

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]

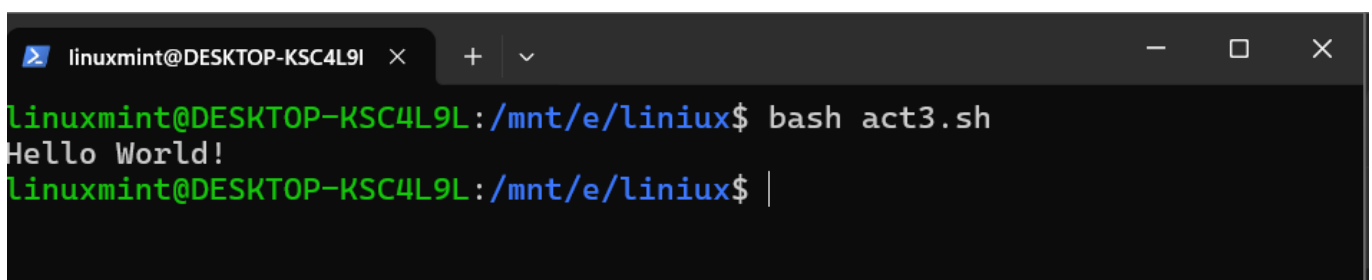
Explanation:

- [Writing Begginer level Shell Scripts]

Command(s):

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

Output:

A terminal window with a dark background. The title bar shows 'linuxmint@DESKTOP-KSC4L9L'. The prompt is 'linuxmint@DESKTOP-KSC4L9L:/mnt/e/liniux\$'. The user enters 'bash act3.sh'. The output is 'Hello World!'. The prompt returns to 'linuxmint@DESKTOP-KSC4L9L:/mnt/e/liniux\$' with a cursor.

```
linuxmint@DESKTOP-KSC4L9L:/mnt/e/liniux$ bash act3.sh  
Hello World!  
linuxmint@DESKTOP-KSC4L9L:/mnt/e/liniux$ |
```

Exercise 2: [Personalized Greeting Script]

Task Statement:

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

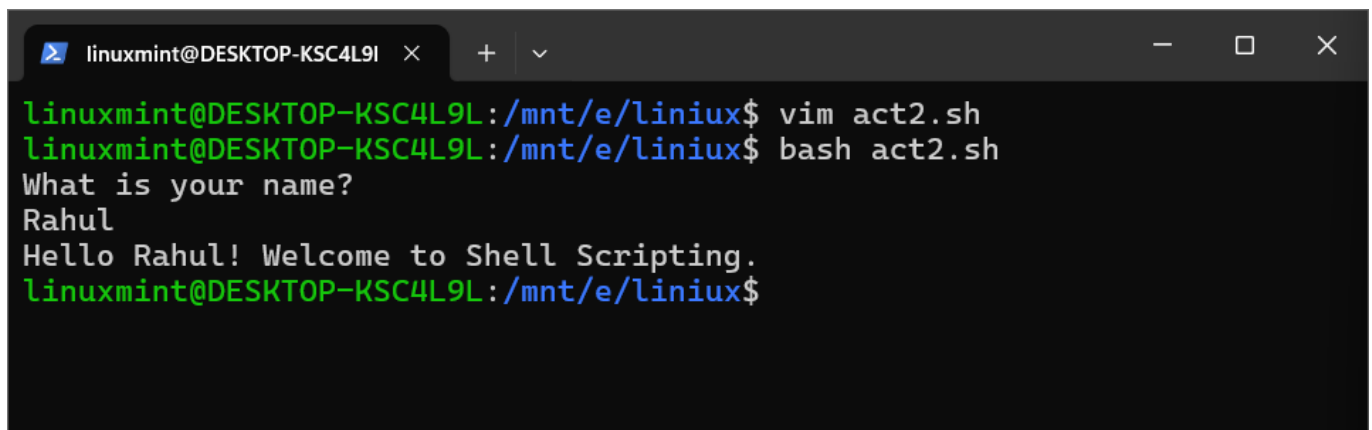
Explanation:

- [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):

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

Output:

A terminal window titled 'linuxmint@DESKTOP-KSC4L9L' with standard window controls. The terminal shows the user running 'vim act2.sh' and then 'bash act2.sh'. The script prompts 'What is your name?' and the user enters 'Rahul'. The script then outputs 'Hello Rahul! Welcome to Shell Scripting.' and returns to the prompt.

```
linuxmint@DESKTOP-KSC4L9L:/mnt/e/linux$ vim act2.sh
linuxmint@DESKTOP-KSC4L9L:/mnt/e/linux$ bash act2.sh
What is your name?
Rahul
Hello Rahul! Welcome to Shell Scripting.
linuxmint@DESKTOP-KSC4L9L:/mnt/e/linux$
```

Exercise 3: [Arithmetic Operations in Shell Scripting]

Task Statement:

