LAB-1

1) Verify different UNIX commands (syntax to use with option)

S.NO	UNIX commands	Functions.
1.	basename.	prints the basename of each file, removing any leading directorie. syntax :- basename [OPTION]... FILE
2.	mkdir	creates a directory. syntax :- mkdir [OPTION] ... DIRECTORY
3.	ls	Lists the contents of directory. syntax :- ls [OPTION]..FILE
4.	echo	prints the arguments to standard output. syntax :- echo [OPTION].. ARGUMENT
5.	read	Read input from standard input and stores it in the specific variables. syntax :- read [OPTION]..[VARIABLE]
6.	expr	Evaluates an arithmetic expression and print result. syntax :- expr [EXPRESSION]
7.	kill	sends a signal to process. syntax: kill [OPTION].. PD
8.	who	Lists the users who are currently logged on. syntax: who [OPTION]...
9.	which	Finds the full path to a command. syntax :- which [OPTION]... [COMMAND]
10.	date.	Display the current date & time. syntax :- date [OPTION].
11.	users	Lists the users who are currently logged on. syntax :- users [OPTION]...
12.	vim	A text editor. Syntax :- vim [OPTION]... [FILE]
13.	touch	Update the access and modification times of a file. syntax :- touch [OPTION] ... TIMEFILE
14.	bash	A bourne Again shell. Syntax :- bash [OPTION]... [COMMAND]

15.	cat	coordinate files and prints them to standard output. Syntax:- cat [OPTION]...[FILE]
16.	hostname	prints the hostname of the current machine. Syntax:- hostname [OPTION]...
17.	rm	Removes files. Syntax:- rm [OPTION]... [FILE]...
18.	mv	Moves files. Syntax:- mv [OPTION]... SOURCE DESTINATION.
19.	chmod.	changes the permission of a file. Syntax:- chmod [OPTION]... MODE FILE...
20.	top.	Displays a real-time list of processes. Syntax:- top [OPTION]...

2) Write a shell program to add two numbers using command line argument.

Program

```
echo " Enter two numbers"
read a b
sum = $(( $a + $b ))
echo " The sum of $a and $b is $sum"
```

Output

```
Enter two numbers.
2 4
The sum of 2 and 4 is 6
```

3) Write a shell program to convert distance into meter, cm and km.

Program

```
echo "Enter length in centimeter"
read cm
km = $(( $cm/100000 ))
cm = $(( $cm % 100000 ))
m = $(( $cm/100 ))
cm = $(( $cm % 100 ))
echo " km = $km km m = $m m cm = $cm cm"
```

Output

```
Enter length in centimeter.
1234567
km = 12 km m = 34 m cm = 567 cm.
```

4) Write a shell script to extract the data from the date command, and display the result in different format. (if the date command gives "Thu Jan 2 14:21:54 IST 2014 then display the result in "2/Jan/2014/14.21").

Program

```
#!/bin/bash
echo "Enter a date string:"
read input_date
formatted_date = $(date -d "$input_date" "+%e/%b/%Y/%H.%M"
                                    2>/dev/null).
if [$? -eq 0 ]; then
    echo "Formatted Date: $formatted_date"
else
    echo "Error: Invalid date format."
```

Input

Enter a date string
Mon Jan 29 12:01:24 IST 2024

Output

Formatted date
29/Jan/2024/12.01

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