**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) | 5 | **5** |
| BubbleSort works for input size of 42 and 47 (all or nothing) | 5 | **5** |
| Use a dynamically allocated array for BubbleSort | 5 | **5** |
| Free the allocated array at the end of Main function | 4 | **5** |
| Complete the BubbleSort unit test | 0 | **5** |
| Use command line arguments to read the array size and the seed | 5 | **5** |
| Measure the execution times of MergeSort and BubbleSort and plot them on a graph | 5 | **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):** | 88 | **100** |

Notes:

Technically, the unit test for swap should go before the call to BubbleSort, because you want to make sure that swap is working before you use it in another function.

Your unit test for BubbleSort is incorrect. You are testing if “v” is sorted, but this is the vector from MergeSort. You need to test if “array” is sorted.

When you deallocate array, it should be a = nullptr, not \*a. Also, use nullptr instead of NULL for pointers.

You didn’t write any of your own comments.