**Lab: Exceptions and Error Handling Lab**

Problems for exercise and homework for the ["C# OOP" course @ SoftUni"](https://softuni.bg/trainings/3585/csharp-oop-february-2022).

You can check your solutions here: [https://judge.softuni.org/Contests/3324/Exceptions-and-E HYPERLINK "https://judge.softuni.org/Contests/3324/Exceptions-and-Error-Handling-Lab"r HYPERLINK "https://judge.softuni.org/Contests/3324/Exceptions-and-Error-Handling-Lab"ror-Handling-Lab](https://judge.softuni.org/Contests/3324/Exceptions-and-Error-Handling-Lab)

* **Square Root**

Write a program that reads an integer **number** and **calculates** and **prints** its **square** **root**.

* If the number is negative, print "**Invalid number.**"
* In all cases finally, print "**Goodbye.**"

Use **try-catch-finally**.

**Examples**

|  |  |
| --- | --- |
| **Input** | **Output** |
| 9 | 3  Goodbye. |
| -1 | Invalid number.  Goodbye. |

* **Enter Numbers**

Write a method **ReadNumber(int start, int end)** that enters an integer number in a given range (**start…end**), **excluding** the numbers **start** and **end**. If an **invalid number** or a **non-number** text is entered, the method should **throw an exception**. Using this method write a program that enters **10 numbers**: **a1, a2, … a10, such that 1 < a1 < … < a10 < 100**. If the user enters an invalid number, continue while there are 10 valid numbers entered. Print the array elements, separated with **comma and space “, ”**.

**Hints**

* When the entered input holds a non-integer value, print “**Invalid Number!**”
* When the entered input holds an integer that is out of range, print "**Your number is not in range {currentNumber} - 100!**"

**Examples**

|  |  |
| --- | --- |
| **Input** | **Output** |
| 2  3  4  5  6  7  8  9  10  11 | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 |
| 1  2  1  3  p  4  5  6  7  8  9  10  11 | Your number is not in range (1 - 100)  Your number is not in range (2 – 100)  Invalid Number!  2, 3, 4, 5, 6, 7, 8, 9, 10, 11 |