

OUTPUT

1. pwd
 ./home/student/
 2. ls
 file.txt folder filenew.txt.
 4. echo "Hello World"
 Hello world.
 6. cat >> filenew.txt
 This is a sample text file
 1C
 7. (a) wc -w filenew.txt
 6
 (b) wc -l filenew.txt
 1
 13. whoami
 student.
 15. bc
 2+3
 5
 16. grep "is" filenew.txt
 This is a sample textfile.

EXPERIMENT 1: FAMILIARISATION OF LINUX COMMANDS

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2.

AIM: To study the basic commands in Linux.

COMMANDS

1. pwd → point name of current-working directory
2. mkdir name → To create a directory.
3. ls → To display the contents of current directory.
4. echo → To display line of text/string that are passed as arguments.
5. nano file → To create and open a new file.
6. cat file1 or cat "file1" "file2" → To display the contents of a file/to concatenate files and point on the std o/p.
7. wc file → To find out no. of lines, wordcount, character count in a file.
8. man cmdname → To see a command manual page.
9. date → used to check dates & times.

<u>Format</u>	<u>Purpose</u>	<u>Example</u>	<u>o/p</u>
(a) +%m	display only month	date +%m	02
(b) +%b	display month name	date +%b	Feb
(c) +%d	displays day of month	date +%d	07
(d) +%S	displays Seconds	date +%S	58
(e) +%M	displays Minutes	date +%M	20
(f) +%H	displays Hours.	date +%H	02

10. cal → To display the calendar of current month.
11. uname → To display basic system information like hostname, version of currently running kernel, etc.
12. hostname → To view system's domain or hostname.
13. whoami → To reveal the current logged in user.
14. uptime → Tells how long the computer has been running

Marine larvae is characterised by pelagic or benthic or both with various phylogenetic pelagic or benthic larval forms which may be active, suspended, retained or released. Larvae active at sea tend to be benthic, whereas larvae retained in the plankton are often pelagic.

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15. bc → stands for best calculator.
 16. grep 'filename' → To display a search word / its occurrence from a given file.
 17. cp 'sourcefile' 'destination' → Copies file/folder.
 18. rm filename → To remove a file.
 19. mv 'sourcefile' 'destination' → Moves file/folder.
 20. touch → To create an empty document.
 21. head filename → Displays first 10 lines of a file.
 22. head -n filename → Displays first 'n' lines of a file
 23. tail filename → Displays last 10 lines of a file.
 24. tail -n filename → Displays last 'n' lines of a file.
 25. chmod → changes the permission of file/folder, Types:
 - read (r) (4)
 - write (w) (2)
 - execute (x) (1)→ Types of access:
 - owner (-u) rwx
 - group (-g) rwo-
 - others (-o) rwo-
 26. clear → clears the screen.
 27. lp → used to take printouts.
 28. rmdir → used to remove (delete) directory that is empty

~~Amir 3/23~~

14) RESULT: The above commands are executed successfully and output is obtained.

EXPERIMENT 2: INTRODUCTION TO SHELL PROGRAMMING.

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4.

A shell provides you with an interface to the UNIX system. It gathers input from you and executes programs based on that input, when a program finishes executing. It displays that program's output.

Shell is an environment in which we can run our commands, programs and shell scripts. There are different flavours of a shell, just as there are different flavours of OS, each flavour of shell has its own set of recognized commands and functions.

SHELL PROMPT

The prompt \$, which is called command prompt, is used by the shell, while the prompt is displayed you can type a command.

Shell reads your I/P after Enter is pressed. It determines the command you want executed by looking at first word of your I/P. A word is an unbroken set of characters spaces and tabs separate words.

Following are the simple examples of the date cmd, which displays the current date and time

\$date

Thu Feb 10 13:22:16 IST 2023

SHELL TYPES

In unix, there are 2 major types:

(1) Bourne shell:

The \$ is the default prompt.

Categories: Bourne shell (sh), kornshell (ksh), Bourne Again Shell (bash), POSIX shell (sh).

It might appear to one such (student) that
the teacher's method of teaching is not good as
he does not understand the subject well. If so,
it would (not) be natural (for) that student to complain about
the teacher's method. (And) If he does not understand the subject well,
then it is natural for him to complain about the teacher's method.

(2) c-type shell

% character is the default prompt

Categories: c shell (csh), TENEX/TOPS c shell (tcsb)

Bourne shell was first shell to appear on UNIX systems, thus it is referred to as 'the shell.' It is usually installed on /bin/sh on most versions of UNIX.

SHELL SCRIPTING

The basic concepts of a shell scripts is a list of commands which are listed in the order of execution. A good shell script will have comments, preceded by sign, describing the steps. There are conditions tests, such as value A is greater than value B, loops allowing us to go through massive amounts of data, files to read and store data and variables to read and store data, and the script may include function.

In unix-like OS, the chmod command is used to change the access mode of a file. [change mode]

Syntax: cbread [reference] [operators] [mode] file ...

The references are used to distinguish the user to whom the permission apply, i.e., they are list of letter that specifies whom to give permissions.

The references are represented by one or more of the following letters: owner (-v), group (-g), other (-o)

The operator is used to specify how to mode of a file should be adjusted, the following:

+ , - , = .

The modes indicate which permissions are to be granted or removed from the specified classes.

These are 3 basic modes which correspond to the basic permission - Read (r), write (w), execute (x).

Types of permissions which we will be changing using chmod command in linux terminal, to see all the permission to different files.

`ls -l` → command which list the files in working directory in long format.