Topic- Binary Search Tree

BEGINNER

Videos:

1. Introduction to Binary Tree-
   https://www.youtube.com/watch?v=8wQbIOdbfCk,
   https://www.youtube.com/watch?v=fUkrQD9nw0Y

2. Basic insertion and search-
   https://www.youtube.com/watch?v=yC83Kp2xig8

3. Construction of BST-
   https://www.youtube.com/watch?v=jIq6zyeV3D

4. Preorder Traversal of BST-
   https://www.youtube.com/watch?v=pUSy6UZCFKw

5. Inorder Traversal of BST-
   https://www.youtube.com/watch?v=RJhh3Jcc9zw

6. Postorder Traversal of BST-
   https://www.youtube.com/watch?v=cXeNgWhpPQk

7. Level Order Traversal of BST-
   https://www.youtube.com/watch?v=MBZ-gBkjdMc

Reading materials/Articles:

1. Introduction-
   https://www.tutorialspoint.com/python_data_structure/python_binary_search_tree.htm

2. Search and Insertion-
   https://www.geeksforgeeks.org/binary-search-tree-set-1-search-and-insertion/

3. Preorder Traversal of BST-
   https://www.tutorialspoint.com/binary-tree-preorder-traversal-in-python

4. Inorder Traversal of BST-
   https://www.askpython.com/python/examples/inorder-tree-traversal

5. Postorder Traversal of
   BST-https://www.tutorialspoint.com/binary-tree-postorder-traversal-in-python

6. Level order Traversal BST- https://www.analyticsvidhya.com/blog/2021/11/traverse-trees-using-level-order-traversal-in-python/

Practice Questions:

INTERMEDIATE

Videos:

1. InOrder Successor and Predecessor: https://www.youtube.com/watch?v=lQIXz5NJYLs
2. Closest element in BST: https://www.youtube.com/watch?v=0gkWZNE1H4Y

Reading Material/Articles:

Practice Questions:

1. Top view of Binary Tree: https://practice.geeksforgeeks.org/problems/top-view-of-binary-tree/1?page=1&category[]=Binary%20Search%20Tree&sortBy=submissions
2. Largest Binary Search Tree: https://practice.geeksforgeeks.org/problems/largest-bst/1?page=1&difficulty[]=1&category[]=Binary%20Search%20Tree&sortBy=submissions
3. Unique Binary Search Tree: https://leetcode.com/problems/unique-binary-search-trees-ii/
4. Validate Binary Search Tree: https://leetcode.com/problems/validate-binary-search-tree
5. Convert Binary Search Tree to minHeap: https://www.geeksforgeeks.org/convert-bst-min-heap/
6. Reverse a path in BST using Queue: https://www.geeksforgeeks.org/reverse-path-bst-using-queue/

ADVANCED

Videos:

1. 10.1 AVL Tree - Insertion and Rotations
2. Find leaders in an array
3. Skewed Binary Search Tree | Left Skewed | Right Skewed | Disadvantages of BST |…

Reading Material/Articles

1. How to insert Strings into an AVL Tree https://www.geeksforgeeks.org/how-to-insert-strings-into-an-avl-tree/
2. Count of Array elements greater than all elements on its left and at least K elements on its right

https://www.codingninjas.com/codestudio/library/count-of-array-elements-greater-than-all-elements-on-its-left-and-at-least-k-elements-on-its-right

3. Convert a Binary Search Tree into a Skewed tree in increasing or decreasing order

https://www.geeksforgeeks.org/convert-a-binary-search-tree-into-a-skewed-tree-in-increasing-or-decreasing-order/

Practice Questions:

1. Tree of Space
   https://leetcode.com/discuss/interview-question/1279262/juspay-tree-of-space-locking-and-unlocking-n-ary-tree
2. Count of Smaller Numbers After Self
   https://leetcode.com/problems/count-of-smaller-numbers-after-self/
3. Increasing-order-search-tree
   https://leetcode.com/problems/increasing-order-search-tree/solution/