

Program :-

```
score = int(input("Enter the score:"))
if score >= 90:
    printf("The Grade is A")
elif(score <= 89 and score >= 80):
    printf("The Grade is B")
elif(score <= 79 and score >= 70):
    printf("The Grade is C")
elif(score <= 69 and score >= 60):
    printf("The Grade is D")
else:
    printf("The Grade is F")
```

Output :-

```
===== RESTART: C:\Users\54494\PycharmProjects\Python\Assignment\Grade.py
```

```
Enter the Score :60
```

```
The Grade is D
```

File	Edit	Insert	Format	Tools	Help
Open	Save	Find	Font	Performance (S)	?
Print	Print Preview	Page Setup	Color	Result and Variables (R)	
Exit				Java Voice (J)	
				Config (C)	
				Java JATP (J)	
				Current Date	



## Task 2 : Implement conditional, Control and looping Statements.

Aim :- To implement conditional, control and looping statements 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:

If the score is 90 or above, the grade is "A".

If the score is between 80 and 89, the grade is "B".

If the score is between 70 and 79, the grade is "C".

If the score is between 60 and 69, the grade is "D".

If the score is below 60, the grade is "F".

Algorithm:-

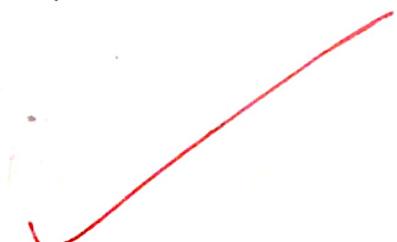
1. Start

2. Get the input mark from the user.

3. With the use of an If-else statement do

- If the marks  $\geq 90$  print grade "A".
- If the mark is between 80 and 89 print grade "B".
- If the mark is between 70 and 79 print grade "C".
- If the mark is between 60 and 69 print grade "D".
- If the mark is below 60, print grade "F".

4. Stop



Program:-

```
#1 Battery Health checker (existing program of C with
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:-

```
Battery Charge percentage : 785
Good Battery Health
```

Diagram :-

The diagram shows a hand-drawn graph on a grid. A red line starts at the bottom left corner (0,0), rises linearly to a peak in the upper right quadrant, then drops sharply to a minimum point, and finally rises again towards the top right.

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

If the percentage is greater than or equal to 90, display:

→ "Excellent Battery Health"

If the percentage is between 70 and 89, display:

→ "Good Battery Health".

If the percentage is between 40 and 69, display:

→ "Average Battery Health".

If the percentage is below 40, display:

→ "Poor Battery Health".

Aim: Write a Python program that uses ladderized if-elif-else statements.

Algorithm: 1. Accept battery percentage from the user.

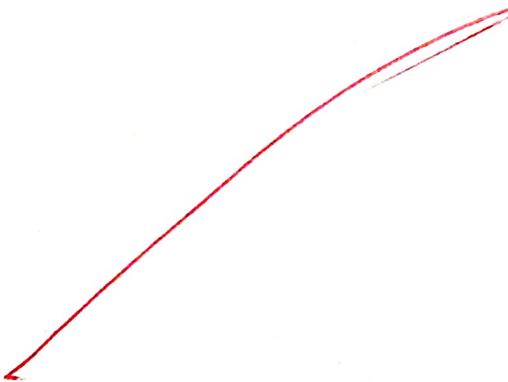
2. Use ladderized if-elif-else to determine the health category:

• If percentage  $\geq 90$  → "Excellent Battery Health".

• If 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("Enter height of visitor {i} in cm:"))
    if height >= 120:
        print("Allowed to ride.")
    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: 125

Sample output:

Allowed  
Not allowed

Allowed  
Not allowed

Allowed  
Not allowed

Allowed

### Task 2.3

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

- If the height is 120cm or more, print "Allowed".
- Otherwise, print "Not allowed".

Repeat this for 5 visitors.

Algorithm:

- Start the program
- Set the total number of visitors to 5.
- Loop from visitor 1 to visitor 5.
  - Accept the height of the visitor as input.
  - If height is greater than or equal to 120, print "Allowed".
  - Else print "Not allowed".
- End the loop after 5 visitors have been checked.
- Stop the program.

Area

Atting - the program will run for 5 visitors.

Following is the

VEL TECH	
EX NO.	5.01
PERFORMANCE	8
RESULT AND ANALYSIS	44
INVOICE	44
RECORD	4+
TOTAL	123

Result: Thus, The python program was successfully implemented using conditional statements (if-else), control flow, and looping statements.

(Suraj - 5th year - Computer Application, MCA Dept)