CT874

Assignment 2

H.Dip. Industry Stream

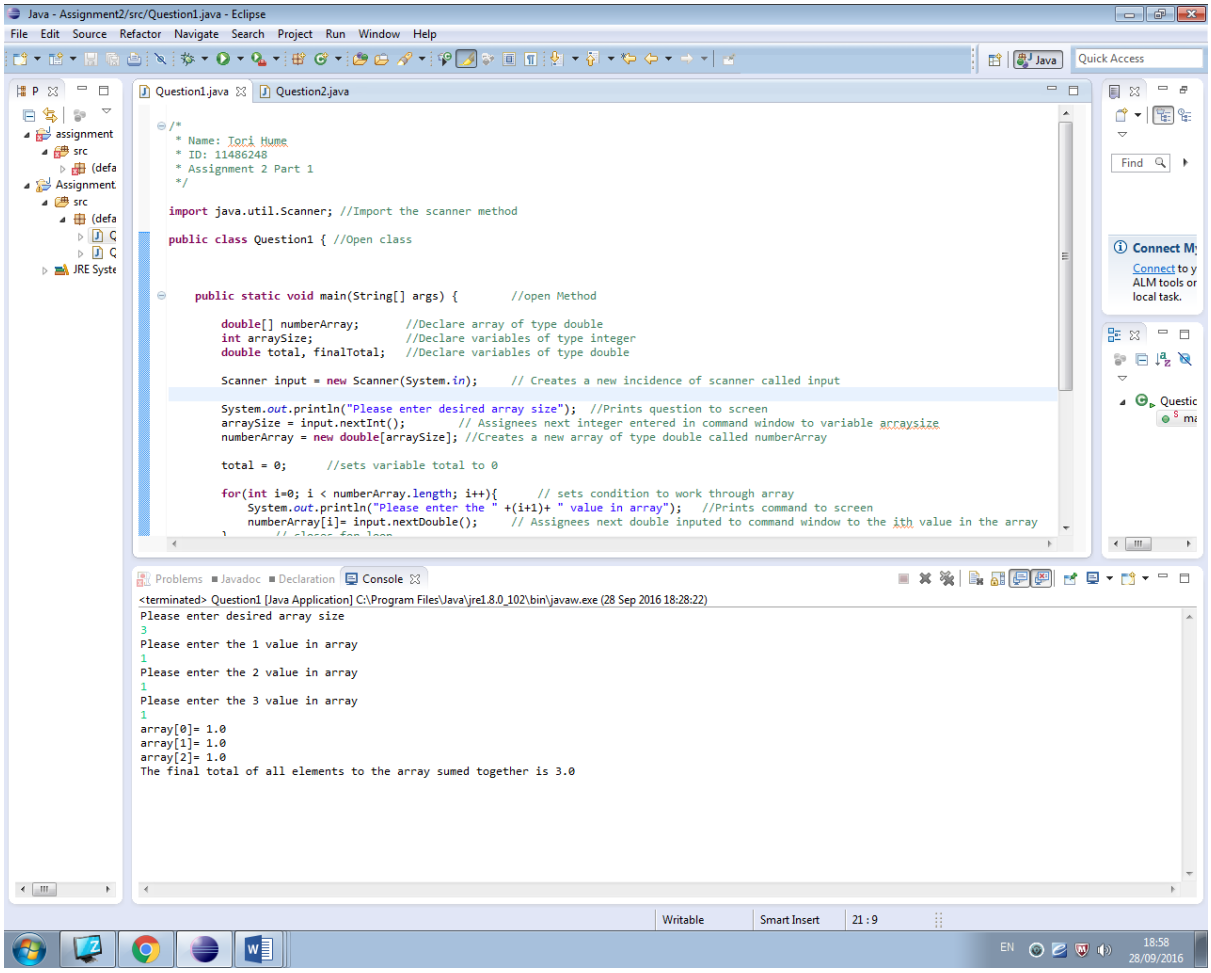
HUME, TORI (11486248)

