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;

CREATE TABLE AUTHORS(

   AUTHOR_ID INT,

   A_NAME VARCHAR(10),

   CITY VARCHAR(10),

   COUNTRY VARCHAR(10),

   PRIMARY KEY(AUTHOR_ID)

   );

CREATE TABLE PUBLISHERS(

```sql
    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)

);

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');

	AUTHOR_ID	A_NAME	CITY	COUNTRY
Edit Copy Delete	10	SAM	BLORE	INDIA
Edit Copy Delete	20	SHAAN	COORG	INDIA
Edit Copy Delete	30	SARA	CA	USA
Edit Copy Delete	40	AYMAN	SPAIN	BARCELONA
Edit Copy Delete	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');

	PUBLISHER_ID	P_NAME	CITY	COUNTRY
Edit Copy Delete	1	PHI	NY	USA
Edit Copy Delete	2	EEE	LA	USA
Edit Copy Delete	3	SWAPNA		INDIA
Edit Copy Delete	4	MGH	NY	USA
Edit Copy Delete	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');

←T→	▼	CATEGORY_ID	DESCRIPTIONS
☐ 🖉 Edit ⌗ Copy ⊖ Delete		11	CS
☐ 🖉 Edit ⌗ Copy ⊖ Delete		22	EC
☐ 🖉 Edit ⌗ Copy ⊖ Delete		33	OS
☐ 🖉 Edit ⌗ Copy ⊖ Delete		44	C++
☐ 🖉 Edit ⌗ Copy ⊖ Delete		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);

←T→	▼	BOOK_ID	TITLE	AUTHOR_ID	PUBLISHER_ID	CATEGORY_ID	P_YEAR	PRICE
☐ 🖉 Edit ⌗ Copy ⊖ Delete		111	BASICS	50	2	11	2003	200
☐ 🖉 Edit ⌗ Copy ⊖ Delete		222	PROG	40	5	44	1999	500
☐ 🖉 Edit ⌗ Copy ⊖ Delete		333	MP	50	1	11	2009	900
☐ 🖉 Edit ⌗ Copy ⊖ Delete		444	CIRCUITS	50	2	22	1997	300
☐ 🖉 Edit ⌗ Copy ⊖ Delete		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);

←T→	▼	ORDER_NO	BOOK_ID	QTY
☐ ✏ Edit ⌗ Copy ⊖ Delete		123	222	100
☐ ✏ Edit ⌗ Copy ⊖ Delete		143	333	90
☐ ✏ Edit ⌗ Copy ⊖ Delete		156	555	200
☐ ✏ Edit ⌗ Copy ⊖ Delete		218	444	70
☐ ✏ Edit ⌗ Copy ⊖ Delete		231	111	150

SELECT * FROM ORDER_DETAILS;

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);   #1

✔ Showing rows 0 - 1 (2 total, Query took 0.0095 seconds.)

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)

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ∨   Filter rows: Search this table

+ Options

A_NAME	TITLE	PRICE
TANYA	BASICS	200
TANYA	MP	900

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));   #2

✔ Showing rows 0 - 0 (1 total, Query took 0.0147 seconds.)

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))

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ∨   Filter rows: Search this table

▸ Options

| ←T→	A_NAME
☐ ✏ Edit ⌗ Copy ⊖ Delete	SARA

UPDATE CATALOG SET PRICE=1.10*PRICE;

SELECT * FROM CATALOG;

		BOOK_ID	TITLE	AUTHOR_ID	PUBLISHER_ID	CATEGORY_ID	P_YEAR	PRICE
☐	🖉 Edit ⅀ Copy ⊖ Delete	111	BASICS	50	2	11	2003	220
☐	🖉 Edit ⅀ Copy ⊖ Delete	222	PROG	40	5	44	1999	550
☐	🖉 Edit ⅀ Copy ⊖ Delete	333	MP	50	1	11	2009	990
☐	🖉 Edit ⅀ Copy ⊖ Delete	444	CIRCUITS	50	2	22	1997	330
☐	🖉 Edit ⅀ Copy ⊖ Delete	555	DATA	30	3	55	2005	660