

31 | Friday

8 am

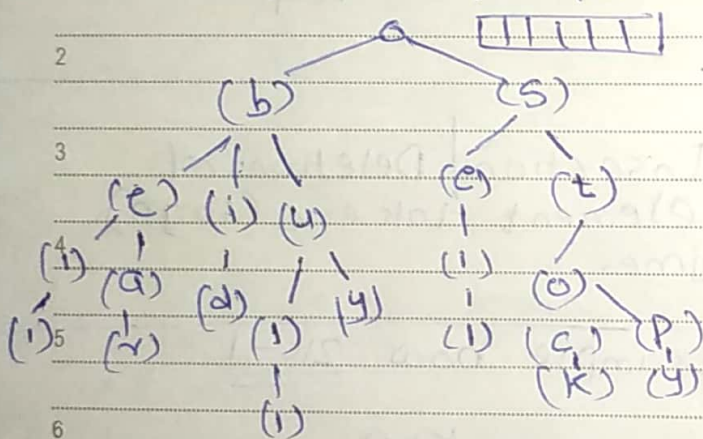
Tries

Process the text, so that search can happen time proportional to length of pattern.

Standard tries

Text -

S = {bear, bell, bid, bull, buy, sell, stock, stop}



Time :- Is equal to pattern length e.g. bed take 3 steps.

If linklist is used as shown ~~as~~ in diagram, time is $26 \times \text{length of word}$.

Note:

Operation (find, insert, remove) take $O(m, n)$
 $m \rightarrow \text{alphabet}$
 $n \rightarrow \text{len(string)}$

01 | Saturday

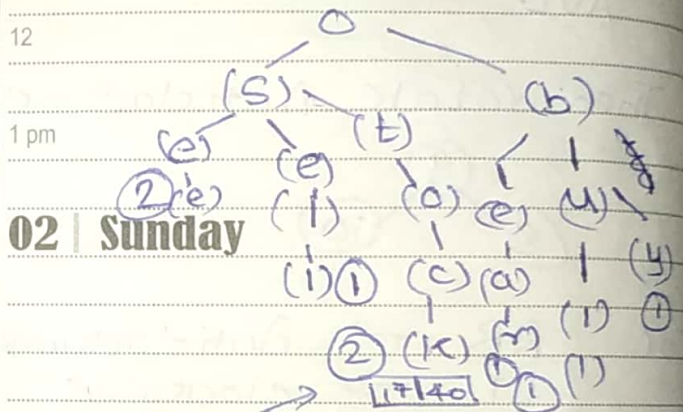
8 am

Space is disadvantage.

It is total no. of characters in text.

e.g.

see bear sell stock
 see bull buy stock

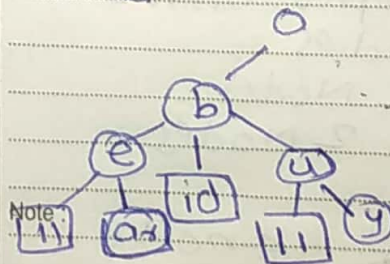


02 | Sunday

* 2 occurrence at 17, 40

Compressed Tries

All nodes who has 1 child, we are going to compress that



Note:

At most $L-1$ internal nodes, L is leaf.

JANUARY							FEBRUARY							MARCH							APRIL							MAY							JUNE													
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S

03 | Monday

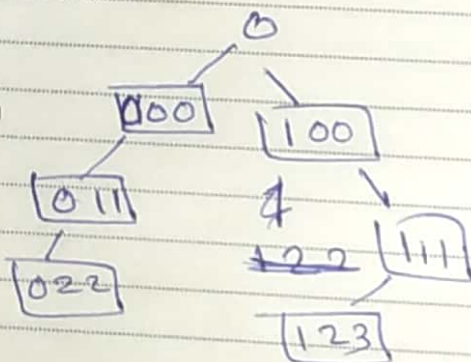
8 am

Further we can store element using index

e.g.

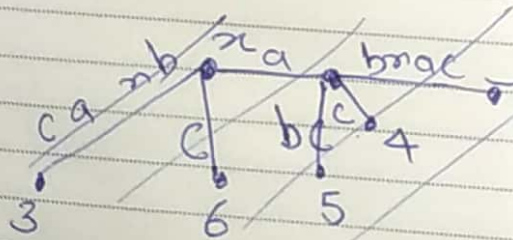
$s[0]$ - see, $s[1]$ = bear

$s[2]$ - sell



Suffixes tree

text - xabcac

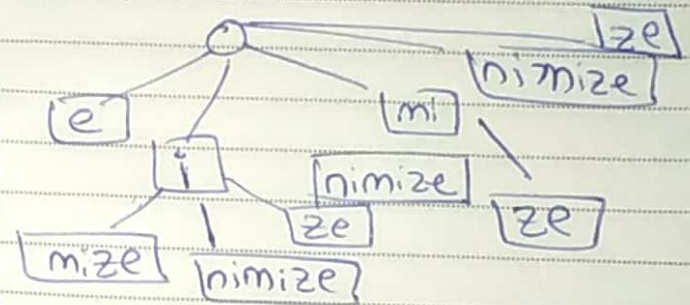


∴ we search for ab
Note: if we are using normal tries, we would say Not found, but Here we get position.

04 | Tuesday

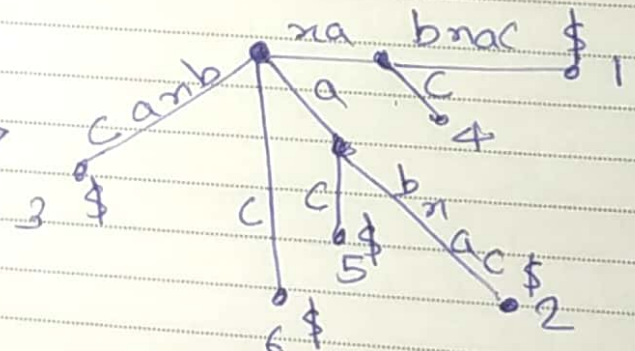
8 am

Another e.g. minimize.



1 pm

For a search we get na c, nab ∴ 5, 4, 1



There is special character \$ shows termination

Time complexity $O(n^2)$

Note: