Due: Thursday, February 24th, 2015

Submitted electronically: before 12:00 PM
Accepted late: before February 25th, 12:00PM: -15%
before February 26th, 12:00PM: -30%

Please submit each of the tasks below as a separate file, named `task1.cpp`, `task2.cpp`, etc. Create all of these files inside a new sub-directory called `prog2`. All files will have to be submitted in one step by invoking the submission command as described in the document ‘Submitting homework (Assignment 2, Appendix)’ available from the homepage.

1. (30%) Write a program to report the length of the longest and shortest string (word) in its input (task1.cpp).
2. (30%) Write a program to calculate and print the average of the numbers stored in a `std::vector<double>` (task2.cpp).
3. (40%) Write a program to calculate the squares of all int values up to (but not including) 100. Write a function `int sqr(int) { ... }` and use it for this purpose. The program should write two columns: The first lists the value; the second contains the square of that value. Use the manipulator `std::setw1) to manage the output so that the values line up in columns (task3.cpp).
4. Bonus: (40%) Write a program to count how many times each distinct word appears in its input, generate a table with 2 columns, one column listing the word, the second column should list the number of occurrences of that word (task4.cpp).

All of the programs have to be compilable and, when run, should do the expected things.

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