

## Experiment 6

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**Branch:** CSE

**Semester:** 6<sup>th</sup>

**Subject Name:** Advanced Programming - 2

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**Date of Performance:** 27/2/25

**Subject Code:** 22CSH-351

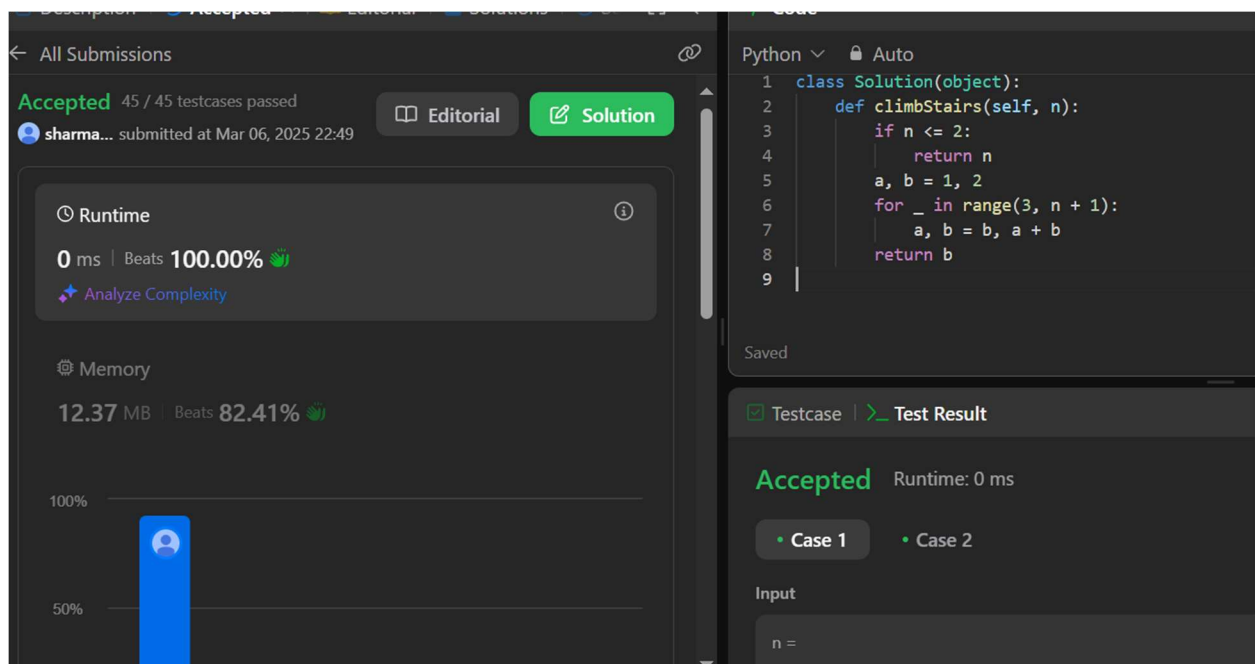
### **Ques 1:**

**Aim:** Climbing Stairs

### **Code:**

```
class Solution(object):
    def climbStairs(self, n):
        if n <= 2:
            return n
        a, b = 1, 2
        for _ in range(3, n + 1):
            a, b = b, a + b
        return b
```

### **Submission Screenshot:**



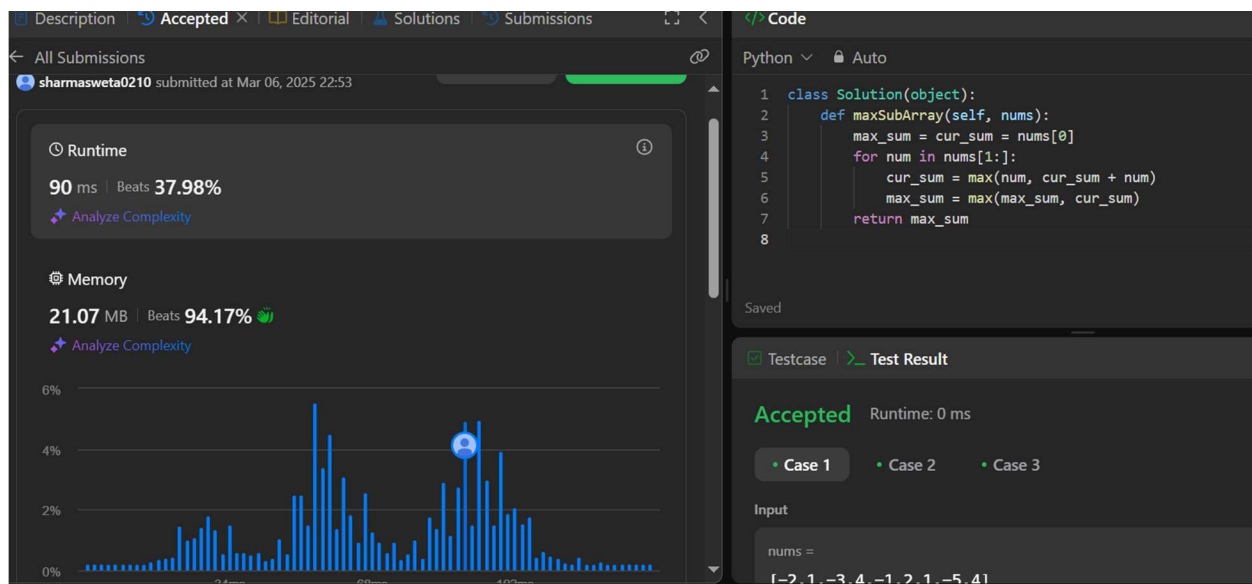
**Link:** <https://leetcode.com/problems/climbing-stairs/submissions/1565123307>

