Database Design Project

HealthOne Medical Database (www.oracle.com/academy)

Project Scenario:

You are a small database consulting company specializing in developing databases for the medical industry. You have just been awarded the contract to develop a data model for a database application system for a mid-size health insurance company to keep track of health claims including patient information, provider(doctor) information, information about patient visits to their doctor as well as prescription drugs prescribed to patients.

Information such as patient name, address, phone, email etc. are needed as well as who each patient's primary care doctor is, their insurance ID number and insurance company name. We also want information on each doctor such as their specialty and what hospitals they are affiliated with as well as their phone, address etc. Regarding the hospitals themselves we will need to know where they are located and how to contact them.

The prescriptions given to each patient by a health-care provider also need to be tracked in this particular database at this time to determine claim eligibility including some basic information on the drug being prescribed to make sure there are no conflicts with a patient's other prescriptions. We need to know each drug's name, purpose/use and possible side effects.

we need to track the visits a patient makes to their doctor. Some patient visits are related to a new issue/illness, some are follow up visits to an existing diagnosis and some visits are routine "well patient" visits or checkups. We would like to be able to track which type of visit each instance is so we can keep specific information regarding the visit. For example :

1. For a new issue/illness visit we will store an initial diagnosis

2. For follow-up visits we need to keep track of the patient's status regarding the Diagnosis

3. For routine checkups we need to track patient vital information such as current blood pressure, height and weight

Eventually, the database will be used to track trends and for some extrapolative modeling based on the accumulated data. The database will be accessible in English only right now, although plans include making it available in multiple languages eventually.

Requirements:

1. Design ER model (Supertypes and subtypes)
2. Write out Relationships
3. Presentation
    a. Introduce the group members
    b. Present and explain the ERD
    c. Summarize how your solution will meet the client's needs

    Organize your presentation, by including:
    • Statement of the problem
    • Information requirements of the business clearly stated
    • Assumptions