

Computer Science

Keyboard and **Mouse**

Assist . Lec **Ameer Mohammed**

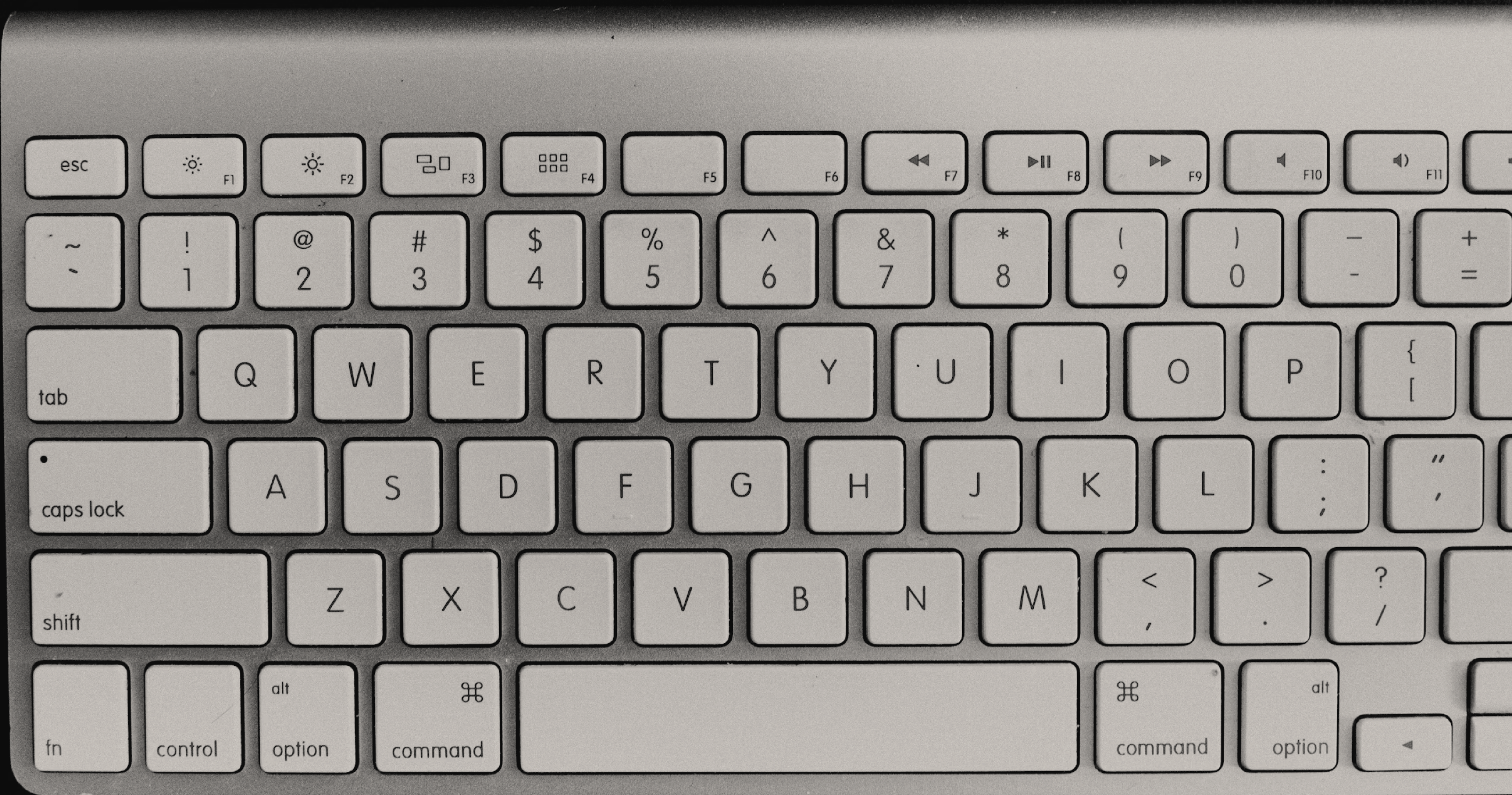


Department of Architecture

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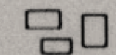
**Overview and
Description about
the most important
input devises**

