

Fall 2012 Lab Assignment 12

You are to read data into a binary tree and then perform inorder, preorder, and postorder traversals of that tree.

The initial code contains a driver program, which you must use.

You must write a `buildTree` method that will read the input data as `String` data and store that data in an `ArrayList` in the natural order for storing a binary tree in a linear list.

You must then implement the three traversals of the tree, passing in as input parameters the `String` that is to be the display of the tree and the node in the tree from which to start.

You should traverse the trees using the standard recursive algorithm for tree traversal. When you “visit” a given node you should concatenate the data payload of that node onto the “current” output string. When you return from a traversal (recursively) you should pass back the current output string.

You should leave the zero-th location empty, probably with a value like `DUMMY` as the data payload, so you can tell if you mistakenly hit that location.

Processing from the root, therefore, is what you get when you pass in 1 as the node from which to start.

You have four sample input files and sample output for two of them.