

Requirements

- i. Patients are identified by SSN, and their names, addresses, and also ages.
- ii. Doctors are identified by an SSN, for each doctor, the name, specialty and years of experience must be recorded.
- iii. Each pharmaceutical company is identified by name and has a phone number.
- iv. For each drug, the trade name and formula must be reordered. 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.
- v. Each pharmacy has a name, address, and phone number.
- vi. Every patient has a primary physician. Every doctor has at least one patient.
- vii. Each pharmacy sells several drugs and has a price for each. A drug could be sold at several pharmacies, and the price could vary from one pharmacy to another.
- viii. 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.
- ix. Pharmaceutical companies have long-term contracts with pharmacies. A pharmaceutical company can contract with several pharmaceutical companies. For each contract, you have to store a start date, and end date, and the text of the contract.
- x. Pharmacies appoint a supervisor for each contract. There must always be a supervisor for each contract.

Additional Requirements

- i. The following patient details are also required: gender, allergies, height, and weight. Date of birth should be used in place of age to ease the process of storing and updating age details.
- ii. The following doctor details are also required: phone number and medical license number.
- iii. As doctors make prescriptions, the following details are also required: drug name, instructions, doctor SSN (prescriber), patient SSN, and prescription number.
- iv. Each pharmacist is identified by their SSN and the pharmacy they work for.
- v. Each supervisor is identified by their SSN, names and the pharmacy they work for.
- vi. Pharmacists are tasked with cross-checking prescription information in order to dispense drugs. A dispensation is identified by a dispensation number, prescription number, the pharmacist conducting the dispensation and the date of dispensation.
- vii. Supervisors are responsible for managing the inventory of their respective pharmacies, especially with regards to the drugs catered for under their specific contracts. A pharmacy's inventory entails the drug names, their quantities in stock, their expiration dates and the price at which the pharmacy sells the drugs.
- viii. Each user is identified by a unique identifier, password and their user type in order to access the system. These users are: patient, doctor, pharmacist, supervisor, pharmaceutical company and administrator.