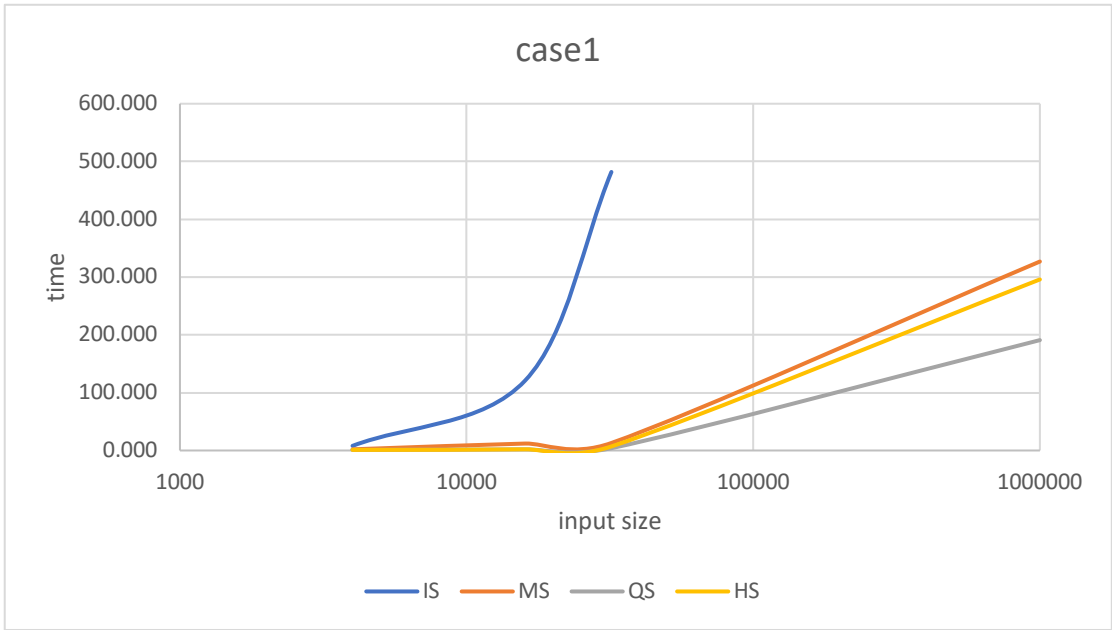
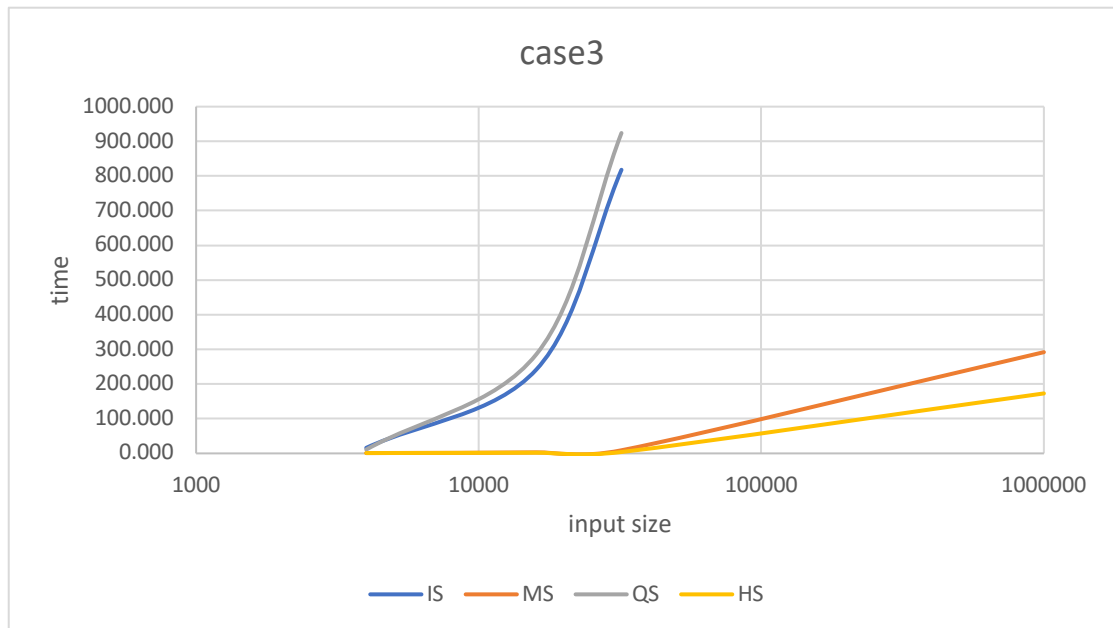
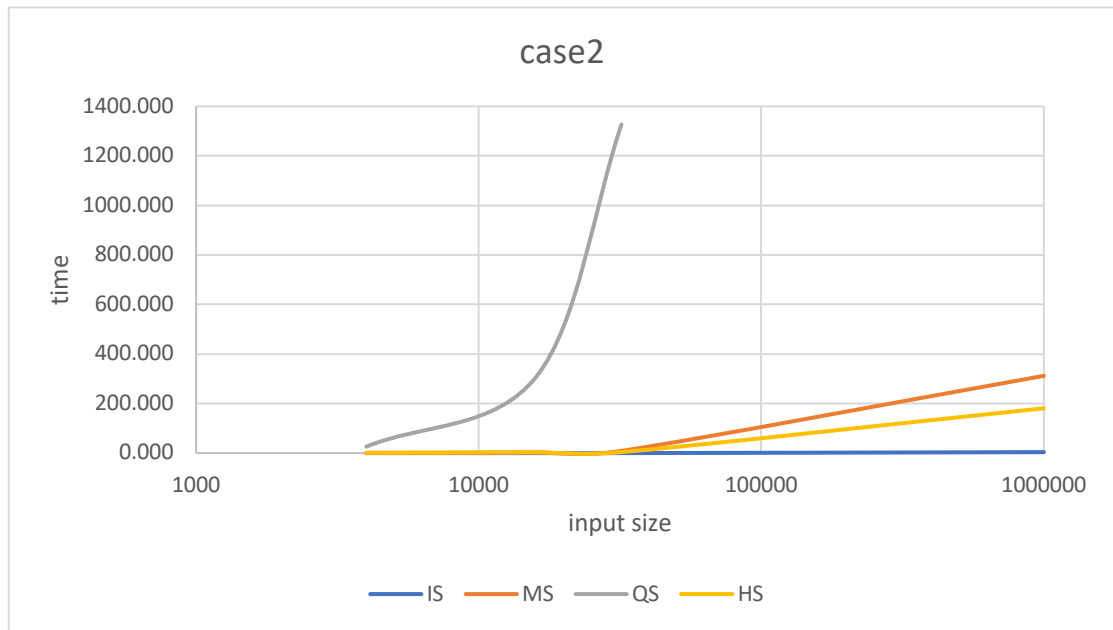


