

CS 32, Spring 2013  
Hw3: 50 total points

Print this form, staple loose pages together, and write your answers on it.

Accepted: program by `turnin` before your lab section on Wednesday, May 1,  
plus this paper at the beginning of your lab section on May 1.  
No email submission allowed.

Name (1 pt): \_\_\_\_\_

Umail (1 pt): \_\_\_\_\_@umail.ucsb.edu

Lab Section (1 pt) Circle one:                    1:00                    2:00                    3:00

Add the following features to class Record from Lab03. After implementing each one, either place a check mark on the line if you (and your partner) succeeded and incorporated that feature, or write a brief explanation telling us why not.

1. (16 pts.) Add public accessor (get) and mutator (set) methods for each of the private data members. Four data values means eight methods.

#1 done: \_\_\_\_\_  
(check, or say why not)

2. (5 pts.) Add a no-argument constructor that sets all scores to 0.

#2 done: \_\_\_\_\_

3. (12 pts.) Add a constructor that takes 4 double arguments that should be used to set the private data in this order: quiz1, quiz2, midterm, final. Use the values of the arguments to set the data unless these values are outside the allowable range. If a value is less than 0, set the corresponding data to 0. If a quiz score argument is greater than 10, set the data to 10. And if an exam score is greater than 100, set the data to 100.

#3 done: \_\_\_\_\_

4. (14 pts.) Overload the method named overallGrade with a version that takes three double arguments: quizwt, midtermwt, finalwt. Use these arguments in place of the default values of .25 \* quizzes, .25 \* midterm, and .50 \* final in calculating the overall grade. Correct for user mistakes by normalizing the values passed in (i.e., insure their sum is 1.0 before using them to calculate).

#4 done: \_\_\_\_\_

End of Hw3 (but see turn-in instructions on next page)

Turn-in instructions:

- A. Compile all of your programming tasks into a file named `hw3.cpp` - includes the class definition, the main function, and implementations of all other functions. Test. Then use the `turnin` program to submit it as follows:

```
turnin hw3@cs32 hw3.cpp
```

If you worked with a partner, then just turn in one copy for both of you, and enter your partner's name on the following line:

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- B. Each student must turn in this completed paper at your next lab.