



# VIT<sup>®</sup>

**Vellore Institute of Technology**  
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**(ASSIGNMENT)**

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# INPUT DEVICE

## DEVICE – KEYBOARD

### What is computer keyboard?

- Keyboard is a set of keys that enables you to enter data into computer. It is the main input device of the computer.
- It has many keys which can be pressed to make characters like numbers, letters or symbols appear on the screen.
- A keyboard is a lot like a miniature computer. It has its own processor and circuitry that carries information to and from that processor. A large part of this circuitry makes up the **key matrix**.



EARLIER KEYBOARD

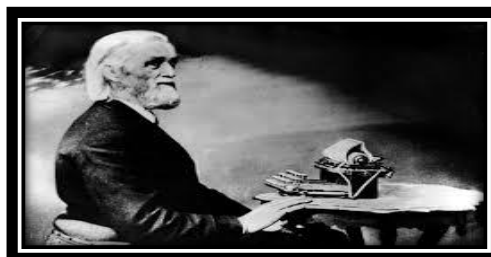


THE MODERN KEYBOARD

### Invention:

#### The first computer keyboard

- The history of the modern computer keyboard begins with a direct inheritance from the invention of the typewriter.
- During the **mid and late 1700s and early 1800s**, several typing and writing devices were created around the world.
- However, the first practical typewriter and the word "Type-Writer" was first developed and patented in 1868 by Christopher Sholes and is considered to be the first typewriter.



- Soon after, in **1877**, the Remington Company began mass marketing the first typewriters.
- After a series of technological developments, the typewriter gradually evolved into the standard computer keyboard your fingers know so well today.

**The keys on computer keyboards are often classified as follows:**

**Parts of keyboard:-**

- ✚ Alphabetic keys – letters(A TO Z) and numbers(0-9)
- ✚ Punctuation keys -- comma, period, semicolon, and so on.
- ✚ Special keys -- function keys, control keys, arrow keys, Caps Lock key, and so on.

**8 TYPES OF KEYBOARD FROM EARLIER STAGES :**

- |                        |                        |
|------------------------|------------------------|
| 1. QWERTY Keyboard     | 2. Mechanical keyboard |
| 3. Wireless Keyboard   | 4. Virtual Keyboard    |
| 5. USB Keyboard        | 6. Ergonomic Keyboard  |
| 7. Multimedia Keyboard | 8. Gaming Keyboard     |

→ The standard layout of letters, numbers, and punctuation is known as a QWERTY keyboard because the first six keys on the top row of letters spell QWERTY.

→ The QWERTY keyboard was designed in the 1800s for mechanical typewriters and was actually designed to slow typists down to avoid jamming the keys.

**QWERTY KEYBOARD**

~	!	@	#	\$	%	^	&	*	(	)	-	+	Delete
Tab	Q	W	E	R	T	Y	U	I	O	P	{	}	\
Caps	A	S	D	F	G	H	J	K	L	:	"	'	Enter
Shift	Z	X	C	V	B	N	M	<	>	? /			Shift
Ctrl		Alt									Alt		Ctrl

<http://www.computerhope.com>

- There are actually three different PC keyboards:
  - Original PC keyboard, with 84 keys D,

- The AT keyboard, also with 84 keys,
- Enhanced keyboard, with 101 keys.

The three differ somewhat in the placement of function keys, the Control key, the Return key, and the Shift keys.

✚ In addition to these keys, **IBM keyboards** contain the following keys:

- Page Up, Page Down, Home, End, Insert, Pause, Num Lock, Scroll Lock, Break, Caps Lock, And Print Screen.

**IBM Keyboard**



**modern mechanical keyboard**



### **WORKING PRINCIPLE OF A KEYBOARD:-**

Inside the keyboard, there are **metallic plate, circuit board and processor**, which are responsible for transferring information from the keyboard to the computer.

Depending upon the working principle, there are **two main types of keys**, namely, **capacitive and hard-contact**.

- ✚ When a capacitive key is pressed, the metal plunger applies a gentle pressure to the circuit board.
- ✚ **The pressure is identified by** the computer and the **circuit flow is initiated**, resulting in **the transfer of information from the circuit to the currently installed software**.
- ✚ The key identifying to computer is **identified using a keyboard driver and finding the preferred key called**.