Date: 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 the grade of a student based on their score in a test. The grading system follows these rules.

1. If the score is 90 or above, the grade is "A".
2. If the score is 80 or above 80 to 89 grade is "B".
3. If the score is between 70 and 79, grade is "C".
4. If the score is between 60 and 69 grade is "D".
5. If the score is below 60 grade is "F."

Algorithm:

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

output

enter the Score : 60

The Grade is D.

Program:

```
score=int(input("enter score:"))
if score>=90:
    print("Grade is A") elif
score<=89 and sore>=80):
    print("Grade is B")elif
score<=79 and score>=70):
    print("Grade is C") elif
score<=69 and score>=60);
    print("Grade is D")
else:
    print("Grade is F")
```

Result:

Thus the python program implemen- conditional, control looping executed successfully

2.2

TASK 2.2

The electronic maintenance team at a data center needs a tool to assess the health status of the backup batteries based on their current charge percentage. You are asked to develop a python program accepts the battery charge percentage as input and categories the battery health using the following conditions.

Aim: Write a python program that uses addernize if-elif-else statement

Algorithm:

1. Accept battery percentage from the user
2. Use addernized if-elif-else to determine the health category:
   - If percentage ≥ 90 -> "Excellent Battery Health"
   - If percentage < 90 -> "Good Battery Health"
   - If 40 ≤ Percentage < 70 -> "Average Battery health"
   - If percentage < 40 -> "Poor Battery Health"

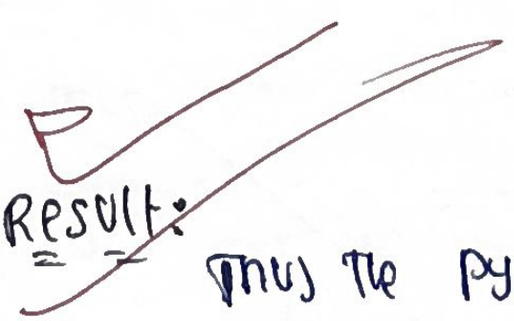
Program:

```
# Battery Health Checker
percentage = int(input("enter battery percentage:"))
if percentage >=90:
    print("Excellent Battery Health")
elif percentage>=70:
    print("Good Battery Health")
```

Output

• Enter Battery percentage: 85
Good Battery Health

```
elif percentage >= 40:
    print("Average Battery Health")
else:
    print("Poor Battery Health")
```



Result:

Thus the Python program if-elif-else statement - executed successfully

output:

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: 125

Output

Allowed
Not Allowed
Allowed
Not Allowed
Allowed

TASK 23

Aim: You're Coding a system at an amusement park that checks the height of each visitor & if height is 120 cm or more print "Allowed" otherwise print Not "allowed"

Algorithm:

1. Start
2. Set the total no. of visitors to 5.
3. Loop from visitor 1 to visitor 5:
4. End the loop after 5 visitors have been checked.
5. Stop

Program:

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

VEL TECH - CSE	
EX NO.	2
PERFORMANCE (5)	5
RESULT AND ANALYSIS (3)	3
VIVA VOCE (3)	3
RECORD (4)	4
TOTAL (15)	
SIGN WITH DATE	15

Result:

Thus the python program was successfully implemented using conditional statement (if else) control flow, and looping statement.