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.
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 Step 3. Run **who** utility to get the information about logged in users. Take one user-name 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.
i)………………………………………………………………………………………………
ii) …………………………………………………………………………………………..

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..?**
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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

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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.

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

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

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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**

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

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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).