中国矿业大学《数据库原理》作业

作业名称	单元作业 3	姓名	胡钧耀	任课教师	闫秋艳	时间	2021.4.5
学　　院	计算机学院	班级	计科 19-4 班	学　　号	06192081	成绩	
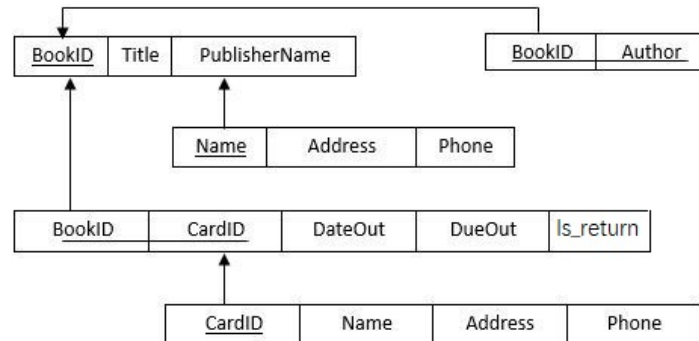

```
/*建立图中的关系模式*/
CREATE TABLE 书 (
    BookId CHAR(10) PRIMARY KEY,
    Title CHAR(20),
    PublisherName CHAR(20));

CREATE TABLE 出版社 (
    Name CHAR(20) REFERENCES 出版社(Name),
    Address CHAR(20),
    Phone CHAR(12)
    PRIMARY KEY(Name));

CREATE TABLE 作者 (
    BookId CHAR(10) REFERENCES 书(BookId),
    Author CHAR(8),
    PRIMARY KEY(BookId,Author));

CREATE TABLE 借阅信息 (
    BookId CHAR(10) REFERENCES 书(BookId),
    CardId CHAR(8),
    DateOut DATE,
    DueOut DATE,
    Is_return BOOLEAN,
    PRIMARY KEY (BookId,CardId));

CREATE TABLE 借阅人 (
    CardId CHAR(8) REFERENCES 借阅人(CardId),
    Name CHAR(20),
    Address CHAR(20),
    Phone CHAR(12),
    PRIMARY KEY(CardId));
```
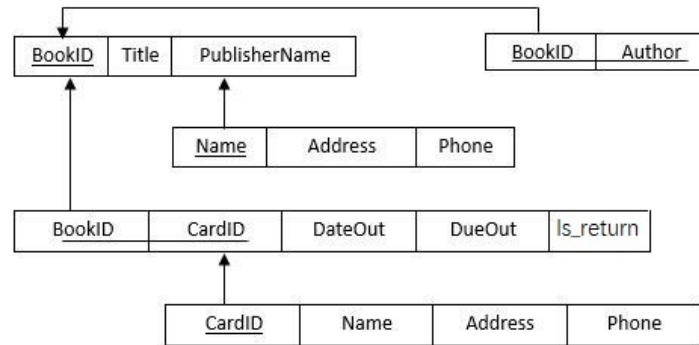
BookID	Title	PublisherName		BookID	Author

Name	Address	Phone

BookID	CardID	DateOut	DueOut	Is_return

CardID	Name	Address	Phone

```
/*1 查询"高等教育出版社"出版的所有图书名称和编号*/
SELECT Title, BookId
FROM 书
WHERE PublisherName = "高等教育出版社";


/*2 查询所有作者是"郭雨辰"的图书的编号和名称*/
SELECT BookId, Title
FROM 书
WHERE BookId in
    (SELECT BookId
    FROM 作者
    WHERE Author = "郭雨辰");


/*3 查询"王丽"借过的所有图书的名称*/
SELECT Title
FROM 书
WHERE BookId in
    (SELECT BookId
    FROM 借阅信息
    WHERE CardId in
        (SELECT CardId
        FROM 借阅人
        WHERE Name = "王丽"));


/*4 查询"李明"在 2018 年上半年期间借过的图书名称*/
SELECT Title
FROM 书
WHERE BookId IN
    (SELECT BookId
    FROM 借阅信息
    WHERE DateOut BETWEEN 01-01-2018 AND 06-30-2018 AND CardId IN
        (SELECT CardId
        FROM 借阅人
        WHERE Name = "李明");
```

/*5 建立视图，显示 2017 年期间没有被人借过的图书编号和名称*/

```
CREATE VIEW 2017 无人借过
AS
    SELECT BookId, Title
    FROM 书
    WHERE BookId NOT IN
        (SELECT BookId
        FROM 借阅信息
        WHERE DateOut BETWEEN 01-01-2017 AND 12-31-2017);
```

/*6 建立超期未归还书籍的视图，显示图书编号和名称，以及借书人姓名和电话*/

```
CREATE VIEW 超期未归
AS
    SELECT BookId, Title, Name, Phone
    FROM 书，借阅信息，借阅人
    WHERE 书.BookId = 借阅信息.BookId
        AND 借阅信息.CardId = 借阅人.CardId
        AND Is_return = false;
```

/*7 建立热门书籍的视图，显示 2017 年期间借出次数最多的 10 本图书名称*/

```
CREATE VIEW 2017 热门前十
AS
    SELECT TOP 10 Title
    FROM 书，借阅信息
    WHERE 书.BookId = 借阅信息.BookId
        AND DateOut BETWEEN 01-01-2017 AND 12-31-2017
        GROUP BY Title
        ORDER BY COUNT(Title) DESC;
```

/*8 增加新书《大数据》，书号"TP319-201"，"广西师范大学出版社"出版，作者"涂子沛"*/

```
INSERT INTO 书
    VALUES("TP319-201","大数据" ,"广西师范大学出版社");
INSERT INTO 作者
    VALUES("TP319-201", "涂子沛");
```

/*9 将"高等教育出版社"的电话改为"010－64054588"*/

```
UPDATE 出版社
    SET Phone = "010-64054588"
    WHERE Name = "高等教育出版社";
```

/*10 删除书号为"D001701"的书籍信息*/

```
DELETE
    FROM 书
    WHERE BookId = "D001701";
```