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Subject: OOP LAB

**Practical 6: Exception Handling**

Problem Statement: Implement a program to handle Arithmetic exception, Array Index Out Of Bounds. The user enters two numbers Num1 and Num2. The division of Num1 and Num2 is displayed. If Num1 and Num2 were not integers, the program would throw a Number Format Exception. If Num2 were zero, the program would throw an Arithmetic Exception. Display the exception.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*PROGRAM\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

import java.util.\*;

class ExceptionExample{

public static void main(String args[])

{

String num1, num2;

Scanner sc= new Scanner(System.in);

try{

System.out.print("Enter number 1: ");

num1= sc.next();

int no1= Integer.parseInt(num1);

System.out.print("Enter number 2: ");

num2= sc.next();

int no2= Integer.parseInt(num2);

int div= no1/no2;

System.out.println("\nDivison of two numbers is: "+div );

int arr[]= new int[] {no1, no2, div};

System.out.println("\nAvailable array index are 0-2");

System.out.print("Enter the index you want to search: ");

int i= sc.nextInt();

System.out.print("Value in array index "+i+" is: "+arr[i]);

}

catch(ArithmeticException ae)

{

System.out.print("\nWarning: ArithmeticExcpetion\n"+ae);

}

catch(NumberFormatException nfe)

{

System.out.print("\nWarning: NumberFormatExcpetion\n"+nfe);

}

catch(ArrayIndexOutOfBoundsException aoe)

{

System.out.println("\nWarning: ArrayIndexOutOfBoundException\n"+aoe);}}}

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*OUTPUT\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

java -cp /tmp/yQ01WfUsLX/ExceptionExample

A)

Enter number 1: 5

Enter number 2: 0

Warning: ArithmeticExcpetion

java.lang.ArithmeticException: / by zero

B)

Enter number 1: 4

Enter number 2: f

Warning: NumberFormatExcpetion

java.lang.NumberFormatException: For input string: "f"

C)

Enter number 1: 6

Enter number 2: 2

Divison of two numbers is: 3

Available array index are 0-2

Enter the index you want to search: 5

Warning: ArrayIndexOutOfBoundException

java.lang.ArrayIndexOutOfBoundsException: Index 5 out of bounds for length 3