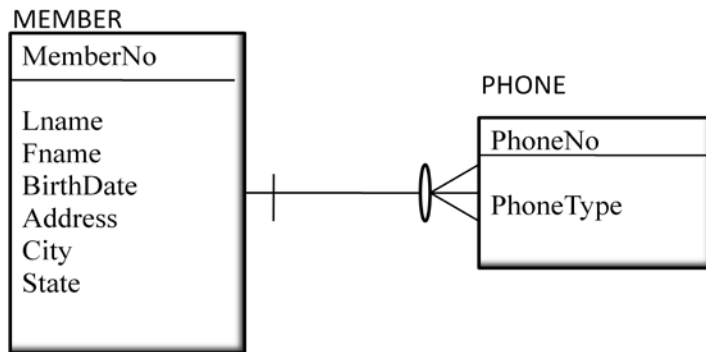CSIS 3222, Final Exam, Fall 2008, Chapters 2, 5, 6 (excluding subtypes & recursive relationship)

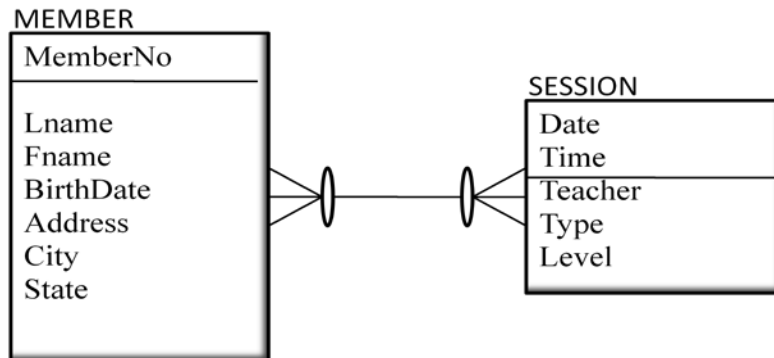**Part III: Data Modeling and Design Problems (10 points each)**

1) Given the following logical E-R diagram:
   a. Draw a physical E-R diagram to illustrate your transformation of the logical model into a physical database design. Members can have many different phone numbers, e.g., home, cell, work, etc.
   b. State any necessary referential integrity constraints.
   c. Create (on paper) tables with data that illustrates the type of relationship in your design. (The same tables that would be created in Access, Datasheet View.)

2) Given the following logical E-R diagram:
   a. Draw a physical E-R diagram to illustrate your transformation of the logical model into a physical database design. Members can enroll in many different exercise sessions. Each session meets at a specific date and time. No two sessions meet on the same day in the same time slot. Sessions are of a particular type, e.g., spinning, yoga. Each one also has a teacher and level of difficulty.
   b. State any necessary referential integrity constraints.
   c. Create (on paper) tables with data that illustrates the type of relationship in your design. (The same tables that would be created in Access, Datasheet View.) Use the member table from #1. Just create any other new tables that will be necessary to implement your design.

MEMBER

MemberNo
Lname
Fname
BirthDate
Address
City
State

SESSION

Date
Time
Teacher
Type
Level

3) Our client wants us to develop a database that will support various applications including the following report. Develop a **logical** data model for this database. Use the Erwin crow's foot symbols. This report is from a group project from a previous semester.

Employee Shoe Sale

Employee Number	Full Name	Company	Style Name	Date	Time
12965	Jess Tillman				
		Etnies			
			Arto Saari	1/30/2007	12:30 PM
			Arto Saari	11/9/2007	4:30 PM
		Nike			
			Dunk Lo	1/19/2007	5:36 PM
		Ugg			
			Classic Tall	11/2/2007	6:51 PM
13987	Jason DiBartolo				
		DVS			
			Kerry Getz III	11/1/2007	5:45 PM
		Nike			
			Premium AF1	1/23/2007	6:30 PM
		Ugg			
			Classic Tall	1/18/2007	11:46 AM
16539	John Fence				
		Etnies			
			Arto Saari	11/9/2007	7:25 PM