



## Lab – 02

### **Objectives:**

1. Using Vim text editor.
2. Basic Shell Commands

### **Resources:**

1. Video Lecture 04 : [Basic Shell Commands Part 2](#)
2. Video Lecture 05 : [Vim Editor](#)

## Linux Environment

### Task 01:

Copy the **/etc/passwd** file in your current working directory as **lab1**.

1. Sort the file on the basis of the third column (save this result as **third\_col**).
2. Sort the file on the basis of the third column but in reverse order (save it as **third\_col\_r**).
3. Try sorting it on the basis of the first column and try using the **-n** flag (save it as **first\_col**).

### Task 02:

Perform the following tasks.

1. Use **ls** to find the biggest file in **/etc**. Also tell how many arguments are in this line.
2. Write the single command to count the number of lines in **/etc/passwd**.
3. Write a single command which reads **/etc/passwd** and prints only those lines which do not contains string **"root"**

### Task 03:

Perform the following task

1. Write a command which take file **"/etc/passwd"** and display its 1<sup>st</sup>, 3<sup>rd</sup> and 5<sup>th</sup> column
2. Try the **-b** flag with **cut** command and understand what it does.

### Task 04:

1. Try using **whatis**, **whereis**, which and **man** with argument **tar** and try to understand there usage.
2. Print first 3 lines of **/etc/passwd**.
3. Print last 3 lines of **/etc/passwd**.

### Task 05:

1. Write a command that will create an archive with the name of mywork.tar that contains all the files in the home directory of the currently logged in user that start with character a, and end with extension .c or .java. Then given a second command to compress the archived file with the name of mywork.tar.gz

## Vim

### Task 01:

- a) What is VIM? Create file with VIM and enter the line Learning is fun with **Faran Abdullah**.
- b) Replace the **Faran Abdullah** with **Arif Butt** using the search and replace mechanism provided by the Vim.
- c) Copy the file /etc/passwd and paste it in your home directory replace all the occurrences of your username with locus.
- d) Save and exit the Vim properly.

### Task 02:

- a) Copy the **/etc/passwd** file and open it in the append mode
- b) Open the copied file at the line 10 and delete it in command mode
- c) Create a file and write C program to write numbers from 1 to 10. Create another file and write Python code for printing first 10 odd numbers. Open the both files in vim and split the windows horizontally or vertically edit the program so that all both of these program say Learning is fun with Arif butt 10 times.
- d) Open the copied /etc/passwd file at line which contains word "systemd"

### Task 03:

There is a practice file provided by the Vim using the help of man pages can you find a way to open up the practice file and play with it?