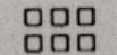


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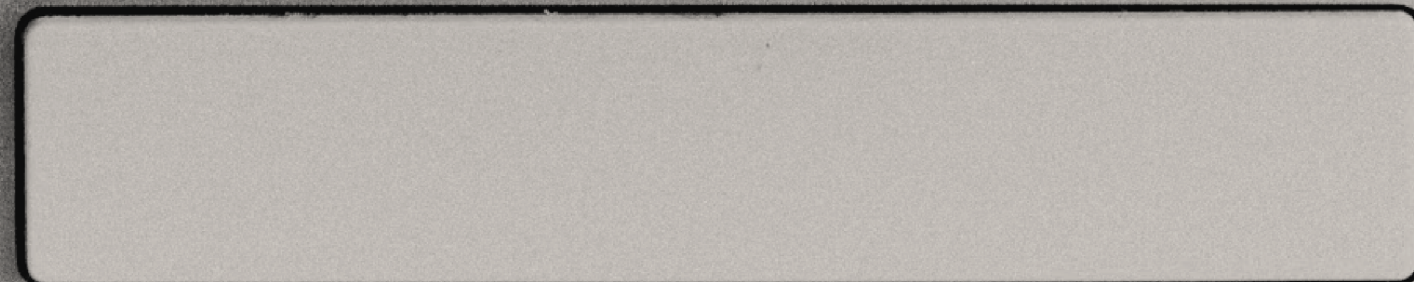


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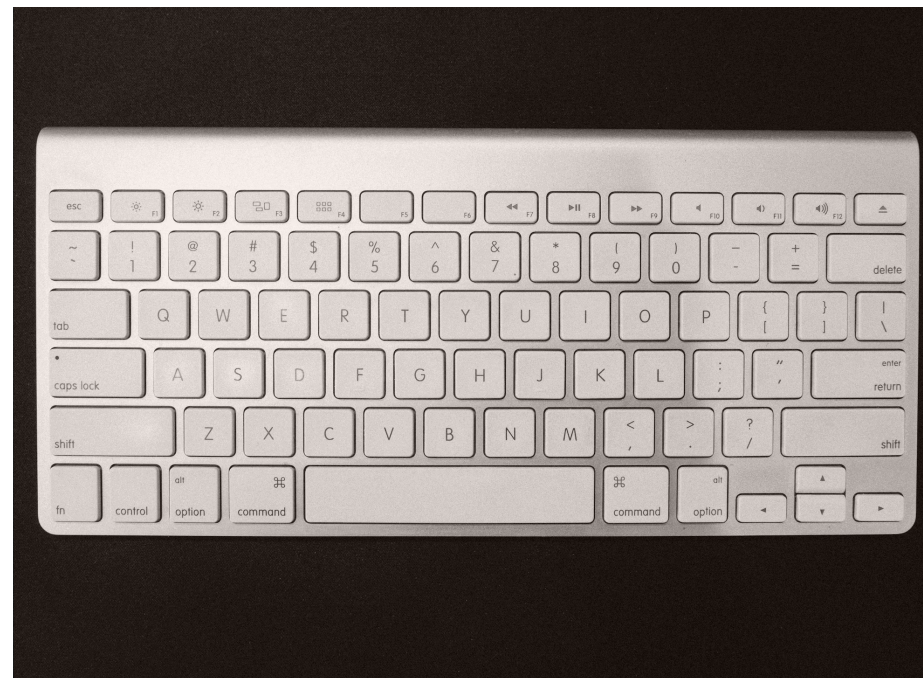


Keyboard

Keyboard is a major input device used with computers and other electronic devices. It takes input from the user in the form of text, numbers, and several other commands. If we look at the structure of a keyboard, it consists of various buttons. These buttons are called keys and every keyboard has a variety of keys with unique functions



