

Lab 6: Using Java Array

Introduction

As we discussed in lecture, arrays can be very useful data structures. We already discussed how to load items into an array and how to search an array for an item. In this lab, you will implement a number of other useful operations that can be done on arrays. You will then write a simple main program to utilize your methods. For help with this lab, see slides and `ex11.java`.

Lab Exercise

You are to write the program named `Lab06.java` that contains the following four **static** methods:

- `public static double max(double[] data)` that returns the maximum value in the array `data` (2 points)
- `public static double min(double[] data)` that returns the minimum value in the array `data` (2 points)
- `public static double sum(double[] data)` that sums all items in the array and return the result (2 points), and
- `public static double ave(double[] data)` that **call the `sum()` method** and then return the average. (2 points)

Once you have completed the methods above, write a simple main program (2 points) that does the following:

1. Asks the user how many items will be entered
2. Creates an array of `double` of the correct size
3. Prompts the user and reads in the values
4. Calculates and prints out the max, min, sum, and average using the methods above.

Due Date and Submission

Once you completed the program, you must demonstrate your program for your Lab TA. Once your TA already checked you, **DO NOT FORGET** to submit your `Lab06.java` file to the CourseWeb under this lab by the due date.

If you do not complete the lab this week, you may finish it and submit your code to the CourseWeb before the due date. However, you need to demonstrate it to your TA at the beginning of next week's lab.

No late submission will be accepted.