```
-- Create database
CREATE DATABASE LibraryDB;
-- Use the database
USE LibraryDB;
-- Table to store book information
CREATE TABLE Books (
  BookID INT AUTO_INCREMENT PRIMARY KEY,
  Title VARCHAR(255) NOT NULL,
  Author VARCHAR(255) NOT NULL,
  ISBN VARCHAR(13) UNIQUE NOT NULL,
  PublishedYear INT,
  CopiesAvailable INT DEFAULT 0
);
-- Table to store member information
CREATE TABLE Members (
  MemberID INT AUTO_INCREMENT PRIMARY KEY,
  Name VARCHAR(255) NOT NULL,
  Email VARCHAR(255) UNIQUE NOT NULL,
  PhoneNumber VARCHAR(20),
  MembershipDate DATE NOT NULL
);
-- Table to store transaction records (book borrowing and returning)
CREATE TABLE Transactions (
  TransactionID INT AUTO_INCREMENT PRIMARY KEY,
  MemberID INT,
  BookID INT,
```

```
IssueDate DATE,
  ReturnDate DATE,
  FOREIGN KEY (MemberID) REFERENCES Members(MemberID),
  FOREIGN KEY (BookID) REFERENCES Books(BookID)
);
-- Example Inserts into Books table
INSERT INTO Books (Title, Author, ISBN, PublishedYear, CopiesAvailable) VALUES
('The Great Gatsby', 'F. Scott Fitzgerald', '9780743273565', 1925, 3),
('1984', 'George Orwell', '9780451524935', 1949, 5),
('To Kill a Mockingbird', 'Harper Lee', '9780061120084', 1960, 2);
-- Example Inserts into Members table
INSERT INTO Members (Name, Email, PhoneNumber, MembershipDate) VALUES
('Alice Smith', 'alice.smith@example.com', '555-1234', '2023-01-15'),
('Bob Johnson', 'bob.johnson@example.com', '555-5678', '2023-02-20'),
('Charlie Brown', 'charlie.brown@example.com', '555-8765', '2023-03-10');
INSERT INTO Books (Title, Author, ISBN, PublishedYear, CopiesAvailable)
VALUES ('Brave New World', 'Aldous Huxley', '9780060850524', 1932, 4);
INSERT INTO Members (Name, Email, PhoneNumber, MembershipDate)
VALUES ('Diana Prince', 'diana.prince@example.com', '555-4321', '2023-04-01');
INSERT INTO Transactions (MemberID, BookID, IssueDate)
VALUES (1, 2, '2024-08-10'); -- Issuing book with ID 2 to member with ID 1
UPDATE Books
SET CopiesAvailable = CopiesAvailable - 1
WHERE BookID = 2; -- Book ID for the issued book
SELECT * FROM Books
WHERE CopiesAvailable > 0;
SELECT b.Title, t.IssueDate, t.ReturnDate
FROM Transactions t
```

JOIN Books b ON t.BookID = b.BookID

WHERE t.MemberID = 1 AND t.ReturnDate IS NULL; -- Member with ID 1