

ITSE 2321 – OBJECT-ORIENTED PROGRAMMING (JAVA)

Program 6 - Methods

Write a program that calculates and displays the average of a group of test scores, all integers, after the lowest score in the group has been dropped. There are six test scores in the group. Use the template, **Program6-Template.java**, to complete this programming assignment.

The program must contain only the following functions in addition to the main:

- **int getScore** should ask the user for a test score and return it to the calling method. This function should be called by the main method once for each of the six scores to be entered by the user.
- **double calcAverage** should calculate and return the average of the five highest scores. This function should be called only once by the **main method**, and should be passed the six scores and the lowest test score.
- **int findLowest** should find and return the lowest of the six scores passed to it. It must be called only once by the **main method**, which uses it to determine which of the six scores to drop. **This method must have only one return statement and no logical operators.**
- **void printAverage** should be called by the **main method** only once to display the lowest test dropped and the average of the test scores. The method should be called by the **main method** with the lowest test score and the average score as arguments.

Download the attached file, **Program6-template.java** and rename it as **Program6.java**. **Do not modify the *main()* method or the header of any method. You will not receive credit for Program 6 if you do.** Do not accept test scores lower than 0 or higher than 100.

No input, processing or output should happen in the main function. All work should be delegated to other methods. Include the recommended minimum documentation for each function.

Compile your program and correct all syntax errors and warnings. **You will not receive credit for the program if it does not compile successfully.**

Run your program **two times** with the data below and save the outputs as one text file named, **Program6-output.txt**. Create a folder named, **<YourFullName>_Program6**. Copy your source code and the output file to the folder. Zip the folder, as a **“.zip”** file, and upload it to Blackboard.

Run 1: 99, 54, 67, 89, 78, 100

Run 2: 63, 99, 53, 100, 96, 42

Before you upload your project to Blackboard:

- Ensure that your code conforms to the style expectations set out in class and briefly discussed below.
- Make sure your variable names and methods are descriptive and follow standard capitalization conventions.
- Put comments wherever necessary. Comments at the top of each module should include your name, file name, and a description of the module. Comments at the beginning of methods describe what the method does, what the parameters are, and what the return value is. See the **Program1-Template.java** for more details.
- *Program readability and elegance are as important as correctness.* After you have written your method, read and re-read it to eliminate any redundant lines of code, and to make sure variables and methods names are intuitive and relevant.

Read the assignment very carefully to ensure that you have followed all instructions and satisfied all requirements. **You will not get full credit for this program if it is not written as instructed even if it works as expected.**