Question 1

Code :

```
/*
 * Name: Tori Hume
 * ID: 11486248
 * Assignment 2 Part 1
 */

import java.util.Scanner; //Import the scanner method

public class Question1 { //Open class



	public static void main(String[] args) {		//open Method

		double[] numberArray;		//Declare array of type double
		int arraySize;				//Declare variables of type
integer
		double total, finalTotal; //Declare variables of type double

		Scanner input = new Scanner(System.in);		// Creates a new
incidence of scanner called input

		System.out.println("Please enter desired array size");	//Prints
question to screen
		arraySize = input.nextInt();		// Assignees next integer
entered in command window to variable arraysize
		numberArray = new double[arraySize]; //Creates a new array of type
double called numberArray

		total = 0;		//sets variable total to 0

		for(int i=0; i < numberArray.length; i++){		// sets
condition to work through array
			System.out.println("Please enter the " +(i+1)+ " value in
array");	//Prints command to screen
			numberArray[i]= input.nextDouble();	// Assignees next
double inputed to command window to the ith value in the array
		}		// closes for loop

		input.close(); // closes scanner

		for(int i=0; i < numberArray.length; i++){		// sets
condition to work through array
			System.out.println("array[" +i+ "]= "+numberArray[i]);
	//Prints command to screen
			total = total +numberArray[i];	//adds vaule of ith
numberArray to the running total
		}		//closes for loop
		finalTotal = total;		// sets finalTotal equal to total and end
of for loop
		System.out.println("The final total of all elements to the array
sumed together is "+finalTotal); //Prints command to screen

	}		//closes method
}		//closes class
```

Screen Shot:


Java - Assignment2/src/Question1.java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
Question1.java
Question2.java
/*
* Name: Tori Hume
* ID: 11486248
* Assignment 2 Part 1
*/
import java.util.Scanner; //Import the scanner method
public class Question1 { //Open class
public static void main(String[] args) { //open Method
double[] numberArray; //Declare array of type double
int arraySize; //Declare variables of type integer
double total, finalTotal; //Declare variables of type double
Scanner input = new Scanner(System.in); // Creates a new incidence of scanner called input
System.out.println("Please enter desired array size"); //Prints question to screen
arraySize = input.nextInt(); // Assignees next integer entered in command window to variable arraysize
numberArray = new double[arraySize]; //Creates a new array of type double called numberArray
total = 0; //sets variable total to 0
for(int i=0; i < numberArray.length; i++){ // sets condition to work through array
System.out.println("Please enter the " +(i+1)+ " value in array"); //Prints command to screen
numberArray[i]= input.nextDouble(); // Assignees next double inputed to command window to the ith value in the array
Problems Javadoc Declaration Console
<terminated> Question1 [Java Application] C:\Program Files\Java\jre1.8.0_102\bin\javaw.exe (28 Sep 2016 18:28:22)
Please enter desired array size
3
Please enter the 1 value in array
1
Please enter the 2 value in array
1
Please enter the 3 value in array
1
array[0]= 1.0
array[1]= 1.0
array[2]= 1.0
The final total of all elements to the array sumed together is 3.0
Writable
Smart Insert
21 : 9
18:58
28/09/2016

Question 2

Code:

```
/*
 * Name: Tori Hume
 * ID: 11486248
 * Assignment 2 Part 2
 */

import java.util.Scanner; //Import the scanner method

public class Question2 {  ////Open class


	public static void main(String[] args) {		//open Method

		int year, divisible_By_4, divisible_By_100, divisible_By_400;
	//Declare variables of type integer

		Scanner input = new Scanner(System.in);		// Creates a new
incidence of scanner called input

		System.out.println("Please enter the year you wish to check:");
	//Prints whatever is inside the () to the screen
		year = input.nextInt();			// Assignees next integer entered in
command window to variable year

		divisible_By_4= year%4;			//Gives the remainder resulting for
year being divided into by the value 4

		//System.out.println(divisible_By_4);
		//This line of  code was used to check that Modulus command was
working as the program was built by printing result to screen

		divisible_By_100 = year%100;		//Gives the remainder resulting for
year being divided into by the value 100

		//System.out.println(divisible_By_100);
		//This line of  code was used to check that Modulus command was
working as the program was built  printing result to screen

		divisible_By_400 = year%400;		//Gives the remainder resulting for
year being divided into by the value 400

		//System.out.println(divisible_By_400);
		//This line of  code was used to check that Modulus command was
working as the program was built  printing result to screen

		if (((divisible_By_4 == 0 ) && (divisible_By_100 >
0))||((divisible_By_4 == 0 ) && (divisible_By_100 == 0) && (divisible_By_400 ==
0))){

			System.out.println("This Year is a Leap Year.");  //Prints
statement to command window

			/*
			 * && means both conditions must be met to continue
```

```
                        * || means if either condition OR both are true continue
                        * for the program to print "This year is a leap year" either
(||)
                        * 1. the year must be divisible by 4 and Not divisible by 100
                        * or
                        * 2. the year must be divisible by 4 and by 100 and by 400
                        */

                }else{
                        System.out.println("This year is Not a Leap year.");//Prints
statement to command window
                        /*
                         * If the conditions for the if loop are not met it will print
"This is not a Leap year" to the screen
                         */
                }               //Loops closed


                input.close();      //Closes scanner
        }               //Closes the Method

}               //Closes the Class
```

Screen Shot: