

ASSUMPTIONS

1. There are drugs which are not supplied to any pharmacy.
2. There can be a doctor who is not the primary physician of any patient.
3. There can be a pharmacy company which has no contract to any pharmacy.
4. A patient must have a prescription.
5. Each prescription has at least one drug.

The above assumptions are used in the following entity types / relationships :

- 1 -> PHARMACY (Sells) DRUGS
- 2 -> DOCTOR (Is primary physician of) PATIENT
- 3 -> PHARMA COMPANY (Has contract with) PHARMACY
- 4 -> PATIENT (Uses) PRESCRIPTION
- 5 -> PRESCRIPTION (Has) DRUGS

NOTES

When a primary key consists of multiple attributes, and must be included as a foreign key into another relation, it appears as a **composite foreign key**. A tuple will be permitted to enter the referencing table only if the combination of entries corresponding to the foreign key attributes matches the referenced table exactly.

This appears in three instances in our schema:

1. (DOCTOR_AID, PATIENT_AID) is the composite foreign key in PRESCRIPTION_DETAILS referencing (DOCTOR_AID, PATIENT_AID) in PRESCRIPTION.
2. (TRADE_NAME, COMPANY_NAME) is the composite foreign key in PRESCRIPTION_DETAILS referencing (TRADE_NAME, COMPANY_NAME) in DRUGS.
3. (TRADE_NAME, COMPANY_NAME) is the composite foreign key in SELLS referencing (TRADE_NAME, COMPANY_NAME) in DRUGS.

