Exception handing

Question 01

Write a Java program that takes two integers as input and performs division on them. Implement exception handling to catch and handle the ArithmeticException that occurs when dividing by zero.

Print an appropriate error message if the denominator is zero.

```
import java.util.Scanner;

public class Lab10
{
   public static void main(String[] args)
   {
      float num1,num2,div;
      Scanner sc=new Scanner(System.in);

      System.out.println("Enter first number: ");
      num1=sc.nextFloat();

      System.out.println("Enter second number: ");
      num2=sc.nextFloat();

      try
      {
         div=num1/num2;
         System.out.println("the division answer is "+div);
      }
      catch(ArithmeticException e)
      {
         System.out.println("Divided by zero error!");
      }
   }
}
```

Question 02

Write a Java program that creates an array of integers and attempts to access an index that is out of bounds. Implement exception handling to catch and handle the ArrayIndexOutOfBoundsException.

Print an appropriate error message if an invalid index is accessed.

```
public class Lab10
{
   public static void main(String[] args)
   {
      int[]arr={10,20,30,40,50};
      try
      {
         arr[5]=85;
         System.out.println("The last element value is "+arr[10]);
      }
      catch(ArrayIndexOutOfBoundsException e)
      {
         System.out.println(e.getMessage());
      }
   }
}
```

Question 03

Write a Java program that attempts to read a file that does not exist. Implement exception handling to catch and handle the FileNotFoundException.

Print an appropriate error message if the file is not found.

```
import java.io.File;
import java.io.FileNotFoundException;
import java.util.Scanner;
public class Lab8
{
   public static void main(String[] args)
   {
      try
      {
         File file=new File("nonexistent.txt");
         Scanner sc=new Scanner(file);
         while(sc.hasNextLine())
         {
            String line=sc.nextLine();
            System.out.println(line);
         }
         sc.close();
      }
      catch(FileNotFoundException e)
      {
         System.out.println("Erroe: File not found!");
      }
   }
}
```