// wap in java to handle exception using try and multiple catch block

import java.util.Scanner;

public class MultipleCatchExample {

 public static void main(String[] args) {

 Scanner sc = new Scanner(System.in);

 try {

 // Input two integers from the user

 System.out.println("Enter first number: ");

 int num1 = Integer.parseInt(sc.nextLine());

 System.out.println("Enter second number: ");

 int num2 = Integer.parseInt(sc.nextLine());

 // Perform division

 int result = num1 / num2;

 System.out.println("Result of division: " + result);

 // Example of array index access

 int[] numbers = {10, 20, 30};

 System.out.println("Enter an array index to access (0, 1, or 2): ");

 int index = Integer.parseInt(sc.nextLine());

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

 }

 // Catch division by zero exception

 catch (ArithmeticException e) {

 System.out.println("Error: Division by zero is not allowed.");

 }

 // Catch array index out of bounds exception

 catch (ArrayIndexOutOfBoundsException e) {

 System.out.println("Error: Array index is out of bounds.");

 }

 // Catch number format exception

 catch (NumberFormatException e) {

 System.out.println("Error: Invalid input. Please enter a valid integer.");

 }

 // Catch any other exceptions (generic catch block)

 catch (Exception e) {

 System.out.println("Error: Something went wrong.");

 } finally {

 // Close the scanner

 sc.close();

 System.out.println("Program finished.");

 }

 }

}