

## Introduction to Java

Lab Project: 02

Points Possible: 125

Due Date: Sept. 17, 2015 (11:59pm)

**Objective:** Demonstrate knowledge of Java command line input, iteration, and elementary data structures.

### Grade Table:

Jar file is executable and Programming Guidelines are followed	25
Documentation report is created	25
Program reads input from the args array	25
Program calculates and displays the average of the given input	25
Program displays a welcome message when launched and <i>gracefully</i> handles the case of no arguments	25
<b>TOTAL (Points Possible)</b>	<b>125</b>

**Instructions:** Create a simple command line Java program to calculate the average of a variable quantity of integers that are passed as an argument when the program is called. This uses the **args** array from main - you should not create or use a Scanner object. When the program is launched, have it display a welcome message. Also make sure to have the program display a help message if the user forgets to give any integers as the argument.

Example of calling the program with arguments:

```
java Average 1 2 3 4 5 6
```

The result of the above should be something similar to:

```
Welcome to the Average Program. It is very average really.  
The average is: 3.5
```

Example of calling the program without arguments:

```
java Average
```

The result might be:

```
Welcome to the Average Program. It is very average really.  
Usage: java Average X (X is 1 or more integers)
```

**Note:** You do not need to deal with invalid input. For example if the user enters:

```
java Average kiwi 12.3 the_color_blue wombats
```

...it is acceptable for the program to crash and burn.

**Turn In:**

1. Create an executable jar file as demonstrated in class (see the class Blackboard site for notes) that contains your source code and class files named "project02LastName.jar"
2. Create a short documentation report (pdf, doc, or docx) containing screen shots as needed of your program meeting or attempting to meet the specifications in the above grading table. If you are unable to meet various specifications include any error messages that are generated when you attempt to compile or run your program. Include a brief description (1 paragraph is fine) documenting your work and describing the functionality of your program. In the report include the version of your Java Compiler (at the command line run "javac -version" and any other tools you used.
3. Submit the resulting report and jar file to Blackboard

*If you have any questions email me early and often at the below address!*

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