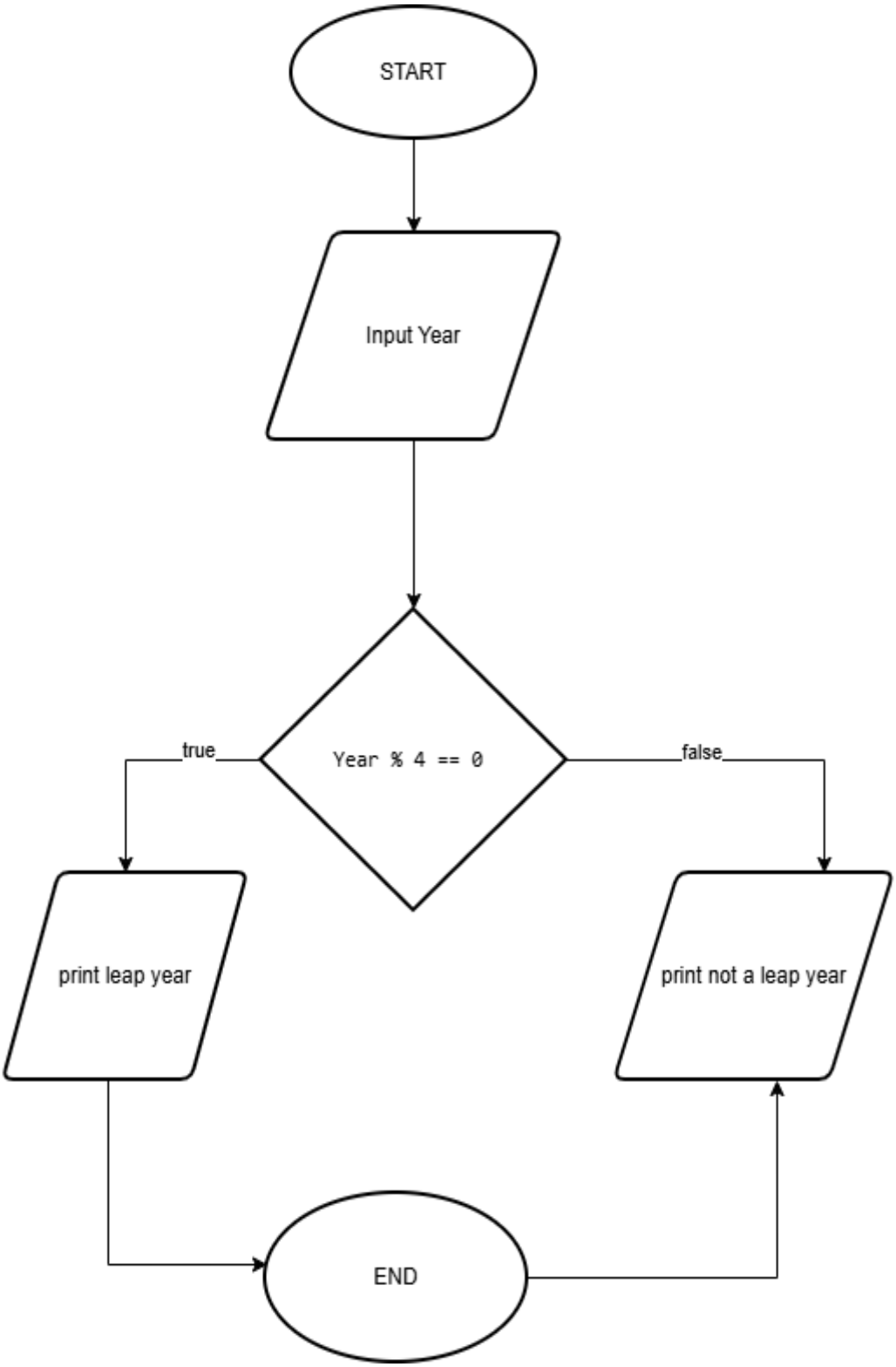
