Experiment [4]: [Bash Scripting]

Name:Tanishq bansal, Roll No.: 590029349, Date: 2025-10-28

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:

```
PS C:\Users\drago\OneDrive\Documents\day 4> wsl
tanishq@Tanishq:/mnt/c/Users/drago/OneDrive/Documents/day 4$ vim hello.sh
tanishq@Tanishq:/mnt/c/Users/drago/OneDrive/Documents/day 4$ bash hello.sh
Hello, World!
tanishq@Tanishq:/mnt/c/Users/drago/OneDrive/Documents/day 4$ |
```

Exercise 2: [Personalized Greeting Script]

Task Statement:

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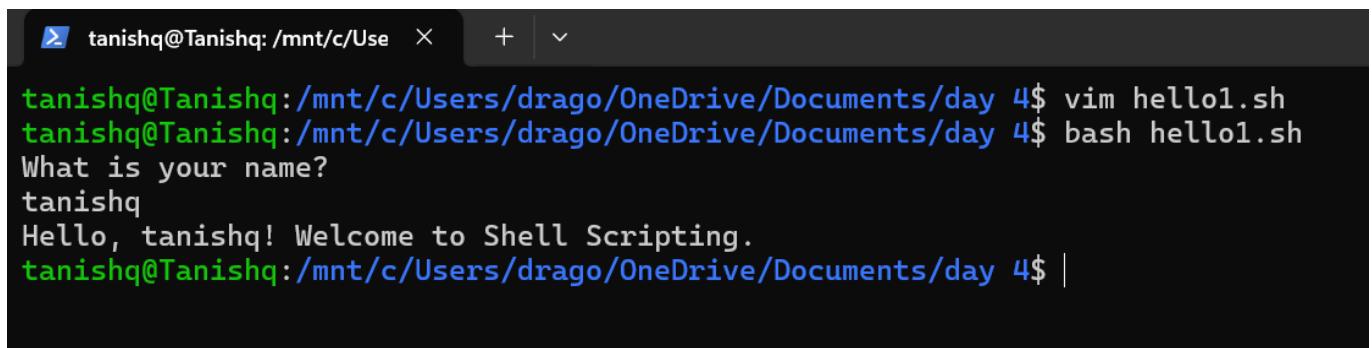
Explanation:

- [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:

```
tanishq@Tanishq: /mnt/c/Use    ×    +    ∨

tanishq@Tanishq:/mnt/c/Users/drago/OneDrive/Documents/day 4$ vim hello1.sh
tanishq@Tanishq:/mnt/c/Users/drago/OneDrive/Documents/day 4$ bash hello1.sh
What is your name?
tanishq
Hello, tanishq! Welcome to Shell Scripting.
tanishq@Tanishq:/mnt/c/Users/drago/OneDrive/Documents/day 4$
```

Exercise 3: [Arithmetic Operations in Shell Scripting]

Task Statement:
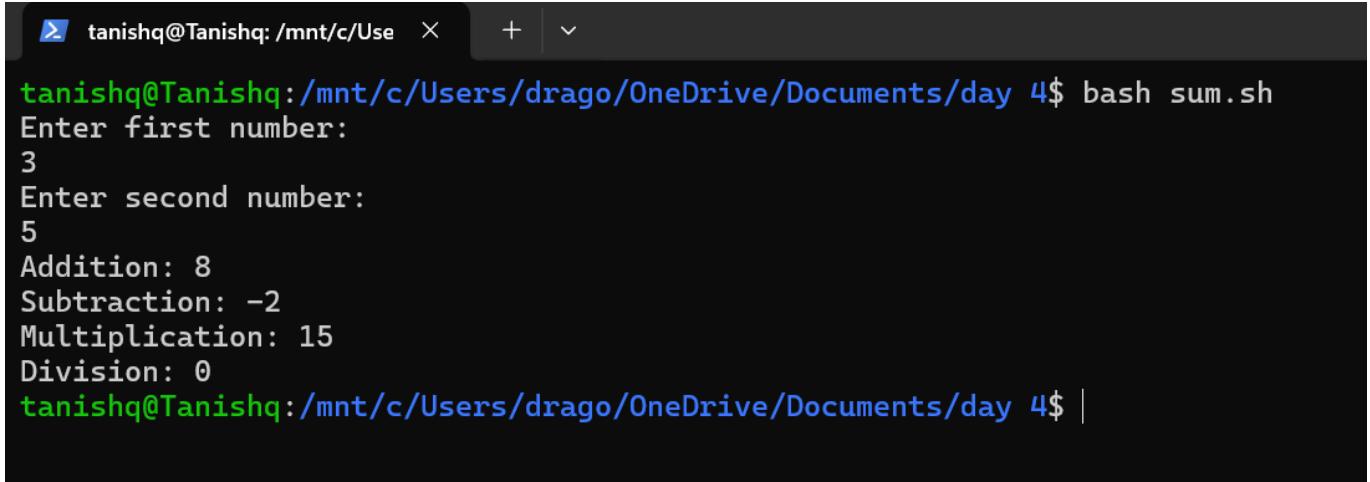
- [Using Basic Arithmetic Operations in Shell Scripts]

