Program 1

This program calculates a Student’s Rounded Weighted Average GPA

Input to this program:

* Student Name
* Student College GPA
* Weighted or Unweighted Student High School GPA ( as a Boollean value )
* Student High School GPA

The program calculates a Rounded Weighted Average GPA, based on the Student’s College GPA and High School GPA, and prints out as output:

* Student Name:
* College GPA:
* Weighted High School GPA or Unweighted High School GPA ( whichever is entered as input ):
* Student Rounded Weighted Average GPA:

Algorithm for Program 1

If the Student’s High School GPA entered by the user is Unweighted then

Student Rounded Weighted Average GPA =

round [(( High School GPA + College GPA ) / 2 ), 2].

If the Student’s High School GPA entered by the user is Weighted then

Student Rounded Weighted Average GPA =

round [{( min( 4,Weighted High School GPA ) + ( 2\*College GPA ) ) / 3 }, 2 ]

* Note min(X, Y) is the smallest of the two numbers stored in X and Y and is available in PYTHON.
* Note that round(X, 2) is a function in Python that rounds the number stored in X to two decimal places

Test Data Program 1:

1. Student Name: Richard Bailey

College GPA: 3.75

Unweighted High School GPA: 3.85

1. Student Name: Tom Jones

College GPA: 3.65

Weighted High School GPA: 4.15

1. Student Name: John Smith

College GPA: 3.50

Weighted High School GPA: 4.0

1. Student Name: Helen Drake

College GPA: 4.0

Weighted High School GPA: 4.50

1. Student Name: Maria Georgiou

College GPA: 3.85

Unweighted High School GPA: 3.75