**Documentation for Sort master**

**Appreciation:**  
Thank you CSI Media for the opportunity to do this test. Thanks for being considerate about my university time and giving me more time to do the test.

**Assumptions Made:**

1. The system has a database where the sorted numbers and related information from feedback message is stored.
2. The user input is validated to ensure only integers are entered.
3. The sorting algorithm used is efficient enough to handle large numbers
4. The time taken to perform each sort computation is accurately measure per computation
5. The json export functionality is available and works as expected.
6. The db and json file are relatively created and stored in the bin folder for ease of access.
7. The use of relative paths and not static paths for when the project folder is moved or ran on a different machine
8. The use of WPF for an easy clear user-friendly UI
9. The system has some level of security measure set in place to protect the data stored in database
10. The use of any db system (in my case, made use of SqLite)

**Limitations:**

1. Insufficient error handling throughout the code
2. Time constraint to make the system better.
3. I made use of int64 for user input, this could lead to some scalability issues, the system will throw an out of range error when the number range is exceeded.
4. The db system I used may run into speed issues when records begin to multiply at a larger scale.
5. Accuracy of time measurement for computation. The time taken to compute sorting may not be completely accurate in every computation.