

BST mutation

recap BST structure

Draw a BST with the following data in it: 5, 10, 12, 13, 15, 17, 18, 20, 21, 22.

recap key elements of our binary tree node and BST classes

Read over the `__init__` method for class `BTNode` and `BST`:

```
class BTNode:
    '''Binary Tree node.'''

    def __init__(self, data, left=None, right=None):
        ''' (BTNode, object, BTNode, BTNode) -> NoneType

        Create BTNode (self) with data and children left and right.
        '''
        self.data, self.left, self.right = data, left, right

class BST:
    '''
    Binary search tree.

    root: BTNode -- root of binary search tree

    Assumptions:
        -- all data in root.left is less than root.data
        -- all data in root.right is more than root.data
        -- None indicates an empty tree
    '''

    def __init__(self, root=None):
        ''' (BST, BTNode or None) -> NoneType

        Create BST with BTNode root.
        '''
        self.root = root
```

methods that mutate a BST

In class we will work on these methods:

```
def insert(self, data):  
    ''' (BST, object) -> NoneType  
  
    Insert data into this BST, if it is not already in it.  
    '''
```

```
def delete(self, data):  
    ''' (BST, object) -> NoneType  
  
    Delete data from this BST, if it is in it.  
    '''
```