

TKM College of Engineering
Government Aided and Autonomous

Department of Computer Science and Engineering

B.Tech S4 CSE (KTU)

CSL204 Operating Systems Lab Cycle Questions

1.1 **Experiment No : 1**

Aim: Familiarization of Linux directory structure.

- Draw the directory structure
- Explore directories in Linux system.

1.2 **Experiment No : 2**

Aim: Familiarization of basic Linux commands

Questions:

- 1) Create five empty files *empty1*, *empty2*, *empty3*, *empty4* and *empty5*.
- 2) Create a file called *text* and store your name, age and address on it.
- 3) Display the contents of file *text* on screen.
- 4) Make a copy of file *text* as *newtext*.
- 5) Create a file *maths* and write any two sentences.
- 6) Combine contents of file *text* and *maths* into another file *textmat*.
- 7) Delete the file *text*
- 8) Change the permission of file *newtext* to 666.
- 9) Rename the file *newtext* to *oldtext*.
- 10) Create a directory *mydir* in current directory.
- 11) Move the file *oldtext* and *maths* to *mydir*
- 12) Create a directory *newdir* within *mydir*.
- 13) Copy all files in *mydir* into *newdir*.
- 14) Delete interactively all empty files created earlier.

1.3 **Experiment No : 3**

Aim: Linux commands for redirection, pipes, filters, job control, file ownership, file permissions, links and file system hierarchy

Questions:

	<ol style="list-style-type: none"> 1) Write the names of five fruits in a file named <i>fruits.txt</i> and read its contents and write to another file <i>newfruits.txt</i>. 2) Sort the names of fruits in reverse order and put it in <i>reverse.txt</i>. 3) List all the files in current directory, count the no. of words and lines of a file and then write it to new file <i>count.txt</i>. 4) To create a file with a set of data, the line containing the word 'poem' should be counted and store the count in another file. 5) List all files begins with character 'p' and store them in file <i>two</i>. 6) Create two files, one containing your name, age and address and another containing your class, roll no. and college. Combine these two files and store in <i>detail.txt</i> 7) Merge contents of <i>a.txt</i>, <i>b.txt</i> and <i>c.txt</i>. Sort them and search a particular word 'th'. 8) List all the files in the current directory and print the files that were created in August. 9) Execute four sleep commands in background. 10) List the running jobs. Bring the job 3 to foreground, suspend it and send it to the background
1.4	<p><u>Experiment No : 4</u></p> <p>Aim: Introduction to Shell Programming. Write simple functions with basic tests, loops, patterns</p> <p><u>Questions:</u></p> <ol style="list-style-type: none"> a. Write a shell script program to perform arithmetic operations on two numbers. b. Write a shell script program demonstrate use of command line parameters in shell script(script name, total parameters, each parameter) c. Write a shell script program to check whether two strings sent as command line arguments are same or not using test command. d. Write a shell script program to read a particular name and check whether it is a file or directory. e. Write a shell script menu driven program to implement a simple calculator. f. Write a shell script program to count the number of files in the current directory beginning with the specified character. g. Write a shell script program to read the lines from one file and store them into another file after converting all the vowels from first file into uppercase. h. Write a shell script program that accepts the name of the user and prints the entered name in reverse and also print the length of the entered name.

- i. Write a shell script program consider a file school.dat with the following fields. Rollno, name and marks. Write a shell script program to sort the file in descending order of marks.
- j. Write a shell script program to copy content of file1 to file2. If file2 exists then append the content of file1 to its original file.
- k. To write a shell script using for loop to print the following patterns on screen.

```
1
22
333
4444
55555
```

- l. Write shell script to show various system configuration like
 - a. Currently logged user and his logname
 - b. Your current shell
 - c. Your home directory
 - d. Your operating system types
 - e. Your current path setting
 - f. Your current working directory
 - g. Show Currently logged number of users
- m. Write shell script to show various system configuration like
 - a. About your OS and version, release number, kernel version
 - b. Show all available shells
 - c. Show mouse settings
 - d. Show computer CPU information like processor type, speed etc
 - e. Show memory information
 - f. Show hard disk information like size of hard-disk, cache memory, model etc
 - g. File system (Mounted)
- n. Write a script called addnames that is to be called as follows, where *classlist* is the name of the classlist file, and *username* is a particular student's username. The script should
 - check that the correct number of arguments was received and print an usage message if not,
 - check whether the classlist file exists and print an error message if not,
 - check whether the username is already in the file, and then either
 - print a message stating that the name already existed, or
 - add the name to the end of the list.