**CS1401 – Programming Assignment 6**

**Due: Monday October 19, 2015 by 8:00 a.m. for those of you taking the MW labs**

**Tuesday October 20, 2015 by 8:00 a.m. for those of you taking the TR labs**

**To be submitted via Piazza in the folder “lab6”**

**Welcome to Lab 6!**

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| This week, you will be working on an assignment that will allow you to get some more practice manipulating arrays and that will also show you that good formatting does matter… ☺  We hope you have fun!  Ok, let’s get started! Here are the two activities you will be working on. |

** You should expect to work about 2 to 3 extra hours outside the lab session to complete this assignment.**

**It means that you need to make sure that Java works on your own computer, or that you go to open labs to work some more.**

**Extra time on labs includes completing the activities and taking the time to make sure that your submission is picture perfect!**

**Note: we are back on a one-week-long lab. Make sure you turn it in on time!**

**And: If you are done earlier, remember that you can work on the Challenge Lab.**

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**Activity 1. Cleaning Code.**

In this activity, you are given two pieces of code (two methods): Mystery1 and Mystery2.

For each of these methods, you need to tell us exactly what they do (i.e., what is the functionality that they implement) and you need to provide feedback on the programming style. Then, based on your own feedback, you need to rewrite the method so that it looks professional and is ready to be read and understood by any potential colleague.

**Activity 2. Minmax and displayArray.**

In this activity, you have to design and implement two functionalities that make use of arrays.

The first method is called minmax:

It takes an array A of integers (of any size) as a parameter and returns an array of integers of size 2 that contains:

* The minimum value in A (as the first element of the returned array)
* The maximum value in A (as the second element of the returned array)

You are expected to describe the input(s)/output of this method, as well as to provide its pseudocode in a word document.

The second method is called displayArray:

Here we do not tell you much about it except that it has to print the content of an array of integers. Regarding its inputs/output, you need to figure it out by looking at the way it is being used in the main method.

You are expected to describe the input(s)/output of this method, as well as to provide its pseudocode in a word document.

**What you have to turn in:**

* A docx file in which you answer the above questions:
  + Functionalities of Mystery1 and Mystery2, as well as code feedback for Activity 1.
  + Pseudocodes for methods minmax and displayArray, along with a description of their inputs and outputs, for Activity 2
* The lab6Fall15.java file in which you have rewritten the two methods of Activity 1, and you have written the two methods of Activity 2.

**Important notes:**

* Indent your code properly following guidelines available at: <http://www.oracle.com/technetwork/java/javase/documentation/codeconventions-136091.html>. 40 points will be reserved for correct indentation. Failing to indent properly puts you at risk of losing up to 40 points.
* Spend time working on your pseudocode as the amount of points you get for the pseudocode is bigger than the amount of points you get for your code (usually, close to a 60/40 ratio).
* Do not write your methods inside the main method. Each method has to be written where instructed in the code provided to you. Failing to do so puts you at risk of losing 20 points on your lab grade.
* Do not submit more than the files that are requested from you: one docx file and one java file.

**That’s it! Looking forward to seeing you in lab!**