6.Write a program in Java to demonstrate exception handling

```
public class ExceptionHandlingDemo {
    public static void main(String[] args) {
        try {
            int[] numbers = {1, 2, 3};
            int result = numbers[4]; // Accessing an index out of bounds

            // The following line will not be executed if an exception occurs above
            System.out.println("Result: " + result);
        } catch (ArrayIndexOutOfBoundsException e) {
            System.out.println("Exception caught: ArrayIndexOutOfBoundsException");
        } finally {
            System.out.println("Finally block executed");
        }

        try {
            int num1 = 10;
            int num2 = 0;
            int divisionResult = num1 / num2; // Division by zero

            // The following line will not be executed if an exception occurs above
            System.out.println("Division result: " + divisionResult);
        } catch (ArithmeticException e) {
            System.out.println("Exception caught: ArithmeticException");
        } finally {
            System.out.println("Finally block executed");
        }
    }
}
```

OUTPUT:

Exception caught: ArrayIndexOutOfBoundsExceptionFinally block executed

Exception caught: ArithmeticException

Finally block executed