EXPERIMENT NO.5

Aim- To perform various DDL, DML and TCL commands, applying Joins and use operators like union, minus, exists on Book Database created in Experiment 4.

Query 16: For every book, list the book code, book title, publisher code, and publisher name.

Solution-

select book_code, book_title, book.publisher_code, publisher_name from book join publisher on publisher.publisher_code = book.publisher_code;

Output-

BOOK_CODE	BOOK_TITLE	PUBLISHER_CODE	PUBLISHER_NAME
0180	Shyness	BB	Bantam Books
0189	Kane and Abel	PB	Pocket Books
0200	Stranger	BB	Bantam Books
0378	Dunwich Horror and Others	PB	Pocket Books
079X	Smokescreen	PB	Pocket Books
0808	Knockdown	PB	Pocket Books
1351	Cujo	SI	Signer
1382	Marcel Duchamp	PB	Pocket Books
138X	Death on the Nile	BB	Bantam Books
2226	Ghost from the Grant Banks	BB	Bantam Books
2281	Prints of the 20th Century	PB	Pocket Books
2766	Prodigal Daughter	PB	Pocket Books
2908	Hymns to the Night	BB	Bantam Books
3350	Higher Creativity	PB	Pocket Books
3743	First Among Equals	PB	Pocket Books
3906	Vortex	BB	Bantam Books
5163	Organ	SI	Signer
5790	Database System	BF	Best and Furrow
6128	Evil Under the Sun	PB	Pocket Books
6328	Vixer07	BB	Bantam Books
669X	A Guode to SQL	BF	Best and Furrow
6908	DOS Essentials	BF	Best and Furrow
7405	Night Probe	BB	Bantam Books
7443	Carrie	SI	Signer
7559	Risk	PB	Pocket Books
7947	dBASE Programming	BF	Best and Furrow
8092	Magritte	SI	Signer
8720	Castle	BB	Bantam Books
9611	Amerika	BB	Bantam Books

Query 17: For every book published by Signer, list the book title and book price.

Solution-

select book_title, book_price from book join publisher on publisher.publisher_code = book.publisher_code where publisher_name = 'Signer';

Output-

BOOK_TITLE	BOOK_PRICE
Cujo	6.65
Organ	16.95
Carrie	6.75
Magritte	21.95

Query 18: Find the book title for every book written by author no. 01. Use the IN operator in your formation.

Solution-

select book_title from book join wrote on book.book_code = wrote.book_code where author_number in ('01');

Output-

BOOK_TITLE
Kane and Abel
Prodigal Daughter
First Among Equals

Query 19: Repeat 18, but now use exists operator in your formulation.

Solution-

select book_title from book where exists (select book_code from wrote where book_code = book.book_code and author_number = '01');

Output-

BOOK_TITLE
Kane and Abel
Prodigal Daughter
First Among Equals

Query 20: Find book code & title for every book whose price is over Rs. 5 and that was published in New York city.

Solution-

select book_code, book_title, book_price from book join publisher on publisher.publisher_code = book.publisher_code where book_price < '5.00' and publisher_city = 'New York';

Output-

BOOK_CODE	BOOK_TITLE	BOOK_PRICE
138X	Death on the Nile	3.95
079X	Smokescreen	4.55
0808	Knockdown	4.75
3743	First Among Equals	3.95
6128	Evil Under the Sun	4.45
7559	Risk	3.95

Query 21: Find book title and pub code for every book whose price is greater than book price of every book of type HOR (Use ALL).

Solution-

select book_price, publisher.publisher_code from book join publisher on book.publisher_code = publisher.publisher_code where book_price > all(select book_price from book where book_type = 'HOR');

Output-

BOOK_PRICE	PUBLISHER_CODE
19.95	BB
20.5	BF
21.95	SI
23.95	BF
39.9	BF
54.95	BF

Query 22: Find the book title and pub code for every book whose price is greater than the book price of at least one book of type HOR.

Solution-

select book_price, publisher.publisher_code from book join publisher on book.publisher_code = publisher.publisher_code where book_price > any(select book_price from book where book_type = 'HOR');

Output-

BOOK_PRICE	PUBLISHER_CODE
54.95	BF
39.9	BF
23.95	BF
21.95	SI
20.5	BF
19.95	BB
19.75	PB
16.95	SI
13.25	PB
12.15	BB
11.25	PB
10.95	BB
9.75	PB
8.75	BB
7.65	BB
6.75	SI
6.75	BB

Query 23: Bantam Books has decreased the price of its books by 3%. Update the price in Books Table.

