

Name : Salma Rani

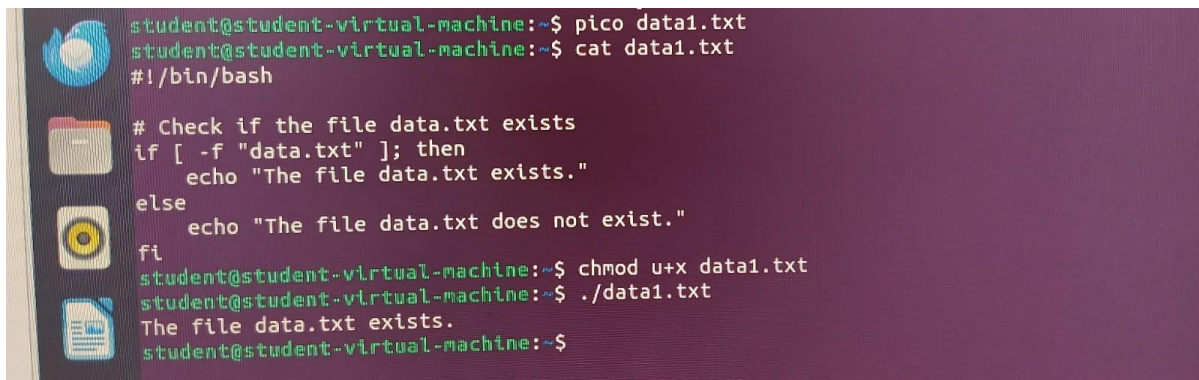
Sap : Id 54194

Instructor : Mam Ayesha

Subject : Operating system(lab)

(Lab 10)

Task 1:



```
student@student-virtual-machine:~$ pico data1.txt
student@student-virtual-machine:~$ cat data1.txt
#!/bin/bash

# Check if the file data.txt exists
if [ -f "data.txt" ]; then
    echo "The file data.txt exists."
else
    echo "The file data.txt does not exist."
fi
student@student-virtual-machine:~$ chmod u+x data1.txt
student@student-virtual-machine:~$ ./data1.txt
The file data.txt exists.
student@student-virtual-machine:~$
```

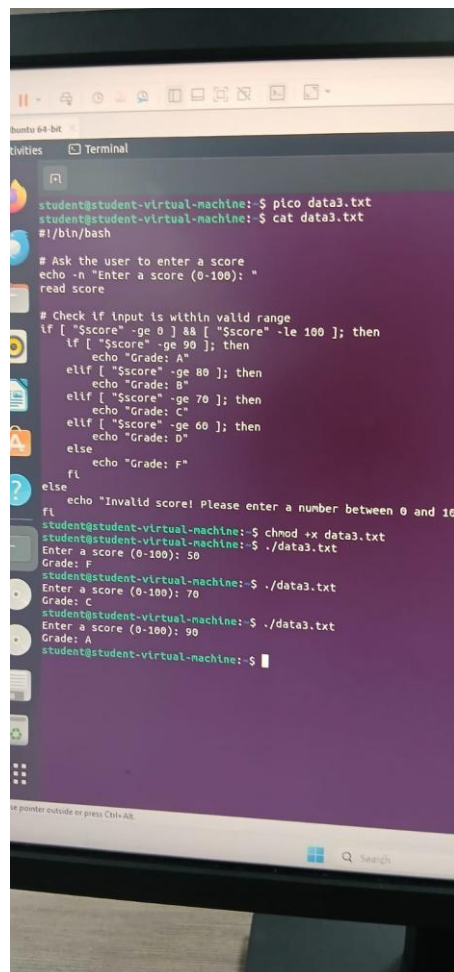
Task 2:

```
student@student-virtual-machine:~$ pico daat2.txt
student@student-virtual-machine:~$ cat daat2.txt
#!/bin/bash

# Ask the user to enter a number
echo -n "Enter a number: "
read number

# Check if the number is even or odd
if [ $(number % 2) -eq 0 ]; then
    echo "The number $number is even."
else
    echo "The number $number is odd."
fi
student@student-virtual-machine:~$ chmod +x daat2.txt
student@student-virtual-machine:~$ ./daat2.txt
Enter a number: 2
The number 2 is even.
student@student-virtual-machine:~$
```

Task 3

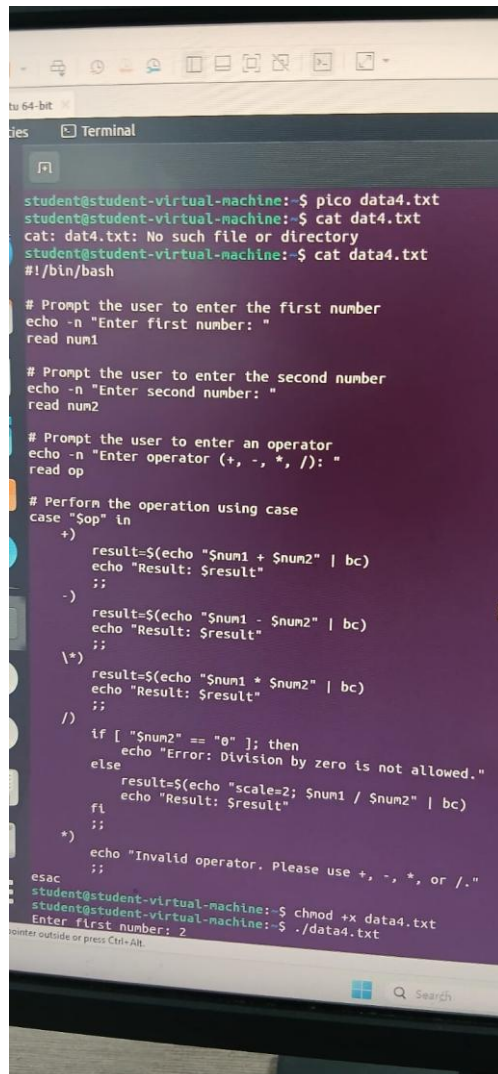


```
student@student-virtual-machine:~$ pico data3.txt
student@student-virtual-machine:~$ cat data3.txt
#!/bin/bash

# Ask the user to enter a score
echo -n "Enter a score (0-100): "
read score

# Check if input is within valid range
if [ "$score" -ge 0 ] && [ "$score" -le 100 ]; then
    if [ "$score" -ge 90 ]; then
        echo "Grade: A"
    elif [ "$score" -ge 80 ]; then
        echo "Grade: B"
    elif [ "$score" -ge 70 ]; then
        echo "Grade: C"
    elif [ "$score" -ge 60 ]; then
        echo "Grade: D"
    else
        echo "Grade: F"
    fi
else
    echo "Invalid score! Please enter a number between 0 and 100"
fi
student@student-virtual-machine:~$ chmod +x data3.txt
student@student-virtual-machine:~$ ./data3.txt
Enter a score (0-100): 50
Grade: F
student@student-virtual-machine:~$ ./data3.txt
Enter a score (0-100): 70
Grade: C
student@student-virtual-machine:~$ ./data3.txt
Enter a score (0-100): 90
Grade: A
student@student-virtual-machine:~$
```

