Friday, 15 April 16

Crux
Lecture - 24

Text Processing

Nidhi Agarwal

CODING BLOCKS

String Class in Java

- Immutable
- Substring
- Concat
- indexOf
- startsWith
- endsWith

CODING
BLOCKS

Mutable String?

CODING
BLOCKS

StringBuffer

- Mutable String
- Append
- Insert
- Reverse
- setCharAt
- .toString

CODING
BLOCKS

How to choose between String and StringBuffer?

CODING BLOCKS

Text Processing

1. Pattern Matching
   a. Brute Force
   b. Boyer Moore
   c. Tries
2. Text Compression

Pattern Matching Algorithms

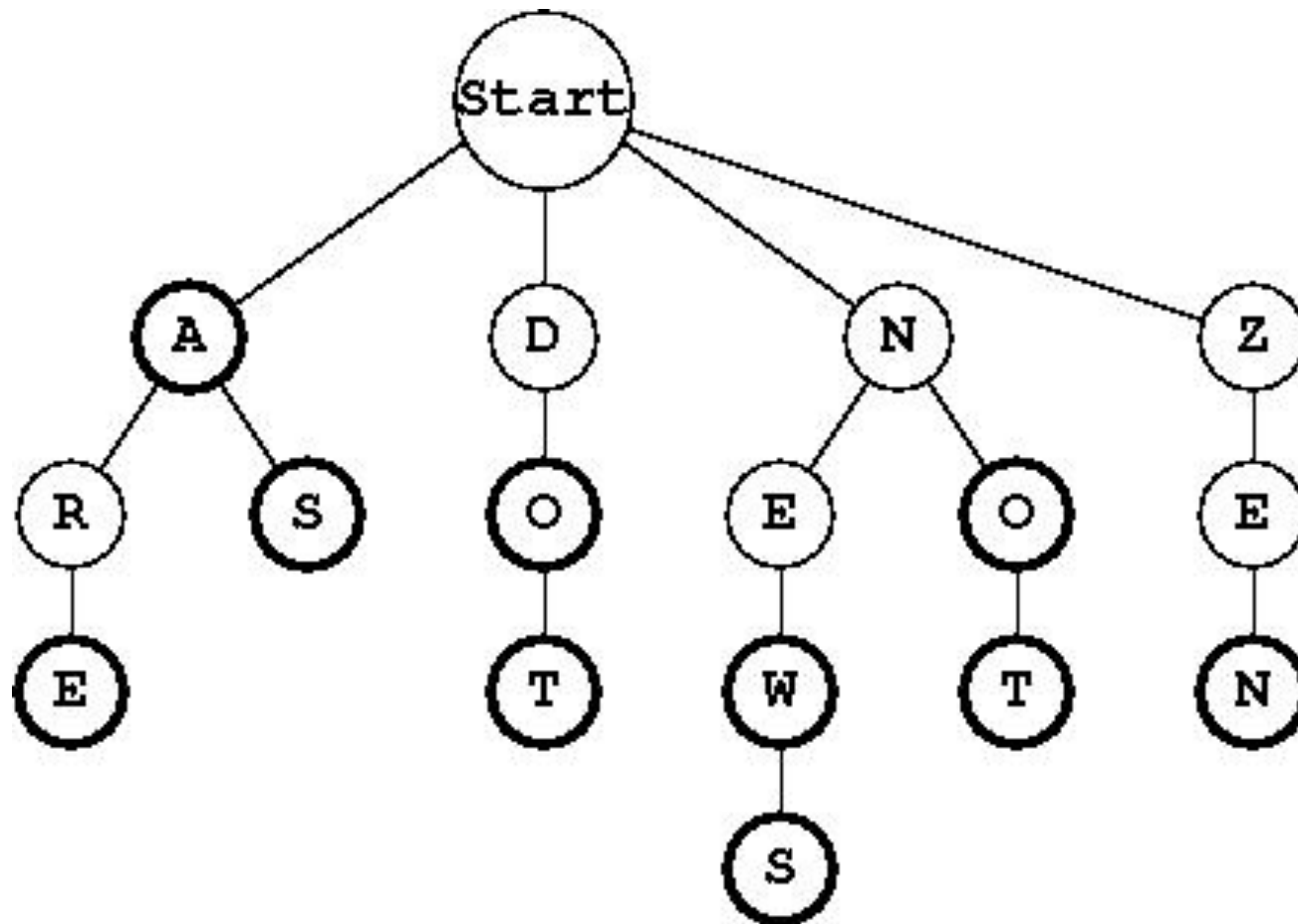CODING BLOCKS

Lets implement the Brute Force Algorithm

CODING BLOCKS

Boyer Moore Algorithm

CODING BLOCKS

Lets implement !!

CODING
BLOCKS

What if we get multiple queries for a fixed String?

