# CS23333-Object Oriented Programming Using Java-2023

## Quiz navigation

| 1 | 2 | 3 |
|---|---|---|

Show one page at a time

Finish review

| Status | Finished |
|---|---|
| Started | Wednesday, 9 October 2024, 9:53 PM |
| Completed | Wednesday, 9 October 2024, 10:15 PM |
| Duration | 21 mins 39 secs |

**Question 1**
Correct
Marked out of 5.00

⚑ Flag question

Write a Java program to create a method that takes an integer as a parameter

and throws an exception if the number is odd.

**Sample input and Output:**

```
82 is even.
Error: 37 is odd.
```

Fill the preloaded answer to get the expected output.

**For example:**

| Result |
|---|
| 82 is even.<br>Error: 37 is odd. |

**Answer:** (penalty regime: 0 %)

Reset answer

```java
1  class prog {
2    public static void main(String[] args) {
3      int n = 82;
4      trynumber(n);
5      n = 37;
6      // call the trynumber(n);
7      trynumber(n);
8
9    }
10
11   public static void trynumber(int n) {
12     try {
13       //call the checkEvenNumber()
14       checkEvenNumber(n);
15       System.out.println(n + " is even.");
16     } catch (Exception e) {
17       System.out.println("Error: " + e.getMessage());
18     }
19   }
20
21   public static void checkEvenNumber(int number) {
22     if (number % 2 != 0) {
23       throw new RuntimeException(number + " is odd.");
24     }
25   }
26 }
27
```

| Expected | Got | |
|---|---|---|
| 82 is even.<br>Error: 37 is odd. | 82 is even.<br>Error: 37 is odd. | |

Passed all tests!

**Question 2**
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.

/* 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:**

3
5 2 1

**Sample Output:**

8

**Sample Input:**

2

1 g

**Sample Output:**

You entered bad data.

**For example:**

| Input | Result |
|---|---|
| 3<br>5 2 1 | 8 |
| 2<br>1 g | You entered bad data. |

**Answer:** (penalty regime: 0 %)

Reset answer

```java
1  import java.util.Scanner;
2  import java.util.InputMismatchException;
3  class prog {
4    public static void main(String[] args) {
5      Scanner sc = new Scanner(System.in);
6      int length = sc.nextInt();
7      // create an array to save user input
8      int[] name = new int[length];
9      int sum=0;//save the total sum of the array.
10
```

```java
 11        /* Define try-catch block to save user input in the array "name"
 12     If there is an exception then catch the exception otherwise print
 13     the total sum of the array. */
 14     try
 15     {
 16         for(int i=0;i<length;i++)
 17         {
 18             name[i]=sc.nextInt();
 19             sum+=name[i];
 20         }
 21         System.out.println(sum);
 22     }
 23     catch(InputMismatchException e)
 24     {
 25         System.out.println("You entered bad data.");
 26
 27     }
 28 }
 29 }
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| | 3<br>5 2 1 | 8 | 8 | |
| | 2<br>1 g | You entered bad data. | You entered bad data. | |

Passed all tests!

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<br>1 0 4 1 2 8 | java.lang.ArithmeticException: / by zero<br>I am always executed |

**Answer:** (penalty regime: 0 %)

```java
 1  import java.util.Scanner;
 2  public class prog
 3  {
 4      public static void main(String args[])
 5      {
 6          Scanner sc=new Scanner(System.in);
 7          try{
 8              int length=sc.nextInt();
 9              int[] arr=new int[length];
10              for(int i=0;i<length;i++)
11              {
12                  arr[i]=sc.nextInt();
13              }
14              int r=arr[0]/arr[1];
15
16              System.out.println(arr[length]);
17
18          }
19          catch(ArithmeticException e)
20          {
21              System.out.println("java.lang.ArithmeticException: "+e.getMessage());
22          }
23          catch(ArrayIndexOutOfBoundsException e)
24          {
25              System.out.println("java.lang.ArrayIndexOutOfBoundsException: "+e.getMessage());
26          }
27          finally
28          {
29              System.out.println("I am always executed");
30          }
31      }
32  }
```

| Test | Input | Expected | Got |
|---|---|---|---|
| 1 | 6<br>1 0 4 1 2 8 | java.lang.ArithmeticException: / by zero<br>I am always executed | java.lang.ArithmeticException: / by zero<br>I am always executed |
| 2 | 3<br>10 20 30 | java.lang.ArrayIndexOutOfBoundsException: Index 3 out of bounds for length 3<br>I am always executed | java.lang.ArrayIndexOutOfBoundsException: Index 3 out of bou<br>I am always executed |

Passed all tests!

Finish review