

CMPE 101 - Intermediate Programming

Assignment-08

Worth 15% of the assignment mark!

Deadline: 09:00 May 09

In your assignment, explain your code with *comments*. Without *comments*, your assignment will not be marked. All class and method names must be used according to OOP concept. You may use Eclipse to do this project

Problem

Write a program that takes its input from a text file of strings representing numbers of type *double* . The program outputs to **the screen also saves to a file** (for example, result.txt) the average and standard deviation of the numbers in the file. The file contains nothing but strings representing numbers of type *double* , one *per* line. The standard deviation of a list of numbers n_1, n_2, n_3 , and so forth is defined as the square root of the average of the following numbers:

$(n_1 - a)^2, (n_2 - a)^2, (n_3 - a)^2$ and so forth.

The number a is the average of the numbers n_1, n_2, n_3 , and so forth. **Hint:** Write your program so that it first reads the entire file and computes the average of all the numbers, then closes the file, and then reopens the file and computes the standard deviation.