**DAY-01**

**LINUX**

* Linux is an open source operating system like other operating systems such as Microsoft windows, Apple ,Mac OS, IOS, Android etc..

**Operating System :**

* It is a software that enables the communication between software and hardware.
* It conveys the input to get processed by the processor and brings output to hardware to display it.

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Linux Kernal is the core of the operating system

1. Device Management
2. System Management
3. Process Management

**Reasons To Learn Linux:**

* Key Skills For It
* Key For System Adminstrator and Server admin
* Open Source
* Free Operating System

**Linux Directory Structure:**

* Window store the data program,files etc in the c drive , d drive and e drives and mycomputer.
* But coming to linux as we told linux is an open source we can see everything where it is stored.
* Coming to Linux everything is stored in the form of files and folders.
* Files or Folders contain multiple directories or multiple files.

**A diagram of a network

Description automatically generated**

* [/ – The Root Directory](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#ndash-the-root-directory)

the top of the file system hierarchy.

--Everythings start at root. If you hear someone say, look in slash or, that file is in slash, they are referring to the root directory.

* [/bin – Essential User Binaries](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#bin-ndash-essential-user-binaries)

-- Binaries and other executable programs.

Programs are written in source code and this is human readable text. These text files are then complied into machine readable binaries.

They are called binaries because machine code is a string of 0 and 1.

Note: applications that you can run are sometimes located in /bin.

* [/boot – Static Boot Files](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#boot-ndash-static-boot-files)
* [/cdrom – Historical Mount Point for CD-ROMs](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#cdrom-ndash-historical-mount-point-for-cd-roms)
* [/dev – Device Files](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#dev-ndash-device-files)

Device files, typically controlled by the operating system and system administrators

* [/etc – Configuration Files](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#etc-ndash-configuration-files)

System configuration files. Configuration files control how the operating system or applications behave. For example, there is a configuration file in /etc that tell the op

* [/home – Home Folders](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#home-ndash-home-folders)

Home directories. Linux systems can and often do have multiple users and the home directory is where you can separate your data from another account's data. For example, a user robin's home directory is /home/robin. You could store documents, or music files, or pictures.

* [/lib – Essential Shared Libraries](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#lib-ndash-essential-shared-libraries)
* [/lost+found – Recovered Files](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#lost-found-ndash-recovered-files)
* [/media – Removable Media](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#media-ndash-removable-media)
* [/mnt – Temporary Mount Points](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#mnt-ndash-temporary-mount-points)
* [/opt – Optional Packages](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#opt-ndash-optional-packages)

Optional or third party software. opt is for software that is not bundled with the operating system. For example, Google Earch is not part of the standard Linux operating system, so Google Earch get installed in opt.

* [/proc – Kernel and Process Files](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#proc-ndash-kernel-and-process-files)
* [/root – Root Home Directory](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#root-ndash-root-home-directory)
* [/run – Application State Files](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#run-ndash-application-state-files)
* [/sbin – System Administration Binaries](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#sbin-ndash-system-administration-binaries)
* [/snap – Storage for Snap Packages](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#snap-ndash-storage-for-snap-packages)
* [/srv – Service Data](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#srv-ndash-service-data)
* [/tmp – Temporary Files](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#tmp-ndash-temporary-files)

Temporary space, typically cleared on reboot. Most Linux distributions clear /tmp at boot time, therefore if you put files in /tmp and the Linux system gets rebooted, your file will be gone. /tmp is a great place to store temporary files, but do not put anyting in /tmp that you want to keep long term.

* [/usr – User Binaries & Read-Only Data](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#usr-ndash-user-binaries-amp-read-only-data)

This is call User, where user related programs live.

* [/var – Variable Data Files](https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/#var-ndash-variable-data-files)

Variable data, most notably log files. Things that change often on a Linux system are typically log files that are generated either by the operating system itself or applications