USN:1MS22CI050

```
import java.util.Scanner;
public class Example {
    public void myDivision(int a, int b)
    {
        try
        {
            // Check if a or b is negative or if b is zero
            if (a <= 0) {
                throw new IllegalArgumentException("Negative number input is
not allowed for numerator.");
            if (b <= 0) {
                throw new ArithmeticException("Division by zero or negative
denominator is not allowed.");
            }
            // If input is valid, perform division
            System.out.println("Division: " + a / b);
        } catch (IllegalArgumentException e) {
            // Handle invalid numerator
            System.out.println("Error: " + e.getMessage());
        } catch (ArithmeticException e) {
            // Handle division by zero or invalid denominator
            System.out.println("Error: " + e.getMessage());
        }
    }
    public void arrayException(int arr[])
    {
        int i=0;
        try
        {
            while(true)
                System.out.println(i+"th Element:"+arr[i]);
                i++;
            }
        catch(ArrayIndexOutOfBoundsException e)
            System.out.println("Error:"+e.getMessage());
        }
    }
        public static void main(String args[])
```

```
{
    Scanner sc=new Scanner(System.in);
    Example o=new Example();
    int a,b;
    int arr[]={1,34,54,22};
    System.out.println("Enter numbers a and b:");
    a=sc.nextInt();
    b=sc.nextInt();
    o.myDivision(a, b);

    o.arrayException(arr);
}
```

Output:

```
Enter numbers a and b:

2
0
Error: Division by zero or negative denominator is not allowed.

Enter numbers a and b:

2
0
Error: Division by zero or negative denominator is not allowed.

Enter numbers a and b:

3
4
Division: 0

Oth Element:1
1th Element:34
2th Element:54
3th Element:22
Error:Index 4 out of bounds for length 4
```