What is Linux Shell?

Computer understands the language of 0's and 1's called binary language.

In early days of computing, instruction are provided using binary language, which is difficult for all of us, to read and write. So in Os there is special program called Shell. Shell accepts your instruction or commands in English (mostly) and if it’s a valid command, it is passes to kernel.

Shell is a user program or its environment provided for user interaction. Shell is a command language interpreter that executes commands read from the standard input device (keyboard) or from a file.

Shell is not part of system kernel, but uses the system kernel to execute programs, create files etc.

Several shells available with Linux including:

Shell Name	Developed by	Where	Remark
BASH (Bourne-Again Shell)	Brian Fox and Chet Ramey	Free Software Foundation	Most common shell in Linux. It's Freeware shell.
CSH (C Shell)	Bill Joy	University of California (For BSD)	The C shell's syntax and usage are very similar to the C programming language.
KSH (Korn Shell)	David Korn	AT & T Bell Labs	--
TCSH	See the man page. Type $ man tcsh	--	TCSH is an enhanced but completely compatible version of the Berkeley UNIX C shell (CSH).

Tip: To find all available shells in your system type following command:
$ cat /etc/shells

Note that each shell does the same job, but each understands different command syntax and provides different built-in functions.

In MS-DOS, Shell name is COMMAND.COM which is also used for same purpose, but it's not as powerful as our Linux Shells are!

Any of the above shell reads command from user (via Keyboard or Mouse) and tells Linux Os what users want. If we are giving commands from keyboard it is called command line interface (Usually in-front of $ prompt, This prompt is depend upon your shell and Environment that you set or by your System Administrator, therefore you may get different prompt).

Tip: To find your current shell type following command
$ echo $SHELL

Why to Write Shell Script?

- Shell script can take input from user, file and output them on screen.
- Useful to create our own commands.
- Save lots of time.
- To automate some task of day today life.
- System Administration part can be also automated.