Types of Keyboards



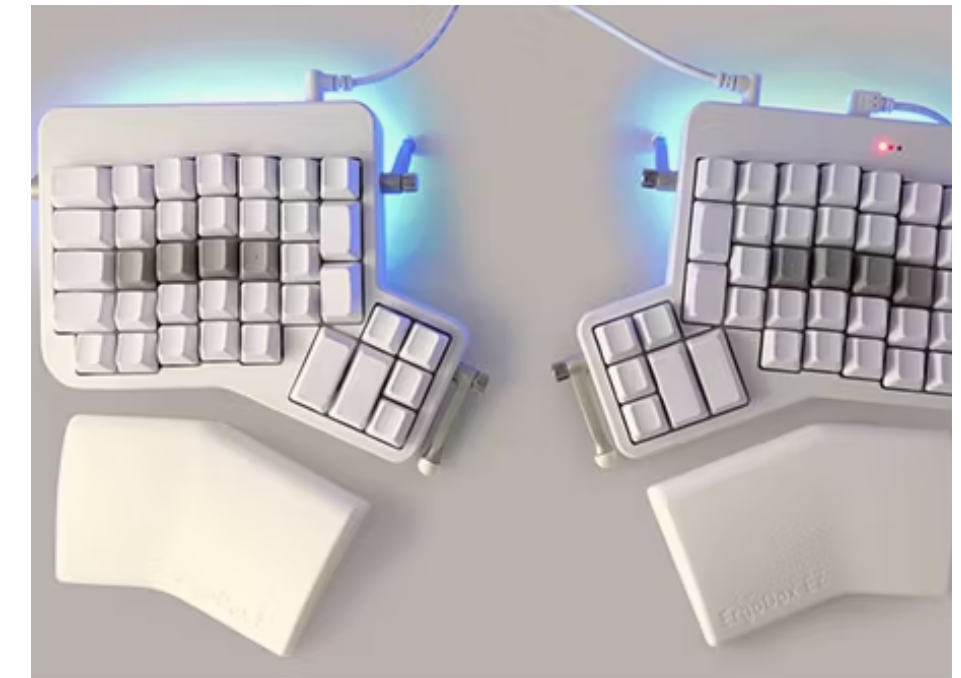
QWERTY KEYBOARD

Optimal design for efficiency



MECHANICAL

Tactile feedback and durability



ERGONOMIC

Comfortable and healthy use

QWERTY

This is the most common and classic keyboard structure. It is named so because of its first 6 keys of the keyboard (QWERTY). Its design was inspired from the early typewriters. The keys were designed in such an order so that the letters which are frequently used, are spaced out to prevent any jamming of keys. The design was made in early 1870's by Christopher Latham Sholes and is used till date. It consists a variety of keys like alphanumeric keys, special keys, function and modifier keys, etc.



Mechanical

Mechanical keyboards are highly durable keyboards. They have individual mechanical switches or springs attached under each key. This makes them not only more durable but also easy to repair. They are popular for their, unique keypress sound, and responsiveness. However, they are expensive than standard keyboards.



