**Scoring Rubric for Project 3 : BubbleSort**

*Due 10/03/2019 @ 3:30 pm*

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|  | **Score** | **Maximum** |
| **Execution (50 pts):** | | |
| Program compiles without errors (warnings are okay) | 50 | **50** |
| **Implementation (40 pts):** | | |
| Uses function declarations as provided | 5 | **5** |
| Main function includes at least one unit test for Swap (can use assert or printed output) | 0 | **5** |
| BubbleSort works for input size of 42 and 47 (all or nothing) | 5 | **5** |
| Use a dynamically allocated array for BubbleSort | 0 | **5** |
| Free the allocated array at the end of Main function | 0 | **5** |
| Complete the BubbleSort unit test | 5 | **5** |
| Use command line arguments to read the array size and the seed | 0 | **5** |
| Measure the execution times of MergeSort and BubbleSort and plot them on a graph | 4 | **5** |
| **Style (10 pts):** | | |
| The driver and functions are easy to follow based on the use of comments | 0 | **6** |
| Easily identifiable variable names | 4 | **4** |
| **Total (100 pts):** | 68 | **100** |

Notes:

You need a unit test for swap.

You are declaring your array statically. To declare it dynamically, you should have int \* array = new int[length]; Then, you need to free the memory at the end of the program like delete [] array; array = nullptr; The first statement frees the memory that stores all the array values, and the second statement ensures that array will not be a dangling pointer.

You need to use command line arguments to get the seed and length.

You should include a title on your graph, and label the axes.

You didn’t add any of your own comments.