

Assignment 3:: Design a database schema for a library system, including tables, fields, and constraints like NOT NULL, UNIQUE, and CHECK. Include primary and foreign keys to establish relationships between tables.

-- Create the new database

```
CREATE DATABASE LibraryDatabase;
```

-- Use the newly created database

```
USE LibraryDatabase;
```

-- Create the tables

```
CREATE TABLE Authors (  
    AuthorID INT PRIMARY KEY AUTO_INCREMENT,  
    AuthorName VARCHAR(100)  
);
```

```
CREATE TABLE Genres (  
    GenreID INT PRIMARY KEY AUTO_INCREMENT,  
    GenreName VARCHAR(100)  
);
```

```
CREATE TABLE Books (  
    BookID INT PRIMARY KEY AUTO_INCREMENT,  
    Title VARCHAR(255),  
    ISBN VARCHAR(20),  
    PublishDate DATE,  
    GenreID INT,  
    FOREIGN KEY (GenreID) REFERENCES Genres(GenreID)  
);
```

```
CREATE TABLE BookAuthors (  
    BookID INT,  
    AuthorID INT,  
    PRIMARY KEY (BookID, AuthorID),  
    FOREIGN KEY (BookID) REFERENCES Books(BookID),  
    FOREIGN KEY (AuthorID) REFERENCES Authors(AuthorID)  
);
```