

## Assignment 4

### COSC 3336

### Spring 2022

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

- A patient can make many appointments with one or more doctors in the clinic, and a doctor can accept appointments with many patients. However, each appointment is made with only one doctor and one patient.
- Emergency cases do not require an appointment. However, for appointment management purposes, an emergency is entered in the appointment book as “unscheduled.”
- If kept, an appointment yields a visit with the doctor specified in the appointment. The visit yields a diagnosis and, when appropriate, treatment.
- With each visit, the patient's records are updated to provide a medical history
- Each patient visit creates a bill. Each patient visit is billed by one doctor, and each doctor can bill many patients.
- Each bill must be paid. However, a bill may be paid in many installments, and a payment may cover more than one bill.
- A patient may pay the bill directly, or the bill may be the basis for a claim submitted to an insurance company.
- If the bill is paid by an insurance company, the deductible is submitted to the patient for payment.

#### Database ER diagram (crow's foot)

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