Crux
Lecture -17

Data Structures -6

BST

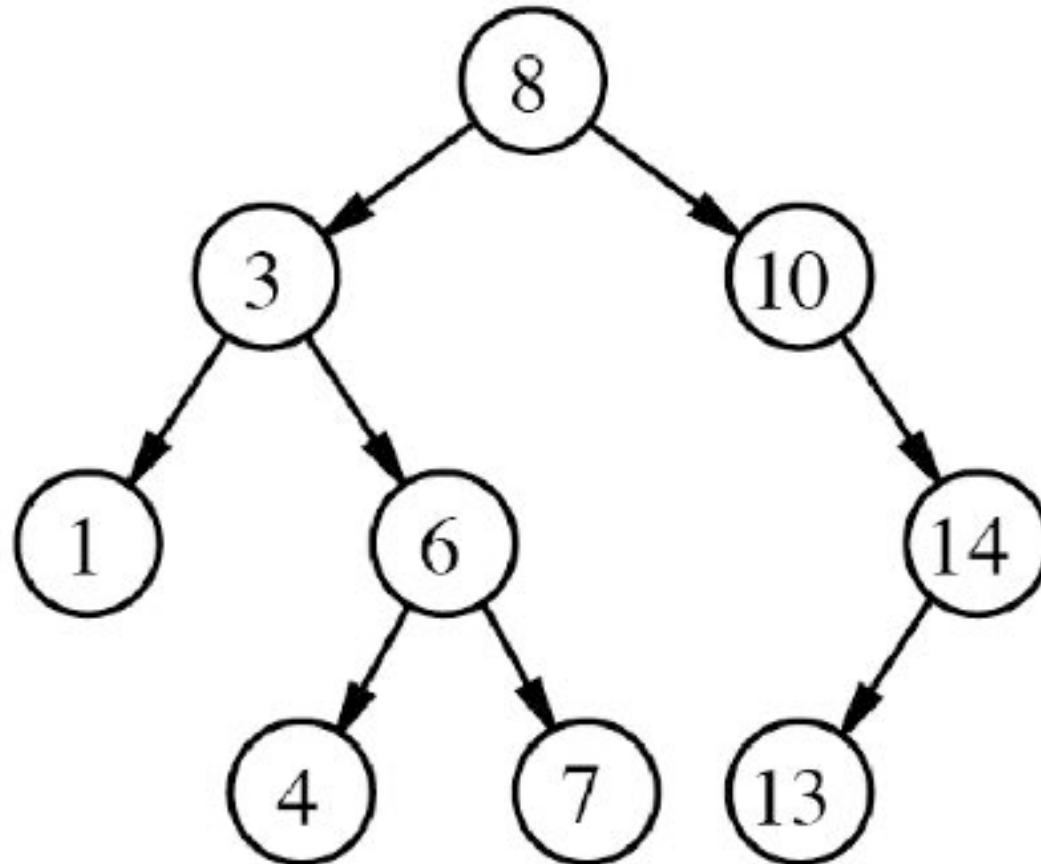1

Binary Search Trees

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BST Properties

1. Every Node in left subtree has value less than or equal to root

2. Every Node in right subtree has value greater than root

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Binary Search trees

Binary Search Trees

```
class BinarySearchTree{
    // accessor methods
    int size();
    boolean isEmpty();
    Node findElement(Object element);
    Object root() throws BSTEmptyException;
    // update methods
    void addElement(Object element);
    void removeElement(Object element) throws
    BSTEmptyException;
}
```

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Lets discuss few problems

1. Find successor of a given node
2. Print BST elements in range K1 and K2

Your Turn

1. Given a binary tree check if its BST
2. Convert a BST into sorted Linked List

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Build a BST using a sorted array

Balanced/unbalanced Tree

Balanced Trees

1. AVL Tree
2. Red Black Trees
3. 2-4 Trees

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Thank You!

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