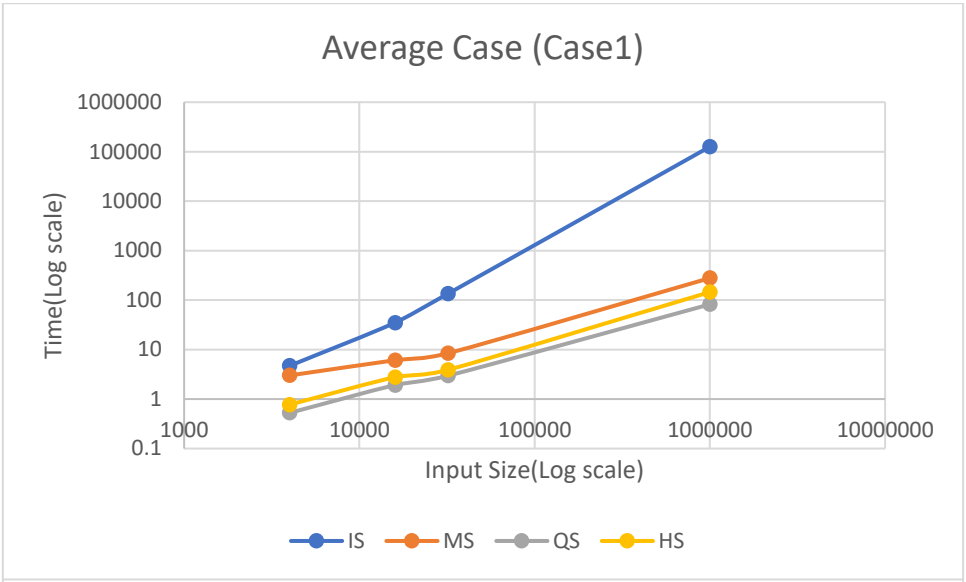
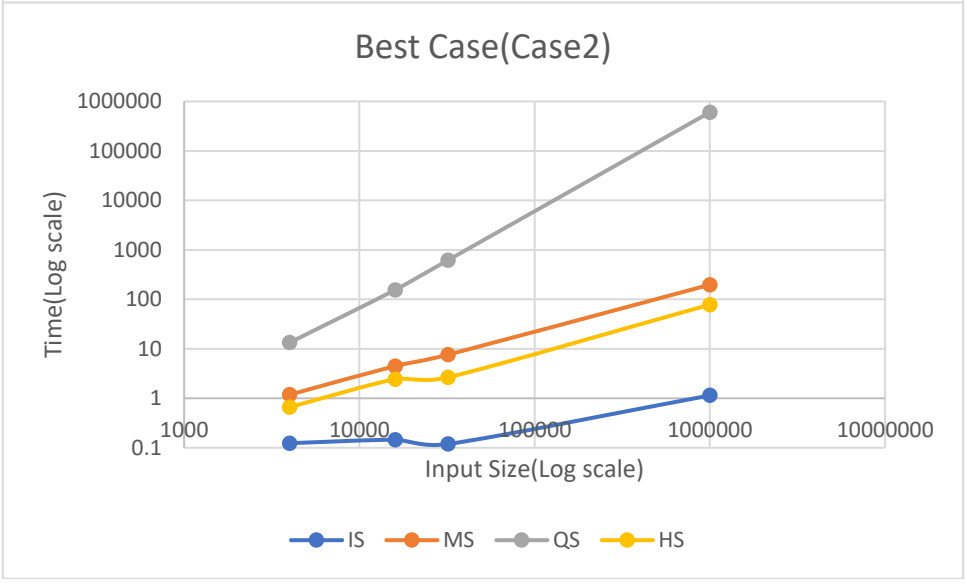
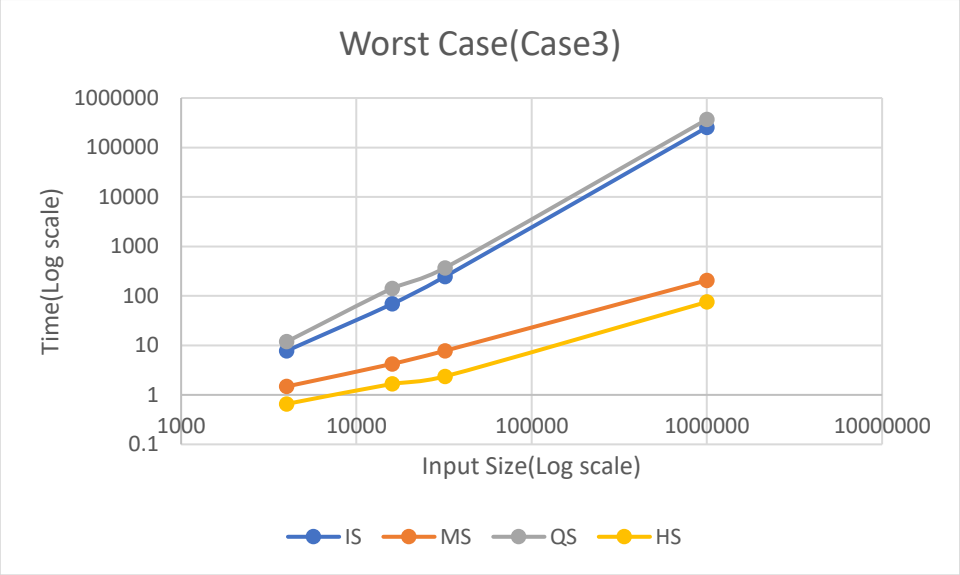
B10901163 張顥譽

EDA union lab machines_Port:40060

Input size	IS		MS		QS		HS	
	CPU time(ms)	Memory(KB)	CPU time(ms)	Memory(KB)	CPU time(ms)	Memory(KB)	CPU time(ms)	Memory(KB)
4000.case2	0.124	5904	1.181	6040	13.368	5968	0.663	5904
4000.case3	7.758	5904	1.479	6040	11.877	5904	0.657	5904
4000.case1	4.707	5904	3.009	6040	0.527	5904	0.773	5904
16000.case2	0.145	6056	4.487	6056	155.318	6680	2.428	6056
16000.case3	68.988	6056	4.234	6056	142.095	6304	1.667	6056
16000.case1	35.139	6056	6.109	6056	1.921	6056	2.776	6056
32000.case2	0.119	6188	7.6	6316	617.399	7504	2.651	6188
32000.case3	245.497	6188	7.792	6316	369.101	6744	2.368	6188
32000.case1	134.744	6188	8.435	6316	2.967	6188	3.897	6188
1000000.case2	1.143	12144	197.495	16236	604949	56844	78.094	12144
1000000.case3	255150	12144	206.722	16236	368888	27248	75.427	12144
1000000.case1	126042	12144	278.928	16236	82.187	12144	145.368	12144







Insertion sort : For average case and worst case ,time complexity is order O(n^2),but for the best case ,time complexity is order O(n).

Merge sort : For all kinds of case ,time complexity is order O(nlgn) ,so for case2 ,merge sort is slower than insertion sort.

Quick sort : For best case and average case ,time complexity is order O(nlgn),but for the worst case ,without RANDOM-Quicksort ,time complexity is order O(n^2) ,same as insertion sort.

Heap sort : For all kinds of case ,time complexity is order O(nlgn) ,so for these 3 cases ,merge sort and heap sort have similar trendline.