

Friday, 17 July 15

Launchpad

Lecture -17

Data Structures -6

BST

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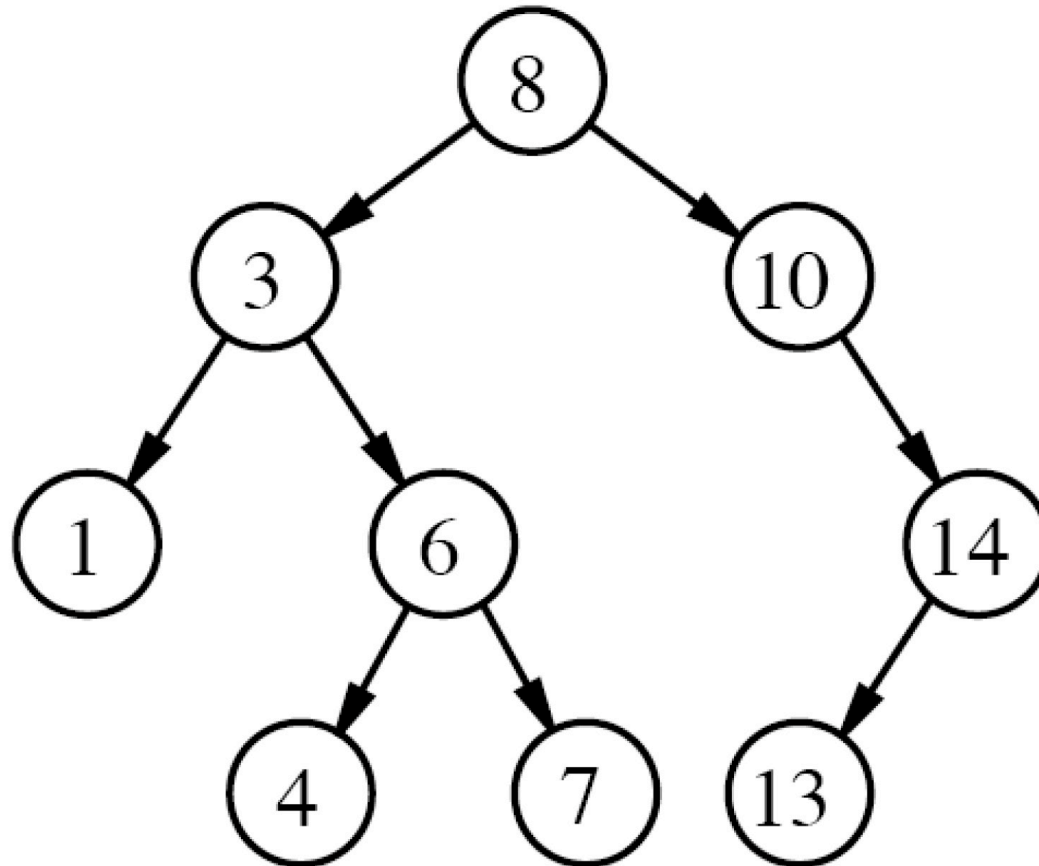


Binary Search Trees

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 or equal to root

Binary Search trees



Binary Search Trees

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

Lets discuss few problems

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

Your Turn

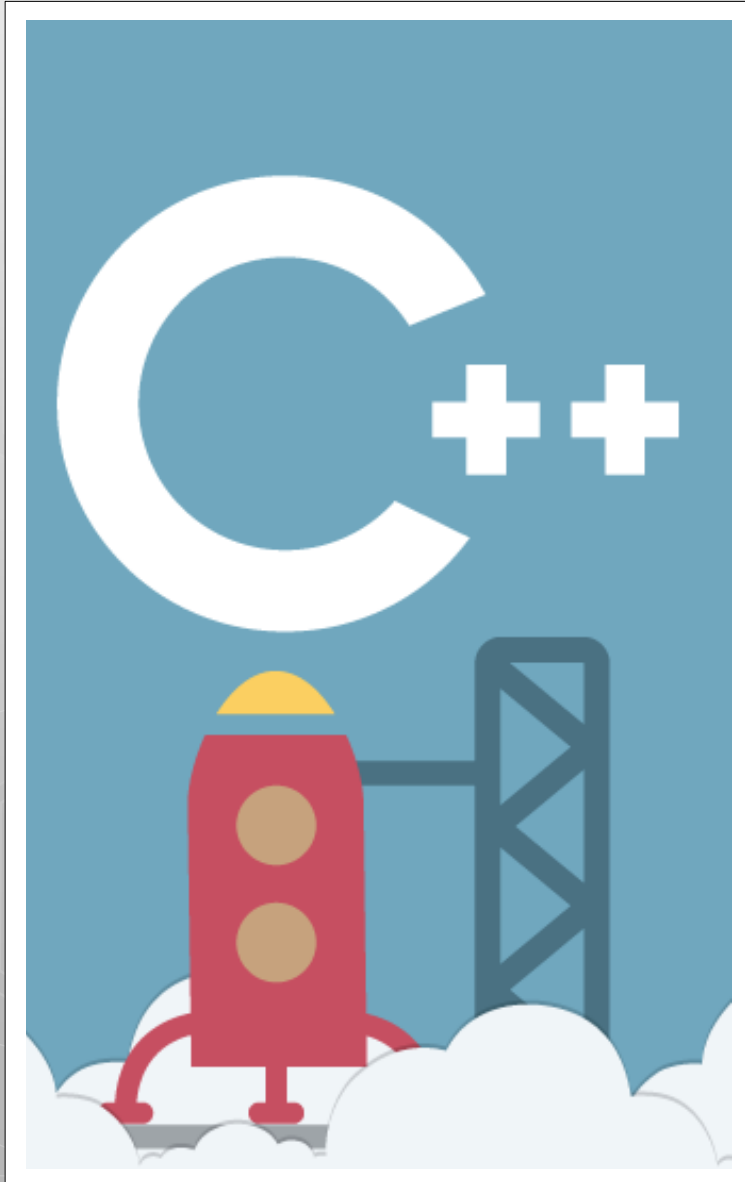
1. Given a binary tree check if its BST
2. Convert a BST into sorted Linked List

Build a BST using a sorted array

Balanced/unbalanced Tree

Balanced Trees

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



Thank You!

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