

Task-2:- Implement Conditional, control and looping statement:-

Aim:- To implement conditional, control and looping statements using python.

Q 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

- i) If the score is 90 or above, the grade is "A".
- ii) If the score is b/w 80 and 89, the grade is "B".
- iii) if the score is b/w 70 and 79, the grade is "C".
- iv) 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 - else - else statement do
 - a) If the mark ≥ 90 print grade "A"
 - b) If the mark is b/w 80 and 89 print grade "B"
 - c) If the mark is b/w 70 and 79 print grade "C"
 - d) If the mark is b/w 60 and 69 print grade "D"
 - e) If the mark is below 60 print grade "F"
- 4) Stop.

Program:-

```
Score = int(input("Enter the score:"))
if score >= 90
```

Output for a:-

Enter the Score : 60

The Grade is D

AEL TECH	
1	EX-10
2	PROGRAMMING
3	RESULT AND ANALYSIS
4	AVAILABILITY
5	USCRIPT
6	LOGIC (15)
7	MANAGEMENT

```

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 educational program to help the 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 of for loop for generating the numbers
- 4) Print the output
- 5) Stop.

Program:

```

# Display 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)

```

Output for b:-

The first 10 natural numbers are:-

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

((" : after shift register & timer), for = 1,000
OP = 9.02

Output for C :-

Enter the number :- 5

The number of digits is 5 is :)

Enter the number : 55

The number of digits is 55 is : 2

Q) You are working on a features for a financial application that involves validating user input one of the requirement is to count the total number of digits in a given number

Algorithm:-

- 1) Start
- 2) Get the input from the user.
- 3) Convert the integer to string using str()
- 4) Use len() function to find the number 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 digits in", digit, "is:", count)
```

Result:-

Thus, The python program to implement conditional control and looping statements was done successfully.

VEL TECH	
EX NO.	2
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	20
SIGN WITH DATE	6/8

6/8