

DBMS COURSE PROJECT PHARMACY MANAGEMENT SYSTEM

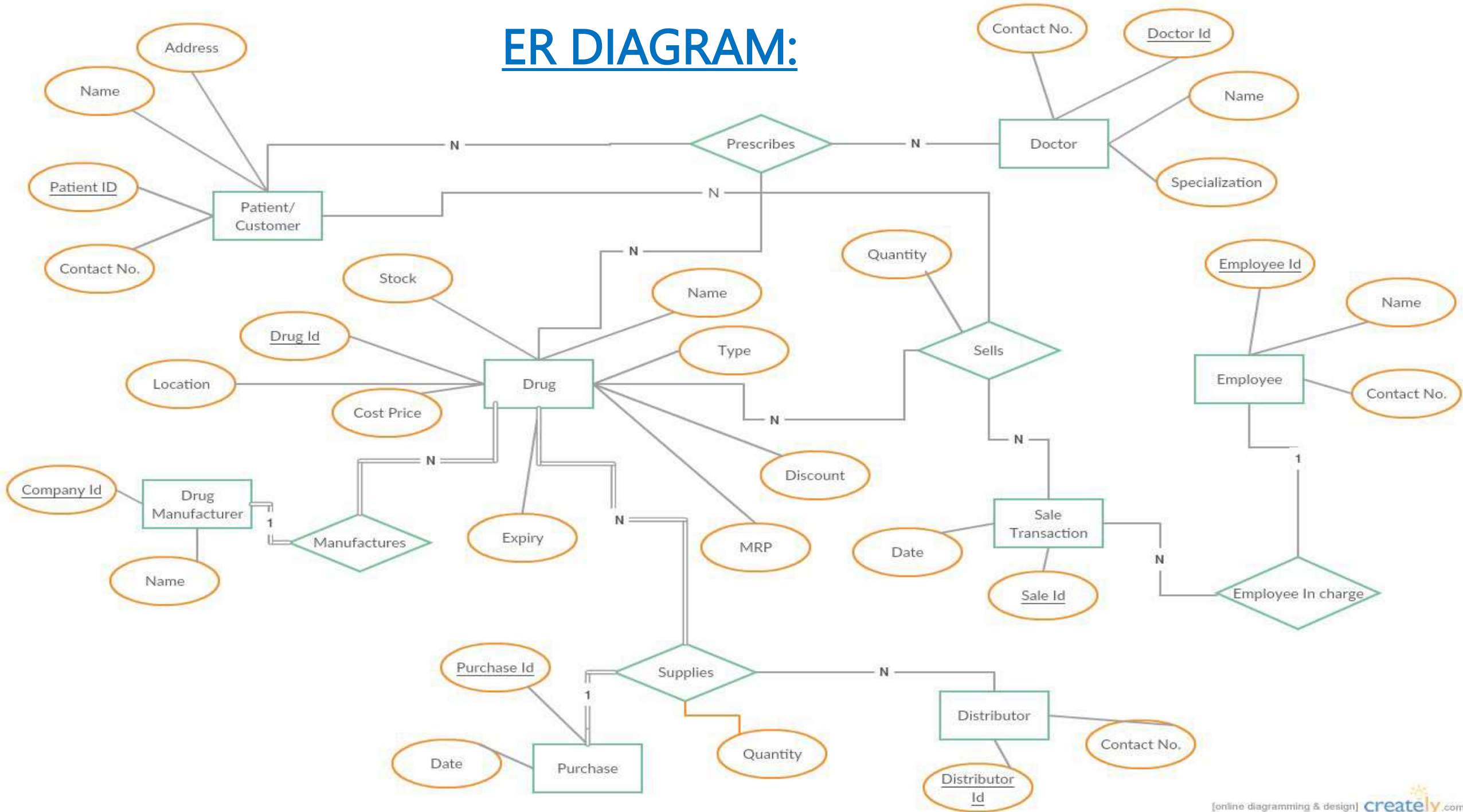
TEAM MEMBERS DETAILS:

NAME	USN	ROLL NO
SHREYA PATIL	01FE21BCS185	355
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PROBLEM DESCRIPTION:

- A pharmacy management system is a computer-based system that is designed to manage the day-to-day operations of a pharmacy or drugstore. It is a software application that enables pharmacists to manage and track inventory, sales, purchases, customer information, and other pharmacy-related tasks efficiently.
- The system typically includes modules for managing patient information, such as personal details, medical history, and prescription information. The patient module enables pharmacists to manage prescriptions, refill requests, and drug interactions with other medications. The system also allows pharmacists to monitor medication adherence and provide medication therapy management services.
- Another essential module in a pharmacy management system is the inventory management module. It allows pharmacists to manage inventory levels, monitor drug expiration dates, track sales, and generate reports on inventory usage and purchase patterns. The system can also automatically generate purchase orders when inventory levels fall below a pre-determined threshold.
- The system also includes modules for managing supplier and distributor information, such as purchase orders, invoices, and payment tracking. The system enables pharmacists to manage relationships with suppliers and distributors, monitor price fluctuations, and ensure timely delivery of supplies.
- A pharmacy management system may also include modules for managing employee information, such as work schedules, payroll, and performance evaluations. The system can help pharmacy managers to optimize staff schedules, track attendance, and manage employee performance.
- Overall, a pharmacy management system is a powerful tool that enables pharmacists and pharmacy managers to improve efficiency, accuracy, and profitability in their operations. It can streamline processes, reduce costs, and improve patient outcomes by providing pharmacists with the tools they need to deliver high-quality care.

ER DIAGRAM:



