WEEK-2 DBMS LAB

LAB PROGRAM 2:

BOOKDEALER 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.
ii) Enter at least five tuples for each relation.
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.
iv) Find the author of the book which has maximum sales.
v) Demonstrate how you increase the price of books published by a specific publisher by 10%.

SCREENSHOTS OF OUTPUT:

i)Create the above tables by properly specifying the primary keys and the foreign keys.
ii) Enter at least five tuples for each relation.

```
1  CREATE database book_db;
2  USE book_db;
3  show tables;
4  /*i)Create the above tables by properly specifying the primary keys and the foreign keys.
5    ii) Enter at least five tuples for each relation.
6  */
7  CREATE TABLE AUTHOR(
8  author_id INT PRIMARY KEY,
9  a_name VARCHAR(20),
10 city VARCHAR(20),
11 country VARCHAR(20)
12 );
13 CREATE TABLE publisher(
14 publisher_id INT PRIMARY KEY,
15 p_name VARCHAR(20),
16 city VARCHAR(20),
```

```
CREATE TABLE Catalog(
book_id INT PRIMARY KEY,
title varchar(30),
author_id INT,
publisher_id INT,
category_id INT,
p_year INT,
PRICE INT,
FOREIGN KEY(publisher_id) REFERENCES publisher(publisher_id),
FOREIGN KEY(author_id) REFERENCES author(author_id)
);
CREATE TABLE category(
category_id INT PRIMARY KEY,
```

```
30 CREATE TABLE category(
31 category_id INT PRIMARY KEY,
32 Description VARCHAR(100)
33 );
34 CREATE TABLE orders(
35 order_no INT PRIMARY KEY,
36 book_id INT,
37 qty INT,
38 FOREIGN KEY(book_id) REFERENCES catalog(book_id)
39 );
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Tables_in_book_db
author
catalog
category
orders
publisher

```
68  SELECT*FROM AUTHOR;
69  SELECT*FROM category;
70  SELECT*FROM Catalog;
71  SELECT*FROM orders;
72  SELECT*FROM publisher;
73
74  /*
75  iii) Give the details of the authors who have 2 or more books in the catalog and the price of the books ir
76      catalog and the year of publication is after 2000.
```

esult Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

author_id	a_name	city	country
1001	TERAS CHAN	CA	USA
1002	STEVENS	ZOMBI	UGANDA
1003	M MANO	CAIR	CANADA
1004	KARTHIK B.P.	NEW YORK	USA
1005	WILLIAM STALLINGS	LAS VEGAS	USA
NULL	NULL	NULL	NULL

```
69  SELECT*FROM category;
70  SELECT*FROM Catalog;
71  SELECT*FROM orders;
72  SELECT*FROM publisher;
73
74  /*
75  iii) Give the details of the authors who have 2 or more books in the catalog an
76      catalog and the year of publication is after 2000.
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Conter

category_id	Description
1001	COMPUTER SCIENCE
1002	ALGORITHM DESIGN
1003	ELECTRONICS
1004	PROGRAMMING
1005	OPERATING SYSTEMS
NULL	NULL

```
70 •  SELECT*FROM Catalog;
71 •  SELECT*FROM orders;
72 •  SELECT*FROM publisher;
73
74    /*
75    iii) Give the details of the authors who have 2 or more books in the catalog and the pric
76        catalog and the year of publication is after 2000.
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

book_id	title	author_id	publisher_id	category_id	p_year	PRICE
11	Unix System Prg	1001	1	1001	2000	276
12	Digital Signals	1002	2	1003	2001	567
13	Logic Design	1003	3	1002	1999	248
14	Server Prg	1004	4	1004	2001	366
15	Linux OS	1005	5	1005	2003	359
16	C++ Bible	1005	5	1001	2000	579
17	COBOL Handbook	1005	4	1001	2000	724
NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
71 •  SELECT*FROM orders;
72 •  SELECT*FROM publisher;
73
74    /*
75    iii) Give the details of the authors who have 2 or more books in th
76        catalog and the year of publication is after 2000.
```

Result Grid | Filter Rows: | Edit: | Export/Import:

order_no	book_id	qty
1	11	5
2	12	8
3	13	15
4	14	22
5	15	3
6	17	10
NULL	NULL	NULL

```
72 •  SELECT*FROM publisher;
73
74    /*
75    iii) Give the details of the authors who have 2 or more books in th
76        catalog and the year of publication is after 2000.
```

Result Grid | Filter Rows: | Edit: | Export/Import:

publisher_id	p_name	city	country
1	PEARSON	NEW YORK	USA
2	EEE	NEW SOUTH WALES	USA
3	PHI	DELHI	INDIA
4	WILLEY	BERLIN	GERMANY
5	MGH	NEW YORK	USA
NULL	NULL	NULL	NULL

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.

```
74  /*
75  iii) Give the details of the authors who have 2 or more books in the catalog and the price of the books in the
76      catalog and the year of publication is after 2000.
77  */
78  SELECT AUTHOR.author_id,a_name,city,country,price FROM AUTHOR,Catalog WHERE AUTHOR.author_id=Catalog.author_id AND Catalog.p_year>=2000 GROUP BY Catalo
79  /*
80  iv) Find the author of the book which has maximum sales.
81  */
82  SELECT AUTHOR.a_name FROM AUTHOR,Catalog,orders WHERE AUTHOR.author_id=Catalog.author_id AND Catalog.book_id=orders.book_id ORDER BY orders.qty DESC LI
83  -- or
84  SELECT AUTHOR.a_name FROM AUTHOR,Catalog,orders WHERE AUTHOR.author_id=Catalog.author_id AND Catalog.book_id=orders.book_id AND orders.qty=(SELECT MAX(
85  /*
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

author_id	a_name	city	country	price
1005	WILLIAM STALLINGS	LAS VEGAS	USA	359

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

```
82 • SELECT AUTHOR.a_name FROM AUTHOR,Catalog,orders WHERE AUTHOR.author_id=Catalog.author_id AND Catalog.book_id=orders.book_id ORDER BY orders.qty
83    -- or
84 • SELECT AUTHOR.a_name FROM AUTHOR,Catalog,orders WHERE AUTHOR.author_id=Catalog.author_id AND Catalog.book_id=orders.book_id AND orders.qty=(SEI
85    /*
86    v) Demonstrate how you increase the price of books published by a specific publisher by 10%.
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

a_name
KARTHIK B.P.

BY SECOND QUERY

```
84 • FROM AUTHOR,Catalog,orders WHERE AUTHOR.author_id=Catalog.author_id AND Catalog.book_id=orders.book_id AND orders.qty=(SELECT MAX(qty) FROM orders);
85
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

a_name
KARTHIK B.P.

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

```
88 • UPDATE CATALOG SET PRICE=1.10*PRICE WHERE publisher_id=2;
89 • SELECT*FROM CATALOG;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

book_id	title	author_id	publisher_id	category_id	p_year	PRICE
11	Unix System Prg	1001	1	1001	2000	276
12	Digital Signals	1002	2	1003	2001	567
13	Logic Design	1003	3	1002	1999	248
14	Server Prg	1004	4	1004	2001	366
15	Linux OS	1005	5	1005	2003	359
16	C++ Bible	1005	5	1001	2000	579
17	COBOL Handbook	1005	4	1001	2000	724
NULL	NULL	NULL	NULL	NULL	NULL	NULL