Longest Substring without Repeating Characters
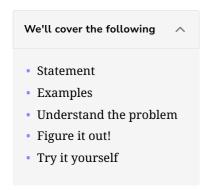
Try to solve the Longest Substring without Repeating Characters problem.
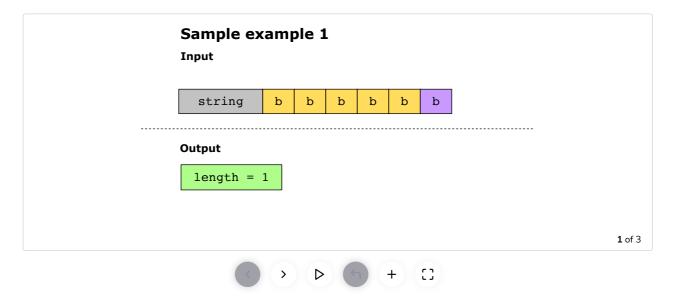
Statement

Given a string, `str`, return the length of the longest substring without repeating characters.
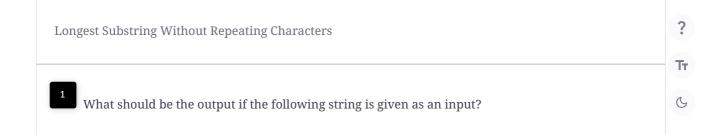
Constraints:

- $1 \leq$ `str.length` $\leq 5 \times 10^4$
- `str` consists of English letters, digits, symbols, and spaces.

Examples

Sample example 1

Input

string	b	b	b	b	b	b

Output

length = 1

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Understand the problem

Let's take a moment to make sure you've correctly understood the problem. The quiz below helps us to check if you're solving the correct problem:

Longest Substring Without Repeating Characters

1   What should be the output if the following string is given as an input?
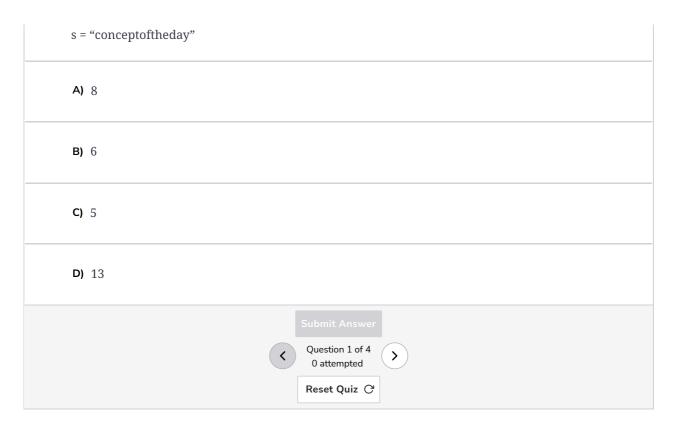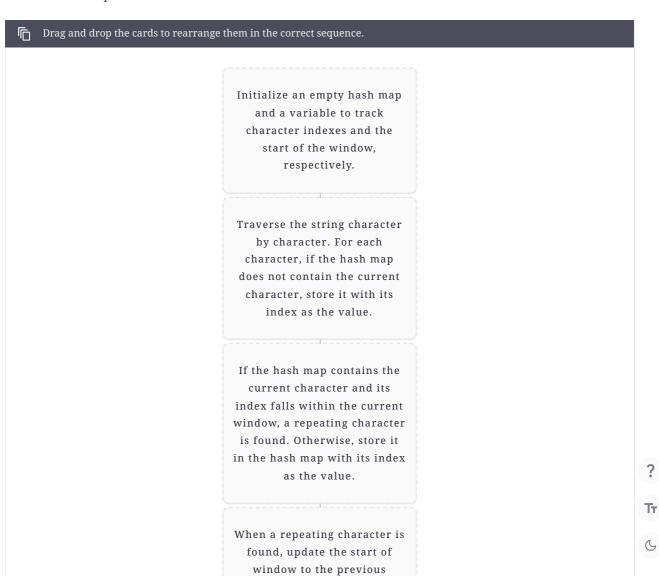
s = "conceptoftheday"

A) 8

B) 6

C) 5

D) 13

Figure it out!

We have a game for you to play. Rearrange the logical building blocks to develop a clearer understanding of how to solve this problem.

Drag and drop the cards to rearrange them in the correct sequence.

Initialize an empty hash map and a variable to track character indexes and the start of the window, respectively.

Traverse the string character by character. For each character, if the hash map does not contain the current character, store it with its index as the value.

If the hash map contains the current character and its index falls within the current window, a repeating character is found. Otherwise, store it in the hash map with its index as the value.

When a repeating character is found, update the start of window to the previous

location of the current
element and increment it.
Also, calculate the length of
the current window.

Update the longest substring
seen so far if the length of the
current window is greater
than its current value.

Return the length of the
longest substring.

Reset | Show Solution | Submit

Try it yourself

Implement your solution in the following coding playground:

Java

usercode > main.java

```java
1  import java.util.*;
2  public class Main{
3      public static int findLongestSubstring(String str) {
4          // your code will replace this placeholder return statement
5
6          return -1;
7      }
8  }
```

✨ Powered by AI | ▷ | Submit

Test Cases | Results

Case 1 | Case 2 | Case 3

Input #1

"abcdbea"

Longest Substring without Repeating Characters

← Back

Solution: Minimum Wi...

Next →

Solution: Longest Sub...

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