class Solution:

def lengthOfLongestSubstring(self, s: str) -> int:

seen, left, max\_len = {}, 0, 0

for right, char in enumerate(s):

if char in seen:

left = max(left, seen[char] + 1)

seen[char] = right

max\_len = max(max\_len, right - left + 1)

return max\_len