

Output

Enter the score : 60

The Grade is D

Task 2:

Date: 17/8/25

Q.1 Implement conditional, control and looping statements

Aim:- To implement conditional, control and looping statements using python.

Q.1 You are developing a single grade management system for a school. The system needs to determine the grade of a student.

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

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

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

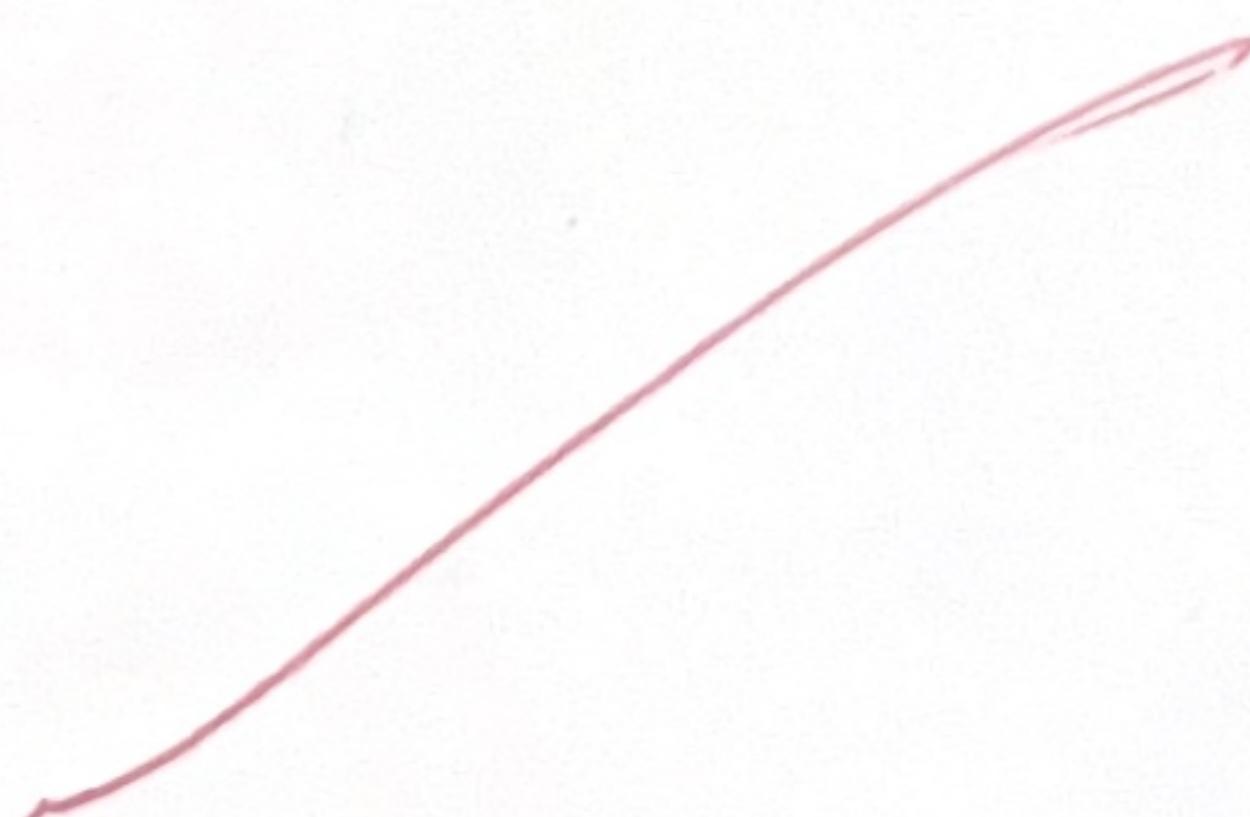
Algorithm:-

1. Start
2. Get the input mark from the user.

3. With the input use of an If- elif- else statement

- If the marks ≥ 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

```
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")
```

