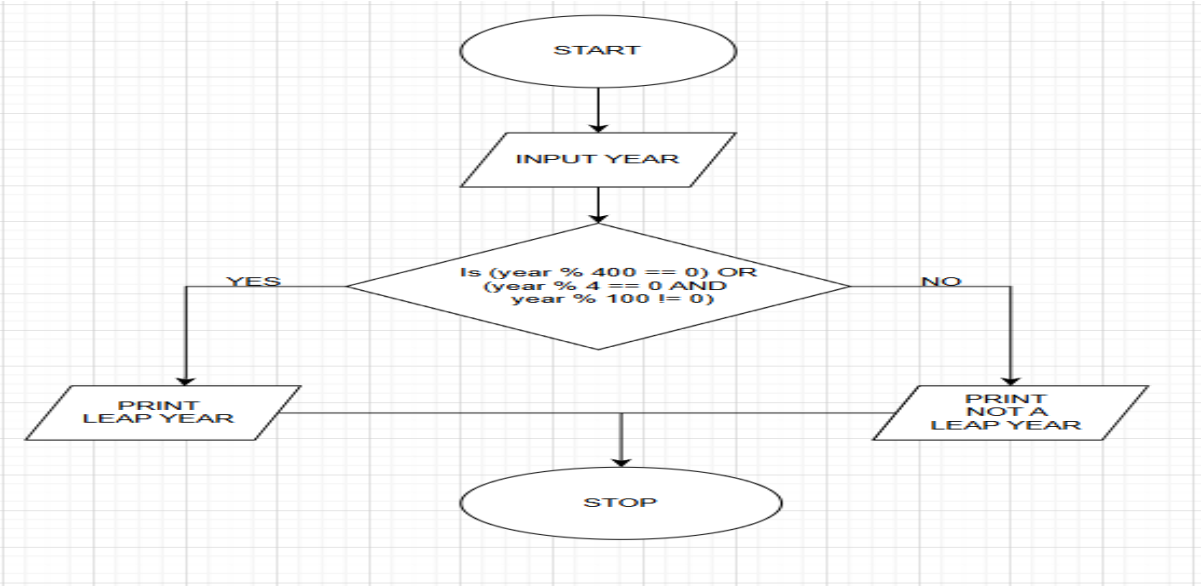
5.1.1 LEAP YEAR

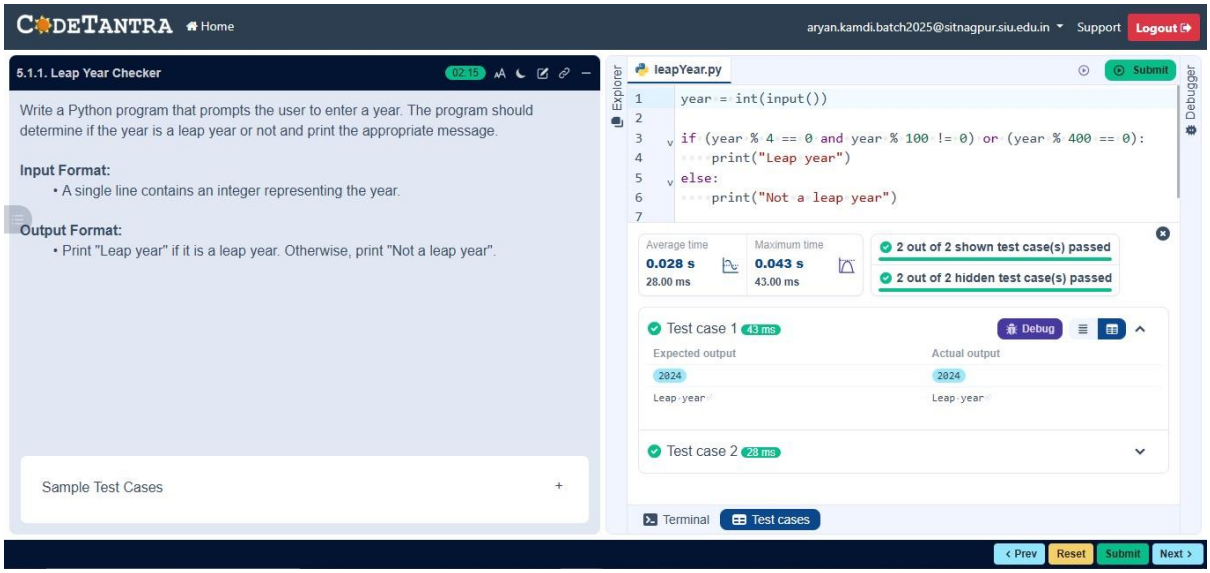
ALGORITHM

Step 1: Start
Step 2: Read the year
Step 3: Check if
The year is divisible by 400
OR the year is divisible by 4 and not divisible by 100
Step 4:If the condition is true, print "Leap year"Else, print "Not a leap year"
Step 5: Stop

