

# ORDER 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)

## CREATE TABLE AUTHOR

```
(author_id int,  
name varchar(20),  
city varchar(20),  
country varchar(20),  
PRIMARY KEY(author_id));
```

## CREATE TABLE PUBLISHER

```
(publisher_id int,  
name varchar(20),  
city varchar(20),  
country varchar(20),  
PRIMARY KEY(publisher_id));
```

## CREATE TABLE CATEGORY

```
(category_id int,  
description varchar(20),  
PRIMARY KEY(category_id));
```

## CREATE TABLE CATALOG

```
(book_id int,  
title varchar(20),  
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 ORDER\_DETAILS

```
(order_no int,  
book_id int,
```

quantity int,  
**PRIMARY KEY**(order\_no, book\_id),  
**FOREIGN KEY**(book\_id) references **CATALOG**(book\_id));

- 1) **INSERT INTO AUTHOR VALUES**(&author\_id,'&name','&city','&country');
- 2) **INSERT INTO PUBLISHER VALUES**(&publisher\_id,'&name','&city','&country');
- 3) **INSERT INTO CATEGORY VALUES**(&category\_id,'&description')
- 4) **INSERT INTO CATALOG VALUES**(&book\_id,'&title',&author\_id,  
&publisher\_id,&category\_id,&year,&price)
- 5) **INSERT INTO ORDER\_DETAILS VALUES**(&order\_no,&book\_id,'&quantity')

SQL> **SELECT \* FROM AUTHOR;**

Author_ID	NAME	CITY	COUNTRY
100	navathe	newyork	usa
101	sommerville	london	england
102	padma reddy	blore	india
103	kottur	blore	india
104	pmc	tmk	india
105	albert	washington	usa

SQL>**SELECT \* FROM PUBLISHER;**

Publisher_ID	NAME	CITY	COUNTRY
200	pearson	newyork	usa
201	mcgraw	delhi	india
202	oxford	washington	usa
203	willey	london	england
204	prism	blore	india
205	shiva	tmk	india

SQL> **SELECT \* FROM CATEGORY;**

Category_ID	DESCRIPTION
300	technical
301	non-technical
302	science
303	inventions
304	technology
305	research

SQL>**SELECT \* FROM CATALOG;**

Book_ID	TITLE	Author_ID	Publisher_ID	Category_ID	YEAR	PRICE
-----						
---						
400	dbms	100	200	300	2001	1200
401	se	101	201	300	2005	856
402	c	102	204	304	1999	986
403	c++	103	204	304	2002	1856
404	power	104	205	300	2003	896
405	os	105	203	305	2006	789
406	dsc	102	204	300	2001	698
407	c#	100	201	305	2011	1265
408	cg	103	204	303	2009	968

SQL>SELECT \* FROM ORDER\_DETAILS;

Order_NO	Book_ID	Quantity
-----		
500	400	10
501	401	17
502	407	6
503	400	8
504	403	8
500	401	12
501	402	17
505	405	16

1)Give the details of the authors who have 2 or more books in the catalog and the price of the books

Is greater than the average 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 CATALOG
                     WHERE year > 2000
                     GROUP BY author_id
                     HAVING COUNT(*) > 1 AND SUM(price) > (SELECT AVG(price)
                                                             FROM CATALOG));

```

2)Find the author of the book which has maximum sales

```

SELECT * FROM AUTHOR
WHERE author_id IN (SELECT author_id FROM CATALOG
                   WHERE book_id IN (SELECT book_id

```

```

FROM ORDER_DETAILS
GROUP BY book_id
HAVING SUM(quantity) = (SELECT
MAX(SUM(quantity))
FROM ORDER_DETAILS
GROUP BY book_id));

```

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

```

UPDATE CATALOG
SET price = price*1.1
WHERE Publisher_id IN (SELECT Publisher_id
FROM PUBLISHER
WHERE name='shiva');

```

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## EXTRA QUERIES

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1) Find the orders no which included all the books of a specific author

```

SELECT order_no
FROM ORDER_DETAILS
WHERE book_Id IN (SELECT book_Id
FROM CATALOG C, AUTHOR A
WHERE C.Author_Id = A.Author_Id
AND A.Author_Id=102);

```

2) Find the publisher id who have not published any books

```

SELECT name
FROM PUBLISHER
WHERE Publisher_Id NOT IN(SELECT Publisher_Id FROM CATALOG);

```

3) Find the author name and publisher name who live in the same city

```

SELECT Distinct A.name, P.name
FROM AUTHOR A, PUBLISHER P, CATALOG C
WHERE A.Author_Id = C.Author_Id
AND P.Publisher_Id = C.Publisher_Id
AND A.city = P.city;

```

4) Find the publisher name who have published at least 4 books

```
SELECT P.name
FROM PUBLISHER P, CATALOG C
WHERE P.Publisher_Id = C.Publisher_Id
GROUP BY P.name
HAVING COUNT(*)>=4;
```