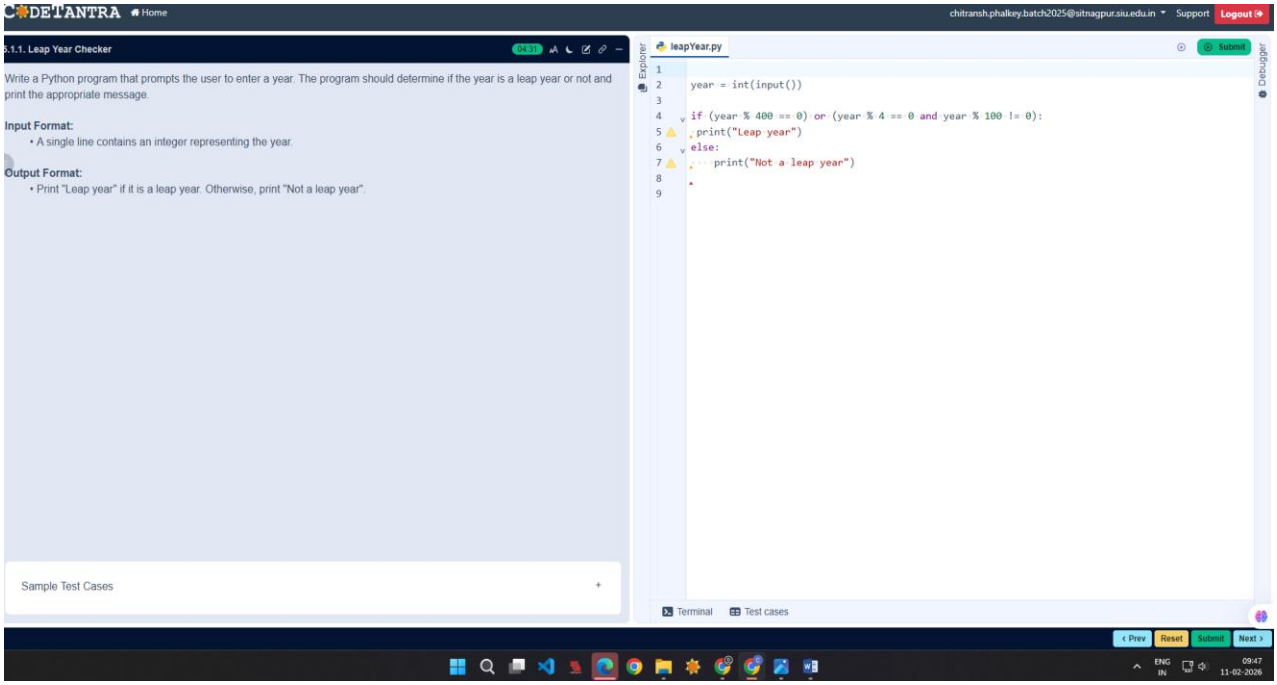
5.1.1. Leap Year Checker

