

Programming Exercise 3.5

My Days

Purpose. Learn how to write a program that solves a problem, "from scratch", according to a supplied algorithm. It also get you to do a little bit of research and preparation before doing any programming, which is a programming discipline that it will be important for you to develop.

Requirements. Write a program named `myDays.cpp` to calculate how many days old you will be on the due date for this lab. You do *not* have to use your true birth date, but it should be more than 10 years ago and less than 100. You *do* have to look up the due date and apply *it* correctly.

To prepare you will need to figure out:

1. the number of years in which you've lived, *including* your birth year and the current year
2. the number of *leap years* in your life
3. the number of days in your birth year before you were born, *excluding* your day of birth
4. the number of days remaining in the current year *after* the due date for this lab, *excluding* that date. Write these all down on a piece of paper for your reference when you write the program.

For the example shown below, these numbers are 22, 5, 151, and 102, respectively.

Algorithm.

```
Create an integer variable "days" to track the number of days of age, and
initialize it to zero.
```

```
Add to "days" the result of this multiplication: 365 times the number of years
in which you've lived.
```

```
Add to "days" the number of those years that were leap years.
```

```
Subtract from "days" the number of days in your birth year before you were
born.
```

```
Subtract from "days" the number of days remaining in the current year after the
due date.
```

```
Output the value of "days" with an appropriate label.
```

Program I/O. Input: the 4 programmer-assigned whole number values listed in the requirements, as calculated by you. Output: Three lines: one showing your date of birth, one showing the due date, and one with your calculated age in days.

Example. The 3 lines of output should look something like this, labeled as you wish, with your program's values:

```
DOB: May 31, 1993
Due: Sept 20, 2014
Age: 7782 days
```