CECS 323 HOMEWORK: MANY TO MANY WITH HISTORY

OBJECTIVE: Deciding when to go to a many to many with history versus a many to many without history.

INTRODUCTION: A small university has some sample data for you:

Student Enrollment

Student Number	Student Name	Course Number	Course Description	Grade
12345	Don Brewse	Econ 241	Macroeconomice	B
		QM 261	Intro Stat 1	C
		Acct211	Accounting Principles	B
		Infs 220	Intro to Mircos	A
		Eng 211	Literature	B
23456	Jan Himmel	Infs 272	COBOL	B
		Hist 202	American History	A
		Math 344	Management Calculus	A
		Act 212	Accounting Principles	C
		Mgmt 361	Management Principles	A

Student/Advisor Meetings

Student Number	Advisor	Adviser Office	Meeting Date
12345	Kominski	203H	12/10/2018
23456	Coronado	123D	7/22/2018
12345	Kominski	203H	09/23/2018

Note that those cells that are empty can be treated as if they are filled with the next value above them. For example, the third row of data would read: {12345, “Don Brewse”, “Acct211”, Accounting Principles”, “B”, “Kominski”, “203H”}. Many traditional reports will remove repeating groups of values to reduce the clutter of the report and highlight the similarities between successive rows. If you have not seen this before, it can be a bit confusing.

Assumptions:

- Each Student may take many courses
- Each Course may have many students
- Student Numbers, Course Numbers, Advisor names are unique
- Student names, Course Descriptions are not unique
- Each Student has one Advisor
- Each advisor may advise many students
- Each advisor has one office
- An office can house many advisors
- A student can make an appointment with any advisor

PROCEDURE: Create a class model of the above design, and then forward engineer that to a relation scheme diagram. **Then** add this business rule:

- A given student can take a given course more than once to improve a poor grade.

Model the new set of circumstances in a **separate** UML model.
Then forward engineer that model into a separate relation scheme diagram.

WHAT TO TURN IN:

- The UML class model for the original business rules.
- The relation scheme diagram for the original business rules.
- The UML class model with the additional business rules.
- The relation scheme diagram corresponding to the **second** UML class diagram.
- Your class definitions and descriptions of the associations in a separate Word document or text file.