PROGRAM 7: BOOK DEALER DATABASE

The following tables are maintained by a book dealer:

AUTHOR(author-id: int, name: String, city: String, country: String)

PUBLISHER(publisher-id: int, name: String, city: String, country: String)

CATALOG (book-id: int, title: String, author-id: int, publisher-id: int, category-id: int, year: int, price: int) CATEGORY(category-id: int, description: String)

ORDER-DETAILS(order-no: int, book-id: int, quantity: int)

i. Create the above tables by properly specifying the primary keys and the foreign keys.

ii. Enter at least five tuples for each relation.

iii. Give the details of the authors who have 2 or more books in the catalog and the price of the books in the catalog and the year of publication is after 2000.

iv. Find the author of the book which has maximum sales.

v. Demonstrate how you increase the price of books published by a specific publisher by 10%.

```
create database book;
use book;
```

i. Create the above tables by properly specifying the primary keys and the foreign keys.

```
CREATE TABLE AUTHORS(AUTHOR_ID INT,A_NAME VARCHAR(10),CITY VARCHAR(10),COUNTRY VARCHAR(10),PRIMARY KEY(AUTHOR_ID));
CREATE TABLE PUBLISHERS(PUBLISHER_ID INT,P_NAME VARCHAR(10),CITY VARCHAR(20),COUNTRY VARCHAR(10),PRIMARY KEY(PUBLISHER_ID));
CREATE TABLE CATEGORY(CATEGORY_ID INT,DESCRIPTIONS VARCHAR(10),PRIMARY KEY(CATEGORY_ID));
CREATE TABLE CATALOG(BOOK_ID INT,TITLE VARCHAR(10),AUTHOR_ID INT,PUBLISHER_ID INT,CATEGORY_ID INT,P_YEAR INT,PRICE INT,PRIMARY KEY(BOOK_ID),FOREIGN KEY(AUTHOR_ID) REFERENCES AUTHORS(AUTHOR_ID),FOREIGN KEY(PUBLISHER_ID) REFERENCES PUBLISHERS(PUBLISHER_ID), FOREIGN KEY(CATEGORY_ID) REFERENCES CATEGORY(CATEGORY_ID));
CREATE TABLE ORDER_DETAILS(ORDER_NO INT,BOOK_ID INT,QTY INT,PRIMARY KEY(ORDER_NO),FOREIGN KEY (BOOK_ID) REFERENCES CATALOG(BOOK_ID));
```

ii. Enter at least five tuples for each relation.

```
INSERT INTO AUTHORS VALUES(10,'SAM','BLORE','INDIA');
INSERT INTO AUTHORS VALUES(20,'SHAAN','COORG','INDIA');
INSERT INTO AUTHORS VALUES(30,'SARA','CA','USA');
INSERT INTO AUTHORS VALUES(40,'AYMAN','SPAIN','BARCELONA');
INSERT INTO AUTHORS VALUES(50,'TANYA','DELHI','INDIA');
SELECT * FROM AUTHORS;

INSERT INTO PUBLISHERS VALUES(1,'PHI','NY','USA');
INSERT INTO PUBLISHERS VALUES(2,'EEE','LA','USA');
INSERT INTO PUBLISHERS VALUES(3,'SWAPNA','','INDIA');
INSERT INTO PUBLISHERS VALUES(4,'MGH','NY','USA');
INSERT INTO PUBLISHERS VALUES(5,'PEARSON','DELHI','INDIA');
SELECT * FROM PUBLISHERS;

INSERT INTO CATEGORY VALUES(11,'CS');
INSERT INTO CATEGORY VALUES(22,'EC');
INSERT INTO CATEGORY VALUES(33,'OS');
INSERT INTO CATEGORY VALUES(44,'C++');
INSERT INTO CATEGORY VALUES(55,'DBMS');
SELECT * FROM CATEGORY;

INSERT INTO CATALOG VALUES(111,'BASICS',50,2,11,2003,200);
INSERT INTO CATALOG VALUES(222,'PROG',40,5,44,1999,500);
INSERT INTO CATALOG VALUES(333,'MP',50,1,11,2009,900);
INSERT INTO CATALOG VALUES(444,'CIRCUITS',50,2,22,1997,300);
INSERT INTO CATALOG VALUES(555,'DATA',30,3,55,2005,600);
SELECT * FROM CATALOG;

INSERT INTO ORDER_DETAILS VALUES(123,222,100);
INSERT INTO ORDER_DETAILS VALUES(231,111,150);
INSERT INTO ORDER_DETAILS VALUES(143,333,90);
INSERT INTO ORDER_DETAILS VALUES(156,555,200);
```

```
INSERT INTO ORDER_DETAILS VALUES(218,444,70);
SELECT * FROM ORDER_DETAILS;
```

iii. Give the details of the authors who have 2 or more books in the catalog and the price of the books in the catalog and the year of publication is after 2000.

```
SELECT A.A_NAME,C.TITLE,C.PRICE FROM AUTHORS A,CATALOG  C WHERE
C.AUTHOR_ID=A.AUTHOR_ID AND C.P_YEAR>=2000 AND A.A_NAME=(SELECT
A.A_NAME FROM AUTHORS A,CATALOG C WHERE A.AUTHOR_ID=C.AUTHOR_ID
GROUP BY C.AUTHOR_ID HAVING COUNT(*)>=2);
```

iv. Find the author of the book which has maximum sales.

```
SELECT A.A_NAME FROM AUTHORS A,CATALOG C,ORDER_DETAILS  O WHERE
O.BOOK_ID=C.BOOK_ID AND A.AUTHOR_ID=C.AUTHOR_ID AND
O.BOOK_ID=(SELECT BOOK_ID FROM ORDER_DETAILS WHERE QTY=(SELECT
MAX(QTY) FROM ORDER_DETAILS));
```

v. Demonstrate how you increase the price of books published by a specific publisher by 10%.

```
UPDATE CATALOG SET PRICE=1.10*PRICE;
SELECT * FROM CATALOG;
```