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.

CREATE DATABASE book_dealer;
CREATE TABLE AUTHOR (
AUTHORID INT,
NAME VARCHAR (15),
CITY VARCHAR (15),
COUNTRY VARCHAR (15),
PRIMARY KEY(AUTHORID));

CREATE TABLE PUBLISHER(
PUBLISHERID INT,
NAME VARCHAR(15),
CITY VARCHAR(15),
COUNTRY VARCHAR(15),
PRIMARY KEY(PUBLISHERID));

CREATE TABLE CATEGORY(
CATEGORYID INT,
DESCRIPTION VARCHAR(15),
PRIMARY KEY(CATEGORYID));

CREATE TABLE CATALOG(
BOOKID INT,
TITLE VARCHAR(15),
AUTHORID INT,
PUBLISHERID INT,
CATEGORYID INT,
YEAR INT,
PRICE INT,
PRIMARY KEY(BOOKID),
FOREIGN KEY(AUTHORID) REFERENCES AUTHOR(AUTHORID),
FOREIGN KEY(PUBLISHERID) REFERENCES PUBLISHER(PUBLISHERID),
FOREIGN KEY(CATEGORYID) REFERENCES CATEGORY(CATEGORYID));

CREATE TABLE ORDER_DETAILS(
ORDERNO INT,
BOOKID INT,
QUANTITY INT,
PRIMARY KEY(ORDERNO,BOOKID),
FOREIGN KEY(BOOKID) REFERENCES CATALOG(BOOKID));

ii. Enter at least five tuples for each relation.

INSERT INTO AUTHOR VALUES
(101, 'SHARMA', 'DELHI','INDIA'),
(102,'TOM','HAYHOOD','USA'),
(103,'GAURI','PATNA','INDIA'),
(104,'VINAY','BELM','SRILANKA'),
(105,'RAHUL','BANGALORE','INDIA');

INSERT INTO PUBLISHER VALUES
 (1001, 'POOJA','BANGALORE', 'INDIA'),
 (1002, 'PALAK','DELHI' ,'INDIA'),
 (1003, 'PRANAV', 'MUMBAI', 'INDIA'),
 (1004, 'RAM', 'RANCHI', 'INDIA'),
 (1005, 'ROHAN', 'VADODRA', 'INDIA');

INSERT INTO CATEGORY VALUES
(10001, 'CS'),
(10002, 'PHYSICS'),
(10003, 'BIOLOGY'),
(10004, 'MATHS'),
(10005, 'MECHANICAL');

INSERT INTO CATALOG VALUES
(1000001, 'DBMS', 101, 1001, 10001, 1998, 235),
(1000002, 'LAWS OF MOTION', 101, 1002, 10003, 1997, 255),
(1000003, 'PSYCHOLOGY', 102, 1003, 10002, 2001, 352),
(1000004, 'LINEAR ALGEBRA', 102, 1003, 10001, 2002, 523),
(1000005, 'MECHANICS', 103, 1004, 10004, 2003, 124);

INSERT INTO ORDER_DETAILS VALUES
(1, 1000001, 12),
(1, 1000002, 2),
(2, 1000002, 15),
(3, 1000003, 23),
(4, 1000003, 14),
(5, 1000005, 7);

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 * FROM AUTHOR A
WHERE A.AUTHORID IN (SELECT C.AUTHORID FROM CATALOG C
            WHERE YEAR>2000 AND C.PRICE > (SELECT AVG (PRICE) FROM CATALOG)
GROUP BY C.AUTHORID HAVING COUNT(AUTHORID)>=2);

+ Options

←T→				▼ AUTHORID	NAME	CITY	COUNTRY
☐	✎ Edit	┋ Copy	⊖ Delete	102	TOM	HAYHOOD	USA

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

SELECT NAME FROM AUTHOR A,CATALOG C
WHERE A.AUTHORID=C.AUTHORID AND BOOKID IN
 (SELECT BOOKID FROM ORDER_DETAILS WHERE QUANTITY= (SELECT MAX(QUANTITY) FROM ORDER_DETAILS));

NAME
TOM

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

UPDATE CATALOG
SET PRICE = PRICE*1.1
WHERE PUBLISHERID IN (SELECT PUBLISHERID FROM PUBLISHER
            WHERE NAME= 'POOJA');

✔ 1 row affected. (Query took 0.0177 seconds.)

Update catalog set price = price*1.1 where publisherid in (Select publisherid from publisher where name= 'POOJA')