

Assignment No-6

```
import java.util.Scanner;

public class ExceptionHandlingExample
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);

        try {
            // User input for two numbers

            System.out.println("Enter the first number (Num1): ");
            String input1 = sc.nextLine();

            System.out.println("Enter the second number (Num2): ");
            String input2 = sc.nextLine();

            // Convert input strings to integers
            int num1 = Integer.parseInt(input1);
            int num2 = Integer.parseInt(input2);

            int[] array = {10, 20, 30, 40, 50};

            int result = num1 / num2;

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

            System.out.println("Value at index " + num1 + ": " + array[num1]);

            System.out.println("Value at index " + num2 + ": " + array[num2]);
        } catch (ArrayIndexOutOfBoundsException e)
```

```

    {
        System.out.println("ArrayIndexOutOfBoundsException: " + e.getMessage());
    } catch (NumberFormatException e)
    {
        System.out.println("NumberFormatException: Invalid number format.");
    } catch (ArithmeticException e)
    {
        System.out.println("ArithmeticException: Cannot divide by zero.");
    } finally
    {
        System.out.println("Program execution completed.....");
    }
}
}

```

Output:

Enter the first number (Num1):

1

Enter the second number (Num2):

3

Result of division: 0

Value at index 1: 20

Value at index 3: 40

Program execution completed.....

Enter the first number (Num1):

abc

Enter the second number (Num2):

45

NumberFormatException: Invalid number format.

Program execution completed.....

Enter the first number (Num1):

8

Enter the second number (Num2):

5

Result of division: 1

ArrayIndexOutOfBoundsException: Index 8 out of bounds for length 5

Program execution completed.....

Enter the first number (Num1):

4

Enter the second number (Num2):

0

ArithmeticException: Cannot divide by zero.

Program execution completed.....