Day 55 coding Statement : Given 2 integer arrays X and Y of same size. Consider both arrays as vectors and print the sum of maximum scalar product (Dot product) of 2 vectors.

Sample input 1:

4

1 2 3 4

5 6 7 8

Sample output 1:

70

Program :

```java
package com.talentbattle.codingchallenge;

import java.util.Scanner;

public class Sum_scalar_product {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner scan = new Scanner(System.in);
        System.out.println("Enter Array 1 Length");
        int n1=scan.nextInt();
        int arr1[]= new int[n1];
        System.out.println("Enter the Array 1 Elements");
        for(int i=0;i<n1;i++) {
            arr1[i]=scan.nextInt();
        }
        System.out.println("Enter Array 2 Length");
        int n2=scan.nextInt();
        int arr2[]=new int[n2];
        System.out.println("Enter the Array 2 Elements");
        for(int i=0;i<n2;i++) {
            arr2[i]=scan.nextInt();
        }

        int sum = 0;
        for(int i=0;i<n1;i++) {

            sum = sum + (arr1[i]*arr2[i]);
        }
        System.out.println(sum);
    }

}
```

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```java
package com.talentbattle.codingchallenge;

import java.util.Scanner;

public class Sum_scalar_product {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner scan = new Scanner(System.in);
        System.out.println("Enter Array 1 Length");
        int n1=scan.nextInt();
        int arr1[]= new int[n1];
        System.out.println("Enter the Array 1 Elements");
        for(int i=0;i<n1;i++) {
            arr1[i]=scan.nextInt();
        }
        System.out.println("Enter Array 2 Length");
        int n2=scan.nextInt();
        int arr2[]=new int[n2];
        System.out.println("Enter the Array 2 Elements");
        for(int i=0;i<n2;i++) {
            arr2[i]=scan.nextInt();
        }

        int sum = 0;
        for(int i=0;i<n1;i++) {

            sum = sum + (arr1[i]*arr2[i]);
        }
        System.out.println(sum);
    }

}
```

Console

<terminated> Sum_scalar_product [Java Application] C:\Program Files\Ja
```
Enter Array 1 Length
4
Enter the Array 1 Elements
1
2
3
4
Enter Array 2 Length
4
Enter the Array 2 Elements
5
6
7
8
70
```