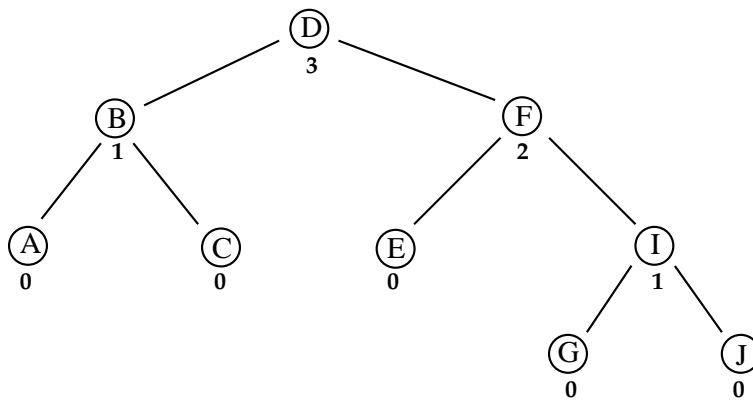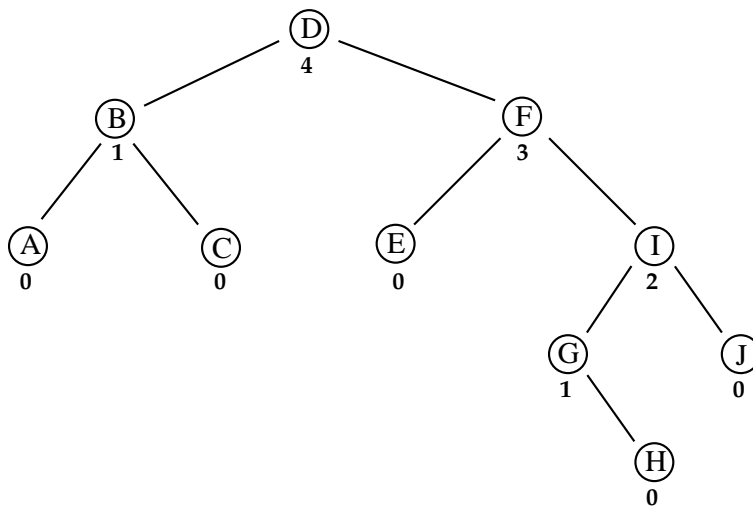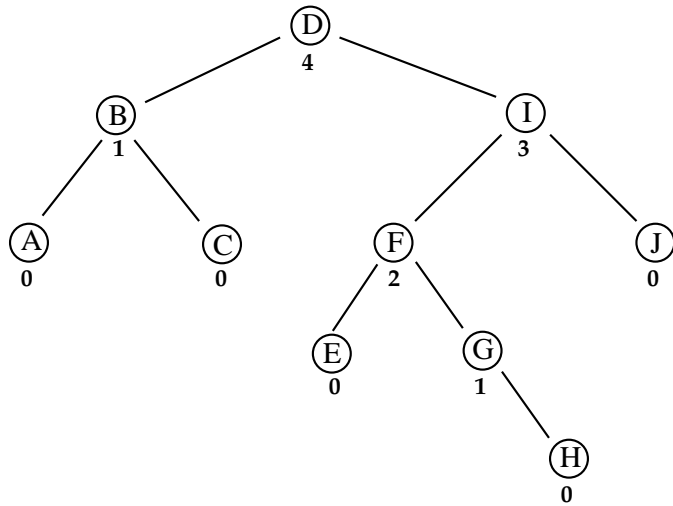# AVL Trees

Double Rotation

An AVL tree must store, at each node, the height of the subtree rooted at that node. Here is an example of an AVL tree.
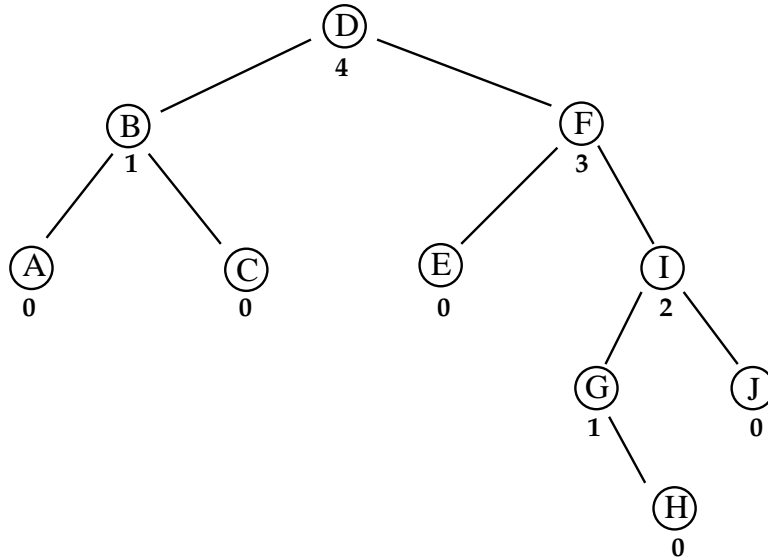

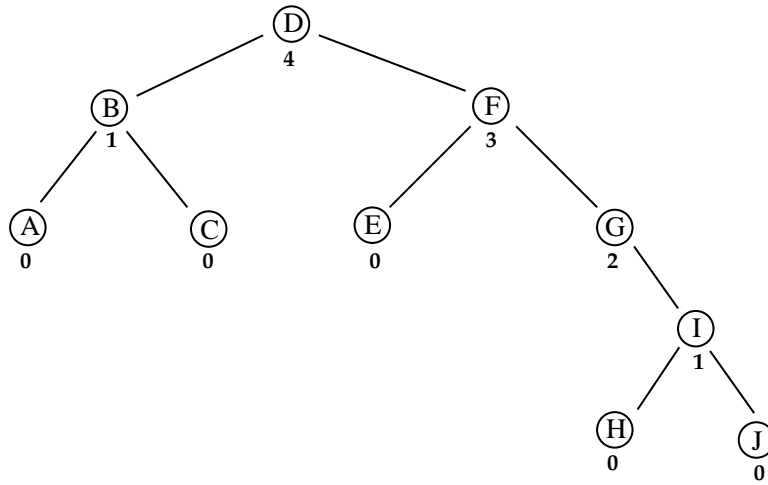Now, **H** is inserted. The resulting tree is unbalanced at **F**.

We now try to rebalance by left rotation at **F**. The resulting tree is unbalanced at **I**.
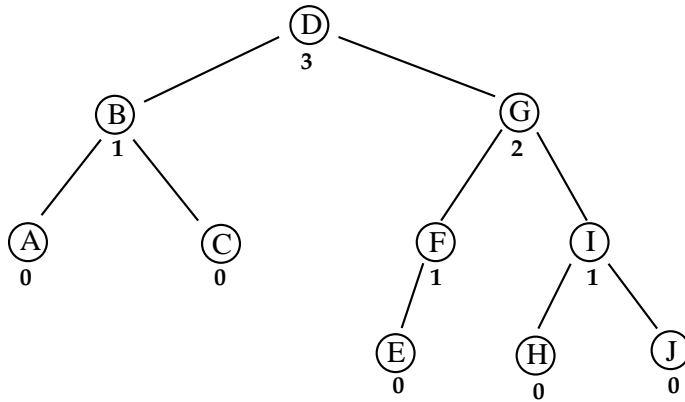

We do a right rotation at **I**, but the tree is still unbalanced.

The solution is to do a *double rotation*. Startinng over, from the second figure, we first do a right rotation at **I**

Follwed by a left rotation at **F**.

The rsulting tree is balanced.