CS 115 - Assignment#3

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Project

Develop in C++ a class date to represent a calendar. The class should provide the following operations:

- A default constructor that initializes a date object to `01-01-1900`.
- A class constructor that initializes a date object to a correct value using three integer parameters corresponding to the desired month, day and year.
- The function `toString()` that returns the string version of a date object. For example, applying `toString()` to the date `12-01-2000` produces `"December 1st, 2000"`.
- The function `nextDate()` that returns the successive date i.e. the new value of the date object. For example, applying `nextDate()` to the date `12-31-2000` produces a new date: `01-01-2001`. You should take into account if the year is a leap year or not. A leap year is: (1) divisible by 400 or (2) divisible by 4 and not divisible by 100.
- The function `compareDates()` that checks if the date of interest is before, after or equal to the argument date.

A simple run of the driver program follows.

```
Enter the first date using the format mm-dd-yyyy: 12-32-2000
Incorrect day!
Enter the first date using the format mm-dd-yyyy: 12-31-2000
The string version of the date is: December 31st, 2000
The next date in string version is: January 1st, 2001
Enter the second date using the format mm-dd-yyyy: 12-01-2001
The first date comes before the second one.

Another run:

Enter the first date using the format mm-dd-yyyy: 02-28-2005
The string version of the date is: February 28th, 2005
The next date in string version is: March 1st, 2005
Enter the second date using the format mm-dd-yyyy: 01-10-2005
The first date comes after the second one.
```

Hand In

1. The header, implementation and driver files should be respectively named : `Calendar.h`, `Calendar.cpp` and `TestCalendar.cpp`.

2. Your C++ programs should compile with `CC` under Hercules.
3. Write a makefile for this project.
4. Submit all the four files through UR Courses.