

30/7/25 Task 2 : Implement Conditional, Control and looping statements.

Aim :- To implement Conditional Control and looping Statements using Python.

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 the grading system following these rules. if the score is 90 & above, the grade is "A". if the score is between 80 and 89, the grade is "B". if the score is below 60, the grade is "F".

if the score is between 80 and 89, the grade is "B".

if 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 if - else if - el statement do.
4. if the marks ≥ 90 point grade "A".
5. if the mark is between 80 and 89
Point grade "B".
6. if the marks is between 60 and 69
Point grade "D".
7. if the mark is between 60 and 69 Point
grade "D".
8. if the marks is below 60, Point Grade "F".

Enter the score & 60

The Grade is A.

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

Program:

```
Score = int(input("Enter the score"))
if Score >= 90 or 92 or 95 or 98 or
    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 <= 60 and Score >= 60)
    print("The grade is D")
else:
    print("The grade is F")
```

b) You are developing an education program to help young students learn about natural numbers. One of the features of the program is to display the first 10 natural numbers to the user. Write a Python program that uses a for loop to print the first 10 natural numbers.

For loop to print the first 10 natural numbers.

Algorithm:

1. Start.
2. Display "The first 10 natural numbers are"
3. Use 'for' loop for generating the numbers.
4. Print the output.
5. Stop.

Program:

```
# Displaying the first 10 natural numbers
```

```
print ("The first 10 natural numbers are")
```

```
for i in range(1, 11):
```

```
    print(i).
```

outPut ("0002 orf 0003") turn) tri = 0002
the First 10 natural numbers are
1 ("0 2i ob00E orf") tri 09
2 (8 < 0002 bnd p8 => 0002) tri 19
3 ("1 2i ob00E orf") tri 29
4 ("2 2i ob00E orf") tri 39
5 ("3 2i ob00E orf") tri 49
6 ("4 2i ob00E orf") tri 59
7 ("5 2i ob00E orf") tri 69
8 ("6 2i ob00E orf") tri 79
9 ("7 2i ob00E orf") tri 89
10 ("8 2i ob00E orf") tri 99



- c) You are work a feature for a Financials application that involves validating user input. one of the requirements is to could the total number of digits in a given number.
- ex.

Algorithm:

1. Start.
2. get the input from the user.
3. Convert the integer to string using str()
4. Use the function to find number of digits.
- + 5.
5. Print the output.

Program:

```
digit = int(input("Enter the number"))
string = str(digit)
count = len(string)
print ("The number of digits in " + "digit" + " is " + str(count))
```

Result: Thus, the Python Program to implement conditional control and loop statement enter was done successfully.

VELTECH	
EX NO.	23
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	20
TOTAL (20)	8
SIGN WITH DATE	6/8

Enter the number : 55

The number of digits in 55 is 2

• 9d+2