Algorithm: Check Leap Year

1. **Start**
2. **Input** the year.
3. **Check** if the year is divisible by 400
    - If yes, then it is a **Leap Year**.
4. **Else check** if the year is divisible by 4 **and** not divisible by 100
    - If yes, then it is a **Leap Year**.
5. **Else**
    - It is **Not a Leap Year**.
6. **Display** the result.
7. **Stop**

flowchart


START
Input Year
Year % 4 == 0
true
false
print leap year
print not a leap year
END



5.1.2. Student Grade Based on Aggregate

Algorithm

Step 1: Start

Step 2: Input four subject marks

Step 3: Store marks in a list

Step 4: Calculate total marks

```
total = sum of all marks
```

Step 5: Calculate aggregate

```
aggregate = total / 4
```

Step 6: Check grade using conditions:

- If aggregate ≥ 75 → Grade = "Distinction"
- Else if aggregate ≥ 60 → Grade = "First Division"
- Else if aggregate ≥ 50 → Grade = "Second Division"
- Else if aggregate ≥ 40 → Grade = "Third Division"
- Else → Grade = "Fail"
-
-

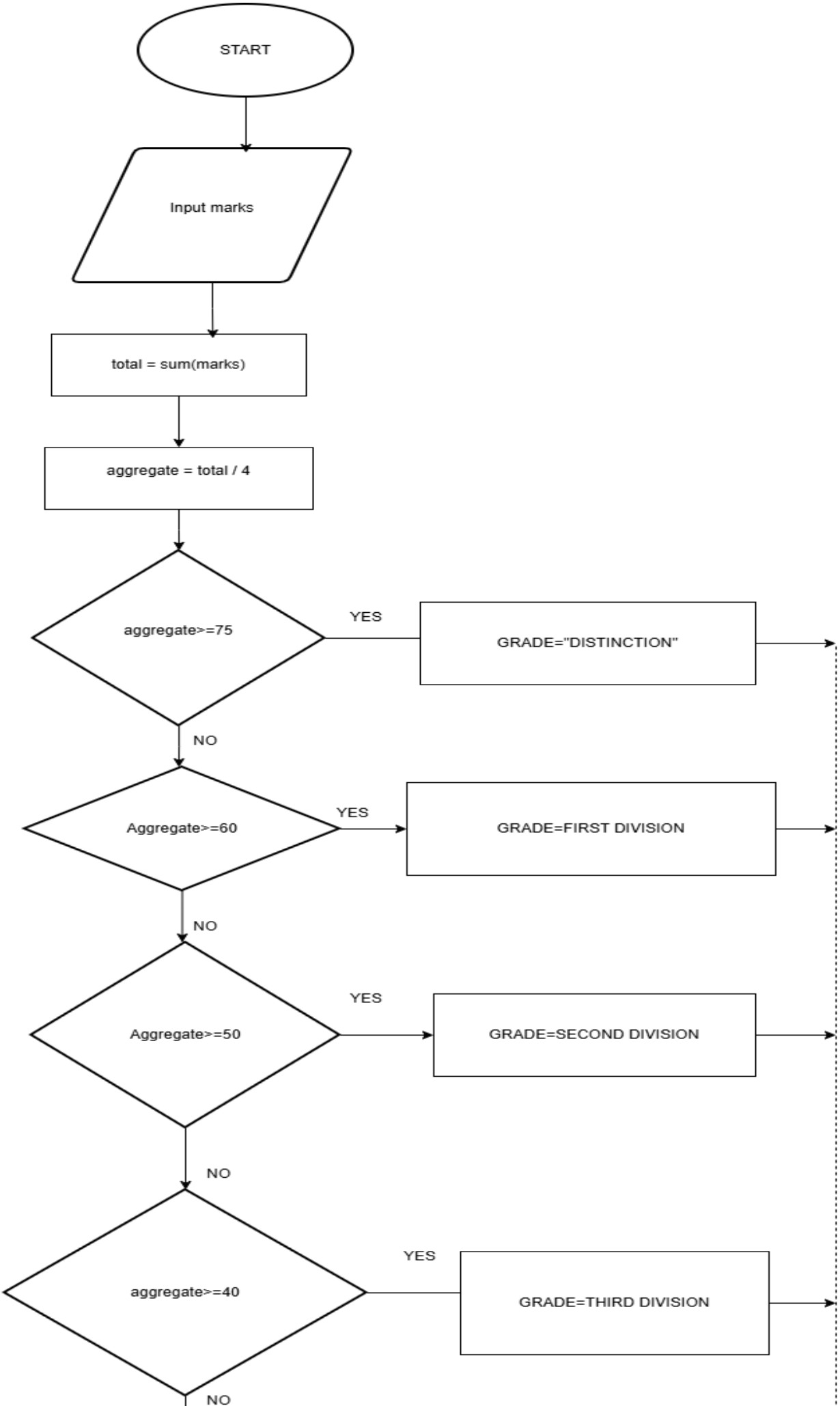
Step 7: Print total

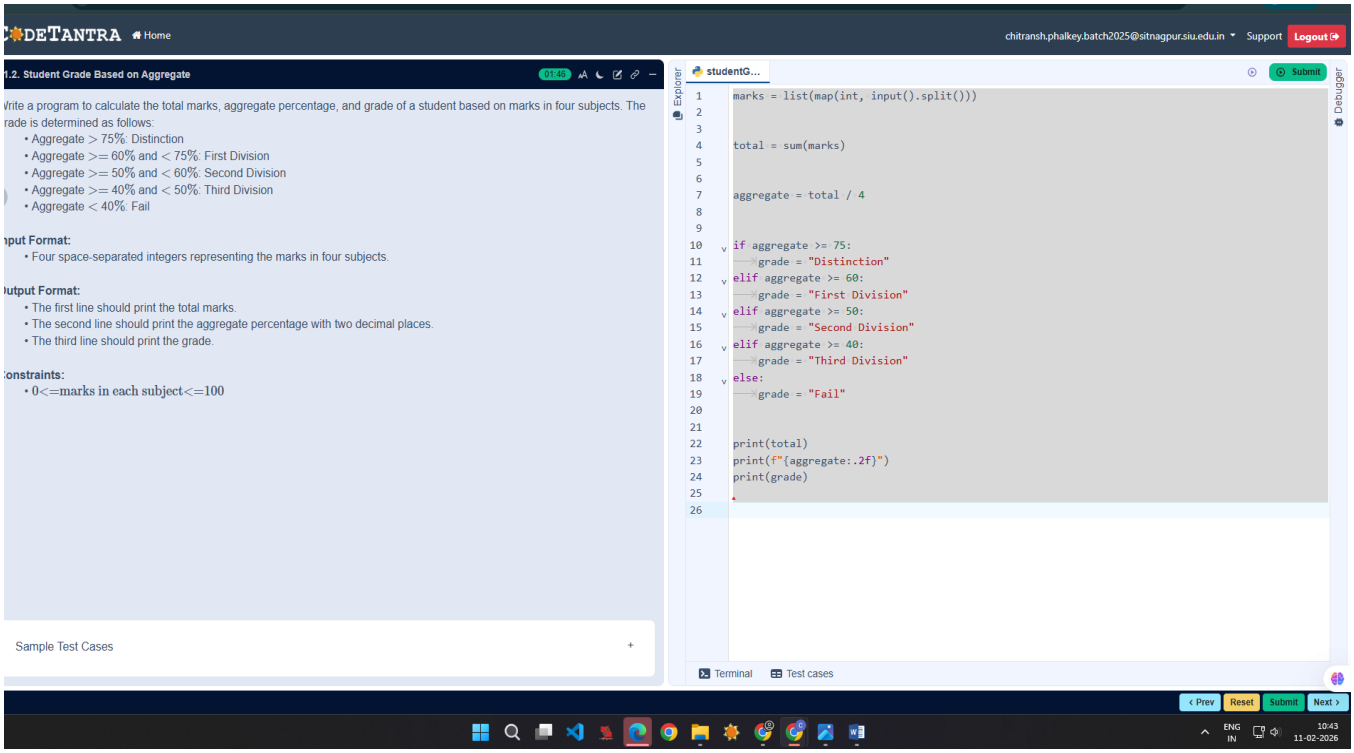
Step 8: Print aggregate (2 decimal places)

Step 9: Print grade

Step 10: Stop

FLOWCHART


START
