CREATE DATABASE library\_db;

USE library\_db;

CREATE TABLE Users (

user\_id INT AUTO\_INCREMENT PRIMARY KEY,

name VARCHAR(100) NOT NULL,

email VARCHAR(100) UNIQUE NOT NULL,

password VARCHAR(255) NOT NULL,

role ENUM('student', 'librarian', 'admin') DEFAULT 'student',

created\_at TIMESTAMP DEFAULT CURRENT\_TIMESTAMP

);

CREATE TABLE Books (

book\_id INT AUTO\_INCREMENT PRIMARY KEY,

title VARCHAR(200) NOT NULL,

author VARCHAR(100),

isbn VARCHAR(20) UNIQUE,

category VARCHAR(50),

available\_copies INT DEFAULT 0,

total\_copies INT DEFAULT 0

);

CREATE TABLE Book\_Loans (

loan\_id INT AUTO\_INCREMENT PRIMARY KEY,

user\_id INT,

book\_id INT,

loan\_date DATE,

due\_date DATE,

return\_date DATE,

FOREIGN KEY (user\_id) REFERENCES Users(user\_id),

FOREIGN KEY (book\_id) REFERENCES Books(book\_id)

);

CREATE TABLE Fines (

fine\_id INT AUTO\_INCREMENT PRIMARY KEY,

loan\_id INT,

amount DECIMAL(6,2),

paid BOOLEAN DEFAULT FALSE,

FOREIGN KEY (loan\_id) REFERENCES Book\_Loans(loan\_id)

);

INSERT INTO Users (name, email, password, role)

VALUES ('Aman Sharma', 'aman@example.com', 'hashed\_password\_here', 'student');

INSERT INTO Book\_Loans (user\_id, book\_id, loan\_date, due\_date)

VALUES (1, 1, CURDATE(), DATE\_ADD(CURDATE(), INTERVAL 15 DAY));

UPDATE Book\_Loans

SET return\_date = CURDATE()

WHERE loan\_id = 1;

INSERT INTO Fines (loan\_id, amount)

VALUES (1, 50.00);ss