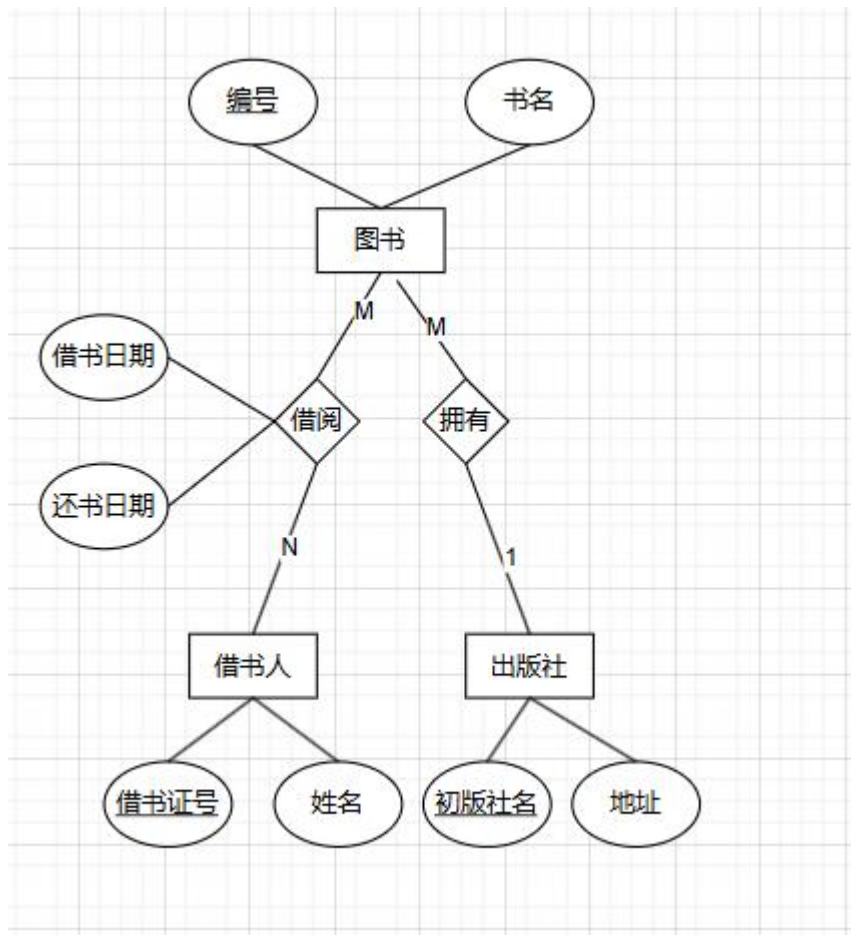


(1) (30 分) 根据需求画出概念模型 (E-R 图), 并在图中注明实体的属性、关系类型以及约束。



(2) (20 分) 将概念模型转换为逻辑模型和物理模型

借书人表 (Borrowers)

BorrowerID INT PRIMARY KEY

Name VARCHAR(100)

## 图书表 (Books)

BookID INT PRIMARY KEY

Title VARCHAR(255)

PublisherName VARCHAR(255) FOREIGN KEY REFERENCES

Publishers(PublisherName)

## 出版社表 (Publishers)

PublisherName VARCHAR(255) PRIMARY KEY

Address VARCHAR(255)

