Exp. 1 Basic Linux commands and file systems commands

Aim: To learn and understand the syntax of basic Linux commands and file systems commands

Description:

Syntax

The commands in Linux have the following syntax:

$command options arguments

The command is followed by options (optional of course) and a list of arguments.

Basic Linux commands

1) **pwd command**

'pwd' command prints the absolute path to current working directory.

$ pwd

2) **cal command**

Displays the calendar of the current month.

$ cal

cal ' will display calendar for the specified month and year.

3) **echo command**

This command will echo whatever you provide it.

$echo

The value of a variable precede the variable with a $ sign. Variable example is 'HOME'.

$ echo $HOME

The 'echo' command is used to display the values of a variable

4) **date command**

Displays current time and date.

$ date

5) **tty command**

$ tty

Displays current terminal.

6) **whoami command**

This command reveals the user who is currently logged in.

$ whoami

7) **id command**

This command prints user and groups (UID and GID) of the current user.

$ id

8) **clear command**

This command clears the screen.

9) **whatis command**

It provides one line description about the command. It can be used as a quick reference for any command.

$ whatis date

Linux file system commands

1) **Changing Directories Command**

$ cd [path-to-directory]

Change the current working directory to the directory provided as argument. If no argument is given to ‘cd’, it changes the directory to the user's home directory. The directory path can be an absolute path or relative to current directory. The absolute path always starts with /. The current directory can be checked with ‘pwd’ command.

2) **Listing File And Directories Command**

$ ls [files-or-directories]

List files and/or directories. If no argument is given, the contents of current directory are shown.

$ ls

example file1.txt file2.txt file3.txt

If a directory is given as an argument, files and directories in that directory are shown.

$ ls /usr

bin games include lib lib64 local sbin share src

'ls -l' displays a long listing of the files.

3) Creating files and directories Command

a) mkdir command

To create a directory, the 'mkdir' command is used.

b) Touch command

For creating an empty file, use the touch command.

4**) Copy, move and remove commands**

a) Copy command

$ cp source destination

b) move command

$ mv source destination

c) To remove or Delete

$ rmdir

'rmdir' command removes any empty directories, but cannot delete a directory if a file is present in it.

Other file commands

1) wc command

Word count

This command counts lines, words and letters of the input given to it.

wc -l : Prints the number of lines in a file.

wc -w : prints the number of words in a file.

wc -c : Displays the count of bytes in a file.

wc -m : prints the count of characters from a file.

wc -L : prints only the length of the longest line in a file.

2) file command

The file command determines the file type of a given file.

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file -b filename
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This is used to display just file type in brief mode.

Syntax:

file [option] [filename]
Command displays the file type

3) stat command

To check the status of a file. This provides more detailed information about a file.

$ stat /var/log/syslog

The above commands provides information about size, blocks, IO blocks, file type, inode value, number of links and much more information about the file /var/log/syslog.

$ stat -f /var/log/syslog

The above command display file system status instead of file status, use the -f option. The following information were obtained by the above commands.

ID, namelen, type, blocksize, fundamental block size, blocks (total, free, available), Indoes (Total, Free)

4) cat command

The 'cat' command is actually a concatenator but can be used to view the contents of a file.

$cat filename

It will show content of given filename

To view multiple files

$cat file1 file2

To view contents of a file preceding with line numbers.
$cat -n filename

Copy the contents of one file to another file.
$cat source destination

4) head command

Displays the first few lines of a file. By default, the 'head' command displays the first 10 lines of a file.

5) tail command

Similar to ‘head’; the ‘tail’ command shows the last 10 lines by default, and -n option is available as well.