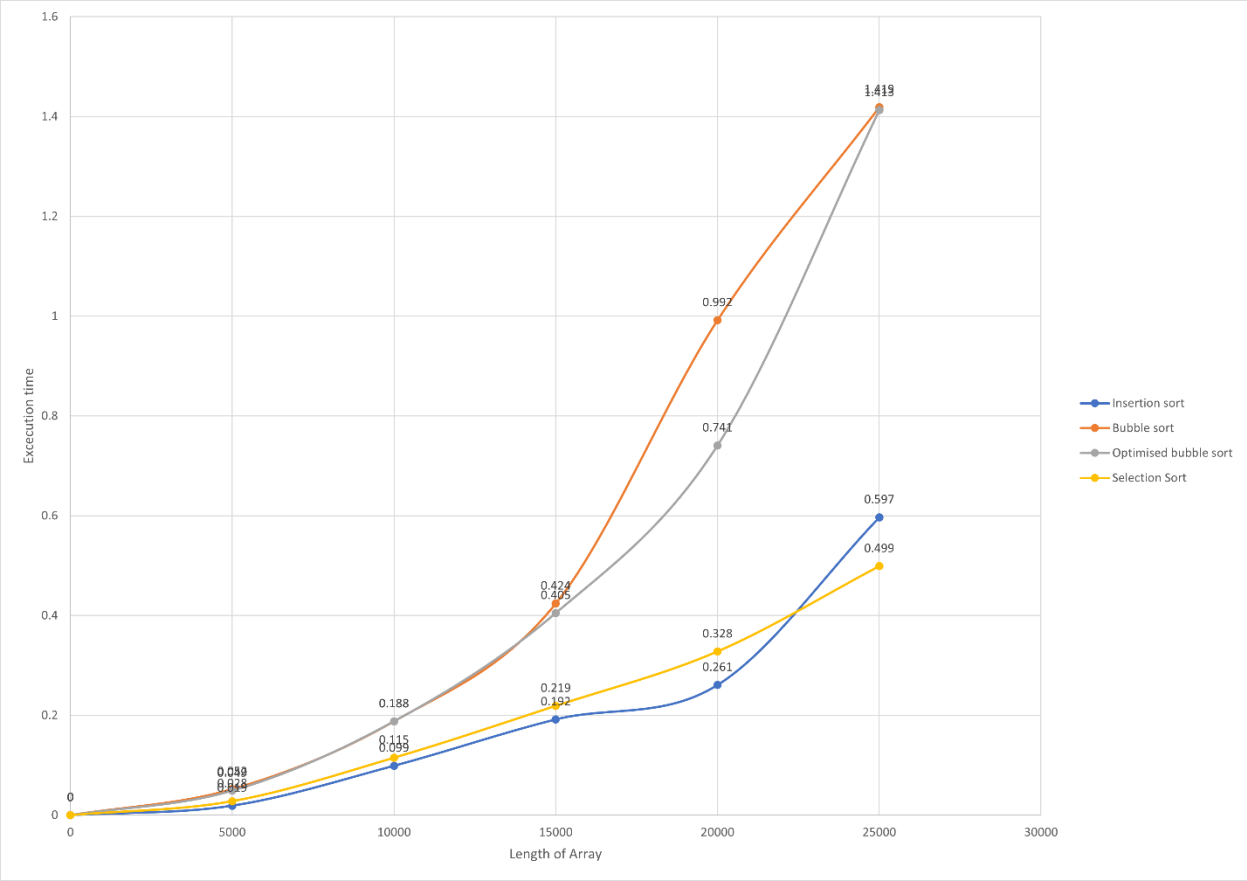
Graph :



Data Table :

	Time taken in seconds			
Length	Insertion sort	Bubble sort	Optimised bubble sort	Selection Sort
1	0	0	0	0
5,000	0.019	0.052	0.049	0.028
10,000	0.099	0.188	0.188	0.115
15,000	0.192	0.424	0.405	0.219
20,000	0.261	0.992	0.741	0.328
25,000	0.597	1.419	1.413	0.499

Comments :

Bubble sort's worst case time complexity is $O(n^2)$. So larger the array, more inefficient how it performs.

For small inputs it can perform in a reasonable manner despite being worse than selection and insertion sorts.

Still having the worst case time complexity of $O(n^2)$, optimized bubble sort can perform somewhat better than the regular bubble sort due to early termination once the array is already sorted and this is noticeable when the array gets larger and reaches the worst case in input.

Insertion sort also has a worst-case Stime complexity of $O(n^2)$, But normally its better performing compared to bubble sort due to n-1 swaps for n lengthed array which is smaller than bubble sorts n^2

Selection sorts works by selecting the minimum element of the unsorted part of the array and placing it at the first place of the sorted part of that array.