

Question :

Draw a table that compares the worst, best and average cases of insertion, searching and deletion of Linear search symbol table, Binary search symbol table, Binary search tree, and 2-3 Tree.

Solution :

Implementation	<u>Worst</u> Search	<u>Worst</u> Insert	<u>Worst</u> Delete	<u>Average</u> Search	<u>Average</u> Insert	<u>Average</u> Delete	<u>Best</u> Search	<u>Best</u> Insert	<u>Best</u> Delete
Linear Search	N	N	N	N/2	N	N/2	1	1	1
Binary Search	log N	N	N	log N	N/2	N/2	1	log N	log N
BST	N	N	N	1.39 logN	1.39 logN	logN	1	log N	log N
2-3 Tree	clog N	clog N	clog N	clog N	clog N	clog N	1	clog N	clog N