

Data Structure	Operation	Best Case	Average Case	Worst Case
<b>BST</b>	Insert	$O(\log n)$	$O(\log n)$	$O(n)$
	Delete	$O(\log n)$	$O(\log n)$	$O(n)$
	Search	$O(\log n)$	$O(\log n)$	$O(n)$
<b>AVL Tree</b>	Insert	$O(\log n)$	$O(\log n)$	$O(\log n)$
	Delete	$O(\log n)$	$O(\log n)$	$O(\log n)$
	Search	$O(\log n)$	$O(\log n)$	$O(\log n)$
<b>Splay Tree</b>	Insert	$O(\log n)$	$O(\log n)$ amortized	$O(n)$
	Delete	$O(\log n)$	$O(\log n)$ amortized	$O(n)$
	Search	$O(1)$ (if recent)	$O(\log n)$ amortized	$O(n)$
<b>Red-Black Tree</b>	Insert	$O(\log n)$	$O(\log n)$	$O(\log n)$
	Delete	$O(\log n)$	$O(\log n)$	$O(\log n)$
	Search	$O(\log n)$	$O(\log n)$	$O(\log n)$
<b>B-Tree (order m)</b>	Insert	$O(\log n)$	$O(\log n)$	$O(\log n)$
	Delete	$O(\log n)$	$O(\log n)$	$O(\log n)$
	Search	$O(\log n)$	$O(\log n)$	$O(\log n)$
<b>Hashing (Division Method)</b>	Insert	$O(1)$	$O(1)$	$O(n)$ (with chaining)
	Delete	$O(1)$	$O(1)$	$O(n)$
	Search	$O(1)$	$O(1)$	$O(n)$
<b>Heap (for Heap Sort)</b>	Insert	$O(1)$	$O(\log n)$	$O(\log n)$
	Delete Max/Min	$O(\log n)$	$O(\log n)$	$O(\log n)$
	Search	$O(1)$ (top only)	$O(n)$	$O(n)$