Task:-2 Date:- 04/08/25

Task 2: Implement conditional control 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 follows these rules:

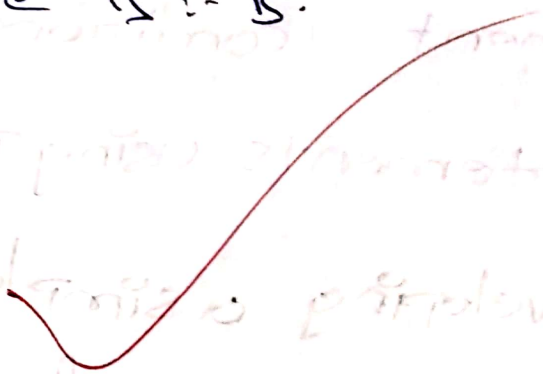
if the score is 90 or above, the grade is "A"
if the score is 80 and 89, the grade is "B"
if the score is 70 and 79, the grade is "C"
if the score is 60 and 69, the grade is "D"
if the score is below 60, the grade is "F"

Algorithm:

1. Start
2. Get the input mark from the user.
3. with the use of an if-elif-else statement do.
   - if the marks >= 90 print grade "A"
   - if the marks is between 80 and 89 print grade "B"
   - if the mark is between 70 and 79 print grade is "C"
   - if the mark is between 60 and 69 print grade "D"
   - if the mark is below 60. print grade "F"

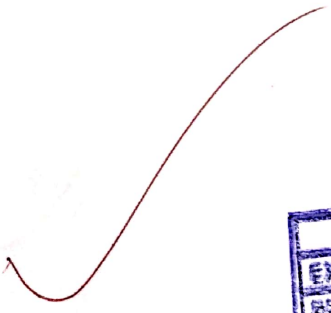
Output :

Enter the score : 85
The Grade is :- 'B'.



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")
```



VELTECH	
EX No.	
PERFORMANCE (5)	
RESULT AND ANALYSIS (5)	
VIVA VOCE (5)	
RECORD (5)	
TOTAL (25)	
SIGN WITH DATE	

Result:- Thus the Python to implement control and looping statement was done successfully.

Task 2(b):-

You are developing an educational program to help young student 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.

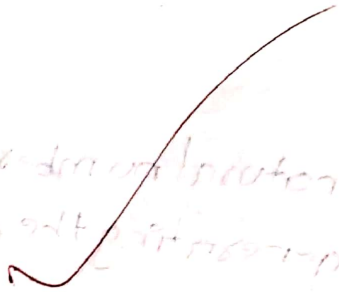
Algorithm:-

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.

Output:

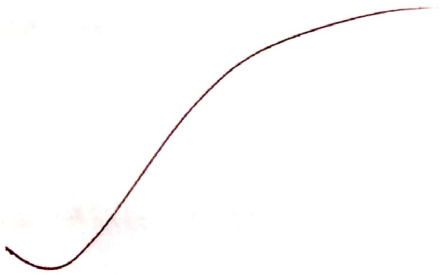
The first 10 natural numbers are:

1
2
3
4
5
6
7
8
9
10



Program:-

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



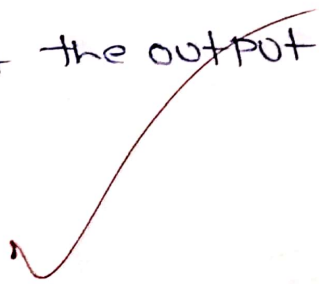
VEL TECH	
EX No.	
PERFORMANCE (5)	
RESULT AND ANALYSIS (5)	
VIVA VOCE (5)	
RECORD (5)	
TOTAL (20)	
SIGN WITH DATE	

Result:- Thus, the Python to implement conditional, control and looping statement was done successfully.

Task 2(C) :- you are working on a feature for an financial application that involves validating user input. one of the requirement is to count the total number of digital in a given number.

Algorithm :-

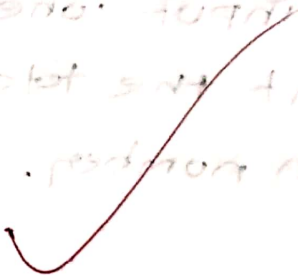
1. Start
2. Get the input from the user.
3. convert the function integer to string using. Str().
4. use len function to find number of digits.
5. Print the output.



output:-

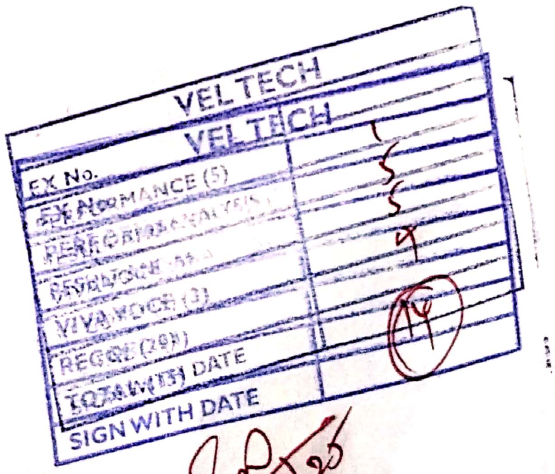
Enter the number : 50

The number of digits in : 2



Program:-

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



Result:- Thus the Python Program to implement conditional, control, and looping was done successfully.