}

}

74. Write a program to store 6 elements in an array P, and 4 elements in an array Q and produce a third array R, containing all the elements of array P and Display the resultant array.

EXAMPLE :	INPUT	OUTPUT
P[]	Q[]	R[]
4	19	4
6	23	6
1	7	1
2	8	2
3		3
10		10
		19
		23
		7
		8

Ans. import java.io.*;

class Merge

```
int P[] = new int[6];
int Q[] = new int[4];
int R[] = new int[10];
int i, j;
void display()throws IOException
{
    BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
    for(i = 0; i < 6; i++)
    {
        System.out.println("Enter a number");
        P[i] = Integer.parseInt(br.readLine());
    }
    for(i = 0; i < 4; i++)
    {
        System.out.println("Enter a number");
        Q[i] = Integer.parseInt(br.readLine());
    }
    for(i = 0; i < 6; i++)
    {
        R[i] = P[i];
    }
    for(i = 6, j = 0; j < 4; j++, i++)
    {
        R[i] = Q[j];
    }
    for(i = 0; i < 10; i++)
    {
        System.out.println(R[i]);
    }
}
}
```

75. Write a program to input integer elements into an array of size 20 and perform the following operations:
(i) Display largest number from the array.
(ii) Display smallest number from the array.
(iii) Display sum of all the elements of the array.

Ans.
```
import java.util.*;
class array
{
public static void main(String args[])
{
    Scanner sc =new Scanner(System. in);
    System.out.println("Enter numbers");
int a[ ]=new int [20];
for(int i=0;i<20;i++)
{
a[i]=sc.nextInt();
}
    int max=a[0];
```

```
        int min=a[0];
        int sum= 0;
        for(int i=0;i<20;i++)
        {
            if( a[i]>max)
            max = a[i];
            else if(a[i]<min)
            min=a[i];
            sum=sum+ a[i];
        }
            System.out.println("largest number is"+ max);
            System.out.println("smallest number is"+min);
            System.out.println("sum is "+ sum);
        }
    }
```

76. The annual examination results of 50 students in a class is tabulated as follows :

Roll no.	Subject ₹ A	Subject ₹ B	Subject ₹ C
.....	.....	.....	.....

Write a program to read the data, calculate and display the following :

(i) Average mark obtained by each student.

(ii) Print the roll number and average marks of the students whose average mark is above 80.

(iii) Print the roll number and average marks of the students whose average mark is below 40.

Ans.

```
import java.io.*;
public class AnExam
{
        int rno[] = new int[50];
        double a[] = new double[50];
        double b[] = new double[50];
        double c[] = new double[50];
        double avg[] = new double[50];
        int i;
        void readData()throws IOException
        {
            BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
            for(i = 0; i =< 50; i++)
            {
                System.out.println("Roll no and marks in 3 subjects of a student");
                rno[i] = Integer.parseInt(br.readLine());
                a[i] = Double.parseDouble(br.readLine());
                b[i] = Double.parseDouble(br.readLine());
                c[i] = Double.parseDouble(br.readLine());
                avg[i] = (a[i] + b[i] + c[i])/3;
            }
        }
        void display()
        {
            System.out.println("Roll No.\t Subject A\tSubject B\t Subject C\t Average");
            for(i = 0; i < 50; i++)
            {
            System.out.println(rno[i] + "\t" + a[i] + "\t" + b[i] + "\t" + c[i] + "\t" + avg[i]);
```

```
        }
        System.out.println("Students whose average is above 80");
        for(i = 0; i < 50; i++)
        {
            if(avg[i] > 80)
            {
                System.out.println(rno[i] + "\t" + a[i] + "\t" + b[i] + "\t" + c[i] + "\t"+ avg[i]);
            }
        }
        System.out.println("Students whose average is below 40");
        for(i = 0; i < 50; i++)
        {
            if(avg[i] < 40)
            {
                System.out.println(rno[i] + "\t" + a[i] + "\t" + b[i] + "\t" + c[i] + "\t" + avg [i]);
            }
        }
    }
}
```

77. Define a class and store the given city names in a single dimensional array. Sort these names in alphabetical order using the Bubble Sort technique only.
INPUT : Delhi, Bengaluru, Agra, Mumbai, Kolkata
OUTPUT : Agra, Bengaluru, Kolkata, Delhi, Mumbai

Ans.
```
import java.io.*;
public class city
{
    public static void main(String args[])
    {
    int i, j;
    String t;
    String m[] = {"Delhi", "Bengaluru", "Agra", "Mumbai", "Kolkata"};
    for(i = 0; i < 4; i++)
    {
        for(j = 0; j <= 3 - i; j++)
        {
            if(m[j].compareTo(m[j + 1]) > 0)
            {
                t = m[j];
                m[j] = m[j + 1];
                m[j + 1] = t;
            }
        }
    }
    System.out.println("The names in alphabetical order are");
    for(i = 0; i < 5; i++)
    System.out.println(m[i]);
    }
}
```

78. Write a program to initialise the given data in an array and find the minimum and maximum values along with the sum of the given elements.
Numbers : 2 5 4 1 3

Output : Minimum value : 1
Maximum value : 5
Sum of the elements : 15

Ans.
```
import java.io.*;
public class Test
{
        public static void main(String args[])
        {
            int x[] = {2, 5, 4, 1, 3};
            int min, max, sum;
            sum = min = max = x[0];
            for(int i = 1; i <= 4; i++)
            {
                sum = sum + x [i];
                if(x [i] > max)
                    max = x [i];
                if(x [i] < min)
                    min = x [i];
            }
            System.out.println("Maximum No." + max + " \n Minimum No." + min + "sum of All Nos."
            + sum);
        }
}
```

79. Write a program that creates an integer array of 10 elements, accepts values for array elements from the user and displays the values.

Ans.
```
import java.io.*;
public class ArrayDemo
{
        int[] anArray = new int[10];
        public void accept()throws IOException
        {
            int num;
            String str;
            BufferedReader bReader = new BufferedReader(new InputStreamReader(System.in));
            System.out.println("Enter a number and press return");
            for(int i = 0; i < anArray.length; i++)
            {
                str = bReader.readLine();
                num = Integer.parseInt(str);
                anArray[i] = num;
            }
            for(i = 0; i < anArray.length; i++)
            {
                System.out.println("Element" + (i + 1) "is :" + anArray[i]);
            }
        }
}
```

marks of students stored in stu Array.