TREE

Intermediate Level Questions:

Binary Tree:

- Print top view, bottom view , left view and right view of a binary tree.

[Follow here: https://www.geeksforgeeks.org/print-nodes-top-view-binary-tree/]
[Practice here: https://practice.geeksforgeeks.org/problems/top-view-of-binary-tree/1]
[Practice here: https://practice.geeksforgeeks.org/problems/bottom-view-of-binary-tree/1]
[Practice here: https://practice.geeksforgeeks.org/problems/left-view-of-binary-tree/1]
[Practice here: https://practice.geeksforgeeks.org/problems/right-view-of-binary-tree/1]

- Find N^{th} node of Inorder Traversal

[Follow here: https://www.geeksforgeeks.org/find-n-th-node-inorder-traversal/]

- Print Level Order Traversal in Spiral Form

[Practice here: https://practice.geeksforgeeks.org/problems/level-order-traversal-in-spiral-form/1]

- Print Diagonal Traversal of a Binary Tree

[Practice here: https://practice.geeksforgeeks.org/problems/diagonal-traversal-of-binary-tree/1]

- Print Boundary Traversal of Binary Tree

[Practice here: https://practice.geeksforgeeks.org/problems/boundary-traversal-of-binary-tree/1]

- Construct a Binary Tree from given Inorder and Preorder traversal

[Practice here: https://practice.geeksforgeeks.org/problems/construct-tree-1/1]

- Construct a Binary Tree from Inorder and Level order traversal

[Practice here: https://practice.geeksforgeeks.org/problems/construct-tree-from-inorder-and-levelorder/1]

- Construct Binary Tree from String with Bracket Representation

[Follow here: https://www.geeksforgeeks.org/construct-binary-tree-string-bracket-representation/]

- Convert a Binary Tree into Doubly Linked List(DLL)

[Practice here: https://practice.geeksforgeeks.org/problems/binary-tree-to-dll/1]

- Convert a Given Binary Tree into a Sum Tree

[Practice here: https://practice.geeksforgeeks.org/problems/transform-to-sum-tree/1]

- Find minimum swaps required to convert a Binary tree into Binary Search Tree

[Follow here: https://www.geeksforgeeks.org/minimum-swap-required-convert-binary-tree-binary-search-tree/]

- Check if Binary Tree is Sum tree or not

[Practice here: https://practice.geeksforgeeks.org/problems/sum-tree/1]

- Check if All leaf node are at same level or not

[Practice here: https://practice.geeksforgeeks.org/problems/leaf-at-same-level/1]

- Check if a Binary Tree contains duplicate subtrees of size 2 or more.

[Practice here: https://practice.geeksforgeeks.org/problems/duplicate-subtree-in-binary-tree/1]

- Check if two trees are mirror

[Practice here: https://practice.geeksforgeeks.org/problems/check-mirror-in-n-ary-tree/0]

- ~~Check if given graph is tree or not~~

[Follow here: https://www.geeksforgeeks.org/check-given-graph-tree/]

- Sum of Nodes on the longest path from root to leaf node

[Practice here: https://practice.geeksforgeeks.org/problems/sum-of-the-longest-bloodline-of-a-tree/1]

- Find Largest subtree sum in a tree

[Follow here: https://www.geeksforgeeks.org/find-largest-subtree-sum-tree/]

- Maximum sum of nodes in Binary Tree such that no two are adjacent

[Practice here: https://www.geeksforgeeks.org/maximum-sum-nodes-binary-tree-no-two-adjacent/]

- Print all k-sum paths in a Binary Tree

[Practice here: https://practice.geeksforgeeks.org/problems/k-sum-paths/1]

- Find Lowest Common Ancestor in a Binary Tree

[Practice here: https://practice.geeksforgeeks.org/problems/lowest-common-ancestor-in-a-binary-tree/1]

- Find distance between two nodes in a Binary Tree

[Practice here: https://practice.geeksforgeeks.org/problems/min-distance-between-two-given-nodes-of-a-binary-tree/1]

- K^{th} Ancestor of a node in a Binary tree

[Follow here: https://www.geeksforgeeks.org/kth-ancestor-node-binary-tree-set-2/]

- Find All Duplicate Subtrees in a Binary Tree

[Practice here: https://practice.geeksforgeeks.org/problems/duplicate-subtrees/1]

- Tree Isomorphism Problem

[Practice here: https://practice.geeksforgeeks.org/problems/check-if-tree-is-isomorphic/1]

Binary Search Tree:

- Construct BST from inorder and preorder traversal
- Construct BST from inorder and postorder traversal

- Construct BST from Preorder Traversal

[Follow here: https://www.geeksforgeeks.org/construct-bst-from-given-preorder-traversa/]

- Convert Binary Tree into BST

[Practice here: https://practice.geeksforgeeks.org/problems/binary-tree-to-bst/1]

- Convert a normal BST into balanced BST

[Follow here: https://www.geeksforgeeks.org/convert-normal-bst-balanced-bst/]

- Merge two BST [Very Important]

[Practice here: https://practice.geeksforgeeks.org/problems/merge-two-bst-s/1]

- Find Lowest Common Ancestor (LCA) of BST

[Practice here: https://practice.geeksforgeeks.org/problems/lowest-common-ancestor-in-a-bst/1]

- Find K^{th} Largest Element in a BST

[Practice here: https://practice.geeksforgeeks.org/problems/kth-largest-element-in-bst/1]

- Count pairs from Two BSTs whose sum is equal to given value x.

[Practice here: https://practice.geeksforgeeks.org/problems/brothers-from-different-root/1]

- Find the median of BST in O(n) time and O(1) space
[Follow here: https://www.geeksforgeeks.org/find-median-bst-time-o1-space/]

- Count BST nodes that lies in the given range
[Practice here: https://practice.geeksforgeeks.org/problems/count-bst-nodes-that-lie-in-a-given-range/1]

- Replace every element with the least greater element on its right
[Practice here: https://www.geeksforgeeks.org/replace-every-element-with-the-least-greater-element-on-its-right/]

- Given "n" appointments, find the conflicting appointments
[Practice here: https://www.geeksforgeeks.org/given-n-appointments-find-conflicting-appointments/]

- Populate inorder successor of all nodes.
[Practice here: https://practice.geeksforgeeks.org/problems/populate-inorder-successor-for-all-nodes/1]

- Check Dead in a BST
[Practice here: https://practice.geeksforgeeks.org/problems/check-whether-bst-contains-dead-end/1]

- Check preorder is valid or not
[Practice here: https://practice.geeksforgeeks.org/problems/preorder-to-postorder/0]

Expression tree:

- Evaluate Expression tree.
[Practice here: https://practice.geeksforgeeks.org/problems/expression-tree/1]

AVL Tree:

- Insertion and Deletion only
Follow here:
[Insertion: https://www.geeksforgeeks.org/avl-tree-set-1-insertion/]
[Deletion: https://www.geeksforgeeks.org/avl-tree-set-2-deletion/]

RBL Tree:

- Insertion and Deletion only
  Follow here:
  [Intro: https://www.geeksforgeeks.org/red-black-tree-set-1-introduction-2/]
  [Insertion: https://www.geeksforgeeks.org/red-black-tree-set-2-insert/]
  [Deletion: https://www.geeksforgeeks.org/red-black-tree-set-3-delete-2/]

B Tree and B^+ Tree:

- Go through theory only

[B tree: https://www.geeksforgeeks.org/introduction-of-b-tree-2/]
[B^+ Tree: https://www.geeksforgeeks.org/introduction-of-b-tree/]