# 1BM19CS219 ~ MAHANTESH GATTINA

# LAB - 7 BOOK DEALER DATABASE

**i. Create the above tables by properly specifying the primary keys and the foreign keys.**

```
CREATE TABLE author1 (
      author1_id INT,
      author1_name VARCHAR(20),
      author1_city VARCHAR(20),
      author1_country VARCHAR(20),
      PRIMARY KEY(author1_id));


CREATE TABLE publisher1 (
      publisher1_id INT,
      publisher1_name VARCHAR(20),
      publisher1_city VARCHAR(20),
      publisher1_country VARCHAR(20),
      PRIMARY KEY(publisher1_id));


CREATE TABLE category1 (
      category_id INT,
      description VARCHAR(30),
      PRIMARY KEY(category_id) );


CREATE TABLE catalogue1(
      book_id INT,
      book_title VARCHAR(30),
      author1_id INT,
      publisher1_id INT,
      category_id INT,
      year INT,
      price INT,
      PRIMARY KEY(book_id),
      FOREIGN KEY(author1_id) REFERENCES author1(author1_id),
      FOREIGN KEY(publisher1_id) REFERENCES publisher1(publisher1_id),
      FOREIGN KEY(category_id) REFERENCES category1(category_id) );


CREATE TABLE orderdetails1(
      order_id INT,
      book_id INT,
      quantity INT,
      PRIMARY KEY(order_id),
```

FOREIGN KEY(book_id) REFERENCES catalogue1(book_id));


## ii. Enter at least five tuples for each relation.

INSERT INTO author1 (author1_id,author1_name,author1_city,author1_country)
VALUES
        (1001,'JK Rowling','London','England'),
        (1002,'Chetan Bhagat','Mumbai','India'),
        (1003,'John McCarthy','Chicago','USA'),
        (1004,'Dan Brown','California','USA'),
        (1005,'Vivekananda','Kolkata','India');

INSERT INTO publisher1
(publisher1_id,publisher1_name,publisher1_city,publisher1_country) VALUES
        (2001,'Bloomsbury','London','England'),
        (2002,'Scholastic','Washington','USA'),
        (2003,'Pearson','London','England'),
        (2004,'Rupa','Delhi','India'),
        (2005,'GRB','Delhi','India');

INSERT INTO category1 (category_id,description) VALUES
        (3001,'Fiction'),
        (3002,'Non-Fiction'),
        (3003,'thriller'),
        (3004,'action'),
        (3005,'fiction') ;

INSERT INTO catalogue1
(book_id,book_title,author1_id,publisher1_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) ;

INSERT INTO orderdetails1 (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) ;
```

**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 author1
      WHERE author1_id IN
      (SELECT author1_id FROM catalogue1 WHERE
      year>2000 AND price>
      (SELECT AVG(price) FROM catalogue1)
      GROUP BY author1_id HAVING COUNT(*)>1)
```

1001    JK Rowling    London  England

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

```
SELECT author1_name FROM author1 a,catalogue1 c WHERE
a.author1_id=c.author1_id AND book_id IN (SELECT book_id FROM orderdetails1
WHERE quantity= (SELECT MAX(quantity) FROM orderdetails1))
```

Chetan Bhagat

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

```
SELECT * from catalogue1
```

| book_id | book_title | author1_id | publisher1_id | category_id | year | price |
|---|---|---|---|---|---|---|
| 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

```
UPDATE catalogue1 SET price=1.1*price
        WHERE publisher1_id IN
        (SELECT publisher1_id FROM publisher1 WHERE
        publisher1_name='pearson');
```

select * from catalogue1

| book_id | book_title | author1_id | publisher1_id | category_id | year | price |
|---|---|---|---|---|---|---|
| 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 | 495 |
| 4006 | Angels and Demons | 1004 | 2003 | 3001 | 2003 | 385 |
| 4007 | Artificial Intelligence | 1003 | 2002 | 3002 | 1970 | 500 |