

Intro to Trie

- An efficient data structure of trees for string retrieval
- Complexity in search
 - Binary search: $O(m \cdot \log(n))$
 - m: length of keys
 - n: no. of keys
 - Trie: $O(m)$ at space cost
- Why you need to learn tries
 - For homework of IR
 - For job interviews

Quiz!

m: length of keys
n: no. of keys

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Tries

- Time complexity
 - construction-- $O(m*n)$
 - search-- $O(m)$
- Space complexity-- $O(m*n)$

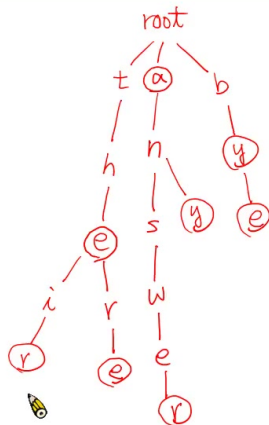
Binary Search

- Time complexity
 - construction-- $O(m \cdot n \cdot \log(n))$
 - search-- $O(m \cdot \log(n))$
- Space complexity-- $O(m \cdot n)$

ANIMATION OF TRIE

Quiz!

- Construction
 - key = the, a, there, answer, any, by, bye, their
- Search
 - any
 - these



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Construction of Tries