

Project 2: Nearest Points

Due: 11:59 pm 8/12/19

Total Points: 12

Extra Points: None

Projects must be submitted on BlackBoard as a **ZIPPED FOLDER** with the folder name as Y{8 Digit CUNY ID} *for example* your student id is **12345678** than the folder name is **Y12345678**

Within the folder will only be source code, NO .class files. The files in the folder will be:

1. Y12345678.java
2. *Any other java files you created for this project*

Any projects submitted that DOES NOT have this naming convention will not be graded.

If you do not submit anything, you will receive 1 point for the project. Any projects that **do not compile or work** will receive a 0. Excuses such as “It compiles on my computer” or “It worked last time” will not be accepted. Your program must work on all machines not just yours.

If you are using an IDE such as eclipse, before submitting, remove all package statements from all files.

Late penalty No late assignment will be accepted for this project.

Cheating Any one caught cheating, copying code or letting others copy, will receive a 0 and reported. Collaborating with others is encourage on a high level, but code and implementation should never be shared.

Project Specs:

You have been hired to create a program that allows the user to find the closest locations to them. The user specifies a number n, and the program writes onto the file, the n closest points to them onto a file. The user’s location will be supplied to you as well as the list of points.

This project should run on terminal with command line arguments

(<https://docs.oracle.com/javase/tutorial/essential/environment/cmdLineArgs.html>)

MacBook-Pro:~ Alex\$ java X12345678 locations.txt 10

This program takes in two user arguments from the command line:

- 1) The text file that has all the locations
- 2) The number of closest points, n

You are given one text file:

- 1) Locations.txt
 - a. This a file of x, y coordinates. The first number on each row is the X and the following number is Y.
 - b. The first number in the set is the user location
 - c. The numbers range from -10000 to 10000

Your program output a single file with the list of the n closest locations to the users location.

With the following format for each point : **X-coordinate, Y-coordinate, distance**. One point per line.