Chapter 4

Working With Keyboard

Keyboard is a **basic input data device**. This is used to enter data into a computer.

It allows the user to type in

- **text,**
- **numeric and**
- **execute commands** with the help of function keys on the keyboard.

Keyboard comes in ***various different types*** based on the ***region, language and hand postures.***

Why is the keyboard not arranged in alphabetical order ?

The concept of Keyboard in computer comes from the earlier used *manual Typewriters* which had keys *positioned randomly*.

Ok, but why not in alphabet orders like abc...?

The reason dates back to the time of ***manual typewriters.***

When first **invented** , they had keys arranged in an ***alphabetical order***, but people ***typed so fast*** that the mechanical character arms got ***tangled up***.

So, the keys were ***randomly positioned*** to actually **slow** down typing and prevent key jams. This random arrangement became standard for computer keyboards too. Popularly known as the **QWERTY** keyboards.

Ok, but why the name QWERTY...?

Most English language keyboards have a QWERTY layout. And QWERTY isn't an acronym or neologism.

The name is simply the first six characters in the top far left row of letters.

KEYBOARD KEYS

There's *no single standard* dictating the number of **keys, buttons, or characters** on a **keyboard**.

There have been many ***different manufacturers*** over the years, so the number of keys varies from model to model. But, most companies use the PC keyboard with a total of **104 alphanumeric** keys as a default standard.

In this chapter, we list the key counts and types for a generic keyboard. We can divide these keys on the basis of their types of work.

- *Alphabet Keys*
- *Number Keys*
- *Special Keys*

Alphabet Keys - 26

There are 26 alphabets in English vocabulary. So, 26 alphabet keys are present on the keyboard. These keys are not arranged in sequence. We use alphabet keys to type letters, words or sentences etc.

Alphabet keys

Number Keys - 20

There are also called as ***numeric*** keys. These numeric keys are ***10*** numbers, marked with ***0 to 9***.

These keys are present at two places on the keyboard.

1. *On the top* of the alphabet keys. – *10 keys*
2. *On the right end* of the keyboard. – *10 keys*

So, if you only count the top row of number keys on a keyboard, numbers 1 through 0, there are ten number keys on the keyboard. If the keyboard also has a numeric keypad (1 through 0), there are twenty number keys on the keyboard.

Special Keys -

There are some special keys on the keyboard which have some specific functions.

They are further classified into

- Function Keys
- Navigation (Arrow) Keys
- Spacebar Keys
- Delete Key
- Enter Key
- Backspace Key
- Toggle Keys
- Shift Keys
- Tab Key
- Esc Key
- Control Keys
- Math Operation Keys

Function Keys - 12

A ***function*** is like a ***special ability*** that helps you do something specific. For example, if you want to jump high, you use the function of your legs to help you jump.

Similarly, ***function keys*** on a ***computer keyboard*** are like **special buttons** that have different functions assigned to them.

When you press a function key, it helps you do something specific on the computer.

Today's traditional PC keyboards have **12** function keys, ***F1*** through ***F12***

Each function key can be used to perform ***different tasks*** depending on the program or application you are using.

For example,

- The **F1** key is often used as a **help** key. If you press F1 while using a program, it will usually bring up a help menu with information about how to use the program.

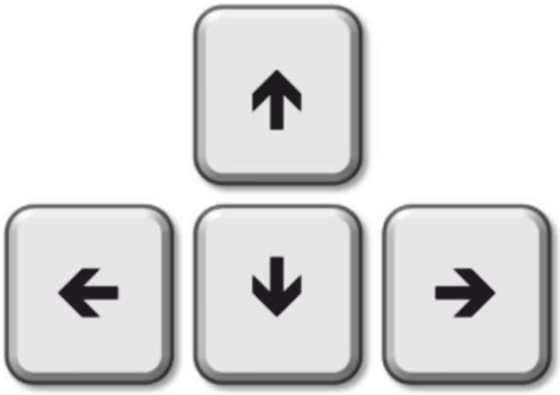
- While the **F5** key is often used to **refresh** a web page.