FLOWCHART



PROGRAM



5.1.2 STUDENT GRADES

ALGORITHM

1. **Start**
2. **Input marks of four subjects (m1, m2, m3, m4)**
3. **Calculate total**

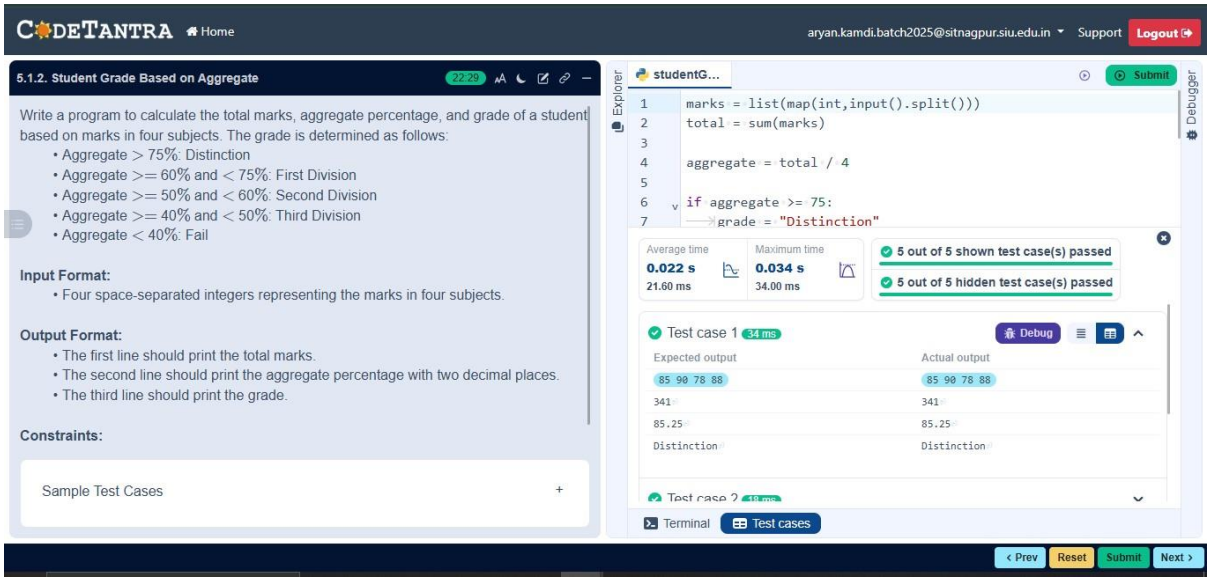
$$total = m1 + m2 + m3 + m4$$

4. **Calculate aggregate percentage**

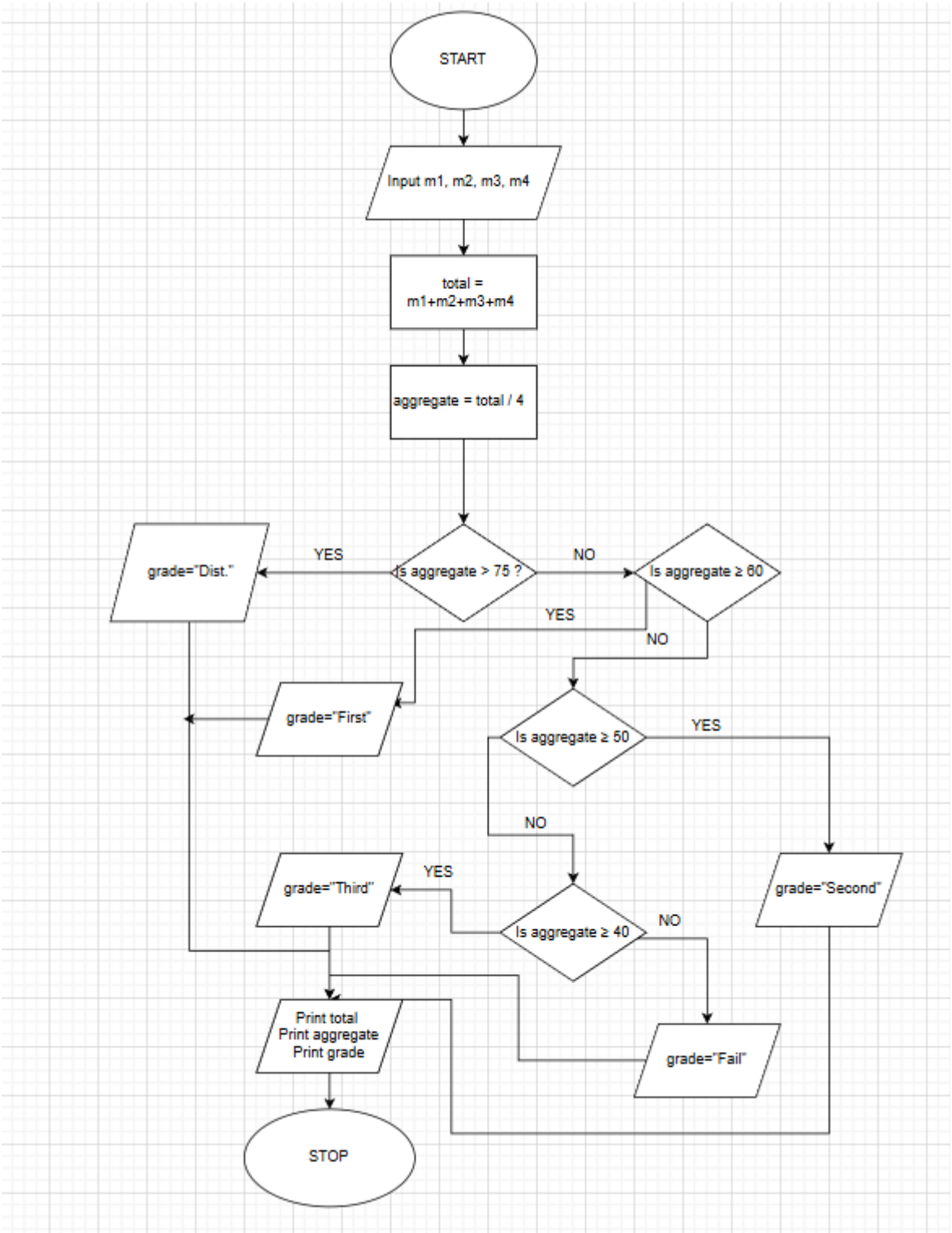
$$aggregate = total/4$$

5. **If aggregate > 75**
   → grade = "Distinction"
6. **Else if aggregate ≥ 60**
   → grade = "First Division"
7. **Else if aggregate ≥ 50**
   → grade = "Second Division"
8. **Else if aggregate ≥ 40**
   → grade = "Third Division"
9. **Else**
   → grade = "Fail"
10. **Print total**
11. **Print aggregate (two decimal places)**
12. **Print grade**
13. **Stop**

PROGRAM


CODETANTRA
Home
aryan.kamdi.batch2025@sitnagpur.siu.edu.in
Support
Logout
5.1.2. Student Grade Based on Aggregate
22:29
Write a program to calculate the total marks, aggregate percentage, and grade of a student based on marks in four subjects. The grade is determined as follows:
• Aggregate > 75%: Distinction
• Aggregate >= 60% and < 75%: First Division
• Aggregate >= 50% and < 60%: Second Division