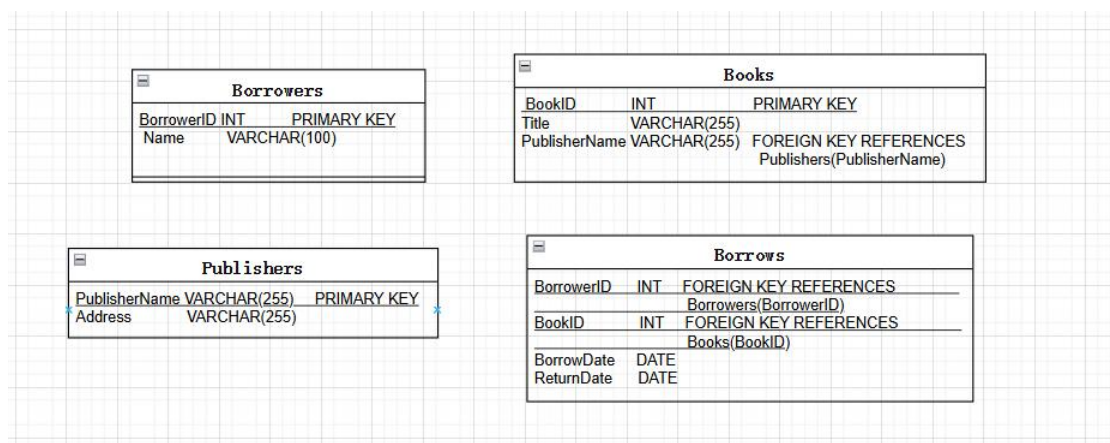
## 借阅表 (Borrows)

BorrowerID INT FOREIGN KEY REFERENCES Borrowers(BorrowerID)

BookID INT FOREIGN KEY REFERENCES Books(BookID)

BorrowDate DATE

ReturnDate DATE



**(3) (30 分) 生成 DDL 的 SQL 脚本，并在数据库中创建数据库表。**

**展示 SQL 脚本并截图展示创建成功的表结构。**

```
CREATE TABLE Publishers (
```

```
    PublisherName VARCHAR(255) PRIMARY KEY,
```

```
    Address VARCHAR(255)
```

```
);
```

```
CREATE TABLE Books (
```

```
    BookID INT PRIMARY KEY,
```

```
    Title VARCHAR(255),
```

```
    PublisherName VARCHAR(255),
```

```
    FOREIGN KEY (PublisherName) REFERENCES Publishers(PublisherName)
```

```
);
```

```
CREATE TABLE Borrowers (
```

```
    BorrowerID INT PRIMARY KEY,
```

```
    Name VARCHAR(100)
```

```
);
```

```
CREATE TABLE Borrows (
```

```
    BorrowerID INT,
```

```
    BookID INT,
```

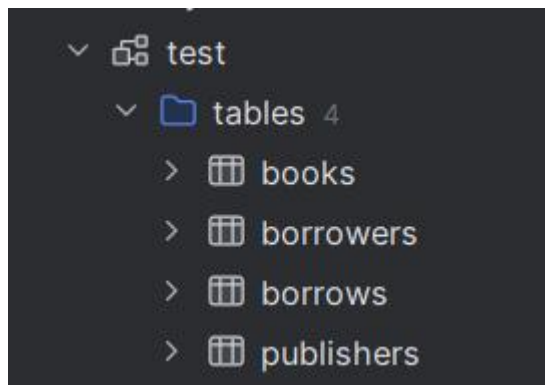
```
    BorrowDate DATE,
```

```
    ReturnDate DATE,
```

```
    FOREIGN KEY (BorrowerID) REFERENCES Borrowers(BorrowerID),
```

```
    FOREIGN KEY (BookID) REFERENCES Books(BookID)
```

```
);
```



```
test-xdchen [localhost] console_4 [localhost] console_5 [localhost] x console [localhost]
Tx: Auto Playground
1 ✓ CREATE TABLE Publishers (
2     PublisherName VARCHAR(255) PRIMARY KEY,
3     Address VARCHAR(255)
4 );
5
6 ✓ CREATE TABLE Books (
7     BookID INT PRIMARY KEY,
8     Title VARCHAR(255),
9     PublisherName VARCHAR(255),
10    FOREIGN KEY (PublisherName) REFERENCES Publishers(PublisherName)
11 );
12
13 ✓ CREATE TABLE Borrowers (
14     BorrowerID INT PRIMARY KEY,
15     Name VARCHAR(100)
16 );
17
18 ✓ CREATE TABLE Borrows (
19     BorrowerID INT,
20     BookID INT,
21     BorrowDate DATE,
22     ReturnDate DATE,
23     FOREIGN KEY (BorrowerID) REFERENCES Borrowers(BorrowerID),
24     FOREIGN KEY (BookID) REFERENCES Books(BookID)
25 );
26
```