

Lab 7 :-

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(20),  
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 ON DELETE CASCADE,  
FOREIGN KEY(publisher_id) REFERENCES publisher(publisher_id)  
ON UPDATE CASCADE ON DELETE CASCADE,  
FOREIGN KEY(category_id) REFERENCES category(category_id)  
ON UPDATE CASCADE ON DELETE 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 ON DELETE CASCADE);
```

ii. Enter at least five tuples for each relation.

```
INSERT INTO author VALUES  
(101,'JK Rowling','London','England'),  
(102,'William Shakespeare','Stratford-upon-Avon','England'),  
(103,'Chetan Bhagat','Mumbai','India'),  
(104,'Robert Brown','California','USA'),  
(105,'Juan Gen','Sydbey','Australia');
```

```
INSERT INTO publisher VALUES  
(10,'Bloomsbury','London','England'),  
(11,'Scholastic','Washington','USA'),  
(12,'Pearson','Manchester','England'),  
(13,'Geetanjali','Delhi','India'),  
(14,'Saraswati','Mumbai','India');
```

INSERT INTO category VALUES

(51,'fantasy'),
(52,'horror'),
(53,'thriller'),
(54,'action'),
(55,'fiction');

INSERT INTO catalog VALUES

(1,'HP and the Half Blood Prince',101,10,51,2005,1000),
(2,'HP and the Order Of the Phoenix',101,10,51,2005,950),
(3,'First Folio',102,12,55,1623,1000),
(4,'3 Mistakes of my life',103,14,55,2007,800),
(5,'Get Trapped',104,11,53,2004,750),
(6,'Fight at Will',105,13,54,2000,500),
(7,'Intelligence of Demons',105,11,52,2005,1000) ;

INSERT INTO orderdetails VALUES

(71,1,60),
(72,2,55),
(73,3,40),
(74,4,10),
(75,5,50),
(76,6,70),
(77,7,20),
(78,7,60);

```
SELECT * FROM author;
```

```
101|JK Rowling|London|England  
102|William Shakespeare|Stratford-upon-Avon|England  
103|Chetan Bhagat|Mumbai|India  
104|Robert Brown|California|USA  
105|Juan Gen|Sydney|Australia
```

```
[Program exited with exit code 0]
```

```
SELECT * FROM publisher;
```

```
10|Bloomsbury|London|England  
11|Scholastic|Washington|USA  
12|Pearson|Manchester|England  
13|Geetanjali|Delhi|India  
14|Saraswati|Mumbai|India
```

```
[Program exited with exit code 0]
```

```
SELECT * FROM category;
```

```
51|fantasy  
52|horror  
53|thriller  
54|action  
55|fiction
```

```
[Program exited with exit code 0]
```

```
SELECT * FROM catalog;
```

```
1|HP and the Half Blood Prince|101|10|51|2005|1000
2|HP and the Order Of the Phoenix|101|10|51|2005|950
3|First Folio|102|12|55|1623|1000
4|3 Mistakes of my life|103|14|55|2007|800
5|Get Trapped|104|11|53|2004|750
6|Fight at Will|105|13|54|2000|500
7|Intelligence of Demons|105|11|52|2005|1000

[Program exited with exit code 0]
```

```
SELECT * FROM orderdetails;
```

```
71|1|60
72|2|55
73|3|40
74|4|10
75|5|50
76|6|70
77|7|20
78|7|60

[Program exited with exit code 0]
```

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 a.author_id,author_name,author_city,author_country FROM author a,catalog c WHERE
a.author_id=c.author_id AND c.year>2000 GROUP BY c.author_id HAVING
COUNT(c.author_id)>=2;
```

```
101|JK Rowling|London|England
```

```
[Program exited with exit code 0]
```

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

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

```
Juan Gen
```

```
[Program exited with exit code 0]
```

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

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

```
1|HP and the Half Blood Prince|101|10|51|2005|1000  
2|HP and the Order Of the Phoenix|101|10|51|2005|950  
3|First Folio|102|12|55|1623|1000  
4|3 Mistakes of my life|103|14|55|2007|800  
5|Get Trapped|104|11|53|2004|825.0  
6|Fight at Will|105|13|54|2000|500  
7|Intelligence of Demons|105|11|52|2005|1100
```

```
[Program exited with exit code 0]
```

