Trees	Best	Average	Worst
AVL Tree	O(log n)	O(log n)	O(log n)
Splay Tree	O(log n)	O(log n)	O(n)
Black Red Tree	O(log n)	O(log n)	O(log n)
Binary Search Tree	O(n log n)	O(log n)	O(n)
2-3-4 Trees	O(log n)	O(log n)	O(log n)
B Trees	O(log n)	O(log n)	O(n)
Prims Minimum Spanning Tree	$O(V^2)$	$O(V^2)$	$O(V^2)$
Kruskal's Minimum Spanning Tree	O(log V)	O(log V)	O(log V)
Containers			
Heaps	O(log n)	O(log n)	O(log n)
Binary Heaps	O(E log V)	O(E log V)	O(E log V)
Binomial Heap	O(log n)	O(log n)	O(log n)
Stack	O(n)	O(n)	O(n)
Queue	O(n)	O(n)	O(n)
Pqueue	O(n)	O(n)	O(n)
Sorting			
Replacement Selection			
Insertion Sort	O(n)	$O(n^2)$	$O(n^2)$
Median Sort	O(n log n)	O(n log n)	$O(n^2)$
Quick Sort	O(n log n)	O(n log n)	$O(n^2)$
Selection Sort	$O(n^2)$	$O(n^2)$	$O(n^2)$
Heap Sort	O(n log n)	O(n log n)	O(n log n)
Counting Sort	O(n)	O(n)	O(n)
Bucket Sort/Radix Sort	O(n)	O(n)	O(n)
Merge Sort	O(n log n)	O(n log n)	O(n log n)
Searching			
Sequential Search	O(1)	O(n)	O(n)
Binary Search	O(1)	O(log n)	O(log n)
Hash Based Search (Hashing)	O(1)	O(1)	O(n)
Graphs			
Depth First Search (DFS)	O(V+E)	O(V+E)	O(V+E)
Breadth First Search (BFS)	O(V+E)	O(V+E)	O(V+E)
Tropological Sort for DAC(Directed Acyclic Graphs)	O(|V|+|E|)	O(|V|+|E|)	O(|V|+|E|)
Dukstra's Algorithm PQ (Priority Queue)	O((V+E)*logV)	O((V+E)*logV)	O((V+E)*logV)
Dukstra's Algorithm DG (Directed graphs)	$O(V^2+E)$	$O(V^2+E)$	$O(V^2+E)$
Bellman-Ford	O(V*E)	O(V*E)	O(V*E)
Floyd-Warshall	$O(V^3)$	$O(V^3)$	$O(V^3)$
Prim's Algorithm	O((V+E)*logV)	O((V+E)*logV)	O((V+E)*logV)
Path Finding in AI			
Depth First Search (DFS)	O(b*d)	O(b^d)	O(b^d)
Breadth First Search (BFS)	O(b*d)	O(b^d)	O(b^d)
A* Search	O(b*d)	O(b^d)	O(b^d)
Minimax	O(b^ply)	O(b^ply)	O(b^ply)
Negmax	O(b^ply)	O(b^ply)	O(b^ply)
AlphaBeta	O(b^ply/2)	O(b^ply/2)	O(b^ply/2)
Network Flow Algroithms			
Ford-Fulkerson	O(E*mf)	O(E*mf)	O(E*mf)
Computational Geometry			
Brute Force Intersection	$O(n^2)$	$O(n^2)$	$O(n^2)$
Convex Hull Scan	O(n)	O(n log n)	O(n log n)
Line Sweep (part I)	O((n+k)log n)	O((n+k)log n)	$O(n^2)$
Line Sweep (part II)	O((n+k)log n)	O((n+k)log n)	$O(n^2)$
Nearest Neighbor	O(log n)	O(log n)	O(n)