

## Smart Coding & Interview Series

### Top-20 Basic Program (BST Problems)

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First, understand the solution building strategies and coding for the problems in LIVE/VIDEO session and then you apply those strategies discussed in LIVE/VIDEO session to solve the following problems. Use your favourite language(C/C++/Java/C#/Python/Scala) for coding.

#### Group1

Convert BST to Greater BST: <https://leetcode.com/problems/convert-bst-to-greater-tree/description/>

Delete Node in BST: <https://leetcode.com/problems/delete-node-in-a-bst/description/>

#### Group2

Recover BST: <https://leetcode.com/problems/recover-binary-search-tree/description/>

Two Sum in BST: <https://leetcode.com/problems/two-sum-iv-input-is-a-bst/description/>

Trim BST: <https://leetcode.com/problems/trim-a-binary-search-tree/description/>

SerDe of BST: <https://leetcode.com/problems/serialize-and-deserialize-bst/description/>

Kth Smallest in BST: <https://leetcode.com/problems/kth-smallest-element-in-a-bst/description/>

#### Group3

Min Absolute difference between BST nodes <https://leetcode.com/problems/minimum-absolute-difference-in-bst/description/>

Sorted Array to BST: <https://leetcode.com/problems/convert-sorted-array-to-binary-search-tree/description/>

Sorted List to BST: <https://leetcode.com/problems/convert-sorted-list-to-binary-search-tree/description/>

BST Iterator: <https://leetcode.com/problems/binary-search-tree-iterator/description/>

#### Group4

**BST Range Search:** Given two values  $k_1$  and  $k_2$  (where  $k_1 < k_2$ ) and a root pointer to a Binary Search Tree. Find all the keys of tree in range  $k_1$  to  $k_2$ . i.e. print all  $x$  such that  $k_1 \leq x \leq k_2$  and  $x$  is a key of given BST. Return all the keys in ascending order.

**Floor & Ceil:** Find an efficient algorithm to compute the floor and ceil of given element in a BST. Floor( $x$ ) refers to maximum element that is smaller than  $x$ . Ceil( $x$ ) refers to minimum element that is higher than  $x$ .