

[590023785]Exp4_Scrip\[590023785]Exp4_Scrip.md

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:

```
gayatri10@LAPTOP-JAMRNMRP:/mnt/c/Users/GAYA1/OneDrive: gayatri10@LAPTOP-JAMRNMRP:/mnt/c/Users/GAYA1/OneDrive/Desktop/C SEM - 1$ vim 4ex1.sh  
gayatri10@LAPTOP-JAMRNMRP:/mnt/c/Users/GAYA1/OneDrive/Desktop/C SEM - 1$ bash 4ex1.sh  
Hello, World!
```

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 "Enter your name: "
read name      # 'read' takes user input
echo "Hello, $name! Welcome to Shell Scripting."
```

Output:

```
gayatri10@LAPTOP-JAMRNMRP:/mnt/c/Users/GAYA1/OneDrive/Desktop/C SEM - 1$ vim 4ex2.sh
gayatri10@LAPTOP-JAMRNMRP:/mnt/c/Users/GAYA1/OneDrive/Desktop/C SEM - 1$ bash 4ex2.sh
Enter your name:
gayatri
Hello, gayatri! Welcome to Shell Scripting.
```

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:

```
gayatri10@LAPTOP-JAMRNMRP:/mnt/c/Users/GAYA1/OneDrive/Desktop/C SEM - 1$ vim 4ex3.sh
gayatri10@LAPTOP-JAMRNMRP:/mnt/c/Users/GAYA1/OneDrive/Desktop/C SEM - 1$ bash 4ex3.sh
Enter first number:
8
Enter second number:
9
Addition: 17
Subtraction: -1
Multiplication: 72
Division: 0
```

Exercise 4:

- [Voting Eligibility]

Task Statement:

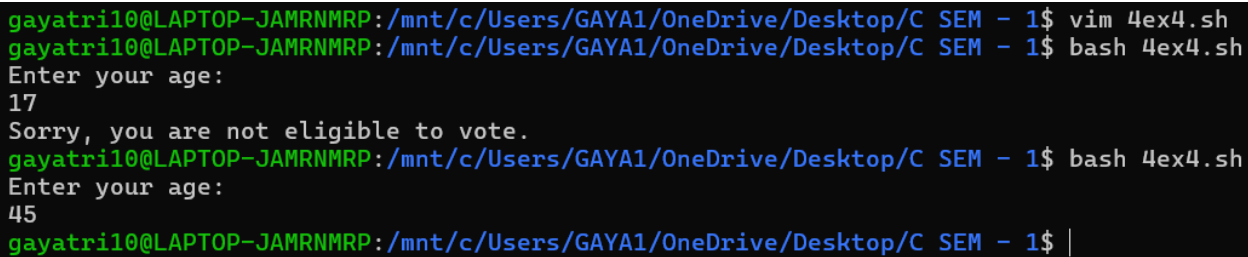
- [Using if else loop check if the user is eligible to vote or not.]

Command(s):

```
#!/bin/bash
echo "Enter your age: "
read age

if [ $age -ge 18 ]
then
    echo "You are eligible to vote."
else
    echo "Sorry, you are not eligible to vote."
fi
```

Output:



```
gayatri10@LAPTOP-JAMRNMRP:/mnt/c/Users/GAYA1/OneDrive/Desktop/C SEM - 1$ vim 4ex4.sh
gayatri10@LAPTOP-JAMRNMRP:/mnt/c/Users/GAYA1/OneDrive/Desktop/C SEM - 1$ bash 4ex4.sh
Enter your age:
17
Sorry, you are not eligible to vote.
gayatri10@LAPTOP-JAMRNMRP:/mnt/c/Users/GAYA1/OneDrive/Desktop/C SEM - 1$ bash 4ex4.sh
Enter your age:
45
gayatri10@LAPTOP-JAMRNMRP:/mnt/c/Users/GAYA1/OneDrive/Desktop/C SEM - 1$ |
```

Result

- The Exercises were successfully completed for Basic Shell Scripting.

Challenges Faced & Learning Outcomes

- Challenge 1: [it wasn't that hard.]

Learning: [What new concept or command did you learn?]

Conclusion

- [This was somewhat of a practice on how to use bash scripts.]