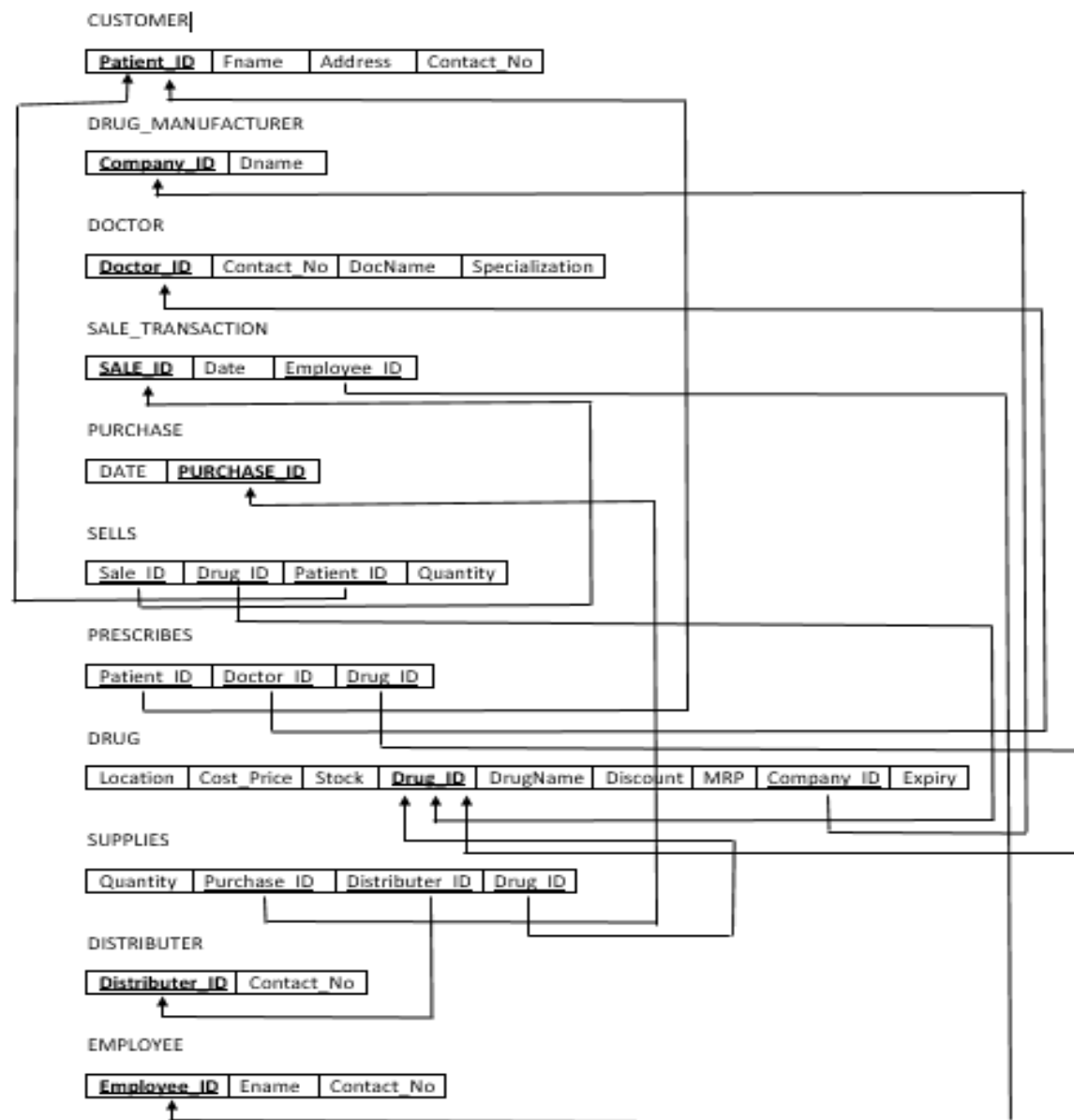
ENTITIES:

- CUSTOMER (Patient_ID, Fname, Address, Contact_No)
- DRUG_MANUFACTURER (Company_ID, Dname)
- DOCTOR (Doctor_ID, Contact_No, Docname, Specialization)
- SALE_TRANSACTION (Sale_ID, Date, Employee_ID)
- PURCHASE (Date, Purchase_ID)
- SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity)
- PRESCRIBES (Patient_ID, Doctor_ID, Drug_ID)
- DRUG (Location, Cost_Price, Stock, Drug_ID, Drugname, Discount, MRP, Company_ID, Expiry)
- SUPPLIES (Quantity, Purchase_ID, Distributor_ID, Drug_ID)
- DISTRIBUTOR (Distributor_ID, Contact_No)
- EMPLOYEE (Employee_ID, Ename, Contact_No)

ATTRIBUTES:

- CUSTOMER: Patient_ID (PK), Fname, Address, Contact_No
- DRUG_MANUFACTURER: Company_ID (PK), Dname
- DOCTOR: Doctor_ID (PK), Contact_No, Docname, Specialization
- SALE_TRANSACTION: Sale_ID (PK), Date, Employee_ID (FK)
- PURCHASE: Date, Purchase_ID (PK)
- SELLS: Sale_ID (PK, FK), Drug_ID (PK, FK), Patient_ID (PK, FK), Quantity
- PRESCRIBES: Patient_ID (PK, FK), Doctor_ID (PK, FK), Drug_ID (PK, FK)
- DRUG: Location, Cost_Price, Stock, Drug_ID (PK), Drugname, Discount, MRP, Company_ID (FK), Expiry
- SUPPLIES: Quantity, Purchase_ID (PK, FK), Distributor_ID (PK, FK), Drug_ID (PK, FK)
- DISTRIBUTOR: Distributor_ID (PK), Contact_No
- EMPLOYEE: Employee_ID (PK), Ename, Contact_No

RELATIONAL SCHEMA



CREATION OF TABLES:

CREATE TABLE CUSTOMER (

- **Patient_ID INT PRIMARY KEY,**
- **Fname VARCHAR(50) NOT NULL,**
- **Address VARCHAR(100) NOT NULL,**
- **Contact_No VARCHAR(15) NOT NULL**
- **);**

CREATE TABLE DRUG_MANUFACTURER (

- **Company_ID INT PRIMARY KEY,**
- **Dname VARCHAR(50) NOT NULL**
- **);**

CREATE TABLE DOCTOR (

- **Doctor_ID INT PRIMARY KEY,**
- **Contact_No VARCHAR(15) NOT NULL,**
- **Docname VARCHAR(50) NOT NULL,**
- **Specialization VARCHAR(50) NOT NULL**
- **);**

CREATE TABLE SALE_TRANSACTION (

- **Sale_ID INT PRIMARY KEY,**
- **DateD DATE NOT NULL,**
- **Employee_ID INT NOT NULL,**
- **FOREIGN KEY (Employee_ID) REFERENCES EMPLOYEE(Employee_ID)**
- **);**

CREATE TABLE SELLS (

- **Sale_ID INT NOT NULL,**
- **Drug_ID INT NOT NULL,**
- **Patient_ID INT NOT NULL,**
- **Quantity INT NOT NULL,**
- **PRIMARY KEY (Sale_ID, Drug_ID, Patient_ID),**
- **FOREIGN KEY (Sale_ID) REFERENCES SALE_TRANSACTION(Sale_ID),**
- **FOREIGN KEY (Drug_ID) REFERENCES DRUG(Drug_ID),**
- **FOREIGN KEY (Patient_ID) REFERENCES CUSTOMER(Patient_ID)**
- **);**

