

Lab 3.4.4 Third step further – counting the days

Objectives

Improve the student's skills in:

- building a set of cooperating functions.

Scenario

Now you're ready to take on the next, more ambitious challenge.

We need a **function** which:

- is called "daysBetween";
- accepts two arguments of type **Date** – the first represents the "since" date, while the second represents the "till" date;
- returns an **int** value, being the number of days passed between both dates;
- returns -1 if the "till" date is earlier than the "since" date;
- should be *mute*.

As usual, we've provided a skeleton of code and some test data. You provide the rest of the code and do the tests – that's the deal.

```

#include <iostream>

using namespace std;

struct Date {
    int year;
    int month;
    int day;
};

bool isLeap(int year) {
    // The code you've inserted already
}

int monthLength(int year, int month) {
    // The code you've inserted already
}

int dayOfYear(Date date) {
    // The code you've inserted already
}

int daysBetween(Date d1, Date d2) {

    // Insert you code here

}

int main(void) {

    Date since,to;
    cout << "Enter first date (y m d): ";
    cin >> since.year >> since.month >> since.day;
    cout << "Enter second date (y m d): ";
    cin >> till.year >> till.month >> till.day;
    cout << daysBetween(since,till) << endl;
    return 0;
}

```

Example input

```

1901 1 1
2016 1 1

```

Example output

```

42003

```

Example input

```

2001 12 30
2016 12 31

```

Example output

```

5480

```

Example input

```
1999 1 31
1999 12 1
```

Example output

```
304
```

Example input

```
1999 1 2
1999 1 11
```

Example output

```
9
```

Example input

```
1999 2 2
1999 1 11
```

Example output

```
-1
```