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Topic – SQL Assignment : 02

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Assignment 2: 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.

Solution :

1. Create a Database :

```
mysql> create database library_system;
Query OK, 1 row affected (0.00 sec)
```

2. Use that database :

```
mysql> USE library_system;
Database changed
```

3. Create table : Including tables, fields, and constraints like NOT NULL, UNIQUE, and CHECK.

```
mysql> CREATE TABLE authors(
    -> author_id INT PRIMARY KEY AUTO_INCREMENT,
    -> first_name VARCHAR(20) NOT NULL,
    -> last_name VARCHAR(20) NOT NULL,
    -> birth_date DATE,
    -> death_date DATE,
    -> UNIQUE (first_name, last_name)
    -> );
Query OK, 0 rows affected (0.03 sec)
```

1.

```
mysql> CREATE TABLE books(
    -> book_id INT PRIMARY KEY AUTO_INCREMENT,
    -> title VARCHAR(50),
    -> publish_date DATE,
    -> author_id INT,
    -> FOREIGN KEY (author_id) REFERENCES authors(author_id)
    -> );
Query OK, 0 rows affected (0.02 sec)
```

2.

```
mysql> CREATE TABLE member(
    -> member_id INT PRIMARY KEY AUTO_INCREMENT,
    -> first_name VARCHAR(20) NOT NULL,
    -> last_name VARCHAR(30) NOT NULL,
    -> membership_status VARCHAR(30) CHECK (membership_status IN ('Active','Inactive')) NOT NULL
    -> );
Query OK, 0 rows affected (0.16 sec)
```

3.