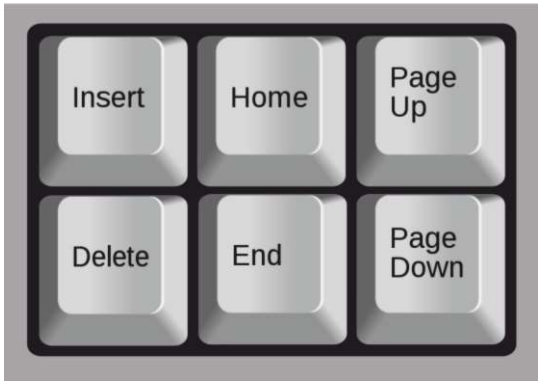
So, function keys are like special buttons on the keyboard that help you do things on the computer, just like your legs help you jump high.

Nevigation Keys - 6

These are the keyboard keys used to ***move the pointer*** (cursor) around the ***screen***. They include the

- *4 Arrow keys* – To **move** the cursor or pointer up, down, left and right
- *PageUp Key* – To **scroll** up
- *PageDown Key* – To **scroll** down
- *Home Key* – Returning the text cursor to the **beginning** of the line
- *End key* - Returning the text cursor to the **end** of the line





Spacebar Key - 1

Spacebar key usually is the **longest** key on the keyboard. It is used to give the **blank space** between two words or characters

Example

IndiaIsMyCountry ⟸ Sentence without **spaces** in between

India Is My Country ⟸ Sentence with **spaces** in between

Delete Key & Backspace Key - 2

Delete key is used to **delete** or **erase** anything typed on the **right** side of the cursor. Pressing Delete (DEL) also deletes the currently highlighted text, image or group of images.

Backspace key is reverse of the delete key. It is used to **erase** anything typed on the **left** side of the cursor.

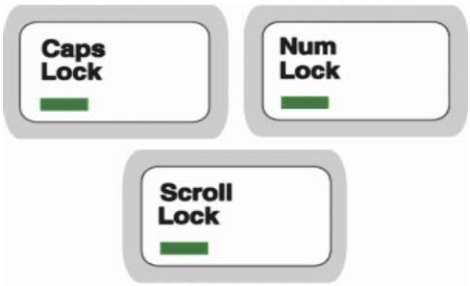
Example - * Note "|" denotes the cursor position

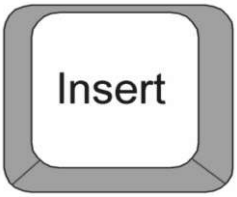
India I|is My Country	⇦ Original Sentence
India Is My Country	⇦ Sentence after pressing Delete key
India is My Country	⇦ Sentence after pressing Backspace key

Toggle Keys - 4

A toggle key is a key that is used to turn a **function** on or off, or to switch between two functions. The four different toggle keys are

- **Caps Lock** toggles the letter keys between lowercase and uppercase mode.
- **Num Lock** toggles between activating and deactivating the numeric keypad.
- **Insert** Key toggles how letters, numbers, characters, or other text is inserted. By default, text is inserted in front of other text as you type but after pressing the Insert key text is overwritten as you type.
- **Scroll Lock** is a key used to toggle between a scrolling and non-scrolling mode. The availability of this key on modern keyboards may differ.

