--Lab 1:

-- Create Customers table

CREATE TABLE Customers (

customer\_id INT PRIMARY KEY,

customer\_name VARCHAR(50),

address VARCHAR(100),

email VARCHAR(100),

phone\_number VARCHAR(15)

);

-- Insert data into Customers table

INSERT INTO Customers (customer\_id, customer\_name, address, email, phone\_number) VALUES

(1, 'PharmaCo Inc.', '123 Pharma St., Pharma City', 'info@pharmaco.com', '123-456-7890'),

(2, 'MediCare Solutions', '456 Health Blvd., Medtown', 'contact@medicare.com', '234-567-8901'),

(3, 'PharmaPlus Ltd.', '789 Wellness Ave., Pharmaville', 'support@pharmaplus.com', '345-678-9012'),

(4, 'HealLife Pharmaceuticals', '987 Cure Road, Healville', 'info@heallife.com', '456-789-0123');

-- Create Products table

CREATE TABLE Products (

product\_id INT PRIMARY KEY,

product\_name VARCHAR(50),

product\_category VARCHAR(50)

);

-- Insert data into Products table

INSERT INTO Products (product\_id, product\_name, product\_category) VALUES

(101, 'Product A', 'Category 1'),

(102, 'Product B', 'Category 2'),

(103, 'Product C', 'Category 1'),

(104, 'Product D', 'Category 3'),

(105, 'Product E', 'Category 2'),

(106, 'Product F', 'Category 1'),

(107, 'Product G', 'Category 3'),

(108, 'Product H', 'Category 2');

-- Create Sales\_Records table

CREATE TABLE Sales\_Records (

record\_id INT PRIMARY KEY,

customer\_id INT,

product\_id INT,

sales\_amount DECIMAL(10, 2),

sales\_date DATE

);

-- Insert data into Sales\_Records table

INSERT INTO Sales\_Records (record\_id, customer\_id, product\_id, sales\_amount, sales\_date) VALUES

(1, 1, 101, 1000.50, '2024-03-01'),

(2, 2, 102, 2000.75, '2024-03-02'),

(3, 1, 103, 1500.25, '2024-03-03'),

(4, 3, 104, 3000.00, '2024-03-04'),

(5, 4, 105, 1200.90, '2024-03-05'),

(6, 2, 106, 1800.30, '2024-03-06'),

(7, 1, 107, 2500.60, '2024-03-07'),

(8, 3, 108, 4000.75, '2024-03-08');

--Lab 2:

CREATE TABLE Flights (

flight\_id INT PRIMARY KEY,

flight\_number VARCHAR(10),

departure\_airport VARCHAR(50),

arrival\_airport VARCHAR(50),

departure\_date DATE,

arrival\_date DATE,

base\_price DECIMAL(10, 2)

);

CREATE TABLE Passengers (

passenger\_id INT PRIMARY KEY,

passenger\_name VARCHAR(100),

age INT,

gender ENUM('Male', 'Female', 'Other'),

frequent\_flyer\_status BOOLEAN

);

CREATE TABLE Tickets (

ticket\_id INT PRIMARY KEY,

flight\_id INT,

passenger\_id INT,

ticket\_price DECIMAL(10, 2),

ticket\_date DATE,

FOREIGN KEY (flight\_id) REFERENCES Flights(flight\_id),

FOREIGN KEY (passenger\_id) REFERENCES Passengers(passenger\_id)

);

INSERT INTO Flights VALUES (1, 'FL123', 'JFK', 'LAX', '2024-04-01', '2024-04-01', 500.00);

INSERT INTO Flights VALUES (2, 'FL456', 'LAX', 'ORD', '2024-04-02', '2024-04-02', 400.00);

INSERT INTO Flights VALUES (3, 'FL789', 'ORD', 'DFW', '2024-04-03', '2024-04-03', 300.00);

INSERT INTO Passengers VALUES (1, 'John Doe', 35, 'Male', true);

