

4. Merge two binary tree.

class Solution {

public:

```
TreeNode* mergeTrees(TreeNode* root1,  
                     TreeNode* root2);
```

```
if (root1 == NULL && root2 == NULL)  
    return NULL;
```

```
if (root1 == NULL)  
    return root2;
```

```
if (root2 == NULL)  
    return root1;
```

```
TreeNode* merged = new TreeNode(root1->val  
                                + root2->val);
```

```
merged->left = mergeTrees(root1->left,  
                           root2->left);
```

```
merged->right = mergeTrees(root1->right,  
                           root2->right);
```

return merged;

}

}

Output:

case 1:

Input -

root1 =

[1, 3, 2, 5]

root2 =

[2, 1, 3, null, 4, null, 7]

Output -

[3, 4, 5, 5, 4, null, 7]

Expected

[3, 4, 5, 5, 4, null, 7]

