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BSCS-5

Lab # 10

Task 1

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

Code:

```
GNU nano 6.2 t1
if [ -f "$data.txt" ]; then
echo "File exists"
else
echo "File does not exists."
fi
```

Output:

```
student@student-virtual-machine:~$ pico t1
student@student-virtual-machine:~$ chmod u+x t1
student@student-virtual-machine:~$ ./t1
File does not exists.
```

Task 2

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

Code:

```
GNU nano 6.2 t2
echo "Enter a number: "
read a

if [ $((a % 2)) -eq 0 ]; then
    echo "The number is even"
else
    echo "The number is odd"
fi
```

Output:

```
student@student-virtual-machine:~$ pico t2
student@student-virtual-machine:~$ chmod u+x t2
student@student-virtual-machine:~$ ./t2
Enter a number:
7
The number is odd
```

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 6.2 t3
read -p "Enter your grade: " grade

if [ "$grade" -ge 90 ]; then
    echo "Grade A"
elif [ "$grade" -ge 80 ] && [ "$grade" -le 89 ]; then
    echo "Grade B"
elif [ "$grade" -ge 70 ] && [ "$grade" -le 79 ]; then
    echo "Grade C"
elif [ "$grade" -ge 60 ] && [ "$grade" -le 69 ]; then
    echo "Grade D"
else
    echo "Grade F"
fi
```

Output:

```
student@student-virtual-machine:~$ pico t3
student@student-virtual-machine:~$ chmod u+x t3
student@student-virtual-machine:~$ ./t3
Enter your grade: 91
Grade A
```

Task 4

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

Code:

```
GNU nano 6.2 t4
echo "Enter a number: "
read a
echo "Enter an operator (+, -, *, /, %): "
read op
echo "Enter a 2nd number: "
read b
result=$((a $op b))
echo "The output after performing the given expression is: $result"
```

Output:

```
student@student-virtual-machine:~$ pico t4
student@student-virtual-machine:~$ chmod u+x t4
student@student-virtual-machine:~$ ./t4
Enter a number:
5
Enter an operator (+, -, *, /, %):
-
Enter a 2nd number:
2
The output after performing the given expression is: 3
```

The end...