OFFLINE-1

Fixed: Range of the elements 1~100 Variable: Array Length

Array Length	Time			Swap			Comparisons			
1,000	0.001508 sec	0.000843	0.001319	249468	258745	988	499500	259744	499500	
5,000	0.048913 sec	0.018305	0.028514	6224837	6165545	4945	12497500	6170544	12497500	
10,000	0.172104 sec	0.050787	0.093536	24828347	24438697	9895	49995000	24448696	49995000	
50,000	6.08016 sec	1.58477	2.34679	618854719	616202117	49467	1249975000	616252116	1249975000	
1,00,000	25.7785 sec	5.78744	9.29523	2474629350	2473924588	99018	4999950000	2474024587	4999950000	
5,00,000	538.597 sec	126.765	218.572	61872808976	61831865380	494983	124999750000	61832365379	124999750000	
	Bubble	Insertion	Selection	Bubble	Insertion	Selection	Bubble	Insertion	Selection	

OFFLINE-2

<u>Fixed: Length of the Array 1000</u>

<u>Variable: Array Element Density</u>

Element Range	Time				Swap		Comparisons		
1~100	0.002598	0.000789	0.001322	248691	250904	982	499500	251903	499500
1~500	0.002331	0.000748	0.0016	250226	242715	992	499500	243714	499500
1~1,000	0.002114	0.000741	0.001067	248522	246286	985	499500	247285	499500
1~5,000	0.002519	0.000833	0.000997	251008	247905	992	499500	248904	499500
1~10,000	0.002612	0.000845	0.001066	254968	251285	992	499500	252284	499500
1~50,000	0.001942	0.000484	0.001441	251177	247485	993	499500	248484	499500
	Bubble	Insertion	Selection	Bubble	Insertion	Selection	Bubble	Insertion	Selection