

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 system needs to determine the grade of a student based on their score in a test grading system following these rules.

If the score is 90 or above, the grade is 'A'.

If the score is between 80, the grade is 'B';

If the score is below 60 the grade is 'P'

Algorithm:

1) Start

2) Get the input marks from the user

3) With the use of if else if - else statement do:

4) If the marks > 90 print grade 'A'

5) If the marks is between 80 and 89 print grade 'B'

6) If the marks is between 60 and 69 print grade 'C'.

7) If the marks is between 60 and 69 print grade 'D'

8) If the marks is below 60, print grade 'F'.

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").

```

```

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 score : 60

The grade is 0

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.

Algorithm:-

1. Start
2. Display "The first 10 natural numbers are".
3. use a 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

The first 10 natural numbers are

OP = <90002 71>

1

("1 is above 01") fair

2

(01 = <90002 b1002 -> 90002) 7113

3

("1 is above 01") fair

4

(010 = <90002 b100 P8 = 90002) 7113

5

("1 is above 01") fair

6

(0100 = <90002 b100 P8 = 90002) 7113

7

("1 is above 01") fair

8

(01000 = <90002 b100 P8 = 90002) 7113

9

("1 is above 01") fair

10

("1 is above 01") fair

((("90002 011 00012") P10 = 90002) 7113

:OP = <90002 71>

("1 is above 01") fair

((("90002 b100 P8 = 90002) 7113

("1 is above 01") fair

((("90002 b100 P8 = 90002) 7113

("1 is above 01") fair

((("90002 b100 P8 = 90002) 7113

("1 is above 01") fair

((("90002 b100 P8 = 90002) 7113

("1 is above 01") fair

Output

Enter the number: s

The number of digit in s is,

Enter the number: ss

The number of digits in ss is, z

Note - 1

"One 2nd min. location of test set is polygonal if

second min. polygonal not good not a sine

using 3rd min. - p

Note - 2

Important

2nd min. location of test set is polygonal

"One 2nd min. location of test set is min.

(i) of 1 more good (ii) 2 good & 1 not

(i) fair

Q) You are working on a feature for a financial application that involves validating user input. One of the requirements is counting the total numbers.

Algorithm:-

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

Program:-

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

Result:-

This is the Python program to implement conditional control and looping statements. The input was done successfully.

VEL TECH	
EX No.	7
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOICE (5)	20
RECORD (5)	
TOTAL (20)	
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