

Unhandled Constraints

- Ensure that each Person record has a corresponding Staff and/or Patient record.
 - The Person entry has no information about its corresponding Staff or Patient records, so we can't tell if these other entries exist from the Person table alone.
- Ensure that each Staff member works for at least one Department.
 - WorksIn is separate from the Staff table because it's an N:M relationship, so we can't tell from the Staff table whether that member has any associated WorksIn records.
- Ensure that each Doctor doesn't have a corresponding Nurse entry and vice versa.
 - Doctor and Nurse are separate tables and have no information about each other, so we can't enforce this disjoint relationship.
- Ensure that each Nurse has a maximum of 4 rooms assigned to them.
 - This cardinality constraint can't be satisfied in the SQL (that we know) since it involves the number of Assigned entries that are associated with a nurse.
- Ensure that each Nurse can only be Assigned to a Room whose Department they work in.
 - Assigned has no information about a Room's deptID, so we can't tell whether the assignment is allowed.
- Ensure that each Department has at least one Staff member working for it.
 - WorksIn is separate from the Department table because it's an N:M relationship, so we can't tell from the Department table whether there are any associated WorksIn records.
- Ensure that each Room is assigned to at least one Nurse.
 - Assigned is separate from the Room table because it's an N:M relationship, so we can't tell from the Room table whether there are associated Assigned records.
- Ensure that each Appointment has at least one Doctor scheduled for it.

- ScheduledFor is separate from Appointment because it's an N:M relationship, so we can't tell from the Appointment table whether there are associated ScheduledFor records.
- Ensure that each PatientOrder has exactly one of either a Prescription record or LabWork record.
 - PatientOrder is in a mandatory disjoint relationship with Prescription and LabWork, so one of these must be present, but the PatientOrder table has no information about whatever references it.
- Ensure that the manager for a department works in and only in that department.
 - The Staff table has no information about whether it's a manager nor information about what departments it works in. The WorksIn table has no information about its Staff's or Department's manager status.
- Ensure that Appointments are only scheduled when doctors are available.
 - The database doesn't include information about doctors' availability all the time (e.g. it shouldn't set appointments when the doctor is on vacation).
- Ensure that each Nurse's regExpiration is not in the past.
 - The Nurse table cannot verify that a registration date is current because checking whether it is past or future depends on the current system date, which the table itself does not track.
- Ensure that combined order costs and appointment costs don't exceed a patient's funds.
 - The Patient table with funds has no information about the cost of that Patient's associated PatientOrders and Appointments.