EXPERIMENT NO. 3

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Semester /Section: 5th/ FS A1

Link to Code: https://github.com/chiragsardana/Skill-Developement/tree/master/OperatingSystem/Experiment-3rd

Date: 17th August 2021
Faculty Signature:

Marks:

Objective:

To write the shell programming code for the following.

Outcome:

Student is able to write code in shell programming

Problem Statement:

- a) Write a shell program to find Fibonacci series.
- b) Write a shell program to find largest of three numbers.
- c) Write a shell program to find average of N numbers

Background Study:

A shell script is a file with a set of commands in it. The shell reads this file and executes the instructions as if they were input directly on the command line.

A shell is a command-line interpreter and operations such as file manipulation, program execution and text printing is performed by shell script. So, we will use vi editor to edit our files.

Question Bank:

- 1. What is a shell?
- 2. What is the significance of \$#?
- 3. What are the different types of commonly used shells on a typical Linux system?
- 4. How will you pass and access arguments to a script in Linux?
- 5. Use sed command to replace the content of the file (emulate tac command)

Already Done in Last Experiment i.e., Experiment 2



Student Work Area

Algorithm/Flowchart/Code/Sample Outputs

→Fibonaaci Program

(base) chiragsardana@MacBook new % \underline{v} im Fibonacci.sh

```
#!/bin/bash
# First Number of the
# Fibonacci Series
a=0
# Second Number of the
# Fibonacci Series
b=1
echo "Enter the Nth Term"
read N
echo "The Fibonacci series is: "
for (( i=0; i<N; i++ ))
do
        echo -n "$a "
        fn=\$((a + b))
        a=$b
        b=$fn
done
# End of for loop
"Fibonacci.sh" 24L, 269B
```



```
[(base) chiragsardana@MacBook new % zsh Fibonacci.sh
Enter the Nth Term
5
The Fibonacci series is :
[0 1 1 2 3 ☑
```

→ Max of Three Number Program

(base) chiragsardana@MacBook new % vim Max.sh

```
#!bin/bash
echo "Enter Num1"
read num1
echo "Enter Num2"
read num2
echo "Enter Num3"
read num3
echo "The Max Number is: "
if [ $num1 -gt $num2 ] && [ $num1 -gt $num3 ]
then
    echo $num1
elif [ $num2 -gt $num1 ] && [ $num2 -gt $num3 ]
    echo $num2
else
    echo $num3
fi
"Max.sh" 21L, 283B
```



```
[(base) chiragsardana@MacBook new % zsh Max.sh
Enter Num1
4
Enter Num2
3
Enter Num3
2
The Max Number is:
4
```

→ Average of N Number

"avg.sh" 24L, 251B

```
(base) chiragsardana@MacBook new % vim avg.sh
```

```
#!bin/bash
```



```
[(base) chiragsardana@MacBook new % zsh avg.sh
Enter Size(N)
3
Enter Numbers
1
2
3
The Average of the Number is 2
```