

Chapter 8, Strings:

- ▶ General introduction; string sorting (Wednesday)
- ▶ Tries (**Today**)
- ▶ Other string topics (next week Monday and Wednesday)
 - ▶ Regular expressions
 - ▶ Huffman encoding
 - ▶ Edit distance
 - ▶ Grammars and parsing
- ▶ Review for Tests 3 and 4 (next week Friday)

Today:

- ▶ Problem statement
- ▶ Main idea behind tries
- ▶ Code details:
 - ▶ Node class
 - ▶ Find
 - ▶ Insertion
 - ▶ Deletion

Coming up (**the last**):

Catch up on old projects . . .

*Do **Open Addressing** project (suggested by Friday, Dec 2)*

*Do **Trie** project (by Friday, Dec 9)*

*Due **Thurs, Dec 1**, but enabled until midnight tonight (Dec 2)*

Take quiz (on Section 8.1)

*Due **Fri, Dec 2***

Do Exercises 8.(7, 14, 20)

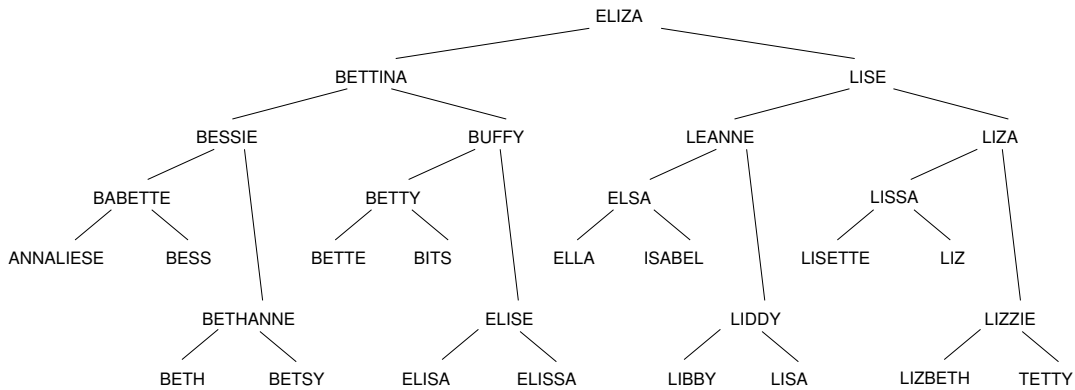
Read Section 8.2

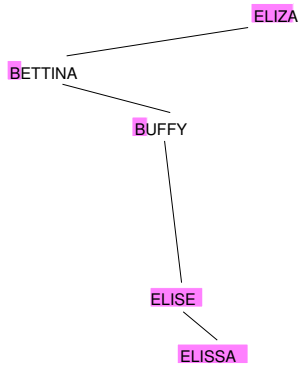
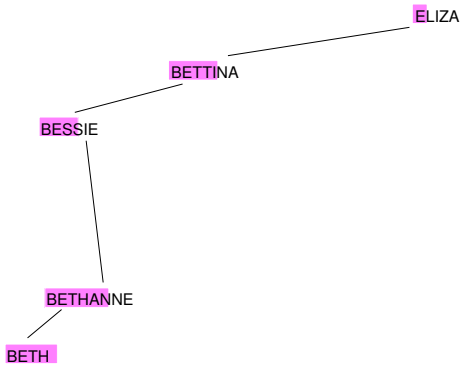
Projects:

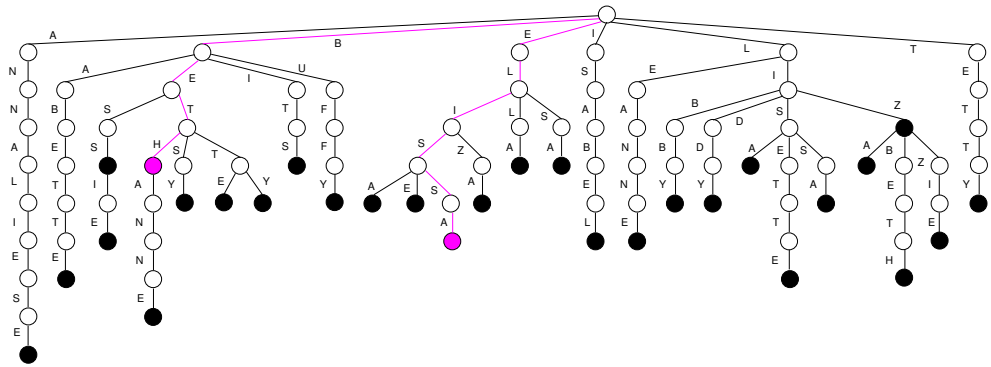
- ▶ Last regular project score update on Tues, Dec 6
- ▶ “Two minute warning” run of scripts on Fri, Dec 9 (*no Schoology update—see report file*)
- ▶ All projects due on the last day of *classes*, **midnight between Fri, Dec 9 and Sat, Dec 10**—*not last day of finals*.

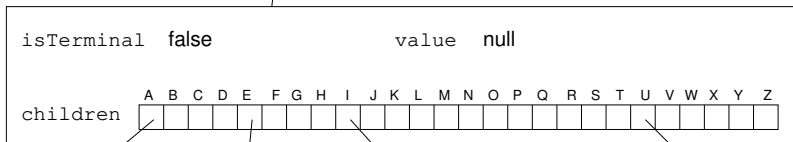
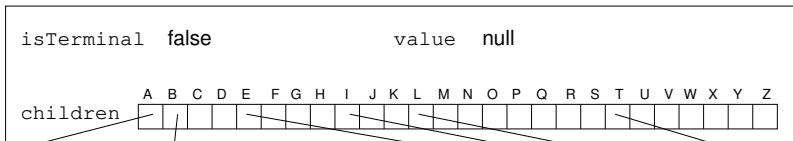
Final exam

- ▶ Our final exam block is **Wed, Dec 14, 10:30am–12:30pm**
- ▶ During our final exam block, we will meet in the **CSCI lab**
- ▶ Test 3 (“written” /conceptual part) will be like Test 1, but covering BSTs (ch 5) through strings (ch 8)
- ▶ Test 4 (programming part) will work the same way as Test 2, covering dynamic programming, hashing, and strings.









Invariant 39. [Class invariant of `TrieMap`]

- (a) For all nodes, the path to that node is a prefix to at least one key in the map.
- (b) For all nodes, the node is terminal iff the path to that node is a key in the map.