Assignment 1 report

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1] Insertion sort

- The time taken to sort an array of 1000 elements was: 25.96473694 ms
- The time taken to sort an array of 25000 elements was: 17278.04899 ms
- The time taken to sort an array of 50000 elements was: 68269.32955 ms
- The time taken to sort an array of 100000 elements was: 283490.9542 ms

2] Selection sort

- The time taken to sort an array of 1000 elements was: 26.89576149 ms
- The time taken to sort an array of 25000 elements was: 16005.99384 ms
- The time taken to sort an array of 50000 elements was: 64384.63974 ms
- The time taken to sort an array of 100000 elements was: 264901.6442 ms

3] Merge sort

- The time taken to sort an array of 1000 elements was: 1.994132996 ms
- The time taken to sort an array of 25000 elements was: 83.7430954 ms
- The time taken to sort an array of 50000 elements was: 175.5204201 ms
- The time taken to sort an array of 100000 elements was: 367.2070503 ms

4] Quick sort

- The time taken to sort an array of 1000 elements was: 1.994371414 ms
- The time taken to sort an array of 25000 elements was: 68.81403923 ms
- The time taken to sort an array of 50000 elements was: 150.8352757 ms
- The time taken to sort an array of 100000 elements was: 328.4475803 ms

5] Graph