Step 3.1: Entities and their associated attributes

1. Ward

- Ward Number (Primary Key)
- Ward Name
- Ward Location
- Total Number of Beds
- Telephone Extension Numbers

2. Patient

- Patient Number (Primary Key)
- Patient Name
- Age
- Address
- Contact Number

3. Medication

- Medication Number (Primary Key)
- Medication Name
- Dosage
- Method of Administration
- Start Date
- Finish Date

4. Supply Item

- Item Number (Primary Key)
- Item Name
- Item Description
- Quantity in Stock
- Reorder Level
- Cost per Unit

5. Pharmaceutical Supply

- Drug Number (Primary Key)
- Drug Name
- Description
- Dosage
- Stock Levels

6. Requisition

- Requisition Number (Primary Key)
- Staff Details (e.g., Staff Number, Staff Name)
- Ward Information (e.g., Ward Number, Ward Name)
- Item/Drug Details (e.g., Item Number, Drug Number, Item Name, Drug Name)
- Cost
- Quantity Required

- Date of Order

7. Staff

- Staff Number (Primary Key)
- Staff Name
- Qualifications
- Previous Work Experience

8. Supplier

- Supplier Number (Primary Key)
- Supplier Name
- Address
- Email Contacts
- Telephone Number
- Fax Number

Step 3.2: Relationships and descriptive attributes

1. Ward-Patient (1:N)

- Admission Date (Descriptive attribute)

2. Ward-Medication (M:N)

- Prescription Date (Descriptive attribute)

3. Ward-Supply Item (M:N)

- Stock Update Date (Descriptive attribute)

4. Ward-Pharmaceutical Supply (M:N)

- Stock Update Date (Descriptive attribute)

5. Ward-Requisition (1:N)

- Delivery Date (Descriptive attribute)
- Charge Nurse's Signature (Descriptive attribute)

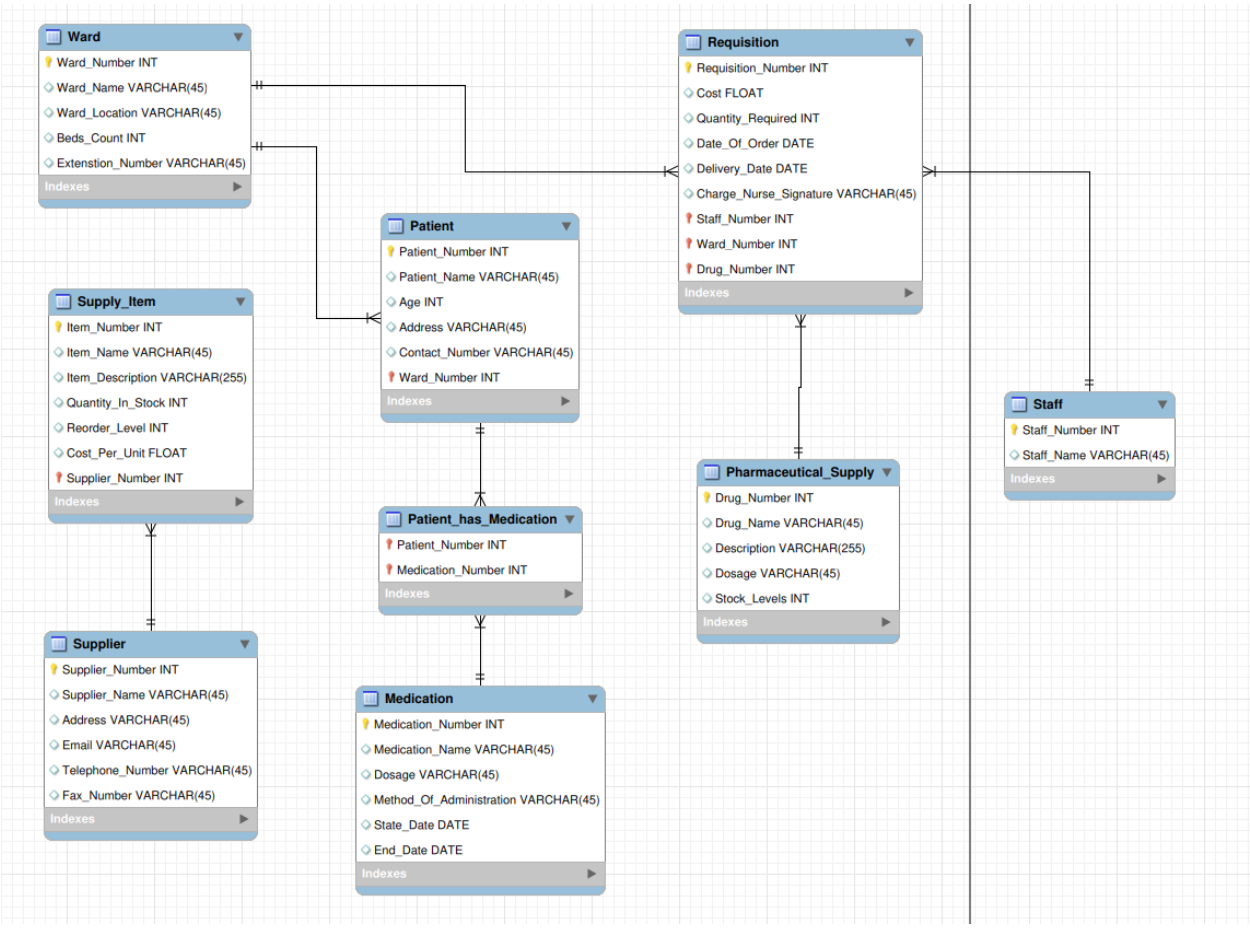
6. Staff-Ward (M:N)

- Role in the Ward (Descriptive attribute)

7. Supplier-Supply Item (M:N)

- Contract Start Date (Descriptive attribute)
- Contract End Date (Descriptive attribute)

Step 3.3: E-R diagram representation



Step 3.4: Data Dictionary and Assumptions

- Assumption 1: Each patient is assigned to only one ward at a time.
- Assumption 2: Each medication is prescribed to multiple patients, and each patient can have multiple medications prescribed.
- Assumption 3: Each supply item and pharmaceutical supply can be used in multiple wards, and each ward can use multiple supply items and pharmaceutical supplies.
- Assumption 4: Each staff member can work in multiple wards, and each ward can have multiple staff members.
- Assumption 5: Each supplier can provide multiple supply items, and each supply item can be provided by multiple suppliers.

Step 3.5: Database Schema

- Ward (ward_number (PK), ward_name, ward_location, beds_count, ext_numbers)
- Patient (patient_number (PK), patient_name, age, address, contact_number)
- Medication (medication_number (PK), medication_name, dosage, method_of_admin, start_date, finish_date)
- Supply_Item (item_number (PK), item_name, item_description, quantity_in_stock, reorder_level, cost_per_unit)
- Pharmaceutical_Supply (drug_number (PK), drug_name, description, dosage, stock_levels)
- Requisition (requisition_number (PK), staff_details, ward_information, item_drug_details, cost, quantity_required, date_of_order, delivery_date, charge_nurse_signature)
- Staff (staff_number (PK), staff_name, qualifications, prev_work_experience)
- Supplier (supplier_number (PK), supplier_name, address, email_contacts, telephone_number, fax_number)