**GBA 6220 Assignment #1 – ERD Modeling with Erwin**  
Spring 2024

# Problem Description

Using the Crow’s Foot methodology and Erwin Data Modeler, create an ERD that can be implemented for a medical clinic, using at least the following business rules:

1. A patient may make many appointments in the clinic.
2. A doctor may accept appointments with many patients.
3. Each appointment is made with only one doctor and one patient.
4. Emergency cases do not require an appointment. However, for appointment management purposes, an emergency is entered in the appointment book as “unscheduled.”
5. If kept, an appointment yields a visit with the doctor specified in the appointment. Each visit is recorded by only one doctor and attended by only one patient.
6. Each visit yields one or more visit details. There are two kinds of visit details: diagnosis and treatment.
7. Each visit must create a bill. A bill is created for one visit.
8. Each bill must be paid by one or many payments. The payment type indicates if the payment is from a patient or an insurance company.
9. A payment may be from a patient or an insurance company.
10. A patient may be insured by one or more insurance companies.
11. A patient or an insurance company may make many payments.

# Grading

* Completeness: 100%
* Criteria: Entity Sets(20%), Attributes(Domain and Data Type) and Keys(PK and FK)(30%), Relationships(weak/strong, 1:1/1:M, phrases)(30%), Notation(10%) and Complexity (10%)

# Tips

1) In order to use Crow’s Foot notation in Erwin, students need to change one setting as follows:

Navigate to the Model menu > Click Model properties > Click on the General tab. You can change the notation by clicking the drop down arrow at the right of Logical Notation and Physical Notation > then select Information Engineering.

2) Do not forget to specify identifying relationships or non-identifying relationship in the ERD.