

# **Project Submission on Pharmaceutical Management System**



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# Project: Pharmaceutical Management System

A database for a pharmaceutical management system with ER diagram and requiring steps-

## STEP 01 and 02: Identifying the Entities and the Attributes and Primary key for each Entity required.

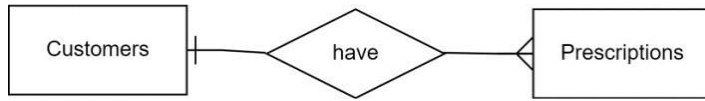
1. Customers (**customer id**, name, email, phone\_number, address, date\_of\_birth, gender, profession, medical\_history)
2. Suppliers (**supplier id**, name, contact\_person, phone, email, address, license\_number)
3. Medications (**medication id**, name, description, barcode, batch\_number, unit\_price, expiry\_date)
4. Prescriptions (**prescription id**, prescription\_date, doctor\_name, doctor\_contact, notes)
5. Prescription\_Items (**prescription item id**, dosage, quantity, instructions)
6. Sales (**sale id**, sale\_date, total\_amount, payment\_method)
7. Employees (**employee id**, name, email, phone, address, position, salary, hire\_date)
8. Shift\_Schedules (**shift id**, shift\_name, start\_time, end\_time)
9. Store\_branches (**branch id**, address, phone\_number, duration)
10. Purchases (**purchase id**, quantity, cost\_price)
11. Expenses (**expense id**, expense\_date, amount, description, category)

## Step 03 and 04: Identifying the relationship between entities and cardinality ratio and participation needed

1. Suppliers -provide- Medications



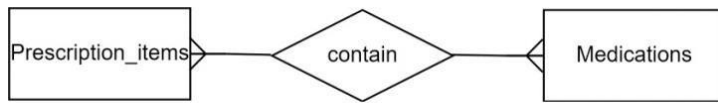
## 2. Customers -have- Prescriptions



## 3. Prescription -contain- Prescription\_items



## 4. Prescription\_items -contain- Medications



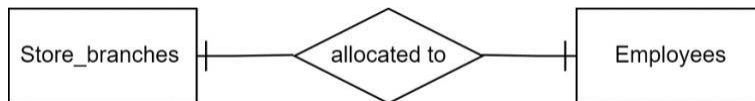
## 5. Sales -belong to- Customers



## 6. Shift\_schedules -assigned to- Employees



## 7. Store\_branches -allocated to- Employees



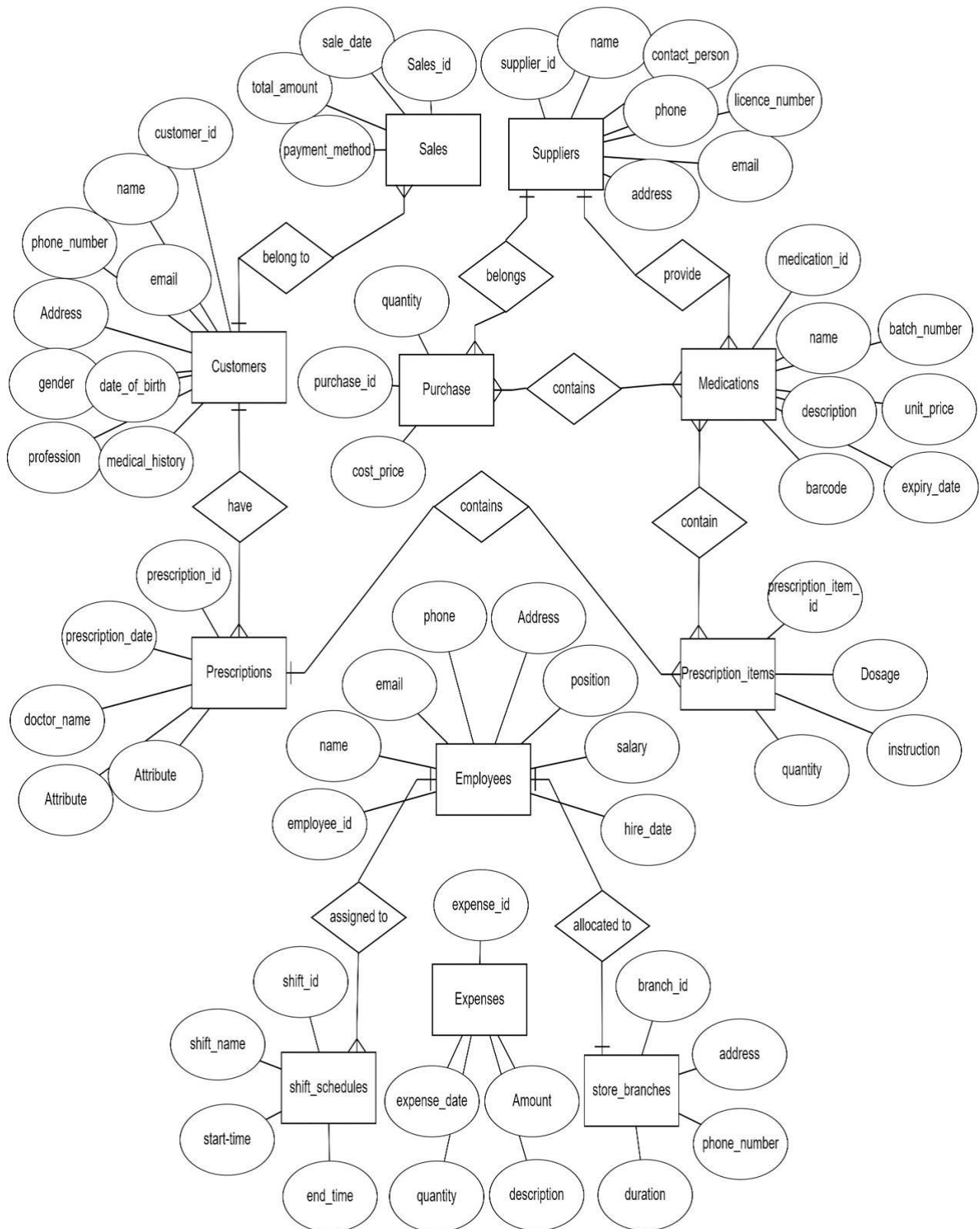
## 8. Purchase -belongs to- Suppliers



## 9. Purchase -contains- Medications



## Step 05: Drawing the Entity- Relationship Diagram (ERD)



## Reduction to Database Schema

1. Customers (**customer id**, name, email, phone\_number, address, date\_of\_birth, gender, profession, medical\_history)
2. Suppliers (**supplier id**, name, contact\_person, phone, email, address, license\_number)
3. Medications (**medication id**, supplier\_id, name, description, barcode, batch\_number, unit\_price, expiry\_date)
4. Prescriptions (**prescription id**, customer\_id, prescription\_date, doctor\_name, doctor\_contact, notes)
5. Prescription\_Items (**prescription item id**, prescription\_id, medication\_id, dosage, quantity, instructions)
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