CREATE TABLE PURCHASE (

- **Date_ DATE,**
- **Purchase_ID INT PRIMARY KEY**
- **);**

CREATE TABLE PRESCRIBES (

- **Patient_ID INT,**
- **Doctor_ID INT,**
- **Drug_ID INT,**
- **PRIMARY KEY (Patient_ID, Doctor_ID, Drug_ID),**
- **FOREIGN KEY (Patient_ID) REFERENCES CUSTOMER(Patient_ID),**
- **FOREIGN KEY (Doctor_ID) REFERENCES DOCTOR(Doctor_ID),**
- **FOREIGN KEY (Drug_ID) REFERENCES DRUG(Drug_ID)**
- **);**

CREATE TABLE DRUG (

- **Location VARCHAR(50),**
- **Cost_Price DECIMAL(10,2),**
- **Stock INT NOT NULL CHECK (Stock > 0),**
- **Drug_ID INT PRIMARY KEY,**
- **Drugname VARCHAR(50) NOT NULL,**
- **Discount DECIMAL(4,2),**
- **MRP DECIMAL(10,2),**
- **Company_ID INT,**
- **Expiry DATE,**
- **FOREIGN KEY (Company_ID) REFERENCES DRUG_MANUFACTURER(Company_ID)**
- **);**

CREATE TABLE SUPPLIES (

- **Quantity INT NOT NULL CHECK (Quantity > 0),**
- **Purchase_ID INT,**
- **Distributor_ID INT,**
- **Drug_ID INT,**
- **PRIMARY KEY (Quantity, Purchase_ID, Distributor_ID, Drug_ID),**
- **FOREIGN KEY (Purchase_ID) REFERENCES PURCHASE(Purchase_ID),**
- **FOREIGN KEY (Distributor_ID) REFERENCES DISTRIBUTOR(Distributor_ID),**
- **FOREIGN KEY (Drug_ID) REFERENCES DRUG(Drug_ID)**
- **);**

CREATE TABLE DISTRIBUTOR (

- **Distributor_ID INT PRIMARY KEY,**
- **Contact_No VARCHAR(15) NOT NULL**
- **);**

CREATE TABLE EMPLOYEE (

- **Employee_ID INT PRIMARY KEY,**
- **Ename VARCHAR(50) NOT NULL,**
- **Contact_No VARCHAR(15) NOT NULL**
- **);**

INSERTION OF DATA:

- INSERT INTO CUSTOMER VALUES (1, 'Rahul', '123 Main Street, Bangalore, Karnataka', '9876543210');
- INSERT INTO CUSTOMER VALUES(2, 'Priya', '456 Park Road, Mumbai, Maharashtra', '9876543211');
- INSERT INTO CUSTOMER VALUES(3, 'Aarav', '789 High Street, Delhi, Delhi', '9876543212');
- INSERT INTO CUSTOMER VALUES(4, 'Neha', '321 Forest Avenue, Hyderabad, Telangana', '9876543213');
- INSERT INTO CUSTOMER VALUES(5, 'Rohit', '654 Ocean Boulevard, Chennai, Tamil Nadu', '9876543214');
- INSERT INTO CUSTOMER VALUES(6, 'Kavya', '987 River Drive, Kolkata, West Bengal', '9876543215');
- INSERT INTO CUSTOMER VALUES(7, 'Amit', '741 Hillside Avenue, Ahmedabad, Gujarat', '9876543216');
- INSERT INTO CUSTOMER VALUES(8, 'Shreya', '852 Lakeview Terrace, Pune, Maharashtra', '9876543217');
- INSERT INTO CUSTOMER VALUES(9, 'Vikas', '963 Sunrise Boulevard, Jaipur, Rajasthan', '9876543218');
- INSERT INTO CUSTOMER VALUES(10, 'Sneha', '159 Sunset Drive, Lucknow, Uttar Pradesh', '9876543219');
- INSERT INTO CUSTOMER VALUES(11, 'Arjun', '357 Park Avenue, Patna, Bihar', '9876543220');
- INSERT INTO CUSTOMER VALUES(12, 'Tanvi', '258 Main Road, Bhopal, Madhya Pradesh', '9876543221');
- INSERT INTO CUSTOMER VALUES(13, 'Sanjay', '456 Broadway Street, Chandigarh, Punjab', '9876543222');
- INSERT INTO CUSTOMER VALUES(14, 'Radha', '753 Market Street, Surat, Gujarat', '9876543223');
- INSERT INTO CUSTOMER VALUES(15, 'Aryan', '852 Maple Avenue, Jodhpur, Rajasthan', '9876543224');
- INSERT INTO CUSTOMER VALUES(16, 'Kriti', '963 Elm Street, Ludhiana, Punjab', '9876543225');
- INSERT INTO CUSTOMER VALUES(17, 'Anil', '159 Pine Street, Coimbatore, Tamil Nadu', '9876543226');
- INSERT INTO CUSTOMER VALUES(18, 'Meera', '357 Oak Street, Varanasi, Uttar Pradesh', '9876543227');
- INSERT INTO CUSTOMER VALUES(19, 'Alok', '258 Chestnut Street, Amritsar, Punjab', '9876543228');
- INSERT INTO CUSTOMER VALUES(20, 'Juhi', '456 Walnut Street, Nashik, Maharashtra', '9876543229');
- INSERT INTO CUSTOMER VALUES(21, 'Rishi', '753 Vine Street, Vijayawada, Andhra Pradesh', '9876543230');
- INSERT INTO CUSTOMER VALUES(22, 'Smita', '852 Birch Street, Visakhapatnam, Andhra Pradesh', '9876543231');
- INSERT INTO CUSTOMER VALUES(23, 'Deepak', '963 Cedar Street, Guwahati, Assam', '9876543232');
- INSERT INTO CUSTOMER VALUES(24, 'Poonam', '159 Willow Street, Thiruvananthapuram, Kerala', '9876543233');
- INSERT INTO CUSTOMER VALUES(25, 'Rakesh', '357 Magnolia Street, Indore, Madhya Pradesh', '9876543234');

