

# Lecture – 04



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# Outline

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- ❑ Limitations of Computer
- ❑ Types of Micro-computer



# Limitations of Computers

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The use of computer has also created some problems in society which are as follows:

**1. Unemployment:** Different tasks are performed automatically by using computers. It reduces the need of people and increases unemployment in society.

**2. Wastage Of Time And Energy:** Many people use computers without positive purpose. They play games and chat for a long period of time. It causes wastage of time and energy. Young generation is now spending more time on the social media websites like Facebook, Twitter etc. or texting their friends all night through smartphones which is bad for both studies and their health. And it also has adverse effects on the social life.

**3. Data Security:** The data stored on a computer can be accessed by unauthorized persons through networks. It has created serious problems for the data security.



## Limitations of Computers (cont.)

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**4. Computer Crimes:** People use the computer for negative activities. They hack the credit card numbers of the people and misuse them or they can steal important data from big organizations.

**5. Privacy Violation:** The computers are used to store personal data of the people. The privacy of a person can be violated if the personal and confidential records are not protected properly.

**6. Health Risks:** The improper and prolonged use of computer can result in injuries or disorders of hands, wrists, elbows, eyes, necks and back. The users can avoid health risks by using the computer in proper position. They must also take regular breaks while using the computer for longer periods of time. It is recommended to take a couple of minutes break after 30 minutes of computer usage.

# Types of Micro Computer

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- **Notebooks**
- **Laptops**
- **Desktops**

# Notebooks



- ▶ Notebooks among the micro-Computer, can weight less than a kilogram. These ultra-portable units allow for easy setup in a classroom; they connect to the internet via a cable or integrated WIFI terminal. Most notebooks, these days have built-in microphones and webcams for video conferences.



# Laptops



- ▶ Laptop computers, also known as notebooks, are portable computers that you can take with you and use in different environments. They include a screen, keyboard, and a trackpad or trackball, which serves as the mouse. Because laptops are meant to be used on the go, they have a battery which allows them to operate without being plugged into a power outlet.

# Laptops



- ▶ Laptops also include a power adapter that allows them to use power from an outlet and recharges the battery.



# Desktops



- ▶ Desktops are bigger and can perform more complex operations than notebooks and laptops. These microComputers have separate components—the system unit, keyboard, and monitor. Desktop microComputers are generally cheaper than laptops and notebooks. With some exceptions, new technologies are often built into the desktop Computers at least six months before their introduction to the notebooks and laptops.

# Desktops



- ▶ The desktops tend to be reliable and easy to repair. If components fail to work, you can replace it more easily than you could its counterpart in a laptop or notebook.



# Difference between Laptop and Desktop Computer



Basis of comparison	Desktop	Laptop
<b>Definition</b>	Desktops typically have a separate keyboard and mouse, and the central processing unit that is separate from the computer monitor.	<b>A laptop is an all-in-one machine, with the screen, keyboard and mouse built into the device.</b>
<b>Components</b>	Components of desktop can be easily removed.	<b>Components of laptops are not easily removable.</b>
<b>Keyboard</b>	Desktops typically have a separate keyboard and mouse.	<b>It has a physical keyboard inbuilt.</b>
<b>Weight</b>	Desktop is heavier than the Laptops.	<b>The laptop is lighter than the desktops.</b>
<b>Processors</b>	Desktop computers have more powerful processors.	<b>It has less powerful processor except gaming laptops.</b>
<b>Size</b>	Comparatively large	<b>Comparatively small</b>
<b>Cost</b>	Generally less expensive	<b>Generally more expensive</b>
<b>Portability</b>	Not so portable	<b>Portable</b>
<b>Data Ports</b>	The number of data ports is more in desktops.	<b>The number of data ports is less in laptops.</b>

# Difference between Microcomputer and Minicomputer



Micro Computer	Mini Computer
Microcomputer was launched in 1970.	Minicomputer was launched in 1960
It consists of a single microprocessor that performs all the operations.	It consists of multiple processors.
It is affordable and more user-friendly.	It is expensive and less user-friendly.
The speed and performance are slower than minicomputers	the speed and performance are faster than a microcomputer.
The storage space is in Gigabyte (GB)	The storage space is in Terabyte (TB).
Microcomputers are mainly used for managing databases, graphics, word processing, etc.	Minicomputers are mainly used for administrative tasks, word processing, process control, etc.
Microcomputers are less powerful.	Minicomputers are more powerful.
It utilizes disks and tapes for storing.	It utilizes tapes or magnetic disks for secondary storage.

# Projector



- ▶ A Projector is an output device that projects an image onto a large surface, such as a white screen or wall. It may be used as an alternative to a device or television when showing video or images to a large group of people. Projectors come in many shapes and sizes though they are commonly about a foot long and wide and a few inches tall. They can be mounted on ceilings or may be freestanding and portable.

# Projector



- ▶ Portable Projectors can be used wherever there is a bright surface (such as a white or light colored wall). Most Projectors have multiple input sources, such as HDMI ports for newer equipment and VGA ports for older devices. Some Projectors support Wi-Fi and Bluetooth as well.

# Modem



- ▶ Modem stands for modulation and demodulation. Modem device that converts digital signal into analog signal and analog signal into digital. The process of converting **analog** signal into **digital** signal is called **modulation**. The process of converting **digital** signal into **analog** signal is called **demodulation**.



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Any Questions?