

[Assignment 2]

The anniversary calculator problem

[Description]

Write a program that calculates the anniversary corresponding with the data inputted by the user. The data should be in the order of year, month, date and the number of dates you want to add (calculate) from that day ([**Example**]). The number of days in each month will be given in the table below (**Month table**). Refer the table and do exception handling about the invalid input (**Input table** and [**Exception handling for invalid entry**]).

Notice that

1. The month range is 1 to 12 and the day is like below.

Month	day
2(leap year or not leap year)	28 or 29
1, 3, 5, 7, 8, 10, 12	31
4, 6, 9, 11	30

Month table

value	input	result
year	year < 0	Print out Wrong number
year	year == 0	Exit the program
month	month < 1 or month > 12	Print out Wrong number
month	month == 0	Exit the program
day	ex) month: 1, day < 1 or day > 31 -> exception	Print out Wrong number

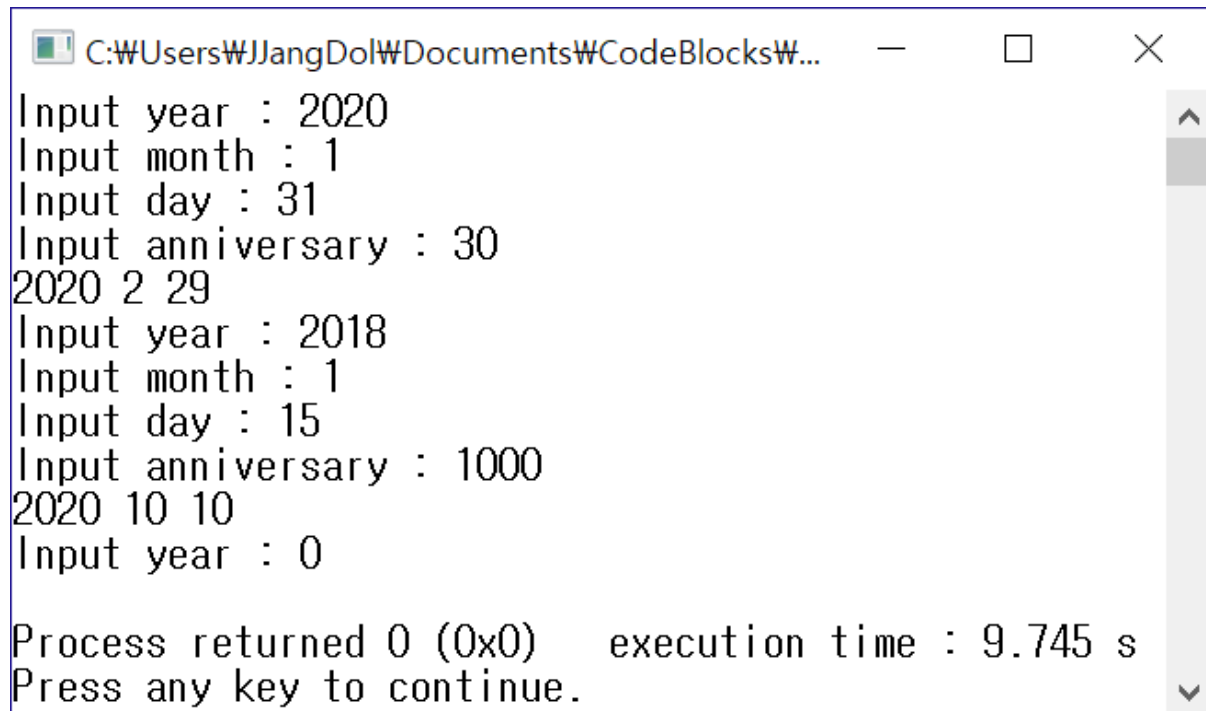
Input table

2. Apply the leap year.

The year that divided by 4 is a leap year. but among them, divided by 100 is not a leap year. Or the year the divided by 400 is unconditionally a leap year.

