STUDENT REPORT

DETAILS

Name

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EXPERIMENT

Title

TARGET SUM

Description

You are given a list of integers, and your task is to write a function that finds the two numbers in the list that add up to a specific target sum. You need to retum the indices of these two numbers.

Write a function that takes a list of Integers and a target sum as input and returns a list of two indices (0-based) of the numbers that add up to the target sum. Assume that there is exactly one solution, and you cannot use the same element twice

Sample Input:

2 7 11 15

9

Sample Output:

[0, 1]

Source Code:

```
def two_sum(nums, target):
    # Create a dictionary to store the complement and its index
    num_dict = {}

    # Loop through the list
    for i, num in enumerate(nums):
        # Check if the current number's complement exists in the dictionary
        complement = target - num
        if complement in num_dict:
            # Return the indices of the complement and the current number
            return [num_dict[complement], i]

        # Otherwise, store the current number and its index in the dictionary
        num_dict[num] = i

# Input
nums = list(map(int, input().split()))
target = int(input())

# Output
print(two_sum(nums, target))
```

RESULT

5 / 5 Test Cases Passed | 100 %