

# **Application of Information & Communication Technologies**

## **Lecture-2**

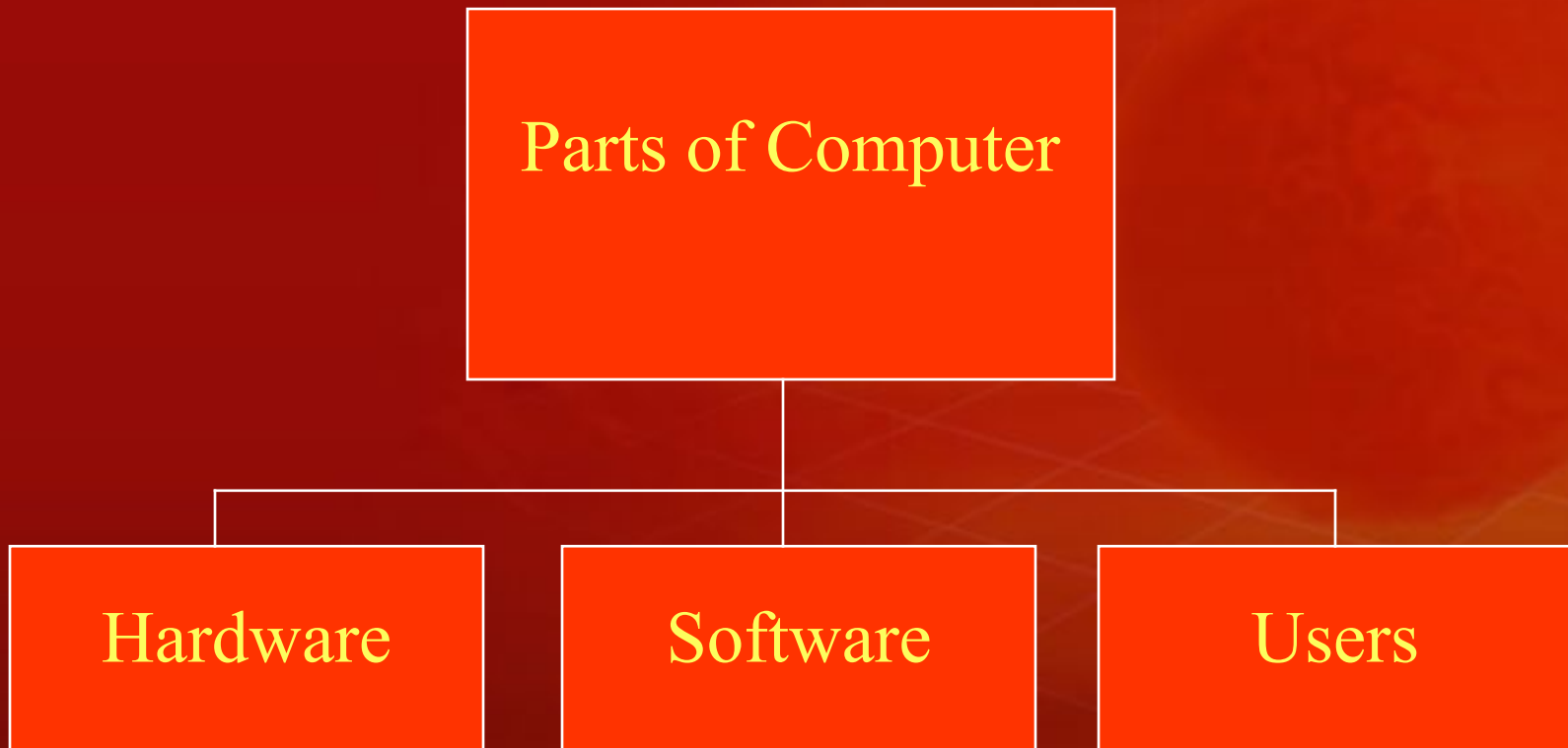
# Recap of Lecture 1

- ◆ Introduction to Computers & Computer in Life
- ◆ Data vs Information
- ◆ Generation of Computer

# Overview of Lecture 2

- ◆ Parts of Computer System
  - Hardware
  - Software
  - User
- ◆ Information Technology
  - Data
  - Characteristics of IT
  - Functions of IT

