## OS Assignment No 2

1. What does this each location contains - One liner

**-------------**The Very base of the file structure--------------------.

/bin It stores common linux binaries i.e commands like cat, cal etc

/boot Bootable linux Kernel and bootloader config files

/dev Files representing devices like RAM,ROM, floppy

/etc Administrative Configuration files.

/home Where the home directories for regular users are stored. For

example, mine is at /home/atulgaurav

/media Removable media are mounted here like hard disks, usb sticks etc

/lib Contains shared libraries needed by applications.

/lib64 contains shared libraries and kernel modules.

/mnt A place to mount external devices.

/opt Directory Structure used to store additional (i.e optional)

software

/proc Information about System Resources

/root The home folder for the root user or the superuser (similar to

the administrator on Windows)

/sbin Contains administrative commands (binaries) for the root (super)

user.

/tmp Contains temporary files used by running applications.

/usr Contains files pertaining to users.

/var Contains directories of variable data that could be used by

various applications. System log files are usually found here.

/run contains system information data describing the system since it was booted.

/srv contains Site-specific data served by the system.

/sys Acts as a virtual filesystem, which stores and allows modification of the devices that are connected to the system.

1. **How to set umask - temp & permanent?**

[root@ip-172-31-16-120 ~]# umask

0022

[root@ip-172-31-16-120 ~]# umask 0222

[root@ip-172-31-16-120 ~]# umask

0222

umask -- permanent change

[root@ip-172-31-16-120 ~]# vi /etc/bashrc

-----------------------------------------------------------------------------

if [ $UID -gt 199 ] && [ "`/usr/bin/id -gn`" = "`/usr/bin/id -un`" ];

then

umask 002

else

umask 042

-----------------------------------------------------------------------------

after restarting

[root@ip-172-31-16-120 ~]# umask 0042

SO UMASK IS CHANGED PERMANENTLY

1. **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

1. **User Creation**

[root@ip-172-31-16-120 ~]# useradd user1

[root@ip-172-31-16-120 ~]# 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.

1. **Making two dir**

[user1@ip-172-31-16-120 ~ ]# mkdir dir1

[user1@ip-172-31-16-120 ~ ]# mkdir dir2

[user1@ip-172-31-16-120 ~ ]# ls

dir1 dir2

1. **Creating 100 files in dir1 and displaying it**

[user1@ip-172-31-16-120 ~ ]# cd dir1

[user1@ip-172-31-16-120 dir1]# touch file\_x{1..100}

[user1@ip-172-31-16-120 dir1]# ls

file\_x1 file\_x17 file\_x25 file\_x33 file\_x41 file\_x5 file\_x58 file\_x66 file\_x74 file\_x82 file\_x90 file\_x99

file\_x10 file\_x18 file\_x26 file\_x34 file\_x42 file\_x50 file\_x59 file\_x67 file\_x75 file\_x83 file\_x91

file\_x100 file\_x19 file\_x27 file\_x35 file\_x43 file\_x51 file\_x6 file\_x68 file\_x76 file\_x84 file\_x92

file\_x11 file\_x2 file\_x28 file\_x36 file\_x44 file\_x52 file\_x60 file\_x69 file\_x77 file\_x85 file\_x93

file\_x12 file\_x20 file\_x29 file\_x37 file\_x45 file\_x53 file\_x61 file\_x7 file\_x78 file\_x86 file\_x94

file\_x13 file\_x21 file\_x3 file\_x38 file\_x46 file\_x54 file\_x62 file\_x70 file\_x79 file\_x87 file\_x95

file\_x14 file\_x22 file\_x30 file\_x39 file\_x47 file\_x55 file\_x63 file\_x71 file\_x8 file\_x88 file\_x96

file\_x15 file\_x23 file\_x31 file\_x4 file\_x48 file\_x56 file\_x64 file\_x72 file\_x80 file\_x89 file\_x97

file\_x16 file\_x24 file\_x32 file\_x40 file\_x49 file\_x57 file\_x65 file\_x73 file\_x81 file\_x9 file\_x98

1. **Creating 100 files in dir2 and displaying it**

[user1@ip-172-31-16-120 dir1]# cd ..

[user1@ip-172-31-16-120 ~]# cd dir2

[user1@ip-172-31-16-120 dir2]# touch file\_y{1..100}

[user1@ip-172-31-16-120 dir2]# ls

file\_y1 file\_y17 file\_y25 file\_y33 file\_y41 file\_y5 file\_y58 file\_y66 file\_y74 file\_y82 file\_y90 file\_y99

file\_y10 file\_y18 file\_y26 file\_y34 file\_y42 file\_y50 file\_y59 file\_y67 file\_y75 file\_y83 file\_y91

file\_y100 file\_y19 file\_y27 file\_y35 file\_y43 file\_y51 file\_y6 file\_y68 file\_y76 file\_y84 file\_y92

file\_y11 file\_y2 file\_y28 file\_y36 file\_y44 file\_y52 file\_y60 file\_y69 file\_y77 file\_y85 file\_y93

file\_y12 file\_y20 file\_y29 file\_y37 file\_y45 file\_y53 file\_y61 file\_y7 file\_y78 file\_y86 file\_y94

file\_y13 file\_y21 file\_y3 file\_y38 file\_y46 file\_y54 file\_y62 file\_y70 file\_y79 file\_y87 file\_y95

file\_y14 file\_y22 file\_y30 file\_y39 file\_y47 file\_y55 file\_y63 file\_y71 file\_y8 file\_y88 file\_y96

file\_y15 file\_y23 file\_y31 file\_y4 file\_y48 file\_y56 file\_y64 file\_y72 file\_y80 file\_y89 file\_y97

file\_y16 file\_y24 file\_y32 file\_y40 file\_y49 file\_y57 file\_y65 file\_y73 file\_y81 file\_y9 file\_y98

1. **Coping Files of dir1 to dir 2 and displaying files in dir2**

[user1@ip-172-31-16-120 dir1]$ cp \* /home/user1/dir2

[user1@ip-172-31-16-120 dir1]$ cd ..

