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**Q1] What does each location contain in hierarchy of Linux ?**

=>1)root:- root directory of the entire file system hierarchy.

Every single file and directory starts from the root directory.

2)boot:-The boot directory contains static files required to boot the system.

3)dev:-It contain files,These files are essential for the system to function properly.

4)lib:-The lib directory should contain only those libraries needed to execute the binaries in /bin and /sbin.

5)media:-Temporary mount directory for removable devices.

6)etc:-The etc directory is reserved for configuration files that are local to the machine

7)home:-home : Users’ home directories, containing saved files, personal settings.

8)mnt:-The mnt directory is reserved for temporarily mounted file .

9)proc:-The proc directory contains special files that either extract information from or send information to the kernel.

10)bin:- Essential command binaries that need to be available in single-user mode; for all users.

11)sbin:-The sbin directory stores executables used by the root user.

12)srv:-Contains server specific services related data.

13)tmp:-contains temprary files.

14)usr:-contains the majority of user utilities and applications.

15)opt : Optional application software packages.

16)sys:-Contains information about devices, drivers, and some kernel features

17)lib64:-These are typically used on systems that support more than one executable code format

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**Q2]How to set umask temparary and permanently ?**

=>Temporary

'''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''

[root@localhost ~]# umask

0022

[root@localhost ~]# mkdir dir1

[root@localhost ~]# touch File1

[root@localhost ~]# ls -l

total 8

-rw-------. 1 root root 2753 May 6 09:09 anaconda-ks.cfg

drwxr-xr-x. 2 root root 6 May 7 10:39 dir1

-rw-r--r--. 1 root root 0 May 7 10:39 File1

-rw-------. 1 root root 2033 May 6 09:09 original-ks.cfg

[root@localhost ~]# umask 002

[root@localhost ~]# umask

0002

[root@localhost ~]# mkdir dir11

mkdir: cannot create directory ‘dir11’: File exists

[root@localhost ~]# mkdir Dir1

[root@localhost ~]# touch File2

[root@localhost ~]# ls -l

total 8

-rw-------. 1 root root 2753 May 6 09:09 anaconda-ks.cfg

drwxr-xr-x. 2 root root 6 May 7 10:39 dir1

drwxrwxr-x. 2 root root 6 May 7 10:41 Dir1 <=

-rw-r--r--. 1 root root 0 May 7 10:39 File1

-rw-rw-r--. 1 root root 0 May 7 10:41 File2 <=

-rw-------. 1 root root 2033 May 6 09:09 original-ks.cfg

[root@localhost ~]#

Permanently

''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''

[root@localhost ~]# umask

0002

[root@localhost ~]# vim .bashrc

[root@localhost ~]# bash

[root@localhost ~]# umask

0022

[root@localhost ~]# mkdir Folder

[root@localhost ~]# touch F\_folder

[root@localhost ~]# ls -l

total 12

-rw-------. 1 root root 2753 May 6 09:09 anaconda-ks.cfg

-rw-rw-r--. 1 root root 10 May 7 10:49 bashrc

drwxr-xr-x. 2 root root 6 May 7 10:39 dir1

drwxrwxr-x. 2 root root 6 May 7 10:41 Dir1

-rw-r--r--. 1 root root 0 May 7 10:52 F\_folder <=

-rw-r--r--. 1 root root 0 May 7 10:39 File1

-rw-rw-r--. 1 root root 0 May 7 10:41 File2

drwxr-xr-x. 2 root root 6 May 7 10:52 Folder <=

-rw-------. 1 root root 2033 May 6 09:09 original-ks.cfg

[root@localhost ~]#

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**Q3]Creata a user 'user1'**

**Login as that user and create two directories 'dir1' and 'dir2'**

**Create 100 files in dir1 and 100 files in dir2**

**Copy all files of dir1 to dir2**

**Move all files of dir2 to dir1**

**Result: Your dir2 should be empty now?**

**- What is the permission of the directory right now?**

**- add 2 files in the directory - what is the permission of these two files? Is it same as that of dir2**

**- Run the command chmod -R 777 dir2**

**- Create two new files named 'testfile1' & 'testfile2' and observe the permission of these two files? Is it same as that of dir2**

=>.......................................................................................................................................................

[root@localhost ~]# useradd user1

[root@localhost ~]# passwd user1

Changing password for user user1.

New password:

BAD PASSWORD: The password is shorter than 7 characters

Retype new password:

passwd: all authentication tokens updated successfully.

[root@localhost ~]# su - user1

[user1@localhost ~]$ mkdir dir1 dir2

[user1@localhost ~]$ ls

dir1 dir2

[user1@localhost ~]$ cd dir1

[user1@localhost dir1]$ touch file{1..100}

[user1@localhost dir1]$ cd dir2

-bash: cd: dir2: No such file or directory

[user1@localhost dir1]$ cd..

bash: cd..: command not found...

[user1@localhost dir1]$ cd dir2

-bash: cd: dir2: No such file or directory

[user1@localhost dir1]$ cd ..

[user1@localhost ~]$ cd dir2

[user1@localhost dir2]$ touch file{1..100}

[user1@localhost dir2]$ cd ..

[user1@localhost ~]$ cp -r dir1/file{1..100} dir2

[user1@localhost ~]$ mv dir2/\* dir1

[user1@localhost ~]$ cd dir2

[user1@localhost dir2]$ ls

[user1@localhost dir2]$

YES..dir2 is empty now......................

\* What is the permission of the directory right now?

[user1@localhost dir2]$ su - user1

Password:

Last login: Sat May 8 01:22:22 PDT 2021 on pts/1

[user1@localhost ~]$ ls -l

total 4

drwxrwxr-x. 2 user1 user1 4096 May 8 01:30 dir1

drwxrwxr-x. 2 user1 user1 6 May 8 01:30 dir2

[user1@localhost ~]$

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\* add 2 files in the directory - what is the permission of these two files? Is it same as that of dir2

[user1@localhost ~]$ cd dir1

[user1@localhost dir1]$ touch FileA

[user1@localhost dir1]$ touch FileB

[user1@localhost dir1]$ ls -l

total 0

-rw-rw-r--. 1 user1 user1 0 May 8 01:38 FileA

-rw-rw-r--. 1 user1 user1 0 May 8 01:38 FileB

[user1@localhost dir1]$

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Run the command chmod -R 777 dir2

[user1@localhost ~]$ chmod -R 777 dir2

[user1@localhost ~]$ ls -l

total 4

drwxrwxr-x. 2 user1 user1 4096 May 8 01:38 dir1

drwxrwxrwx. 2 user1 user1 6 May 8 01:30 dir2 <=

-rw-rw-r--. 1 user1 user1 0 May 8 01:46 testfile1

-rw-rw-r--. 1 user1 user1 0 May 8 01:47 testfile2

[user1@localhost ~]$

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\* Create two new files named 'testfile1' & 'testfile2' and observe the permission of these two files?

Is it same as that of dir2.

[user1@localhost ~]$ touch testfile1

[user1@localhost ~]$ touch testfile2

[user1@localhost ~]$ ls -l

total 4

drwxrwxr-x. 2 user1 user1 4096 May 8 01:38 dir1

drwxrwxr-x. 2 user1 user1 6 May 8 01:30 dir2

-rw-rw-r--. 1 user1 user1 0 May 8 01:46 testfile1

-rw-rw-r--. 1 user1 user1 0 May 8 01:47 testfile2

[user1@localhost ~]$

NO.. the permission of testfile1 and testfile2 is not same as of dir2.......