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### 5.1.2. Student Grade Based on Aggregate

#### Algorithm: Grade Calculation

- Step 1: Start.
- Step 2: Read the input string of numbers, split them, and store them as a list of integers in marks.
- Step 3: Calculate total by summing all elements in the marks list.
- Step 4: Calculate aggregate by dividing the total by 4 (assuming there are 4 subjects).
- Step 5: Check the aggregate score against the thresholds:
  - If aggregate  $\geq 75$ , set grade to "Distinction".
  - Else If aggregate  $\geq 60$ , set grade to "First Division".
  - Else If aggregate  $\geq 50$ , set grade to "Second Division".
  - Else If aggregate  $\geq 40$ , set grade to "Third Division".
  - Else (if none of the above), set grade to "Fail".
- Step 6: Print the total.
- Step 7: Print the aggregate (formatted to 2 decimal places).
- Step 8: Print the final grade.
- Step 9: End.

#Code:

```
marks = list(map(int, input().split()))
```

```
total = sum(marks)
```

```
aggregate = total / 4
```

```
if aggregate  $\geq 75$ :
```

```
    grade = "Distinction"elif aggregate  $\geq 60$ :
```

```
    grade = "First Division"
```

```
elif aggregate  $\geq 50$ :grade = "Second Division"
```

elif aggregate >= 40:

grade = "Third Division"

else:

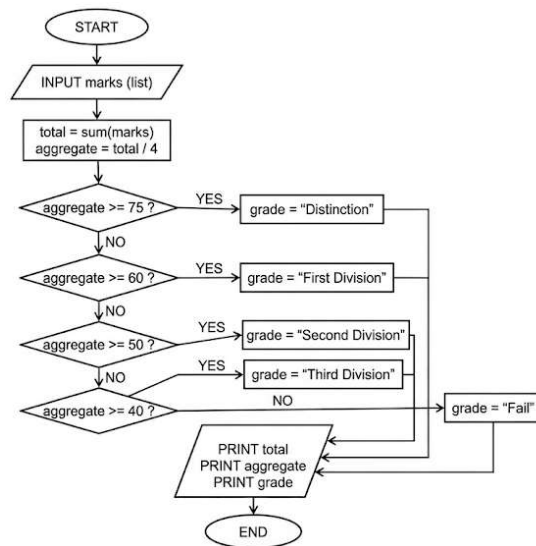
grade = "Fail"

print(total)

print(f"{aggregate:.2f}")

print(grade)

Flowchart:



CODETANTRA

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5.1.2. Student Grade Based on Aggregate

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:

- 0 <= marks in each subject <= 100

Sample Test Cases

studentG...

```
1 marks = list(map(int, input().split()))
2
3 total = sum(marks)
4 aggregate = total / 4
5
6 if aggregate >= 75:
7     grade = "Distinction"
8 elif aggregate >= 60:
9     grade = "First Division"
10 elif aggregate >= 50:
11     grade = "Second Division"
12 elif aggregate >= 40:
13     grade = "Third Division"
14 else:
15     grade = "Fail"
16
17 print(total)
18 print(f"{aggregate:.2f}")
19 print(grade)
20
```

Average time: 0.009 s, 8.40 ms

Maximum time: 0.014 s, 14.00 ms

5 out of 5 shown test case(s) passed

5 out of 5 hidden test case(s) passed

Test case 1

Expected output: 85 90 78 88, 341, 85.25, Distinction

Actual output: 85 90 78 88, 341, 85.25, Distinction