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 table author (

author_id INT,

author_name VARCHAR(20),

author_city VARCHAR(20),

author_country VARCHAR(20),

PRIMARY KEY(author_id));

- create table publisher (

publisher_id INT,

publisher_name VARCHAR(20),

publisher_city VARCHAR(20),

publisher_country VARCHAR(20),

PRIMARY KEY(publisher_id));

- create table category (

category_id INT,

description VARCHAR(30),

PRIMARY KEY(category_id));

- CREATE TABLE catalog(

book_id INT,

book_title VARCHAR(30),

author_id INT,

publisher_id INT,

category_id INT,

year INT,

price INT,

PRIMARY KEY(book_id),

FOREIGN KEY(author_id) REFERENCES author(author_id)ON UPDATE CASCADE,

FOREIGN KEY(publisher_id) REFERENCES publisher(publisher_id)ON UPDATE CASCADE,

FOREIGN KEY(category_id) REFERENCES category(category_id)ON UPDATE CASCADE);

- CREATE TABLE orderdetails(

order_id INT,

book_id INT,

quantity INT,

PRIMARY KEY(order_id),

FOREIGN KEY(book_id) REFERENCES catalog(book_id) ON UPDATE CASCADE);

ii.   Enter at least five tuples for each relation.

INSERT INTO `author` (`author_id`, `author_name`, `author_city`, `author_country`) VALUES ('101', 'R   K   Narayan', 'Bengaluru', 'India'), ('102', 'JK Rowling', 'london', 'England'), ('103', 'Chetan Bhagat', 'Mumbai', 'India'), ('104', 'Jules Verne', 'Paris', 'France'), ('105', 'Dan Brown', 'California', 'USA')

✔ Showing rows 0 - 4 (5 total, Query took 0.0009 seconds.)

SELECT * FROM `author`

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

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←T→			author_id	author_name	author_city	author_country
☐ 🖉 Edit ᴶᵢ Copy ⊖ Delete			101	R K Narayan	Bengaluru	India
☐ 🖉 Edit ᴶᵢ Copy ⊖ Delete			102	JK Rowling	london	England
☐ 🖉 Edit ᴶᵢ Copy ⊖ Delete			103	Chetan Bhagat	Mumbai	India
☐ 🖉 Edit ᴶᵢ Copy ⊖ Delete			104	Jules Verne	Paris	France
☐ 🖉 Edit ᴶᵢ Copy ⊖ Delete			105	Dan Brown	California	USA

INSERT   INTO   publisher (publisher_id,publisher_name,publisher_city,publisher_country) VALUES

```
(101,'Bloomsbury','London','England'),

(102,'Scholastic','Washington','USA'),

(103,'Pearson','London','England'),

(104,'Rupa','Delhi','India');
```

✔ Showing rows 0 - 3 (4 total, Query took 0.0012 seconds.)

```sql
SELECT * FROM `publisher`
```

☐ Show all | Number of rows: 25 ▾   Filter rows: Search this table   Sort by key:

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←T→		publisher_id	publisher_name	publisher_city	publisher_country
☐ 🖉 Edit ⊟ Copy ⊖ Delete		501	Bloomsbury	London	England
☐ 🖉 Edit ⊟ Copy ⊖ Delete		502	Scholastic	Washington	USA
☐ 🖉 Edit ⊟ Copy ⊖ Delete		503	Pearson	London	England
☐ 🖉 Edit ⊟ Copy ⊖ Delete		504	Rupa	Delhi	India

```sql
INSERT INTO category (category_id,description) VALUES (701,'Fiction'), (702,'Non-Fiction'), (703,'thriller'), (704,'action'), (705,'Science fiction')
```

✔ Showing rows 0 - 4 (5 total, Query took 0.0017 seconds.)

```sql
select * from category
```

☐ Show all | Number of rows: 25 ▾   Filter rows:

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←T→		category_id	description
☐ 🖉 Edit ⊟ Copy ⊖ Delete		701	Fiction
☐ 🖉 Edit ⊟ Copy ⊖ Delete		702	Non-Fiction
☐ 🖉 Edit ⊟ Copy ⊖ Delete		703	thriller
☐ 🖉 Edit ⊟ Copy ⊖ Delete		704	action
☐ 🖉 Edit ⊟ Copy ⊖ Delete		705	Science fiction

```sql
INSERT INTO `catalog` (`book_id`, `book_title`, `author_id`, `publisher_id`, `category_id`, `year`, `price`) VALUES ('2001', 'Around    the    World    in    Eighty Days', '104', '503', '703', '1873', '200'), ('2002', 'Malgudi
days', '101', '504', '701', '1942', '500'), ('2003', 'HP       and       Goblet       Of
```

Fire', '102', '501', '705', '2002', '600'), ('2004', 'Two
States', '103', '504', '702', '2009', '75'), ('2005', 'HP   and   Order   Of
Phoenix', '102', '503', '704', '2005', '650'), ('2006', 'Da   Vinci
Code', '105', '502', '702', '2004', '400'), ('2007', 'Swami   and
Friends', '101', '503', '701', '1967', '399')

✔ Showing rows 0 - 6 (7 total, Query took 0.0013 seconds.)