CUSTOMER

- INSERT INTO DRUG_MANUFACTURER VALUES(1, 'Cipla');
- INSERT INTO DRUG_MANUFACTURER VALUES(2, 'Sun Pharmaceutical Industries Ltd.');
- INSERT INTO DRUG_MANUFACTURER VALUES(3, 'Cadila Pharmaceuticals');
- INSERT INTO DRUG_MANUFACTURER VALUES(4, 'Dr. Reddy's Laboratories Ltd.');
- INSERT INTO DRUG_MANUFACTURER VALUES(5, 'Lupin Limited');
- INSERT INTO DRUG_MANUFACTURER VALUES(6, 'Torrent Pharmaceuticals Ltd.');
- INSERT INTO DRUG_MANUFACTURER VALUES(7, 'Alembic Pharmaceuticals Limited');
- INSERT INTO DRUG_MANUFACTURER VALUES(8, 'Intas Pharmaceuticals Ltd.');
- INSERT INTO DRUG_MANUFACTURER VALUES(9, 'Glenmark Pharmaceuticals');
- INSERT INTO DRUG_MANUFACTURER VALUES(10, 'Aurobindo Pharma Limited');
- INSERT INTO DRUG_MANUFACTURER VALUES(11, 'Zydus Cadila');
- INSERT INTO DRUG_MANUFACTURER VALUES(12, 'Biocon Limited');
- INSERT INTO DRUG_MANUFACTURER VALUES(13, 'Emcure Pharmaceuticals Limited');
- INSERT INTO DRUG_MANUFACTURER VALUES(14, 'Mankind Pharma');
- INSERT INTO DRUG_MANUFACTURER VALUES(15, 'Ajanta Pharma');
- INSERT INTO DRUG_MANUFACTURER VALUES(16, 'Alkem Laboratories');
- INSERT INTO DRUG_MANUFACTURER VALUES(17, 'Abbott India Limited');
- INSERT INTO DRUG_MANUFACTURER VALUES(18, 'Wockhardt Ltd.');
- INSERT INTO DRUG_MANUFACTURER VALUES(19, 'Sanofi India Limited');
- INSERT INTO DRUG_MANUFACTURER VALUES(20, 'Novartis India Limited');
- INSERT INTO DRUG_MANUFACTURER VALUES(21, 'Pfizer Limited');
- INSERT INTO DRUG_MANUFACTURER VALUES(22, 'GlaxoSmithKline Pharmaceuticals Ltd.');
- INSERT INTO DRUG_MANUFACTURER VALUES(23, 'Merck Co Limited, Inc.');
- INSERT INTO DRUG_MANUFACTURER VALUES(24, 'Roche Holding AG');
- INSERT INTO DRUG_MANUFACTURER VALUES(25, 'Johnson And Johnson Private Limited');

DRUG MANUFACTURER

- INSERT INTO DOCTOR VALUES (1, '9876543210', 'Dr. Ravi Kumar', 'Cardiologist');
- INSERT INTO DOCTOR VALUES (2, '9876543211', 'Dr. Priya Singh', 'Gynecologist');
- INSERT INTO DOCTOR VALUES (3, '9876543212', 'Dr. Akash Sharma', 'Dermatologist');
- INSERT INTO DOCTOR VALUES (4, '9876543213', 'Dr. Neha Gupta', 'Pediatrician');
- INSERT INTO DOCTOR VALUES (5, '9876543214', 'Dr. Rohit Mishra', 'Orthopedic Surgeon');
- INSERT INTO DOCTOR VALUES (6, '9876543215', 'Dr. Kavya Patel', 'Neurologist');
- INSERT INTO DOCTOR VALUES (7, '9876543216', 'Dr. Amit Shah', 'Oncologist');
- INSERT INTO DOCTOR VALUES (8, '9876543217', 'Dr. Shreya Desai', 'Psychiatrist');
- INSERT INTO DOCTOR VALUES (9, '9876543218', 'Dr. Vikas Joshi', 'Endocrinologist');
- INSERT INTO DOCTOR VALUES (10, '9876543219', 'Dr. Sneha Menon', 'Ophthalmologist');
- INSERT INTO DOCTOR VALUES (11, '9876543220', 'Dr. Arjun Kapoor', 'ENT Specialist');
- INSERT INTO DOCTOR VALUES (12, '9876543221', 'Dr. Tanvi Sharma', 'Dentist');
- INSERT INTO DOCTOR VALUES (13, '9876543222', 'Dr. Sanjay Verma', 'Pulmonologist');
- INSERT INTO DOCTOR VALUES (14, '9876543223', 'Dr. Radha Patel', 'Urologist');
- INSERT INTO DOCTOR VALUES (15, '9876543224', 'Dr. Aryan Gupta', 'Gastroenterologist');
- INSERT INTO DOCTOR VALUES (16, '9876543225', 'Dr. Kriti Singhania', 'Hematologist');
- INSERT INTO DOCTOR VALUES (17, '9876543226', 'Dr. Anil Sharma', 'Rheumatologist');
- INSERT INTO DOCTOR VALUES (18, '9876543227', 'Dr. Meera Nair', 'Allergist');
- INSERT INTO DOCTOR VALUES (19, '9876543228', 'Dr. Pradeep Menon', 'Neonatologist');
- INSERT INTO DOCTOR VALUES (20, '9876543229', 'Dr. Suresh Kumar', 'Nephrologist');
- INSERT INTO DOCTOR VALUES (21, '9876543230', 'Dr. Maya Iyer', 'Infectious Disease Specialist');
- INSERT INTO DOCTOR VALUES (22, '9876543231', 'Dr. Naveen Singh', 'Hepatologist');
- INSERT INTO DOCTOR VALUES (23, '9876543232', 'Dr. Snehal Shah', 'Oncology Surgeon');
- INSERT INTO DOCTOR VALUES (24, '9876543233', 'Dr. Aditi Sengupta', 'Reproductive Endocrinologist');
- INSERT INTO DOCTOR VALUES (25, '9876543234', 'Dr. Rajiv Chauhan', 'Geriatrician');

- INSERT INTO PURCHASE VALUES ('01 01 2023', 1);
- INSERT INTO PURCHASE VALUES ('02 01 2023', 2);
- INSERT INTO PURCHASE VALUES ('03 01 2023', 3);
- INSERT INTO PURCHASE VALUES ('04 01 2023', 4);
- INSERT INTO PURCHASE VALUES ('05 01 2023', 5);
- INSERT INTO PURCHASE VALUES ('06 01 2023', 6);
- INSERT INTO PURCHASE VALUES ('07 01 2023', 7);
- INSERT INTO PURCHASE VALUES ('08 01 2023', 8);
- INSERT INTO PURCHASE VALUES ('09 01 2023', 9);
- INSERT INTO PURCHASE VALUES ('10 01 2023', 10);
- INSERT INTO PURCHASE VALUES ('11 01 2023', 11);
- INSERT INTO PURCHASE VALUES ('12 01 2023', 12);
- INSERT INTO PURCHASE VALUES ('13 01 2023', 13);
- INSERT INTO PURCHASE VALUES ('14 01 2023', 14);
- INSERT INTO PURCHASE VALUES ('15 01 2023', 15);
- INSERT INTO PURCHASE VALUES ('16 01 2023', 16);
- INSERT INTO PURCHASE VALUES ('17 01 2023', 17);
- INSERT INTO PURCHASE VALUES ('18 01 2023', 18);
- INSERT INTO PURCHASE VALUES ('19 01 2023', 19);
- INSERT INTO PURCHASE VALUES ('20 01 2023', 20);
- INSERT INTO PURCHASE VALUES ('21 01 2023', 21);
- INSERT INTO PURCHASE VALUES ('22 01 2023', 22);
- INSERT INTO PURCHASE VALUES ('23 01 2023', 23);
- INSERT INTO PURCHASE VALUES ('24 01 2023', 24);
- INSERT INTO PURCHASE VALUES ('25 01 2023', 25);

- INSERT INTO DRUG VALUES ('Bangalore', 100.50, 50, 1, 'Paracetamol', 5.00, 120.00, 1, '10-03-2023');
- INSERT INTO DRUG VALUES ('Mumbai', 90.00, 30, 2, 'Aspirin', 4.00, 110.00, 2, '11-03-2023');
- INSERT INTO DRUG VALUES ('Delhi', 150.00, 80, 3, 'Amoxicillin', 6.50, 180.00, 7, '12-03-2023');
- INSERT INTO DRUG VALUES ('Hyderabad', 70.50, 20, 4, 'Ibuprofen', 3.00, 100.00, 1, '13-03-2023');
- INSERT INTO DRUG VALUES ('Chennai', 200.00, 60, 5, 'Ciprofloxacin', 8.00, 250.00, 2, '14-03-2023');
- INSERT INTO DRUG VALUES ('Kolkata', 120.00, 40, 6, 'Codeine', 4.50, 150.00, 3, '15-03-2023');
- INSERT INTO DRUG VALUES ('Ahmedabad', 80.00, 25, 7, 'Morphine', 5.50, 130.00, 6, '16-03-2023');
- INSERT INTO DRUG VALUES ('Pune', 175.00, 70, 8, 'Metformin', 7.00, 220.00, 9, '17-03-2023');
- INSERT INTO DRUG VALUES ('Jaipur', 65.50, 15, 9, 'Tramadol', 4.00, 95.00, 3, '18-03-2023');
- INSERT INTO DRUG VALUES ('Lucknow', 110.00, 45, 10, 'Hydrocodone', 6.00, 150.00, 11, '19-03-2023');
- INSERT INTO DRUG VALUES ('Patna', 75.00, 35, 11, 'Adderall', 5.50, 120.00, 14, '20-03-2023');
- INSERT INTO DRUG VALUES ('Bhopal', 95.50, 50, 12, 'Xanax', 7.00, 160.00, 8, '21-03-2023');
- INSERT INTO DRUG VALUES ('Chandigarh', 135.00, 75, 13, 'Ativan', 8.00, 190.00, 18, '22-03-2023');
- INSERT INTO DRUG VALUES ('Surat', 65.00, 25, 14, 'Valium', 4.50, 95.00, 21, '23-03-2023');
- INSERT INTO DRUG VALUES ('Jodhpur', 180.00, 90, 15, 'Oxycontin', 10.00, 250.00, 13, '24-03-2023');
- INSERT INTO DRUG VALUES ('Ludhiana', 120.50, 60, 16, 'Percocet', 9.00, 180.00, 17, '25-03-2023');
- INSERT INTO DRUG VALUES ('Varanasi', 85.00, 30, 17, 'Prozac', 5.50, 110.00, 20, '26-03-2023');
- INSERT INTO DRUG VALUES ('Agra', 95.50, 45, 18, 'Zoloft', 6.00, 130.00, 19, '27-03-2023');
- INSERT INTO DRUG VALUES ('Nagpur', 70.00, 20, 19, 'Lexapro', 4.50, 100.00, 16, '28-03-2023');
- INSERT INTO DRUG VALUES ('Coimbatore', 180.00, 70, 20, 'Ambien', 8.00, 220.00, 23, '29-03-2023');
- INSERT INTO DRUG VALUES ('Ghaziabad', 120.00, 50, 21, 'Seroquel', 7.00, 150.00, 25, '30-03-2023');
- INSERT INTO DRUG VALUES ('Gurugram', 75.50, 25, 22, 'Lunesta', 4.00, 95.00, 15, '31-03-2023');
- INSERT INTO DRUG VALUES ('Allahabad', 145.00, 80, 23, 'Paxil', 6.50, 190.00, 24, '01-04-2023');
- INSERT INTO DRUG VALUES ('Rajkot', 90.50, 40, 24, 'Celexa', 5.00, 120.00, 17, '02-04-2023');
- INSERT INTO DRUG VALUES ('Jamshedpur', 65.00, 20, 25, 'Effexor', 4.00, 100.00, 5, '03-04-2023');
- INSERT INTO DRUG VALUES ('Nashik', 150.00, 60, 26, 'Wellbutrin', 8.00, 200.00, 5, '04-04-2023');

- INSERT INTO PRESCRIBES VALUES (1, 2, 1);
- INSERT INTO PRESCRIBES VALUES (1, 3, 5);
- INSERT INTO PRESCRIBES VALUES (1, 4, 2);
- INSERT INTO PRESCRIBES VALUES (2, 1, 4);
- INSERT INTO PRESCRIBES VALUES (2, 2, 5);
- INSERT INTO PRESCRIBES VALUES (2, 3, 3);
- INSERT INTO PRESCRIBES VALUES (3, 1, 2);
- INSERT INTO PRESCRIBES VALUES (3, 2, 4);
- INSERT INTO PRESCRIBES VALUES (3, 3, 5);
- INSERT INTO PRESCRIBES VALUES (4, 4, 1);
- INSERT INTO PRESCRIBES VALUES (4, 5, 3);
- INSERT INTO PRESCRIBES VALUES (4, 1, 2);
- INSERT INTO PRESCRIBES VALUES (5, 2, 1);
- INSERT INTO PRESCRIBES VALUES (5, 3, 5);
- INSERT INTO PRESCRIBES VALUES (5, 4, 2);
- INSERT INTO PRESCRIBES VALUES (6, 1, 4);
- INSERT INTO PRESCRIBES VALUES (6, 2, 2);
- INSERT INTO PRESCRIBES VALUES (6, 3, 3);
- INSERT INTO PRESCRIBES VALUES (7, 1, 1);
- INSERT INTO PRESCRIBES VALUES (7, 2, 4);
- INSERT INTO PRESCRIBES VALUES (7, 3, 5);
- INSERT INTO PRESCRIBES VALUES (8, 4, 2);
- INSERT INTO PRESCRIBES VALUES (8, 5, 1);
- INSERT INTO PRESCRIBES VALUES (8, 1, 3);
- INSERT INTO PRESCRIBES VALUES (9, 2, 5);
- INSERT INTO PRESCRIBES VALUES (9, 3, 2);

- INSERT INTO EMPLOYEE VALUES (1, 'Rajesh', '9876543210');
- INSERT INTO EMPLOYEE VALUES (2, 'Amit', '9876543211');
- INSERT INTO EMPLOYEE VALUES (3, 'Priyanka', '9876543212');
- INSERT INTO EMPLOYEE VALUES (4, 'Sanjay', '9876543213');
- INSERT INTO EMPLOYEE VALUES (5, 'Smita', '9876543214');
- INSERT INTO EMPLOYEE VALUES (6, 'Ravi', '9876543215');
- INSERT INTO EMPLOYEE VALUES (7, 'Anita', '9876543216');
- INSERT INTO EMPLOYEE VALUES (8, 'Vikram', '9876543217');
- INSERT INTO EMPLOYEE VALUES (9, 'Priya', '9876543218');
- INSERT INTO EMPLOYEE VALUES (10, 'Arvind', '9876543219');
- INSERT INTO EMPLOYEE VALUES (11, 'Rahul', '9876543220');
- INSERT INTO EMPLOYEE VALUES (12, 'Sneha', '9876543221');
- INSERT INTO EMPLOYEE VALUES (13, 'Sandeep', '9876543222');
- INSERT INTO EMPLOYEE VALUES (14, 'Kavita', '9876543223');
- INSERT INTO EMPLOYEE VALUES (15, 'Amitabh', '9876543224');
- INSERT INTO EMPLOYEE VALUES (16, 'Saurabh', '9876543225');
- INSERT INTO EMPLOYEE VALUES (17, 'Pooja', '9876543226');
- INSERT INTO EMPLOYEE VALUES (18, 'Nitin', '9876543227');
- INSERT INTO EMPLOYEE VALUES (19, 'Deepika', '9876543228');
- INSERT INTO EMPLOYEE VALUES (20, 'Rakesh', '9876543229');
- INSERT INTO EMPLOYEE VALUES (21, 'Kiran', '9876543230');
- INSERT INTO EMPLOYEE VALUES (22, 'Manish', '9876543231');
- INSERT INTO EMPLOYEE VALUES (23, 'Sonal', '9876543232');
- INSERT INTO EMPLOYEE VALUES (24, 'Harish', '9876543233');
- INSERT INTO EMPLOYEE VALUES (25, 'Jyoti', '9876543234');

- INSERT INTO DISTRIBUTOR VALUES (1, '1234567890');
- INSERT INTO DISTRIBUTOR VALUES (2, '2345678901');
- INSERT INTO DISTRIBUTOR VALUES (3, '3456789012');
- INSERT INTO DISTRIBUTOR VALUES (4, '4567890123');
- INSERT INTO DISTRIBUTOR VALUES (5, '5678901234');
- INSERT INTO DISTRIBUTOR VALUES (6, '6789012345');
- INSERT INTO DISTRIBUTOR VALUES (7, '7890123456');
- INSERT INTO DISTRIBUTOR VALUES (8, '8901234567');
- INSERT INTO DISTRIBUTOR VALUES (9, '9012345678');
- INSERT INTO DISTRIBUTOR VALUES (10, '0123456789');
- INSERT INTO DISTRIBUTOR VALUES (11, '0987654321');
- INSERT INTO DISTRIBUTOR VALUES (12, '9876543210');
- INSERT INTO DISTRIBUTOR VALUES (13, '8765432109');
- INSERT INTO DISTRIBUTOR VALUES (14, '7654321098');
- INSERT INTO DISTRIBUTOR VALUES (15, '6543210987');
- INSERT INTO DISTRIBUTOR VALUES (16, '5432109876');
- INSERT INTO DISTRIBUTOR VALUES (17, '4321098765');
- INSERT INTO DISTRIBUTOR VALUES (18, '3210987654');
- INSERT INTO DISTRIBUTOR VALUES (19, '2109876543');
- INSERT INTO DISTRIBUTOR VALUES (20, '1098765432');
- INSERT INTO DISTRIBUTOR VALUES (21, '1111111111');
- INSERT INTO DISTRIBUTOR VALUES (22, '2222222222');
- INSERT INTO DISTRIBUTOR VALUES (23, '3333333333');
- INSERT INTO DISTRIBUTOR VALUES (24, '4444444444');
- INSERT INTO DISTRIBUTOR VALUES (25, '5555555555');

- INSERT INTO SUPPLIES VALUES (50, 1, 1, 1);
- INSERT INTO SUPPLIES VALUES (100, 1, 2, 2);
- INSERT INTO SUPPLIES VALUES (75, 1, 3, 3);
- INSERT INTO SUPPLIES VALUES (30, 2, 4, 4);
- INSERT INTO SUPPLIES VALUES (20, 2, 5, 5);
- INSERT INTO SUPPLIES VALUES (40, 3, 6, 6);
- INSERT INTO SUPPLIES VALUES (60, 3, 7, 7);
- INSERT INTO SUPPLIES VALUES (80, 4, 8, 8);
- INSERT INTO SUPPLIES VALUES (90, 4, 9, 9);
- INSERT INTO SUPPLIES VALUES (120, 5, 10, 10);
- INSERT INTO SUPPLIES VALUES (150, 5, 11, 11);
- INSERT INTO SUPPLIES VALUES (25, 6, 12, 12);
- INSERT INTO SUPPLIES VALUES (35, 6, 13, 13);
- INSERT INTO SUPPLIES VALUES (45, 7, 14, 14);
- INSERT INTO SUPPLIES VALUES (55, 7, 15, 15);
- INSERT INTO SUPPLIES VALUES (65, 8, 16, 16);
- INSERT INTO SUPPLIES VALUES (70, 8, 17, 17);
- INSERT INTO SUPPLIES VALUES (85, 9, 18, 18);
- INSERT INTO SUPPLIES VALUES (95, 9, 19, 19);
- INSERT INTO SUPPLIES VALUES (110, 10, 20, 20);
- INSERT INTO SUPPLIES VALUES (130, 10, 21, 21);
- INSERT INTO SUPPLIES VALUES (15, 11, 22, 22);
- INSERT INTO SUPPLIES VALUES (5, 11, 23, 23);
- INSERT INTO SUPPLIES VALUES (200, 12, 24, 24);
- INSERT INTO SUPPLIES VALUES (250, 12, 25, 25);

- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (1, 1, 1, 10);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (2, 2, 2, 5);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (3, 3, 3, 8);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (4, 4, 4, 12);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (5, 5, 5, 6);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (6, 6, 6, 2);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (7, 7, 7, 15);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (8, 8, 8, 4);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (9, 9, 9, 9);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (10, 10, 10, 7);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (11, 11, 11, 3);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (12, 12, 12, 11);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (13, 13, 13, 14);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (14, 14, 14, 10);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (15, 15, 15, 5);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (16, 16, 16, 8);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (17, 17, 17, 12);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (18, 18, 18, 6);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (19, 19, 19, 2);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (20, 20, 20, 15);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (21, 21, 21, 4);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (22, 22, 22, 9);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (23, 23, 23, 7);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (24, 24, 24, 3);
- INSERT INTO SELLS (Sale_ID, Drug_ID, Patient_ID, Quantity) VALUES (25, 25, 25, 11);

