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Question-1:

```
//Student Name: Tianle Shu
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//Lecturer: Seamus Hill
package nuig.quesiont1;

import java.util.Scanner;

public class Question1 {

    @SuppressWarnings("resource")
    public static void main(String[] args) {

        // Declare a length for int type
        int length;
        // Scanner class, get user input, and it is found in the
java.util package.
        Scanner input = new Scanner(System.in);

        // print out a line tell user input the length of array
        System.out.print("Please input the length of the array: ");
        // get the number(length of the array) from user input
        length = input.nextInt();

        // Declare the array and the type is double
```
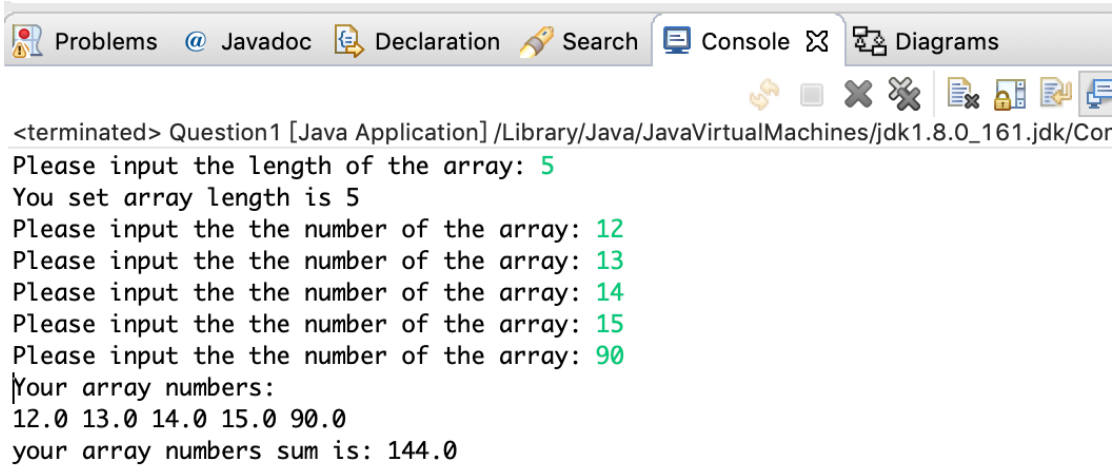
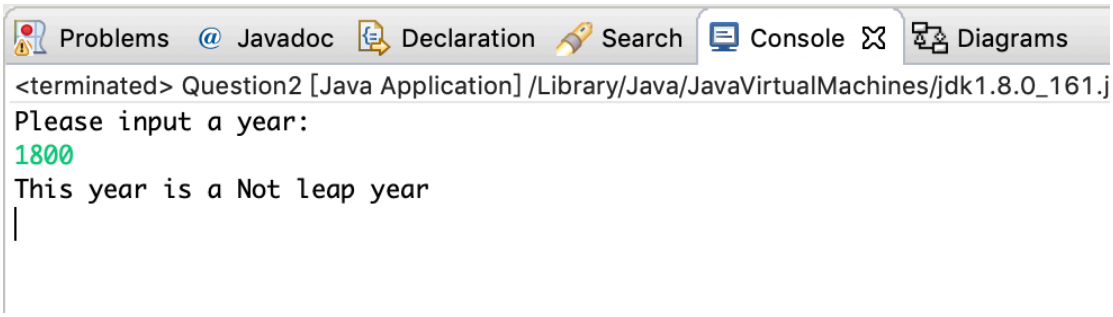

```
        double[] numbers = new double[length];
        System.out.println("You set array length is " + length);

        // for loop
        for (int i = 0; i < numbers.length; i++) {
            System.out.print("Please input the the number of the
array: ");
            numbers[i] = input.nextDouble();
        } // end loop

        // call the method for print out the array
        printArray(numbers);
        // call the method for print out the sum
        printSum(numbers);
    }// end main method

    // a private method for print out array numbers
    private static void printArray(double[] n) {
        System.out.println("Your array numbers: ");
        // for loop for out put the numbers in the array
        for (int i = 0; i < n.length; i++) {
            System.out.print(n[i] + " ");
        } // end loop
        System.out.println();
```

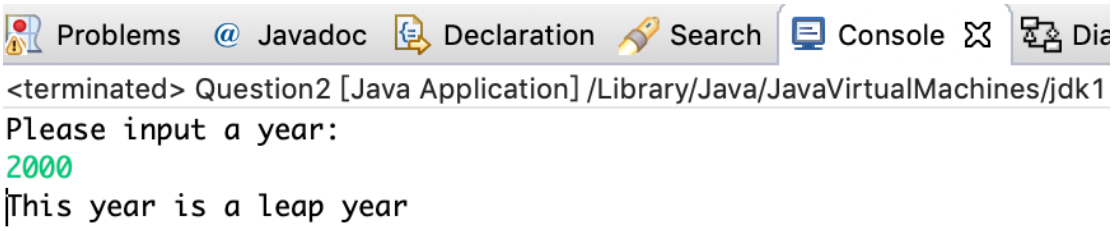
```
    }// end method

    // a private method for calculate sum and print out it
    private static void printSum(double[] n) {
        // declare sum if double type and give it initial value = 0
        double sum = 0;
        // for loop for calculate sum
        for (int i = 0; i < n.length; i++) {
            sum = n[i] + sum;
        } // end loop
        System.out.println("your array numbers sum is: " + sum);
    }// end method
}// end class
```

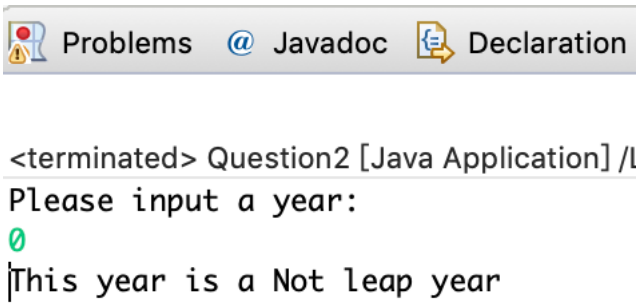


Question-2:

```
package nuig.quesiont2; import java.util.Scanner; public class
Question2 {

@SuppressWarnings("resource")
public static void main(String[] args) {

     // tell user input a year from console

System.out.println("Please input a year: ");

     // Scanner class, get user input, and it is found in the
java.util package.

Scanner input = new Scanner(System.in);
// get the year which is user input from console
int year = input.nextInt();
// IF-Else: Compare whether the year is a leap year. if (year ==

0) {

System.out.println("This year is a Not leap year"); } else if
((year % 4 == 0 && year % 100 != 0) || (year %

400 == 0)) {
System.out.println("This year is a leap year");

}

else {
System.out.println("This year is a Not leap year");

     } // end if
  }// end main method

}// end class
```


Problems
Javadoc
Declaration
Search
Console
Diagrams
<terminated> Question2 [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_161.j
Please input a year:
1800
This year is a Not leap year


Problems
Javadoc
Declaration
Search
Console
<terminated> Question2 [Java Application] /Library/Java/JavaVirtualMachines/jdk1
Please input a year:
2000
This year is a leap year


Problems
Javadoc
Declaration
<terminated> Question2 [Java Application] /
Please input a year:
0
This year is a Not leap year