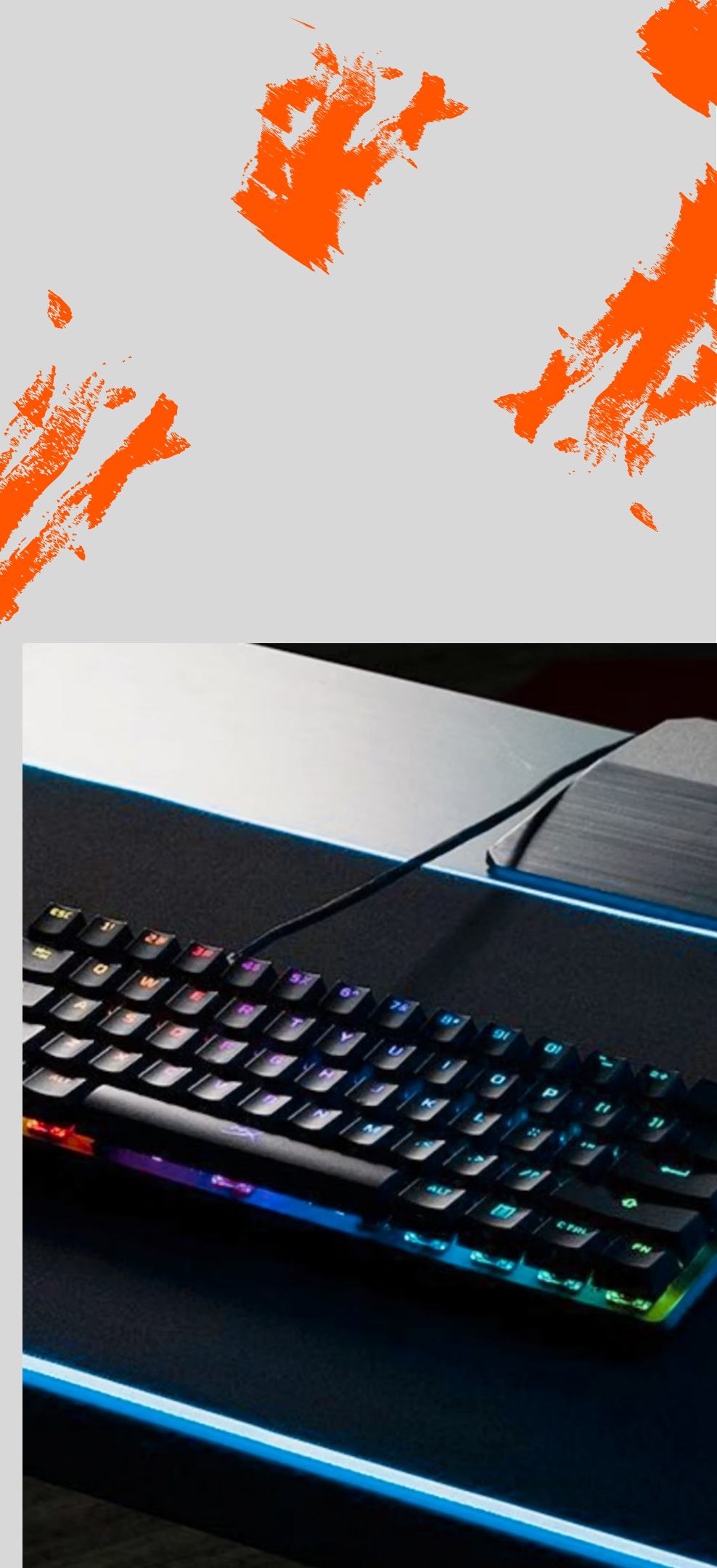
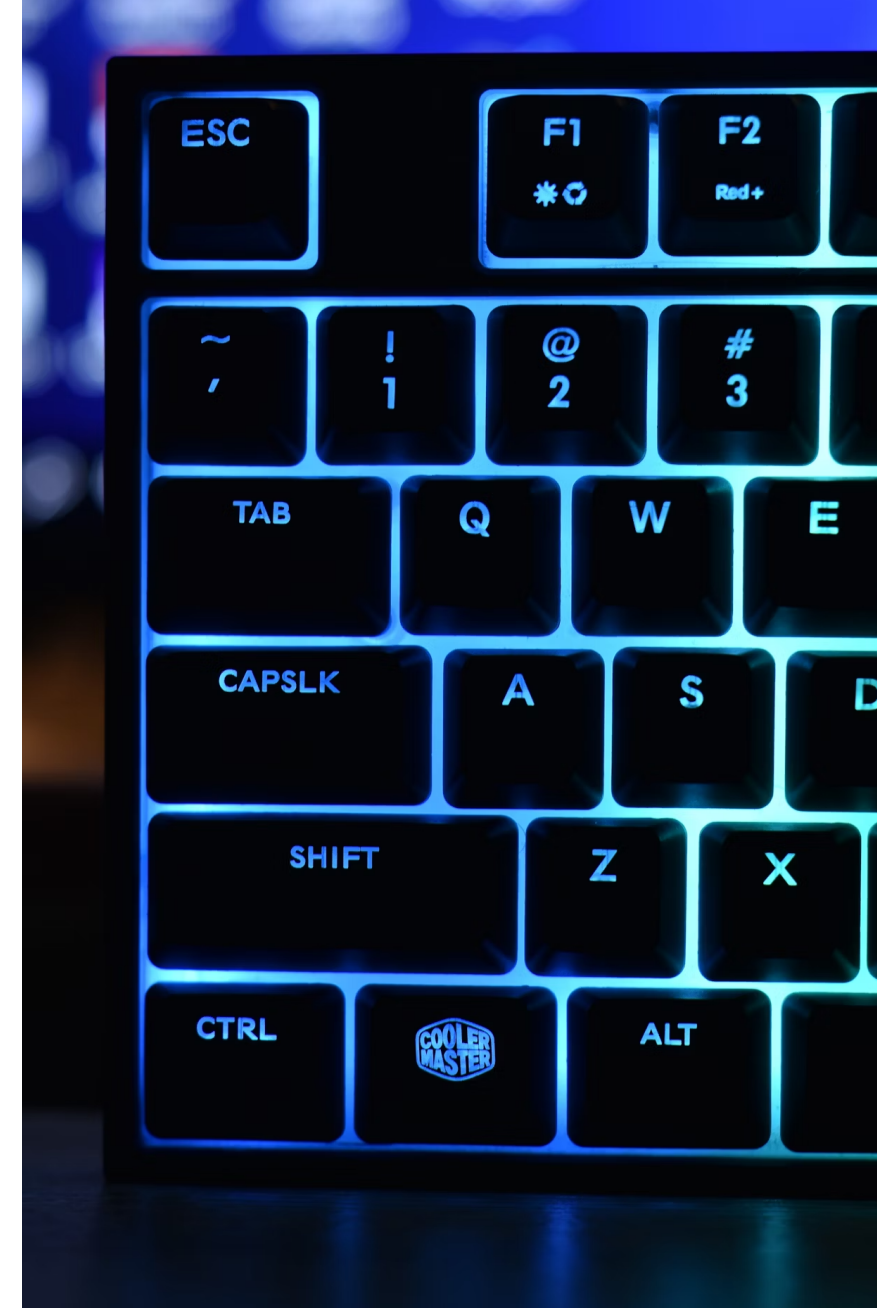
Ergonomic

The term Ergonomic means designing in such a manner that it provides users an efficient working environment. That is exactly what Ergonomic keyboards provide. These keyboards are designed in a way that they help in reducing strain and any discomfort faced by user while typing for a long time. This is achieved by design which allows user to rest their hand in natural position in a comfortable way and arranging keys in the order which causes least finger movements. A keyboard which is split in two halves to provide better typing experience, comes under this category.