INSERT INTO Passengers VALUES (2, 'Jane Smith', 28, 'Female', false);

INSERT INTO Passengers VALUES (3, 'Michael Johnson', 40, 'Male', true);

INSERT INTO Tickets VALUES (101, 1, 1, 500.00, '2024-03-30');

INSERT INTO Tickets VALUES (102, 2, 2, 400.00, '2024-03-31');

INSERT INTO Tickets VALUES (103, 3, 3, 300.00, '2024-04-01');

INSERT INTO Tickets VALUES (104, 1, 2, 500.00, '2024-03-30');

INSERT INTO Tickets VALUES (105, 2, 3, 400.00, '2024-03-31');

INSERT INTO Tickets VALUES (106, 3, 1, 300.00, '2024-04-01');

--Lab3:

-- Create Players table

CREATE TABLE Players (

player\_id INT PRIMARY KEY,

player\_name VARCHAR(255),

player\_email VARCHAR(255),

registration\_date DATE

);

-- Create Games table

CREATE TABLE Games (

game\_id INT PRIMARY KEY,

game\_name VARCHAR(255),

game\_genre VARCHAR(255),

release\_date DATE

);

-- Create PlayerScores table

CREATE TABLE PlayerScores (

score\_id INT PRIMARY KEY,

player\_id INT,

game\_id INT,

score INT,

play\_date DATE,

FOREIGN KEY (player\_id) REFERENCES Players(player\_id),

FOREIGN KEY (game\_id) REFERENCES Games(game\_id)

);

-- Insert statements for Players table

INSERT INTO Players (player\_id, player\_name, player\_email, registration\_date) VALUES

(1, 'John Doe', 'johndoe@example.com', '2023-01-15'),

(2, 'Jane Smith', 'janesmith@example.com', '2023-02-20'),

(3, 'Mark Johnson', 'markjohnson@example.com', '2023-03-10');

-- Insert statements for Games table

INSERT INTO Games (game\_id, game\_name, game\_genre, release\_date) VALUES

(1, 'Fortnite', 'Battle Royale', '2020-07-25'),

(2, 'Minecraft', 'Sandbox', '2011-11-18'),

(3, 'League of Legends', 'MOBA', '2009-10-27');

-- Insert statements for PlayerScores table

INSERT INTO PlayerScores (score\_id, player\_id, game\_id, score, play\_date) VALUES

(1, 1, 1, 250, '2023-01-20'),

(2, 1, 2, 500, '2023-02-01'),

(3, 2, 1, 300, '2023-02-15'),

(4, 2, 3, 700, '2023-03-05'),

(5, 3, 1, 400, '2023-03-20'),

(6, 3, 2, 600, '2023-03-25'),

(7, 3, 3, 800, '2023-04-01');

--Lab 4:

-- Create Patients table

CREATE TABLE Patients (

patient\_id INT PRIMARY KEY,

patient\_name VARCHAR(50),

age INT,

gender VARCHAR(10),

admission\_date DATE,

discharge\_date DATE,

diagnosis VARCHAR(100),

bill\_amount DECIMAL(10, 2)

);

-- Insert data into Patients table

INSERT INTO Patients (patient\_id, patient\_name, age, gender, admission\_date, discharge\_date, diagnosis, bill\_amount)

VALUES

(1, 'John Doe', 45, 'Male', '2023-01-15', '2023-01-30', 'Hypertension', 1500.00),

(2, 'Jane Smith', 30, 'Female', '2023-02-10', '2023-02-20', 'Diabetes', 2000.00),

(3, 'Michael Johnson', 65, 'Male', '2023-03-05', '2023-03-20', 'Stroke', 3500.00),

(4, 'Emily Wilson', 50, 'Female', '2023-04-12', '2023-04-25', 'Pneumonia', 2800.00),

(5, 'David Brown', 55, 'Male', '2023-05-20', '2023-06-05', 'Heart Attack', 5000.00);

