

School of Computer Science Engineering and Technology

Course- BCA
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Type- Specialization Elective
Course Name: Software
Containerization in DevOps
Semester- even
Batch- ALL

Lab Assignment 2: Linux Fundamentals

CO-Mapping

Exp. No.	Name	CO1	CO2	CO3
1	Linux Fundamentals	✓		

Linux File Systems

Objective:

Setting up a Linux Environment:

- a) **Windows: Cygwin**
- b) **Android: Termux**
- c) **Online: JSLinux**

Windows: Cygwin

Cygwin provides a Linux based terminal to run Linux commands on windows. It is a free command line

- i) Interface available at <https://www.wikihow.com/Use-Cygwin>.
- ii) Installation link: <https://www.cygwin.com/install.html>
- iii) follow step 1 to 4 and for selecting the package (select the default packages)
- iv) Once installed, open the terminal

```
Copying skeleton files.
These files are for the users to personalise their cygwin experience.

They will never be overwritten nor automatically updated.

'./bashrc' -> '/home/butech//.bashrc'
'./bash_profile' -> '/home/butech//.bash_profile'
'./inputrc' -> '/home/butech//.inputrc'
'./profile' -> '/home/butech//.profile'

DIVYAS-L+butech@DivyaS-L ~
$ |
```

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OnlineJSLinux:

<https://bellard.org/jslinux/vm.html?cpu=riscv64&url=buildroot-riscv64.cfg&mem=256>

Perform the following:

Task 1

- a) Make a new directory(folder) `mkdir dirname`
- b) Create/Open text file using `vi : vi filename`
- c) Copy file: `cp src dest`
- d) Copy folder: `cp -r src dest`
- e) Rename: `mv originalname newname`
- f) Delete a single file: `rm filename`
- g) Delete a whole folder: `rm -r foldername`
- h) Change working directory: `cd path`
- i) Move to parent folder: `cd ..`
- j) List contents of a folder: `ls`
- k) List contents of a folder including hidden files: `ls -a`.
- l) Print current directory: `pwd`.
- m) Open manual for a command: `man commandname`

Task 2:

- a) Using Commands to operate your system Open a Terminal: Cygwin(Windows), JSLinux(Online)
 - 1. Create a new directory with the yourname_2023 (`mkdir divya_2023`).
 - 2. Change the current directory to divya_2023. (`cd divya-2023`)
 - 3. In this directory, create another folder, called as devops_Lab0. (use `mkdir`)
 - 4. Change the current directory to devops_Lab0. (`cd Lab0`)
 - 5. Create a text file `me.txt` using `vi` and write your name and phone number in it. Save and close it for saving and closing a file in `vi`)
 - 6. Copy the contents of `me.txt` to `mycopy.txt` using `cp`
 - 7. Open `mycopy.txt` using `vi` and verify that it is a copy of `me.txt`. Close the file
 - 8. Rename `mycopy.txt` as `stillme.txt` using `mv`
 - 9. Check if the file has been renamed by listing the contents using `ls`
 - 10. Move out of `divya_2023` using
 - 11. Copy the directory hierarchy `divya_2023` to `divya_2023copy` using `cp -r`
 - 12. Check the contents of the folder `divya_2023copy` by going to the folder (`cd`) and then listing the contents(`ls`).
 - 13. Go out of the folder (`cd ..`) and delete the whole directory `divya_2023copy` using `rm -r`