# Binary Search Tree

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**Basic :**

1. [Binary Search Tree | Set 1 (Search and Insertion)](https://www.geeksforgeeks.org/binary-search-tree-set-1-search-and-insertion/)
2. [Binary Search Tree | Set 2 (Delete)](https://www.geeksforgeeks.org/binary-search-tree-set-2-delete/)
3. [Advantages of BST over Hash Table](https://www.geeksforgeeks.org/advantages-of-bst-over-hash-table/)

**Construction and Conversion :**

1. [Construct BST from given preorder traversal | Set 1](https://www.geeksforgeeks.org/construct-bst-from-given-preorder-traversa/)
2. [Construct BST from given preorder traversal | Set 2](https://www.geeksforgeeks.org/construct-bst-from-given-preorder-traversal-set-2/)
3. [Binary Tree to Binary Search Tree Conversion](https://www.geeksforgeeks.org/binary-tree-to-binary-search-tree-conversion/)
4. [Convert a BST to a Binary Tree such that sum of all greater keys is added to every key](https://www.geeksforgeeks.org/convert-bst-to-a-binary-tree/)
5. [Sorted Linked List to Balanced BST](https://www.geeksforgeeks.org/sorted-linked-list-to-balanced-bst/)
6. [Sorted Array to Balanced BST](https://www.geeksforgeeks.org/sorted-array-to-balanced-bst/)
7. [Transform a BST to greater sum tree](https://www.geeksforgeeks.org/transform-bst-sum-tree/)
8. [Construct all possible BSTs for keys 1 to N](https://www.geeksforgeeks.org/construct-all-possible-bsts-for-keys-1-to-n/)
9. [Convert a BST to a Binary Tree such that sum of all greater keys is added to every key](https://www.geeksforgeeks.org/convert-bst-to-a-binary-tree/)
10. [In-place Convert BST into a Min-Heap](https://www.geeksforgeeks.org/in-place-convert-bst-into-a-min-heap/)
11. [Convert BST to Min Heap](https://www.geeksforgeeks.org/convert-bst-min-heap/)
12. [Construct BST from its given level order traversal](https://www.geeksforgeeks.org/construct-bst-given-level-order-traversal/)

**Check and Smallest/Largest Element :**

1. [A program to check if a binary tree is BST or not](https://www.geeksforgeeks.org/a-program-to-check-if-a-binary-tree-is-bst-or-not/)
2. [Find k-th smallest element in BST (Order Statistics in BST)](https://www.geeksforgeeks.org/find-k-th-smallest-element-in-bst-order-statistics-in-bst/)
3. [Check if each internal node of a BST has exactly one child](https://www.geeksforgeeks.org/check-if-each-internal-node-of-a-bst-has-exactly-one-child/)
4. [Check for Identical BSTs without building the trees](https://www.geeksforgeeks.org/check-for-identical-bsts-without-building-the-trees/)
5. [K’th Largest Element in BST when modification to BST is not allowed](https://www.geeksforgeeks.org/kth-largest-element-in-bst-when-modification-to-bst-is-not-allowed/)
6. [Second largest element in BST](https://www.geeksforgeeks.org/second-largest-element-in-binary-search-tree-bst/)
7. [K’th smallest element in BST using O(1) Extra Space](https://www.geeksforgeeks.org/kth-smallest-element-in-bst-using-o1-extra-space/)
8. [Check if given sorted sub-sequence exists in binary search tree](https://www.geeksforgeeks.org/check-if-given-sorted-sub-sequence-exists-in-binary-search-tree/)
9. [Check whether BST contains Dead End or not](https://www.geeksforgeeks.org/check-whether-bst-contains-dead-end-not/)
10. [Check if an array represents Inorder of Binary Search tree or not](https://www.geeksforgeeks.org/check-array-represents-inorder-binary-search-tree-not/)
11. [Check if two BSTs contain same set of elements](https://www.geeksforgeeks.org/check-two-bsts-contain-set-elements/)
12. [Largest number in BST which is less than or equal to N](https://www.geeksforgeeks.org/largest-number-bst-less-equal-n/)

**Red Black Tree and Threaded Binary Tree :**

1. [C Program for Red Black Tree Insertion](https://www.geeksforgeeks.org/c-program-red-black-tree-insertion/)
2. [Left Leaning Red Black Tree (Insertion)](https://www.geeksforgeeks.org/left-leaning-red-black-tree-insertion/)
3. [Threaded Binary Tree](https://www.geeksforgeeks.org/threaded-binary-tree/)
4. [Threaded Binary Tree | Insertion](https://www.geeksforgeeks.org/threaded-binary-tree-insertion/)
5. [Threaded Binary Search Tree | Deletion](https://www.geeksforgeeks.org/threaded-binary-search-tree-deletion/)

