

CS121 - Computer Science II

Lab Assignment #13 - the last one!!!

Fall 2011

The purpose of this exercise is to build several Binary Search Trees (BSTs) from a single dataset.

The file `statesdata2000.dat` contains information about each of the 50 states - the state name, state capital, and the population as of the 2000 census. You are to build a binary search tree in three different ways:

- Alphabetically by state name
- Alphabetically by state capital
- By population

You should do this by inputting the data once, storing the data in linked list nodes, then building three different BST's using the nodes. Determine the maximum depth of each BST, and compare the result to the minimum depth that should be required for the BST.

Once built, you should output the data in each BST:

- Alphabetically by state
- Alphabetically by capital
- By population, largest first

In each case, your program should output all the data about each state, but in the required order.

The file contains some header and trailer information that should be ignored. Note that in testing your program, we will run your program using the original data file - therefore, you should not edit the data file to make your program work, as it will most likely fail!

As usual, submit your program using `cscheckin`.