

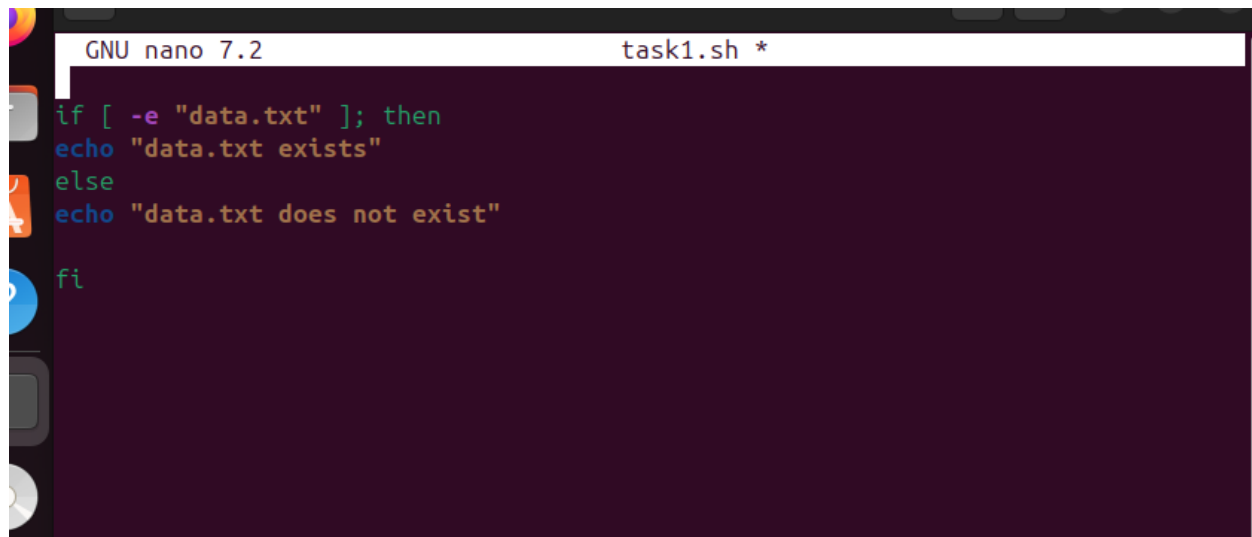
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**Lab 10**

**Task 1:** Write a script that checks if a file named **data.txt** exists or not.

**Code:**

A screenshot of a terminal window showing the nano text editor. The editor is editing a file named 'task1.sh'. The script content is as follows:

```
GNU nano 7.2 task1.sh *  
  
if [ -e "data.txt" ]; then  
echo "data.txt exists"  
else  
echo "data.txt does not exist"  
fi
```

**Output:**

A screenshot of a terminal window showing the execution of the script. The user runs 'pico task1.sh', 'chmod +x task1.sh', and './task1.sh'. The output of the script is 'data.txt does not exist'.

```
ayesha@ayesha-VMware-Virtual-Platform:~/lab10$ pico task1.sh  
ayesha@ayesha-VMware-Virtual-Platform:~/lab10$ chmod +x task1.sh  
ayesha@ayesha-VMware-Virtual-Platform:~/lab10$ ./task1.sh  
data.txt does not exist  
ayesha@ayesha-VMware-Virtual-Platform:~/lab10$
```

**Task 2:** Ask the user to enter a number and determine if it's even or odd.

## Code:



```
GNU nano 7.2 task2.sh
echo "Enter a number:"
read num

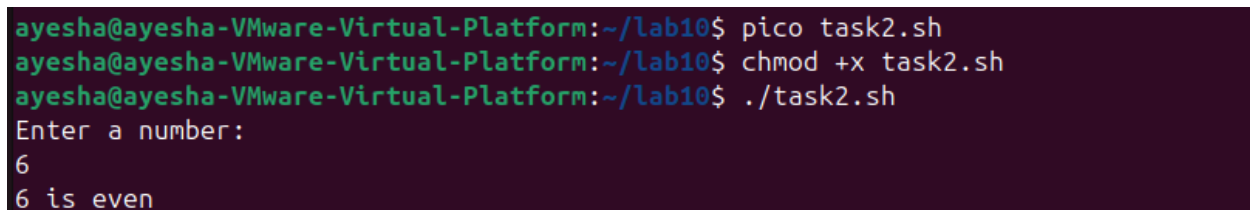
check=$(( num % 2 ))

if [ $check -eq 0 ]
then
echo "$num is even"

else
echo "$num is odd"

fi
```

