Experiment 1

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Branch: CSE **Section/Group: 20BCS_WM_702(A)**
Semester: 5th **Date of Performance:18/08/2022**
Subject Name: Competitive Coding **Subject Code: 20CSP-314**

1. **Aim/Overview of the practical:**

Array Data Structures

1. To reverse the elements of an array.

2. Task to be done/ Which logistics used:

To write a program to reverse the elements of an array.

3. Steps for experiment/practical/Code:

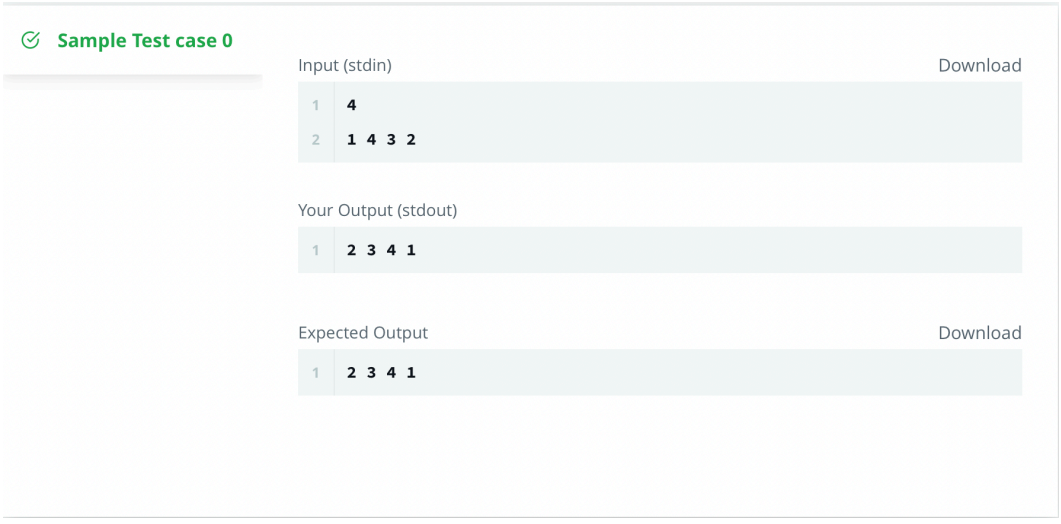
```
import java.util.*;

public class Solution {
   public static void main(String[] args) {
      Scanner S = new Scanner(System.in);
      int N = S.nextInt();
      int[] arr = new int[N];
```

```
for (int i = 0; i < N; i++) {
            arr[i]=S.nextInt();
        }

        for(int i = N-1; i>=0;i--){
            System.out.print(arr[i]+" ");
        }
    }
}
```

4. Result/Output/Writing Summary:



1. **Aim/Overview of the practical:**

Array Data Structures

2. To find the sum of the elements of an array.

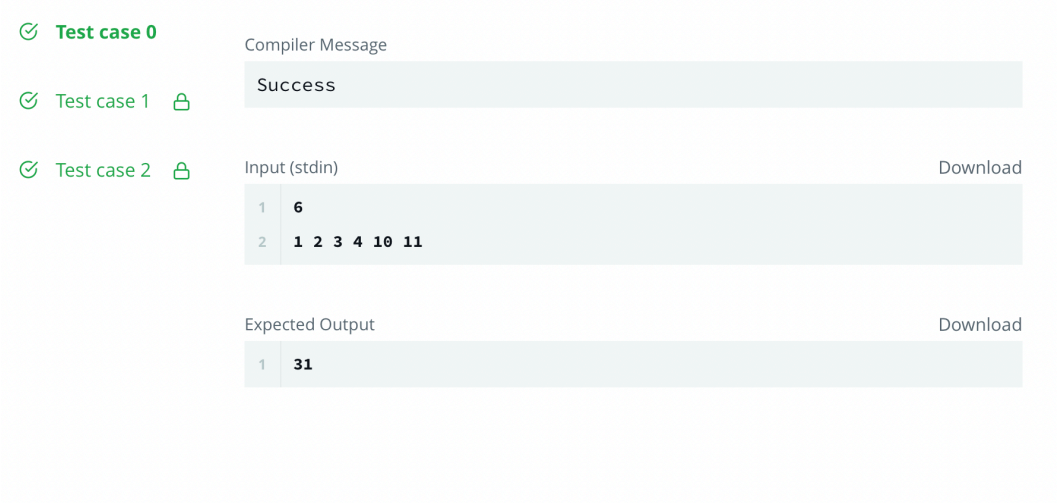
2. Task to be done/ Which logistics used:

To write a program to find the sum of the elements of an array.

