# Tree

## Spreadsheet Format

You can build Tree graphs from tree data structures. Here's a representation of a tree data structure:



Tree data structures are made of nodes, or elements on the tree. In the example above, each box represents a node.

Tree data structures are also hierarchical: each node (or element on the tree) has a *parent* node. In the example above, "Pet" is the parent of "Cat," "Dog," and "Rabbit". "Cat" is the parent of "Domestic Shorthair" and "Siamese."

Trees have a root node, which has no parent. "Pet" in the example above is the root node, since it has no parent.

You place nodes on the tree using two values: the name of the node, and the name of the node's parent. For example, you can place the Labrador node by knowing only "Labrador" (it's name) and "Dog" (it's parent). Remember, any node on the tree can be a parent.

A *branch* is a connection between two nodes. For example, there are two branches that extend from "Cat," and three that extend from "Pet."

Each row in the Tree spreadsheet represents a node on the tree.

	Column 1	Column 2	Column 3	Column 4
Data Type	plain text	plain text	plain text	number

Contents	The word "node"	The name of the node's parent	The name	The number of branches that
	Note: • Enter the word "node" in the first cell for every row	<ul> <li>Note:</li> <li>If this is the first node on the tree (called the <i>root</i>), write "root" in the cell</li> <li>Keep node names consistent across the spreadsheet</li> </ul>		<ul> <li>In the example above, Column 4 for the "Cat" node would be 2.</li> </ul>

For the sample tree above, the spreadsheet might look like this:

	Parent	Node	Branches
node	root	Pet	3
node	Pet	Cat	2
node	Pet	Dog	3
node	Pet	Rabbit	0
node	Cat	Domestic Shorthair	0
node	Cat	Siamese	0
node	Dog	Corgi	0
node	Dog	Great Dane	0
node	Dog	Labrador	0

## **Customization Options**

Go to Common Customization Options to see more settings

### Transition time

determines the time it takes for a branch to expand or collapse

- Type in a larger number for a longer amount of time
- Type in a smaller number for a shorter amount of time

#### Branch spacing

determines how far apart to space the branches

- Type in a higher number to increase the space between branches
- Type in a smaller number to lessen the space between branches

#### Branch levels to show

controls the number of branches to show at once

- Type in a number; 0 shows all branches
- Your viewer can see hidden branches by clicking on the respective node