

Experiment-2

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Problem Statement

There is a class Adder which has two data members of type 1D int array and int variable. It has two functions: getdata and numsum. Function getdata accepts non-empty array of distinct integers from user in 1D int array data member and a targetsum in another data member. The function numsum adds any two elements from an input array which is equal to targetsum and return an array of resulting two elements, in any order. If no two numbers sum up to the target sum, the function should return an empty array. Note that the target sum is to be obtained by summing two different integers in the array; you can't add a single integer to itself in order to obtain the target sum. You can assume that there will be at most one pair of numbers summing up to the target sum. Use constructor. Use extra variables if needed.

C-Adder
<code>[]arr : int targetSum : int</code>
<code>getData(arrSize : int) : void numSum(arrSize : int) : int []</code>

Sample Input and Output

Test Case 1

Input Parameters	Values	Expected Output
1D Array	[3,5,-4,8,11,1,-1,7]	[8,7]
targetsum	15	

Test Case 2

Input Parameters	Values	Expected Output
1D Array	[3,5,-4,8,11,1,-1,6]	[]
targetsum	15	

```

import java.util.Scanner;
public class Assignment2 {
    int[] a;
    int n, sum;

    void getnum() {
        Scanner s = new Scanner(System.in);
        System.out.println("Enter Numbers of the Array Elements: ");
        n = s.nextInt();
        a = new int[n];
        System.out.println("Enter Elements in the Array:");
        for (int i = 0; i < n; i++) {
            a[i] = s.nextInt();
        }
        System.out.println("Enter the Target Sum: ");
        sum = s.nextInt();
    }

    void getsumnum() {
        for (int i = 0; i < n; i++) {
            for (int j = i + 1; j < n; j++) {
                if (a[i] + a[j] == sum) {
                    System.out.println "[" + a[i] + "," + a[j] + "]";
                }
            }
        }
    }

    public static void main(String[] args) {
        Assignment2 sam = new Assignment2();
        sam.getnum();
        sam.getsumnum();
    }
}

```

Results:

Actual Output

Enter Numbers of the Array Elements:

5

Enter Elements in the Array:

11

3

6

15

20

Enter the Target Sum:

21

[6,15]