POTD32.1. AVL Trees: Finding Unbalanced Node

Download and Extract

An initial setup of files is provided to you via a shell script: Download potd-q32

Using a terminal, extract the initial files by running the shell script you just downloaded (you will need to navigate to the directory where you saved the file):

```
sh potd-q32.sh
```

Your files for this problem will be in the potd-q32 directory.

The Problem

In order to balance a tree, we have to first find nodes about which rotations have to be made. In this question, complete the findLastUnbalanced function that accepts a TreeNode * root and finds the deepest node that is unbalanced. Remember that an unbalanced node has subtrees of heights differing by more than 1.

Note: If there are multiple unbalanced nodes, you have to return the one farthest from the root. If there are no unbalanaced nodes, return NULL.

Hint: You can use a helper function for calculating height.

Testing Your Code

In main.cpp, a simple test case has been created with the following binary search tree:

Example Input:

```
8
/ \
5 13
/\ / \
4 7 10 14
\
11
\
12
```

Example Output: TreeNode * pointing to node 10.

Upload Solution

Drop files here or click to upload.

Only the files listed below will be accepted—others will be ignored.

POTD 32

Total points: 0/1

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Question

Value: 1

History:

Awarded points: 0/1

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	Save & Grade Save only	
	O TreeNode.h not uploaded	