# DESIGN

Main

# Initialize constants

# Initialize student list

# Loop through student list

# For each student, call student\_average function, which returns a float average

# If the returned average is higher than any previous value, store the student name and value

# Output the student with the highest average, and the average

Student\_average:

Input scores for quiz, discussion, and assignment

Calculate weighted average based on the formula:

wtAvgGrade = discussion\_grade \* 0.15 + quiz\_grade \* 0.35 + assignment\_grade \* 0.5

Return weighted average

End

# TEST PLAN

|  |  |  |
| --- | --- | --- |
| Test # | Input | Expected Output |
| 1 | Student 1 quiz: 75  Student 1 discussion: 50  Student 1 assignment: 88  Student 2 quiz: 90  Student 2 discussion: 99  Student 2 assignment: 95  Student 3 quiz: 1  Student 3 discussion: 1  Student 3 assignment: 1  Student 4 quiz: 50  Student 4 discussion: 44  Student 4 assignment: 65 | Highest scorer: student 2  High score: 95.65 |
| 2 | Student 1 quiz: 100  Student 1 discussion: 100  Student 1 assignment: 0  Student 2 quiz: 77  Student 2 discussion: 78  Student 2 assignment: 80  Student 3 quiz: 99  Student 3 discussion: 90  Student 3 assignment: 95  Student 4 quiz: 100  Student 4 discussion: 99  Student 4 assignment: 100 | Highest scorer: student 4  High score: 99.65 |
| 3 | Student 1 quiz: 90  Student 1 discussion: 88  Student 1 assignment: 88  Student 2 quiz: 80  Student 2 discussion: 80  Student 2 assignment: 90  Student 3 quiz: 90  Student 3 discussion: 90  Student 3 assignment: 100  Student 4 quiz: 50  Student 4 discussion: 50  Student 4 assignment: 50 | Highest scorer: student 3  High score: 95 |
| 4 | Student 1 quiz: 95  Student 1 discussion: 96  Student 1 assignment: 100  Student 2 quiz: 30  Student 2 discussion: 23  Student 2 assignment: 13  Student 3 quiz: 76  Student 3 discussion: 56  Student 3 assignment: 100  Student 4 quiz: 99  Student 4 discussion: 99  Student 4 assignment: 75 | Highest scorer: student 1  High score: 97.85 |

# SCREEN SHOTS

Case 1

A screenshot of a computer program

Description automatically generated with medium confidence

Case 2

A screenshot of a computer program

Description automatically generated with medium confidence

Case 3

A screenshot of a computer program

Description automatically generated with medium confidence

Case 4

A screenshot of a computer

Description automatically generated