Green University of Bangladesh

Department of Computer Science and Engineering (CSE)

Faculty of Sciences and Engineering

Semester: (Spring, Year:2023), BSc. in CSE (Day)

LAB REPORT - 02

Course Title: Operating Systems Lab

Course Code: CSE-310 **Section:** PC-201 DB

Student Details

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Lab Date: 24-02-2023

Submission Date: 03-03-2023

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[For Teachers use only: Don't Write Anything inside this box]

Lab Report Status	
Marks: ……	**Signature: ……**
Comments: ……	**Date: ……**

1. TITLE OF THE LAB EXPERIMENT

Implementation sum of odd and even digits problem using Shell Scripting language.

2. OBJECTIVES/AIM

- To gather basic knowledge of Shell Scripting language.
- To learn about step-by-step of arithmetic operation.
- To learn how to find odd & even numbers.
- To learn how to take user input.

3. PROBLEM_01:

- Write a Shell program to find the sum of odd digits and even digits from a number.

Problem Statement: According to this problem we take a number then we break that number into single digits. If the digits is even then we add to evenSum and if the digits is odd then we add to oddSum. For finding even & odd digits we chcek the digit if the modulus of digit is equal zero then that digit is even otherwise odd.

Implementation/Source Code:

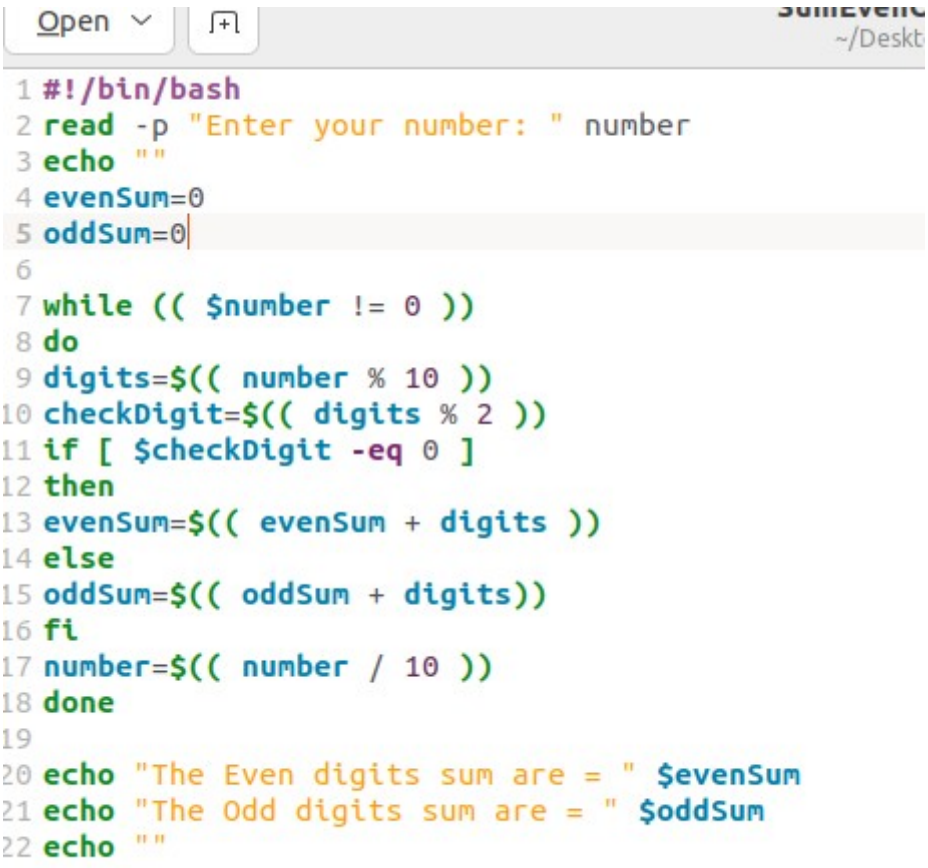

Figure_01: Code of sum of odd and even digits problem

Test Result (Input & Output):

```
romzan@ubuntu:~/Desktop$ \. SumEvenOdd.sh
Enter your number: 12345

The Even digits sum are =  6
The Odd digits sum are =  9

romzan@ubuntu:~/Desktop$ 111112
111112: command not found
romzan@ubuntu:~/Desktop$ 111112
111112: command not found
romzan@ubuntu:~/Desktop$ \. SumEvenOdd.sh
Enter your number: 12345

The Even digits sum are =  6
The Odd digits sum are =  9

romzan@ubuntu:~/Desktop$ \. SumEvenOdd.sh
Enter your number: 111112

The Even digits sum are =  2
The Odd digits sum are =  5
```

Figure_02: Input & output of sum of odd and even digits problem

According to this figure here we see user can put any numbers as input. finally show the sum of odd and even digits as output.

In addition, first we need to go desktop mode and create a file with .sh extension using touch command and allow to execute permission using chmod +x fileName and using \.filename.sh to execute that program.

For example:

```
romzan@ubuntu:~$ cd Desktop
romzan@ubuntu:~/Desktop$ touch SumEO
romzan@ubuntu:~/Desktop$ chmod +x SumEo
chmod: cannot access 'SumEo': No such file or directory
romzan@ubuntu:~/Desktop$ touch SumEvenOdd.sh
romzan@ubuntu:~/Desktop$ chmod +x SumEvenOdd.sh
romzan@ubuntu:~/Desktop$ ls -al
```

Figure_03: Working process of Shell program

5. ANALYSIS AND DISCUSSION

This experiment mainly based on Shell program. Based on the focused objective to understand about the shell program, the additional lab exercise made me more confident towards the fulfillment of the objectives. This task will help us to learn about the basic structure of Shell program. From this experiment, we find the sum of odd digits and even digits from a number.. We use simple arithmetic operation in compiler that's why it may have some compiler error. The main hard part of this experiment is successfully handle shell program because it is very sensitive language. We face so many problem for handle that part. This experiment will show how to work inside of operating system.

6. SUMMARY:

In this experiment we solve one problem. That is the sum of odd and even digits problem. In this problem we take a number then we check prime digits from that number's digits. If the digits is even then we add to evenSum's variable and if the digits is odd then we add to oddSum's variable. In this experiment, we will feel the real environment of operating system. That's why this experiment is very interesting and helpful for future.