# CENG217 – Lab02 Report

## Task 1

A screenshot of a computer

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import java.util.Scanner;

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\* Defines Two methods to calculate the average on an integer array and a double array

\* Also includes ask the user to enter 10 double values and displays the average

\*

\* @Clarence Oriola (N01573843)

\* @v2.0 (10/11/2023) +comments

\*/

public class Task1

{

public static int average(int[] array)

{

int sum = 0;

//Calculates the sum of all elements in the array

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

sum += array[i];

}

// Calculate and return the average

return sum / array.length;

}

public static double average(double[] array)

{

double sum = 0.0;

// Calculate the sum of all elements in the array

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

sum += array[i];

}

// Calculate and return the average

return sum / array.length;

}

public static void main(String[] args)

{

Scanner scanner = new Scanner(System.in);

System.out.print("Enter 10 double values in: ");

double[] values = new double[10];

// Prompt the user to input 10 double values

for(int i = 0; i < 10; i++)

{

values[i] = scanner.nextDouble();

}

// Calculate the average of the input values and display it

double avg = average(values);

System.out.println("The Average Value is: " +avg);

scanner.close();

}

}

## Task 2

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Description automatically generated

import java.util.Scanner;

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\* Program that prompts the user to enter a two-dimensional arrays and displays the location of the largest element in the array

\*

\* @Clarence Oriola (n01573843)

\* @v1.0 10-11-2023

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public class Task2

{

public static int[] locateLargest(double[][] a) {

int[] location = {0, 0}; //intialized as the default location

double max = a[0][0]; //default 0 ,0 variable to store the largest

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

for(int j = 0; j < a[i].length; j++) {

if(a[i][j] > max) {

max = a[i][j];

location[0] = i;

location[1] = j;

}

}

}

return location;

}

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter the number of rows and columns of the array: ");

int numRows = scanner.nextInt();

int numCols = scanner.nextInt();

//Creating 2d array that ask the user for values

double[][] array = new double[numRows][numCols];

System.out.println("Enter the array: ");

for(int i = 0; i < numRows; i++) {

for(int j = 0; j < numCols; j++) {

array[i][j] = scanner.nextDouble();

}

}

//Calling the locateLargest method

int[] location = locateLargest(array);

//Display the location of the largest element

System.out.println("The Location of the largest element is at (" + location[0] + ", " + location[1] + ")");

}

}