- INSERT INTO SALE_TRANSACTION VALUES (1, '01 01 2023', 1);
- INSERT INTO SALE_TRANSACTION VALUES (2, '01 02 2023', 2);
- INSERT INTO SALE_TRANSACTION VALUES (3, '01 03 2023', 3);
- INSERT INTO SALE_TRANSACTION VALUES (4, '01 04 2023', 4);
- INSERT INTO SALE_TRANSACTION VALUES (5, '01 05 2023', 5);
- INSERT INTO SALE_TRANSACTIONVALUES (6, '01 06 2023', 6);
- INSERT INTO SALE_TRANSACTION VALUES (7, '01 07 2023', 7);
- INSERT INTO SALE_TRANSACTION VALUES (8, '01 08 2023', 8);
- INSERT INTO SALE_TRANSACTION VALUES (9, '01 09 2023', 9);
- INSERT INTO SALE_TRANSACTION VALUES (10, '01 10 2023', 10);
- INSERT INTO SALE_TRANSACTION VALUES (11, '01 11 2023', 11);
- INSERT INTO SALE_TRANSACTION VALUES (12, '01 07 2023', 12);
- INSERT INTO SALE_TRANSACTION VALUES (13, '01 09 2023', 13);
- INSERT INTO SALE_TRANSACTION VALUES (14, '01 05 2023', 14);
- INSERT INTO SALE_TRANSACTION VALUES (15, '01 02 2023', 15);
- INSERT INTO SALE_TRANSACTION VALUES (16, '01 03 2023', 16);
- INSERT INTO SALE_TRANSACTION VALUES (17, '01 04 2023', 17);
- INSERT INTO SALE_TRANSACTION VALUES (18, '01 08 2023', 18);
- INSERT INTO SALE_TRANSACTION VALUES (19, '01 05 2023', 19);
- INSERT INTO SALE_TRANSACTION VALUES (20, '01 01 2023', 20);
- INSERT INTO SALE_TRANSACTION VALUES (21, '01 07 2023', 21);
- INSERT INTO SALE_TRANSACTION VALUES (22, '01 09 2023', 22);
- INSERT INTO SALE_TRANSACTION VALUES (23, '01 12 2023', 23);
- INSERT INTO SALE_TRANSACTION VALUES (24, '01 11 2023', 24);
- INSERT INTO SALE_TRANSACTIONVALUES (25, '01 03 2023', 25);

QUERIES:

Simple Queries:

--1) What are the details of the drugs that have a stock of less than 25?

- `SELECT * FROM DRUG`
- `WHERE Stock < 25;`

-- 2)What are the details of the drugs that have expired?

- `SELECT * FROM DRUG`
- `WHERE Expiry < SYSDATE;`

--3)Who are the doctors that have prescribed a particular drug?

- `SELECT D.* FROM DOCTOR D JOIN PRESCRIBES P ON D.Doctor_ID = P.Doctor_ID`
- `WHERE P.Drug_ID = '2';`

--4)Who are the customers that have purchased a particular drug?

- `SELECT C.* FROM CUSTOMER C JOIN SELLS S ON C.Patient_ID = S.Patient_ID WHERE S.Drug_ID = '8';`

--5)List all the sales transactions that were made by a specific employee.

- `SELECT *FROM SALE_TRANSACTION s`
- `WHERE s.Employee_ID = (`
- `SELECT Employee_ID`
- `FROM EMPLOYEE`
- `WHERE Ename = 'Priyanka'`
- `);`

Aggregate Queries:

--1.What is the total cost of drugs which are expired before 25-03-23?

- `SELECT SUM(MRP-(DISCOUNT/100)*MRP) AS "Total Cost" FROM DRUG WHERE Expiry = '25-03-23';`

--2.What is the total quantity of a particular drug purchased from a particular distributor?

- `SELECT SUM(Quantity) AS "Total Quantity" FROM SUPPLIES WHERE Drug_ID = '2' AND Distributor_ID = '2';`

--3.Find the average cost price of drugs sold by each manufacturer

- `SELECT DRUG.Company_ID, DRUG_MANUFACTURER.Dname, AVG(DRUG.Cost_Price) AS AvgCostPrice`
- `FROM DRUG`
- `JOIN DRUG_MANUFACTURER ON DRUG.Company_ID = DRUG_MANUFACTURER.Company_ID`
- `GROUP BY DRUG.Company_ID,DRUG_MANUFACTURER.Dname;`

--4.Find the minimum and maximum expiry dates of drugs sold by the pharmacy

- `select min(expiry) as earliestexpiry,max(expiry) as latestexpiry`
- `from drug;`

--5.To count the number of patients who purchased drugs on a particular date

- `select count (distinct sells.patient_id) as total_patients`
- `from sells`
- `join sale_transaction on sells.sale_id=sale_transaction.sale_id`
- `where sale_transaction.dated='01-05-23';`

Nested and Correlated Queries:

--1.Display the names of customers who have bought drugs from a distributor with a specific ID

- SELECT C.Fname, C.Address
- FROM CUSTOMER C
- WHERE EXISTS (
 - SELECT 1
 - FROM SELLS S JOIN DRUG D ON S.Drug_ID = D.Drug_ID
 - JOIN SUPPLIES SP ON D.Drug_ID = SP.Drug_ID
 - WHERE C.Patient_ID = S.Patient_ID
 - AND SP.Distributor_ID = '1'
-);

--2.Display the names of drugs and their corresponding companies that have a stock less than 50

- SELECT D.Drugname, DM.Dname
- FROM DRUG D JOIN DRUG_MANUFACTURER DM ON D.Company_ID = DM.Company_ID
- WHERE D.Stock < 50 AND EXISTS (
 - SELECT 1
 - FROM SELLS S
 - WHERE S.Drug_ID = D.Drug_ID
-);

--3.Display the names of doctors and the corresponding drugs they have prescribed to patients living in a specific city

- SELECT D.Docname, D.Specialization, DR.Drugname
- FROM DOCTOR D JOIN PRESCRIBES P ON D.Doctor_ID = P.Doctor_ID
- JOIN SELLS S ON P.Patient_ID = S.Patient_ID
- JOIN DRUG DR ON P.Drug_ID = DR.Drug_ID
- JOIN CUSTOMER C ON S.Patient_ID = C.Patient_ID
- WHERE C.Address LIKE '%Mumbai%'
- ORDER BY D.Docname;