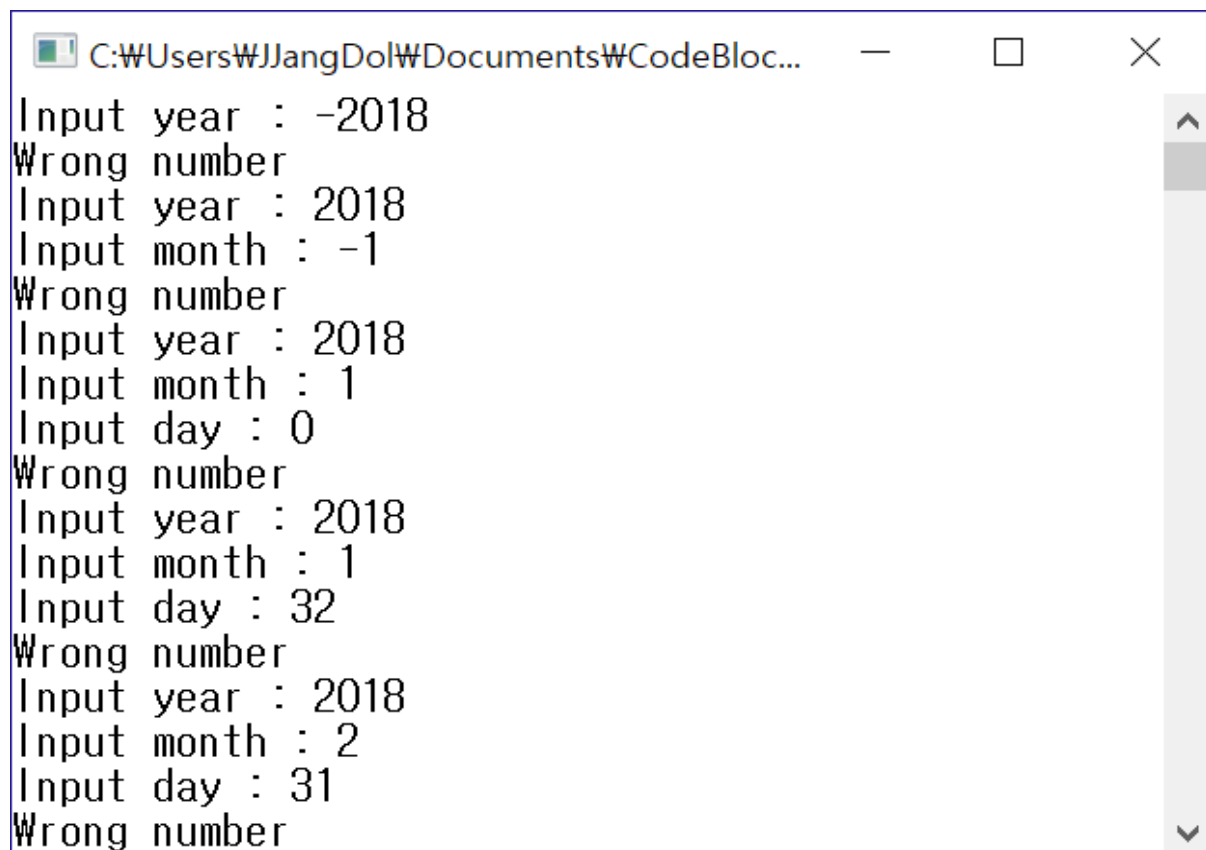
```
if(((year % 4 == 0) && (year % 100 != 0)) || (year % 400 == 0)){
    printf("leap year");
    printf("February is 1 to 29");
}else{
    printf("not leap year");
    printf("February is 1 to 28");
}
```

[Example]



```
C:\Users\WJangDol\Documents\CodeBlocksW...  
Input year : 2020  
Input month : 1  
Input day : 31  
Input anniversary : 30  
2020 2 29  
Input year : 2018  
Input month : 1  
Input day : 15  
Input anniversary : 1000  
2020 10 10  
Input year : 0  
  
Process returned 0 (0x0)    execution time : 9.745 s  
Press any key to continue.
```

[Exception handling for invalid entry]



```
C:\Users\WJangDol\Documents\CodeBloc...  
Input year : -2018  
Wrong number  
Input year : 2018  
Input month : -1  
Wrong number  
Input year : 2018  
Input month : 1  
Input day : 0  
Wrong number  
Input year : 2018  
Input month : 1  
Input day : 32  
Wrong number  
Input year : 2018  
Input month : 2  
Input day : 31  
Wrong number
```

[Rating]

- Total points =100.
 - 1) Print out the anniversary date. (30 points)
 - 2) Display the anniversary that applied leap year. (50 points)
 - 3) Implement a program to print out the message ("Wrong number") about the invalid entry. (20 points)
- Delay penalty: After due date, 15 points will be deducted for every single day. And submission will not be entertained after 3rd day.
- Submit the successfully compiled source code on I-Campus.
- If you have a question about assignment, send e-mail to vkqxhr@gmail.com
(Make sure write your name and the point what you want to ask.)