

Tries

Notebook: Algorithms
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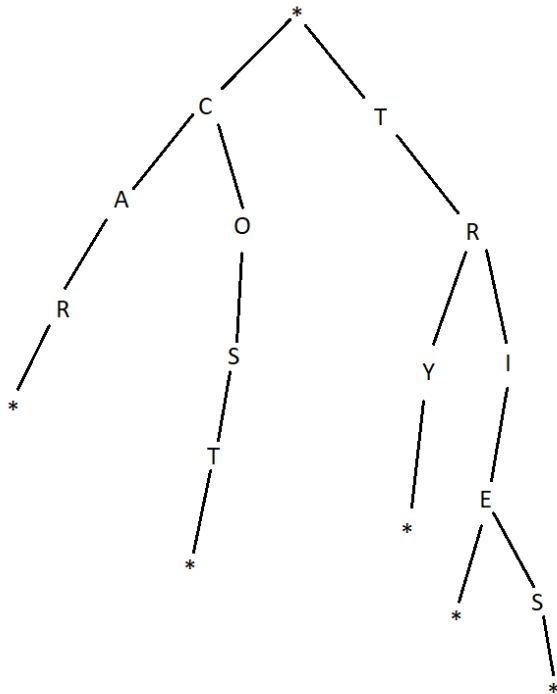
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Tries

What is Tries?

- It is a data structure that is a type of a tree.
- it is often used to store characters.
- It is efficient in storing different prefix in dictionary.

For example:



Dictionary:

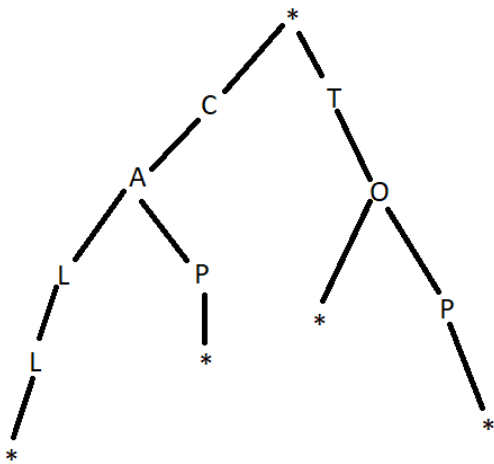
- CAR
- CARD
- CARDS
- COST
- TRIE
- TRIED
- TRIES
- TRY

Implementation:

```
class Node{  
    HashMap<character,Node>children; <----- Any child that is in the tree goes inside as  
    a form of a HashMap.  
    boolean isCompletedWord;           <----- This determines if the child is just a  
    prefix or is it a complete word.  
}
```

- Instead of looking at each of the prefix, we build on the past cells of the trie.

For example:



- Is A part of C ----> **YES!**
- Is L part of CA -----> **YES!**
- Is L part of CAL ----> **YES!**
- Is P part of CALL -----> **NO!**
- END WITH *.

THIS IS PRETTY MUCH A VALIDATION(checking whether each of the characters belong each other).