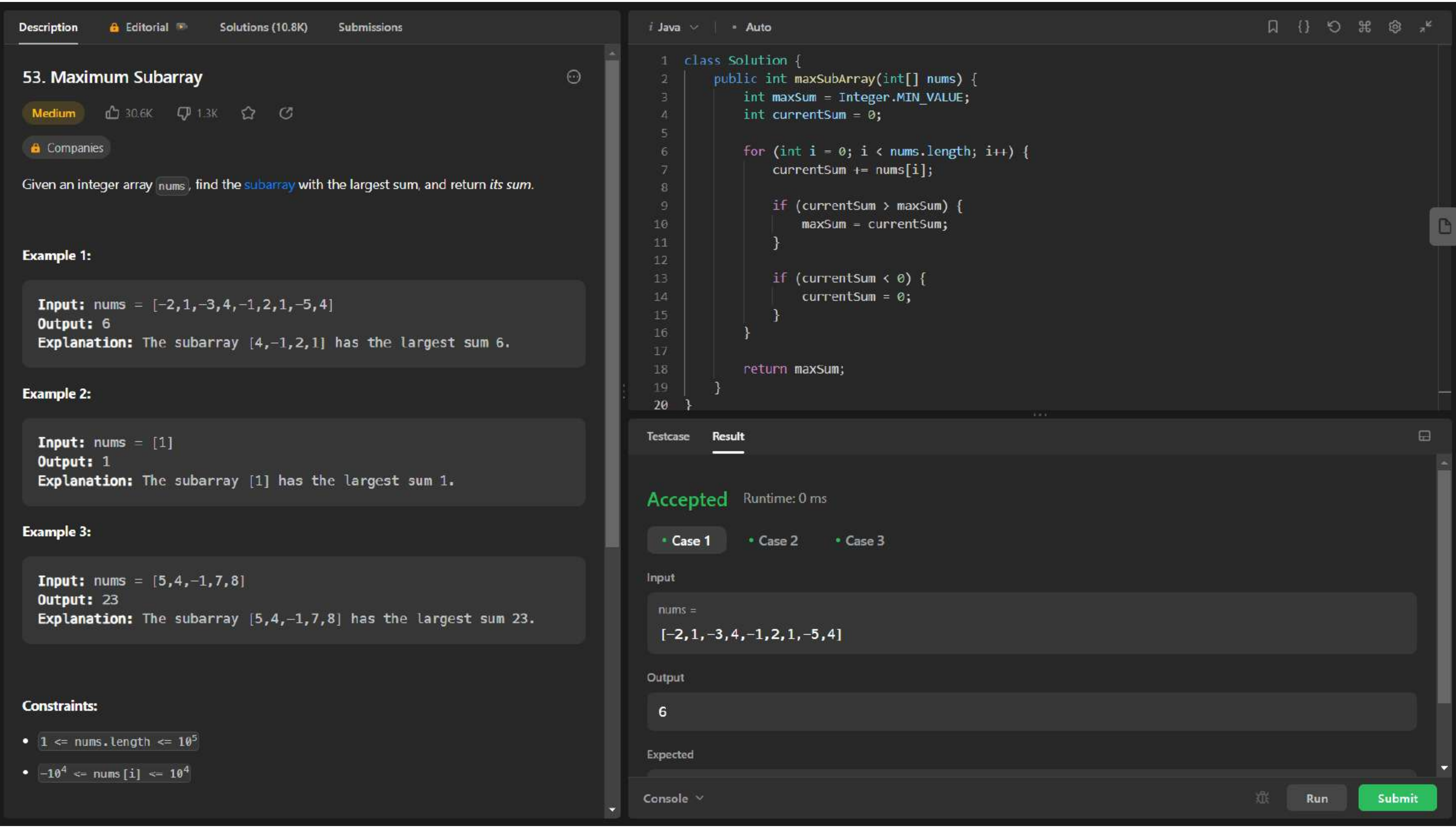


## 53. Maximum Subarray

Given an integer array `nums`, find the subarray with the largest sum, and return *its sum*.

**Example 1:**

```
Input: nums = [-2,1,-3,4,-1,2,1,-5,4]
Output: 6
Explanation: The subarray [4,-1,2,1] has the largest sum 6.
```

**Example 2:**

```
Input: nums = [1]
Output: 1
Explanation: The subarray [1] has the largest sum 1.
```

**Example 3:**

```
Input: nums = [5,4,-1,7,8]
Output: 23
Explanation: The subarray [5,4,-1,7,8] has the largest sum 23.
```

**Constraints:**

- `1 <= nums.length <=` $10^5$
- $-10^4$ `<= nums[i] <=` $10^4$

```java
class Solution {
    public int maxSubArray(int[] nums) {
        int maxSum = Integer.MIN_VALUE;
        int currentSum = 0;

        for (int i = 0; i < nums.length; i++) {
            currentSum += nums[i];

            if (currentSum > maxSum) {
                maxSum = currentSum;
            }

            if (currentSum < 0) {
                currentSum = 0;
            }
        }

        return maxSum;
    }
}
```

