**East WestUniversity**

**Department of Computer Science and Engineering**

**CSE 325: LAB 01 (Handout) [Assessed Lab]**

# Introduction to LINUX and DOS Operating Environment and Command-line Interface

## Lab Objective

## Familiarize students with LINUX and DOS operating environment and corresponding command-line interface.

## Lab Activities

1. Installing Ubuntu 14.04 LTS (32-bit) OS through Oracle VM VirtualBoX

Ubuntu is one of the popular LINUX-based operating systems. It can be directly installed into your machine. However, for windows users, it is easier to install through Oracle VM VirtualBox. You have to perform the following operations to do that.

* Install Oracle VM VirtualBox for windows hosts. Download link: <https://www.virtualbox.org/wiki/Downloads>
* Download Ubuntu 14.04 LTS. Download link: <https://www.ubuntu.com/download/alternative-downloads>
* Execute Virtual Box and Create a new environment in the hosts machine. Follow the instructor in the lab.

## Laboratory Exercise – 1

1. Executing Command-Line Interface (CLI) in Ubuntu
2. Press CTRL+ALT+T to open a new terminal.
3. You can write the commands here.

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| --- | --- | --- |
| **Command** | **Used for** | **Format & Example** |
| **man** | Shows the manual of linux commands  Shows the manual of command name | man <command name>  man ls |
| **clear** | Clears the screen | Clear |
| **ps aux** | Gives all the processes running in the  background. |  |
| **history** | Show the history of predefine # of commands | history |
| **gedit** | Opens the file for editing | gedit file1 |
| **rm -r** | Remove a non-empty folder | rm -r foldername |
| **ls** | Show the list of files/folders in a directory | ls<optioon> ls -l  ls \*.doc  ls ?.doc  ls ??.doc  ls [0123].doc  ls [0-3].doc  ls [a-j,s,w-z].doc  ls G?[^2-4]\*foo\*.doc |
| **rm** | Removes a file | rm file1 |
| **mkdir** | Make directory | mkdir lab02 |
| **rmdir** | Remove an empty directory | rmdir lab02 |
| **cd** | Change directory | cd lab02 |
| **cat** | Show contents in file.  Edit in file.  Concat files | cat file  cat>>file  cat file1 file2 >> file3 |
| **touch** | Empty file creation | touch filename |
| **pwd** | Print current working directory | pwd |
| **mv** | Rename a file to another name | mv file1, file2 |
| **date** | Display system date.  Display calendar of the specified year | date>>jan.txt  cal -y 2020 |
| **cp** | Copy a file/files to another | cp <source> <destination>  cp con a.txt  cp a.txt b.txt  cp a.txt + b.txt c.txt |
| **chmod** | Change permissions | chmod 755 filename |
| **umask** | Set file permission on creation | umask 022 |
| **sort** | Sort the contents in file | sort filena |

## Lab Task:

1. Create a directory “Lab02” to hold the material for this lab with a command. Then position your session in the directory. Then create two more sub-directories called lab02a and lab02b.
2. Create a file “foo” then type the text “Greetings Earthling”
3. Repeat the above to create a file called “bar” containing “Take me to your leader”. Combine the two files into one called foobar.
4. Do a directory listing to see the contents of your folder.
5. Now take a copy of foobar into each of the lab02a and lab02b sub-directories.
6. Move to subdirectory lab02a. Create a copy of foobar named fobar2 then remove the original foobar file.
7. Move your context to the lab02b subdirectory. Rename the foobar file to be your name.
8. Move to your home directory and clear the screen. Take a screen shot of a final full directory after listing.
9. Create two files using march.txt and 2021.txt inside Lab02 folder. Where march.txt contains date information and 2021.txt contains calendar of 2021.
10. Show the history of command that you have used till now.