Solution-

update book set book_price = (book_price - book_price * 0.03) where Exists (select publisher_code from publisher where publisher_name = 'Bantam Books' and publisher_code = book.publisher_code);

select * from book;

Output-

BOOK_CODE	BOOK_TITLE	PUBLISHER_CODE	BOOK_TYPE	BOOK_PRICE	PAPER_BACK
0180	Shyness	BB	PSY	7.42	Y
0189	Kane and Abel	PB	FIC	5.55	Y
0200	Stranger	BB	FIC	8.49	Y
0378	Dunwich Horror and Others	PB	HOR	19.75	N
079X	Smokescreen	PB	MYS	4.55	Y
0808	Knockdown	PB	MYS	4.75	Y
1351	Cujo	SI	HOR	6.65	Y
1382	Marcel Duchamp	PB	ART	11.25	Y
138X	Death on the Nile	BB	MYS	3.83	Y
2226	Ghost from the Grant Banks	BB	SFI	19.35	N
2281	Prints of the 20th Century	PB	ART	13.25	Y
2766	Prodigal Daughter	PB	FIC	5.45	Y
2908	Hymns to the Night	BB	POE	6.55	Y
3350	Higher Creativity	PB	PSY	9.75	Y
3743	First Among Equals	PB	FIC	3.95	Y
3906	Vortex	BB	SUS	5.29	Y
5163	Organ	SI	MUS	16.95	Y
5790	Database System	BF	CS	54.95	N
6128	Evil Under the Sun	PB	MYS	4.45	Y
6328	Vixer07	BB	SUS	5.38	Y
669X	A Guode to SQL	BF	CS	23.95	Y
6908	DOS Essentials	BF	CS	20.5	Y
7405	Night Probe	BB	SUS	5.48	Y
7443	Carrie	SI	HOR	6.75	Y
7559	Risk	PB	MYS	3.95	Y
7947	dBASE Programming	BF	CS	39.9	Y
8092	Magritte	SI	ART	21.95	N
8720	Castle	BB	FIC	11.79	Y
9611	Amerika	BB	FIC	10.62	Y

Query 24: Insert a new book into database. The book code is 9700, the title is Using Microsoft Access 2000, Pub is Best & Furrow , book type is CS, price is Rs. 19.97, and available in paperback author no is 7.

Solution-

insert into book values ('9700', 'Using Microsoft access 2000', 'BF', 'CS', '19.97', 'Y');

insert into wrote values ('9700', '07', '1');

select * from book;

Output-

BOOK_CODE	BOOK_TITLE	PUBLISHER_CODE	BOOK_TYPE	BOOK_PRICE	PAPER_BACK
9700	Using Microsoft access 2000	BF	CS	19.97	Y
0180	Shyness	BB	PSY	7.42	Y
0189	Kane and Abel	PB	FIC	5.55	Y
0200	Stranger	BB	FIC	8.49	Y
0378	Dunwich Horror and Others	PB	HOR	19.75	N
079X	Smokescreen	PB	MYS	4.55	Y
0808	Knockdown	PB	MYS	4.75	Y
1351	Cujo	SI	HOR	6.65	Y
1382	Marcel Duchamp	PB	ART	11.25	Y
138X	Death on the Nile	BB	MYS	3.83	Y
2226	Ghost from the Grant Banks	BB	SFI	19.35	N
2281	Prints of the 20th Century	PB	ART	13.25	Y
2766	Prodigal Daughter	PB	FIC	5.45	Y
2908	Hymns to the Night	BB	POE	6.55	Y
3350	Higher Creativity	PB	PSY	9.75	Y
3743	First Among Equals	PB	FIC	3.95	Y
3906	Vortex	BB	SUS	5.29	Y
5163	Organ	SI	MUS	16.95	Y
5790	Database System	BF	CS	54.95	N
6128	Evil Under the Sun	PB	MYS	4.45	Y
6328	Vixer07	BB	SUS	5.38	Y
669X	A Guode to SQL	BF	CS	23.95	Y
6908	DOS Essentials	BF	CS	20.5	Y
7405	Night Probe	BB	SUS	5.48	Y
7443	Carrie	SI	HOR	6.75	Y
7559	Risk	PB	MYS	3.95	Y
7947	dBASE Programming	BF	CS	39.9	Y
8092	Magritte	SI	ART	21.95	N
8720	Castle	BB	FIC	11.79	Y
9611	Amerika	BB	FIC	10.62	Y

select * from wrote;