Trie

CODING
BLOCKS

Trie

Lets Implement Trie Class

CODING
BLOCKS

Compressed Tries

CODING BLOCKS

Trie

Suffix Tries

CODING BLOCKS

Trie

banana\0   a   na   \0
na   \0   na\0   \0
na\0   \0
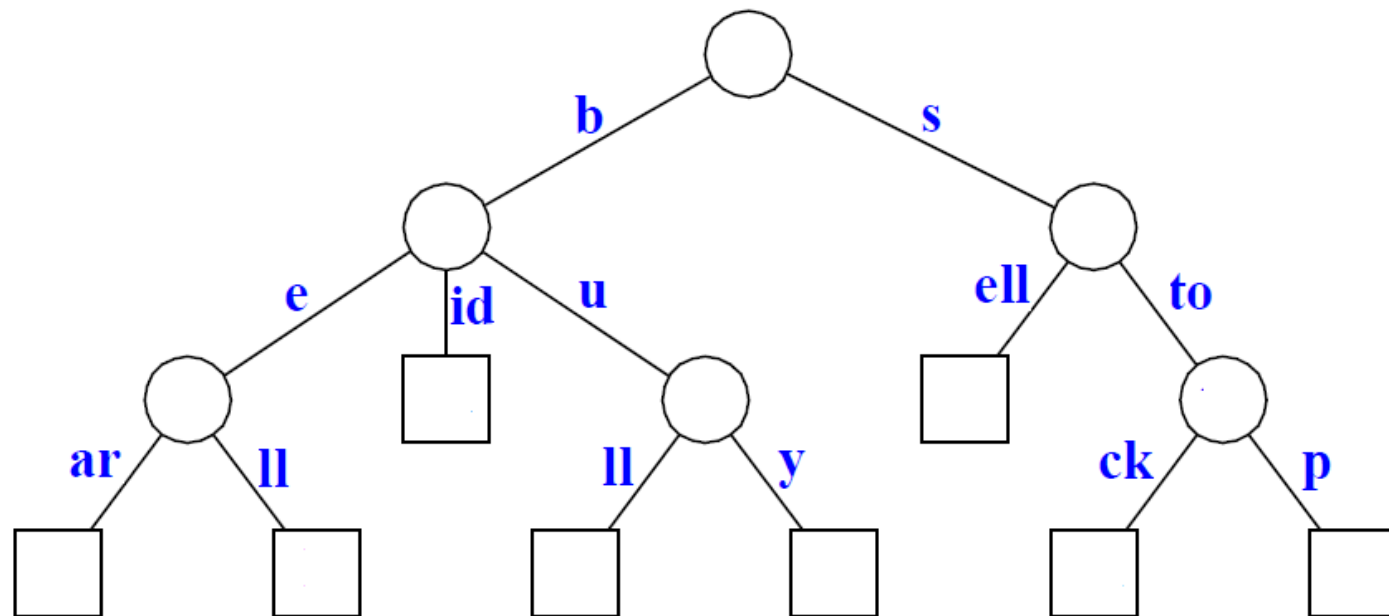
Text Compression
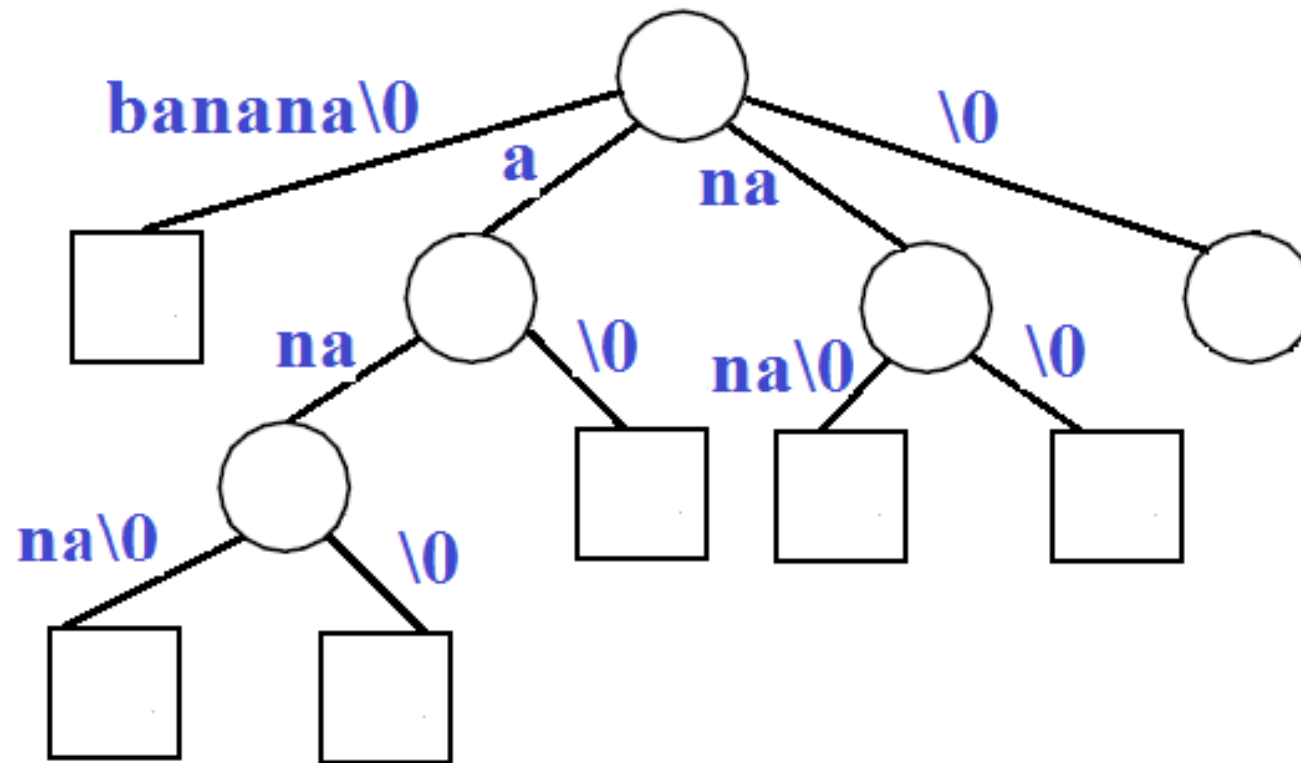
CODING
BLOCKS

Huffman Coding

CODING
BLOCKS

Thank You !! ☺

Nidhi Agarwal
nidhi@codingblocks.com