

Deserialize Tree Exercise

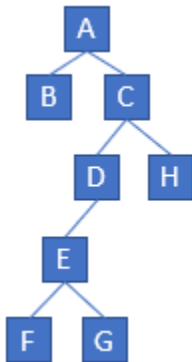
A tree has been serialized to a CSV file. This exercise involves writing the code to deserialize the file into a Tree object. Each line in the CSV file has the following format:

Node,Level

For example:

A,1
B,2
C,2
D,3
E,4
F,5
G,5
H,3

When inserting a node into the tree, the parent of the node is the previous node in the list whose level is one less than the node's level. In other words, if there are multiple items in previous level node (parent node) – last item in the previous level is the parent. The following picture shows the resulting tree for the example data above:



Acceptance Criteria:

- You can assume that the file is formatted correctly
- You must use the provided tree implementation:
 - `com.flatirons.collections.Tree` (interface)
 - `com.flatirons.collections.SimpleTree` (implementation)
- If level = 1, this is the root node of the tree
 - You can assume there will only be one root node in the serialized data
- You will finish the implementation of the method `com.flatirons.techtest.TreeDeserializer.deserialize()`
 - You can add additional methods
 - You can add additional members to the `TreeDeserializer` class and initialize those members in the constructor
 - You must not change any of the pre-existing code or data files

- Your implementation must execute successfully with the supplied unit test
 - The unit test includes a test CSV file
- You must implement an efficient algorithm