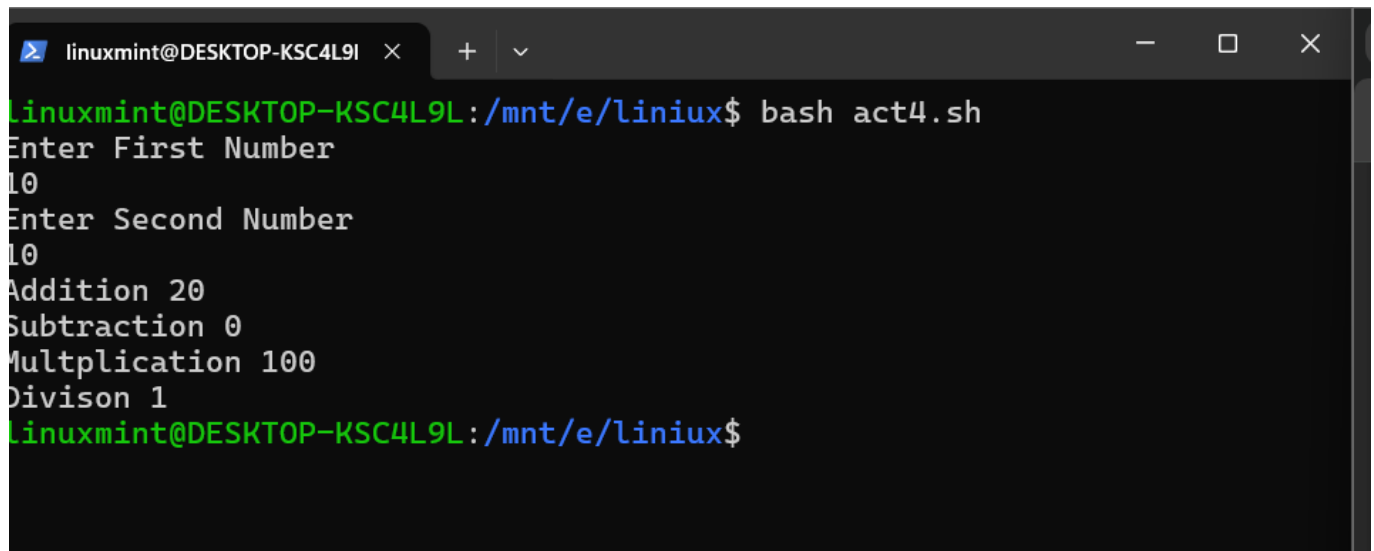
- [Using Basic Arithmetic Operations in Shell Scripts]

Command(s):

```
#!/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-KSC4L9L: /mnt/e/linux$ bash act4.sh
Enter First Number
10
Enter Second Number
10
Addition 20
Subtraction 0
Multiplication 100
Division 1
linuxmint@DESKTOP-KSC4L9L: /mnt/e/linux$
```

Exercise 4:

- [Voting Eligibility]

Task Statement:

- [Using Conditionals in Shell script]

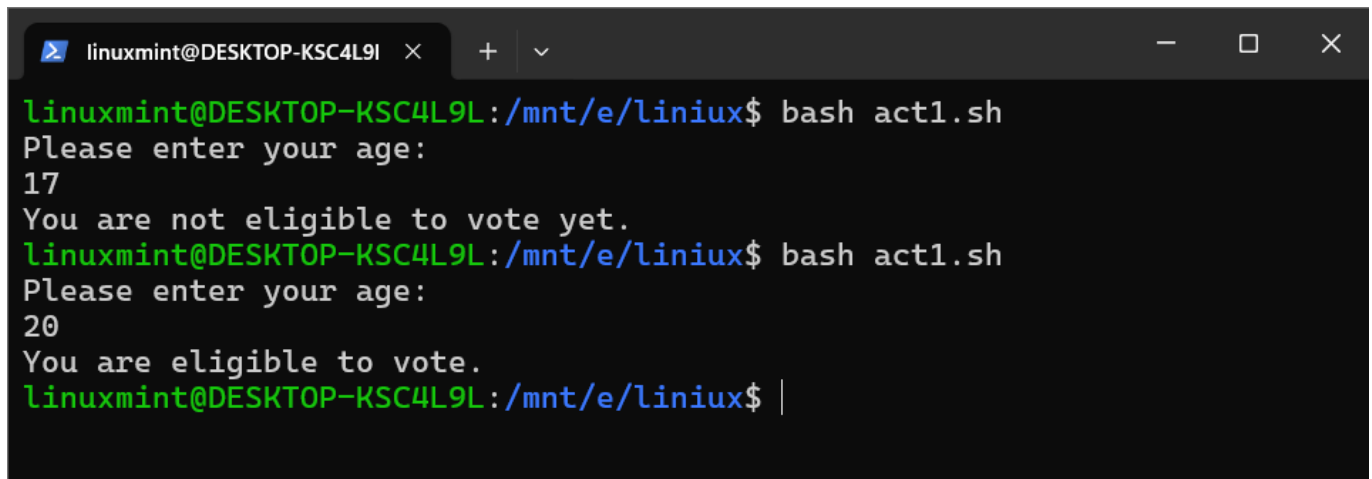
Command(s):

```
#!/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