

720. Longest Word in Dictionary

Medium 1221 1256 Add to List Share

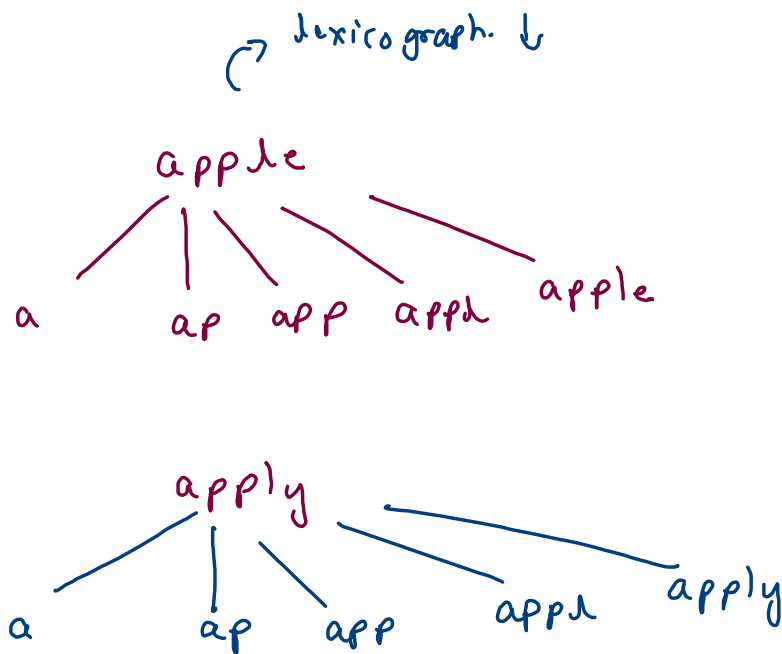
Given an array of strings `words` representing an English Dictionary, return the longest word in `words` that can be built one character at a time by other words in `words`.

If there is more than one possible answer, return the longest word with the smallest lexicographical order. If there is no answer, return the empty string.

Input: `words = ["a","banana","app","appl","ap","apply","apple"]`

Output: `"apple"`

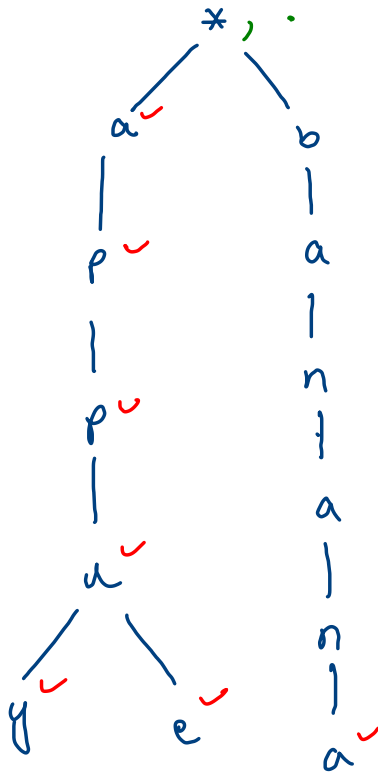
Explanation: Both "apply" and "apple" can be built from other words in the dictionary. However, "apple" is lexicographically smaller than "apply".



Input: words = ["a","banana","app","appl","ap","apply","apple"]

Output: "apple"

Explanation: Both "apply" and "apple" can be built from other words in the dictionary. However, "apple" is lexicographically smaller than "apply".

