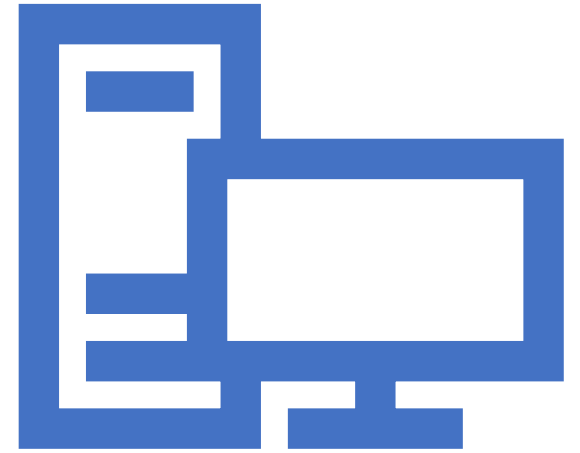# Computer's Introduction

Course Instructor: Engr. Amjad Riaz

Contents

- What is Computer

- Computer's History

- Different Types of Computers

- Applications of Computers

- Computer System

What is a Computer…?

- *The term [computer]* is *derived from the Latin term* '**computare'**, this means to *calculate* or *programmable machine*

- Computer is an electronic device for storing and processing data, typically in binary form, according to instructions given to it in a variable program

- A **computer** is a machine or device that performs processes, calculations and operations based on instructions provided by a software or hardware program

- The five **basic** operations that a **computer** performs are input, storage, processing, output and control.

History

- **Charles Babbage** is called the "Grand Father" of the computer

- The ENIAC (Electronic Numerical Integrator and **Computer**) was the **first** electronic programmable **computer** built in the U.S

- The ENIAC was invented by J. Presper Eckert and John Mauchly at the University of Pennsylvania and began construction in 1943 and was not completed until 1946.

- It occupied about 1,800 square feet and used about 18,000 vacuum tubes, weighing almost 50 tons (50,000 Kg)

Link: https://codescracker.com/computer-fundamental/history-of-computer.htm

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Types of Computer's

- Since the advent of the first computer different types and sizes of computers are offering different services.

- Computers can be as big as occupying a large building and as small as a laptop or a microcontroller in mobile & embedded systems.

- The four basic types of Computer are:
    1. Super-computer
    2. Mainframe-Computer
    3. Mini-Computer
    4. Micro-Computer

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1. Super-Computers

- The most powerful computers in terms of performance and data processing are the Supercomputers.

- These computers are used for research and exploration purposes by large organizations

- The supercomputers are very expensive and very large in size

- Uses:
  - Supercomputers are used in Space Exploration, Earthquake Studies, Weather Forecasting, Nuclear Weapon testing etc.

2. Mainframe Computers

- Mainframes are not as powerful as supercomputers, but certainly they are quite expensive

- Many large firms & government organizations uses Mainframes to run their business operations

- Mainframes can also process & store large amount of data

- Banks, educational institutions & insurance companies use mainframe computers to store data about their customers, students & insurance policy holders.

3. Mini-Computers

- Minicomputers are also called as "Midrange Computers".

- Minicomputers are used by small businesses & firms.

- Individual departments of a large company or organizations use Mini-computers for specific purposes

- The **types** of **minicomputer** are- tablet **PC**, Desktop minicomputers, cell phones, notebooks

4. Micro-Computers

- Desktop computers, laptops, personal digital assistant (PDA), tablets & smartphones are all types of microcomputers

- The micro-computers are widely used & the fastest growing computers

- These computers are the cheapest among the other three types of computers

- Well known manufacturers of Micro-computer are Dell, Apple, Samsung, Sony & Toshiba.

