```
#include <iostream>
using namespace std;
// Definition for a binary
tree node.
struct TreeNode {
  int val;
  TreeNode* left;
  TreeNode* right;
  TreeNode(int x) {
    val = x;
    left = nullptr;
    right = nullptr;
};
class Identical {
public:
  static bool
isIdentical(TreeNode*
node1, TreeNode* node2) {
    if (node1 == nullptr
&& node2 == nullptr)
       return true;
    else if (node1 ==
nullptr | | node2 ==
nullptr)
       return false;
    return (node1->val ==
node2->val) &&
        isIdentical(node1-
>left, node2->left) &&
        isIdentical(node1-
>right, node2->right);
};
int main() {
  TreeNode* root1 = new
TreeNode(1);
  root1->left = new
TreeNode(2);
  root1->right = new
TreeNode(3);
  root1->right->left = new
TreeNode(4);
  root1->right->right =
new TreeNode(5);
  TreeNode* root2 = new
TreeNode(1);
  root2->left = new
TreeNode(2);
  root2->right = new
TreeNode(3);
  root2->right->left = new
TreeNode(4);
```

## Identical in C++

### **Tree Structures:**

#### Tree 1:

#### Tree 2:

m Dry Run Table: isIdentical(root1, root2)

Call	node1 Val	node2 Val	Equal?	Recursive Calls	Final Result
isIdentical(1, 1)	1	1	≪	isIdentical(2, 2) && isIdentical(3, 3)	depends
isIdentical(2, 2)	2	2	<b>*</b>	isIdentical(nullptr, nullptr)	≪
isIdentical(NULL, NULL)	NULL	NULL	≪		≪
isIdentical(NULL, NULL)	NULL	NULL	≪		≪
isIdentical(3, 3)	3	3	<	isIdentical(4, 4) && isIdentical(5, NULL)	×
isIdentical(4, 4)	4	4	≪	isIdentical(NULL, NULL)	≪
isIdentical(NULL,NULL)	NULL	NULL	≪		≪
isIdentical(NULL,NULL)	NULL	NULL	$ \checkmark $		≪
isIdentical(5, NULL)	5	NULL	×		×

# X Final Output:

Two trees are non-identical

