Binary Tree Construction Steps

This document illustrates the step-by-step construction of a binary tree. Each step shows the tree after the insertion of a new node, demonstrating how the tree evolves over time.

Algorithm Description

The binary tree is constructed using a level-order insertion method. This means that new nodes are added starting from the top level, filling in from left to right. If a node has a left and right child, the insertion continues to the next level. The process repeats until all nodes are inserted into the tree.

Step-by-Step Visualization

The following figures represent the state of the binary tree after each insertion step. The captions describe the order of the steps. Nodes are represented by circles, and the connections between them indicate the parent-child relationships.

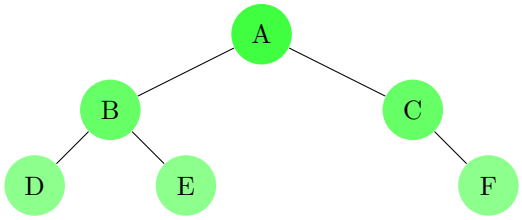

Figure 1: Initial Tree

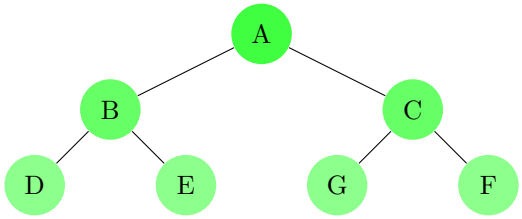

Figure 2: Step 2

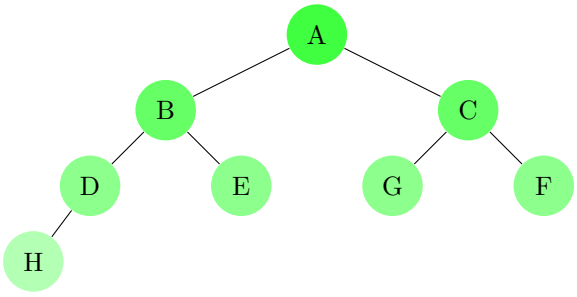

Figure 3: Step 3

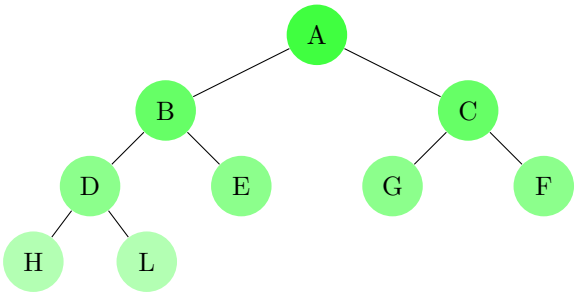

Figure 4: Step 4

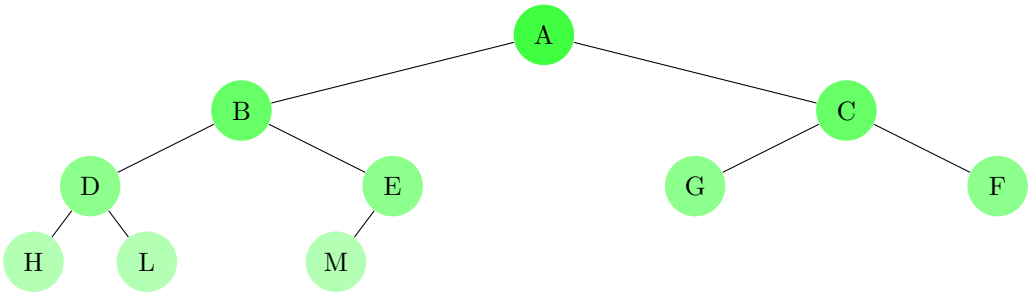

Figure 5: Step 5

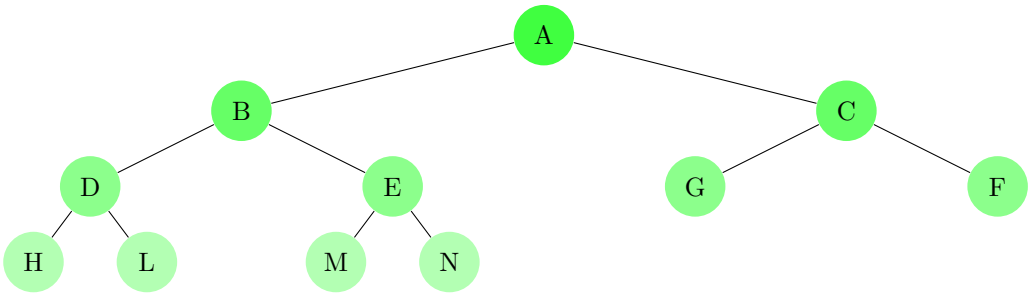

Figure 6: Step 6

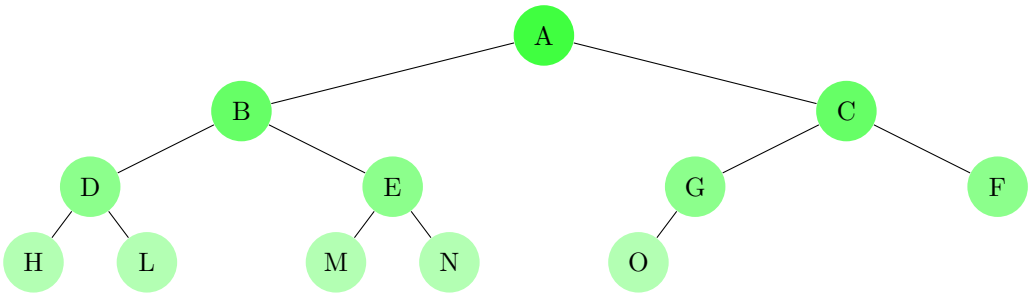

Figure 7: Step 7