

Programming Assignment #3

Prepare a Grade Report

CS 1428.004, Fall 2011

Instructor: Jill Seaman

Due: in class Monday, 9/26/2011 (upload electronic copy by 9:30am)

Problem:

Your friend the lab instructor needs to calculate the grades for his (very small) lab class. Write a C++ program that will calculate the final grades for his 3 students and print a report to a file.

Input: The user should be prompted to input the ID number and 3 lab scores for each of 3 students (for each student, the 4 values can be input on one line). The ID number follows the same format as Texas State: an "A" followed by 8 digits. The three input scores will be positive integers.

Processing: Compute the final average for each of the students by computing the mean of their 3 lab scores.

Output: The program should output a grade report to a file named "grade_report.txt". The first row of the report should be a list of column headers that label the data to be output. This should be followed by a row for each student that lists their ID number, each of the three lab scores, and the final average. This should be followed by the word "Passed" if the average is at least 70. If it is below 70 it should be followed by the word "Failed". The numerical data in each column should line up under its column header. The final average should be output to 1 decimal place.

ID Number	Score 1	Score 2	Score 3	Avg	Grade
A00123456	0	100	88	62.7	Failed
A00112233	33	55	77	55.0	Failed
A00123333	66	99	82	82.3	Passed

Style:

See the Style Guidelines document on the course website. The grader will deduct points if your program violates the style guidelines.

Logistics:

Your program must be free of compiler errors.

Include the file documentation header at the top of your source file (it is now described in the Style Guidelines document).

Do you not use any features of C++ that we have not yet covered in class (use features from Chapters 1-4 only).

Name your file **assign2_XXXXXXXXX.cpp** where XXXXXXXXX is your 9 character TX state ID number, the one that is on your ID card. It should look something like this: A04123456. If yours is just six digits, then add "A00" to the front.

There are **two** steps to the turn-in process:

1. Submit an **electronic copy** using the following upload link:
<http://www.cs.txstate.edu/~js236/homework>
(There is a link directly to this page on the course website).
Click on CS1428.004, and log in with your Net ID and follow the directions to upload your file.
2. Submit a **printout** of the file at the beginning of class on the day it is due.
Please print your name on the front page, and staple if there is more than one page.