**Learning Objectives:** Students will be able to learn basic UNIX Commands.

When you first log in on a UNIX system, you are always associated with a directory, which is called the home directory or the working directory or the current directory. Your home directory has the same name as your user-name (student) and it is where your personal files and sub-directories are saved.

**Step 1.** Run the command **pwd** on the command prompt. Write down the output appeared on the screen. It’s the absolute path to your working directory, i.e. Pathname starting from /, i.e. root directory.

Absolute path name: ……………………………………………………

**Step 2**. Run **who am I** utility. Write down the output appeared on the screen. …………………………………………………………………………………………………

**Step 3.** Run **who** utility to get the information about logged in users. Take one username and run finger user-name to get the information about the user, including full names.

In Unix systems, **ls** utility lists the contents of your current directory. The behavior of a command can be changed by the options.

**Step 4.** Type command **ls –al** at the command prompt. Write down the first two lines of the output.



1. drwxr-xr-x 3 devindu devindu 4096 Mar 11 18:22 . **//first block in the first set (drwxr) is for user access, second for group access and last for other access.**



**And wxr means write execute and read, all three is only for the user access, only execution and reading is for group access, execution is the only access for other access**



**//hidden files are always starting with the dot. In ls -al**

drwxr-xr-x 3 root root 4096 Mar 11 18:17 ..

**Step 5.** Type **cd**. at the command prompt. And run the **pwd** utility again. Dose it change your working directory? Yes/No

**Step 6**. Run **cd** .. at the command prompt. And run the **pwd** utility again. Has **cd ..** changed the previous working directory? Yes/No

**Step 7**. According to your observations, what is the function of command **cd, cd**. and **cd..?** …………………………………………………………………………………………………

**Step 8**. Now use **cd** command to change your directory to /. Them Type **ls** and observe the content that can be seen in the output.

Consider the following directories.

/bin, /home, /dev, /etc, /lib

**Step 9**. Type **ls –l** under each directory. Can you interpret the output of **ls –l** command? Check the very first letter of the each line when you type **ls –l** under these directories.

**total 4**

**drwxr-xr-x 3 devindu devindu 4096 Mar 11 18:22 devindu**

**This hides the hidden files**

**Step 10**. Now run **ls** utility and check whether test.txt file exists in the home directory called “student”. If not, create a new file using cat utility, **cat** **> file-name** and add your IT no and name. Use Ctrl+D to save and exit from it.

Then open same file using **vi** **editor** and add some more lines of data.

Practice **mkdir** and **rmdir** commands to create and remove directories from the file hierarchy.

The command syntax **mv source-file destination** is used to move the source-file to the destination called destination. This utility can be used to rename a file without making duplicate copy of it. In that case, command syntax is, **mv existing-filename new-filename**

**Step 11**. Run **mv test.txt ./student** command at the command prompt. Then run **cd ~** command. Run **pwd** command.

i) What is the output for **pwd** utility? …………………………………………………………………………………………………

ii) What is the directory referred by **~** mark? …………………………………………………………………………………………………

**Step 12**. Try **ls ~** and **ls ~/..**

The command syntax **cp source-file destination-file** is used to copy the contents of source file to the destination file called destination-file.

**Step 13**. Run **cp test.txt First.txt** command. Again, run **cp test.txt FiRsT.txt** command. List the files in your home directory. Is UNIX system case sensitive? Yes/No

**Step 14**. The cat (name derived from concatenate) utility displays the contents of a text file.

Run **cat First**. Then, run **rm First**. Again, run **cat First**.

i) Write down the output …………………………………………………………………………………………………

ii) What is the function of **rm** ? …………………………………………………………………………………………………

The head utility displays the first ten lines of a file. It is useful for reminding yourself what a particular file contains. The tail utility is similar to head, except it displays the last ten lines of a file.

**Step 15**. Write down the output

i) **head -3 test.txt** ………………………………………………………………………………………………… ………………………………………………………………………………………………… ………………………………………………………………………………………………… …………………………………………………………………………………………………

ii) **tail -2 test.txt** ………………………………………………………………………………………………… ………………………………………………………………………………………………… ………………………………………………………………………………………………… …………………………………………………………………………………………………

**Step 20**. Write a C program which prints the current local time in the format: hh:mm:ss to standard output. (Hint: look at the manual page for time (2) and localtime (3c).