Experiment 1

Introduction to open source technologies

Experiment 2

1. Create a file named help.txt in present working directory. Move this file to the directory csed, which is available in present working directory. If not available, then create the directory named csed. Check history.
2. Check the present working directory. List the contents along with the permissions of files or directory of the present working directory. Check history
3. Create a directory as cclab. Change the directory to cclab and create a named cc.txt with the text "Welcome to Computer Center, MIT, Aurangabad". Check the contents of the file cc.txt. Check history
4. Use echo command to add message "Welcome to Department of Computer Science and Engineering, Auranagabd" to the file named cse.txt. Create directory linux inside the present working directory. Inside linux directory create one more directory named inlinux and copy the file cse.txt to this directory. List the contents of inlinux directory. Check the history
5. Create files/students in home directory. Create files named roll1.txt, roll2.txt, roll3.txt, roll4.txt, roll5.txt inside /files/students. List the contents of students directory. Remove files roll2.txt and roll4.txt. Again check the contents of students directory. Then remove the directory students with –r option. Check history.
6. Create user named user1. Check the details of user1 from passwd file. Check the group of user1. Create user2 and user3. Add user1 and user3 in group Dev. Add user1 and user2 in the testing group. Check the details of group and users from /etc. then delete all the users. Check history.

Experiment 3

1. Demonstrate the use of different networking commands in linux
2. Demonstrate the use of following commands (Define, explain the use/purpose, Syntax and example for each command is expected):
   a. Ifconfig b) ip c) traceroute d) ping e) host f) hostname g) whois

Experiment 4

1. Demonstrate the software package management and installation in linux.
2. Use apt package manager to install and uninstall apache2
3. Use apt package manager to check availability of neofetch package
4. Use show option to check the information of any package in linux
5. Remove the package from the system
6. With purge and remove
7. Check hisrory

Create a five blank files in present working directory. Create a tar archive named ost.tar.gz. List the contents and check ost.tar.gz in listing. Extract the contents of the same archive file in other directory. Check history.

Experiment 5

Demonstrate the linux file sharing

Experiment 6

Demonstrate the Virtualization in Linux. Check whether your system supports the KVM installation or not.

Basic Commands

$ egrep -c '(vmx|svm)' /proc/cpuinfo

$ sudo kvm-ok

$ sudo apt install cpu-checker

$ sudo kvm-ok

$ sudo apt install -y qemu qemu-kvm libvirt-daemon libvirt-clients bridge-utils virt-manager

$ sudo systemctl status libvirtd

$ sudo systemctl enable --now libvirtd

$ lsmod | grep -i kvm

Experiment 7 (Only Theory)

Cloud computing in linux. Demostrate the concept of cloud computing with any one platform like codeanywhere, gihub and gitbash or aws etc.

Experiment 8

Linux Automation

Demonstrate the use of cron for job scheduling like creating directory or file at a specific time, day and month.

Demonstrate the use of cron for job scheduling for execution of any command like tar, apt etc

Experiment 9 (Only Theory)

Containers and Dockers

Experiment 10 (Only Theory)

Kubernetes