

Task 2- Implement conditional, control and looping statement

Aim: To Implement conditional, control and looping statements

a. You are developing a simple grade management system for a school. The system needs to determine the grade of a student based on their score in a test

- i) Let the score is 90 or above, the grade is "A"
- ii) Let the score is b/w 80 and 89, the grade is "B"
- iii) Let the score is b/w 70 and 79, the grade is "C"
- iv) Let the score is below 60, the grade is "F"

Algorithm:-

1. Start

2. Get the input mark from the user

3. With the use of an if-else-else statement

- Let the mark ≥ 90 print grade "A"
- Let the mark is b/w 80 and 89 print grade "B"
- Let the mark is b/w 70 and 79 print grade "C"
- Let the mark is b/w 60 and 69 print grade "D"
- ✓ • Let the mark ≤ 60 print grade "F"

4. Stop.

output

Enter the score : 60

The grade is D

EX NO	VELTCH
PERFORMANCE (%)	
RESULT ANALYSIS (%)	
AVERAGE (%)	
SCORE (%)	
DATE	
NAME	

```
Print ((a < 1) and (b < 1))  
Print ((a < 1) or (b < 1))  
Print ((a > 1) and (b > 1))  
Print ((a > 1) or (b > 1))
```

```
if score >= 90;  
Print ("The grade is A")  
elif (score <= 89 and score >= 80):  
Print ("The grade is B")  
elif (score <= 79 and score >= 60):  
Print ("The grade is C")  
elif (score <= 69 and score >= 60):  
Print ("The grade is D")  
else:  
Print ("The grade is F")
```

b. You are developing an education program to help the young students learn natural; one of the features of the program is to display the first to natural number, to the user. Write a python program that uses a for loop to print the first 10 natural numbers.

✓ Algorithm

1. start
2. Display "The first 10 natural numbers":
3. use a for loop for generating the numbers.
4. Print the output
5. stop

output

The First 10 natural numbers are

1

2

3

4

5

6

7

8

9

10

Op Vuyf

Program:

```
score = int(input("Enter the score:"))
```

```
if score >= 90:
```

```
    print("The Grade is A")
```

```
elif (score <= 89 and score >= 80):
```

```
    print("The Grade is B")
```

```
elif (score <= 79 and score >= 70):
```

```
    print("The Grade is C")
```

```
elif (score <= 69 and score >= 60):
```

```
    print("The Grade is D")
```

```
else:
```

```
    print("The Grade is F")
```

output

Enter the number : 5

The number of digits is 5 is!

Enter the number : 55

The number of digits in 55 is 2

[Signature]



Program

```
Print ("The first 10 natural numbers are:")  
for i in range (1, 11): # loop from 1 to 10  
    print (i)
```

c. You are working on a feature for a financial application that includes validating user input one of the requirements is to count the total no. of digits

Algorithm

1. start
2. get the input from the user
3. convert the integer to string using str()
4. use len function to find no. of digits
5. Print the output

Program

```
digit = int(input("Enter the number:"))  
string = str(digit) # since integer doesn't have  
                    len()  
  
count = len(string)  
  
print ("The number of digit in", digit, "is",  
       count)
```

Result :-

Thus the python program to implement conditional control and looping statement was done successfully.

VFL TECH	
PERFORMANCE (5)	2
RESULT AND ANALYSIS (5)	3
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	20