## **Longest Substring Without Repeating Characters**

Given a string s, find the length of the **longest substring** without repeating characters.

## **Example 1:**

```
Input: s = "abcabcbb"
Output: 3
Explanation: The answer is "abc", with the length of 3.
```

#### **Example 2:**

```
Input: s = "bbbbb"
Output: 1
Explanation: The answer is "b", with the length of 1.
```

#### **Example 3:**

```
Input: s = "pwwkew"

Output: 3

Explanation: The answer is "wke", with the length of 3.

Notice that the answer must be a substring, "pwke" is a subsequence and not a substring.
```

## Example 4:

```
Input: s = ""
Output: 0
```

# **SOLUTION**

```
public class Solution {
  public int lengthOfLongestSubstring(String A) {
  int result = 0;
  int start = 0;
```

```
int end = 0;
     int strLen = A.length();
     Set<Character> st = new HashSet<>();
    while(start < strLen && end < strLen) {
       if(!st.contains(A.charAt(end))) {
           st.add(A.charAt(end++));
           result = Math.max(result, end-start);
       } else {
           st.remove(A.charAt(start++));
       }
     }
     return result;
  }
}
```

# Output