Python 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")
```

Input:

Battery charge percentage (integer)

Sample Output

Enter battery percentage: 85

Good battery Health:



Task 2.2

Date:

Q.2: The electronics 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 program that accepts.

- If the percentage is greater than or equal to 90, display
 > "Excellent Battery Health".
- If the percentage is b/w 70 and 89, display.
 > "Good Battery Health"

Aim:-

Write a python program that uses ladderized if-else-else statements

Algorithm:-

1. Accept battery percentage from the user.
2. Use ladderized if-else-else to determine health.
 - If percentage $\geq 90 \rightarrow$ "Excellent Battery Health"
 - If $70 \leq \text{percentage} < 90 \rightarrow$ "Good Battery Health"
 - If ~~$40 \leq \text{percentage} < 70$~~ \rightarrow "Average Health"
 - If $\text{percentage} < 40 \rightarrow$ "Poor Battery Health"

(a) open file for
("name of file to be read with") mode ("r")
size of file is less than 1000 bytes
("size of bowtie") bytes
("size of bowtie tol") bytes

if size of file is less than 1000 bytes
open file in read mode ("r")
otherwise open file in read mode ("r")
otherwise open file in read mode ("r")
otherwise open file in read mode ("r")
size of file is less than 1000 bytes
otherwise open file in read mode ("r")

bowtie
bowtie tol
bowtie
bowtie tol
bowtie

~~Result:~~ thus the python programme file uses lexicalized if
else statement is verified successfully.

Program:

for i in range(1,6):

 height = int(input("Enter height of visitor {} in cm: ".format(i)))

 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

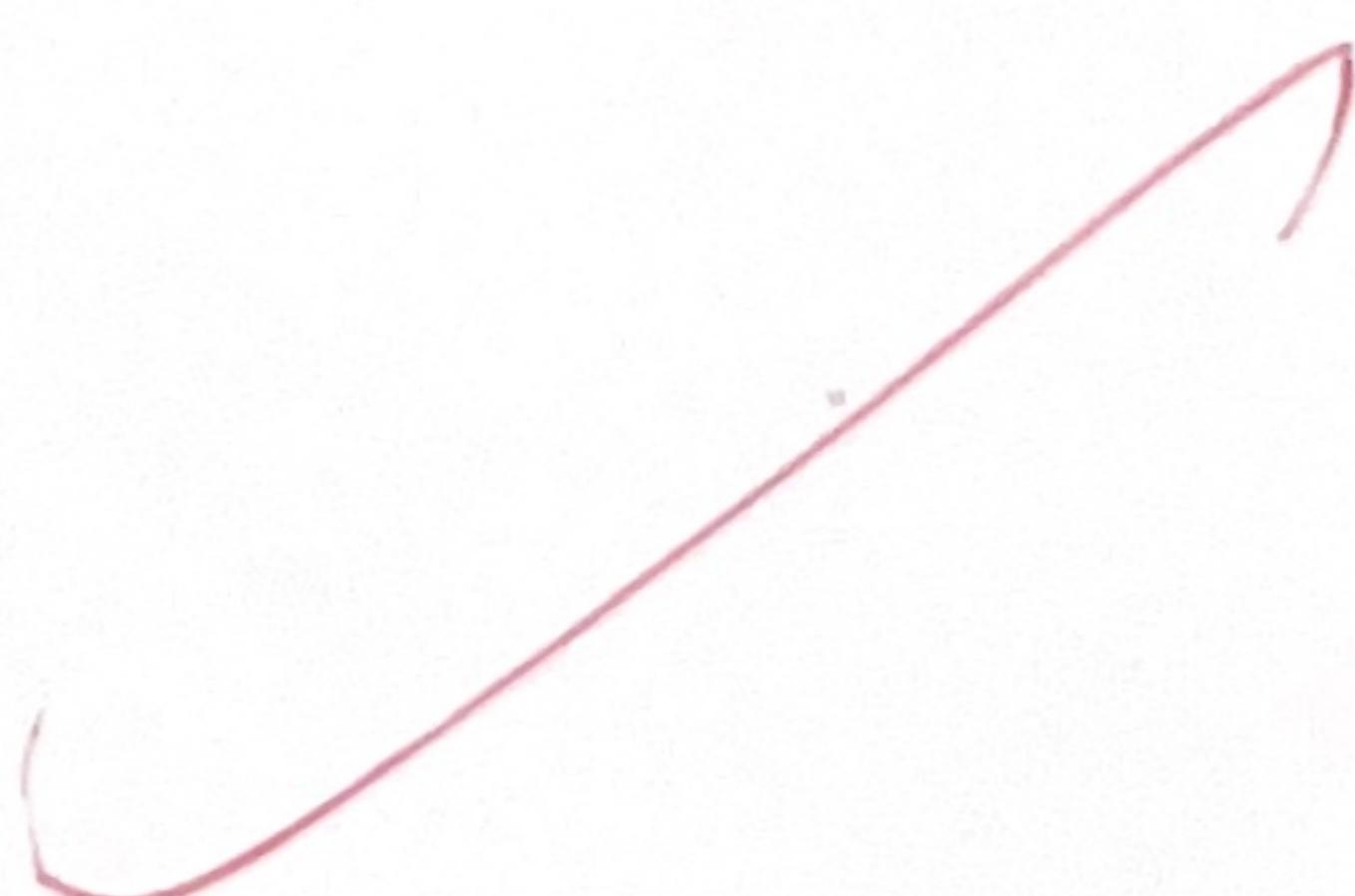
Not allowed

Allowed

Not allowed

Allowed

To calculate sum of ages using set with class
class sum as below a sample solution



Task 9.3
Date:-

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

- If the height is 120 cm or more, print "Allowed".
 - Otherwise, print "Not allowed".
- Repeat this for 5 visitors.

Aim:-

Algorithm:-

1. Start the program
2. Set the total number of visitors to 5.
3. Loop from visitor 1 to visitor 5:
 - Accept the height of visitor as input (in cm)
 - 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 the program.



VEL THOM - OCT	
EX NO.	2
PERFORMANCE (6)	5
REBUILT AND ANALYSIS (3)	8
VIVA VOCE (3)	3
RECORD (4)	4
TOTAL (15)	5
SIGN WITH DATE	

Result:-

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