Description | Editorial | Solutions | Submissions

1021. Remove Outermost Parentheses

Solved

Easy | Topics | Companies | Hint

A valid parentheses string is either empty `""`, `"(" + A + ")"`, or `A + B`, where `A` and `B` are valid parentheses strings, and `+` represents string concatenation.

- For example, `""`, `"()"`, `"(())()"`, and `"(()(()))"` are all valid parentheses strings.

A valid parentheses string `s` is primitive if it is nonempty, and there does not exist a way to split it into `s = A + B`, with `A` and `B` nonempty valid parentheses strings.

Given a valid parentheses string `s`, consider its primitive decomposition: `s = P1 + P2 + ... + Pk`, where `Pi` are primitive valid parentheses strings.

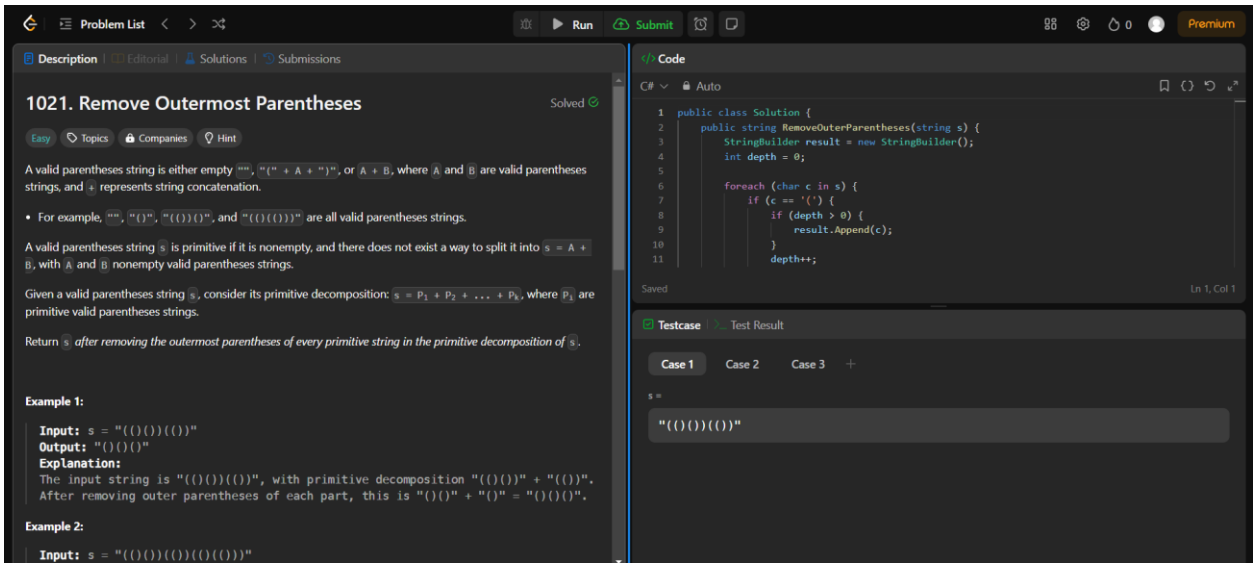
Return `s` *after removing the outermost parentheses of every primitive string in the primitive decomposition of* `s`.

Example 1:

```
Input: s = "(()())(())"
Output: "()()()"
Explanation:
The input string is "(()())(())", with primitive decomposition "(()())" + "(())".
After removing outer parentheses of each part, this is "()()" + "()" = "()()()".
```

Example 2:

```
Input: s = "(()())(())(()(()))"
```



Код:

```
public class Solution
{
    public string RemoveOuterParentheses(string s)
    {
        StringBuilder result = new StringBuilder();
```

```
        int depth = 0;

        foreach (char c in s)
        {
            if (c == '(')
            {
                if (depth > 0)
                {
                    result.Append(c);
                }
                depth++;
            }
            else
            {
                depth--;
                if (depth > 0)
                {
                    result.Append(c);
                }
            }
        }

        return result.ToString();
    }
}
```