Task 4:



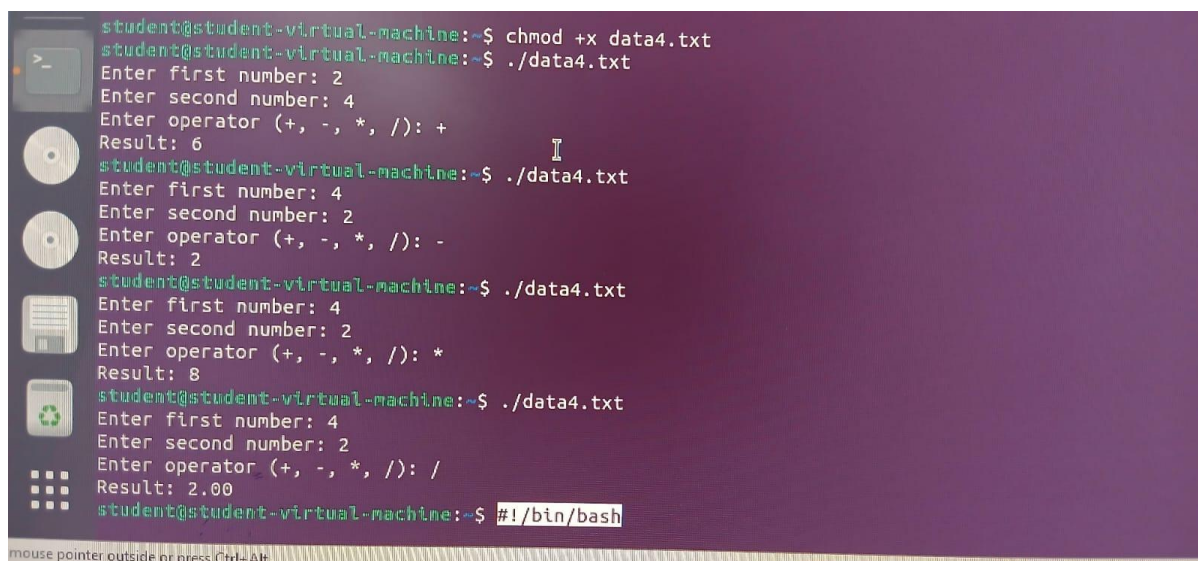
```
student@student-virtual-machine:~$ pico data4.txt
student@student-virtual-machine:~$ cat data4.txt
cat: data4.txt: No such file or directory
student@student-virtual-machine:~$ cat data4.txt
#!/bin/bash

# Prompt the user to enter the first number
echo -n "Enter first number: "
read num1

# Prompt the user to enter the second number
echo -n "Enter second number: "
read num2

# Prompt the user to enter an operator
echo -n "Enter operator (+, -, *, /): "
read op

# Perform the operation using case
case "$op" in
    +)
        result=$(echo "$num1 + $num2" | bc)
        echo "Result: $result"
        ;;
    -)
        result=$(echo "$num1 - $num2" | bc)
        echo "Result: $result"
        ;;
    \*)
        result=$(echo "$num1 * $num2" | bc)
        echo "Result: $result"
        ;;
    /)
        if [ "$num2" == "0" ]; then
            echo "Error: Division by zero is not allowed."
        else
            result=$(echo "scale=2; $num1 / $num2" | bc)
            echo "Result: $result"
        fi
        ;;
    *)
        echo "Invalid operator. Please use +, -, *, or /."
        ;;
esac
student@student-virtual-machine:~$ chmod +x data4.txt
student@student-virtual-machine:~$ ./data4.txt
Enter first number: 2
```



```
student@student-virtual-machine:~$ chmod +x data4.txt
student@student-virtual-machine:~$ ./data4.txt
Enter first number: 2
Enter second number: 4
Enter operator (+, -, *, /): +
Result: 6
student@student-virtual-machine:~$ ./data4.txt
Enter first number: 4
Enter second number: 2
Enter operator (+, -, *, /): -
Result: 2
student@student-virtual-machine:~$ ./data4.txt
Enter first number: 4
Enter second number: 2
Enter operator (+, -, *, /): *
Result: 8
student@student-virtual-machine:~$ ./data4.txt
Enter first number: 4
Enter second number: 2
Enter operator (+, -, *, /): /
Result: 2.00
student@student-virtual-machine:~$ #!/bin/bash
```