• Aggregate >= 40% and < 50%: Third Division
• Aggregate < 40%: Fail
Input Format:
• Four space-separated integers representing the marks in four subjects.
Output Format:
• The first line should print the total marks.
• The second line should print the aggregate percentage with two decimal places.
• The third line should print the grade.
Constraints:
Sample Test Cases
Explorer
studentG...
Submit
Debugger
1 marks = list(map(int,input().split()))
2 total = sum(marks)
3
4 aggregate = total / 4
5
6 if aggregate >= 75:
7 grade = "Distinction"
Average time
0.022 s
21.60 ms
Maximum time
0.034 s
34.00 ms
5 out of 5 shown test case(s) passed
5 out of 5 hidden test case(s) passed
Test case 1 34 ms
Debug
Expected output
Actual output
85 90 78 88
341
85.25
Distinction
Terminal
Test cases
‹ Prev
Reset
Submit
Next ›

FLOWCHART


START
Input m1, m2, m3, m4
total = m1+m2+m3+m4
aggregate = total / 4
Is aggregate > 75 ?
YES
grade="Dist."
NO
Is aggregate ≥ 60
YES
NO
grade="First"
Is aggregate ≥ 50
YES
NO
grade="Second"
grade="Third"
YES
Is aggregate ≥ 40
NO
grade="Fail"
Print total
Print aggregate
Print grade
STOP