## Output:

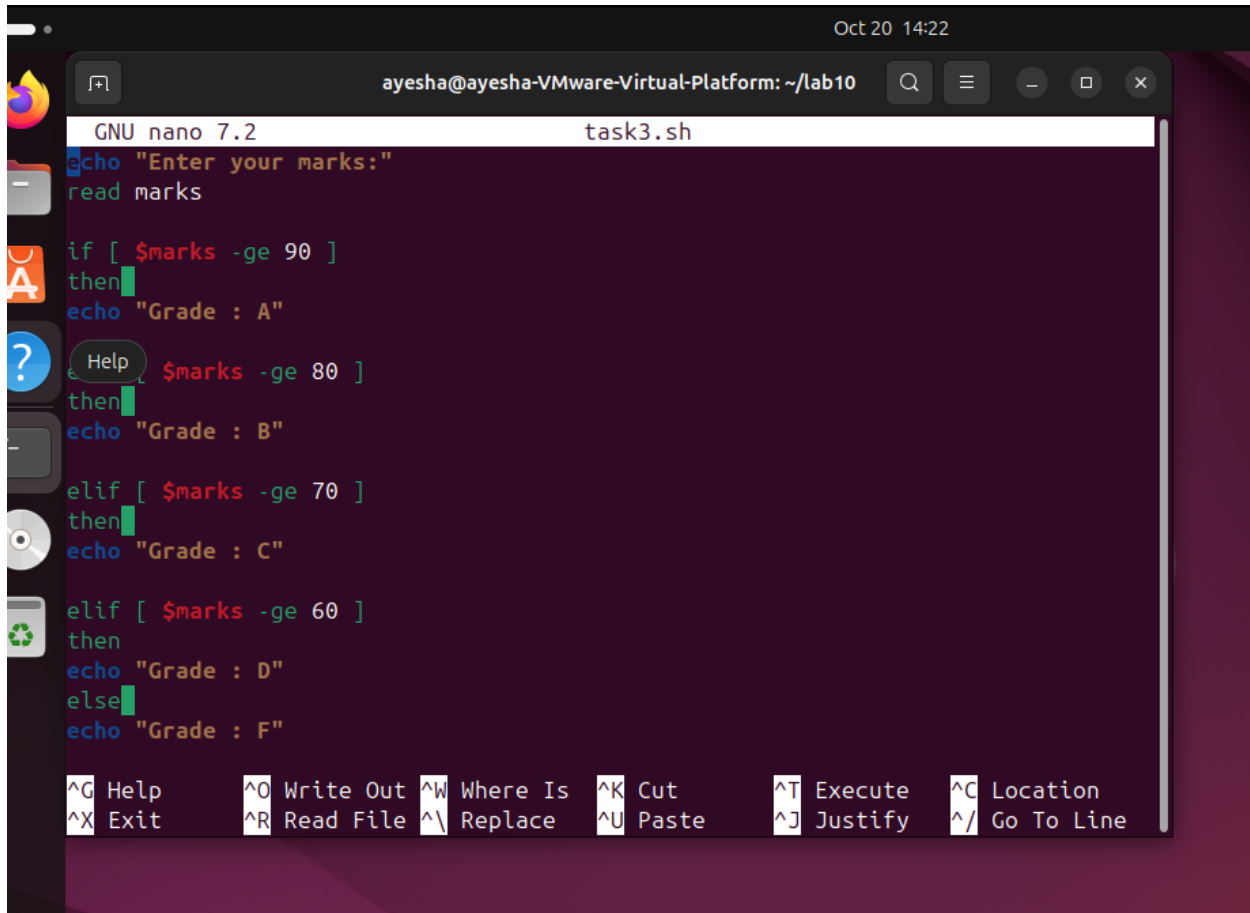


```
ayesha@ayesha-VMware-Virtual-Platform:~/lab10$ pico task2.sh
ayesha@ayesha-VMware-Virtual-Platform:~/lab10$ chmod +x task2.sh
ayesha@ayesha-VMware-Virtual-Platform:~/lab10$ ./task2.sh
Enter a number:
6
6 is even
```