Accepted Runtime: 0 ms

• Case 1 • Case 2 • Case 3

Input

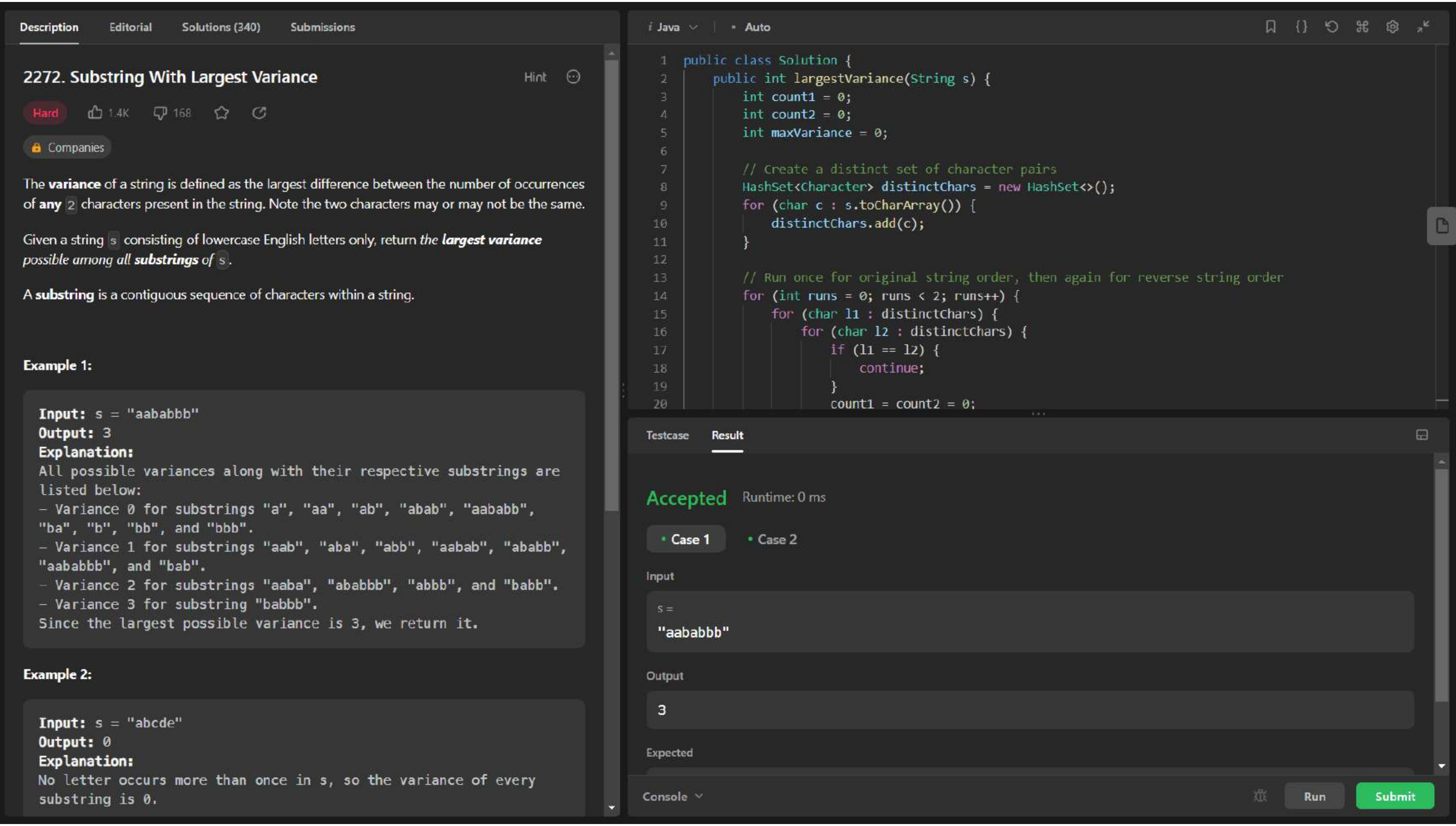
nums =

[-2,1,-3,4,-1,2,1,-5,4]

Output

6

Expected



## 2272. Substring With Largest Variance

The **variance** of a string is defined as the largest difference between the number of occurrences of **any** 2 characters present in the string. Note the two characters may or may not be the same.

Given a string s consisting of lowercase English letters only, return *the* ***largest variance*** *possible among all* ***substrings*** *of* s.

A **substring** is a contiguous sequence of characters within a string.

**Example 1:**

```
Input: s = "aababbb"
Output: 3
Explanation:
All possible variances along with their respective substrings are
listed below:
- Variance 0 for substrings "a", "aa", "ab", "abab", "aababb",
"ba", "b", "bb", and "bbb".
- Variance 1 for substrings "aab", "aba", "abb", "aabab", "ababb",
"aababbb", and "bab".
- Variance 2 for substrings "aaba", "ababbb", "abbb", and "babb".
- Variance 3 for substring "babbb".
Since the largest possible variance is 3, we return it.
```

**Example 2:**

```
Input: s = "abcde"
Output: 0
Explanation:
No letter occurs more than once in s, so the variance of every
substring is 0.
```

```java
public class Solution {
    public int largestVariance(String s) {
        int count1 = 0;
        int count2 = 0;
        int maxVariance = 0;

        // Create a distinct set of character pairs
        HashSet<Character> distinctChars = new HashSet<>();
        for (char c : s.toCharArray()) {
            distinctChars.add(c);
        }

        // Run once for original string order, then again for reverse string order
        for (int runs = 0; runs < 2; runs++) {
            for (char l1 : distinctChars) {
                for (char l2 : distinctChars) {
                    if (l1 == l2) {
                        continue;
                    }
                    count1 = count2 = 0;
```

Accepted Runtime: 0 ms

• Case 1 • Case 2

Input

s =
"aababbb"

Output

3

Expected