Lab #4

Notes

Folder organization for solutions on the student's account:

```
Z:\
|
|--Programming01
|----Lab01Problem01
|----Lab01Problem02
|----…
|----Lab02Problem01
|----…
|--Programming02
```

Task #1: "Dangerous comparison of double values" (0.5%)

This task is very important, because it shows us limited abilities of double values.

Create variable d with data type double and assign to it value 0.1. Then sum this d value 10 times and compare it with 1.0

If they are equal then output message as "Equal", else "Not equal"

Run program and explain result. Show correct way to compare real numbers.

Task #2: "Season Name (If-Else If)" (0.5%)

Notes: only the *if-else* conditional statement can be used.

Description: the application determines a season name by a given month number.

Sample #1:

```
month? 12
winter
```

Sample #2:

```
month? 3
spring
```

Task #3: "Season Name (Switch)" (0.5%)

Notes: only the *switch* conditional statement can be used.

Description and examples: see task #2

Task #4: "Experience Level" (0.5%)

Description: the application determines you professional level by a given integer number in a range from one to five, which represents the complexity level of a certain game.

Conversion table:

4 <= pro gamer <=5

2 <= experienced gamer<= 3

1 = beginner

0 = total newbie

Sample #1:

```
complexity level? 1
You are a beginner.
```

Sample #2:

```
complexity level? 2
You are an experienced gamer.
```

Task #5: "Number of Days" (0.5%)

Description: the application determines a number of days in a specific month for a predefined year.

Sample #1:

```
Year? 2000
Month? 2
Number of days: 29
```

Sample #2:

```
Year? 1900
Month? 2
Number of days: 28
```

Sample #3:

```
Year? 2004
Month? 4
Number of days: 30
```

Home Reading: Liang Introduction to Java Programming 8th ed. 3 Chapter (H:\Courses Information Support\Natural Sciences and Information Technologies\COM 111 Programming I. Intro to OOP\Books)