

## Lab 2.1.1 Essentials of if-else statement

### Objectives

Familiarize the student with:

- using the **if-else** statement;
- finding proper C++ implementation of verbally defined rules;
- testing code using sample input and output.

### Scenario

As you surely know, due to some astronomical reason, a year may be **leap** or **common**. The former is 366 days long while the latter is 365 days.

Since the introduction of the Gregorian calendar (in 1582), the following rule is used to determine the kind of year:

- if the year number isn't divisible by 4, it is a common year;
- otherwise, if the year number isn't divisible by 100, it is a leap year;
- otherwise, if the year number isn't divisible by 400, it is a common year;
- otherwise, it is a leap year.

Look at the code below – it only reads a year number and it needs to be completed with instructions that implement the test we just described. The code should output one of two possible messages, which are **Leap year** or **Common year**, depending on the value entered.

It would be good to verify if the year entered falls into the Gregorian era and to output a warning otherwise.

Test your code using the data we've provided.

```
using namespace std;

int main(void) {
    int year;

    cout << "Enter a year: ";
    cin >> year;

    // Insert your code here

    return 0;
}
```

### Example input

2000

### Example output

Leap year

### Example input

2015

### Example output

Common year

### **Example input**

1999

### **Example output**

Common year

### **Example input**

1996

### **Example output**

Leap year

### **Example input**

1900

### **Example output**

Common year