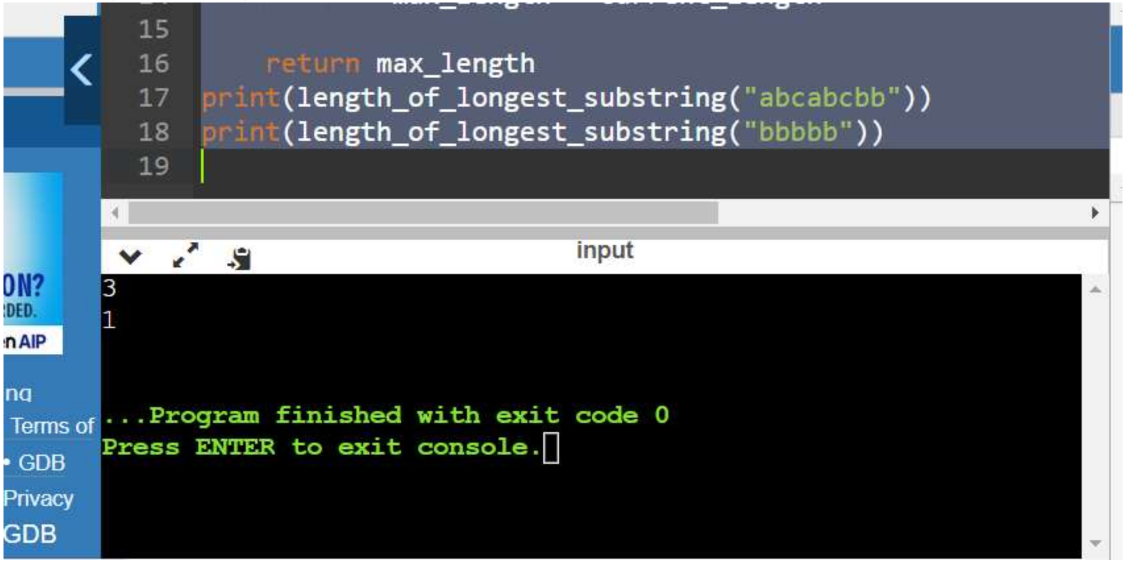
Problem 6: Given a String, find the length of longest substring without any repeating character.

```
def length_of_longest_substring(s):
    max_length = 0
    char_map = {}
    start = 0

    for end in range(len(s)):
        if s[end] in char_map and char_map[s[end]] >= start:
            start = char_map[s[end]] + 1

        char_map[s[end]] = end
        current_length = end - start + 1

        if current_length > max_length:
            max_length = current_length

    return max_length
print(length_of_longest_substring("abcabcbb"))
```

print(length_of_longest_substring("bbbbb"))



```
    return max_length
print(length_of_longest_substring("abcabcbb"))
print(length_of_longest_substring("bbbbb"))
```

```
3
1



...Program finished with exit code 0
Press ENTER to exit console.
```