CSE255 Introduction to Databases

Homework 1: Problems and Due Dates Announced in Class.

Homework Problem 1.1: Due Date Announced in class.
Suppose that you are asked to design a database to deal with information that the ABC Pharmacy maintains for prescriptions. Requirements for such a database include:

- Tracking information on Patients (name, address, SSN, etc.), Physicians (name, specialty, DEA#, etc.) , and Drug Companies (name, phone number, web site).
- Tracking information on each Drug (name, price, status (generic, brand), drug companies that sell the drug, etc.).
- Each patient has a primary physician, and also each patient have a collection of physicians that can prescribe them drugs.
- Physician's prescribe drugs for patients, can prescribe multiple drugs per patient, can prescribe to multiple patients, etc. Likewise, multiple physicians can prescribe the same or different drugs to the same patient. Each Prescription has a date, refills, DEA#, dosage (assume milligrams), pattern (1perday, 2perday, etc.), and fill requirement (brand or generic).
- The ABC Pharmacy has different purchasing contracts with each Drug Company. These contracts allow ABC to purchase the same drugs from different Companies. The contract has a start date, end date, and a quantity (in number of bottles).

For this problem, develop an ER diagram to capture DB requirements. Note that you must offer some additional attributes for all "etc." that are listed above.

Homework Problem 1.2: Due Date Announced in class.
Repeat Problem 1.1 – but now design an Extended ER (EER) diagram. In addition to Physicians, there are others that can prescribe drugs, including: Nurse Practitioners, Physician Assistant, Optometrist, and Dentist, that you must also now consider. Each may be limited in what they can prescribe.

Homework Problem 1.3: Due Date Announced in class.
Problem 3.19 from the textbook.

Homework Problem 1.4: Due Date Announced in class.
Problem 3.24 from the textbook.