## CIS 343 – Structure of Programming Languages
## Fall 2014, Wednesday, November 5, 2014

## Programming Assignment #5
## SimpleDate Class in Ruby
## Due Date: Wednesday, November 19, 2014

**Problem Specification**

Write a class in Ruby named `SimpleDate` that represents a calendar date and contains the methods to manipulate dates. Complete the following methods in the `SimpleDate.rb` file provided to you (see the Assignments folder on the Blackboard).

- `initialize(month, day, year)`
- `to_s()`
- `each()`
- `<=>(other)`
- `dayOfWeek()`
- `daysInYear()`
- `daysInYear(year)`           // class method
- `daysInMonth(month, year)`     // class method
- `leapYear?()`
- `leapYear?(year)`            // class method
- `validDate?(month, day, year)`   // class method
- `ordinalDate()`
- `nextDate()`
- `prevDate()`
- `daysAgo(n)`
- `daysFromNow(n)`

Taking possible dependencies (such as a public method using a helper method) between methods into consideration, you may find implementing the methods in the order suggested below helpful:

- `to_s()`
- `leapYear?(year)`
- `daysInMonth(month, year)`
- `validDate?()`
- `initialize(month, day, year)`
- `leapYear?()`
- `daysInYear(year)`
- `daysInYear()`
- `each()`

- `<=>(other)`
- `ordinalDate()`
- `dayOfWeek()`
- `nextDate()`
- `prevDate()`
- `daysAgo(n)`
- `daysFromNow(n)`

**Testing Your Program**

The supplied `SimpleDateTest.rb` file contains unit tests that test your implementation of `SimpleDate` class. Run the `SimpleDateTest.rb` file to test your code.

**Instructions/Deliverables**

1. **Upload only the completed `SimpleDate.rb` file on Blackboard. DO NOT upload the SimpleDateTest.rb file**.
2. I will use the submission date/time on Blackboard as your official submission date/time.
3. It is your responsibility to make sure the submission on Blackboard went through successfully.
4. Make sure your program runs on EOS machines before submitting the **`SimpleDate.rb`** file on Blackboard. I will run and test your program on EOS when grading. The current version of Ruby on EOS, as of October 2014, is 2.0.0.p353.

    **$ ruby  SimpleDateTest.rb**

5. Late penalty (10% per day) applies after Wednesday, November 19th.