**CSC 3380 (S1) Assignment 3 (15 points) Spring 2016**DUE: Tuesday, April 5tjSubmitted electronically before 8:00 AM

**Student Performance Objectives:**

* **To demonstrate the Builder pattern**

**Program Scenario**:

Create a demo program to **Build** a summer camp schedule for girls attending, Camp Standing Pines.   
The directors permit the campers to select from 2 schedules: Art-Track and the Sport- Track.

Girls attending camp must select 2 activities from each of the 2 types of activities: Athletics and Crafts.   
Athletics are:  
 Sport - Baseball (Outside - Field)  
 Sport - Gymnastics (Inside - Gym)  
 Sport - Swimming (Outside – Pool)  
 Art- Creative Dance (Inside –Gym)  
 Art - Synchronized Swimming (Outside – Pool)

Crafts are:  
 Art- Sewing (Inside – Hobby Hut)  
 Art- Painting (Inside – Hobby Hut)  
 Sport - Photography (Outside - Nature)  
 Sport - Horticulture (Outside – Nature)

**Program Requirements:**

1. Follow programming standards for documentation and coding; see assignment #1.
   * Code your **Identification Header** at the beginning of your **program3.**?? file as comments.
   * Next, provide the **Problem Specification**, **Problem Analysis**, and **Implementation Directions**  
     as comments.
2. Use good OO design with main having minimal code. Isolate calculations from the read and print methods (functions); no calculations in conjunction with reading and printing!
3. **F**ollow the example provided (Moodle) for designing the classes for the Builder pattern. Create a class called, **Venue**, that describes the different locations for the activities.   
   Your main function should be a driver for the demonstration. Examples must be hard-coded. Include error verification:  
   ScheduleBuilder scheduleBuilder;  
   Schedule artSchedule = ScheduleArtBuilder (“Dance”, Painting”);

// Print….

artSchedule = ScheduleArtBuilder(“SynSwim”, “Sewing);

// Print  
Schedule sportsSchedule = ScheduleSportsBuilder(“Swim”, “Horticulture”);

// Print

sportSchedule = scheduleSport Builder(“Swim”, “Sewing”);

// Print error  
  
[**http://www.tutorialspoint.com/design\_pattern/design\_pattern\_quick\_guide.htm**](http://www.tutorialspoint.com/design_pattern/design_pattern_quick_guide.htm)

### Using UNIX

**Part 1**. Log on to UNIX with LogIn and password. From your home directory, create the prog3 subdirectory and change to the prog3 subdirectory.

**>mkdir prog3  
 >cd prog3**

**>pwd**

### Part 2. Implementation

### Create your files, compile, execute, test.

1. To end this session: **>logout**

**Part 3. Electronic Submission. *DO NOT resubmit*** after the deadline!!!   
1. Go to your home directory(verify with >pwd).

Copy your prog3 subdirectory to the grader's directory:

>**~cs3380\_dou/bin/p\_copy 3**

# 2. Make sure the copy was accomplished by using the verify command to list the number of files copied: >~cs3380\_dou/bin/verify 3