# Parts of Computer System

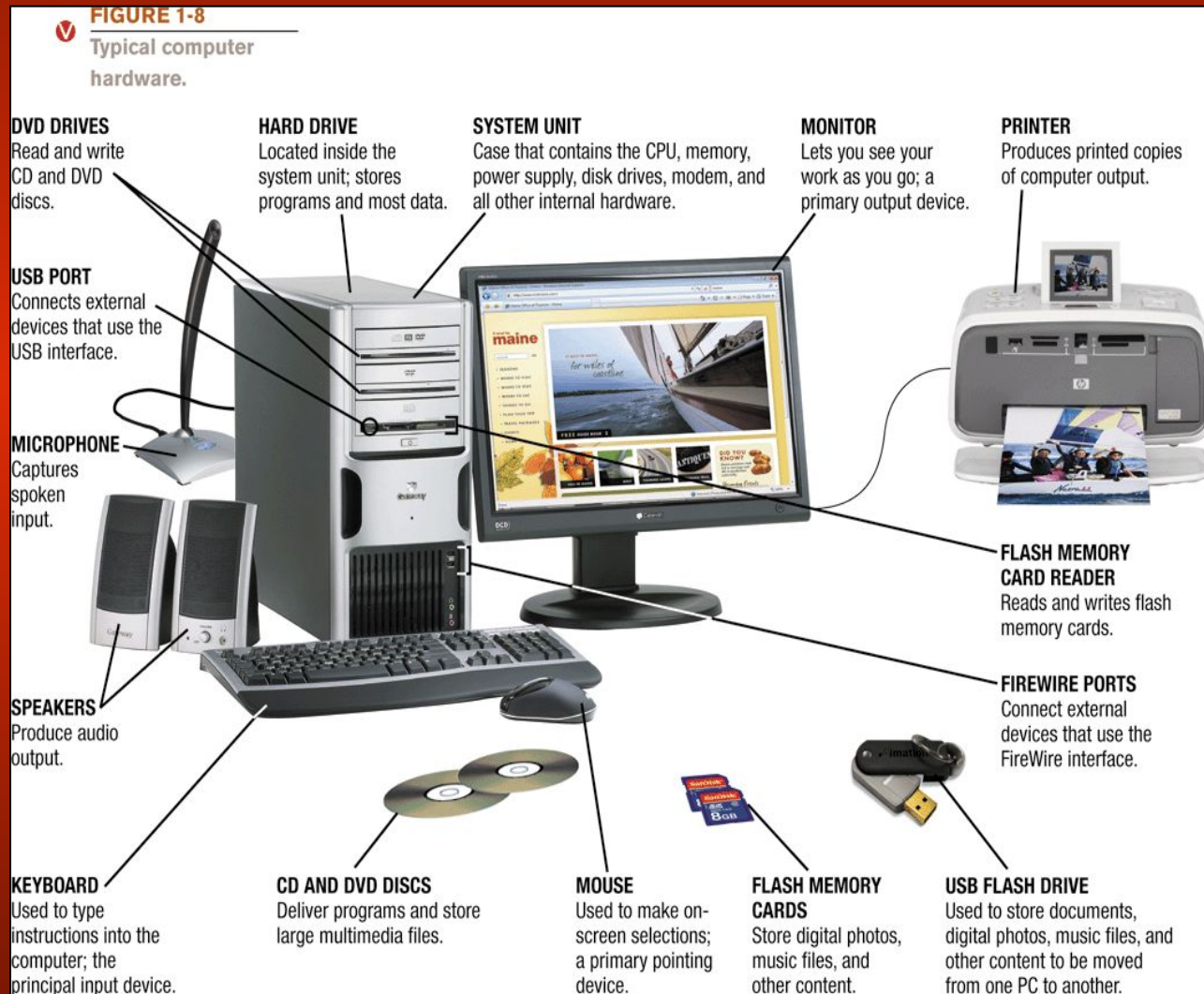


# Parts of Computer System

- ◆ **Hardware**: The physical parts of a computer you can touch
  - Internal Hardware
    - Located inside the main box (system unit) of the computer
  - External hardware
    - Located outside the system unit

# Parts of Computer System

## Hardware



# Parts of Computer System

## ◆ Hardware Devices

Input devices

Processing devices

Output devices

Present results to the user

Storage Devices

Communication Devices

INPUT	OUTPUT
Keyboard	Monitor
Mouse	Printer
Microphone	Speakers
Scanner	Headphones and headsets
Digital camera	Data projector
Electronic pen	
Touch pad	
Joystick	
Fingerprint reader	
PROCESSING	STORAGE
CPU	Hard drive
	Floppy disk
	Floppy disk drive
	CD/DVD disc
	CD/DVD drive
	Flash memory card
	USB flash drive
	Flash memory card reader
COMMUNICATIONS	
Modem	
Network adapter	