**Misc :**

1. [Find the node with minimum value in a Binary Search Tree](https://www.geeksforgeeks.org/find-the-minimum-element-in-a-binary-search-tree/)
2. [Total number of possible Binary Search Trees with n keys](https://www.geeksforgeeks.org/total-number-of-possible-binary-search-trees-with-n-keys/)
3. [Sorted order printing of a given array that represents a BST](https://www.geeksforgeeks.org/sorted-order-printing-of-an-array-that-represents-a-bst/)
4. [Inorder Successor in Binary Search Tree](https://www.geeksforgeeks.org/inorder-successor-in-binary-search-tree/)
5. [Print BST keys in the given range](https://www.geeksforgeeks.org/print-bst-keys-in-the-given-range/)
6. [Find the largest BST subtree in a given Binary Tree | Set 1](https://www.geeksforgeeks.org/find-the-largest-subtree-in-a-tree-that-is-also-a-bst/)
7. [Merge Two Balanced Binary Search Trees](https://www.geeksforgeeks.org/merge-two-balanced-binary-search-trees/)
8. [Merge two BSTs with limited extra space](https://www.geeksforgeeks.org/merge-two-bsts-with-limited-extra-space/)
9. [Two nodes of a BST are swapped, correct the BST](https://www.geeksforgeeks.org/fix-two-swapped-nodes-of-bst/)
10. [Floor and Ceil from a BST](https://www.geeksforgeeks.org/floor-and-ceil-from-a-bst/)
11. [Find if there is a triplet in a Balanced BST that adds to zero](https://www.geeksforgeeks.org/find-if-there-is-a-triplet-in-bst-that-adds-to-0/)
12. [Find a pair with given sum in a Balanced BST](https://www.geeksforgeeks.org/find-a-pair-with-given-sum-in-bst/)
13. [Remove BST keys outside the given range](https://www.geeksforgeeks.org/remove-bst-keys-outside-the-given-range/)
14. [Add all greater values to every node in a given BST](https://www.geeksforgeeks.org/add-greater-values-every-node-given-bst/)
15. [Inorder predecessor and successor for a given key in BST](https://www.geeksforgeeks.org/inorder-predecessor-successor-given-key-bst/)
16. [Given n appointments, find all conflicting appointments](https://www.geeksforgeeks.org/given-n-appointments-find-conflicting-appointments/)
17. [How to handle duplicates in Binary Search Tree?](https://www.geeksforgeeks.org/how-to-handle-duplicates-in-binary-search-tree/)
18. [Data Structure for a single resource reservations](https://www.geeksforgeeks.org/data-structure-for-future-reservations-for-a-single-resource/)
19. [Count BST nodes that lie in a given range](https://www.geeksforgeeks.org/count-bst-nodes-that-are-in-a-given-range/)
20. [Count BST subtrees that lie in given range](https://www.geeksforgeeks.org/count-bst-subtrees-that-lie-in-given-range/)
21. [How to implement decrease key or change key in Binary Search Tree?](https://www.geeksforgeeks.org/how-to-implement-decrease-key-or-change-key-in-binary-search-tree/)
22. [Print Common Nodes in Two Binary Search Trees](https://www.geeksforgeeks.org/print-common-nodes-in-two-binary-search-trees/)
23. [Count inversions in an array | Set 2 (Using Self-Balancing BST)](https://www.geeksforgeeks.org/count-inversions-in-an-array-set-2-using-self-balancing-bst/)
24. [Replace every element with the least greater element on its right](https://www.geeksforgeeks.org/replace-every-element-with-the-least-greater-element-on-its-right/)
25. [Find pairs with given sum such that pair elements lie in different BSTs](https://www.geeksforgeeks.org/find-pairs-with-given-sum-such-that-pair-elements-lie-in-different-bsts/)
26. [Find the closest element in Binary Search Tree](https://www.geeksforgeeks.org/find-closest-element-binary-search-tree/)
27. [Sum of k smallest elements in BST](https://www.geeksforgeeks.org/sum-k-smallest-elements-bst/)
28. [Maximum element between two nodes of BST](https://www.geeksforgeeks.org/maximum-element-two-nodes-bst/)
29. [Binary Search Tree insert with Parent Pointer](https://www.geeksforgeeks.org/binary-search-tree-insert-parent-pointer/)
30. [Largest BST in a Binary Tree | Set 2](https://www.geeksforgeeks.org/largest-bst-binary-tree-set-2/)
31. [Leaf nodes from Preorder of a Binary Search Tree](https://www.geeksforgeeks.org/leaf-nodes-preorder-binary-search-tree/)
32. [Find median of BST in O(n) time and O(1) space](https://www.geeksforgeeks.org/find-median-bst-time-o1-space/)
33. [Remove all leaf nodes from the binary search tree](https://www.geeksforgeeks.org/remove-leaf-nodes-binary-search-tree/)
34. [Count pairs from two BSTs whose sum is equal to a given value x](https://www.geeksforgeeks.org/count-pairs-from-two-bsts-whose-sum-is-equal-to-a-given-value-x/)
35. [Find distance between two nodes of a Binary Search Tree](https://www.geeksforgeeks.org/find-distance-two-nodes-binary-search-tree/)
36. [Minimum Possible value of |ai + aj – k| for given array and k.](https://www.geeksforgeeks.org/minimum-possible-value-ai-aj-k-given-array-k/)