



Operating Systems

Lab – 06

Objectives:

- Bash Shell
- VIM Editor

Resources:

- Video Lecture 05 : [Linux Vim Editor](#)
- Video Lecture 06 : [Bash Shell Revisited](#)

Linux Environment

Perform all the tasks on your machine and write in your notebook the particular one's.

1. Create a **lab06/** directory on your desktop and perform the following tasks in it.

VIM

Task 01:

- a) What is VIM? Create a file **linux.txt** with **VIM** and enter the line *"Everything in UNIX is a file"*.
 - b) Edit the file and add another line *"If it's not a file then it's a process"*.
 - c) Copy the file **/etc/passwd** and paste it in your **lab06/** directory and replace all the occurrences of your **username** with **edgyeagle**.
 - d) Save and exit the **Vim** properly.
 - e) Define the purposes of the **command** line mode and **insert** mode etc.
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BASH SHELL

Task 02:

- a) What is the purpose of the **.bashrc** file in a Unix-like system?
- b) Set an **alias** of **clc** which does the work of **clear** command. (**clc** will clear the screen).
- c) What happens if we open a file in vim and also in gedit? (Perform the task and check the directory using listing [**ls -a**]).
- d) Append some text in a file **linux.txt** without opening it "Learning Linux is fun". **Hint** (use **>>**).

Task 03:

- a) Difference between **Internal** and **External** commands with examples?
- b) Check **alias** is built-in (Internal) command or not?
- c) List down some internal commands at least four. **Hint** (Check using **type** cmd whether it is built in or not.)
- d) Where are the external commands placed in the Operating System? How does Shell find them?
- e) Does **Shell** need to make a child process when executing an external command?

Task 04:

- a) Display **all** environmental variables in your shell?
- b) Change your directory to **Desktop/** and echo your **PWD** variable and checkout what is placed in it?
- c) What is the purpose of the **PATH** environment variable, and how does it impact command execution in a terminal?
- d) Create an environmental variable named **MYNULL** and assign value **/dev/null**. (After this check your **MYNULL** exists in environmental variables or not)
- e) Now delete (**Unset**) this environmental variable you have created recently.

*"UNIX is basically a simple operating system, but you have to be a **genius** to understand the simplicity. – Dennis Ritchie"*