

## Assignment 2 - Xiaojian Zhuang

1. "For" loop is to be used to sum and display the array contents.

```
import java.util.Scanner;
import java.text.DecimalFormat;
public class ForArray {

    public static void main(String[] args) {

        // 1. Create Scanner objective
        // 2. Print out notice information

        Scanner scan = new Scanner(System.in);
        DecimalFormat df = new DecimalFormat("0.00");
        System.out.print("Please Enter Array Length: ");

        // 1. Assign the 'size1' to the scanner;
        // 2. Assign 'size1' as the array length parameter to the nums array
        variable

        int size1 = scan.nextInt();
        double[] nums = new double[size1];

        // 3. Use a 'for' loop to set the local variable i. When i < size1
        ,increase +1
        // 4. Get the value of 'num' entered by the user through i until the end of
        the loop
        // 5. The array starts with 0, so the actual user perceives the first
        number as i+1

        for(int i = 0; i < size1; i++) {
            System.out.print("Please Enter No." + (i+1) + " Number: ");
            nums[i] = scan.nextDouble();
        }

        // Populate all the numbers which user input
        for(int i = 0; i < size1; i++) {
            System.out.println("Number" + (i+1) + " is " + nums[i]);
        }

        // 1. Declare sum as a double variable and initialize to 0
        /* 2. Use a for loop and use the formula (sum += nums[i]) equals
        (sum all = sum + nums[i]) to calculate the total values */

        double sum = 0;
        for(int i = 0; i < nums.length; i++) {
            sum += nums[i];
        }
        // Using decimal to format double with 0.00
        System.out.println("the sum = " + df.format(sum));
    }
}
```

```
}
```

```
**consequence**
```

```
Problems Javadoc Declaration Console X
<terminated> ForArray [Java Application] /Library/Internet Plug-Ins/JavaAppletPlugin.plugin/Contents/Home/bin/java (2023年9月29日 下午9:10:41 - 下午9:10:58) [pid: 57495]
Please Enter Array Length: 5
Please Enter No.1 Number: 21
Please Enter No.2 Number: 3
Please Enter No.3 Number: 4.12
Please Enter No.4 Number: 5.002
Please Enter No.5 Number: 1120.22
Number1 is 21.0
Number2 is 3.0
Number3 is 4.12
Number4 is 5.002
Number5 is 1120.22
the sum = 1153.34
```

## 2. Replies either Leap Year or Not a Leap Year when given a year

```
import java.util.Scanner;
public class LeapYear {
    public static void main(String[] args) {

        /* 1. Create Scanner objective
           2. Print out notice information
           3. User inputs 'year'*/
        Scanner scan = new Scanner(System.in);
        System.out.print("Please Enter Year: ");
        int year = scan.nextInt();

        /* Using If/else Statement
           * if (if the year also divisible by 400) Or (the year is divisible
           by 4 but not by 100)
           * then will output 'year is leap year'
           * else will output 'year is not leap year'
           */
        if(year%400 == 0 || (year%4 == 0 && year % 100 != 0)) {
            System.out.println(year + " is leap year");
        } else {
            System.out.println(year + " is not leap year");
        }
    }
}
```

## **\*\*Consequence\*\***

```
Problems Javadoc Declaration Console X
<terminated> LeapYear [Java Application] /Library/Internet Plug-Ins/JavaAppletPlugin.plugin/Contents/Home/bin/java (2023年9月28日 下午1:40:02 - 下午1:40:06) [pid: 51919]
Please Enter Year: 2000
2000 is leap year
```

```
Problems Javadoc Declaration Console X
<terminated> LeapYear [Java Application] /Library/Internet Plug-Ins/JavaAppletPlugin.plugin/Contents/Home/bin/java (2023年9月28日 下午1:41:01 - 下午1:41:03) [pid: 51940]
Please Enter Year: 1999
1999 is not leap year
```