

Data structure 2
Lab (1) report
Sorting Algorithms

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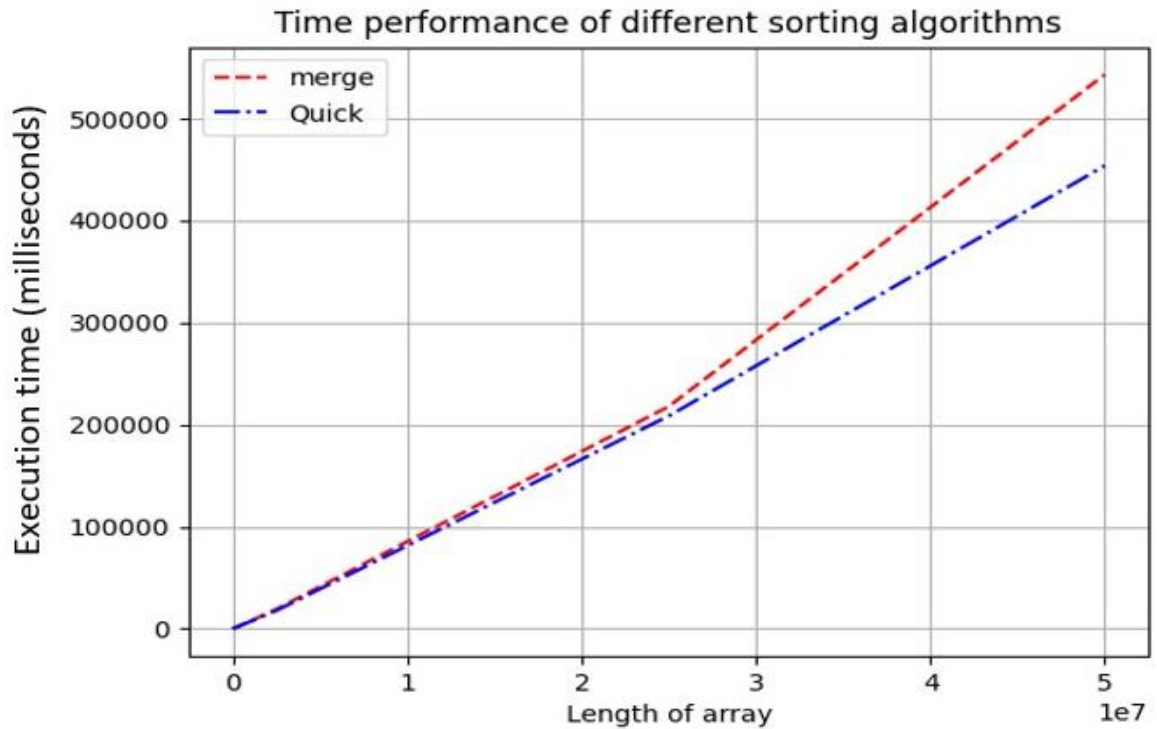
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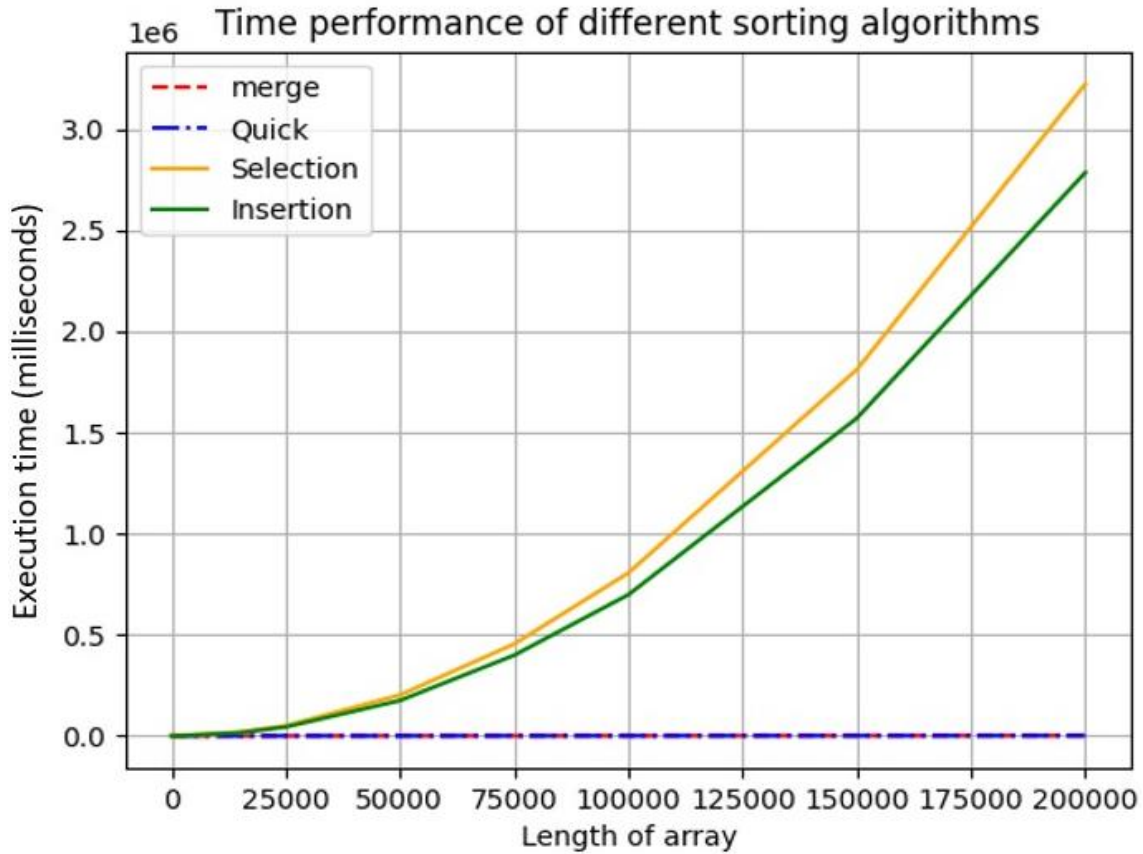
ID3:7161

Difference in the execution time of quick and merge sort algorithms



Array Size	Execution time in Milli seconds (ms)	
	Quick	Merge
N	0	0
10	9.912252	9.031057
1000	88.20343	73.5321
25000	140.2063	138.0942
50000	293.9806	293.3426
75000	425.684	446.1288
100000	606.5304	601.932
125000	812.7246	791.3842
175000	1011.229	1113.773
200000	1210.258	1284.55
500000	3635.707	3415.227
1000000	6856.483	7176.974
2500000	17647.36	19048.11
25000000	208465.8	217802.3
50000000	453783	543065.9

Difference in the execution time of Quick, Merge, Selection and Insertion sort algorithms



Array size	Execution time in Milli seconds (ms)			
	Quick	Merge	Insertion	Selection
N				
10	0	0	0	0
1000	3.593922	4.709005	70.617676	83.271027
15000	85.5906	81.97641	15858.689	18135.957
25000	129.8556	134.4905	43953.104	50363.164
50000	274.0929	293.5648	174896.67	202346.62
75000	400.7292	455.2341	398869.29	454421.81
100000	618.8645	629.6751	698551.91	806184.03
150000	890.027	944.0546	1571553.7	1812037.6
200000	1148.924	1290.615	2786557.5	3224445.9