`SELECT * FROM `catalog``

☐ Profiling [Edit inline] [Edit]

☐ Show all | Number of rows: 25 ▼   Filter rows: Search this table   Sort by key: None ▼

+ Options

←T→		book_id	book_title	author_id	publisher_id	category_id	year	price
☐ 🖉 Edit ⧉ Copy ⊖ Delete		2001	Around the World in Eighty Day	104	503	703	1873	200
☐ 🖉 Edit ⧉ Copy ⊖ Delete		2002	Malgudi days	101	504	701	1942	500
☐ 🖉 Edit ⧉ Copy ⊖ Delete		2003	HP and Goblet Of Fire	102	501	705	2002	600
☐ 🖉 Edit ⧉ Copy ⊖ Delete		2004	Two States	103	504	702	2009	75
☐ 🖉 Edit ⧉ Copy ⊖ Delete		2005	HP and Order Of Phoenix	102	503	704	2005	650
☐ 🖉 Edit ⧉ Copy ⊖ Delete		2006	Da Vinci Code	105	502	702	2004	400
☐ 🖉 Edit ⧉ Copy ⊖ Delete		2007	Swami and Friends	101	503	701	1967	399

INSERT INTO `orderdetails` (`order_id`, `book_id`, `quantity`) VALUES ('5001', '20
01', '150'), ('5010', '2005', '800'), ('5100', '2002', '700'), ('5110', '2007', '2
50')

✔ Showing rows 0 - 3 (4 total, Query took 0.0010 seconds.)

`SELECT * FROM `orderdetails``

☐ Show all | Number of rows: 25 ▼   Filter rows: Se

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←T→		order_id	book_id	quantity
☐ 🖉 Edit ⧉ Copy ⊖ Delete		5001	2001	150
☐ 🖉 Edit ⧉ Copy ⊖ Delete		5010	2005	800
☐ 🖉 Edit ⧉ Copy ⊖ Delete		5100	2002	700
☐ 🖉 Edit ⧉ Copy ⊖ Delete		5110	2007	250

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 is above 500 and
      the year of publication is after 2000.

select DISTINCT a.author_id,a.author_city,a.author_name,a.author_city

from author a join catalog c on a.author_id=c.author_id where

year>2000 and c.author_id in(select c.author_id from catalog having

count(c.author_id)>2 and price>500)

✔ Showing rows 0 - 0 (1 total, Query took 0.0051 seconds.)

select DISTINCT a.author_id,a.author_city,a.author_name,a.author_city from author a join catalog c on a.author_id=c.author_id where year>2000 and
c.author_id in(select c.author_id from catalog having count(c.author_id)>2 and price>500)

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

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

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author_id	author_city	author_name	author_city
102	london	JK Rowling	london

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

SELECT author_name FROM author WHERE author_id IN (SELECT author_id FROM catalog c WHERE book_id IN(SELECT `book_id` FROM `orderdetails` WHERE quantity in (SELECT MAX(quantity) FROM orderdetails)))

✔ Showing rows 0 - 0 (1 total, Query took 0.0040 seconds.)

SELECT author_name FROM author WHERE author_id IN (SELECT author_id FROM catalog c WHERE book_id IN(SELECT `book_id` FROM `orderdetails` WHERE
quantity in (SELECT MAX(quantity) FROM orderdetails)))

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

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

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←T→ | author_name
☐ ✎ Edit ᴣⵊ Copy ⊖ Delete | JK Rowling

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

✔ 2 rows affected. (Query took 0.0671 seconds.)

update catalog set price=(1.1*price) where publisher_id=504

←T→			book_id	book_title	author_id	publisher_id	category_id	year	price
☐ ✎ Edit	ᴣⵊ Copy	⊖ Delete	2001	Around the World in Eighty Day	104	503	703	1873	200
☐ ✎ Edit	ᴣⵊ Copy	⊖ Delete	2002	Malgudi days	101	504	701	1942	550
☐ ✎ Edit	ᴣⵊ Copy	⊖ Delete	2003	HP and Goblet Of Fire	102	501	705	2002	600
☐ ✎ Edit	ᴣⵊ Copy	⊖ Delete	2004	Two States	103	504	702	2009	83
☐ ✎ Edit	ᴣⵊ Copy	⊖ Delete	2005	HP and Order Of Phoenix	102	503	704	2005	650
☐ ✎ Edit	ᴣⵊ Copy	⊖ Delete	2006	Da Vinci Code	105	502	702	2004	400
☐ ✎ Edit	ᴣⵊ Copy	⊖ Delete	2007	Swami and Friends	101	503	701	1967	399