Apex College

BCIS Program

Affiliated to Pokhara University

Data Structure & Algorithms
Lab Report
12
Binary Search Tree

Date: 28-06-2022

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#Lab 12 Objectives

- To understand Binary Search Tree (BST) and implement the various operations in BST.

#Introduction

Binary Search Tree (BST) is a binary tree that is either empty or in which every node contains a key (value) and satisfies the following conditions:

① All keys in the left sub-tree of root are smaller than key in root node.

② All keys in the right sub-tree of the root node are greater than the key in the root node

③ The left and right sub-trees of the root are again binary search trees.
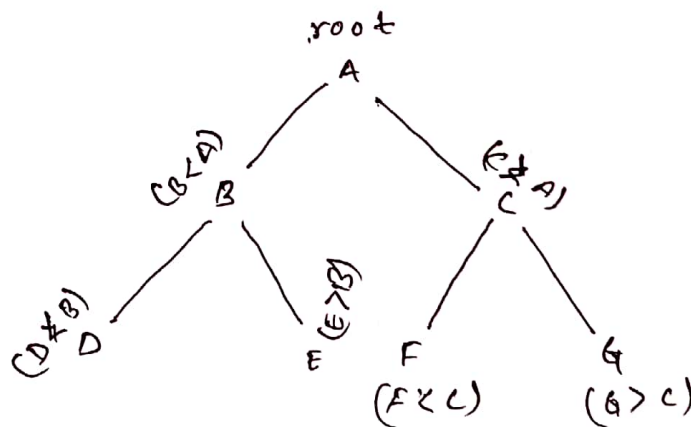
The computational time taken by this tree is depends upon the height of the tree i.e. $\log n$ (n = no of node)

$$\therefore T.C \Rightarrow O(\log n)$$