Week 4 - Lab 4 – Counting the Days…

In this lab you will take your own program, **daysCalculatorA.c**, and change it to do a related task:

- Convert **dayCalculatorA.c** to **numDays.c** where you give `numDays` a date (dd mm yyyy) and a number of days (x) and it prints out the date that is x days after (dd mm yyyy).
- If the input date (dd mm yyyy) is not a valid date, print out `"Invalid date"` and exit the program. And if the number of days (x) is > 300 then print out `"Invalid number of days"` and exit the program.
- The output date will be in the format dd mm yyyy, either with or without leading zeros.
- An example:

```
$./numDays 12 1 2019 60
13 03 2019
```

Or

```
$ ./numDays 12 1 2019 60
13 3 2019
```

This lab is worth 3 marks.

- 1 for handling invalid dates and number of days
- 1 for handling number of days within the same year
- 1 for handling number of days that stretch into the next year

Checking Your Work

Here are some examples that you can use for testing:

```
$ ./numDays 12 1 2019 60
13 03 2019
```
Same year, non-leap year

```
$ ./numDays 23 8 2016 15
07 09 2016
```
Same year, leap year

```
$./numDays 23 8 2016 200
11 03 2017
```
Next year (2016=leap year, 2017=non-leap year)

```
$./numDays 30 12 2016 3
02 01 2017
```
Next year (2016=leap year, 2017=non-leap year)

```
$./numDays 1 4 2015 300
26 01 2016
```
Next year (2015=non-leap year, 2016=leap year)

Remember you do not have to include leading zeros for the days and months but it would be better if you try to do this.