Gaming Keyboards

Gaming keyboards are purposely made for gaming purposes. It has features like lesser keys which are arranged in a way that it provides quick access to the gamers. It also has other features like RGB lighting, longer durability and customizable design. The most important quality of gaming keyboards is that the keys have a faster response time.

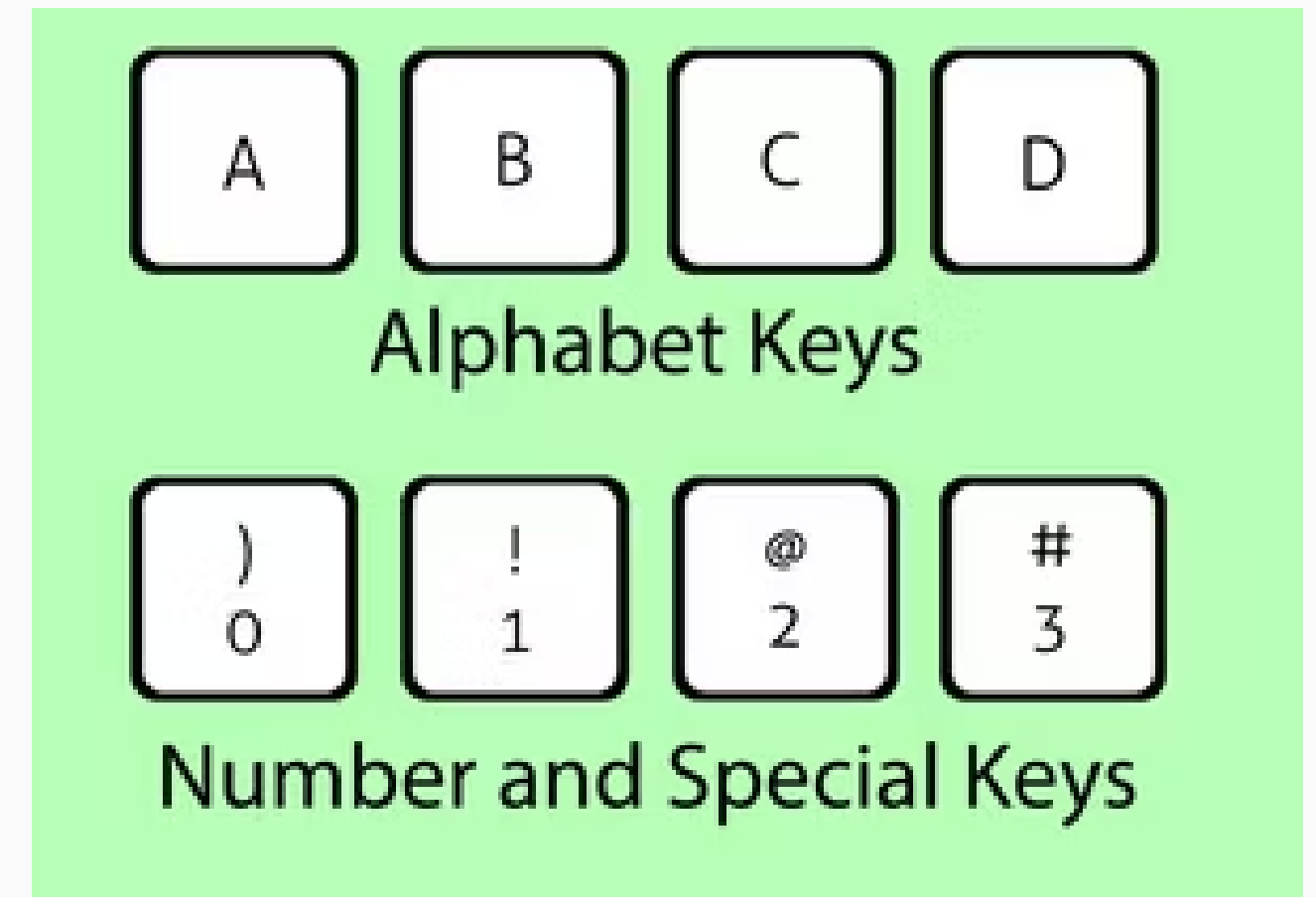




Types of Keys on Keyboard

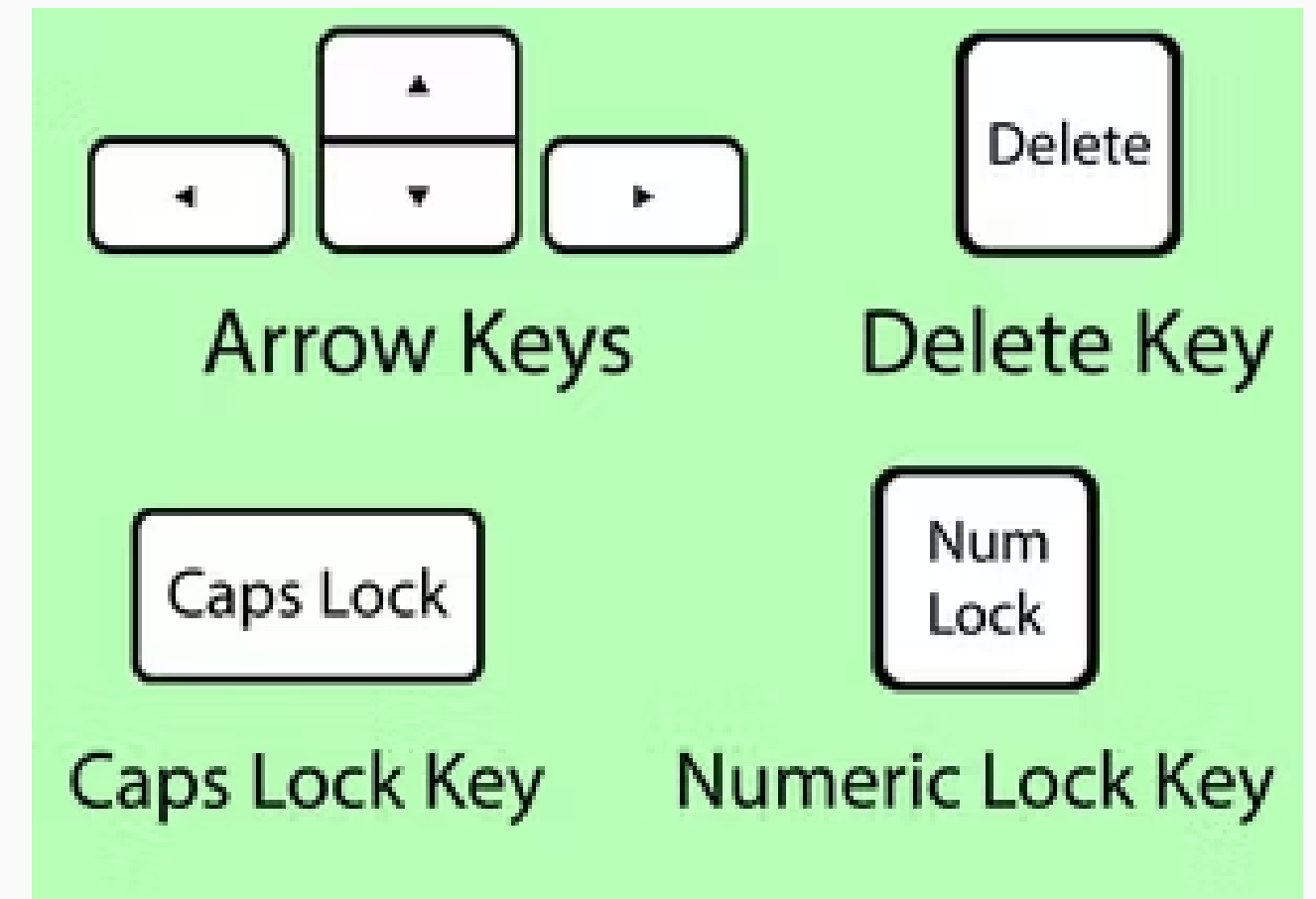
Types of Keys on Keyboard

- These keys are called alphanumeric keys and are used to enter textual and numeric data. They consist of letters A-Z and numbers 0-9.
- The number keys also contain some special characters (like !, @, #, \$, &, *).



