

## QuicksortDualPivot

The length of Array is: 1000

2023-03-04 19:28:52 INFO Benchmark\_Timer - Begin run: QuicksortDualPivot with 20 runs

avgTime in milliseconds: 0.57894585

2023-03-04 19:28:52 INFO Benchmark\_Timer - Begin run: QuicksortDualPivot with 20 runs

Compares: 10988

Swaps: 4869

Hits: 29907

The length of Array is: 2000

2023-03-04 19:28:53 INFO Benchmark\_Timer - Begin run: QuicksortDualPivot with 20 runs

avgTime in milliseconds: 1.1379395

2023-03-04 19:28:53 INFO Benchmark\_Timer - Begin run: QuicksortDualPivot with 20 runs

Compares: 24624

Swaps: 10873

Hits: 66973

The length of Array is: 4000

2023-03-04 19:28:53 INFO Benchmark\_Timer - Begin run: QuicksortDualPivot with 20 runs

avgTime in milliseconds: 2.6001604

2023-03-04 19:28:53 INFO Benchmark\_Timer - Begin run: QuicksortDualPivot with 20 runs

Compares: 55001

Swaps: 23924

Hits: 148348

The length of Array is: 8000

2023-03-04 19:28:53 INFO Benchmark\_Timer - Begin run: QuicksortDualPivot with 20 runs

avgTime in milliseconds: 3.2175187000000003

2023-03-04 19:28:53 INFO Benchmark\_Timer - Begin run: QuicksortDualPivot with 20 runs

Compares: 119754

Swaps: 53566

Hits: 329424

The length of Array is: 16000

2023-03-04 19:28:55 INFO Benchmark\_Timer - Begin run: QuicksortDualPivot with 20 runs

avgTime in milliseconds: 1.7499147000000002

2023-03-04 19:28:55 INFO Benchmark\_Timer - Begin run: QuicksortDualPivot with 20 runs

Compares: 265795

Swaps: 114056

Hits: 712911

The length of Array is: 32000

2023-03-04 19:29:03 INFO Benchmark\_Timer - Begin run: QuicksortDualPivot with 20 runs

avgTime in milliseconds: 3.8063854

2023-03-04 19:29:03 INFO Benchmark\_Timer - Begin run: QuicksortDualPivot with 20 runs

Compares: 578939

Swaps: 246675

Hits: 1547696

The length of Array is: 64000

2023-03-04 19:29:35 INFO Benchmark\_Timer - Begin run: QuicksortDualPivot with 20 runs

avgTime in milliseconds: 9.13448135

2023-03-04 19:29:35 INFO Benchmark\_Timer - Begin run: QuicksortDualPivot with 20 runs

Compares: 1228038

Swaps: 525655

Hits: 3294275

The length of Array is: 128000

2023-03-04 19:31:38 INFO Benchmark\_Timer - Begin run: QuicksortDualPivot with 20 runs

avgTime in milliseconds: 20.0055104

2023-03-04 19:31:38 INFO Benchmark\_Timer - Begin run: QuicksortDualPivot with 20 runs

Compares: 2657232

Swaps: 1103315

Hits: 6997859

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HeapSort

The length of Array is: 1000

2023-03-04 20:00:45 INFO Benchmark\_Timer - Begin run: HeapSort with 20 runs

avgTime in milliseconds: 0.29864795

2023-03-04 20:00:45 INFO Benchmark\_Timer - Begin run: HeapSort with 20 runs

Compares: 16840

Swaps: 9073

Hits: 69976

The length of Array is: 2000

2023-03-04 20:00:46 INFO Benchmark\_Timer - Begin run: HeapSort with 20 runs

avgTime in milliseconds: 0.36887495000000003

2023-03-04 20:00:46 INFO Benchmark\_Timer - Begin run: HeapSort with 20 runs

Compares: 37704

Swaps: 20159

Hits: 156047

The length of Array is: 4000

2023-03-04 20:00:46 INFO Benchmark\_Timer - Begin run: HeapSort with 20 runs

avgTime in milliseconds: 0.67158115

2023-03-04 20:00:46 INFO Benchmark\_Timer - Begin run: HeapSort with 20 runs

Compares: 83415

Swaps: 44316

Hits: 344098

The length of Array is: 8000

2023-03-04 20:00:47 INFO Benchmark\_Timer - Begin run: HeapSort with 20 runs

avgTime in milliseconds: 1.19905415

2023-03-04 20:00:47 INFO Benchmark\_Timer - Begin run: HeapSort with 20 runs

Compares: 182836

Swaps: 96625

Hits: 752174

The length of Array is: 16000

2023-03-04 20:00:50 INFO Benchmark\_Timer - Begin run: HeapSort with 20 runs

avgTime in milliseconds: 3.0522668

2023-03-04 20:00:51 INFO Benchmark\_Timer - Begin run: HeapSort with 20 runs

Compares: 397683

Swaps: 209260

Hits: 1632409

The length of Array is: 32000

2023-03-04 20:01:06 INFO Benchmark\_Timer - Begin run: HeapSort with 20 runs

avgTime in milliseconds: 5.8211104

2023-03-04 20:01:06 INFO Benchmark\_Timer - Begin run: HeapSort with 20 runs

Compares: 859288

Swaps: 450497

Hits: 3520568

The length of Array is: 64000

2023-03-04 20:02:09 INFO Benchmark\_Timer - Begin run: HeapSort with 20 runs

avgTime in milliseconds: 13.80503755

2023-03-04 20:02:10 INFO Benchmark\_Timer - Begin run: HeapSort with 20 runs

Compares: 1846676

Swaps: 965025

Hits: 7553455

The length of Array is: 128000

2023-03-04 20:06:42 INFO Benchmark\_Timer - Begin run: HeapSort with 20 runs

avgTime in milliseconds: 32.20697085

2023-03-04 20:06:43 INFO Benchmark\_Timer - Begin run: HeapSort with 20 runs

Compares: 3949122

Swaps: 2057913

Hits: 16129898

Process finished with exit code 0

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MergeSort

The length of Array is: 1000

2023-03-04 20:35:02 INFO Benchmark\_Timer - Begin run: MergeSort with 20 runs

avgTime in milliseconds: 0.44978745

2023-03-04 20:35:03 INFO Benchmark\_Timer - Begin run: MergeSort with 20 runs

Compares: 8817

Swaps: 876

Hits: 34616

The length of Array is: 2000

2023-03-04 20:35:03 INFO Benchmark\_Timer - Begin run: MergeSort with 20 runs

avgTime in milliseconds: 1.7821813

2023-03-04 20:35:03 INFO Benchmark\_Timer - Begin run: MergeSort with 20 runs

Compares: 19607

Swaps: 1736

Hits: 77201

The length of Array is: 4000

2023-03-04 20:35:03 INFO Benchmark\_Timer - Begin run: MergeSort with 20 runs

avgTime in milliseconds: 1.01753535

2023-03-04 20:35:03 INFO Benchmark\_Timer - Begin run: MergeSort with 20 runs

Compares: 43246

Swaps: 3515

Hits: 170486

The length of Array is: 8000

2023-03-04 20:35:03 INFO Benchmark\_Timer - Begin run: MergeSort with 20 runs

avgTime in milliseconds: 2.2252041

2023-03-04 20:35:03 INFO Benchmark\_Timer - Begin run: MergeSort with 20 runs

Compares: 94471

Swaps: 6989

Hits: 372891

The length of Array is: 16000

2023-03-04 20:35:03 INFO Benchmark\_Timer - Begin run: MergeSort with 20 runs

avgTime in milliseconds: 3.0678125

2023-03-04 20:35:03 INFO Benchmark\_Timer - Begin run: MergeSort with 20 runs

Compares: 204946

Swaps: 14046

Hits: 809917

The length of Array is: 32000

2023-03-04 20:35:03 INFO Benchmark\_Timer - Begin run: MergeSort with 20 runs

avgTime in milliseconds: 6.7984437

2023-03-04 20:35:03 INFO Benchmark\_Timer - Begin run: MergeSort with 20 runs

Compares: 441894

Swaps: 28065

Hits: 1747778

The length of Array is: 64000

2023-03-04 20:35:03 INFO Benchmark\_Timer - Begin run: MergeSort with 20 runs

avgTime in milliseconds: 13.97622915

2023-03-04 20:35:04 INFO Benchmark\_Timer - Begin run: MergeSort with 20 runs

Compares: 947814

Swaps: 56113

Hits: 3751523

The length of Array is: 128000

2023-03-04 20:35:04 INFO Benchmark\_Timer - Begin run: MergeSort with 20 runs

avgTime in milliseconds: 29.4481291

2023-03-04 20:35:05 INFO Benchmark\_Timer - Begin run: MergeSort with 20 runs

Compares: 2023603

Swaps: 112166

Hits: 8014925

Process finished with exit code 0