**CS 401 Program #4**

**Background and Assignment:**

Program #4 will require you to write a Java program that sorts arrays. The arrays will be initialized to an unsorted random sequence of values, then you will sort the arrays using two different sorting algorithms: bubbleSort and selectionSort. Once the arrays are sorted you will use binary search to search for values in the array.

**Details of implementation**

**Download and complete this starter file**[**Program4.java**](http://www.cs.pitt.edu/~hoffmant/401/program-04/Program4.java)

[**expectedOutput.txt**](http://www.cs.pitt.edu/~hoffmant/401/program-04/expectedOutput.txt)

**RANDOM:**

**77 21 95 17 93 94 5 16 63 9 64 96 51 22 49 59 8 54 28 48**

**BUBBLESORTED:**

**5 8 9 16 17 21 22 28 48 49 51 54 59 63 64 77 93 94 95 96**

**RANDOM:**

**58 20 69 38 71 36 75 31 15 4 22 62 39 5 63 29 98 46 100 73**

**SELECTIONSORTED:**

**4 5 15 20 22 29 31 36 38 39 46 58 62 63 69 71 73 75 98 100**

**Number to search for: 4 FOUND at index 0**

**Number to search for: 10 NOT found.**

**Number to search for: 46 FOUND at index 10**

**Number to search for: 17 NOT found.**

**Number to search for: 66 NOT found.**

**Number to search for:**