**EXPERIMENT NO. 3**

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| **Student Name and Roll Number:** Namit Kumar |
| **Semester /Section:** V/FS-A-1 |
| **Link to Code:** |
| **Date:** 17 August,2021 |
| **Faculty Signature:** |
| **Marks:** |

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| **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) |

**Student Work Area**

**Algorithm/Flowchart/Code/Sample Outputs**

**Q1** Shell is a program that takes commands from the keyboard and gives them to the operating system to perform.

**Q2** $# shows the count of the arguments passed to the script.

**Q3** Bash, Zsh, Korn, Tcsh, Fish are commonly used shells

**Q4** Arguments can be passed to the script when it is executed, by writing them as a space-delimited list following the script file name.

Inside the script, the $1 variable references the first argument in the command line, $2 the second argument and so forth. The variable $0 references to the current script.

**Q5** sed ‘1! G; h;$!d’ file1

Here G command appends to the pattern space,

h command copies pattern buffer to hold buffer

and d command deletes the current pattern space.

1. Write a shell program to find Fibonacci series.

A screenshot of a computer

Description automatically generated with medium confidence

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1. Write a shell program to find largest of three numbers.

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1. Write a shell program to find average of N numbers

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