

**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 a new database

```
CREATE DATABASE library_management_system;
```

```
USE library_management_system;
```

-- Create tables

```
CREATE TABLE members (  
    member_id INT AUTO_INCREMENT PRIMARY KEY,  
    first_name VARCHAR(50) NOT NULL,  
    last_name VARCHAR(50) NOT NULL,  
    email VARCHAR(100) UNIQUE NOT NULL,  
    phone_number VARCHAR(20),  
    join_date DATE NOT NULL  
);
```

```
CREATE TABLE books (  
    book_id INT AUTO_INCREMENT PRIMARY KEY,  
    title VARCHAR(200) NOT NULL,  
    author VARCHAR(100) NOT NULL,  
    publication_year YEAR,  
    isbn VARCHAR(20) UNIQUE,  
    genre VARCHAR(50)  
);
```

```
CREATE TABLE publishers (  
    publisher_id INT AUTO_INCREMENT PRIMARY KEY,  
    name VARCHAR(100) NOT NULL,
```

```
    address VARCHAR(200),  
    contact_email VARCHAR(100)  
);
```

```
CREATE TABLE book_copies (  
    copy_id INT AUTO_INCREMENT PRIMARY KEY,  
    book_id INT NOT NULL,  
    status VARCHAR(20) NOT NULL DEFAULT 'available',  
    FOREIGN KEY (book_id) REFERENCES books(book_id)  
);
```

```
CREATE TABLE issues (  
    issue_id INT AUTO_INCREMENT PRIMARY KEY,  
    member_id INT NOT NULL,  
    copy_id INT NOT NULL,  
    issue_date DATE NOT NULL,  
    due_date DATE NOT NULL,  
    return_date DATE,  
    FOREIGN KEY (member_id) REFERENCES members(member_id),  
    FOREIGN KEY (copy_id) REFERENCES book_copies(copy_id)  
);
```

-- Modify table structures using ALTER statements

```
ALTER TABLE books  
ADD COLUMN publisher_id INT,  
ADD FOREIGN KEY (publisher_id) REFERENCES publishers(publisher_id);
```

```
ALTER TABLE members
```

```
ADD COLUMN membership_type VARCHAR(20) NOT NULL DEFAULT 'regular';
```

```
-- Drop a redundant table (e.g., author_details)
```

```
DROP TABLE IF EXISTS author_details;
```