

Exercise – defining database (module 5)

Requirements

The Prescriptions-R-X chain of pharmacies has offered to give you a free lifetime supply of medicines if you design its database. Given the rising cost of health care, you agree. Here's the information that you gather:

- Patients are identified by an SSN, and their names, addresses, and date of birth must be recorded.
- Doctors are identified by an SSN. For each doctor, the name, specialty, and years of experience must be recorded.
- Each pharmaceutical company is identified by name and has a phone number.
- For each drug, the trade name and formula must be recorded. Each drug is sold by a given pharmaceutical company, and the trade name identifies a drug uniquely from among the products of that company. If a pharmaceutical company is deleted, you need not keep track of its products any longer.
- Every patient has a primary physician. Every doctor can have many patients.
- Doctors prescribe drugs for patients. A doctor could prescribe one or more drugs for several patients, and a patient could obtain prescriptions from several doctors.
- Each prescription has a date and a quantity associated with it. You can assume that if a doctor prescribes the same drug for the same patient more than once, only the last such prescription needs to be stored.

DATABASE

Create a new database “prescriptions”. Use access of base, of your choice.

1. TABLES

Design the following tables:

1. DOCTOR
2. PATIENT
3. DRUG
4. PHARMACOMPANY
5. PRESCRIPTION (of drug by a doctor for a patient)

Add the fields with their type. If necessary, introduce the KEY or use of filed as a KEY. Set some fields as indexes

2. RELATIONS

Decide the foreign keys and establish the relations among the tables

Insert data records (manually)

Add some data in the tables: at least 5 doctors, 5 patients, 5 drugs and 2 pharmaceutical companies. Do not add prescriptions. Use the view of tables.

3. Form

Create a form for each table. Add the form to add new data, including at least 20 prescriptions.

4. Queries

Define the following queries:

1. (one table, DOCTOR): find all the doctors with at least one year of experience
2. (one table, prescriptions): find all the prescriptions given in November (be sure to have at least one prescription in November)
3. (two tables: Patient and prescriptions): find all the prescriptions and order alphabetically by the name of the patient
4. (two tables: doctors and prescriptions): find all the doctors and see how many prescriptions they have given
5. Which is the most prescribed drug?
6. Which is the pharmaceutical company with more prescriptions
7. Which companies each doctor prescribes drug of?

Run the queries.

5. Report

Take 2 queries and transform them to 2 different reports. Put your name in the header and the date in the footer of the reports