Experiment [4]: [Bash Scripting]

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AIM:

- [To Learn Basics of Bash Scripting.]

Requirements:

- [Any Linux Distro, any kind of text editor (vs code, vim, notepad, nano, etc)]

Theory:

- [Learning the basics of bash scripting.]

Procedure & Observations

Exercise 1: [Hello World Script]

Task Statement:
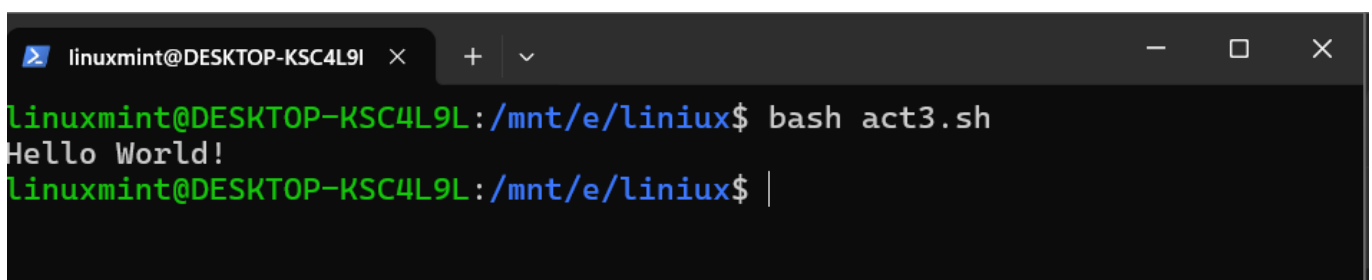
- [Basic Usage of Shell Scripts]

Explanation:

- [Writing Begginer level Shell Scripts]

Commpand(s):

```bash
#!/bin/bash
echo "Hello, World!"
```

Output:

Exercise 2: [Personalized Greeting Script]

Task Statement:

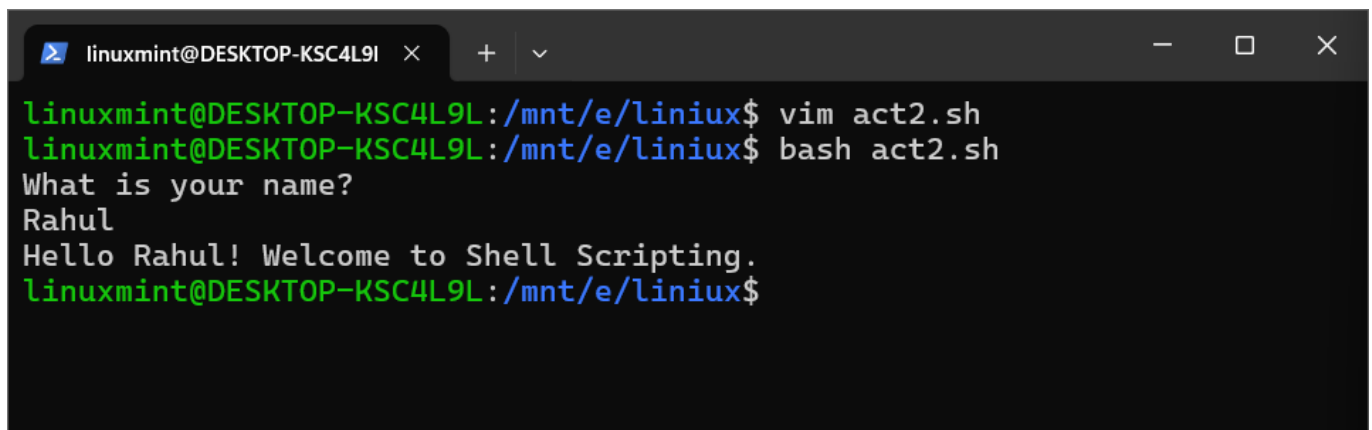- [Basic Shell Script to callout user defined function.]

Explanation:

- [This Shell script will take input from user and store it in a variable and then call the variable which will output the stored value.]

Command(s):

```bash
#!/bin/bash
echo "What is your name?"
read name
echo "Hello, $name! Welcome to Shell Scripting."
```

Output:

