

## DSA\_Lab-7@code:

```
/**
 * Definition for a binary tree node.
 * struct TreeNode {
 *     int val;
 *     struct TreeNode *left;
 *     struct TreeNode *right;
 * };
 */
struct TreeNode* getMaximumKey(struct TreeNode* ptr){
    while(ptr->right != NULL){
        ptr=ptr->right;
    }
    return ptr;
}

struct TreeNode* deleteNode(struct TreeNode* root, int key){
    if (root == NULL)
        return root;
    if (key < root->val)
        root->left = deleteNode(root->left, key);
    else if (key > root->val)
        root->right = deleteNode(root->right, key);
    else {
        if (root->left == NULL) {
            struct TreeNode* temp = root->right;
            free(root);
            return temp;
        }
        else if (root->right == NULL) {
            struct TreeNode* temp = root->left;
            free(root);
            return temp;
        }
        struct TreeNode* temp = getMaximumKey(root->left);
        root->val = temp->val;
        root->left = deleteNode(root->left, temp->val);
    }
    return root;
}
```