CS 3200: Database Design / Prof. Rachlin
Homework 4 : Electronic Medical Records – Multi-Table Queries & Joins

PROBLEM DESCRIPTION:

Electronic Medical Records (EMRs) are changing the world of healthcare. Healthcare informatics is a huge field, especially in Boston. Possibly some of you will end up working in this exciting field. So in this assignment, we'll learn about advanced SQL in the context of a relatively simple EMR database.

INSTRUCTIONS:

1. Download and run the script: CS3200_HW4_EMRSETUP.sql. Run the script in a ROOT connection. This will build your database and populate it with data.

2. Examine the table definitions in the CS3200_HW4_EMRSETUP.sql script. Pay particular attention to the foreign key constraints and whether the foreign keys are nullable. Hand draw the ER diagram (conceptual model) that was used to derive the table definitions (logical model). Save your drawing as a PDF: CS3200_HW4_yourlastname.pdf

3. Separately download and load into the workbench the script: CS3200_HW4_EMR.sql. This script is empty – it contains 15 questions. Write a query that answers each of the questions. Save the script as CS3200_HW4_yourlastname.sql. Your ER diagram might help you "conceptualize" the different relationships, making it easier to solve each query!

SUBMIT:

1. A .PDF of your reverse-engineered drawing of the EMR database, with all relationships clearly labeled and all cardinality and participation constraints correctly specified. You don't have to list out the table definitions. Just provide the drawing. **(25 points)**

2. A .SQL script with the answers to each query.
Name the script: CS3200_HW4_*yourname*.sql **(75 points – 5 points each)**