**LIBRARY MANAGEMENT SYSTEM**

Query for Databases and tables  
  
Create Database libraryManagementSystem

-- Creating the "members" table

CREATE TABLE members (

id INT PRIMARY KEY,

first\_name VARCHAR(25) NOT NULL,

last\_name VARCHAR(25) NOT NULL,

email VARCHAR(50) NOT NULL,

date\_of\_birth DATE

);

-- Creating the "books" table

CREATE TABLE books (

id INT PRIMARY KEY,

title VARCHAR(150) NOT NULL,

author VARCHAR(50),

publisher VARCHAR(50),

publication\_date DATE,

genre VARCHAR(30),

price NUMERIC(5,2) NOT NULL,

barcode CHAR(10) NOT NULL,

rating SMALLINT,

review\_count INT,

total\_copies INT NOT NULL,

available\_copies INT NOT NULL

);

-- Creating the "waitlists" table

CREATE TABLE borrowed\_books (

id INT PRIMARY KEY,

member\_id INT NOT NULL,

book\_id INT NOT NULL,

borrow\_date DATE NOT NULL,

due\_date DATE NOT NULL,

return\_date DATE,

FOREIGN KEY (member\_id) REFERENCES members(id),

FOREIGN KEY (book\_id) REFERENCES books(id)

);

-- Creating the "waitlists" table

CREATE TABLE waitlists (

id INT PRIMARY KEY,

member\_id INT NOT NULL,

book\_id INT NOT NULL,

requested\_time TIMESTAMP NOT NULL,

FOREIGN KEY (member\_id) REFERENCES members(id),

FOREIGN KEY (book\_id) REFERENCES books(id)

);

Used Entity Framework Code first approach .

JSON Input for Books: create and update  
{

    "title": "Historical Journeys",

    "author": "Samuel Turner",

    "publisher": "History Books Co.",

    "publication\_date": "2023-07-08T08:00:00Z",

    "genre": "History",

    "price": 18.99,

    "barcode": "HISTORY456",

    "rating": 8,

    "review\_count": 90,

    "total\_copies": 6,

    "available\_copies": 4

}

JSON Input for Members: create and update  
{

    "FirstName": "Daniel",

    "LastName": "Brown",

    "Email": "daniel.brown@example.com",

    "DateOfBirth": "1995-07-25T18:00:00Z"

}

JSON Input for BorrowedBooks :Lend & Adding to Waitlists  
{

     "MemberId":8,

     "Barcode":"HISTORY785"

}

JSON Input for BorrowedBooks: Return of books

{

     "Barcode":"HISTORY785"

}