CPW 245 Winter 2020 Homework Assignment 7

This assignment will reinforce your understanding of **`Tree`**s and **`LinkedList`**s.

The starter code, **`SearchTreeClient.java`**, **`SearchTree.java`**, **`List.java`**, and **`LinkedList.java`** contain a templated version of the **`Tree`** code that we saw in class.

Your job is to add a method named **`getLeaves`** to **`SearchTree.java`** to construct a linked list of the data stored in the leaves of the tree. Remember that a node in a tree is a leaf if it has no children.

Main Idea:

Create an empty **`LinkedList<E>`** in **`public LinkedList<E> getLeaves()`** that calls a private helper method **`private void getLeaves(LinkedList<E> leaves, SearchTreeNode<E> root)`** which does an in-order traversal of the tree. When the traversal finds a leaf, that leaf is added to the linked list. The linked list is then returned by the public method to the client code.

Expected results:

```
leaves:
[A Flock of Seagulls, Buffalo Springfield, Steppenwolf, The Flamingos, The Monkees, Three Dog Night]
```