Prerequisite 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

Prerequisite Requirements

Here are some of the requirements that a drug dispensing tool should meet:
1. Accuracy: The tool should be able to dispense medications accurately in the required amount and dosage as prescribed by

the healthcare provider.
2. Safety: The tool should be designed with safety features to prevent medication errors such as double dosing, incorrect medications, or mixing of incompatible drugs.
3. User-Friendly: The tool should be easy to use and operate, even for users with limited training or experience. It should be designed with clear instructions and easy-to-understand user interfaces.
4. Reliability: The tool should be reliable and able to dispense medications without failure or breakdown.
5. Customization: The tool should be able to handle a variety of medication forms, including tablets, capsules, liquids, and powders. It should also be able to accommodate different sizes of medication containers.
6. Record-Keeping: The tool should have the capability to store and maintain accurate records of medications dispensed, including the date and time, medication name, dosage, and patient information.

Prerequisite Requirements

7. Hygiene: The tool should be designed with ease of cleaning and disinfecting in mind to prevent contamination.
8. Connectivity: The tool should have the capability to connect with other healthcare devices or systems, such as electronic health records, to facilitate seamless information sharing and coordination of care.
9. Security: The tool should have secure user access controls and encryption to ensure that patient data is protected.
10. Maintenance: The tool should be easy to maintain, with readily available replacement parts and technical support, to ensure that it is always in good working condition.

11. Regulatory Compliance: The tool should be created with the knowledge of regulatory requirements to ensure compliance .