**Lab 10 : Exception Handling**

**Objectives:** To practice exception handling concept

1. (InputMismatchException) Write a program that prompts the user to read two integers and displays their sum. Your program should prompt the user to read the number again if the input is incorrect.

Sample run:

Text

Description automatically generated

1. (ArrayIndexOutOfBoundsException) Write a program that meets the following requirements:

* Creates an array with 100 randomly chosen integers.
* Prompts the user to enter the index of the array, then displays the corresponding element value. If the specified index is out of bounds, display the message "Out of Bounds".

Sample run:

Text

Description automatically generated

Text

Description automatically generated

1. (IllegalTriangleException) Defined the Triangle class with three sides. In a triangle, the sum of any two sides is greater than the other side. The Triangle class must adhere to this rule. Create the IllegalTriangleException class, and modify the constructor of the Triangle class to throw an IllegalTriangleException object if a triangle is created with sides that violate the rule, as follows:

/\*\* Construct a triangle with the specified sides \*/

public Triangle(double side1, double side2, double side3)

throws IllegalTriangleException {

// Implement it

}

Sample run:

Text

Description automatically generated