

**2021 – 2022 Spring, CMPE 114/211 Fundamentals of Programming II****Lab Assignment 10****Question 2**

In this lab assignment, you are asked to write java code of one listing application that catches the exceptions.

**Instructions:**

- You will write a java class: ExceptionHandling.java (runnable code)
- The program first asks user to enter the size of the array, creates a String array with given size. It keeps names of cities in the array.
- The program asks user to enter the values (city names) of the array, reads these values into the array.
- The program asks user to enter a value to divide 25 with.
- The program asks user to enter a value to call checkAge. It calls checkAge () with given parameter. The method checks the parameter, if the value is greater than and equal to "18" then throws MyException, else prints out "Access granted."
- The program prints out "End of program." at the end of the program.
- The program catches the following exceptions: `ArrayIndexOutOfBoundsException`, `StringIndexOutOfBoundsException`, `NumberFormatException`, `ArithmeticException`, `MyException`, and `Exception` for unexpected types
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- Write one exception class: `MyException`. The exception class does not do anything.
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- No matter what value is entered, or the program crashes, or terminates normally, the program print out the following:
  - o "This code block always runs."

You are supposed to submit 2 classes together, in the same zip file.

**Example Output:**

If the values are properly given, then no exception is thrown. For example:

```
Please Enter the size of the array (small number is recommended): 2
Enter the city names and put 'end' at the end.
Ankara Istanbul end
Please enter the index of letter to read from first city name: 0
A
Please enter a value to divide 25. 5
5
Please enter your age: 19
Access granted.
End of program.
This code block always runs.
```

If the values are NOT properly entered, then different exceptions are thrown. The following lines show the reactions in each catch block:

```
Please Enter the size of the array (small number is recommended): a
Size is not numeric. For input string: "a"
```

This code block always runs.

...

Please Enter the size of the array (small number is recommended): 2

Enter the city names and put 'end' at the end.

Ankara Istanbul Izmir

The values are more than the size of the array. Index 2 out of bounds for length 2

This code block always runs.

...

Please Enter the size of the array (small number is recommended): 2

Enter the city names and put 'end' at the end.

Ankara Istanbul end

Please enter the index of letter to read from first city name: 9

The index is greater than the length of the string. String index out of range: 9

This code block always runs.

...

Please enter a value to divide 25. 0

You tried to divide a number with zero. / by zero

...

Please enter your age: 15

Access denied - You must be at least 18 years old.

This code block always runs.