```
----------------TestException01.java-----------------
package com.ameya.test;

public class TestException01 {

    public static void main(String[] args) {
        int arr[]=new int[3];
        int a =10,b=5,c=0;
        try {
            arr[0]=5;
            arr[1]=5;
            arr[2]=5;
            //arr[3]=5;
            c=a/b;
            System.out.println("arr :: ");
            for(int i : arr) {
                System.out.print(i+ "  ");
            }
            System.out.println("\nc :: "+c);
        }catch(ArithmeticException e) {
            System.out.println("Divide By Zero Not Allowed !!");
        }catch(ArrayIndexOutOfBoundsException e) {
            System.out.println("Check The Array Index !!");
        }catch(Exception e) {
            System.out.println(e.getMessage()+" Occured !!");
        }
        finally {
            System.out.println("The Code will execute anyways !!");
        }

    }

}
------------------MaxRangeExceededException.java-------------
----
package com.ameya.exceptions;

public class MaxRangeExceededException extends Exception {

    private int details;
    public MaxRangeExceededException(int details) {
```

```
41          this.details=details;
42      }
43      @Override
44      public String toString() {
45          return "MaxRangeExceeded ["+details+"].";
46      }
47  }
48  ----------------MinRangeExceededException.java----------------
    --
49  package com.ameya.exceptions;
50
51  public class MinRangeExceededException extends Exception {
52      private int details;
53      public MinRangeExceededException(int details) {
54          this.details=details;
55      }
56      @Override
57      public String toString() {
58          return "MinRangeExceeded ["+details+"].";
59      }
60  }
61  ----------------FactorialTest.java-----------------
62  package com.ameya.test;
63
64  import java.util.Scanner;
65
66  import com.ameya.exceptions.MaxRangeExceededException;
67  import com.ameya.exceptions.MinRangeExceededException;
68
69  public class FactorialTest {
70
71      private static void calculateFactorial(int num) throws
72      MaxRangeExceededException,MinRangeExceededException {
73          int fact=1;
74          if(num<1) {
75              throw new MinRangeExceededException(num);
76          }if(num > 7) {
77              throw new MaxRangeExceededException(num);
78          }
79          for(int i=1;i<=num;i++) {
80              fact*=i;
```

```
81          }
82          System.out.println("Factorial Of "+num+" is "+fact);
83      }
84      public static void main(String[] args) {
85          Scanner sc=new Scanner(System.in);
86          System.out.println("Enter The Number");
87          int num=Integer.parseInt(sc.nextLine());
88          try {
89          calculateFactorial(num);
90          }catch(MaxRangeExceededException e) {
91              System.out.println(e);
92              e.printStackTrace();
93          }catch(MinRangeExceededException e) {
94              System.out.println(e);
95              e.printStackTrace();
96          }finally {
97              sc.close();
98              System.out.println("Resources Cleaned-Up");
99          }
100
101     }
102
103 }
104
```