Logo

Description automatically generated

**22/SU-COP-2805C-72035 Java Programming**

**Exercise 12.3**

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# Document Version Control

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# Document Purpose

The purpose of this document is to define the updated ArrayOutOfIndexException() class.

# Technical Specifications

## Purpose of Technical Implementation

The purpose of this implementation is to check if the requested index location by the user is available and displays a message accordingly.

## Technical Implementation Components

The class implementation allows the user to check what a value at a given index location is if the index location exists.

First, we create a list of 100 random integers:

*public* *static* int[] *getArray*() {

        int[] array = *new* int[100];

*for* (int i = 0; i < array.*length*; i++) {

            array[i] = (int) (Math.*random*() \* 100) + 1;

        }

*return* array;

    }

Then, we create our index validator with a try catch block:

*try* {

            // *Display the corresponding element value*

            System.*out*.*println*("The corresponding element value is " +

                    array[input.*nextInt*()]);

        } *catch* (ArrayIndexOutOfBoundsException ex) {

            System.*out*.*println*("Out of Bounds.");

        }

If the index location is within our bounds, provide the value at the index location. Otherwise, specify out of bounds.

## ArrayIndexOutOfBoundsException Class Implementation

The implementation of this class allows the designer the ability to validate user input. The user can input any number but with the implementation of this class the designer has more control over random numbers entered by the user.