

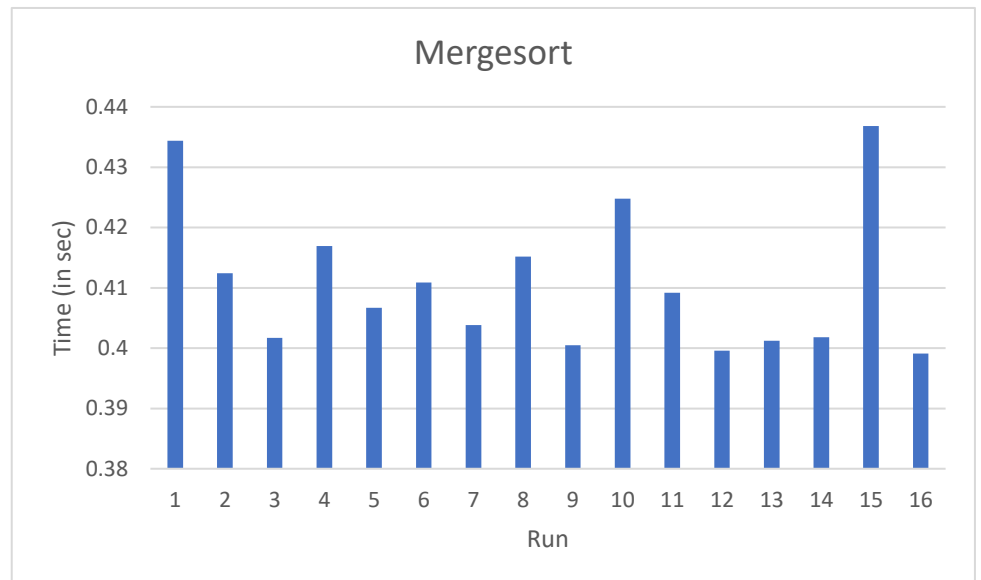
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The mergesort algorithm was run on a vector that contained 100,000 entries that were “randomized.” The mergesort was able to sort the list at an average time of .410938 seconds. The fastest time was .3991 seconds while the slowest time was .4368. The standard deviation of the times was .012057. Below is the table and graph included

| Run | Time   |
|-----|--------|
| 1   | 0.4344 |
| 2   | 0.4124 |
| 3   | 0.4017 |
| 4   | 0.4169 |
| 5   | 0.4067 |
| 6   | 0.4109 |
| 7   | 0.4038 |
| 8   | 0.4152 |
| 9   | 0.4005 |
| 10  | 0.4248 |
| 11  | 0.4092 |
| 12  | 0.3996 |
| 13  | 0.4012 |
| 14  | 0.4018 |
| 15  | 0.4368 |
| 16  | 0.3991 |

Average 0.410938  
Std 0.012057



Unfortunately, the test was not able to be run with larger numbers because the recursive function would cause a segmentation fault.