Comparison of Sorting Algorithms

Source (**https://www.bigocheatsheet.com/** **)**

Name	Time Complexity			Space complexity (worst)	Stable / Unstable
	Best	Average	Worst		
Bubble Sort	$O(n)$	$O(n^2)$	$O(n^2)$	$O(1)$	Stable
Selection Sort	$O(n^2)$	$O(n^2)$	$O(n^2)$	$O(1)$	Unstable
Insertion Sort	$O(n)$	$O(n^2)$	$O(n^2)$	$O(1)$	Stable
Shell Sort	$O(n\log(n))$	$O(n\log(n))^2)$	$O(n\log(n))^2)$	$O(1)$	Unstable
Merge Sort	$O(n\log(n))$	$O(n\log(n))$	$O(n\log(n))$	$O(n)$	Stable
Quick Sort	$O(n\log(n))$	$O(n\log(n))$	$O(n^2)$	$O(\log(n))$	Unstable
Counting Sort	$O(n+k)$	$O(n+k)$	$O(n+k)$	$O(k)$	Unstable
Radix Sort	$O(nk)$	$O(nk)$	$O(nk)$	$O(n+k)$	Stable
Bucket Sort	$O(n+k)$	$O(n+k)$	$O(n^2)$	$O(n)$	Depends on algorithm