--4.Display the total revenue generated by each drug in the database, along with its corresponding company name and the name of the distributor who supplied it

- SELECT DR.Drugname, DM.Dname, D.Distributor_ID,
- (SELECT SUM(Quantity*MRP)
- FROM SELLS S
- WHERE S.Drug_ID = DR.Drug_ID) AS "Total Revenue"
- FROM DRUG DR JOIN DRUG_MANUFACTURER DM ON DR.Company_ID = DM.Company_ID
- JOIN SUPPLIES D ON DR.Drug_ID = D.Drug_ID
- ORDER BY DR.Drugname;

--5.Display the names of patients who have purchased drugs from the same distributor as a specific patient

- SELECT DISTINCT C.Fname, C.Address
- FROM CUSTOMER C JOIN SELLS S1 ON C.Patient_ID = S1.Patient_ID
- JOIN SUPPLIES SP1 ON S1.Drug_ID = SP1.Drug_ID
- WHERE EXISTS (
- SELECT 1
- FROM SELLS S2 JOIN SUPPLIES SP2 ON S2.Drug_ID = SP2.Drug_ID
- WHERE S2.Patient_ID = '8' AND SP1.Distributor_ID = SP2.Distributor_ID
-);

--6.Display the names of doctors who have prescribed drugs to patients living in the same city as a specific patient

- SELECT DISTINCT D.Docname, D.Specialization
- FROM DOCTOR D JOIN PRESCRIBES P ON D.Doctor_ID = P.Doctor_ID
- JOIN SELLS S ON P.Patient_ID = S.Patient_ID
- JOIN CUSTOMER C ON S.Patient_ID = C.Patient_ID
- WHERE C.Address LIKE (
- SELECT Address
- FROM CUSTOMER
- WHERE Patient_ID = '2'
-);

--7.Find the second minimum cost price of drugs for a specific manufacturer

- SELECT MIN(D1.Cost_Price)
- FROM DRUG D1
- WHERE D1.Company_ID = '2'
- AND D1.Cost_Price > (
- SELECT MIN(D2.Cost_Price)
- FROM DRUG D2
- WHERE D2.Company_ID = '2'
-);

--8.Find the second maximum quantity of drugs sold to a specific patient

- `SELECT MAX(S1.Quantity)`
- `FROM SELLS S1`
- `WHERE S1.Patient_ID = '2'`
- `AND S1.Quantity < (`
- `SELECT MAX(S2.Quantity)`
- `FROM SELLS S2`
- `WHERE S2.Patient_ID = '1'`
- `);`

--9.Find the second minimum purchase ID for a specific distributor

- `select min(P1.purchase_ID)`
- `from supplies P1`
- `where P1.Distributor_id='12'`
- `and P1.purchase_id<(`
- `select min(P2.purchase_id)`
- `from supplies P2`
- `where P2.Distributor_id='12'`
- `);`

--10.Display the names of drugs that have been prescribed by a specific doctor

- **SELECT DR.Drugname**
- **FROM DRUG DR JOIN PRESCRIBES P ON DR.Drug_ID = P.Drug_ID**
- **WHERE EXISTS (**
- **SELECT 1**
- **FROM DOCTOR D**
- **WHERE D.Doctor_ID = P.Doctor_ID AND D.Docname = 'Dr.Ravi Kumar'**
- **);**

PLSQL

--1.Trigger to automatically update the stock of a drug after a purchase

- **CREATE OR REPLACE TRIGGER update_stock**
- **AFTER INSERT ON SELLS**
- **FOR EACH ROW**
- **BEGIN**
- **UPDATE DRUG**
- **SET Stock = Stock - :NEW.Quantity**
- **WHERE Drug_ID = :NEW.Drug_ID;**
- **END;**

--2.Function to calculate the total cost of a sale

- CREATE OR REPLACE FUNCTION get_sale_cost(p_sale_id IN SALE_TRANSACTION.Sale_ID%TYPE)
- RETURN NUMBER
- IS
- v_cost NUMBER := 0;
- BEGIN
- FOR sale_record IN (
- SELECT *
- FROM SELLS
- WHERE Sale_ID = p_sale_id
-) LOOP
- v_cost := v_cost + (sale_record.Quantity * (
- SELECT MRP
- FROM DRUG
- WHERE Drug_ID = sale_record.Drug_ID
-));
- END LOOP;
- RETURN v_cost;
- END;

--3.Procedure to insert a new customer into the database

- CREATE OR REPLACE PROCEDURE add_customer(
 - p_fname IN CUSTOMER.Fname%TYPE,
 - p_address IN CUSTOMER.Address%TYPE,
 - p_contact_no IN CUSTOMER.Contact_No%TYPE
-)
- IS
- v_patient_id CUSTOMER.Patient_ID%TYPE;
- BEGIN
- SELECT MAX(Patient_ID)+ 1
- INTO v_patient_id
- FROM CUSTOMER;
-
- INSERT INTO CUSTOMER(Patient_ID, Fname, Address, Contact_No)
- VALUES(v_patient_id, p_fname, p_address, p_contact_no);
-
- DBMS_OUTPUT.PUT_LINE('New customer added with ID ' || v_patient_id);
- END;

--4.Record to store the details of a drug

- DECLARE
- v_drug DRUG%ROWTYPE;
- BEGIN
- SELECT *
- INTO v_drug
- FROM DRUG
- WHERE Drug_ID = 'specific drug id';
- DBMS_OUTPUT.PUT_LINE(v_drug.Drugname || ' - ' || v_drug.Cost_Price || ' - ' || v_drug.MRP);
- END;

--5.Find the top 5 customers who made the highest number of purchases

- DECLARE
- CURSOR c_top_customers IS
- SELECT c.Patient_ID, c.Fname, COUNT(s.Sale_ID) AS num_purchases
- FROM CUSTOMER c
- JOIN SELLS s ON c.Patient_ID = s.Patient_ID
- GROUP BY c.Patient_ID, c.Fname
- ORDER BY num_purchases DESC
- FETCH FIRST 5 ROWS ONLY;

- `top_customer_rec c_top_customers%ROWTYPE;`
- `BEGIN`
- `OPEN c_top_customers;`
-
- `DBMS_OUTPUT.PUT_LINE('Top 5 customers:');`
- `DBMS_OUTPUT.PUT_LINE('-----');`
-
- `LOOP`
- `FETCH c_top_customers INTO top_customer_rec;`
- `EXIT WHEN c_top_customers%NOTFOUND;`
-
- `DBMS_OUTPUT.PUT_LINE(top_customer_rec.Patient_ID || ' ' || top_customer_rec.Fname || ': ' || top_customer_rec.num_purchases || ' purchases');`
- `END LOOP;`
-
- `CLOSE c_top_customers;`
- `END;`