Exercise 3: [Arithmetic Operations in Shell Scripting]
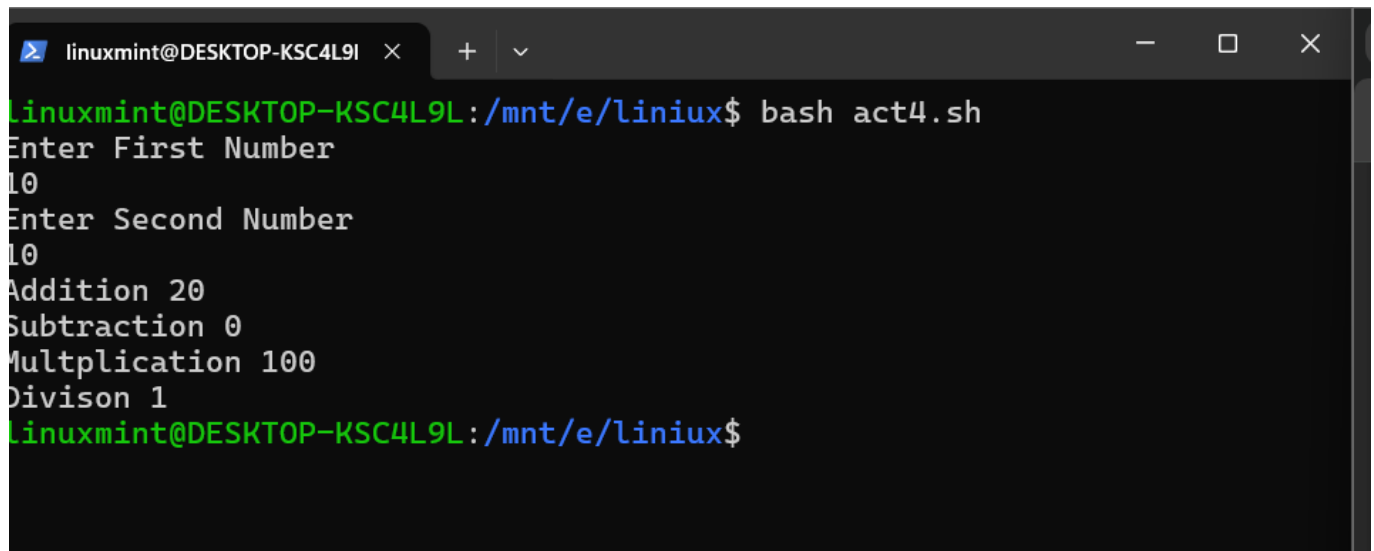
Task Statement:

- [Using Basic Arithmetic Operations in Shell Scripts]

Command(s):

```bash
#!/bin/bash
echo "Enter first number: "
read num1
echo "Enter second number: "
read num2

echo "Addition: $((num1 + num2))"
echo "Subtraction: $((num1 - num2))"
echo "Multiplication: $((num1 * num2))"
echo "Division: $((num1 / num2))"
```

Output:

```
linuxmint@DESKTOP-KSC4L9I   ×    +   ∨                                    —   □   ✕

linuxmint@DESKTOP-KSC4L9L:/mnt/e/liniux$ bash act4.sh
Enter First Number
10
Enter Second Number
10
Addition 20
Subtraction 0
Multplication 100
Divison 1
linuxmint@DESKTOP-KSC4L9L:/mnt/e/liniux$
```

Exercise 4:

- [Voting Eligibility]

Task Statement:

- [Using Conditionals in Shell script]
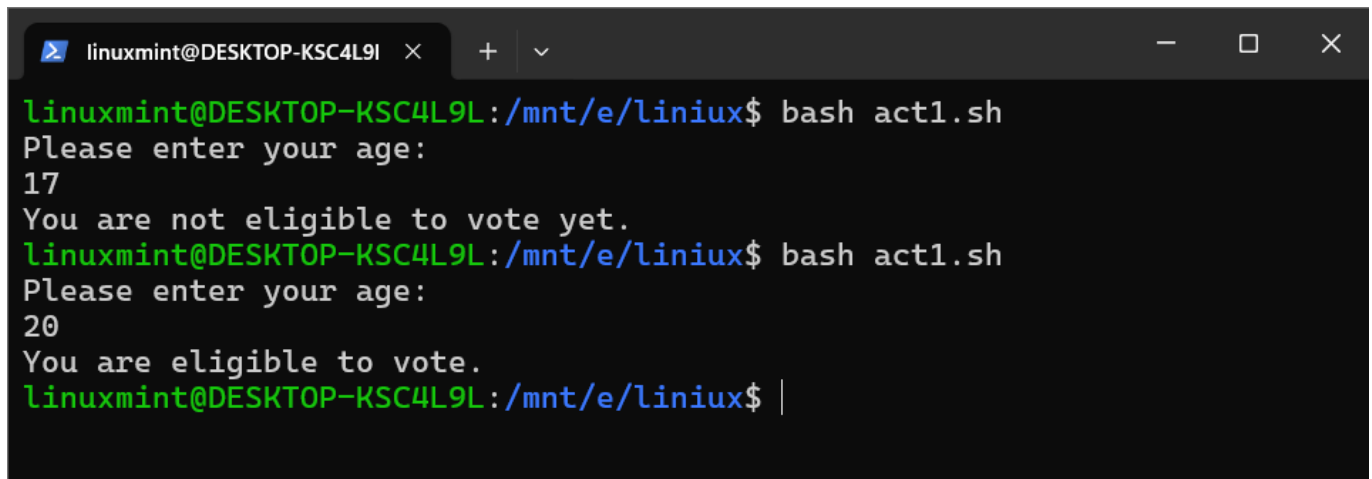
Command(s):

```bash
#!/bin/bash
echo "What is your age?"
read age
if [ $age -ge 18 ]; then

    echo "You are eligible to vote!"

else
    echo "You are not eligible to vote!"

fi
```

Output:

```
linuxmint@DESKTOP-KSC4L9L:/mnt/e/liniux$ bash act1.sh
Please enter your age:
17
You are not eligible to vote yet.
linuxmint@DESKTOP-KSC4L9L:/mnt/e/liniux$ bash act1.sh
Please enter your age:
20
You are eligible to vote.
linuxmint@DESKTOP-KSC4L9L:/mnt/e/liniux$
```

Result

- The Exercises were successfully completed for Basic Shell Scripting