

Day 17:

1. Serialize and deserialize of a binary tree **[Hard] [Facebook, Microsoft, LinkedIn, Amazon, Uber, Google, Apple, Oracle, Goldman Sachs]**

<https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/439/serialize-and-deserialize-of-a-binary-tree/18/module-5-problem-solving>

2. Boundary Traversal of a Binary Tree **[Medium] [Microsoft, Amazon, eBay, Facebook]**

<https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/1131/boundary-traversal-of-a-binary-tree/18/module-5-problem-solving>

3. Merge Two binary trees **[Easy] [Facebook, Amazon, Apple, Microsoft]**

<https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/1238/merge-two-binary-trees-leetcode/18/module-5-problem-solving>

4. Range Sum of Binary Search Tree **[Easy] [Facebook, Google, Amazon, Apple, Oracle]**

<https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/1239/range-sum-of-binary-search-tree-leetcode/18/module-5-problem-solving>

5. Invert Binary Tree **[Easy] [Google, Microsoft, Amazon, Facebook, Bloomberg, eBay, Goldman Sachs]**

<https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/437/invert-binary-tree-leetcode/18/module-5-problem-solving>

Practice Questions:

6. Serialization is converting a data structure or object into a sequence of bits so that it can be stored in a file or memory buffer, or transmitted across a network connection link to be reconstructed later in the same or another computer environment.

Design an algorithm to serialize and deserialize a binary search tree. There is no restriction on how your serialization/deserialization algorithm should work. You need to ensure that a binary search tree can be serialized to a string, and this string can be deserialized to the original tree structure.

The encoded string should be as compact as possible. **[Medium]**
[Facebook, Amazon, Microsoft]

Practice link:

<https://leetcode.com/problems/serialize-and-deserialize-bst/>

7. Given the root of a binary tree, imagine yourself standing on the right side of it, return the values of the nodes you can see ordered from top to bottom. **[Medium]** **[Facebook, Amazon, Microsoft, Oracle]**

Practice Link:

<https://leetcode.com/problems/binary-tree-right-side-view/>

8. Given the root of a binary search tree and the lowest and highest boundaries as low and high, trim the tree so that all its elements lies in [low, high]. Trimming the tree should not change the relative structure of the elements that will remain in the tree (i.e., any node's descendant should remain a descendant). It can be proven that there is a unique answer.

Return the root of the trimmed binary search tree. Note that the root may change depending on the given bounds. **[Microsoft, Samsung, Facebook, Apple, Yahoo, Google]**

Practice link: <https://leetcode.com/problems/trim-a-binary-search-tree/>