**Ques 2. Aim:** Maximum Subarray

**Code:**

```
class Solution(object):
    def maxSubArray(self, nums):
        max_sum = cur_sum = nums[0]
        for num in nums[1:]:
            cur_sum = max(num, cur_sum + num)
            max_sum = max(max_sum, cur_sum)
        return max_sum
```

**Submission Screenshot:**



**Submission Link:**

<https://leetcode.com/problems/maximum-subarray/submissions/1565128360>

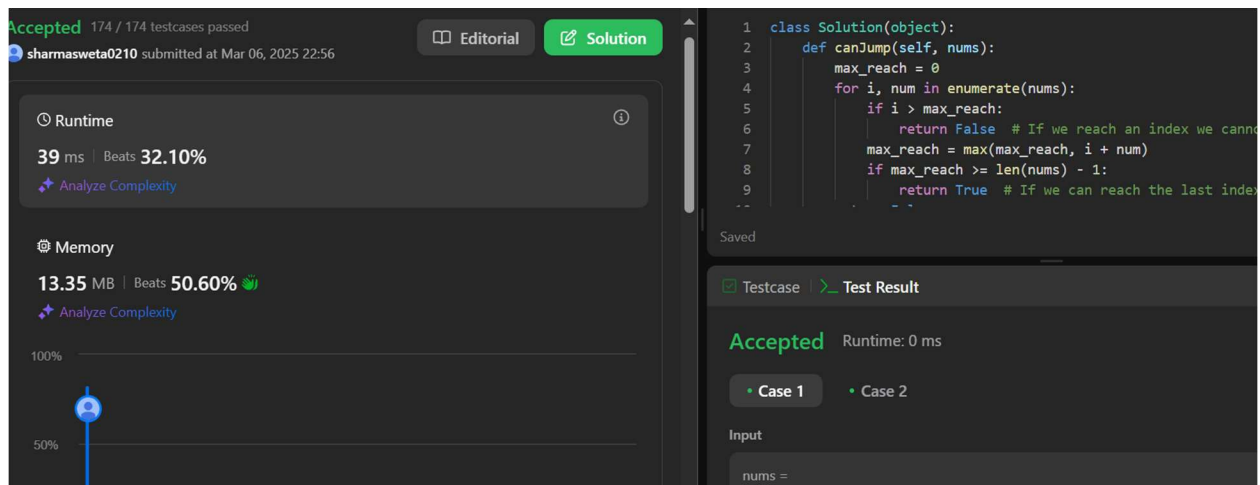
**Ques 3:**

**Aim:** Jump Game

## Code:

```
class Solution(object):
    def canJump(self, nums):
        max_reach = 0
        for i, num in enumerate(nums):
            if i > max_reach:
                return False # If we reach an index we cannot jump to
            max_reach = max(max_reach, i + num)
        if max_reach >= len(nums) - 1:
            return True # If we can reach the last index
        return False
```

## Submission Screenshot:



Accepted 174 / 174 testcases passed  
sharmasweta0210 submitted at Mar 06, 2025 22:56

Runtime  
39 ms | Beats 32.10%  
[Analyze Complexity](#)

Memory  
13.35 MB | Beats 50.60%  
[Analyze Complexity](#)

```
1 class Solution(object):
2     def canJump(self, nums):
3         max_reach = 0
4         for i, num in enumerate(nums):
5             if i > max_reach:
6                 return False # If we reach an index we cannot jump to
7             max_reach = max(max_reach, i + num)
8         if max_reach >= len(nums) - 1:
9             return True # If we can reach the last index
10    
```

Testcase | Test Result  
Accepted Runtime: 0 ms  
Case 1 Case 2  
Input  
nums =

## Submission Link:

<https://leetcode.com/problems/jump-game/submissions/1565131539>