

## Binary Search Tree - Delete

```
typedef struct {
    int data;
    node *left;
    node *right;
} node;

// Deletes value from a BST rooted at root. value must be in the tree in
// to work. Returns a pointer to the root of the resulting tree.
node* delete(node* root, int value) {
    node *delnode, *new_del_node, *save_node, *par;
    int save_val;

    delnode = find(root, value); // Get a pointer to the node to delete.
    par = parent(root, delnode); // Get the parent of this node.

    // Case 1: the node to delete is a leaf node.
    if (isLeaf(delnode)) {
        // Deleting the only node in the tree.
        if (par == NULL) {
            free(delnode); // free the memory for the node.
            return NULL;
        }

        // Deletes the node if it's a left child.
        if (value < par->data) {
            free(delnode); // Free the memory for the node.
            par->left = NULL;
        }

        // Deletes the node if it's a right child.
        else {
            free(delnode); // Free the memory for the node.
            par->right = NULL;
        }

        return root; // Return the root of the new tree.
    }

    // Case 2: the node to be deleted only has a left child.
    if (hasOnlyLeftChild(delnode)) {
        // Deleting the root node of the tree.
        if (par == NULL) {
            save_node = delnode->left;
            free(delnode); // Free the node to delete.
            return save_node // Return the new root node of the resulting tree.
        }

        // Deletes the node if it's a left child.
```