**Building a Red-Black Tree:**

In this notebook, we'll walk through how you might build a red-black tree. Remember, we need to follow the red-black tree rules, on top of the binary search tree rules. Our new rules are:

* All nodes have a color
* All nodes have two children (use NULL nodes)
  + All NULL nodes are colored black
* If a node is red, its children must be black
* The root node must be black (optional)
  + We'll go ahead and implement without this for now
* Every path to its descendant NULL nodes must contain the same number of black nodes