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CS302-1001
Project 2 Documentation
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To Compile and Run: Enter folder named 'code' and type 'make'.
Notes:
- I ran the selection sort and merge sort tests in the same cpp file to make things easier.
- Proj2.cpp is the main test file.
- 10 sorting algorithms run for each sort method and for each data number.

PROJECT OUTPUT:

```
-----------UNSORTED TESTS-----------
SELECTION SORT RESULTS (1,000 Values) (10 Times):
Average Time: 5.6ms
Average Comparisons: 31993.5
Average Swaps: 5494.5
MERGE SORT RESULTS (1,000 Data Values) (10 Times):
Average Time: 4.9ms
Average Comparisons: 24260.5
Average Swaps: 109736
SELECTION SORT RESULTS (10,000 Data Values) (10 Times):
Average Time: 151.2ms
Average Comparisons: 427295
Average Swaps: 54994.5
MERGE SORT RESULTS (10,000 Data Values) (10 Times):
Average Time: 40.3ms
Average Comparisons: 336510
Average Swaps: 1.46978e+06
SELECTION SORT RESULTS (100,000 Data Values) (10 Times):
Average Time: 2.53176e+06ms
Average Comparisons: 5.54672e+06
Average Swaps: 549994
MERGE SORT RESULTS (100,000 Data Values) (10 Times):
Average Time: 432.3ms
Average Comparisons: 4.26987e+06
Average Swaps: 1.83582e+07
-----------SORTED TESTS-----------
SELECTION SORT RESULTS (1,000 Values) (10 Times):
Average Time: 6.4ms
Average Comparisons: 0
Average Swaps: 5494.5
MERGE SORT RESULTS (1,000 Data Values) (10 Times):
Average Time: 4.3ms
Average Comparisons: 27742
Average Swaps: 109736
SELECTION SORT RESULTS (10,000 Data Values) (10 Times):
Average Time: 155.7ms
Average Comparisons: 0
Average Swaps: 54994.5
MERGE SORT RESULTS (10,000 Data Values) (10 Times):
Average Time: 41.3ms
Average Comparisons: 379544
Average Swaps: 1.46978e+06
SELECTION SORT RESULTS (100,000 Data Values) (10 Times):
Average Time: 11667.2ms
Average Comparisons: 0
Average Swaps: 549994
MERGE SORT RESULTS (100,000 Data Values) (10 Times):
Average Time: 432.7ms
Average Comparisons: 4.69647e+06
Average Swaps: 1.83582e+07
```