

Total points: 0/1

Score: 0%

Question

Value: 1

History:

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## Download and Extract

An initial setup of files is provided to you via a shell script: [Download potd-q33](#)

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-q33.sh
```

Your files for this problem will be in the `potd-q33` directory.

## The Problem

Complete the `rightRotate` and `leftRotate` functions that accepts a `TreeNode * root` and rotate it to generate a balanced tree using AVL rotations. Note that tree nodes structure also have parent pointers which you have to manipulate. Use the Wikipedia link given below for reference.

[Wikipedia Link for Tree Rotations](#)

Put your `rightRotate` and `leftRotate` functions in `TreeNode.cpp`.

The `main.cpp` file has some example inputs.

Example Input 1:

```
      10
     /  \
    8    13
   /
  5
 /
2
```

Expected Output:

```
      10
     /  \
    5    13
   /  \
  2    8
```

Example Input 2:

```
      5
     /  \
    2    8
         \
         10
          \
          13
```

Expected Output:

```
5
 / \
2   10
 / \
8   13
```

## Upload Solution

Drop files here or click to upload.

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

### Files

☐ TreeNode.h  
not uploaded

☐ TreeNode.cpp  
not uploaded

Save & Grade

Save only