

Friday, 8 April 16

Crux

Data Structures -6

BST

Manisha Khattar

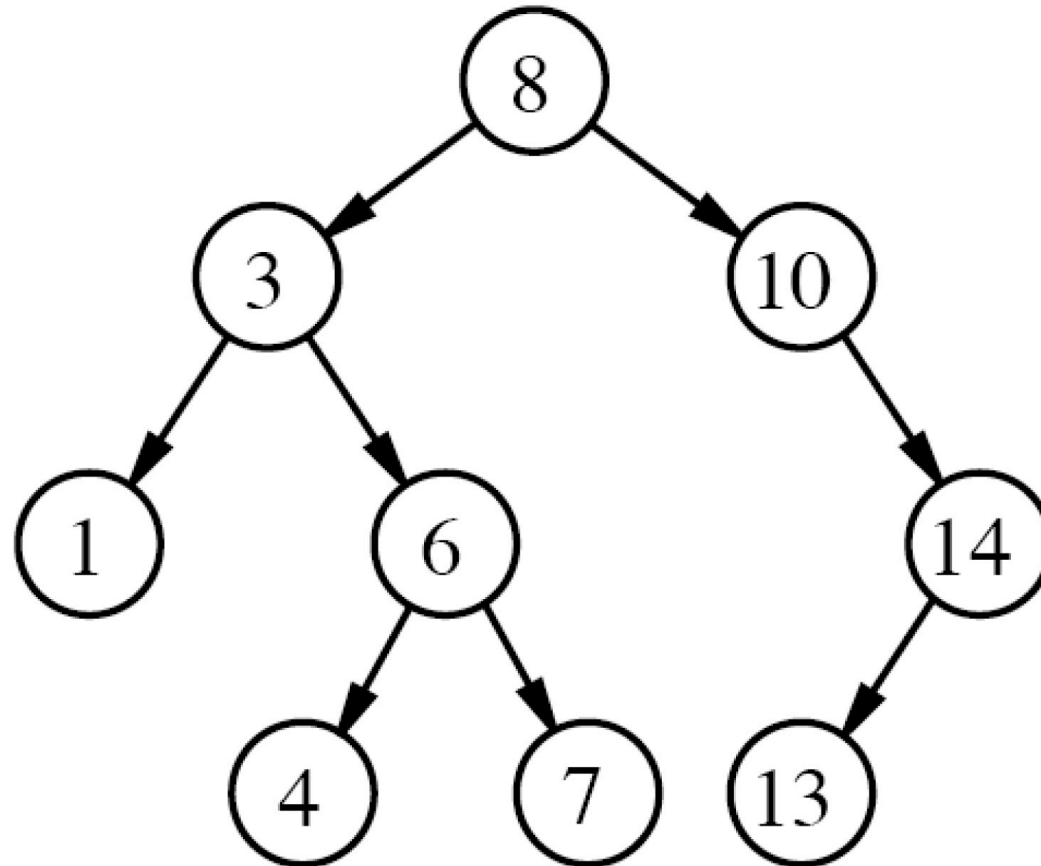


Binary Search Trees

BST Properties

1. Every Node in left subtree has value less than 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();  
    boolean isEmpty();  
    Node findElement(Object element);  
    Object root() throws BSTEmptyException;  
    // update methods  
    void addElement(Object element);  
    void removeElement(Object element) throws  
        BSTEmptyException;  
}
```

Lets discuss few problems

1. Find node in BST
2. Print BST elements in range K1 and K2

Your Turn

1. Given a binary tree check if its BST
2. Find path to a node
3. 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 !! 😊

Manisha Khattar
manisha@codingblocks.com