

Run No. 1		
Input Size (n)	Brute Force Approach (ms)	Divide and Conquer Approach (ms)
100	0.013041	0.007668
1000	1.16038	0.071218
2000	4.74668	0.175173
3000	11.3612	0.243882
4000	20.3228	0.334134
5000	30.3361	0.399966
6000	41.8975	0.480675
7000	56.8258	0.689973
8000	76.8976	0.605089
9000	103.745	0.693149

Run No. 2		
Input Size (n)	Brute Force Approach (ms)	Divide and Conquer Approach (ms)
100	0.012863	0.007026
1000	1.15665	0.069751
2000	4.52735	0.137071
3000	10.293	0.224492
4000	20.1525	0.386592
5000	29.6087	0.385054
6000	41.1561	0.458481
7000	61.5953	0.569961
8000	80.4068	0.591534
9000	97.7107	0.724378

Run No. 3		
Input Size (n)	Brute Force Approach (ms)	Divide and Conquer Approach (ms)
100	0.012884	0.007088
1000	1.16037	0.07124
2000	5.80251	0.234363
3000	12.9352	0.250305

4000	18.357	0.279971
5000	32.6103	0.364124
6000	43.9924	0.439285
7000	55.6851	0.542538
8000	77.4181	0.854083
9000	102.156	0.726745

Run No. 4		
Input Size (n)	Brute Force Approach (ms)	Divide and Conquer Approach (ms)
100	0.012918	0.0075
1000	1.15995	0.070528
2000	4.46572	0.136969
3000	11.3431	0.357411
4000	21.0296	0.301249
5000	30.802	0.368798
6000	50.0561	0.508063
7000	60.9118	0.546532
8000	78.7494	0.619703
9000	94.3674	0.700504

Average Execution times		
Input Size (n)	Avg Exec Time Brute Force (ms)	Avg Exec Time Divide & Conquer (ms)
100	0.0129265	0.0073205
1000	1.15933	0.0706843
2000	4.88557	0.170894
3000	11.4831	0.269022
4000	19.9655	0.325487
5000	30.8393	0.379486
6000	44.2755	0.471626
7000	58.7545	0.587251
8000	78.368	0.667602
9000	99.4947	0.711194

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### Explanation of the Tables

There are 3 columns in each table

1. First column represents the input size, that is the number of elements in the array for each file. (n)
2. Second column represents the Execution time for Brute Force Approach in terms of milliseconds
3. Third column shows the Execution time for Divide and Conquer Approach in milliseconds.

There are 4 tables for each run. Thus we have 4 readings for each file.

We have taken the average of 4 readings and created another table of Average Execution times at the

The charts and graphs are attached in the Word document.<sup>11</sup>

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