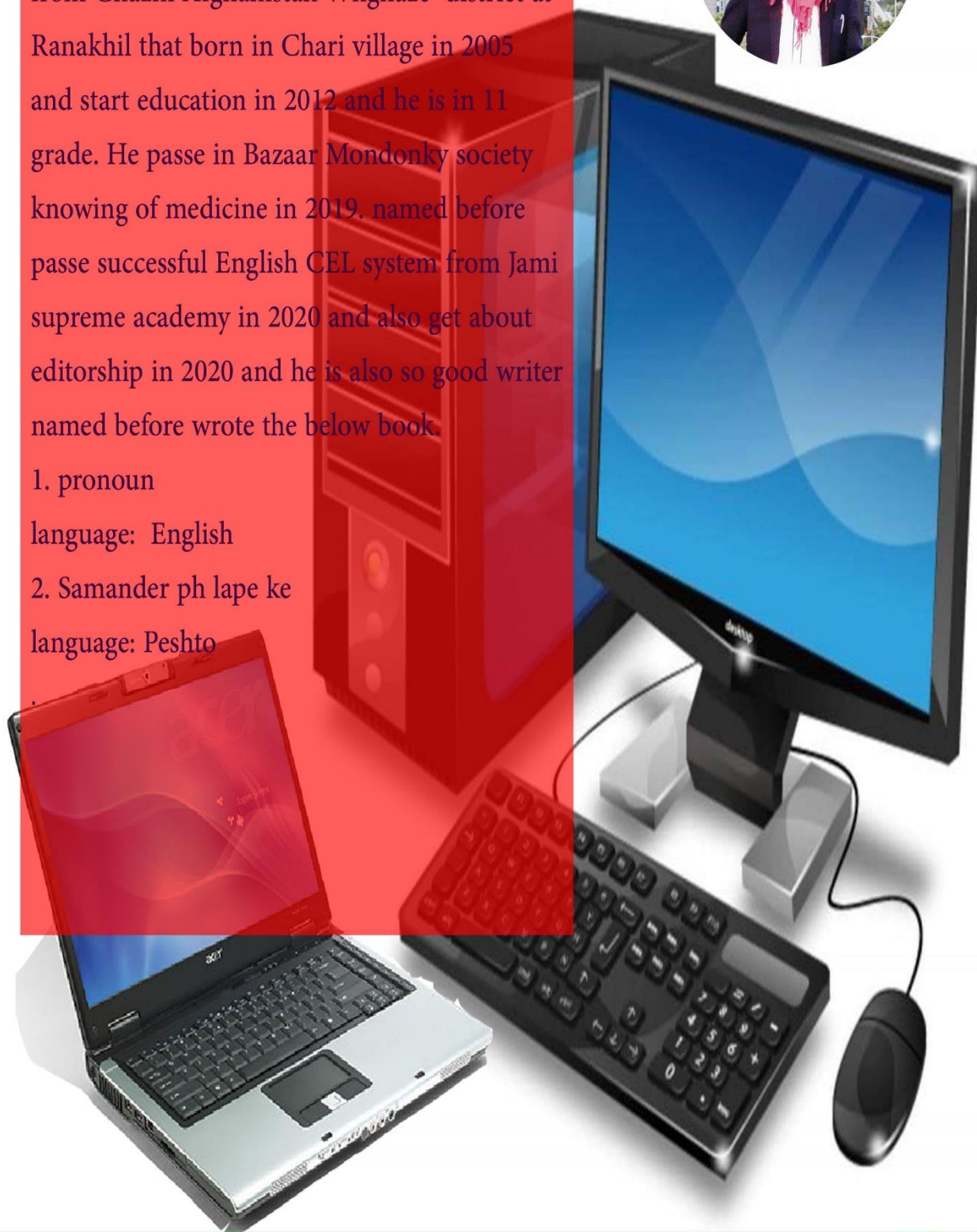
Obaidullah \*jalalzai\* son of Karim \*jalalzai\* from Ghazni Afghanistan Whghaze district at Ranakhil that born in Chari village in 2005 and start education in 2012 and he is in 11 grade. He passe in Bazaar Mondonky society knowing of medicine in 2019, named before passe successful English CEL system from Jami supreme academy in 2020 and also get about editorship in 2020 and he is also so good writer named before wrote the below book.

1. pronoun

language: English

2. Samander ph lape ke

language: Peshto



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