Assignment No. 01(A)

Date:

TITLE: Study of Basic Linux Commands: echo, ls, read, cat, touch, test, loops, arithmetic comparison, conditional loops, grep, sed etc.

OBJECTIVE:

- Study of basic Linux commands.
- Apply the basics of Linux commands.

SOFTWARE REQUIREMENTS:

1. Ubuntu 16.04
2. GNU C Compiler

THEORY:

COMMANDS

echo
echo command in linux is used to display line of text/string that are passed as an argument . This is a built in command that is mostly used in shell scripts and batch files to output status text to the screen or a file.

ls
The Linux ls command allows you to view a list of the files and folders in a given directory. You can also use this command to display details of a file, such as the owner of the file and the permissions assigned to the file.

read
read command in Linux system is **used to read from a file descriptor**. Basically, this command read up the total number of bytes from the specified file descriptor into the buffer. If the number or count is zero then this command may detect the errors. But on success, it returns the number of bytes read.

cat
The cat (**short for "concatenate"**) command is one of the most frequently used commands in Linux/Unix-like operating systems. cat command allows us to create single or multiple files, view content of a file, concatenate files and redirect output in terminal or files

touch
The touch command is a standard command used in UNIX/Linux operating system which is **used to create, change and modify timestamps of a file**. Basically, there are two different commands to create a file in the Linux system which is as follows: cat command: It is used to create the file with content.

test
The test command is **used to check file types and compare values**. Test is used in conditional execution.
Test command
File attributes comparisons.
Perform string comparisons.
Basic arithmetic comparisons.

grep: (globally search for a regular expression and
print all lines containing it) The **grep** command searches a file or files for lines that
have a certain pattern.

 Syntax: $grep pattern file(s)
 Example: $grep print test.c
 $ ls -l | grep “aug”

sed
t is stands for stream editor and it can perform lot’s of function on file like, searching, find and replace, insertion or deletion. Though most common use of SED command in UNIX is for substitution or for find and replace. By using SED you can edit files even without opening it, which is much quicker way to find and replace something in file, than first opening that file in VI Editor and then changing it. SED is a powerful text stream editor. Can do insertion, deletion, search and replace(substitution). SED command in unix supports regular expression which allows it perform complex pattern matching.

Conditional Statement: (if statement) Syntax
- if [expression]
- then
-Statement(s) to be executed if expression is true
-else
- Statement(s) to be executed if expression is not
true
- fi

Loop Statement: (while loop) Syntax
-while [command]
- do
-Statement(s) to be executed if command is true
- done

Loop Statement: (for loop) Syntax
- for var in word1 word2 ... wordN
- do
- Statement(s) to be executed for every word.
- done

Loop Statement: (until loop) Syntax
-until command
-do
-Statement(s) to be executed until command is true
- done

Conclusion: Thus we have studied basic Linux commands and conditional loops etc.