-- Create Doctors table

CREATE TABLE Doctors (

doctor\_id INT PRIMARY KEY,

doctor\_name VARCHAR(50),

specialization VARCHAR(50),

years\_of\_experience INT

);

-- Insert data into Doctors table

INSERT INTO Doctors (doctor\_id, doctor\_name, specialization, years\_of\_experience)

VALUES

(101, 'Dr. Smith', 'Cardiology', 10),

(102, 'Dr. Johnson', 'Neurology', 15),

(103, 'Dr. Brown', 'Endocrinology', 8),

(104, 'Dr. Wilson', 'Pulmonology', 12),

(105, 'Dr. White', 'Internal Medicine', 5);

-- Create Treatments table

CREATE TABLE Treatments (

treatment\_id INT PRIMARY KEY,

patient\_id INT,

doctor\_id INT,

treatment\_name VARCHAR(100),

treatment\_date DATE,

cost DECIMAL(10, 2),

FOREIGN KEY (patient\_id) REFERENCES Patients(patient\_id),

FOREIGN KEY (doctor\_id) REFERENCES Doctors(doctor\_id)

);

-- Insert data into Treatments table

INSERT INTO Treatments (treatment\_id, patient\_id, doctor\_id, treatment\_name, treatment\_date, cost)

VALUES

(1, 1, 101, 'Angioplasty', '2023-01-20', 5000.00),

(2, 2, 103, 'Insulin Therapy', '2023-02-15', 1000.00),

(3, 3, 102, 'Physical Therapy', '2023-03-10', 2000.00),

(4, 4, 104, 'Oxygen Therapy', '2023-04-15', 1500.00),

(5, 5, 101, 'Heart Surgery', '2023-05-25', 10000.00);

-- Lab 5:

CREATE TABLE Students (

student\_id INT PRIMARY KEY,

student\_name VARCHAR(50),

major VARCHAR(50),

enrollment\_year INT

);

CREATE TABLE Courses (

course\_id INT PRIMARY KEY,

course\_name VARCHAR(50),

credits INT,

department VARCHAR(50)

);

CREATE TABLE Enrollments (

enrollment\_id INT PRIMARY KEY,

student\_id INT,

course\_id INT,

grade DECIMAL(4,2),

semester VARCHAR(10),

FOREIGN KEY (student\_id) REFERENCES Students(student\_id),

FOREIGN KEY (course\_id) REFERENCES Courses(course\_id)

);

-- Inserting data into the Students table

INSERT INTO Students (student\_id, student\_name, major, enrollment\_year) VALUES

(1, 'John Doe', 'Computer Science', 2020),

(2, 'Jane Smith', 'Biology', 2021),

(3, 'Alice Johnson', 'History', 2019),

(4, 'Michael Brown', 'Mathematics', 2020),

(5, 'Emily Wilson', 'Psychology', 2021),

(6, 'David Lee', 'Economics', 2019);

-- Inserting data into the Courses table

INSERT INTO Courses (course\_id, course\_name, credits, department) VALUES

(101, 'Introduction to Computer Science', 3, 'Computer Science'),

(102, 'Cell Biology', 4, 'Biology'),

(103, 'World History', 3, 'History'),

(104, 'Calculus I', 4, 'Mathematics'),

(105, 'Introduction to Psychology', 3, 'Psychology'),

(106, 'Microeconomics', 3, 'Economics');

-- Inserting data into the Enrollments table

INSERT INTO Enrollments (enrollment\_id, student\_id, course\_id, grade, semester) VALUES

(1, 1, 101, 85.0, 'Fall'),

(2, 1, 104, 78.5, 'Fall'),

(3, 2, 102, 92.0, 'Spring'),

(4, 3, 103, 88.5, 'Fall'),

(5, 3, 106, 95.0, 'Spring'),

(6, 4, 101, 90.0, 'Fall'),

(7, 4, 104, 85.5, 'Spring'),

(8, 5, 105, 87.5, 'Fall'),

(9, 5, 106, 91.0, 'Spring'),

(10, 6, 106, 94.0, 'Fall');