Generate a Java code to handle Exceptions such as Arithmetic Exception, ArrayIndexOutOfBoundsException, NullPointerException using Multi-Catch Statements.

CODE:

import java.util.Scanner;

public class ExceptionHandling {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

try {

// Simulating ArithmeticException

System.out.print("Enter dividend: ");

int dividend = scanner.nextInt();

System.out.print("Enter divisor: ");

int divisor = scanner.nextInt();

int quotient = dividend / divisor;

System.out.println("Quotient: " + quotient);

// Simulating ArrayIndexOutOfBoundsException

int[] arr = new int[3];

System.out.print("Enter index to access in the array: ");

int index = scanner.nextInt();

System.out.println("Value at index " + index + ": " + arr[index]);

// Simulating NullPointerException

String str = null;

System.out.println("Length of the string: " + str.length());

} catch (ArithmeticException | ArrayIndexOutOfBoundsException | NullPointerException e) {

System.out.println("Exception caught: " + e);

}

scanner.close(); // Closing the scanner object

}

}

OUTPUT:

C:\javap>javac ExceptionHandling.java

C:\javap>java ExceptionHandling

Enter dividend: 45

Enter divisor: 9

Quotient: 5

Enter index to access in the array: 1

Value at index 1: 0

Exception caught: java.lang.NullPointerException: Cannot invoke "String.length()" because "<local7>" is null

