BINARY SEARCH TREE (BST)

A **Binary Search Tree (BST)** is a special type of binary tree where each node has at most two children, and it follows a specific ordering rule:

- All nodes in the **left subtree** have values **less than** the parent node.
- All nodes in the **right subtree** have values **greater than** the parent node.

BST allows efficient searching, insertion, and deletion – typically in **O(log n)** time for balanced trees.

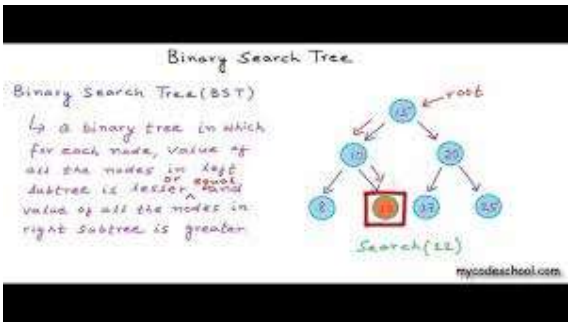
Key operations:

- insert() – add a node while maintaining the BST rule
- search() – find if a value exists
- delete() – remove a node and restructure the tree
- inorder() – gives sorted elements in ascending order

Youtube Resources:

Learn Binary Search Trees in 20 Minutes (Bro Code)

https://youtu.be/Gt2yBZAhsGM?si=BpFXNN6Q53VfSSdm



Data Structures – Binary Search Tree

https://youtu.be/pYT9F8_LFTM?si=DAz87_etyYZKHf2T