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-- Books Table
CREATE TABLE Books (
    BookID INT PRIMARY KEY AUTO_INCREMENT,
    ISBN VARCHAR(20) UNIQUE NOT NULL,
    Title VARCHAR(100) NOT NULL,
    Author VARCHAR(100) NOT NULL,
    Genre VARCHAR(50),
    Availability BOOLEAN DEFAULT TRUE
);

-- Users Table
CREATE TABLE Users (
    UserID INT PRIMARY KEY AUTO_INCREMENT,
    Name VARCHAR(100) NOT NULL,
    Email VARCHAR(100) UNIQUE NOT NULL
);

-- Transactions Table
CREATE TABLE Transactions (
    TransactionID INT PRIMARY KEY AUTO_INCREMENT,
    UserID INT,
    BookID INT,
    IssueDate DATE,
    ReturnDate DATE,
    FOREIGN KEY (UserID) REFERENCES Users(UserID),
    FOREIGN KEY (BookID) REFERENCES Books(BookID)
);

-- Sample data
INSERT INTO Books (ISBN, Title, Author, Genre, Availability)
VALUES
('978-0-399-59377-5', 'Atomic Habits', 'James Clear', 'Self-Help', TRUE),
('978-1-250-30433-8', 'The Midnight Library', 'Matt Haig', 'Fiction', TRUE);

INSERT INTO Users (Name, Email)
VALUES
('John Doe', 'john.doe@example.com'),
('Jane Smith', 'jane.smith@example.com'),
('Robert Brown', 'robert.brown@example.com'),
('Emily Johnson', 'emily.johnson@example.com'),
('Michael Williams', 'michael.williams@example.com');

INSERT INTO Transactions (UserID, BookID, IssueDate, ReturnDate)
VALUES
(1, 1, '2025-03-10', '2025-03-20'),
(2, 2, '2025-03-15', NULL);

-- Fetch Books by Genre
SELECT * FROM Books WHERE Genre = 'Fiction';

-- Fetch Available Books
SELECT * FROM Books WHERE Availability = TRUE;

-- Track Overdue Books

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```
SELECT t.TransactionID, u.Name, b.Title, t.IssueDate, t.ReturnDate
FROM Transactions t
JOIN Users u ON t.UserID = u.UserID
JOIN Books b ON t.BookID = b.BookID
WHERE t.ReturnDate IS NULL AND t.IssueDate < CURDATE() - INTERVAL 14 DAY;
```

```
-- User Borrowing History
SELECT u.Name, b.Title, t.IssueDate, t.ReturnDate
FROM Transactions t
JOIN Users u ON t.UserID = u.UserID
JOIN Books b ON t.BookID = b.BookID
WHERE u.UserID = 1;
```

```
-- Generate Report on Late Returns
SELECT u.Name, b.Title, DATEDIFF(CURDATE(), t.IssueDate) AS DaysLate
FROM Transactions t
JOIN Users u ON t.UserID = u.UserID
JOIN Books b ON t.BookID = b.BookID
WHERE t.ReturnDate IS NULL AND DATEDIFF(CURDATE(), t.IssueDate) > 14;
```