**FIGURE 1-9**  
Common hardware listed by operation.

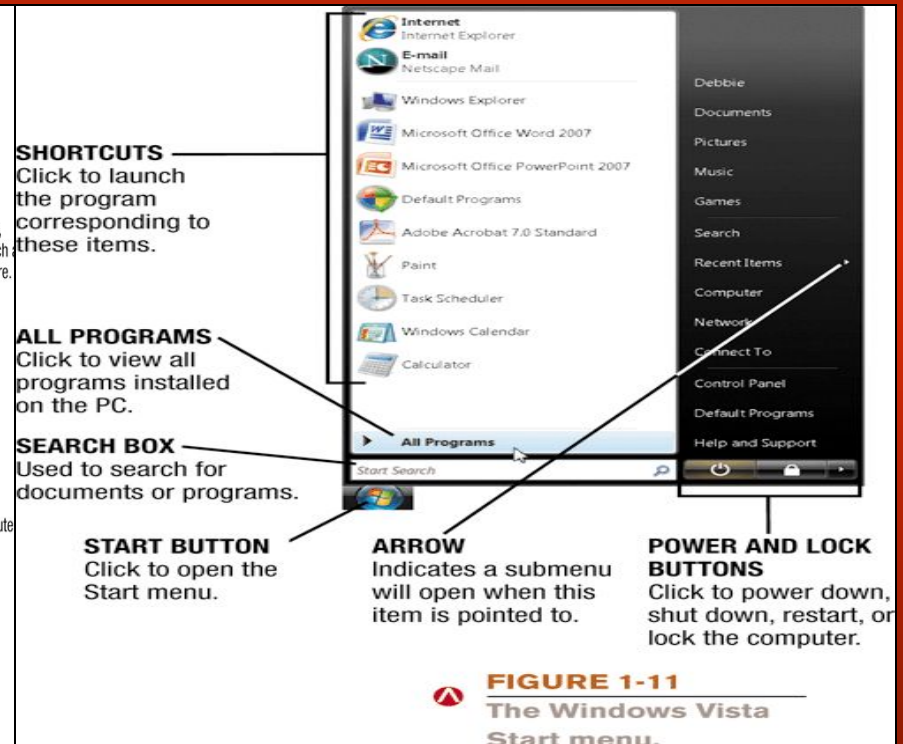
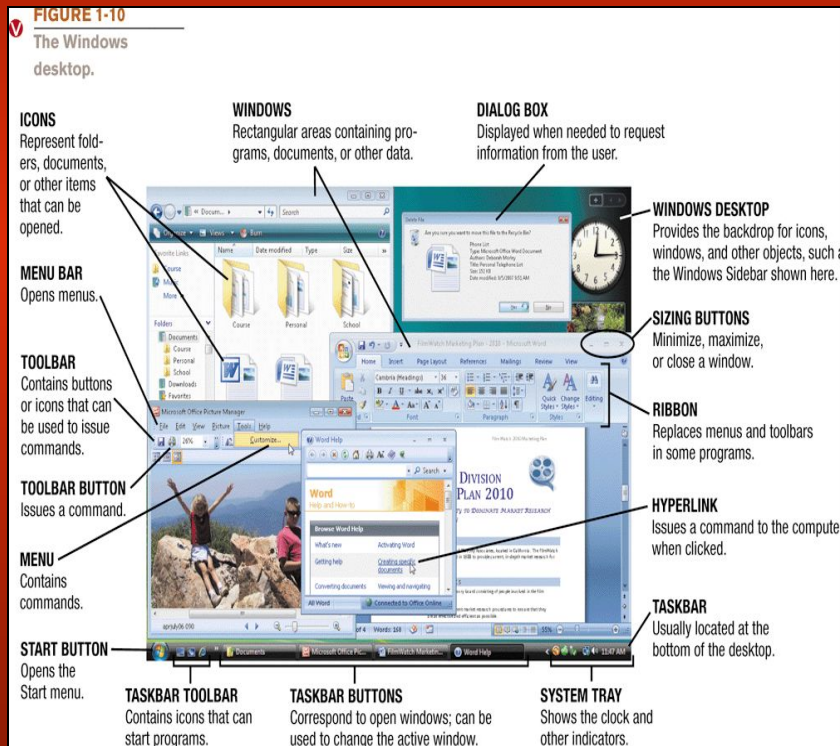
# Parts of Computer System

- ◆ **Software**: The set of instructions/programs that tell hardware what to do.
  - System Software
    - e.g., Windows, Linux, macOS – helps run the computer.
  - Application Software
    - e.g., MS Word, web browsers, Photoshop, – helps users do tasks.



