**CCDSALG Term 3, AY 2019 – 2020**

Project 1 – Comparing Sorting Algorithms

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Section** | **Names** | **Task 1** | **Task 2** | **Task 3** | **Task 4** |
| S12 | Gan, John Matthew Ong | X | X | X |  |
| S16 | Noblefranca, Jose Noel Cleofe | X | X |  |  |
| S15 | Remudaro, Angelo Alvarez |  | X |  |  |

Fill this part with your section and names. For the tasks, put an X mark if you have performed the specified task. Please refer to the project specifications for the tasks.

**LIST OF SORTING ALGORITHMS**

|  |  |  |
| --- | --- | --- |
| **Sorting Algorithm** | **Author (if available)** | **Downloaded From** |
| 1. Bubble sort | programmingsimplified.com | <https://www.programmingsimplified.com/c/source-code/c-program-bubble-sort> |
| 2. Insertion sort | hackerearth.com | <https://www.hackerearth.com/practice/algorithms/sorting/insertion-sort/tutorial/> |
| 3. Selection sort | geeksforgeeks.org | <https://www.geeksforgeeks.org/selection-sort/> |
| 4.  Merge sort | geeksforgeeks.org | <https://www.geeksforgeeks.org/merge-sort/> |
| 5.  Quick sort | geeksforgeeks.org | <https://www.geeksforgeeks.org/quick-sort/> |
| 6.  Radix sort | geeksforgeeks.org | <https://www.geeksforgeeks.org/radix-sort/> |

**COMPARISON TABLE**

**M = (\_\_\_\_)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Size** | **Average Machine Execution Time (miliseconds)** | | | | | |
| **Bubble** | **Insertion** | **Selection** | **Merge** | **Quick** | **Radix** |
| 1024 |  |  |  |  |  |  |
| 2048 |  |  |  |  |  |  |
| 4096 |  |  |  |  |  |  |
| : |  |  |  |  |  |  |
| : |  |  |  |  |  |  |
| : |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Size** | **Average Counter Value (in millions)** | | | | | |
| **Bubble** | **Insertion** | **Selection** | **Merge** | **Algo5** | **Algo6** |
| 1024 |  |  |  |  |  |  |
| 2048 |  |  |  |  |  |  |
| 4096 |  |  |  |  |  |  |
| : |  |  |  |  |  |  |
| : |  |  |  |  |  |  |
| : |  |  |  |  |  |  |

**GRAPHS**

Copy/paste the graphs here, make sure it is big enough to see the trend in the increase of the average Machine Execution Time (MET) and the average counter value.

**DISCUSSION**

Explain interesting findings based on your experiments.ss

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