

Recursion and Tree

1. Write functions to implement a solution to Towers of Hanoi problem. Check your program with number of disks = 0, 1, 2 and 3.
2. Write a recursive function to find the maximum and minimum number in the given list that solves this using divide and conquer.
3. Write a program to construct a Binary Search Tree (BST) and perform the following
 - a. Traverse the tree in preorder, inorder, postorder and levelorder
 - b. Count the number of nodes
 - c. Count the number of leaves
 - d. Find the height of the tree
 - e. Search for an item in the tree
 - f. Remove a node from the tree

Note:

- Programs must be written using Java Language.
- Do proper commenting so that it becomes easy for us to read your code.