Module 4 Assignment Results Document

## Program Listing:

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*\* CSD405-J318 Intermediate Java Programming*

*\**

*\* Module 4 Assignment*

*\* Create a class <yourName>ArrayListTest .  Examples:*

*\*      TomArrayListTest*

*\*      SueArrayListTest*

*\*      CindyArrayListTest*

*\*      Etc.*

*\**

*\* This class is to contain:*

*\* 1. A method that receives an ArrayList populated with an Integer data type*

*\*    holding the integers received from user input.*

*\* 2. The user input is to accept Integers that are then assigned to the ArrayList*

*\*    until a value of 0 is entered, which is also assigned to the ArrayList.*

*\* 3. The ArrayList is then to be sent to the method.*

*\* 4. The method is then to return the largest value in the ArrayList.*

*\* 5. If the ArrayList is sent in empty, the method will then return 0.*

*\* 6. The method signature is to be: public static Integer max (ArrayList list).*

*\* 7. Write additional code for testing your method.*

*\* 8. The method will return the largest value that is displayed to the user.*

\*/

package *module4*; // *Needed for my file structure, why does it force this!*

import *java*.*util*.*ArrayList*;

import *java*.*util*.*InputMismatchException*;

import *java*.*util*.*Scanner*;

// *Class Declaration*

*public* *class* EdgarArrayListTest {

     // *ANSI escape code for red text*

*public* *static* *final* String ANSI\_GREEN = "\u001B[32m";

*public* *static* *final* String ANSI\_RESET = "\u001B[0m";

    // *Main Method*

*public* *static* void main(String[] args) {

        // *Create a Scanner object to get user input.*

        Scanner scanner = new Scanner(System.*in*);

        // *Create an ArrayList object to hold the user input.*

        ArrayList<Integer> list = new ArrayList<>();

        // *Prompt the user to enter integers.*

        System.*out*.print("Enter integers (enter 0 to stop): ");

        // *Loop until the user enters 0, and watch for mismatch exceptions.*

        while (true) {

            try {

                int input = scanner.nextInt();

                list.add(input);

                if (input == 0) {

                    break;

                }

            } catch (InputMismatchException e) {

                System.*out*.println("Invalid input. Please enter an integer.");

                scanner.next(); // *Clear the invalid input*

            }

        }

        // *Call the max method to get the largest value in the ArrayList.*

        Integer maxValue = max(list);

        // *Display the largest value in the ArrayList.*

        System.*out*.println(ANSI\_GREEN + "\nThe Max value in the ArrayList is: " + maxValue + ANSI\_RESET);

        // *Close the Scanner object.*

        scanner.close();

    }

    // *Method to return the largest value in the ArrayList.*

*public* *static* Integer max(ArrayList<Integer> list) {

        if (list.isEmpty()) {

            return 0;

        }

        Integer maxValue = list.get(0);

        for (Integer value : list) {

            if (value > maxValue) {

                maxValue = value;

            }

        }

        return maxValue;

    }

}

GitHub Link:

<https://github.com/erosales48/csd-405/tree/main/module4>

Example 1:

A computer screen with blue text

Description automatically generated

Example 2:

A screenshot of a computer

Description automatically generated

Example 3:

A screen shot of a computer

Description automatically generated