

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 (  
    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 catalogue(  
    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),  
    FOREIGN KEY(publisher_id) REFERENCES publisher(publisher_id),  
    FOREIGN KEY(category_id) REFERENCES category(category_id) )
```

```
CREATE TABLE orderdetails(
    order_id INT,
    book_id INT,
    quantity INT,
    PRIMARY KEY(order_id),
    FOREIGN KEY(book_id) REFERENCES catalogue(book_id));
```

ii. Enter at least five tuples for each relation.

```
INSERT INTO author (author_id,author_name,author_city,author_country)
VALUES (1001,'JK Rowling','London','England'),
       (1002,'Chetan Bhagat','Mumbai','India'),
       (1003,'John McCarthy','Chicago','USA'),
       (1004,'Dan Brown','California','USA');
```

Showing rows 0 - 3 (4 total, Query took 0.0013 seconds.)

SELECT * FROM `author`

Number of rows: 25 Filter rows: Search this table Sort by key: None

	author_id	author_name	author_city	author_country
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1001	JK Rowling	London	England
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1002	Chetan Bhagat	Mumbai	India
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1003	John McCarthy	Chicago	USA
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1004	Dan Brown	California	USA

```
INSERT INTO publisher
(publisher_id,publisher_name,publisher_city,publisher_country)
VALUES (2001,'Bloomsbury','London','England'),
       (2002,'Scholastic','Washington','USA'),
       (2003,'Pearson','London','England'),
       (2004,'Rupa','Delhi','India');
```

Showing rows 0 - 3 (4 total, Query took 0.0013 seconds.)

SELECT * FROM `publisher`

Number of rows: 25 Filter rows: Search this table Sort by key: None

	publisher_id	publisher_name	publisher_city	publisher_country
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	2001	Bloomsbury	London	England
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	2002	Scholastic	Washington	USA
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	2003	Pearson	London	England
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	2004	Rupa	Delhi	India

```
INSERT INTO category (category_id,description)
VALUES (3001,'Fiction'),
       (3002,'Non-Fiction'),
       (3003,'thriller'),
```

```
(3004,'action'),
(3005,'fiction') ;
```

Showing rows 0 - 4 (5 total, Query took 0.0016 seconds.)

[SELECT * FROM `category`](#)

☐ Profiling [\[Edit inline\]](#) [\[Edit\]](#) [\[Explain SQL\]](#) [\[Create PHP code\]](#) [\[Refresh\]](#)

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

+ Options

	category_id	description
<input type="checkbox"/> Edit Copy Delete	3001	Fiction
<input type="checkbox"/> Edit Copy Delete	3002	Non-Fiction
<input type="checkbox"/> Edit Copy Delete	3003	thriller
<input type="checkbox"/> Edit Copy Delete	3004	action
<input type="checkbox"/> Edit Copy Delete	3005	fiction

INSERT INTO catalogue

```
(book_id,book_title,author_id,publisher_id,category_id,year,price)
values (4001,'HP and Goblet Of Fire',1001,2001,3001,2002,600),
(4002,'HP and Order Of Phoenix',1001,2002,3001,2005,650),
(4003,'Two States',1002,2004,3001,2009,65),
(4004,'3 Mistakes of my life',1002,2004,3001,2007,55),
(4005,'Da Vinci Code',1004,2003,3001,2004,450),
(4006,'Angels and Demons',1004,2003,3001,2003,350),
(4007,'Artificial Intelligence',1003,2002,3002,1970,500) ;
```

Showing rows 0 - 6 (7 total, Query took 0.0024 seconds.)

[SELECT * FROM `catalogue`](#)

☐ Profiling [\[Edit inline\]](#) [\[Edit\]](#) [\[Explain SQL\]](#) [\[Create PHP code\]](#) [\[Refresh\]](#)

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

+ Options

	book_id	book_title	author_id	publisher_id	category_id	year	price
<input type="checkbox"/> Edit Copy Delete	4001	HP and Goblet Of Fire	1001	2001	3001	2002	600
<input type="checkbox"/> Edit Copy Delete	4002	HP and Order Of Phoenix	1001	2002	3001	2005	650
<input type="checkbox"/> Edit Copy Delete	4003	Two States	1002	2004	3001	2009	65
<input type="checkbox"/> Edit Copy Delete	4004	3 Mistakes of my life	1002	2004	3001	2007	55
<input type="checkbox"/> Edit Copy Delete	4005	Da Vinci Code	1004	2003	3001	2004	495
<input type="checkbox"/> Edit Copy Delete	4006	Angels and Demons	1004	2003	3001	2003	385
<input type="checkbox"/> Edit Copy Delete	4007	Artificial Intelligence	1003	2002	3002	1970	500

☐ Check all | With selected: Edit Copy Delete Export

Bookmarks Options History Clear

INSERT INTO orderdetails (order_id,book_id,quantity)

```
VALUES (5001,4001,5),
(5002,4002,7),
(5003,4003,15),
(5004,4004,11),
(5005,4005,9),
(5006,4006,8),
(5007,4007,2),
(5008,4004,3) ;
```

Showing rows 0 - 7 (8 total, Query took 0.0029 seconds.)

```
SELECT * FROM `orderdetails`
```

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

+ Options

	order_id	book_id	quantity
<input type="checkbox"/> Edit Copy Delete	5001	4001	5
<input type="checkbox"/> Edit Copy Delete	5002	4002	7
<input type="checkbox"/> Edit Copy Delete	5003	4003	15
<input type="checkbox"/> Edit Copy Delete	5004	4004	11
<input type="checkbox"/> Edit Copy Delete	5005	4005	9
<input type="checkbox"/> Edit Copy Delete	5006	4006	8
<input type="checkbox"/> Edit Copy Delete	5007	4007	2
<input type="checkbox"/> Edit Copy Delete	5008	4004	3

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
WHERE author_id IN
(SELECT author_id FROM catalogue WHERE
year>2000 AND price>
(SELECT AVG(price) FROM catalogue)
GROUP BY author_id HAVING COUNT(*)>1);
```

Showing rows 0 - 0 (1 total, Query took 0.0108 seconds.)

```
SELECT * FROM author WHERE author_id IN (SELECT author_id FROM catalogue WHERE year>2000 AND price> (SELECT AVG(price) FROM catalogue) GROUP BY author_id HAVING COUNT(*)>1)
```

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

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

+ Options

	author_id	author_name	author_city	author_country
<input type="checkbox"/> Edit Copy Delete	1001	JK Rowling	London	England

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

```
SELECT author_name FROM author a, catalogue c WHERE a.author_id=c.author_id AND book_id IN
(SELECT book_id FROM orderdetails WHERE quantity= (SELECT MAX(quantity) FROM orderdetails));
```

Showing rows 0 - 0 (1 total, Query took 0.0083 seconds.)

```
SELECT author_name FROM author a, catalogue c WHERE a.author_id=c.author_id AND book_id IN (SELECT book_id FROM orderdetails WHERE quantity= (SELECT MAX(quantity) FROM orderdetails))
```

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

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


+ Options

author_name
Chetan Bhagat

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

```
UPDATE catalogue SET price=1.1*price
  WHERE publisher_id IN
    (SELECT publisher_id FROM publisher WHERE
     publisher_name='pearson');
```

Show query box

 2 rows affected. (Query took 0.0084 seconds.)

```
UPDATE catalogue SET price=1.1*price WHERE publisher_id IN (SELECT publisher_id FROM publisher WHERE publisher_name='pearson')
```

[\[Edit inline\]](#) [\[Edit \]](#) [\[Create PHP code \]](#)

