Our Solution(s) Run Code

Solution 1

```cpp
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#include <unordered_map>
using namespace std;

class TrieNode {
public:
  unordered_map<char, TrieNode *> children;
};

class SuffixTrie {
public:
  TrieNode *root;
  char endSymbol;

  SuffixTrie(string str) {
    this->root = new TrieNode();
    this->endSymbol = '*';
    this->populateSuffixTrieFrom(str);
  }

  // O(n^2) time | O(n^2) space
  void populateSuffixTrieFrom(string str) {
    for (int i = 0; i < str.length(); i++) {
      this->insertSubstringStartingAt(i, str);
    }
  }

  void insertSubstringStartingAt(int i, string str) {
    TrieNode *node = this->root;
    for (int j = i; j < str.length(); j++) {
      char letter = str[j];
      if (node->children.find(letter) == node->children.end()) {
        TrieNode *newNode = new TrieNode();
        node->children.insert({letter, newNode});
      }
      node = node->children[letter];
    }
    node->children.insert({this->endSymbol, NULL});
  }

  // O(m) time | O(1) space
  bool contains(string str) {
    TrieNode *node = this->root;
    for (char letter : str) {
      if (node->children.find(letter) == node->children.end()) {
        return false;
      }
      node = node->children[letter];
    }
    return node->children.find(this->endSymbol) != node->children.end();
  }
};

```

Your Solutions Run Code

Solution 1 Solution 2 Solution 3

```cpp
#include <unordered_map>
using namespace std;

// Do not edit the class below except for the
// populateSuffixTrieFrom and contains methods.
// Feel free to add new properties and methods
// to the class.
class TrieNode {
public:
  unordered_map<char, TrieNode *> children;
};

class SuffixTrie {
public:
  TrieNode *root;
  char endSymbol;

  SuffixTrie(string str) {
    this->root = new TrieNode();
    this->endSymbol = '*';
    this->populateSuffixTrieFrom(str);
  }

  void populateSuffixTrieFrom(string str) {
    // Write your code here.
  }

  bool contains(string str) {
    // Write your code here.
    return false;
  }
};

```

Custom Output Raw Output Submit Code

Run or submit code when you're ready.