**Home Assignment 1**

**CSCI213\_Fall2015**

**Exercise 1.** Create GUI application to include classes for Student, GraduateStudent, and UnderGraduate. GraduateStudent should include a data ﬁeld for the type of undergraduate degree awarded, such as B.A. or B.S., and the location of the institution that awarded the degree. UnderGraduate should include classiﬁcation (for example, freshman, sophomore), and parent or guardian name and address. Create a presentation class to test your design.

Create a GUI (Form) class to create objects of Graduate or Undergraduate students. Also, the design of the Form should display information about both types of students.)

* Name, id
* Use string primitive, not object
* Min 1 form, 3 user defined classes
* Monday will have grading schema

**Exercise 2.** Create a Windows application that can be used as a sign-up sheet for ski equipment for the Flyers Sports Club. The club has ski equipment that it makes available to members at a minimal charge. In an attempt to determine what type of equipment members might need for an upcoming trip, they have asked you to design and implement an equipment-needs form.

Include Checkbox objects that allow users to select the type of gear they will need to purchase for the trip. Include selections of snow gloves, skis, goggles, earmuffs, and other items, as you feel appropriate. After all selections are made, display a message indicating what items have been selected. You will probably want to include menu options to display and clear the order for the next user. Also include an option that enables the user to exit the application.

**Exercise 3.** Write a program that displays a graphical user interface (Windows form) that allows multiple names, e-mail addresses, and local phone numbers to be entered. Store the values in a text file. Use separate lines for each person’s data. Include appropriate exception-handling techniques in your solution.

**Exercise 4.** Write a GUI application that accepts employee data to include employee name, number, pay rate, and number of hours worked. Pay is to be computed as follows: hours over 40 receive time-and-a-half pay.

Use Form1 to enter the employee name, number, and the total amount of pay (prior to deductions) Store the employee name, number, and the total amount of pay (prior to deductions) in a text file.

Close the file and then, in the same application, retrieve the stored values and display the employee name and the formatted total pay on the different form(Form2).