

### 3.For the given Library database

**BOOK** (Book\_ISBN [PK], Title[Not Null], Publisher\_ Name, price[Check Price>0], Date\_Of\_Publication,Book\_Copy ),

**BOOK\_AUTHORS** (Book\_ISBN [PK,FK]Author\_Name [PK], Author\_City)

-- Create the Library Database

CREATE DATABASE Library;

-- Use the Library Database

USE Library;

```
CREATE TABLE BOOK (  
    Book_ISBN VARCHAR(50) PRIMARY KEY,  
    Title VARCHAR(255) NOT NULL,  
    Publisher_Name VARCHAR(255),  
    Price DECIMAL(10, 2) CHECK (Price > 0),  
    Date_Of_Publication DATE,  
    Book_Copy INT  
);
```

```
CREATE TABLE BOOK_AUTHORS (  
    Book_ISBN VARCHAR(50),  
    Author_Name VARCHAR(255),  
    Author_City VARCHAR(255),  
    PRIMARY KEY (Book_ISBN, Author_Name),  
    FOREIGN KEY (Book_ISBN) REFERENCES BOOK(Book_ISBN)  
);
```

-- Insert record 1

INSERT INTO BOOK VALUES ('ISBN001', 'Book1', 'Publisher1', 15.99, '2022-01-15', 20);

INSERT INTO BOOK\_AUTHORS VALUES ('ISBN001', 'Author1', 'City1');

### Solve the following

- i) **Display name of publishers as per no of books published by them in ascending order.**

```
SELECT Publisher_Name, COUNT(*) AS No_of_Books  
FROM BOOK  
GROUP BY Publisher_Name  
ORDER BY No_of_Books ASC;
```

- ii) Get publisher names who published at least one book written by author name like 'K%'.**

```
SELECT DISTINCT b.Publisher_Name  
FROM BOOK b  
INNER JOIN BOOK_AUTHORS ba ON b.Book_ISBN = ba.Book_ISBN  
WHERE ba.Author_Name LIKE 'K%';
```

- iii) Get book name and Authors names where book written by maximum authors.**

```
SELECT b.Title, GROUP_CONCAT(ba.Author_Name) AS Authors  
FROM BOOK b  
INNER JOIN BOOK_AUTHORS ba ON b.Book_ISBN = ba.Book_ISBN  
GROUP BY b.Book_ISBN, b.Title  
ORDER BY COUNT(ba.Author_Name) DESC  
LIMIT 1;
```

- iv) Get publisher names accordingly books published alphabetically**

```
SELECT Publisher_Name  
FROM BOOK  
GROUP BY Publisher_Name  
ORDER BY Publisher_Name ASC;
```

- v) Find the no of books published in 01 Jan 2014 to till date.**

```
SELECT COUNT(*) AS No_of_Books  
  
FROM BOOK  
  
WHERE Date_Of_Publication >= '2014-01-01';
```