

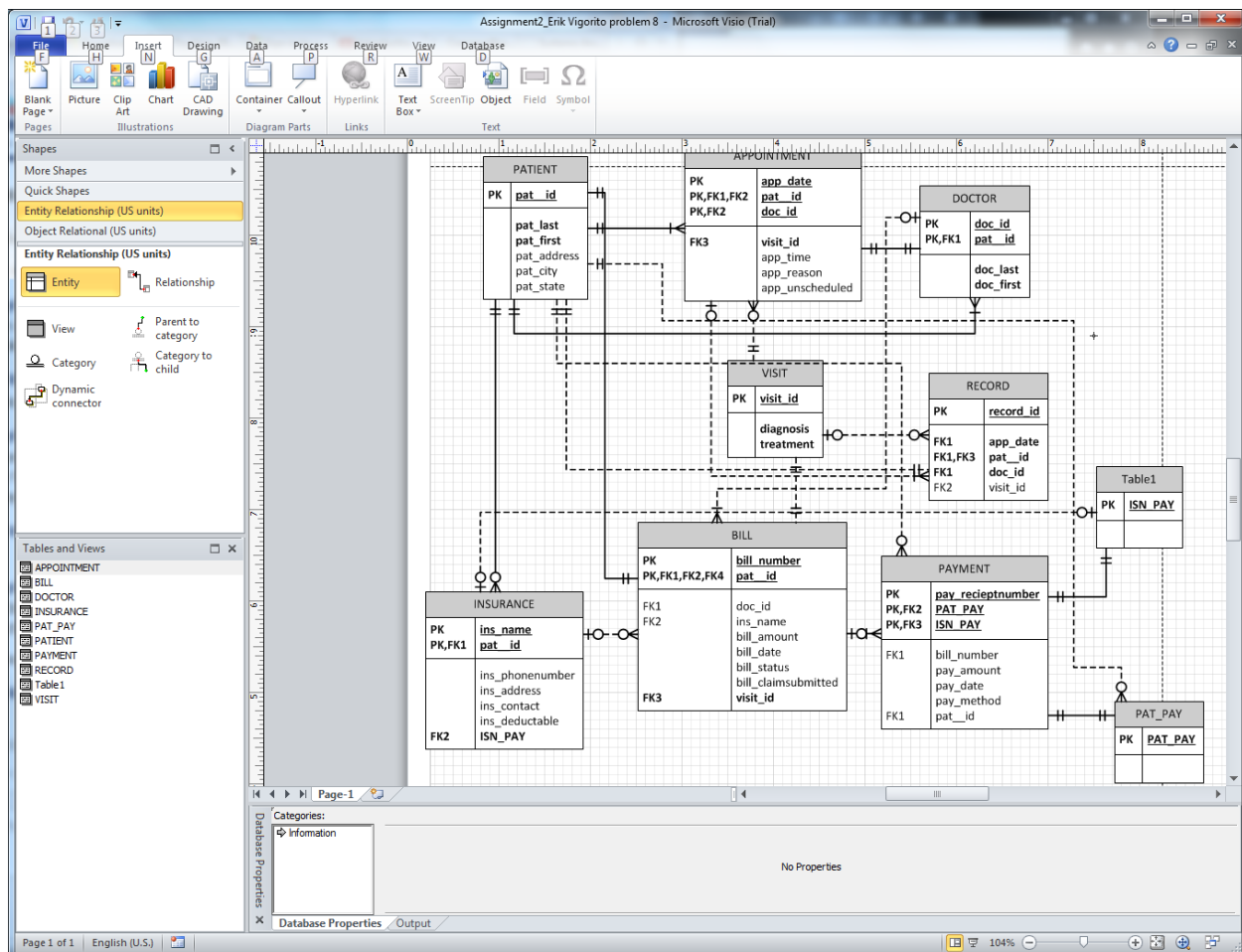
Homework Assignment #2

This was my first time using Visio after I found a free -trial version

Problem #8 from page 145

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.



Problem #2 from page 173

Given the following business scenario, create a Crow's Foot ERD using a **specialization hierarchy** if appropriate. Tiny Hospital keeps information on **patients** and **hospital rooms**. The system assigns each patient a **patient ID number**. In addition, the **patient's name** and **date of birth** are recorded. Some patients are **resident patients** (they spend at least one night in the hospital) and others are **outpatients** (they are treated and released). Resident patients are **assigned to a room**. Each room is identified by a **room number**. The system also stores the room type (**private or semiprivate**), and **room fee**. Over time, each room will have many patients that stay in it. Each resident patient will stay in **only one room**. **Every room must have had a patient**, and **every resident patient must have a room**.

