



STUDENT REPORT

DETAILS

Name

B SHRINIVAS

Roll Number

KUB23CSE018

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 return 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):
    num_to_index = {} # Dictionary to store the number and its index

    for index, num in enumerate(nums):
        complement = target - num # Calculate the complement
        if complement in num_to_index:
            return [num_to_index[complement], index] # Return the indices if found
        num_to_index[num] = index # Store the index of the current number

    return [] # In case there is no solution (not expected per problem statement)

# Example usage
nums = list(map(int, input().strip().split()))
target = int(input().strip())

result = two_sum(nums, target)
print(result)
```

RESULT

5 / 5 Test Cases Passed | 100 %