Input marks
total = sum(marks)
aggregate = total / 4
aggregate>=75
YES
GRADE="DISTINCTION"
NO
Aggregate>=60
YES
GRADE=FIRST DIVISION
NO
Aggregate>=50
YES
GRADE=SECOND DIVISION
NO
aggregate>=40
YES
GRADE=THIRD DIVISION
NO


DETANTRA
Home
chitransh.phalkey.batch2025@sitnagpur.siu.edu.in
Support
Logout
1.2. Student Grade Based on Aggregate
01:46
Write a program to calculate the total marks, aggregate percentage, and grade of a student based on marks in four subjects. The rade 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
nput Format:
• Four space-separated integers representing the marks in four subjects.
utput 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.
onstraints:
• 0<=marks in each subject<=100
Sample Test Cases
Explorer
studentG...
Submit
Debugger
marks = list(map(int, input().split()))
total = sum(marks)
aggregate = total / 4
if aggregate >= 75:
grade = "Distinction"
elif aggregate >= 60:
grade = "First Division"
elif aggregate >= 50:
grade = "Second Division"
elif aggregate >= 40:
grade = "Third Division"
else:
grade = "Fail"
print(total)
print(f"{aggregate:.2f}")
print(grade)
Terminal
Test cases
‹ Prev
Reset
Submit
Next ›
ENG
IN
10:43
11-02-2026