 Before understanding shell scripting we have to get familiar with following terminologies –

* Kernel
* Shell
* Terminal

**What is Kernel**

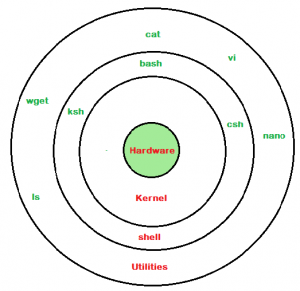
The kernel is core OS or a computer program that is the core of a computer’s operating system, with complete **control over everything in the system**. It manages following resources of the Linux system –

* File management
* Process management
* I/O management
* Memory management
* Device management etc.

**What is Shell**

It is an interpreter in Linux.

A shell is user program which provide an **interface** to user to use operating system services.



Shell is broadly classified into two categories –

* + Command Line Shell: Shell can be accessed by user using a command line interface.
  + Graphical shell: allowing for operations such as opening, closing, moving and resizing windows,

The most commonly used shells in Linux are bash, csh, ksh, bsh.

* [BASH (Bourne Again SHell)](https://en.wikipedia.org/wiki/Bash_(Unix_shell)) – It is most widely used shell in Linux systems. It is used as default login shell in Linux systems and in macOS. It can also be installed on Windows OS.
* [CSH (C SHell)](https://en.wikipedia.org/wiki/C_shell) – The C shell’s syntax and usage are very similar to the C programming language.
* [KSH (Korn SHell)](https://en.wikipedia.org/wiki/Korn_shell) – The Korn Shell also was the base for the POSIX Shell standard specifications etc.

**Shell Scripting**

Usually shells accept command as input from users and execute them. Some time we want to execute a bunch of commands routinely, so we have type in all commands each time in terminal.

As shell can also take commands as input from file we can write these commands in a file and can execute them in shell to avoid this repetitive work. These files are called **Shell Scripts** or **Shell Programs**. Each shell script is saved with **.sh** file extension eg. **myscript.sh**

**Linux command:**

<https://www.howtogeek.com/412055/37-important-linux-commands-you-should-know/>

Find all the files whose name is tecmint.txt in a current working directory.

**# find . -name tecmint.txt**

Find all the files under /home directory with name tecmint.txt.

**# find /home -name tecmint.txt**

Find all the files under /home directory with name tecmint.txt.(ignoring case)

**# find /home -iname tecmint.txt**

Find all directories whose name is **Tecmint** in **/** directory.

**# find / -type d -name Tecmint**

Find all php files whose name is tecmint.php in a current working directory.

**# find . -type f -name tecmint.php**

Find all php files in a directory.

**# find . -type f -name "\*.php"**

To find all empty files under certain path.

**# find /tmp -type f -empty**

To find all hidden files, use below command.

**# find /tmp -type f -name ".\*"**

#### **How will you append one file to another in Linux?**

cat file1 > file2

LILO (Linux Loader) is the boot loader for the Linux operating system to load it into the main memory so that it can begin its operations.

To create a new file run the echo command followed by the text you want to print and use the redirection operator > to write the output to the file you want to create.

echo "Some line" > file1.txt

**7 Ways to Create a File in Linux Terminal**

1. [Touch command](https://linoxide.com/linux-how-to/learn-how-create-file-linux-terminal/#1): this command will create an empty file
2. [Cat command](https://linoxide.com/linux-how-to/learn-how-create-file-linux-terminal/#2): you must add text in the file.
3. [Echo command](https://linoxide.com/linux-how-to/learn-how-create-file-linux-terminal/#3): you must add text in the file.
4. [Printf command](https://linoxide.com/linux-how-to/learn-how-create-file-linux-terminal/#4): you must add text in the file.
5. [Nano text editor](https://linoxide.com/linux-how-to/learn-how-create-file-linux-terminal/#5): editor will be opened to adding text.
6. [Vi text editor](https://linoxide.com/linux-how-to/learn-how-create-file-linux-terminal/#6)
7. [Vim text editor](https://linoxide.com/linux-how-to/learn-how-create-file-linux-terminal/#7)