// 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.");

}

}

}