Homework 06 (Tree) (10 marks)

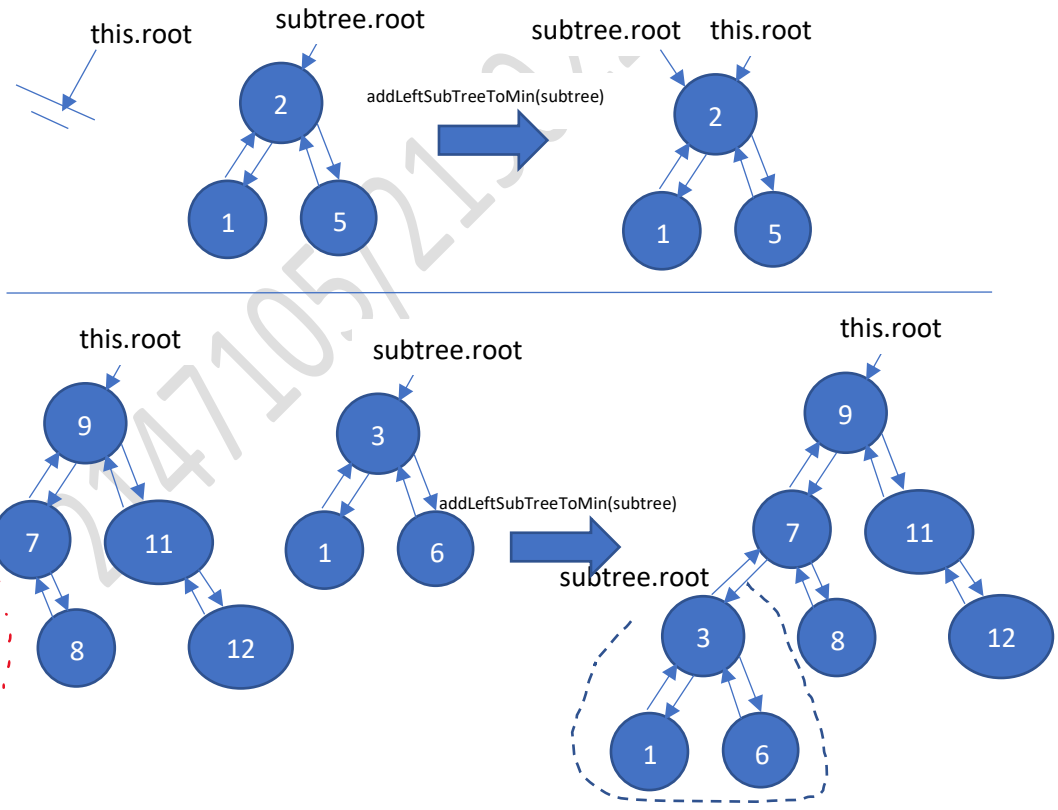
You are given all classes for coding a binary search tree.

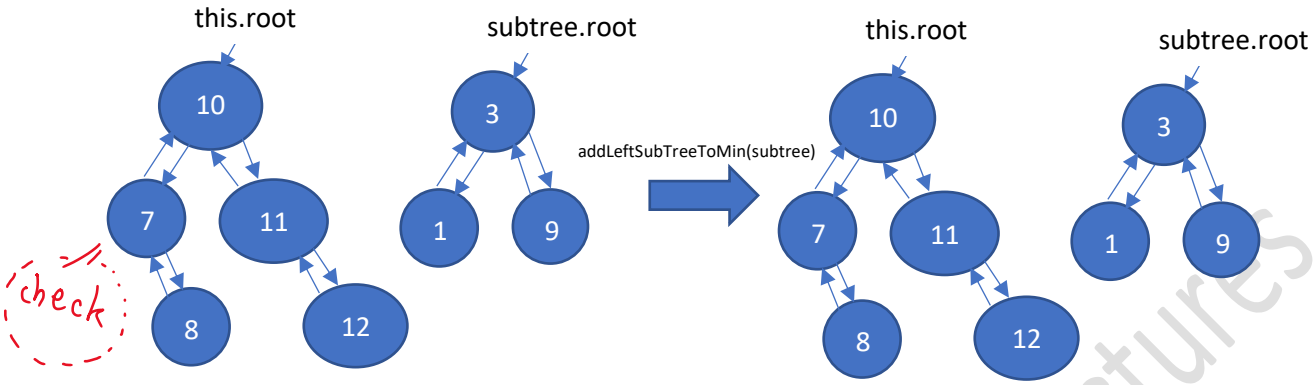
In class BST, write method

```
public void addLeftSubTreeToMin(BST subtree)
```

- This method tries to add an entire "subtree" as a left subtree of the left most node in our tree, changing our tree.
- Assume there will be no direct access to "subtree" in the future.
- If the "subtree" is an empty tree, this method does nothing.
- If our tree is empty, then our tree becomes the subtree.
- Check if, after the addition of "subtree", the tree will still be a binary search tree:
  - If so, link the entire subtree to our tree.
  - If not, do nothing.
- The method must not have any loop (but you can call existing methods that have loop).
- Only BST.java is allowed to be modified.
  - Only modify this method. You are not allowed to create new method(s).
- This method must be the last method in class BST (not counting main method).
- Submit only BST.java on Mycourseville.

Example:





Nothing changes because we won't get a binary search tree.

The JUnit tests are in BSTTest.java

- testAddEmptySubTree() 1 marks
- testAddToEmptyTree() 2 marks
- testAddSuccess() 3 marks
- testAddFail() 2 marks
- testNoLoop() 2 marks