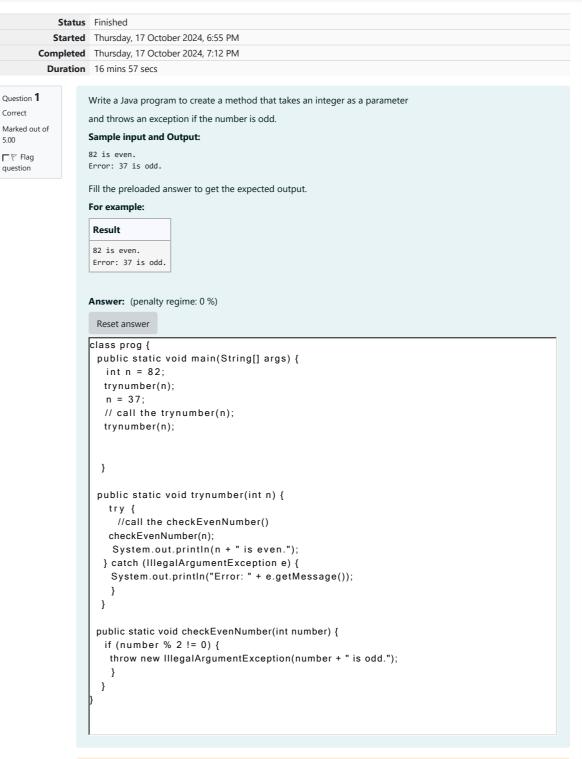
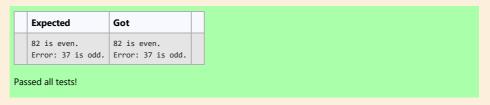
CS23333-Object Oriented Programming Using Java-2023







Question **2** Correct

Marked out of

Write a Java program to handle ArithmeticException and ArrayIndexOutOfBoundsException.

Create an array, read the input from the user, and store it in the array.

Divide the 0th index element by the 1st index element and store it.

if the 1st element is zero, it will throw an exception.

if you try to access an element beyond the array limit throws an exception.

Input:

5

10 0 20 30 40

Output:

java.lang.ArithmeticException: / by zero

I am always executed

Input:

3

10 20 30

Output

java.lang.ArrayIndexOutOfBoundsException: Index 3 out of bounds for length 3 I am always executed $\,$

For example:

Test	Input	Result
1	6 1 0 4 1 2 8	<pre>java.lang.ArithmeticException: / by zero I am always executed</pre>

Answer: (penalty regime: 0 %)

```
import java.util.Scanner;
public class ExceptionHandlingExample {
  public static void main(String[] args) {
     Scanner scanner = new Scanner(System.in);
       try {
         int size = scanner.nextInt();
         int[] array = new int[size];
        // Read the elements of the array
          for (int i = 0; i < size; i++) {
            array[i] = scanner.nextInt();
        // Perform division: divide the 0th element by the 1st element
         int result = array[0] / array[1];
        // Attempt to access an out-of-bounds index
        System.out.println("Accessing element at index " + size + ": " + array[size]);
     } catch (ArithmeticException e) {
        System.out.println("java.lang.ArithmeticException: " + e.getMessage());
     } catch (ArrayIndexOutOfBoundsException e) {
        System.out.println("java.lang.ArrayIndexOutOfBoundsException: " + e.getMessage());
       } finally {
        System.out.println("I am always executed");
     scanner.close();
```

Test	Input	Expected	Go
1	6	java.lang.ArithmeticException: / by zero I am always executed	jav
	104128	1 am always executed	1 0
2	3	java.lang.ArrayIndexOutOfBoundsException: Index 3 out of bounds for length 3	jav
	10 20 30	I am always executed	I a

Question **3** Correct

Marked out of 5.00

□ Flag question In the following program, an array of integer data is to be initialized.

During the initialization, if a user enters a value other than an integer, it will throw an InputMismatchException exception.

On the occurrence of such an exception, your program should print "You entered bad data."

If there is no such exception it will print the total sum of the array. $\label{eq:principal}$

/* Define try-catch block to save user input in the array "name"

If there is an exception then catch the exception otherwise print the total sum of the array. */

Sample Input:

521

Sample Output:

R

Sample Input:

2

Sample Output:

You entered bad data.

For example:

Input	Result
3 5 2 1	8
2 1 g	You entered bad data.

Answer: (penalty regime: 0 %)

Reset answer

```
import java.util.Scanner;
import java.util.InputMismatchException;
class prog {
public static void main(String[] args) {
 Scanner sc = new Scanner(System.in);
  int length = sc.nextInt();
  // create an array to save user input
  int[] name = new int[length];
  int sum=0;//save the total sum of the array.
  /* Define try-catch block to save user input in the array "name"
 If there is an exception then catch the exception otherwise print
  the total sum of the array. */
    try
        int i;
      for(i=0;i<length;i++)
         name[i]=sc.nextInt();
      for(i=0;i<length;i++)
        sum+=name[i];
      System.out.println(sum);
   catch(InputMismatchException e )
     System.out.println("You entered bad data.");
 }
}
```

	Input	Expected	Got
	3 5 2 1	8	8
ľ	2 1 g	You entered bad data.	You entered bad data.

Passed all tests!