13/8/25

Task-2:- Implement conditional, control and looping statements.

Aim:-

To implement conditional control and looping statement using Python.

2.1 You are developing a simple grade management system for a school. The system needs to determine rules.

If the score is 90 or above the grade is "A".
If the score is b/w 80 and 89 the grade is "B".
If the score is b/w 70 and 79 the grade is "C".
If the score is b/w 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-else statement do.
   → If the marks >= 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".
4. Stop.

Output:-

Restart: c:\use.

Enter the score: 60

The grade is D.

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 (scorec<=69 and score >=60):
     Print("the Grade is D")
    else:
       Print("the Grade is F").
```

output:

Enter battery Percentage : 85.

Good battery health.

2.2 The electronics maintenance team at data center needs a tool to health status of UPS backup batteries based on current charge Percentage.

→ "Excellent Battery Health".
→ "Good Battery Health"
→ "Average Battery Health".
→ "Poor Battery Health".

Task:-

write a Python Program that: uses laddarized if-elif-else statements.

Algorithm:-

1. Accept battery Percentage from the user.
2. use laddarized if-elif-else to health category:
   → If Percentage ≥ 90 → "Excellent battery Health".
   → If 40 ≤ Percentage < 70 → "Average Battery Health"
   → If Percentage < 40 → "Poor Battery Health".

Program:-

```
# Battery Health checker
Percentage = int(input("Enter battery Percentage:"))
if Percentage >= 90:
    Print ("Excellent Battery Health")
elif Percentage >= 70:
    Print ("Good Battery Health")
elif Percentage >= 40:
```

```
Print(" Average Battery Health")
else:
 Print (" Poor Battery Health")
```

Output.

Allowed

Not Allowed

Allowed

Not Allowed

Allowed.

2.3 You're coding a system at an amusement park that checks the height of each visitor.

→ If the height is 120cm or more, Print "Allowed"

Algorithm.

1. start the Program.
2. set the total number of visitors to 5.
3. loop from visitor 1 to visitors:
   → If height is greater than or equal to 120 Print "Allowed".
   → Else, Print "not allowed".
4. End the loop after 5 visitors have checked.
5. stop.

Program

```
for i in range (1,6):
    height = int (input (f"Enter height of visitor {i} in cm: "))
    if height >=120:
        Print (" Allowed to ride.")
    else:
        Print ("not allowed to ride.")
```

VEL TECH	
EX NO.	2
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	
TOTAL (20)	15
SIGN WITH DATE	4/5/25

Result:-

Thus the Python Program was successfully implemented conditional statements, control flow.