

Indexing

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Abstract

In this lab you create an index for Shakespeare's *Much Ado About Nothing*, although you can use it on other files. It will test your ability to put together multiple data structures and objects.

Check each file to see what you must complete.

1 Your Assignment

Define an `IndexTree` such that each node has data fields to store a word, the count of occurrences of that word, and a list of all lines that word appeared on. Use an `ArrayList` to store line numbers.

Use an `IndexTree` object to store an index of all the words that are in the provided text file, then display the index by performing an inorder traversal of the tree.

2 Advice

Get the file reading working first, then work on the `IndexTree`. How to do it depends on your IDE and your setup. Resources and tutorials are available online, but be aware that Java 1.8 introduced new ways to do File I/O, which will not work on an earlier version of Java. This may be the toughest part.

My other advice is start early.