[user1@ip-172-31-16-120 ~]$ cd dir2

[user1@ip-172-31-16-120 dir2]$ ls

file\_x1 file\_x24 file\_x4 file\_x55 file\_x70 file\_x86 file\_y100 file\_y26 file\_y41 file\_y57 file\_y72 file\_y88

file\_x10 file\_x25 file\_x40 file\_x56 file\_x71 file\_x87 file\_y11 file\_y27 file\_y42 file\_y58 file\_y73 file\_y89

file\_x100 file\_x26 file\_x41 file\_x57 file\_x72 file\_x88 file\_y12 file\_y28 file\_y43 file\_y59 file\_y74 file\_y9

file\_x11 file\_x27 file\_x42 file\_x58 file\_x73 file\_x89 file\_y13 file\_y29 file\_y44 file\_y6 file\_y75 file\_y90

file\_x12 file\_x28 file\_x43 file\_x59 file\_x74 file\_x9 file\_y14 file\_y3 file\_y45 file\_y60 file\_y76 file\_y91

file\_x13 file\_x29 file\_x44 file\_x6 file\_x75 file\_x90 file\_y15 file\_y30 file\_y46 file\_y61 file\_y77 file\_y92

file\_x14 file\_x3 file\_x45 file\_x60 file\_x76 file\_x91 file\_y16 file\_y31 file\_y47 file\_y62 file\_y78 file\_y93

file\_x15 file\_x30 file\_x46 file\_x61 file\_x77 file\_x92 file\_y17 file\_y32 file\_y48 file\_y63 file\_y79 file\_y94

file\_x16 file\_x31 file\_x47 file\_x62 file\_x78 file\_x93 file\_y18 file\_y33 file\_y49 file\_y64 file\_y8 file\_y95

file\_x17 file\_x32 file\_x48 file\_x63 file\_x79 file\_x94 file\_y19 file\_y34 file\_y5 file\_y65 file\_y80 file\_y96

file\_x18 file\_x33 file\_x49 file\_x64 file\_x8 file\_x95 file\_y2 file\_y35 file\_y50 file\_y66 file\_y81 file\_y97

file\_x19 file\_x34 file\_x5 file\_x65 file\_x80 file\_x96 file\_y20 file\_y36 file\_y51 file\_y67 file\_y82 file\_y98

file\_x2 file\_x35 file\_x50 file\_x66 file\_x81 file\_x97 file\_y21 file\_y37 file\_y52 file\_y68 file\_y83 file\_y99

file\_x20 file\_x36 file\_x51 file\_x67 file\_x82 file\_x98 file\_y22 file\_y38 file\_y53 file\_y69 file\_y84

file\_x21 file\_x37 file\_x52 file\_x68 file\_x83 file\_x99 file\_y23 file\_y39 file\_y54 file\_y7 file\_y85

file\_x22 file\_x38 file\_x53 file\_x69 file\_x84 file\_y1 file\_y24 file\_y4 file\_y55 file\_y70 file\_y86

file\_x23 file\_x39 file\_x54 file\_x7 file\_x85 file\_y10 file\_y25 file\_y40 file\_y56 file\_y71 file\_y87

[user1@ip-172-31-16-120 dir2]$

1. **Moving file of dir2 to dir1**

[user1@ip-172-31-16-120 dir2]$ mv \* /home/user1/dir1

[user1@ip-172-31-16-120 dir2]$ ls -l

total 0 🡨---**Dir 2 is empty**

1. What is the permission of the directory right now?

[user1@ip-172-31-16-120 ~]$ ls -l

total 12

drwxrwxr-x 2 user1 user1 8192 May 10 10:58 dir1

drwxrwxr-x 2 user1 user1 6 May 10 10:58 dir2

Permission of dir2 is 🡪 775

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

[user1@ip-172-31-16-120 dir2]$ touch file{1..2}

[user1@ip-172-31-16-120 dir2]$ ls

file1 file2

[user1@ip-172-31-16-120 dir2]$ ls -l

total 0

-rw-rw-r-- 1 user1 user1 0 May 10 11:15 file1

-rw-rw-r-- 1 user1 user1 0 May 10 11:15 file2

Permission of two files 🡪664

Permission of dir2 🡪775

1. - Run the command chmod -R 777 dir2

[user1@ip-172-31-16-120 dir2]$ cd ..

[user1@ip-172-31-16-120 ~]$ chmod -R 777 dir2

[user1@ip-172-31-16-120 ~]$ ls -l

total 12

drwxr-xr-x 2 user1 user1 8192 May 10 10:58 dir1

drwxrwxrwx 2 user1 user1 32 May 10 11:15 dir2

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

[user1@ip-172-31-16-120 ~]$ touch testfield{1..2}

[user1@ip-172-31-16-120 ~]$ ls

dir1 dir2 testfield1 testfield2

[user1@ip-172-31-16-120 ~]$ ls -l

total 12

drwxr-xr-x 2 user1 user1 8192 May 10 10:58 dir1

drwxrwxrwx 2 user1 user1 32 May 10 11:15 dir2

-rw-rw-r-- 1 user1 user1 0 May 10 11:25 testfield1

-rw-rw-r-- 1 user1 user1 0 May 10 11:25 testfield2

[user1@ip-172-31-16-120 ~]$

Permission of dir1 🡪775

Permission of dir2 🡪777

Permission of testfield1 🡪664

Permission of testfield2 🡪664