

Data Structures Cheat Sheet

Time complexities of search, insert, and delete operations in advanced data structures

Data Structure	Worst Case			Average Case		
	Search	Insert	Delete	Search	Insert	Delete
Left-leaning red-black BST	log n	log n	log n	log n	log n	log n
AVL Tree	log n	log n	log n	log n	log n	log n
Sorted array, binary search	log n	n	n	log n	n	n
Unbalanced binary search tree	n	n	n	log n	log n	\sqrt{n}
Hash table, separate-chaining	n	n	n	1	1	1
Hash table, linear-probing	n	n	n	1	1	1
An unordered list, sequential search	n	n	n	n	n	n