Filesystem hierarchy system

1. /

➢ This is top level directory

➢ It is parent directory for all other directories

➢ It is called as ROOT directory

➢ It is represented by forward slash (/)

➢ C:\ of windows

Filesystem hierarchy system

2. /root

➢ it is home directory for root user (super user)

➢ It provides working environment for root user

➢ C:\Documents and Settings\Administrator

Filesystem hierarchy system

3. /home

➢ it is home directory for other users

➢ It provide working environment for other users (other than root)

➢ c:\Documents and Settings\username

Filesystem hierarchy system

4. /boot
➢ Contains the static bootloader and kernel executable
   and configuration files required to boot a Linux
   computer.

Filesystem hierarchy system

5. /etc
➢ Contains the local system configuration files for the
   host computer.
➢ C:\windows\system32\drivers\

Filesystem hierarchy system

6. /usr
➢ by default soft wares are installed in /usr directory
   (UNIX Sharable Resources)
➢ c:\program files

Filesystem hierarchy system

7. /opt
- ➤ It is optional directory for /usr
- ➤ It contains third party softwares
- ➤ c:\program files

Filesystem hierarchy system

8. /bin
- ➤ it contains commands used by all users

  (Binary files)

9. /sbin
- ➤ it contains commands used by only Super User (root)

  (Super user's binary files)

Filesystem hierarchy system

10. /dev

➢ This directory contains the device files for every hardware device attached to the system.

➢ These are not device drivers rather they are files that represent each device on the computer and facilitate access to those devices.

➢ Similar to device manager of windows

Filesystem hierarchy system

11. /proc

➢ /proc like /dev is a virtual directory.

➢ It contains information about our computer such as information about our CPU and the kernel our Linux system is running.

Filesystem hierarchy system

➢ As with /dev the files and directories are generated when our computer starts or on the fly as our system is running and things change.

Filesystem hierarchy system

12. /var
➢ Variable data files are stored here.
➢ This can include things like log files, MySQL and other database files, web server data files, email inboxes and much more.

Filesystem hierarchy system

13. /tmp
➢ Temporary directory.
➢ Used by the operating system and many programs to store temporary files.
➢ Users may also store files here temporarily.
➢ Note that files stored here may be deleted at any time without prior notice.

Filesystem hierarchy system

14. /mnt

➢ A temporary mount point for regular filesystems (as in not removable media) that can be used while the administrator is repairing or working on a filesystem.
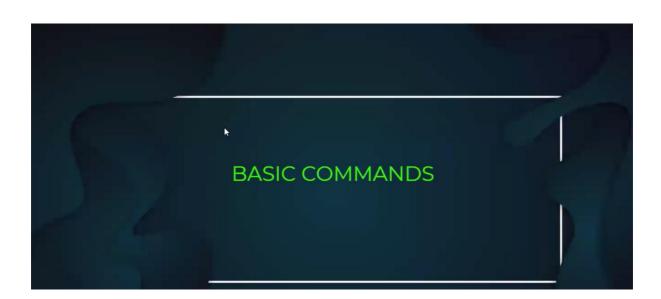
Filesystem hierarchy system

15. /media

➢ A place to mount external removable media devices such as USB thumb drives that may be connected to the host.

Filesystem hierarchy system

16. /lib

➢ Contains shared library files that are required to boot the system.

➢ It is similar to dll files of windows

BASIC COMMANDS

pwd

1. pwd command stands for print working directory.
2. It displays the current working location or directory of the user
➢ # pwd
➢ press enter

ls

1. ls stands for list.
2. It will show the full list or content of our directory
➢ # ls
➢ press enter

ls options

1. ls -a

➢ It will give us the whole list of directory including the hidden files also.

➢ In linux hidden files start with a dot(.) and can't be seen in the regular directory.

ls options

2. ls -l

➢ It will show the list in a long list format

➢ long list format have 7 columns

➢ column 1 indicates information regarding file permission

➢ column 2 indicates the no. of links to the file

ls options

- column 3 & 4 indicates the owner and group information
- column 5 indicates the size of file in bytes
- column 6 shows the date and time on which the file was recently modified
- column 7 shows the file or directory name

ls options

3. ls -lr
- Listing of all files and directories in reverse order
4. ls -li
- This command prints the index number if file is in the first column
5. ls -l <file name>
- To see the permissions of a particular file

ls options

6. ls -ld <directory name>
➢ To see the permissions of a particular directory
7. ls -R
➢ shows the list of files in tree structure

Creation of Files

By using three methods we can create files

➢ cat command
➢ touch command
➢ vi editor

cat command

cat (Concatenate) command is used to create a file and to display and append the contents of a file.

1. To create a file type like below:

➢ # cat > <filename>

➢ Hello World

➢ press enter

➢ ctrl+d (To save the file)

cat command

3. To append the data in the already existing file type like below:

➢ # cat >> <filename>

➢ welcome

➢ press enter

➢ ctrl+d (to save the changes)

cat command

4. To transfer the contents of file 1 & file 2 to file 3 type like below:

➢ # cat <file1> <file2> >> <file3>

➢ press enter