**Task 3:** Ask the user for a score (0-100) and print the corresponding grade:

- 90+: A
- 80-89: B
- 70-79: C
- 60-69: D
- Below 60: F

## Code:

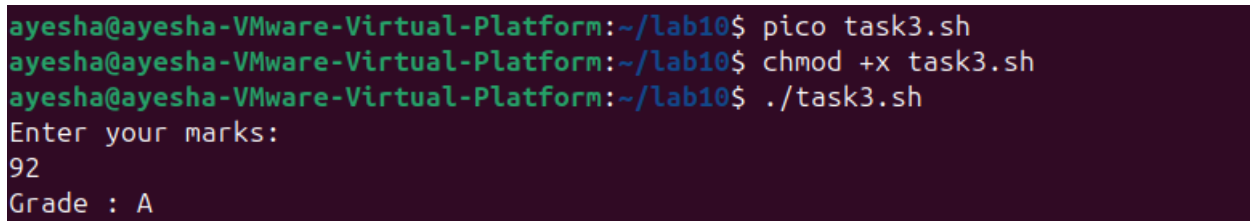


```
GNU nano 7.2 task3.sh
echo "Enter your marks:"
read marks

if [ $marks -ge 90 ]
then
echo "Grade : A"
elif [ $marks -ge 80 ]
then
echo "Grade : B"
elif [ $marks -ge 70 ]
then
echo "Grade : C"
elif [ $marks -ge 60 ]
then
echo "Grade : D"
else
echo "Grade : F"

^G Help      ^O Write Out ^W Where Is   ^K Cut       ^T Execute   ^C Location
^X Exit      ^R Read File ^\ Replace    ^U Paste     ^J Justify   ^_ Go To Line
```

## Output:



```
ayesha@ayesha-VMware-Virtual-Platform:~/lab10$ pico task3.sh
ayesha@ayesha-VMware-Virtual-Platform:~/lab10$ chmod +x task3.sh
ayesha@ayesha-VMware-Virtual-Platform:~/lab10$ ./task3.sh
Enter your marks:
92
Grade : A
```

**Task 4:** Take two numbers and an operator (+, -, \*, /) from the user and perform the operation.

## Code:

```
GNU nano 7.2 task4.sh
echo "Enter 1st number:"
read n1

echo "Enter operator (+,-,*,/):"
read op

echo "Enter 2nd number:"
read n2

if [ "$op" = "+" ]
then
result=$(( n1 + n2 ))
echo "Result: $result"

elif [ "$op" = "-" ]
then
result=$(( n1 - n2 ))
echo "Result: $result"

elif [ "$op" = "*" ]
then
result=$((n1 * n2 ))
echo "Result: $ result"

elif [ "$op" = "/" ]
then
if [ $n2 -eq 0 ]
then
```

```
ayesha@ayesha-VMware-Virtual-Platform: ~/lab10
GNU nano 7.2 task4.sh
echo "Result: $result"

elif [ "$op" = "-" ]
then
result=$(( n1 - n2 ))
echo "Result: $result"

elif [ "$op" = "*" ]
then
result=$((n1 * n2 ))
echo "Result: $ result"

elif [ "$op" = "/" ]
then
if [ $n2 -eq 0 ]
then
echo "Division by zero not allowed"

else
result=$(( n1 / n2 ))
echo "Result : $result"

fi

else
echo "Invalid!!!"
fi
```

Output:

```
Invalid!!!
ayesha@ayesha-VMware-Virtual-Platform:~/lab10$ ./task4.sh
Enter 1st number:
8
Enter operator (+,-,*,/):
/
Enter 2nd number:
2
Result : 4
ayesha@ayesha-VMware-Virtual-Platform:~/lab10$
```