

EXPERIEMNT - 5

Name : Om Kashikar

PRN : 25070521170

5.1.2] Student Grade based on Aggregate

ALGORITHM

Step 1: Start the program.

Step 2: Input marks of four subjects: m1, m2, m3, m4.

Step 3: Calculate the total marks using:

$\text{total} = m1 + m2 + m3 + m4$

Step 4: Calculate the aggregate percentage using:

$\text{aggregate} = (\text{total} / 400) \times 100$

Step 5: Check the aggregate percentage:

If $\text{aggregate} > 75$, assign grade = Distinction

Step 6: Else if $\text{aggregate} \geq 60$ and < 75 , assign grade = First Division

Step 7: Else if $\text{aggregate} \geq 50$ and < 60 , assign grade = Second Division

Step 8: Else if $\text{aggregate} \geq 40$ and < 50 , assign grade = Third Division

Step 9: Else, assign grade = Fail

Step 10: Display the total marks.

Step 11: Display the aggregate percentage up to two decimal places.

Step 12: Display the grade of the student.

Step 13: End the program.

PYTHON CODE

```
m1, m2, m3, m4 = map(int, input().split())
```

```
total = m1 + m2 + m3 + m4
```

```
aggregate = (total / 400) * 100
```

```
if aggregate > 75:
```

```
grade = "Distinction"
```

```
elif aggregate >= 60:
```

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

```
elif aggregate >= 50:
```

```
grade = "Second Division"
```

```
elif aggregate >= 40:
```

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```
grade = "Third Division"
```

```
else:
```

```
grade = "Fail"
```

```
print(total)
```

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

```
print(grade)
```

FLOWCHART



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EXCECUTION

CODETANTRA

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om.kashikar.batch2025@sitnagpur.siu.edu.inSupportLogout

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 m1, m2, m3, m4 = map(int, input().split())
2 total = m1 + m2 + m3 + m4
3 aggregate = (total / 400) * 100
4 if aggregate > 75:
5     grade = "Distinction"
6 elif aggregate >= 60:
7     grade = "First Division"
8 elif aggregate >= 50:
9     grade = "Second Division"
10 elif aggregate >= 40:
11     grade = "Third Division"
```

Average time

0.004 s

4.10 ms

Maximum time

0.008 s

8.00 ms

5 out of 5 shown test case(s) passed

5 out of 5 hidden test case(s) passed

Test case 1

6 ms

Expected output

85 90 78 88

341

85.25

Distinction

Actual output

85 90 78 88

341

85.25

Distinction

Test case 2

4 ms

Terminal

Test cases

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