

Drug Dispensing Tool 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 a supervisor for each contract
- xi. The system should be designed with security in mind to prevent unauthorized access to sensitive data.
- xii. The system should have ability to track medication inventory levels and alert pharmacists when inventory levels fall below a specified level.
- xiii. The system should allow physicians to view patient medication history to make informed decisions regarding patient care.

