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Project 4 plan

* Goal is to keep track of inventory for different lengths of wood.
* There will be a supplier inserting wood into the inventory.
* There will be a customer ordering wood taking it out of inventory.
* Wood will have different physical dimensions. A 2 dim array will be used to keep track of how many pieces of wood we have for each dimension. This is the inventory.
* Each value in the 2 dim array will be a node. The node will have a number value that is the root of a tree.
* Each node will have 4 values. Left child, right child, wood length, quantity of wood.
* There will be 3 objects in this project. Inventory, SBT, and a node for the SBT.
* Each SBT will represent a piece of wood of a given cross section, and each node in that tree will be a different length piece of wood.
* (0, 1) in the 2d array will represent a 2x4 piece of wood. (0, 2) will represent a 2x5.
* There will be a total of 50 trees. 5x10=50. 5 values for width, starting from 2 and going to 6. 10 values for height, starting from 3 and going to 12.
* Everything will be in inches.
* There will be one 2d array for each different length of wood. There will be 8, 16, and 20 feet lengths of wood, which means 3 2d arrays total.
* Garbage collection for unused nodes that are deleted from tree.
* Program can read lines from a file. This is used for reading the customer’s order and also reading what the supplier has for my inventory.
* Program can output the values of inventory.
* Each line of the output inventory file will hold the wood dimensions, and the quantity of each length of wood for the given dimensions. 4 values total. 50 lines total
* Each line of the input file read from the customer or supplier will have various lines depending on what dimensions of wood they want to insert or remove from inventory. Each line will still hold 4 values. As stated in the previous bullet point.

Example

1. Supplier will put wood into the inventory into the correct positions based on the woods physical dimensions
2. Customer will order wood
3. Inventory is checked to see if everything the customer has ordered is in the inventory
4. Wood is taken out of the inventory