POTD31.1. BST isHeightBalanced

Download and Extract

An initial setup of files is provided to you via a shell script: Download potd-q31

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-q31.sh
```

Your files for this problem will be in the `potd-q31` directory.

The Problem

Complete the `isHeightBalanced` function that accepts a BST `TreeNode *` root and returns `True` if the tree is height-balanced and `False` if the tree is not height-balanced. Here, the "height balance" of a tree is simply the height of its left-subtree minus the height of its right sub-tree. The "height balance" of an empty tree is 0.

A tree is height-balanced if the height of the two subtrees, i.e left and right subtree of every node in the tree never differ by more than 1.

HINT: It may be helpful to have a helper function for computing height.

Testing Your Code

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

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

Upload Solution

Drop files here or click to upload.

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

Files

- TreeNode.cpp
  not uploaded
- TreeNode.h
  not uploaded

POTD 31

Total points: 0/1

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Question

Value: 1

History:

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