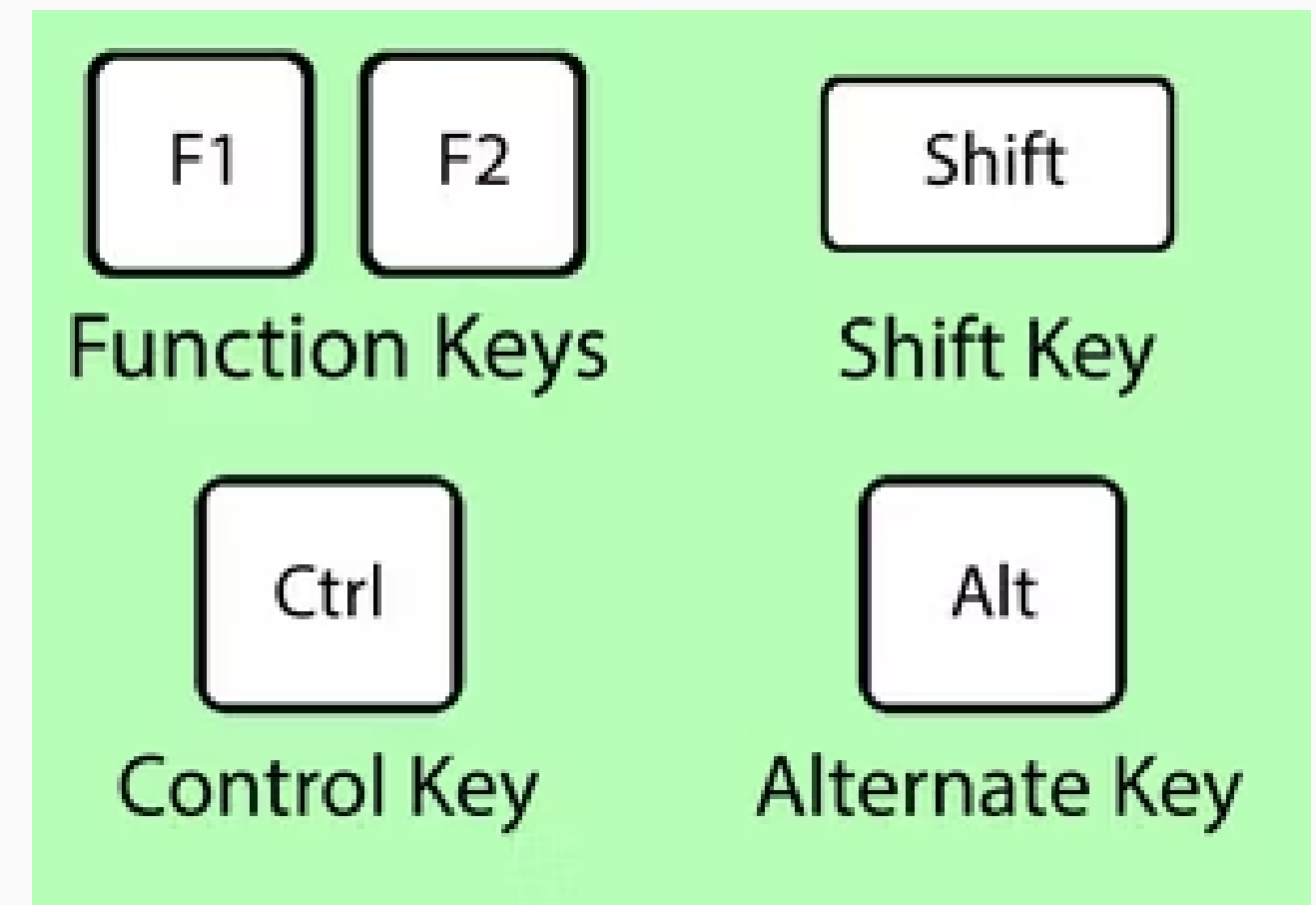
Types of Keys on Keyboard

- Keys like Arrow Keys, Page up and Page down help in navigating and moving cursor around.
- Editing is also possible through Delete key which removes unwanted characters from the right of the cursor.
- Some other keys help in controlling the input entered by the user like – Caps lock (switches between uppercase and lowercase letters), Num lock (activates and deactivates number keypad) and Scroll lock (controls scrolling).