Output-

BOOK_CODE	AUTHOR_NUMBER	SEQUENCE_NUMBER
9700	7	1
0180	20	1
0189	1	1
0200	18	1
0378	16	1
079X	4	1
0808	4	1
1351	6	1
1382	17	1
138X	2	1
2226	3	1
2281	19	1
2766	1	1
2908	15	1
3350	10	1
3350	11	2
3743	1	1
3906	5	1
5163	12	2
5163	13	1
5790	7	1
5790	8	2
6128	2	1
6328	5	1
669X	7	1
6908	22	1
7405	5	1
7443	6	1
7559	4	1
7947	7	1
7947	23	2
8092	21	1
8720	14	1
9611	14	1

Query 25: Write the command to delete the author named Robert Wary from the database.

Solution-

delete from author where author_last = 'Wray' and author_first = 'Robert';

select * from author;

Output-

AUTHOR_NUMBER	AUTHOR_LAST	AUTHOR_FIRST
1	Archer	Jeffrey
2	Christie	Agatha
3	Clarke	Arthur C.
4	Francis	Dick
5	Cussler	Clive
6	King	Stephen
7	Pratt	Philip
8	Adamski	Joseph
10	Harmon	Wills
11	Rheingold	Howard
12	Qwen	Barbara
13	Wiliams	Peter
14	Kafka	Franz
15	Novalis	
16	Lovecroft	H. P.
17	Paz	Octavio
18	Camus	Albert
19	Castleman	Riva
20	Zimbardo	Philip
21	Gimferrer	Pere
22	Southworth	Rod

Query 26: Write the query using MINUS, UNION; which lists the book title that does NOT satisfy the condition: "Author first is 'Philip' or Publisher code is BF".

Solution-

select book_title from book, author, wrote where book.book_code = wrote.book_code and author.author_number = wrote.author_number minus select book_title from book, author, wrote where book.book_code = wrote.book_code and author.author_number = wrote.author_number and author.author_first = 'Philip' and book.publisher_code = 'BF';

Output-

BOOK_TITLE
Database System
A Guode to SQL
dBASE Programming
Using Microsoft access 2000

Query 27: Following is the table shown. Write the query to create the table (name it as Emp_Super) and insert the

values accordingly.

EMP_ID	EMP_NAME	SUPERVISOT_ID
1248	Martin Luther	1299
1299	Peter Philip	1984
1572	Paul Keith	1572
1984	Mark Nelson	1572

Solution-

```
create table emp_super(
emp_id int,
emp_name varchar(40),
supervisor_id int
);
insert into emp_super values ('1248', 'Martin Luther', '1299');
insert into emp_super values ('1299', 'Peter Philip', '1984');
insert into emp_super values ('1572', 'Paul Keith', '1572');
insert into emp_super values ('1984', 'Mark Nelson', '1572');
select e2.emp_name as Employee_Name, e1.emp_name as Supervisor_Name from emp_super e1 join emp_super e2 on e1.emp_id = e2.supervisor_id;
```

Output-

EMPLOYEE_NAME	SUPERVISOR_NAME
Martin Luther	Peter Philip
Peter Philip	Mark Nelson
Paul Keith	Paul Keith
Mark Nelson	Paul Keith

Query 28: Using EXIST or NOT EXIST, write a query to select name of author who have written more than one book.

Solution-

```
create view temp_table as select author_number from wrote group by author_number having
count(author_number) > 1 order by author_number;
select (author_first || ' ' || author_last) as auhtor_name from author where exists (select author_number from
temp_table where temp_table.author_number =  author.author_number) order by author_number;
```

Output-

AUHTOR_NAME
Jeffrey Archer
Agatha Christie
Dick Francis
Clive Cussler
Stephen King
Philip Pratt
Franz Kafka

Query 29: Write a query to list publishers who have authors that have NOT written more than one book.

Solution-

create view temp_table2 as select author_number from author minus select author_number from wrote group by author_number having count(author_number) > 1 order by author_number;

select distinct publisher_name from book, publisher, wrote where book.publisher_code = publisher.publisher_code and book.book_code = wrote.book_code and author_number in (select author_number from temp_table2);

Output-

PUBLISHER_NAME
Pocket Books
Signer
Bantam Books
Best and Furrow