Assignment No 1

Aim: Study of Important Linux Commands

Objective: To study the frequently used linux commands

Commands:

1) pwd:

pwd stands for Print Working Directory

Description:

It is a command which prints the path of the working directory, starting from the root. That is it shows the current working directory. This command is a shell built-in command in certain Unix shells such as sh, and bash.

2) man :

man - an interface to the on-line reference manuals

Description:

man is the system's manual pager. Each page argument given to man is normally the ` name of a program, utility or function. The manual page associated with each of these arguments is then found and displayed.

Example:

man ls :- Display the manual page for the item (program) ls.
man cat :- Display the manual page for the item (program) cat.
man touch :- Display the manual page for the item (program) touch.
man grep: Display the manual page for the item (program) grep.
man mkdir :- Display the manual page for the item (program) mkdir.
man cd : Display the manual page for the item (program) cd.

3) cd :

cd command in linux known as change directory command.

Description:

It is used to change current working directory. The cd command, also known as chdir (change directory), is a command-line shell command used to change the current working directory in various operating systems. It can be used in shell scripts and batch files.

Example:

cd .. :- This command is used to go back one level.
cd /home:- The following Linux Command take you to the '/ home' directory.
cd ../.. :- This command takes you two folders back.

4) ls :

ls - list directory contents

SYNOPSIS

ls [OPTION]... [FILE]...

DESCRIPTION

List information about the FILEs (the current directory by default). Sort entries alphabetically if none of -cftuvSUX nor --sort is specified.

Mandatory arguments to long options are mandatory for short options too.

-a, --all
do not ignore entries starting with .

-A, --almost-all
do not list implied . and ..
etc..

Exit status:
0 if OK,

1 if minor problems (e.g., cannot access subdirectory),

2 if serious trouble (e.g., cannot access command-line argument).

Examples:
1) ls :-

ls with no option list files and directories in bare format where we won't be able to view details like file types, size, modified date and time, permission and links etc.

2) ls -l

Here, **ls -l** (**-l** is character not one) shows file or directory, size, modified date and time, file or folder name and owner of file and its permission.

3) ls -a

List all files including hidden file starting with '**.**'. it will lsit hidden files.

4) ls -lh

With combination of **-lh** option, shows sizes in human readable format.

5) ls -F

Using **-F** option with **ls** command, will add the **'/'** Character at the end each directory.

6) ls -ltr

With combination of **-ltr** will shows latest modification file or directory date as last.

7) ls -i

With **-i** options list file / directory with inode number.

8) ls -n

To display **UID** and **GID** of files and directories. use option **-n** with ls command.

5) mkdir:

mkdir basically indicates to make directory

Description:

This command in Linux allows the user to create directories (also referred to as folders in some operating systems). This command can create multiple directories at once as well as set the permissions for the directories.

Example:

mkdir dir1:- It creates a directory called 'dir1'.

mkdir dir1 dir2:- Create two directories simultaneously.

6) cat:

It basically means concatenate.

Description:

This command is very frequently used in Linux. It reads data from the file and gives their content as output. It helps us to create, view, concatenate files. Some frequently used cat commands are:

Example:

cat filename:- It will show content of given filename.

cat file1 file2:- This will show the content of file1 and file2.

cat -n filename:- It will show content with line number.

7) rm:

It stands for remove.

Description:

rm command is used to remove objects such as files, directories, symbolic links and so on from the file system like UNIX. To be more precise, rm removes references to objects from the filesystem, where those objects might have had multiple references. This command normally works silently and one should be very careful while running rm command because once you delete the files then you are not able to recover the contents of files and directories.

Example:

rm -f file1:- Delete file called 'file1.

rm -rf dir1:- Remove a directory called 'dir1' and contents recursively.

rmdir dir1:- Delete directory called 'dir1.

8) cp:

It stands for copy.

Description:

This command is used to copy files or group of files or directory. It creates an exact image of a file on a disk with different file name. cp command require at least two filenames in its arguments.

