

IT206 Assignment

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TOPIC: TREE TRAVERSALS

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❖ Order of Insertion of keys in BST:

- As from the output we have got to know that when the keys are inserted randomly then the height of the tree is highly less ($O(\log n)$) than the case in which the keys are inserted in sorted order ($O(n)$).
- If the keys are inserted in sorted order the insertion takes place in one direction only and leads to skewing of the BST.
- That leads to the formation of right skewed or left skewed tree whose height is the number of elements inserted. This is same as linear linked list.

❖ Copying a Tree

- Copying a tree can be done by using preorder traversal because to copy a node we must know its parent node first.
- This can be done using other traversals as well but the complexity increases.

❖ Delete a Tree

- Similarly, while deleting a tree we should use postorder traversal because to delete a node we must delete its child nodes first.
- Also, this can be done easily using postorder compared to other traversals because it doesn't require to store anything and increase the complexity.