Name : Kshitij Shelke
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PROGRAM 1

```java
class Main {
  public static void main(String[] args) {
    try {
      int divideByZero = 5 / 0;
    }

    catch (ArithmeticException e) {
      System.out.println("ArithmeticException => " + e.getMessage());
    }

    finally {
      System.out.println("This is the finally block");
    }
  }
}
```

PROGRAM 2

```java
import java.io.*;

class Main {
  public static void findFile() throws IOException {

    File newFile = new File("test.txt");
    FileInputStream stream = new FileInputStream(newFile);
  }

  public static void main(String[] args) {
```

```java
    try {

     findFile();

    }

    catch (IOException e) {

     System.out.println(e);

    }

  }

}
```

PROGRAM 3

```java
import java.util.*;
 public class Main {

   static List&lt;String&gt; list = new ArrayList&lt;String&gt;();

   public static void main(String args[]) throws Exception

   {

      Integer[] array = new Integer[100000 * 100000];

   }

}
```

PROGRAM 4

```java
class Main {
public static void main(String args[])

   {

      try {

        //define two numbers

        int num1 = 100, num2 = 0;

        int result = num1 / num2; // divide by zero

        //print the result

        System.out.println("Result = " + result);
```

```java
        }
        catch (ArithmeticException e) {
            System.out.println("ArithmeticException:Division by Zero");
        }
    }
}
```