- The Micro-computers are specially designed for general usage like entertainment, education and work purposes

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Applications of Computers

- Scientific research
- Business application
- Education
- Entertainment
- Banks
- Communication
- Engineering
- Medicine
- Book Publishing
- Games
- Personal
- Accounting
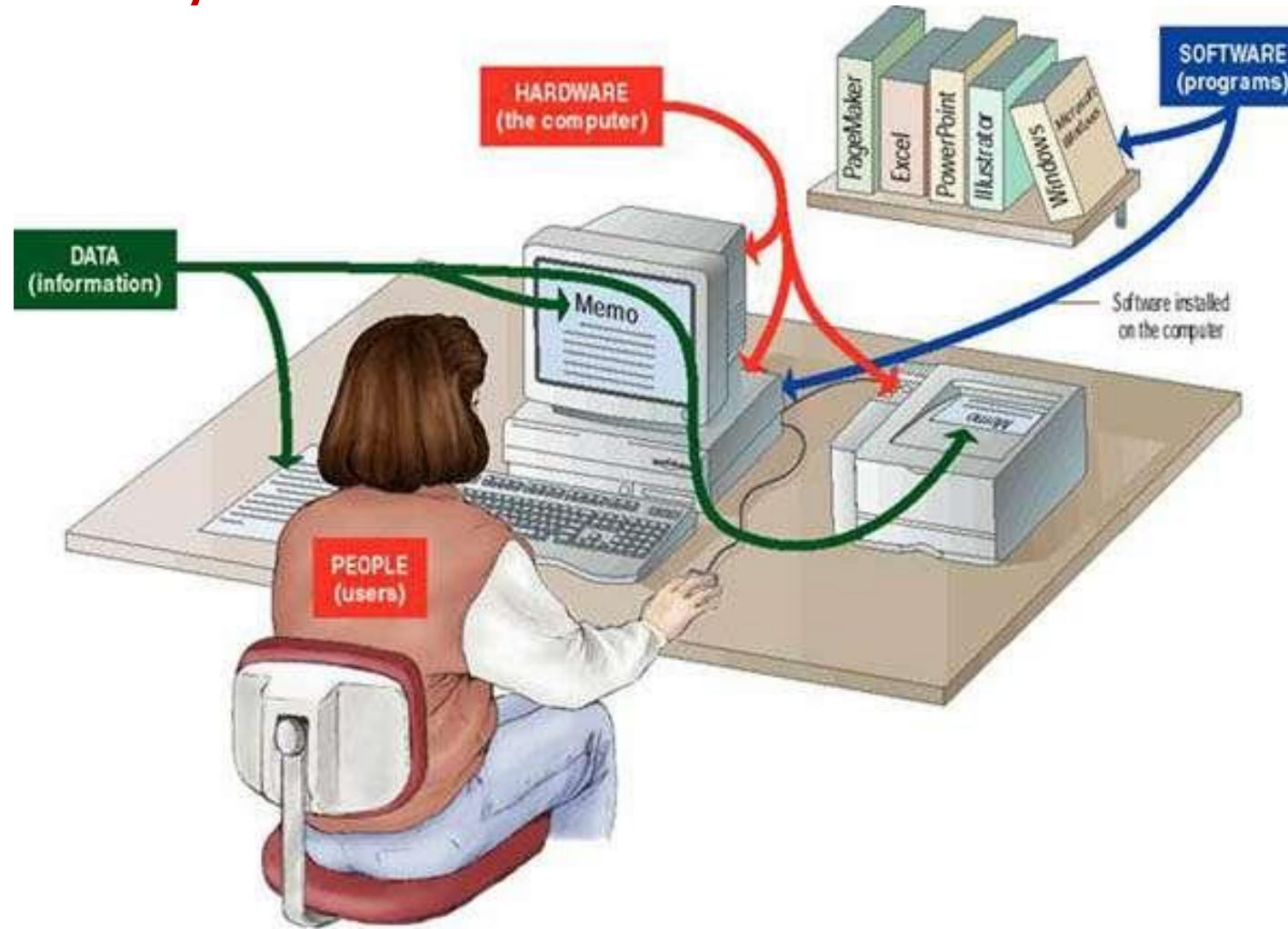
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Computer System

- **Definition:**
  - Is a collection of entities(hardware, software and liveware) that are designed to receive, process, manage and present information in a meaningful format.

- Components of Computer System:
  1. **Hardware** – Physical parts (e.g., input output devices, storage devices and CPU)
  2. **Software** – Programs and application
  3. **Liveware** – any human (user)

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Computer System

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END

"Indeed, what is to come will be better for you than what has gone by ."
(Quran 93:4)

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