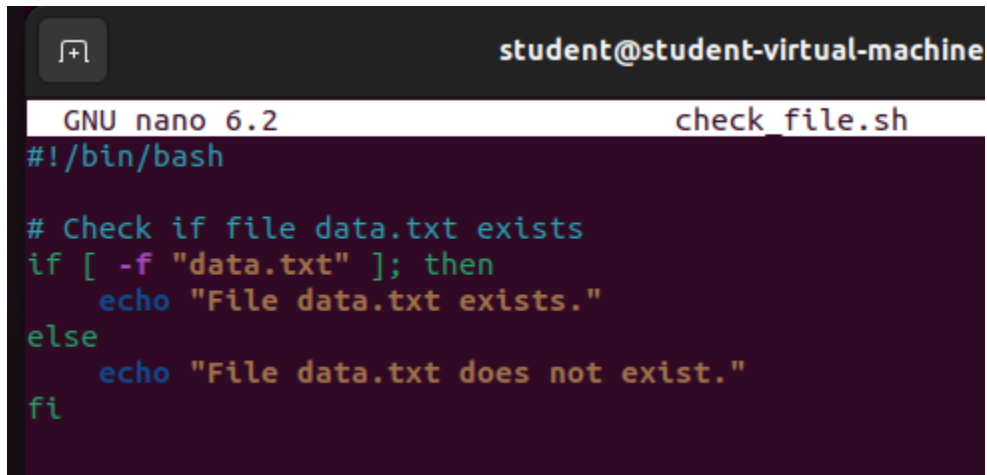


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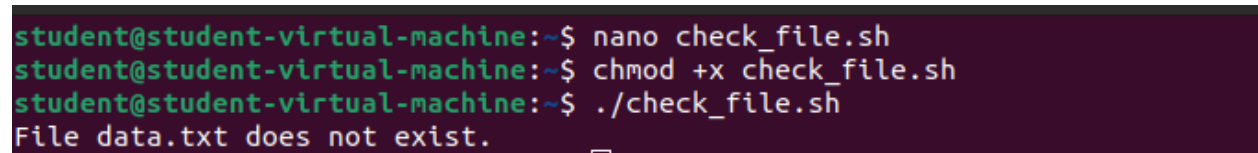
## **LAB 10**

**TASK 1:**



```
student@student-virtual-machine
GNU nano 6.2                                check_file.sh
#!/bin/bash

# Check if file data.txt exists
if [ -f "data.txt" ]; then
    echo "File data.txt exists."
else
    echo "File data.txt does not exist."
fi
```



```
student@student-virtual-machine:~$ nano check_file.sh
student@student-virtual-machine:~$ chmod +x check_file.sh
student@student-virtual-machine:~$ ./check_file.sh
File data.txt does not exist.
```

**TASK 2:**

```
GNU nano 6.2          even_odd.sh
#!/bin/bash

# Ask the user to enter a number
read -p "Enter a number: " num

# Check if the number is even or odd using modulo operator
if (( num % 2 == 0 )); then
    echo "$num is even."
else
    echo "$num is odd."
fi
```

```
student@student-virtual-machine:~$ nano even_odd.sh
student@student-virtual-machine:~$ chmod +x even_odd.sh
student@student-virtual-machine:~$ ./even_odd. sh
bash: ./even_odd.: No such file or directory
student@student-virtual-machine:~$ ./even_odd.sh
Enter a number: 5
5 is odd.
student@student-virtual-machine:~$
```

TASK 3:

```
GNU nano 6.2                                grade.sh *
#!/bin/bash
# Ask the user to enter a score
read -p "Enter your score (0-100): " score

# Check if the 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:~$ nano grade.sh
student@student-virtual-machine:~$ chmod +x grade.sh
student@student-virtual-machine:~$ ./grade.sh
Enter your score (0-100): 81
Grade: B
student@student-virtual-machine:~$
```

TASK 4:

```
GNU nano 6.2 calculator.sh
#!/bin/bash

# Ask for first number
read -p "Enter first number: " num1

# Ask for operator
read -p "Enter operator (+, -, *, /): " op

# Ask for second number
read -p "Enter second number: " num2

# Perform calculation
result=$(echo "$num1 $op $num2" | bc -l)

# Print the result
echo "Result: $result"
```

```
student@student-virtual-machine: ~
student@student-virtual-machine:~$ nano calculator.sh
student@student-virtual-machine:~$ chmod +x calculator.sh
student@student-virtual-machine:~$ ./calculator.sh
Enter first number: 12
Enter operator (+, -, *, /): *
Enter second number: 2
Result: 24
student@student-virtual-machine:~$
```

```
student@student-virtual-machine:~$ ./calculator.sh
Enter first number: 4
Enter operator (+, -, *, /): +
Enter second number: 2
Result: 6
student@student-virtual-machine:~$
```