**Linux FILE SYSTEM HIERARCHY**

**( HIERARCHY :- A system or organization that has many levels from the lowest to the highest. )**

**All files on Linux system are stored on single file system which are organised into a single inverted tree of directories known as file system hierarchy.**

**This tree is inverted because the root of the tree is at the top of the hierarchy and the branches of directories and sub directories stretch below the root.**

**The directory < / > (parent directory of all directory) is the root directory at the top of the file system hierarchy. The < / > character is also used as a directory separator in file name.**

**The Linux File Hierarchy Structure or the Filesystem Hierarchy Standard (FHS) defines the directory structure and directory contents in Unix-like operating systems. It is maintained by the Linux Foundation.**

* **In the FHS, all files and directories appear under the root directory /, even if they are stored on different physical or virtual devices.**
* **Some of these directories only exist on a particular system if certain subsystems, such as the X Window System, are installed.**
* **Most of these directories exist in all UNIX operating systems and are generally used in much the same way; however, the descriptions here are those used specifically for the FHS and are not considered authoritative for platforms other than Linux.**

**In RHEL there are 19 default directories created by the system itself. These 19 directories are present just under / directory.**

1. **/root :- Home directory of root user . In this directory root user can store its personal file. This is the root account home directory.**
2. **/home :- It stores home directories of local user. Home directories are assigned to each user separately and no other user can access the home directories of other user(except root user).**
3. **/var :- This directory contains dynamic configuration data, such as FTP (file transfer protocol) and website it stores variable data such as mails ,logs,msg etc.**
4. **/etc :-It stores configuration files of system and services .This directory contain static persistence system configure data ( ls /etc)**
5. **/mnt :- Standard directory to mount device temporary . In mnt temporary files available up to 30 days.**
6. **/usr :- User related files such as documentary, files , manual pages etc. This directory also contain lib ,lib64, and sbin directory whose links are available in the main directory i.e in “ / ” directory.**
7. **/opt :- This directory is used for optional add -on service. Sometime path selection for environment variable also done from this directory.**
8. **/tmp :- it stores temporary files and temporary data for 10 days.**

1. **/lib :- Library files information . This directory is actually a soft link for /usr (lib directory) .**
2. **/lib64 :- Same as the lib directory & store 64 architecture library file information. It is the link of /usr/lib64**
3. **/media :- all removable device files.**
4. **/run :- Current running devices .**
5. **/bin :-It stores binary executable files . These binary executable files are nothing but the commands. It is link of /usr/bin directory .This directory contains commands that can be used by local users.**
6. **/sbin :-It stores system binary executable files . It is same as bin directory except that only super user has permission to execute, commands from sbin. It is also the link of /usr/sbin directory. This directory contains commands that only root user can use.**
7. **/srv :- Service information or data .**
8. **/sys :- system information .**
9. **/proc :- Process information. This directory also store ram and cpu related information.**
10. **/boot :-it stores boot loader program & also other boot related files.**
11. **/dev :-This directory stores device information & their block files (hard drive device information).**