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#include<iostream>
using namespace std;

struct Node
{
    int data;
    Node* left;
    Node* right;
};

/* Compute the "maxDepth" of a tree -- the number of
edges along the longest path from the root node
down to the farthest leaf node.*/
int maxDepth(Node* n)
{
    if (n == nullptr)
        return -1;    // depth of an empty tree
    else
    {
        // compute the depth of each subtree
        int lDepth = maxDepth(n->left);
        int rDepth = maxDepth(n->right);

        // use the larger one
        if (lDepth > rDepth)
            return(lDepth + 1);
        else
            return(rDepth + 1);
        // OR just
        // return 1 + max(maxDepth(n->left), maxDepth(n->right));
    }
}

/* Helper function that allocates a new node with the
given data and NULL left and right pointers. */
Node* newNode(int data)
{
    Node* n = new Node; // dynamically allocate new objects of type Node

    n->data = data;
    n->left = nullptr;
    n->right = nullptr;

    return(n);
}

int main()
{
    Node *root = newNode(1);

    root->left = newNode(2);
    root->right = newNode(3);
    root->left->left = newNode(4);
    root->left->right = newNode(5);

    cout << "The maximum depth is " << maxDepth(root);
    return 0;
}

```