11/7/25

Task: 2 Implement Conditional, Control and looping statements.

Aim: To implemat Conditional, Control and looping Statements

2.1 :- You are developing a simple grade managment system for a school. the system needs to determine the grade of student based on source in a test.

If score is 90 (or) above, the grade is "A"

If score is b/w 80 and 89; the grade is "B"

If score is b/w 70 and 79; the grade is "C"

If score is b/w 60 and 69; the grade is "D"

If score is below 60 and the grade is "F"

Algorithm:

```
1. Start
2. Get input math from the user.
3. with use g if-elif-else statement do
   • If mark>=90 Printf grade "A"
   • If mark is between 80 & 89 Printf grade "B"
   • If mark is between 70 & 79 Printf grade "C"
   • If mark is between 60 & 69 Printf grade "D"
   • If mark is below 60, Printf grade "F"
4. Stop.
```

Program:

```
Score = int(input ("Enter the Score"))
if score >= 90
    Printf( "The grade is A")
elif (score <=89 and Score >= 80):
    Print(" The grade is "B")
elif (" the . 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 D.
```

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:
        Printf ("Poor Battery health")
```

Input:

Battery charge percentage (integer)

Sample outputs:

```
Enter battery percentage : 85
 good battery health.
```

2.2.:- The electronices maintenance team at data center needs to assess heatn status of UPS backup batteris based on currret percentage. you are asked to develop a python Program that accepts the percentage, health using following conditions.

- If the Percentage is greather than or equal to 90, display:
  → Excellent Battery health.
- If the Percentage is b/w 70 & 89, display;
  → "good Battery health".
- The Percentag is below ~~go~~ 40 & 64, display;
  → "Average Battery health".
- If Percentage is below 40, display".
  → "Poor Battery health".

Task:

write a Python Program that: uses ladeteized if-elif-else Statements.

Algorithm:

1. Accept battery percentage from us.
2. use ladderized if-elif-else to determine the health Category.

- If percentage ≥ 90 → "Excelent Battery health".
- If $70 \leq$ Percentage < 90 → "good Battery health".
- If $40 \leq$ Percentage < 70 → Average Battery health".
- If Percentage < 40 → "Poor Battery health".

Program:

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

Sample input:

```
Enter height of visitor 1 in cm :130
Enter height of visitor 2 in cm :110
Enter height of visitor 3 in cm :150
Enter height of visitor 4 in cm : 90
Enter height of visitor 5 in cm :175
```

Sample output:

```
Allowed
NOT Allowed
Allowed
 NOT Allowed
  Allowed
```

2.3:- You're coding a system at an amusement Park that checks the height if each visitor.

- If heights is 120cm or more, Print "Allowed.
- Otherwise, Print "Not allowed".

Repeat this for 5 visitor.

Alogorithm:

1. Start the program.
2. Set the total number of visitor to 5.
3. Loop from visitor 1 to visitor 5.
   - Accept the height of visitor as input
   - If height is greather than or equal to 120, Print "Allowed".
   - Else, Print "NoT Allowed".
4. End the loop after 5, visitors have been checked
5. Stop the program.

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

Result: Thus, the Python was Succesfully implemented using Conditional statements (if-else), Control flows and looping statements.