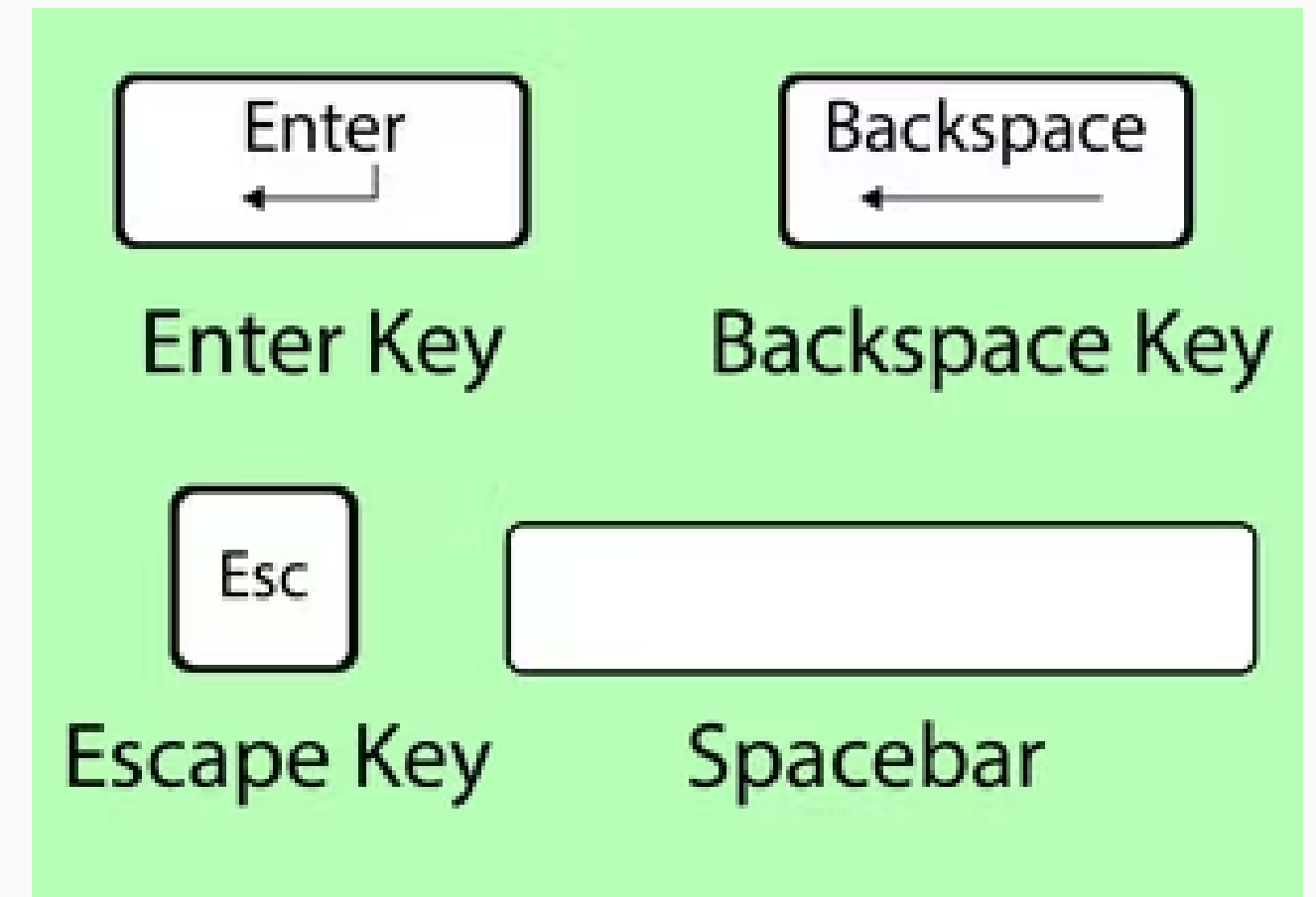
Types of Keys on Keyboard

- A traditional keyboard has 12 **Function Keys**, from F1 to F12 where each key has a unique function related to the software or application.
- Whenever a single key has two characters on it, a **Shift key** is used to access the upper character. It also enables typing in uppercase.
- **Control (Ctrl)** and **Alternate (Alt)** keys are used with combination of other keys for various shortcuts.



Types of Keys on Keyboard

- **Enter Key:** It basically confirms any selection or is used for submitting purposes.
- **Backspace Key:** It removes unwanted characters to the left of the cursor.
- **Spacebar:** It inserts a space between characters.
- **Escape (Esc) Key:** It is used to exit a currently running operation or dialog box.





Lets Talk About The Mouse

The mouse is the most used pointing device. While clicking and dragging, the mouse moves a little cursor across the screen. If you let off of the mouse, the cursor will come to a halt. You must move the mouse for the computer to move. it will not move on its own. A mouse is used to perform actions such as selection, double-clicking, dragging, scrolling

Parts of Computer Mouse



MOUSE BUTTONS

Mouse Buttons are present on the outer part of the mouse. These buttons help users to click and navigate. Left button is used for clicking and double clicking whereas right click opens up the additional



SCROLL WHEEL

Scroll wheel is used to scroll the page up and down. When we click on the middle of the scroll wheel it helps to click on hyperlinks.



MOTION DETECTION

Earlier trackballs were embedded inside the mice which helped to detect the movements and convert it to signals which were further processed. Nowadays lasers are used which detect the movements and provide the output accordingly.



OUTER COVER OR SHELL

An outer covering is given to the mouse which covers the inner components of the mouse including track ball or sensors.

Types

Of

Mouse



1. **Wired Mouse:** This type of mouse uses wires to establish a connection between the input device and the computer screen. Wired mouse are comparatively cheap but is not easy to carry everywhere as the wires can get intertwined.
- **Wireless Mouse:** This type of mouse uses radio signals to communicate with the computer. Bluetooth connectivity is used to establish the connection. These are easier to carry but is expensive and have short lives.
- **Mechanical Mouse:** A mechanical mouse is a type of mouse that comprises rubber ball inside its structure. The ball detects the movements when the user drags the mouse over the mousepad and the computer screen shows the response accordingly.
- **Laser Mouse:** Laser Mouse is a type of Optical mouse that uses laser beams to detect the movement. Just like optical mouse it also does not have any rolling rubber ball.



إِسْتَمْتِعْ بِرِحْلَتِكَ فِي عَالَمِ **الْهَنْدَسَةِ**...!