

Programming I. Introduction to OOP

Lab #8

Notes

Folder organization for solutions on the student's account:

```
z:\
|--Programming01
|----Lab01Problem01
|----Lab01Problem02
|----...
|----Lab02Problem01
|----...
--Programming02
```

On this practice class, we will start to study arrays (very important topic for any serious program).

Task #1: “examination for correctness of computer game dice” (0.5%)

In this task, students have to implement software that simulates toss of 2 dices specified number of times and output count of each number from 2-12.

```
N: 6000
2: 166
3: 338
4: 475
5: 629
6: 831
7: 1019
8: 843
9: 671
10: 496
11: 361
12: 171
```

Task #2: Number of days in month (0.5%)

This task requires us to return to one of our previous tasks: define the number of days after getting the month and the year. In this time, we have to solve this problem with short method, using the operator array instead of switch. Software gets the month and the year as an input, and outputs the number of days in current month.

```
Month: 2
Year: 2004
Days: 29
Month: 2
Year: 2003
Days: 28
Month: 11
Year: 2011
Days: 30
Month: 12
Year: 2011
Days: 31
Month: ^Z
```

Task #3: “The simplest algorithm for array: reverse array” (0.5%)

Software gets quantity of numbers in sequence and after that gets numbers itself. After finishing previous task, program should output this sequence before and after reversing. This software has to have static methods `reverseArray(int[] a)` and `printArray(int[] a)`.

```
N: 5
Enter 0 element: 3
Enter 1 element: 1
Enter 2 element: 5
Enter 3 element: 6
Enter 4 element: 0
Before reversing:
3 1 5 6 0
After reversing:
0 6 5 1 3
```

Task #4: Liang. Chapter 6.3. Lotto Numbers (0.5%)

Task #5: Liang. Chapter 6.4. Deck of Cards (0.5%)

Home Reading: Liang Introduction to Java Programming 8th ed. Chapter 6.