```
//To sort each row of a 2D Matrix in ascending order                    Aswin Asok

import java.util.Scanner;
public class Matrix_Sort
{
   public static void main(String args[])
   {
      Scanner br = new Scanner(System.in);
      System.out.println("\nEnter the number of rows");
      int M = br.nextInt(); //To store the number of rows
      System.out.println("Enter the number of columns");
      int N = br.nextInt(); //To store the number of columns

      if(M>2 && N>2 && M<10 && N<10) //Checking whether the number of rows and columns are
within the range
      {
         int A[][] = new int[M][N]; //Initalzing the matrix

         System.out.println("\nENTER ELEMENTS OF MATRIX");
         //Inputting the Elements
         for(int i=0;i<M;i++)
         {
            for(int j=0;j<N;j++)
            {
               A[i][j] = br.nextInt();
            }
         }

         //Printing the Original Matrix
         System.out.println("\nORIGINAL MATRIX");
         for(int i=0;i<M;i++)
         {
            for(int j=0;j<N;j++)
            {
               System.out.print(A[i][j]+" ");
            }
            System.out.println();
         }

         //Sorting each row using bubble sort
         for(int i=0;i<M;i++)
         {
            for(int j1=0;j1<N;j1++)
```

```
            {
               for(int j=0;j<(N-1);j++)
               {
                  if(A[i][j]>A[i][j+1])
                  {
                     int t=A[i][j];
                     A[i][j]=A[i][j+1];
                     A[i][j+1]=t;
                  }
               }
            }
         }

         //Printing the matix after the sorting is done
         System.out.println("\nMATRIX AFTER SORTING ROWS");
         for(int i=0 ; i<M ; i++)
         {
            for(int j=0 ; j<N ; j++)
            {
               System.out.print(A[i][j]+" ");
            }
            System.out.println();
         }

      }
      else
      {
         System.out.println("MATRIX SIZE OUT OF RANGE");
      }
   }
}
```

OUTPUT

```
Enter the number of rows
3
Enter the number of columns
3

ENTER ELEMENTS OF MATRIX
-9
8
-21
```

6
3
7
-5
3
1

ORIGINAL MATRIX
-9 8 -21
6 3 7
-5 3 1

MATRIX AFTER SORTING ROWS
-21 -9 8
3 6 7
-5 1 3

Enter the number of rows
11
Enter the number of columns
3
MATRIX SIZE OUT OF RANGE