

Day 16:

1. Find the maximum sum leaf to root path in a Binary Tree **[Medium]**

<https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/425/find-the-maximum-sum-leaf-to-root-path-in-a-binary-tree/18/module-5-problem-solving>

2. Find Diameter of a Binary Tree **[Easy] [Facebook, Amazon, Microsoft, Google, Adobe]**

<https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/429/find-diameter-of-a-binary-tree/18/module-5-problem-solving>

3. Convert a given Binary Tree to Doubly Linked List **[Medium] [Amazon, Goldman Sachs, Microsoft, Morgan Stanley, Snapdeal]**

<https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/430/convert-a-given-binary-tree-to-doubly-linked-list/18/module-5-problem-solving>

4. Vertical Traversal of binary tree **[Medium] [Facebook, Amazon, Bloomberg, Microsoft]**

<https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/434/vertical-traversal-of-binary-tree/18/module-5-problem-solving>

5. Inorder Tree Traversal without recursion and without stack (Threaded binary tree) **[Medium] [Facebook, Microsoft, Google, Bloomberg, Amazon, Goldman Sachs]**

<https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/438/inorder-tree-traversal-without-recursion-and-without-stack-threaded-binary-tree/18/module-5-problem-solving>

Practice Questions:

6. You are given the root of a binary tree containing digits from 0 to 9 only.

Each root-to-leaf path in the tree represents a number.

- For example, the root-to-leaf path 1 -> 2 -> 3 represents the number 123.

Return the total sum of all root-to-leaf numbers. Test cases are generated so that the answer will fit in a 32-bit integer.

A leaf node is a node with no children. **[Medium] [Facebook, Google, Amazon, Microsoft]**

Practice link:

<https://leetcode.com/problems/sum-root-to-leaf-numbers/>

7. A path in a binary tree is a sequence of nodes where each pair of adjacent nodes in the sequence has an edge connecting them. A node can only appear in the sequence at most once. Note that the path does not need to pass through the root.

The path sum of a path is the sum of the node's values in the path.

Given the root of a binary tree, return the maximum path sum of any path. **[Hard] [Facebook, Google, Amazon, Microsoft, Apple, Adobe]**

Practice link:

<https://leetcode.com/problems/binary-tree-maximum-path-sum/>

8. Given the root of a binary tree, calculate the vertical order traversal of the binary tree. **[Hard] [Facebook, Amazon, Bloomberg, Microsoft, Apple]**

Practice link:

<https://leetcode.com/problems/vertical-order-traversal-of-a-binary-tree/>