

Lab 1: Working with Linux

January 31, 2020

Objective :

Lab 1 is intended to provide an introduction to Linux. The objective of this lab is to make students familiar with the Linux command-line environment and develop the skills of shell scripting. This lab serves as a platform for the subsequent labs related to system calls, process management, file management, and memory management.

Tutorial

- Tutorial 1: Log in to the system(credentials in the board), open the Terminal and type the following on the login prompt :
 - *echo hello world*
 - The word **hello world** would get displayed as an output on the terminal. The *echo* command displays a line of text, type *man echo* to read what an echo command does.
 - Linux provides on-line manuals for different commands through an interface called **man**.
 - To know about man type the following on the terminal: *man man* and read the description that is displayed.
 - For all commands, we will use the syntax
man <command name>
 - Type *echo \$SHELL*
 - This prints /bin/bash
 - bash is the name of the login shell that is currently in use
 - Study the following Unix/Linux general-purpose utility commands using their man pages and execute them on the terminal :
 - *man, who, cat, cd, cp, ps, ls, mv, rm, mkdir, rmdir, echo, date, time, kill, chmod, chown, pwd, cal*
- Tutorial 2: Study the following Linux commands: sed, grep and awk

- Use the grep command to find how many lines of a word in the given word. The filename and the word are provided as inputs.
- Tutorial 3: Shell scripting
 - Write a shell script to display “HELLO WORLD” on the terminal :
 - Open an editor
 - Type **echo HELLO WORLD**
 - save the file with .sh extension (say test.sh)
 - close the editor
 - At the terminal, type *sh test.sh*
 - Expected output at the prompt: **HELLO WORLD**

References:

http://profile.iiita.ac.in/bibhas.ghoshal/lab_files/abs-guide.pdf

http://profile.iiita.ac.in/bibhas.ghoshal/lab_files/Tutorial_shell_scripting