

Course: 420-315-DW, Programming IV Advanced C# and .NET Programming

#### **F-5. Sample assignment: Project-Based Cooperative Learning Through Jigsaw Assignments**

This activity took place over a ten week period, weeks 5 through 15 of the semester, from February 24 to May 12, 2011. In addition to classroom and lab activities, a field trip was organized on April 14 2011 to give students direct experience with project subject matter (Koi fish) and with examining the information systems of an external organization.

Objectives: (a) use an object-oriented development environment; (b) develop and design applications in a graphical environment; (c) organize data; (d) develop conceptual models using a structured approach; (e) produce and manage design documentation; (f) analyze, design, program and implement an application; (g) carry out all objectives in a collaborative, jigsaw-style project structure, which implies interacting and communicating in various work situations by verbal and written means, and learning various workplace functions of a programmer-analyst. References: (Microsoft Corporation, 2010), (Jacobson, Booch, & Rumbaugh, 1998)

Competencies developed: 0004, 000F, 000L, 016on, Booch, &04(n5y)9( v)112p9

Carried out a brainstorming activity and produced concept map diagrams;

Designed and documented competing OO and relational data models, then worked in new groups to analyze and combine the various data models;

Developed data dictionaries for two different database management systems (Oracle and Access);

Developed test data for the two target data base systems;

Created data bases, tables, relations and uploaded test data;

Designed user interfaces (forms) and specified related data validation requirements;

Coded and implemented user interfaces to input, store, update, delete and display data.

Follow-On Activity:

components will become part of a finished system to be delivered to the customer. e areas. The completed system