Unit 7 Lecture 3:

Topic 1: Designing an Object Oriented Project

Up to this point in this course, I have always suggested what objects(classes) and methods to use in your projects. Obviously, professional programmers must make these decisions on their own. What follows, is one system that could aid a team of programmers in making these decisions.

Suppose your team has been assigned the job of developing just the text part of a Golf game.

Step 1: Using complete English sentences, write a general description of the game of golf. You should assume the reader has never played the game and is going to use this description to understand it.

Your team should now go to a computer and type your description into a Word document. The document should be approximately one half page. Save the document and print it out.

Step 2: Revise your description, adding any important information you failed to include in your original version. Now go through your document and BOLDFACE all nouns and ITALICIZE all verbs. Resave the document and print it out.

<u>All nouns represent possible classes</u>. On a piece of paper, collect all the nouns that the students feel could be possible classes for the project.

<u>All verbs represent possible methods</u>. Under the nouns, place all verbs that the students feel could be appropriate methods for that class.

Step 3: In steps 2 & 3 we were brain storming! Now it is time to make some serious decisions about the project.

You should now set up a CRC table for each class you have decided will be in your project.

CRC = Class / Responsibilities / Collaborators

Class = Name of the class
Responsibilities = potential methods of that class
Collaborators = classes from which you would potentially
                need information. (Also called coupling or
                class dependence)

Each CRC table should be assigned to a team member who is going to develop that class. Remember the driver class must be included, but it won't have anything to do with golf.

It is probable that some of your classes will not have collaborators.

A CRC table should look something like this...

Class:_____ Developer: _____

Responsibilities	Collaborators

Make these decisions thoughtfully, because making changes after coding begins can create large problems.

Unit Seven Assignment Three: Tic-Tac-Toe