3. Steps for experiment/practical/Code:

```
import java.util.*;
public class array_sum {
   public static void main(String[] args) {
      Scanner S = new Scanner(System.in);
      int n= S.nextInt();
      int [] ar = new int[n];
      int sum=0;
      for(int i=0;i<n;i++){
         sum+=S.nextInt();
      }
      System.out.print(sum);
   }
}
```

4. Result/Output/Writing Summary:



1. **Aim/Overview of the practical:**

Array Data Structures

3. To compare the triplet and determine their respective comparison points.

2. Task to be done/ Which logistics used:

To write a program to compare the triplet and determine their respective comparison points.

3. Steps for experiment/practical/Code:

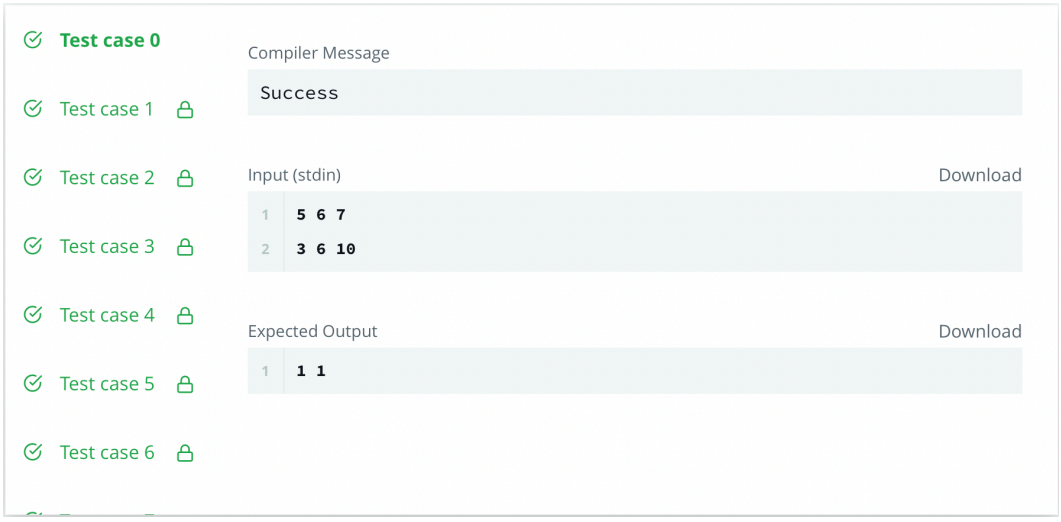
```
import java.util.*;


public class Compare_the_triplet {
    public static void main(String[] args) {
        Scanner I = new Scanner(System.in);
        int []alice = new int[3];
        int []bob = new int[3];
        int a=0,b=0;
        for (int i=0;i<3;i++){
            alice[i]=I.nextInt();
        }
        for (int i=0;i<3;i++){
            bob[i]=I.nextInt();
        }
        for(int i=0;i<3;i++){
            if(alice[i]>bob[i]){
                a++;
```

```
        }
        else if (bob[i]>alice[i]){
            b++;
        }
    }
    System.out.println(a+" "+b);

  }
}
}
```

4. Result/Output/Writing Summary:



1. **Aim/Overview of the practical:**

Array Data Structures

4. To calculate the absolute difference between the sums of its diagonals of a square matrix.

2. Task to be done/ Which logistics used:

To write a program to calculate the absolute difference between the sums of its diagonals of a square matrix.

3. Steps for experiment/practical/Code:

```
import java.io.*;
import java.math.*;
import java.security.*;
import java.text.*;
import java.util.*;


public class Diagonal_Difference {
   public static void main(String[] args) {
      Scanner s= new Scanner(System.in);
      int n= s.nextInt();
      int arr[][] = new int[n][n];
      int D1=0, D2=0;
      for(int i =0;i<n;i++){
         for (int j=0; j<n;j++){
            arr[i][j]= s.nextInt();
            if(I==j){
```

```
            D1+=arr[i][j];
        }
        if(i== n-j-1){
            D2+=arr[i][j];
        }
    }

}
System.out.println(Math.abs(D1-D2));

}
}
```

4. Result/Output/Writing Summary:

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			