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ROLL NO: I025
SAP ID: 60003220131
BRANCH: Information Technology
BATCH: 1

1. You have been given an array of positive integers A1, A2,...,An with length N and you have to print an array of same length (N) where the values in the new array are the sum of every number in the array, except the number at that index.

CODE

```
import java.util.*;

class SumExceptIndex {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int[] arr = new int[100];
        int[] ans = new int[100];
        System.out.println("Enter size of array:");
        int n = sc.nextInt();
        System.out.println("Enter array elements:");
        for(int i=0; i<n; i++) {
            arr[i] = sc.nextInt();
        }
        int sum = 0;
        for(int i=0; i<n; i++) {
            sum += arr[i];
        }
        for(int i=0; i<n; i++) {
            ans[i] = sum - arr[i];
            System.out.print(ans[i] + " ");
        }
    }
}
```

OUTPUT

```
C:\Users\ayush\Desktop\JAVA_assignment>javac SumExceptIndex.java

C:\Users\ayush\Desktop\JAVA_assignment>java SumExceptIndex
Enter size of array:
5
Enter array elements:
1 2 3 4 5
14 13 12 11 10
```

2. The annual examination results of 5 students are tabulated as follows: WAP to read the data and determine the following: Total marks obtained by each student. The student who obtained the highest total marks

Roll No	Subject1	Subject2	Subject3

CODE

```
import java.util.*;

class MaxMarks {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int[][] arr = new int[100][4];
        int[] max = new int[100];
        int highest = 0;
        int index = -1;
        System.out.println("Enter no of students");
        int n = sc.nextInt();
        System.out.println("Enter elements of Table");
        for(int i=0; i<n; i++) {
            arr[i][0] = sc.nextInt();
            arr[i][1] = sc.nextInt();
            arr[i][2] = sc.nextInt();
            arr[i][3] = sc.nextInt();
        }
        for(int i=0; i<n; i++) {
            max[i] = arr[i][1] + arr[i][2] + arr[i][3];
            if(max[i] > highest) {
                highest = max[i];
                index = i;
            }
        }
        System.out.println("The highest marks are "+highest+" of roll no "+arr[index][0]);
    }
}
```

OUTPUT

```
C:\Users\ayush\Desktop\JAVA_assignment>javac MaxMarks.java

C:\Users\ayush\Desktop\JAVA_assignment>java MaxMarks
Enter no of students
3
Enter elements of Table
5 99 99 99
6 88 88 88
7 77 77 77
The highest marks are 297 of roll no 5
```

3. WAP to display following pattern using irregular arrays (jagged arrays).

```
1
1 2
1 2 3 ……..
```

CODE

```
import java.util.Scanner;

public class Pattern {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter the number of rows: ");
        int rows = sc.nextInt();

        for (int i = 1; i <= rows; i++) {
            for (int j = 1; j <= i; j++) {
                System.out.print(j + " ");
            }
            System.out.println();
        }
    }
}
```

OUTPUT

```
C:\Users\ayush\Desktop\JAVA_assignment>javac Pattern.java

C:\Users\ayush\Desktop\JAVA_assignment>java Pattern
Enter the number of rows: 5
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```