Experiment No 1

Aim: To Study basic & User status Unix/Linux Commands.

Solution:

About Unix/Linux

1. An operating system

2. Developed at AT&T Bell Labs in the 1960's

3. Command Line Interpreter

4. GUIs (Window systems) are now available

5. Unix was the predecessor of Linux

6. Linux is a variant of Unix

7. Linux is open source

8. Most of the machines you'll use in the Bioinformatics program are running the Linux OS

9. Linux is free

10. It's fully customizable

11. It's stable (i.e. it almost never crashes)

12. These characteristics make it an ideal OS for programmers and scientists

13. After logging in, Linux/Unix starts another program called the shell

14. The shell interprets commands the user types and manages their execution

15. The shell communicates with the internal part of the operating system called the kernel

16. The most popular shells are: tcsh, csh, korn, and bash

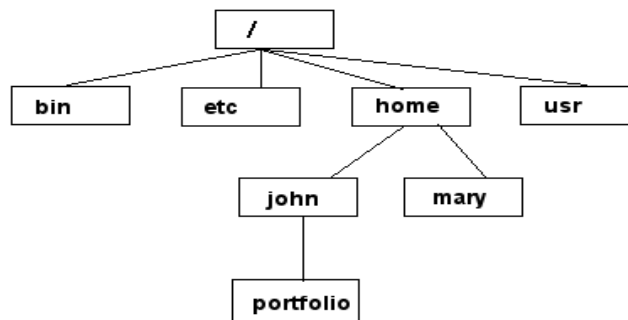17. The differences are most times subtle

18. Whenever you need help with a command type "man" and the command name

19. Unix/Linux File System: NOTE: Unix file names are CASE SENSITIVE!

Commands

1. **ls** List contents of a directory.

   Ex: ls, ls –l , ls –al, ls –ld, ls –R

2. **mkdir** Make a directory.

   Ex: mkdir<directory name> : Makes a directory

   Ex *mkdir –p /www/chache/var/log* will create all the directories starting from www.

3. **mv** Move or rename a file or directory.

   Ex: mv <source><destination>

4. **find** Find files (find <start directory> -name <file name> -print)

   Ex: *find /home –name readme -print*

(Search for readme starting at home and output full path.) "/home" = Search starting at the home directory and proceed through all its subdirectories

"-name readme" = Search for a file named readme "-print" = Output the full path to that file

5. **locate** File locating program that uses the slocate database.

   Ex: locate –u to create the database,nlocate<file/directory> to find file/directory

6. **pwd** Print or list the present working directory with full path.

7. **rm** Delete files (Remove files). (rm –rf <directory/file>)

8. **rmdir** Remove a directory. The directory must be empty. (rmdir<directory>)

9. **touch** Change file timestamps to the current time. Make the file if it doesn't exist. (touch <filename>)

10. **whereis** Locate the binary and man page files for a command. (whereis<program/command>)

11. **which** Show full path of commands where given commands reside. (which <command>)

12. **emacs** Full screen editor.

13. **pico** Simple text editor.

14. **vi** Editor with a command mode and text mode. Starts in command mode.

15. **gedit** GUI Text Editor

16. **tail** Look at the last 10 lines of a file.

   Ex: tail –f <filename> ,

Ex: tail -100 <filename>

17. **head** Look at the first 10 lines of a file. (head <filename>)

18. **ompress** Compress data.

19. **uncompress** Expand data.

20. **cpio** Can store files on tapes. to/from archives.

21. **gzip** - zip a file to a gz file.

22. **gunzip** - unzip a gz file.

23. **tar** Archives files and directories. Can store files and directories on tapes.

    Ex: tar -zcvf<destination><files/directories> - Archive copy groups of files.

    tar –zxvf<compressed file> to uncompress

24. **zip** – Compresses a file to a .zip file.

25. **unzip** – Uncompresses a file with .zip extension.

    (-rwxrwxr-x 1 juanjuan 0 Sep 26 12:25 foo) more will list page wise

26. **cat** View a file

    Ex: cat filename

27. **cmp** Compare two files.

28. **cut** Remove sections from each line of files.

29. **diff** Show the differences between files.

    Ex: diff file1 file2 : Find differences between file1 & file2.

30. **echo** Display a line of text.