Task 1: Database Schema Design

1. Books Table

- **Columns**:
    - `BookID` (Primary Key, INT, NOT NULL, Auto Increment)
    - `Title` (VARCHAR(255), NOT NULL)
    - `Genre` (VARCHAR(100), NOT NULL)
    - `ISBN` (VARCHAR(13), UNIQUE, NOT NULL)
    - `Price` (DECIMAL(10,2), NOT NULL)
    - `Stock` (INT, NOT NULL)
    - `AuthorID` (Foreign Key, INT, NOT NULL)

2. Authors Table

- **Columns**:
    - `AuthorID` (Primary Key, INT, NOT NULL, Auto Increment)
    - `FirstName` (VARCHAR(100), NOT NULL)
    - `LastName` (VARCHAR(100), NOT NULL)
    - `DateOfBirth` (DATE, NULL)

3. Customers Table

- **Columns**:
    - `CustomerID` (Primary Key, INT, NOT NULL, Auto Increment)
    - `FirstName` (VARCHAR(100), NOT NULL)
    - `LastName` (VARCHAR(100), NOT NULL)
    - `Email` (VARCHAR(255), UNIQUE, NOT NULL)
    - `Phone` (VARCHAR(15), UNIQUE, NOT NULL)
    - `Address` (VARCHAR(255), NULL)

4. Transactions Table

- **Columns**:
    - `TransactionID` (Primary Key, INT, NOT NULL, Auto Increment)
    - `CustomerID` (Foreign Key, INT, NOT NULL)
    - `TransactionDate` (DATETIME, NOT NULL)
    - `TotalAmount` (DECIMAL(10,2), NOT NULL)

5. TransactionDetails Table (To handle many-to-many relationships between Transactions and Books)

- **Columns**:
    - `TransactionDetailID` (Primary Key, INT, NOT NULL, Auto Increment)
    - `TransactionID` (Foreign Key, INT, NOT NULL)

- `BookID` (Foreign Key, INT, NOT NULL)
- `Quantity` (INT, NOT NULL)
- `Price` (DECIMAL(10,2), NOT NULL)