**OS Lab Assignment-1**

Date : 26/7/2018

**Objective**

The objective of this assignment is to become familiar with the Linux command-line environment. This lab assignment serves as a platform for the subsequent labs related to system calls, process management, file management and memory management of the OS.

**Introduction to Unix/Linux Shell**

* The shell sits between you and the operating system, acting as a command interpreter.
* It reads your terminal input and translates the commands into actions taken by the system.

**Command Structure**

* Command <Options> <Arguments>
* Multiple commands separated by ; can be executed one after the other

**Exercises**

**A.** **Study of Unix/Linux general purpose utility command list :**

ls, pwd, who, cat, cd, cp, ps, ls, mv, rm, mkdir, rmdir, echo, more, date, time, kill, history, chmod, chown, finger, cal, logout, shutdown, cmp, grep, find command

**B**. **Login to the system and do the following:**

(1) Create a tree structure named ‘PDPU’ in which there are 3 subdirectories – ‘CS ’,’ ICT’ and ‘Others’. Each one is again further divided into 3. The ‘ICT’ is divided into ‘ICT1’, ‘ICT2’ and ‘ICT3’. From the subdirectory ‘ICT1’, how can one reach the home directory in one step. Also delete ‘ICT3’.

(2) Write a command to list all the files inside a folder i.e. if there is a folder inside a folder then it should list all files inside the sub-folder which is inside the folder to be listed.

(3) Redirect the output of the previous question to a textfile called lsoutput.txt and read from the file and display the contents on the monitor.

(4) Create a Directory OSLab1; create a subdirectory (named with your roll number) in OSLab1. Create the following files: myFilea, myFileb, myFileA, myfileB. Type some dummy text in these files.

(a) View file permission of these files; Change the permission of myFileA to only read-only. (try exploring all other possibilities)

(b) List all the files whose name ends with small letter (and capital letter)

(c) search for the given string “PDPU” in the file myFileB.

(d) rename myFilea to MYFILEA

(e ) List all the files in OSLab1 in sorted order.

(5) How do you get the status of all the processes running on the system?