

## Download and Extract

An initial setup of files is provided to you via a shell script: [Download potd-q29](#)

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-q29.sh
```

Your files for this problem will be in the potd-q29 directory.

## The Problem

Complete the `deleteNode` function that accepts a BST `TreeNode *` and a key, and returns the root node of the updated BST. Note that the correct implementation will print the increasing inorder list after removal. There are 3 types of removal you would need to take care of:

### Example 1 (remove a leaf):

```
key = 14
```

```
      9
     /\
    5  12
   /\  /\
  2 7 10 14
```

After `deleteNode(14)`:

```
      9
     /\
    5  12
   /\  /
  2 7 10
```

### Example 2 (remove a node with 1 child):

```
key = 12
```

```
      9
     /\
    5  12
   /\  /
  2 7 10
```

After `deleteNode(12)`:

```
      9
     /\
    5  10
   /\
  2  7
```

### Example 3 (remove a node with 2 children):

For two child deletion use the inorder successor as the replacement.

Total points: 0/1

Score: 0%

#### Question

Value: 1

History:

Awarded points: 0/1

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```
key = 5
  9
 / \
5   10
/\
2  7
```

After deleteNode(5):

```
  9
 / \
7   10
/
2
```

## Upload Solution

Drop files here or click to upload.

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

| Files   |
|---|
| <div><div><div><div><div></div><div>TreeNode.cpp</div><div>not uploaded</div></div></div></div></div> |