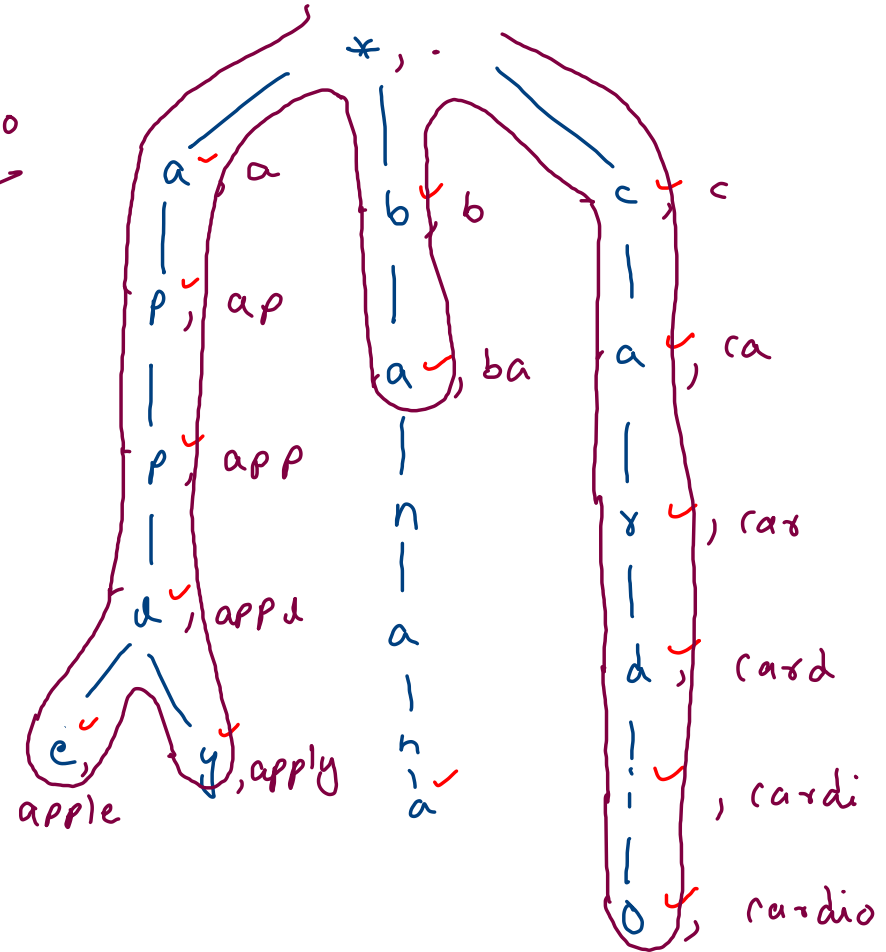


```
String ans;
public void dfs(Node curr,String psf) {
    if(psf.length() > ans.length()) {
        ans = psf;
    }
    for(int i=0; i < 26;i++) {
        if(curr.children[i] != null) {
            Node child = curr.children[i];
            if(child.isEnd == false) {
                continue;
            }
            else {
                dfs(child,psf + (char)(i + 'a'));
            }
        }
    }
}
```

radio
ans = ~~apple~~

a, ap, app, appl, apply, apple,

b, ba, c, ca, car, card, cardi,
radio, banana



1032. Stream of Characters

3

cd

f

kl

12 a b c d e f g h i
j k l

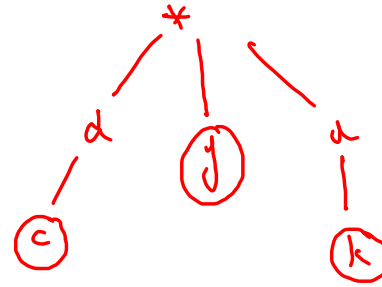
a	b	c	d	e	f	g	h	i
↓	↓	↓	↓	↓	↓	↓	↓	↓
F	F	F	T	F	T	F	F	F

words = cd, f, kl

suffix (store reversed
words in Trie)
↓
Trie

words = cd, j, kd

a	b	c	d	e
↓	↓	↓	↓	↓
f	f	f	T	f



```

public boolean query(char letter) {
    Node curr = root;

    sb.append(letter);

    for(int i=sb.length()-1 ; i >= 0; i--) {
        char ch = sb.charAt(i);

        Node child = curr.children[ch-'a'];

        if(child == null) {
            return false;
        }
        else if(child.isEnd == true){
            return true;
        }

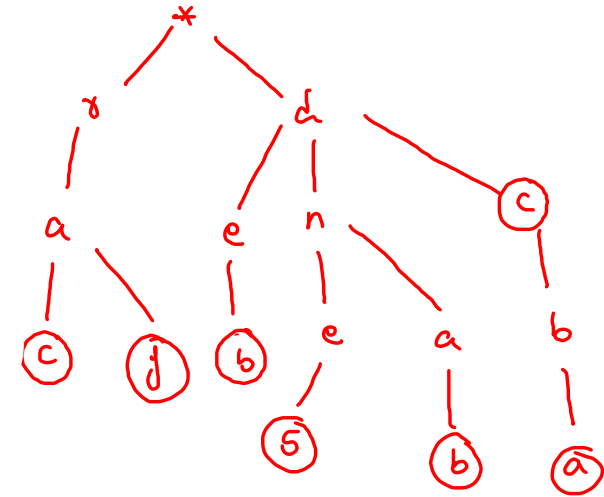
        curr = child;
    }

    return false;
}

```

words: car, jar, send, band,
abcd, cd, bcd

a	c	a	r	b	c	d
↓	↓	↓	↓	↓	↓	↓
F	F	F	T	F	F	T



q: a c a r b c d