Chapter – 2

Unix is the operating system based on many popular OS came into the picture such as IBM-AIX, SUN Solaris, Mac OS, HP-UX. These are also known as flavours of Unix.

Although the other OS were paid, linux (inspired from Unix)was made open source and free of cost. Following the popularity of linux, different enterprises made their OS based on linux such as RHEL, Fedora, Debian, Ubuntu, Cent OS, Amazon Linux, Kali linux, etc.

Few points about Linux:

1. Linux is a Kernel, not an OS.
2. Linux is not a Unix derivative. It was written from Scratch.
3. A linux distribution is the linux kernel and a collection of software that together creates an OS.

Few important features of linux:

* Open source
* Secure
* Simplified updates for all installed software
* Light weight
* Multiuser – multi-task
* Multiple distribution – Redhat, Debian, Fedora, Cent OS, etc.

Some basic difference between Windows and Linux:

User

User

Kernel

OS

Linux

Windows

a

Hardware

Shell

Hardware

Shell

When a request is made by the user via the Shell, it goes to the OS and then the OS decides how much of the hardware is required for the given task. Similarly, in case of Linux, the workflow is the flow except that the request is handled by kernel instead of OS.

Some basic terminology differences are (windows -> Linux) –

Folder -> Directory

Administrator -> root user

File -> file

Software -> Package

File System hierarchy of Linux –

/home : home directory of other users

/root : home directory for root user

/boot : contains bootable files for linux

/etc : contains all configuration files

/usr : by default, software is installed in this directory

/bin : contains commands used by all users

/sbin : contains commands used by only root user

/opt : optional application software packages

/dev : essential device files. This includes terminal devices, USB or any device attached to the system.