**Lab 6** COMP1161 – Introduction to Object Oriented Programming

**ARRAYS**

**Exercise #1**

Create a class with a main method that contains Java code to do the following:

1. Create an array to hold grades for 10 labs. A grade is a numeric value that can have decimal places.
2. Use a for statement to allow a user to input the grades.
3. Use a for-each loop to display the values in the array in the order they were entered.
4. Use a while loop to display the values in reverse order (i.e. display the 10th grade, then the 9th grade, and so on)
5. Use any form of iteration(while, for, or for-each) to process the grades in the following manner:
   1. Any grade that is between 47 and 49 should be replaced with the grade 50;;
   2. Any grade in the range 67-69 should be replaced with the grade 70
6. Test your program to make sure that it works properly.

**Exercise #2**

1. Download the file lab6.zip from the course website and extract the file ArrayStat.java to a location of your choice.
2. Import the file ArrayStat.java into your package. The file contains Java code including a static method average which accepts an array as a parameter and should compute the average of the values in the array.
3. Complete the method to correctly compute the average.

**Exercise #3**

Modify your class (the one with the main method – from Exercise 1) so that use the static method you just wrote is used to calculate the average of the grades you enter.

**Discussion**

A young naïve programmer has written the following code for the average method of the ArrayStat class.

{ for (int x = 0; x <a.length; x++) a[x] = 0; return 99;}

Explain briefly what will happen to the values in the array grades if the invocation after ArrayStat.average(grades) is made.