

Lab-3

16/5/24

Increasing order search tree
Given the root of a binary search tree, rearrange the tree in in-order so that the leftmost node in the tree is now the root of the tree, & every node has no left child & only one right child.

→ void inorder(struct TreeNode *root, struct TreeNode **head, struct TreeNode **tail) {

if (root == NULL) return;

inorder(root->left, head, tail);

if (*head == NULL) {
 *head = root;

} else {

(**tail)->right = root;

}

*tail = root;

root->left = NULL;

inorder(root->right, head, tail);

}
struct TreeNode *increasingBST(struct TreeNode *root) {
 struct TreeNode *head = NULL, *tail = NULL;
 inorder(root, &head, &tail);
 return head;

}

o/p :-

Case 1:

input:

root = [5, 3, 6, 2, 4, null, 8, 1, null, null, null, 7, 9]

output:

[1, null, 2, null, 3, null, 4, null, 5, null, 6, null, 7, null, 8, null, 9]

Case 2:

input:

root = [5, 1, 7]

output:

[1, null, 5, null, 7]

P. 16/5/24