演算法 PA1 report

B06901004 劉穎立

input size	IS		MS		QS		HS	
	CPU time (s)	Memory (KB)	CPU time (s)	Memory (KB)	CPU time (s)	Memory (KB)	CPU time (s)	Memory (KB)
4000.case2	0.000	12500	0.999	12896	25.996	12616	1.000	12500
4000.case3	15.998	12500	1.000	12896	10.998	12520	1.000	12500
4000.case1	7.999	12500	2.000	12896	1.000	12500	1.000	12500
16000.case2	0.000	12648	2.999	14100	308.953	13320	3.000	12648
16000.case3	241.964	12648	3.000	14100	285.957	12948	2.000	12648
16000.case1	120.982	12648	11.999	14100	2.000	12948	2.000	12648
32000.case2	0.000	12648	8.999	16032	1326.800	14052	4.000	12648
32000.case3	817.875	12648	8.999	16032	923.859	13316	3.999	12648
32000.case1	481.927	12648	12.997	16032	4.000	12648	6.999	12648
1000000.case2	3.999	18668	311.953	141996	core dumped	core dumped	180.972	18668
1000000.case3	568531	18668	291.956	141996	core dumped	core dumped	172.974	18668
1000000.case1	283902	18668	326.950	141996	190.971	18668	295.955	18668





在 case1 中(目測 random 測資，模擬 Average case)，insertion sort 的時間成長速度明顯比較快($O(n^2)$)，在 case2 中(已經 sort 好的測資，模擬 best case)，則是除了 quick sort 以外都很快，case3(反向排序測資，模擬 worst case)，則是 Insertion sort 和 quick sort 都很慢。