

STUDY GUIDE

BINARY TREES AND TRIES

Key Terms

- » **Binary Tree:** A species of tree with one defining feature: Each node has at most two branches.
- » **Trie:** A type of tree in which nodes aren't limited to only left and right pointers. Each node can store a list of "child" nodes that all represent possible paths forward through the trie. Tries are almost always used to store strings (alphabetical data).

Cheat Sheet

Each node, except for the root, will have three properties

- » The *value*, which describes the data in the node.
- » The *left* property, which points to a node with a lesser value than the current node.
- » The *right* property, which points to a node with greater value than the current node.

Ways to traverse a binary tree

- » *Breadth-first:* Tries to stay as close to the root node as possible before moving on to subsequent parts of the graph.
- » *Depth-first:* Tries to get as far away from the starting point as possible, as soon as possible, before it hits a dead end and has to start over.

What's in a trie

- » A value.
- » References to other nodes, usually stored in an array