Keyboards

1. What is a keyboard?

The **keyboard** is one of the most common **input devices** for computers. It allows users to enter text, numbers, commands, and special functions. While most keyboards look similar, there are different types designed for specific purposes, comfort, or portability. Understanding these types and their functions helps in choosing the right one for different needs.

2. Types of Keyboards

Standard Keyboard

This is the most common type, usually with **104 keys** including letters, numbers, function keys, and control keys. It is widely used for general computing tasks like typing documents or browsing the web.

Laptop Keyboard

Laptops use **compact keyboards** with reduced key spacing and sometimes missing sections like the numeric keypad. Many laptops include function shortcuts (brightness, volume, Wi-Fi toggle) on the Fn keys to save space.

Mechanical Keyboard

Mechanical keyboards use **individual mechanical switches** under each key. They are known for durability, fast response, and tactile feedback. Popular among gamers and programmers.

- Variations depend on switch type (e.g., clicky, linear, tactile).

Membrane Keyboard

Membrane keyboards use a thin pressure pad system instead of mechanical switches. They are **cheaper, quieter, and lighter**, but may feel less responsive. Most standard desktop and office keyboards are membrane-based.

Ergonomic Keyboard

Designed to reduce strain, ergonomic keyboards often have a **split or curved design** that follows the natural position of hands and wrists. These are helpful for people who type for long hours.
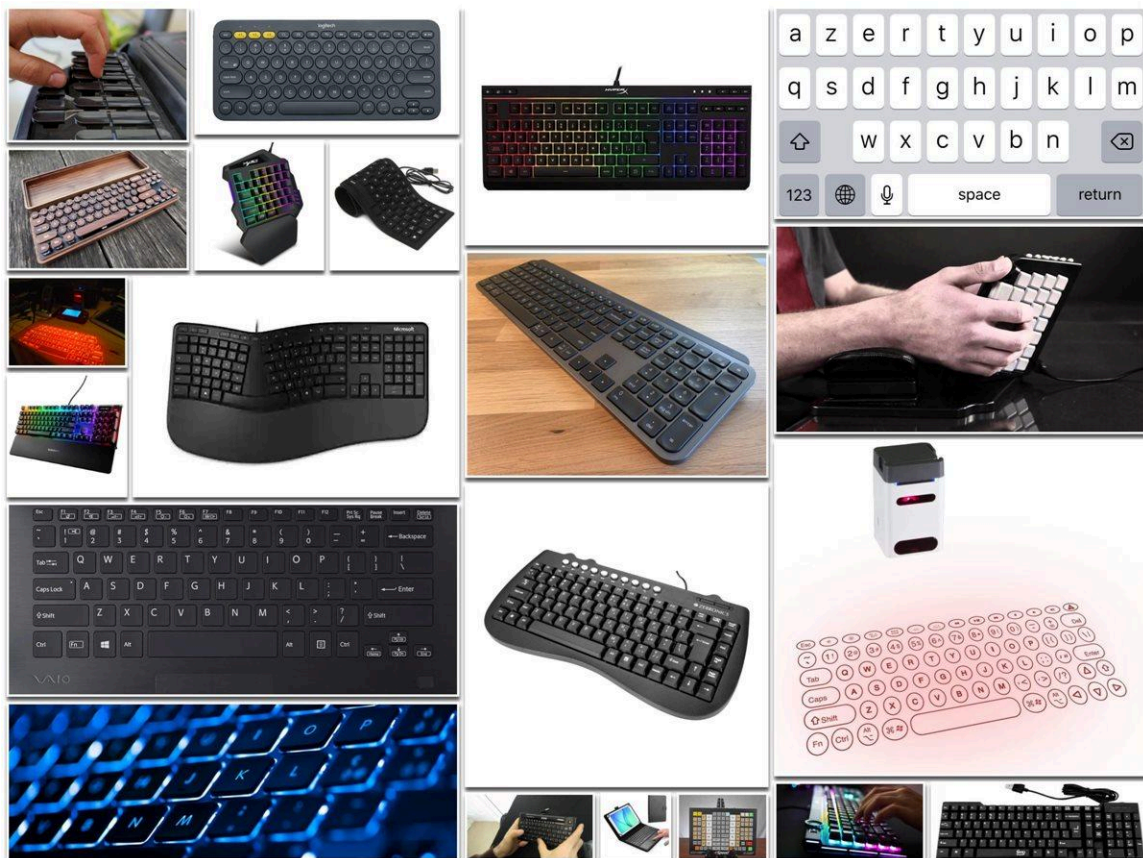
Virtual / On-Screen Keyboard

Displayed on a **touchscreen** device, like tablets and smartphones. Users tap on the screen instead of pressing physical keys. Useful for accessibility and mobility.

Specialized Keyboards

Some keyboards are built for specific needs:

- **Gaming Keyboards**: come with customizable backlighting, macro keys, and faster response times.

- **Wireless Keyboards**: connect via Bluetooth or USB dongle for convenience.

- **Projection Keyboards**: project a keyboard layout onto a surface using laser or LED technology.

3. Keyboard Functions

Keyboards are more than just typing tools. They provide various functions:

- **Alphanumeric keys**: letters (A–Z), numbers (0–9), and symbols for general text input.

- **Function keys (F1–F12)**: perform shortcuts or special commands (e.g., F5 refreshes a webpage).

- **Modifier keys**: *Ctrl, Alt, Shift, Fn* are used in combination with other keys to perform special tasks.

- **Navigation keys**: *arrow keys, Page Up, Page Down, Home, End* keys help move within documents or web pages.

- **Numeric keypad**: on the right side of many keyboards, useful for fast number entry.

- **Media controls**: on modern keyboards, keys may adjust volume, control playback, or open apps like a calculator.