

Project on
Pharmaceutical Management System

EDGE BU CSE Digital Skills Training

[Database course]

SUBMITTED BY

Name: Sumaya Mir

Roll: 05-002-016

DMBS 2

Dept. of Biochemistry and
Biotechnology,

University of Barishal.

Date of submission: 31.10.2024

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.

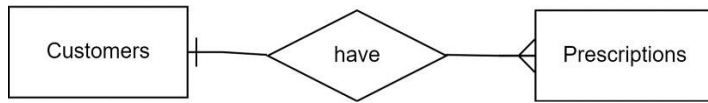
1. Customers (**customer id**, name, email, phone_number, address, date_of_birth, gender, profession, medical_history)
2. Suppliers (**supplier id**, name, contact_person, phone, email, address, license_number)
3. Medications (**medication id**, name, description, barcode, batch_number, unit_price, expiry_date)
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



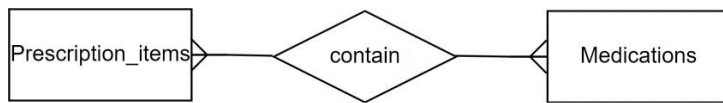
2. Customers -have- Prescriptions



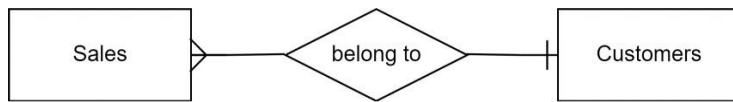
3. Prescription -contain- Prescription_items



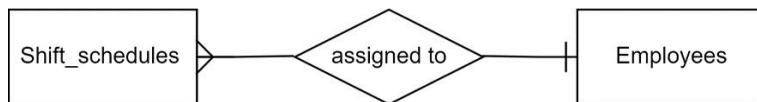
4. Prescription_items -contain- Medications



5. Sales -belong to- Customers



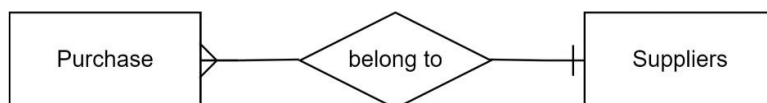
6. Shift_schedules -assigned to- Employees



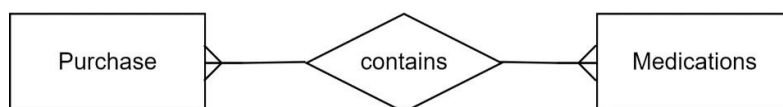
7. Store_branches -allocated to- Employees



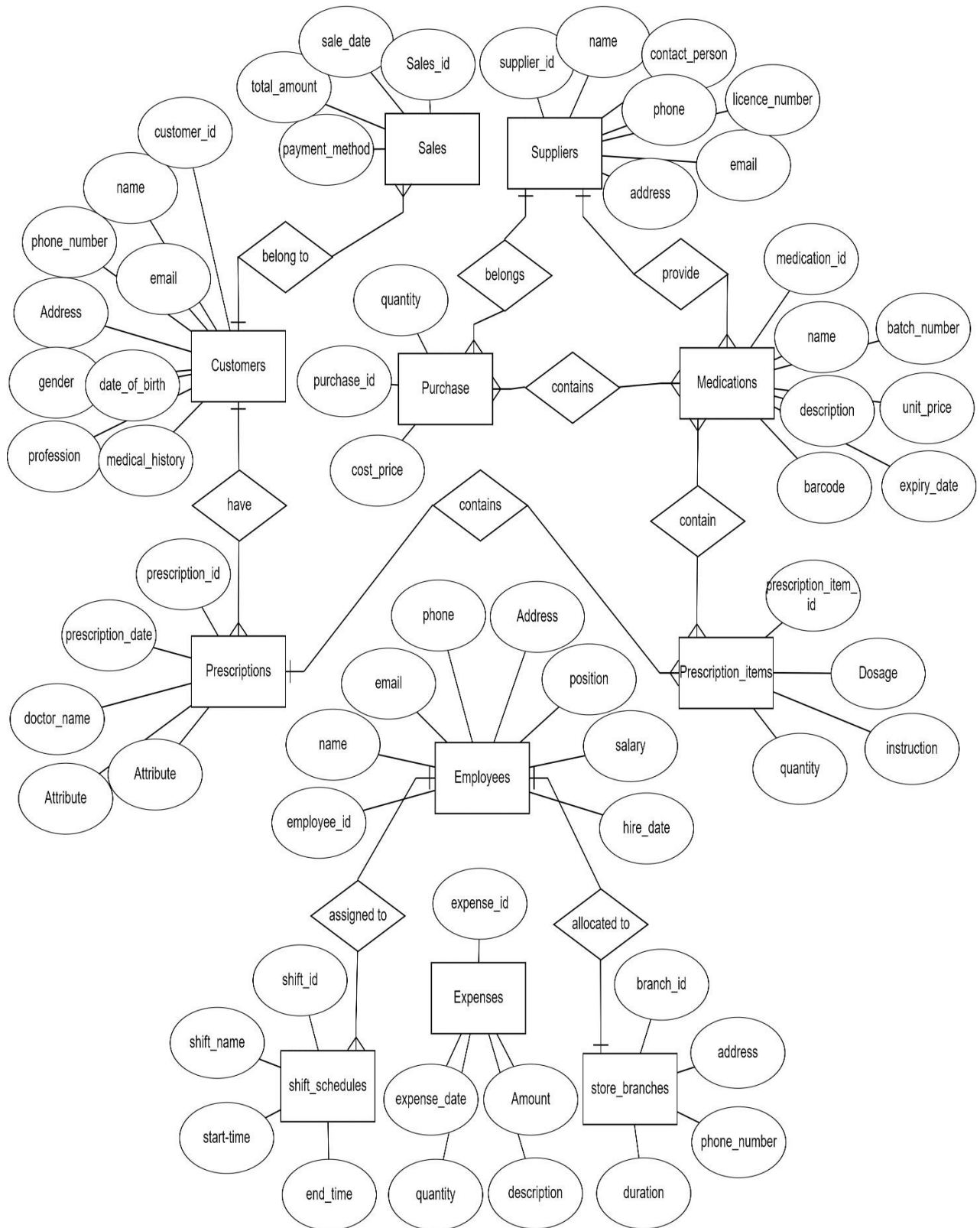
8. Purchase -belongs to- Suppliers



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)
6. Sales (**sale_id**, customer_id, sale_date, total_amount, payment_method)
7. Employees (**employee_id**, name, email, phone, address, position, salary, hire_date)
8. Shift_Schedules (**shift_id**, employee_id, shift_name, start_time, end_time)
9. Store_branches (**branch_id**, employee_id, address, phone_number, duration)
10. Purchases (**purchase_id**, supplier_id, medication_id, quantity, cost_price)
11. Expenses (**expense_id**, expense_date, amount, description, category)

