

Task 2 :- Implement Conditional, control and looping statement

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:

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

4. Stop.

Program:-

```
Score = int(input ("Enter the score:"))
if SCORE >= 90;
print ("The Grade is A")
```

8/9/15

Output for a:

Enter the score: 60
The Grade is D

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")

AER LECH	
1	85
2	80
3	75
4	70
5	65
6	60
7	55
8	50
9	45
10	40
11	35
12	30
13	25
14	20
15	15
16	10
17	5
18	0

```
if (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 >= 0):  
    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 to use 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:-

```
# 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)
```

8/9/51

Output for b:-

The first 10 natural numbers are:

1. sharp string signal is generated from key.
2. sharp string generates other strings like tone, note, etc. after a few sec. these are heard in turn.
3. sharp string signal is generated.
4. sharp string signal is generated after 1 sec.
5. sharp string signal is generated after 2 sec.
6. sharp string signal is generated after 3 sec.
7. sharp string signal is generated after 4 sec.
8. sharp string signal is generated after 5 sec.
9. sharp string signal is generated after 6 sec.
10. sharp string signal is generated after 7 sec.
- " " sharp string signal is generated after 8 sec.
- " " sharp string signal is generated after 9 sec.
- " " sharp string signal is generated after 10 sec.
- " " sharp string signal is generated after 11 sec.
- " " sharp string signal is generated after 12 sec.

got 2 . 11

(at 2nd attempt) + 10 sec. = 0.1032
(at 2nd attempt) + 10 sec. = 0.1032

8, 9, 15, 16

Output for C :-

Enter the number : 5

The number of digits is 5 is :)

Enter the number : 55

The number of digits is 2 is :)

(729 is 0001 0111)

Ques of comparing horizontals and diagonals and C is
10 or 10. maximum 10 digits total across 27 numbers
Hence after pushing all 26 numbers at 10-29 positions and
empty waiting to others. Then last of 27th max position or
horizontal or vertical with empty of goal with 10-29th left
positions.

"The maximum position of 10th number is 10-29th
position after comparing total 26 numbers
with empty waiting to others.
Total with 10-29th position
is 10-29th position.

Ques 1. max horizontal or vertical
goal this (10, 1)

(C) You are working on a feature for a financial application that involves validating user input. One of the requirements 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 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.

VELTECH	
EX No.	25
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	20
SIGN WITH DATE	9/2