Examples:

cp file1 file2:- This command helps you copy one file to another.

cp dir/* .:- Copy all files of a directory within the current work directory.

cp -a dir1 dir2:- Copy a directory.

9)more:

Description:

more command is used to view the text files in the command prompt, displaying one screen at a time in case the file is large. The more command also allows the user do scroll up and down through the page.

10)head:

Description:

The head command, as the name implies, print the top N number of data of the given input. By default, it prints the first 10 lines of the specified files.

11)tail:

Description:

The tail command, as the name implies, print the last N number of data of the given input. By default it prints the last 10 lines of the specified files.

12)mv:

It stands for move.

Descrption:

mv is a Unix command that moves one or more files or directories from one place to another. It supports moving single files, multiple files and directories.

Example:

mv dir/file:- Move a file or directory.

13)ln:

The ln command is used to create links between files

Despcription:

The ln command is a standard Unix command utility used to create a hard link or a symbolic link to an existing file. The use of a hard link allows multiple filenames to be associated with the same file since a hard link points to the inode of a given file, the data of which is stored on disk.

Example:

ln -s file1 lnk1:- Linux Command to create a symbolic link to file or directory.

ln file1 lnk1:- Create a physical link to file or directory.

14)touch:

Description:

The touch command is a standard command used in UNIX/Linux operating system which is used to create, change and modify timestamps of a file.

touch file:- Create or update file

15)ps:

It is the abbreviation for 'Process Status'.

Description:

ps command is used to list the currently running processes and their PIDs along with some other information depends on different options. It reads the process information from the virtual files in /proc file-system. ps provides numerous options for manipulating the output according to our need.

16)top:

top command is used to show the Linux processes.

Description:

It provides a dynamic real-time view of the running system. Usually, this command shows the summary information of the system and the list of processes or threads which are currently managed by the Linux Kernel.As soon as you will run this command it will open an interactive command mode where the top half portion will contain the statistics of processes and resource usage. And Lower half contains a list of the currently running processes.

17)kill:

Description:

kill command in Linux, is a built-in command which is used to terminate processes manually. kill command sends a signal to a process which terminates the process. If the user doesn't specify any signal which is to be sent along with kill command then default TERM signal is sent that terminates the process.

Example:

kill -l :To display all the available signals you can use below command option
kill pid : To show how to use a PID with the kill command.
kill -s : To show how to send signal to processes.

18)bg:

Description:

bg command in linux is used to place foreground jobs in background. The bg command is part of Linux/Unix shell job control. The command may be available as both internal and external command. It resumes execution of a suspended process as if they had been started with &. Use bg command to restart a stopped background process.

19)fg:

Description:

fg command in linux used to put a background job in foreground. The fg command is like bg command except that instead of sending a command in the background, it runs them in foreground and occupies the current terminal and waits for process to exit. Without any argument, fg will run the current job in foreground.

20)chmod:

The name is an abbreviation of change mode

Description:

In Unix and Unix-like operating systems, chmod is the command and system call which is used to change the access permissions of file system objects (files and directories). It is also used to change special mode flags.

21)grep:

Description:

The grep command is used to search text or searches the given file for lines containing a match to the given strings or words. By default, grep displays the matching lines. Use grep to search for lines of text that match one or many regular expressions, and outputs only the matching lines.

Example:

grep pattern file :-Search for pattern in file

grep -r pattern dir:- Search recursively for pattern in dir

22)find:

Description:-

The find command in UNIX is a command line utility for walking a file hierarchy. It can be used to find files and directories and perform subsequent operations on them. It supports searching by file, folder, name, creation date, modification date, owner and permissions.

Example:

find -name "File1":- To find a file by name

find /path -type f -name "*.conf":- To search all files that end in ".conf"

23)locate:

Description:

locate command in Linux is used to find the files by name. There is two most widely used file searching utilities accessible to users are called find and locate. The locate utility works better and faster than find command counterpart because instead of searching the file system when a file search is initiated, it would look through a database.