# Parts of Computer System

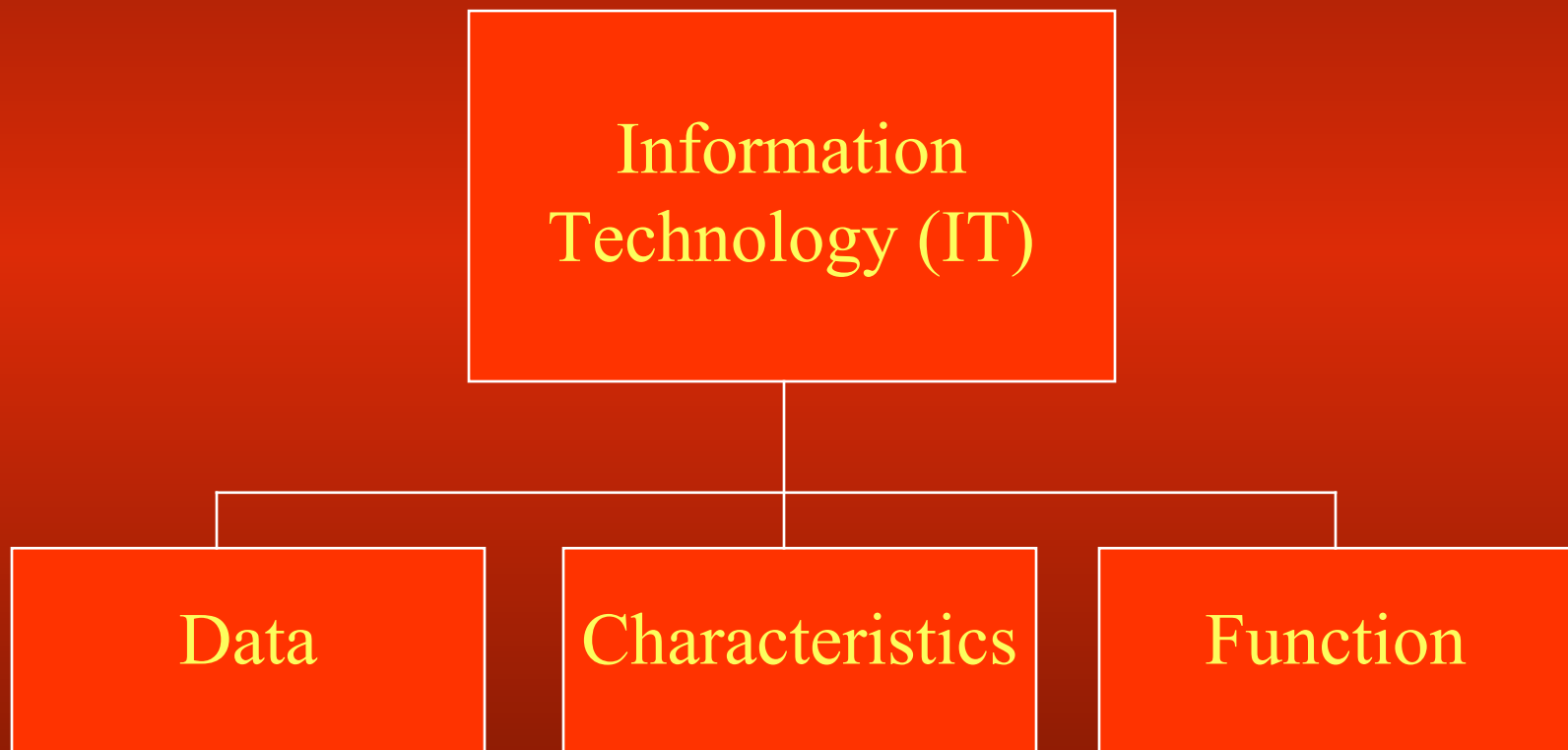
## Software



# Parts of Computer System

- ◆ **Computer Users**: People who use a computer to obtain information
- ◆ Types:
  - End Users (students, teachers, employees).
  - IT Professionals (programmers, system admins).
- ◆ Without users, hardware + software are useless.

# Information Technology (IT)



# Information Technology (IT)

- ◆ Data:
- ◆ Raw Facts .....
- Data becomes ..... after .....
- Meaningful data is .....

# Information Technology (IT)

## ◆ Characteristics of IT:

- Speed
  - Computers process data very fast.
- Accuracy
  - High precision in calculations.
- Automation
  - Tasks run automatically.
- Connectivity
  - Easy to share info via networks/Internet.
- Storage
  - Huge amount of data can be stored in small devices.

# Information Technology (IT)

## ◆ Function of IT:

- Input: Collecting data (keyboard, scanner).
- Processing: CPU works on data.
- Storage: Saving data (hard disk, cloud).
- Output: Showing results (monitor, printer).
- Communication: Sharing info (email, WhatsApp, video calls).

# Summary

- ◆ Parts of Computer System
  - Hardware
  - Software
  - User
- ◆ Information Technology
  - Data
  - Characteristics of IT
  - Functions of IT

# Suggested Reading

- ◆ Introduction chapter , “Understanding Computers: Today and Tomorrow, Comprehensive”, 15th Edition by Deborah Morley & Charles S. Parker