**Assignment 4: Write SQL statements to CREATE a new database and tables that reflect the library schema you designed earlier. Use ALTER statements to modify the table structures and DROP statements to remove a redundant table.**

CREATE DATABASE LibraryDB;

USE LibraryDB;

CREATE TABLE Authors (

AuthorID INT PRIMARY KEY,

AuthorName VARCHAR(100) NOT NULL

);

CREATE TABLE Books (

BookID INT PRIMARY KEY,

Title VARCHAR(255) NOT NULL,

ISBN VARCHAR(20) UNIQUE,

AuthorID INT,

CONSTRAINT fk\_author FOREIGN KEY (AuthorID) REFERENCES Authors(AuthorID)

);

CREATE TABLE Users (

UserID INT PRIMARY KEY,

UserName VARCHAR(100) NOT NULL,

Email VARCHAR(100) UNIQUE,

PhoneNumber VARCHAR(15)

);

CREATE TABLE Loans (

LoanID INT PRIMARY KEY,

UserID INT,

BookID INT,

LoanDate DATE,

ReturnDate DATE,

CONSTRAINT fk\_user FOREIGN KEY (UserID) REFERENCES Users(UserID),

CONSTRAINT fk\_book FOREIGN KEY (BookID) REFERENCES Books(BookID)

);