STUDENT REPORT

DETAILS

Name

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Roll Number

KUB23CSE002

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 indices of the numbers
    num_indices = {}

    # Iterate over the list of numbers
    for index, num in enumerate(nums):
        # Calculate the complement that we need to find
        complement = target - num

        # Check if the complement is already in the dictionary
        if complement in num_indices:
            # If found, return the indices of the two numbers
            return [num_indices[complement], index]

        # Store the index of the current number
        num_indices[num] = index

    # If no solution found (not expected as per the problem statement)
    return []

# Example usage
input_nums = list(map(int,input().split()))
target_sum = int(input())
output = two_sum(input_nums, target_sum)
print(output)
```

RESULT

5 / 5 Test Cases Passed | 100 %