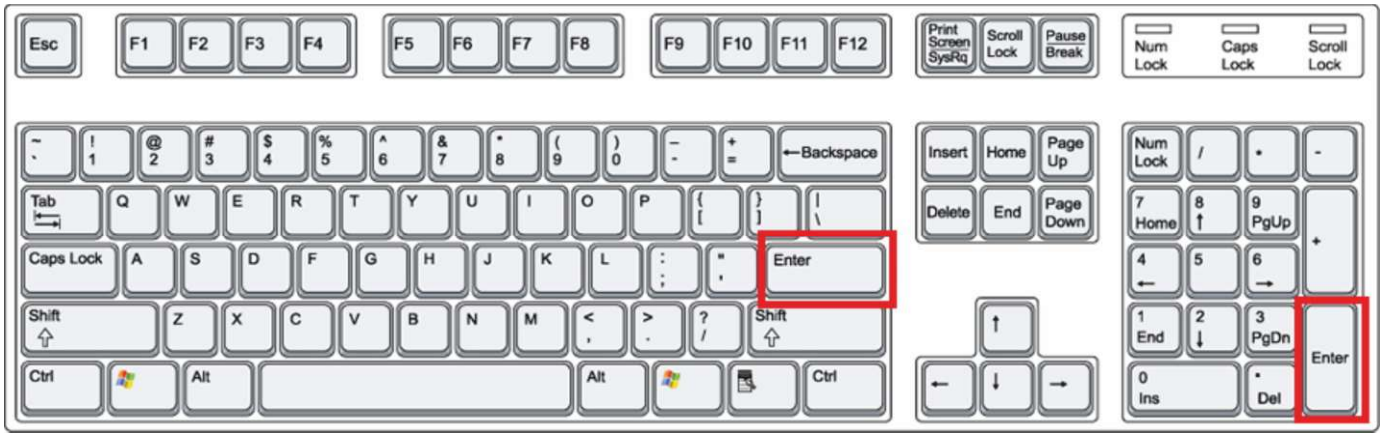




Enter Keys - 2

Also known as a ***Return key***. The Enter key sends the cursor to the beginning of the next line or executes a command or operation.

Most full-sized PC keyboards have two Enter keys; one above the ***right Shift key*** and another on the ***bottom right*** of the ***numeric*** keypad.



Shift Keys - 2

The shift key is a ***modifier*** key on a keyboard, used to type capital letters and other alternate "upper" characters. In other words, *shift key usually gives another key a different meaning.*

There are typically two shift keys, on the left and right sides. Both of them have same functions.

If you want to type **"("** in your text or code document, then press the 9 key which has the "(" symbol along with Shift Key.

Other conversion examples are –

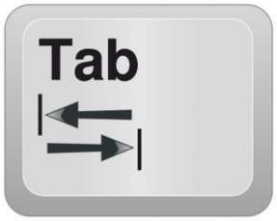
Numeric Key **1** with **Shift** Key gives the output as **!**
Numeric Key **2** with **Shift** Key gives the output as **@**

1	2	3	4	5	6	7	8	9	0
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
!	@	#	$	%	^	&	*	(	)

Tab Key - 1

The tab key Tab ↹ (abbreviation of tabulator key or tabular key) on a keyboard is used to advance the ***cursor*** to the ***next tab stop***.

The word tab derives from the word tabulate, which means "to arrange data in a tabular, or table, form."



Example

My|Country ⇦ Sentence without **Tab space** in between

My Country ⇦ Sentence with **Tab space** in between

Esc Key - 1

Short for Escape, Esc is a key found on the top-left corner of a computer keyboard. It allows the user to ***abort, cancel, or close*** an ***operation***. For example, if a web page was loading slow on an Internet browser, pressing the Escape key stops the download.

Control Keys - 2

The Control key is one of the ***combination*** keys on a computer's keyboard, similar to the Shift key. The user must press it down in combination with other keys to perform ***secondary*** functions. It is generally labelled as Ctrl.

Some of the most common control key shortcuts are:

- Control key + C – to copy
- Control key + X – to cut
- Control key + V – to paste
- Control key + B – to bold text
- Control key + U – to underline text
- Control key + I – to italicize text

Math Operation Keys - 4

Math operation keys include

- *Add* "+" Key,
- *Subtract* "-" Key,
- *Multiplication* "*" Key,
- *Division* "/" key

These keys are to perform respective ***mathematical*** operations.

These keys are usually available on right side of the keyboard i.e on Numeric keypad area.

Numeric Keypad

In this chapter, we've talked about 83 common keys out of a total of 104 keys.

The rest of the keys include symbols like ".", "{", and more. You'll get to know all the keys as you use different programs in the future.