-- Publisher Table

CREATE TABLE Publisher (

Publisher\_Id INT PRIMARY KEY,

name VARCHAR(100),

yearOfPublication YEAR

);

-- Books Table

CREATE TABLE Books (

ISBN VARCHAR(20) PRIMARY KEY,

Title VARCHAR(255),

Price DECIMAL(10, 2),

Category VARCHAR(50),

Edition VARCHAR(50),

AuthNo INT,

Publisher\_Id INT,

FOREIGN KEY (Publisher\_Id) REFERENCES Publisher(Publisher\_Id)

);

-- Readers Table

CREATE TABLE Readers (

User\_ID INT PRIMARY KEY,

Firstname VARCHAR(50),

lastName VARCHAR(50),

Email VARCHAR(100),

Phone\_no VARCHAR(15),

Address VARCHAR(255)

);

-- Reserve/Return Date Table

CREATE TABLE ReserveDate (

Reserve\_ID INT AUTO\_INCREMENT PRIMARY KEY,

User\_ID INT,

ISBN VARCHAR(20),

reserve\_date DATE,

return\_date DATE,

due\_date DATE,

FOREIGN KEY (User\_ID) REFERENCES Readers(User\_ID),

FOREIGN KEY (ISBN) REFERENCES Books(ISBN)

);

-- Staff Table

CREATE TABLE Staff (

Staff\_id INT PRIMARY KEY,

name VARCHAR(100)

);

-- Login Table

CREATE TABLE Login (

LoginId INT PRIMARY KEY,

Password VARCHAR(255)

);

-- Authentication System Table (relationship between Staff and Login)

CREATE TABLE Authentication (

Staff\_id INT,

LoginId INT,

PRIMARY KEY (Staff\_id, LoginId),

FOREIGN KEY (Staff\_id) REFERENCES Staff(Staff\_id),

FOREIGN KEY (LoginId) REFERENCES Login(LoginId)

);

-- Reports Table

CREATE TABLE Reports (

Reg\_no INT AUTO\_INCREMENT PRIMARY KEY,

Book\_No VARCHAR(20),

User\_id INT,

Issue\_Return ENUM('Issue', 'Return'),

Staff\_id INT,

FOREIGN KEY (Book\_No) REFERENCES Books(ISBN),

FOREIGN KEY (User\_id) REFERENCES Readers(User\_ID),

FOREIGN KEY (Staff\_id) REFERENCES Staff(Staff\_id)

);

-- Publisher

INSERT INTO Publisher VALUES (1, 'Pearson', 2019), (2, 'O\'Reilly', 2021);

-- Books

INSERT INTO Books VALUES

('978-1-23-456789-0', 'Learning SQL', 39.99, 'Education', '1st', 101, 1),

('978-0-12-345678-9', 'Database Systems', 49.99, 'Education', '2nd', 102, 2);

-- Readers

INSERT INTO Readers VALUES

(1, 'Alice', 'Smith', 'alice@example.com', '1234567890', '123 Elm Street'),

(2, 'Bob', 'Johnson', 'bob@example.com', '0987654321', '456 Oak Avenue');

-- ReserveDate

INSERT INTO ReserveDate (User\_ID, ISBN, reserve\_date, return\_date, due\_date) VALUES

(1, '978-1-23-456789-0', '2025-04-01', '2025-04-15', '2025-04-20'),

(2, '978-0-12-345678-9', '2025-04-10', NULL, '2025-04-25');

-- Staff

INSERT INTO Staff VALUES (101, 'Mr. Wilson'), (102, 'Ms. Parker');

-- Login

INSERT INTO Login VALUES (1001, 'securePass1'), (1002, 'securePass2');

-- Authentication

INSERT INTO Authentication VALUES (101, 1001), (102, 1002);

-- Reports

INSERT INTO Reports (Book\_No, User\_id, Issue\_Return, Staff\_id) VALUES

('978-1-23-456789-0', 1, 'Issue', 101),

('978-0-12-345678-9', 2, 'Return', 102);

-- List All Tables

SHOW TABLES;

-- View Each Table's Data

SELECT \* FROM Publisher;

SELECT \* FROM Books;

SELECT \* FROM Readers;

SELECT \* FROM ReserveDate;

SELECT \* FROM Staff;

SELECT \* FROM Login;

SELECT \* FROM Authentication;

SELECT \* FROM Reports;