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:

```
tanishq@Tanishq:/mnt/c/Users/drago/OneDrive/Documents/day 4$ bash sum.sh
Enter first number:
3
Enter second number:
5
Addition: 8
Subtraction: -2
Multiplication: 15
Division: 0
tanishq@Tanishq:/mnt/c/Users/drago/OneDrive/Documents/day 4$
```

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
```
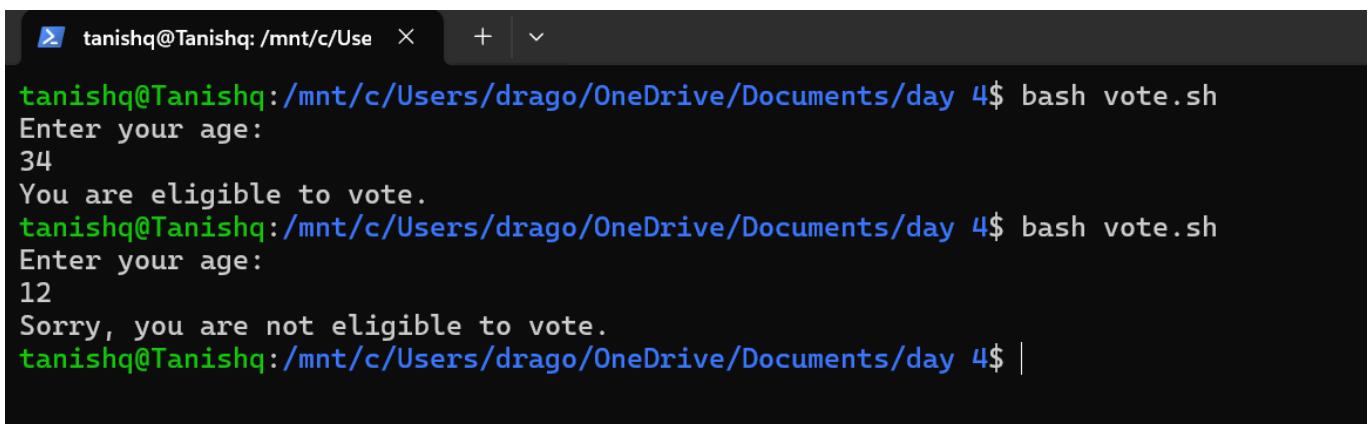
Output:

```
tanishq@Tanishq:/mnt/c/Users/drago/OneDrive/Documents/day 4$ bash vote.sh
Enter your age:
34
You are eligible to vote.
tanishq@Tanishq:/mnt/c/Users/drago/OneDrive/Documents/day 4$ bash vote.sh
Enter your age:
12
Sorry, you are not eligible to vote.
tanishq@Tanishq:/mnt/c/Users/drago/OneDrive/Documents/day 4$
```

Result

- The Exercises were successfully completed for Basic Shell Scripting