1.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)
Solve the following

CREATE DATABASE Library;
USE Library;

-- Create BOOK Table

```
CREATE TABLE BOOK (
  Book_ISBN VARCHAR(255) 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 BOOK_AUTHORS Table

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


-- Insert records into BOOK Table

```
INSERT INTO BOOK VALUES
('ISBN1', 'Book1', 'Publisher1', 15.99, '2022-01-01', 20),
('ISBN2', 'Book2', 'Publisher2', 12.50, '2021-05-15', 15),
('ISBN3', 'Book3', 'Publisher1', 25.00, '2020-08-20', 30),
('ISBN4', 'Book4', 'Publisher3', 18.75, '2019-03-10', 12),
('ISBN5', 'Book5', 'Publisher2', 10.50, '2018-12-05', 18);
```

-- Insert records into BOOK_AUTHORS Table

```
INSERT INTO BOOK_AUTHORS VALUES
('ISBN1', 'Author1', 'City1'),
('ISBN1', 'Author2', 'City2'),
('ISBN2', 'Author3', 'City3'),
('ISBN3', 'Author4', 'City4'),
('ISBN4', 'Author5', 'City5');
```

a) **Create view BOOK_AUTHOR_INFO consisting Book_ISBN, Title from BOOK Table and Author_Name from BOOK_AUTHORS Table in ascending order of ISBN no**.

```
CREATE VIEW BOOK_AUTHOR_INFO AS
SELECT b.Book_ISBN, b.Title, ba.Author_Name
FROM BOOK b
JOIN BOOK_AUTHORS ba ON b.Book_ISBN = ba.Book_ISBN
ORDER BY b.Book_ISBN ASC;
```

b) **Create an index on Book_Author on table on attribute "Author_Name".**

```
CREATE INDEX idx_Author_Name ON BOOK_AUTHORS (Author_Name);
```

c) **Create table Book_Auto_Increment (BookID int Auto_increament=100, Book Name) insert five records in table.**

```
CREATE TABLE Book_Auto_Increment (
  BookID INT AUTO_INCREMENT PRIMARY KEY,
  Book_Name VARCHAR(255)
);
```

-- Insert five records with automatic increment starting from 100

```
INSERT INTO Book_Auto_Increment (Book_Name) VALUES ('BookA'),
('BookB'), ('BookC'), ('BookD'), ('BookE');
```

d) **Delete the book from Book table written by Author 'Korth'.**

```
DELETE FROM BOOK
WHERE Book_ISBN IN (SELECT Book_ISBN FROM BOOK_AUTHORS
WHERE Author_Name = 'Korth');
```

e) **Select Book Names from table Book whose copies are in between 10 to 15.**

```
SELECT Title
FROM BOOK
WHERE Book_Copy BETWEEN 10 AND 15;
```