

Lab 7

Objective: To implement the concept of Subquery and Set operations.

1. Find the product_no and description of non-moving products.

```
SELECT PRODUCT_NO, DESCRIPTION FROM PRODUCT_MASTER
WHERE PRODUCT_NO IN
( SELECT PRODUCT_NO FROM SALES_ORDER_DETAILS
WHERE S_ORDER_NO IN
( SELECT S_ORDER_NO FROM SALES_ORDER WHERE ORDER_STATUS='inprocess' ) );
```


O/P:

	PRODUCT_NO	DESCRIPTION
1	P00001	1.44floppies
2	P03453	Monitors
3	P06734	Mouse
4	P07865	1.22 floppies
5	P07868	Keyboards
6	P07885	CD Drive
7	P07965	540 HDD
8	P07975	1.44 Drive
9	P08865	1.22 Drive

2. Find the customer name, address, city and pincode for the client who has placed order no "019001".

```
SELECT CLIENT_NO, NAME, ADDRESS2, CITY, PINCODE FROM CLIENT_MASTER WHERE CLIENT_NO
IN( SELECT CLIENT_NO FROM SALES_ORDER WHERE S_ORDER_NO='019001' );
```

O/P:

	CLIENT_NO	NAME	ADDRESS2	CITY	PINCODE
1	0001	 Ivan	worli	Bombay	40054

3. Find the client names who have placed an order before the month of May 96.

```
SELECT CLIENT_MASTER.NAME FROM CLIENT_MASTER
WHERE CLIENT_NO IN(
SELECT CLIENT_NO FROM CLIENT_MASTER
INTERSECT
SELECT CLIENT_NO FROM SALES_ORDER
WHERE ORDER_DATE < TO_DATE('01-MAY-1996', 'DD-MON-YYYY')
);
```

O/P:

	NAME
1	Ivan
2	Vandana
3	Pramada

4. Find out if product “1.44 floppies” is ordered by only one client to whom it has been delivered, print the client_no, name of that client.

```
SELECT CLIENT_NO,NAME FROM CLIENT_MASTER WHERE CLIENT_NO IN (
    SELECT CLIENT_NO FROM SALES_ORDER WHERE S_ORDER_NO IN (
        SELECT S_ORDER_NO FROM SALES_ORDER_DETAILS WHERE PRODUCT_NO IN (
            SELECT PRODUCT_NO FROM PRODUCT_MASTER WHERE DESCRIPTION='1.44floppies')
        )
    );
```

O/P:

	CLIENT_NO	NAME
1	0001	Ivan
2	0002	Vandana
3	0005	Ravi

5. Find the names of clients who have placed orders worth Rs.10000 or more

```
SELECT NAME,
    (SELECT MAX(QTY_ORDER*PRODUCT_RATE)
     FROM SALES_ORDER_DETAILS sod
     WHERE QTY_ORDER*PRODUCT_RATE>=10000 AND sod.S_ORDER_NO IN (
         SELECT so.S_ORDER_NO
         FROM SALES_ORDER so
         WHERE so.CLIENT_NO = cm.CLIENT_NO
     )
    ) AS TOTAL
FROM CLIENT_MASTER cm
WHERE CLIENT_NO IN (
    SELECT CLIENT_NO
    FROM SALES_ORDER WHERE S_ORDER_NO IN(
        SELECT S_ORDER_NO FROM SALES_ORDER_DETAILS
        WHERE PRODUCT_RATE*QTY_ORDER>=10000
    )
);
```

O/P:

	NAME	TOTAL
1	Pramada	52500
2	Ivan	16800
3	Basu	12000

6. Select the orders placed by 'Ivan'.

```

SELECT P.PRODUCT_NO,P.DESCRPTION
FROM PRODUCT_MASTER P
WHERE P.PRODUCT_NO IN (
    SELECT PM.PRODUCT_NO
    FROM PRODUCT_MASTER PM
    INTERSECT
    SELECT S1.PRODUCT_NO
    FROM SALES_ORDER_DETAILS S1
    WHERE S1.S_ORDER_NO IN (
        SELECT SOD.S_ORDER_NO
        FROM SALES_ORDER_DETAILS SOD
        INTERSECT
        SELECT S2.S_ORDER_NO
        FROM SALES_ORDER S2
        WHERE S2.CLIENT_NO IN (
            SELECT S3.CLIENT_NO
            FROM SALES_ORDER S3
            INTERSECT
            SELECT C.CLIENT_NO
            FROM CLIENT_MASTER C
            WHERE C.NAME = 'Ivan'
        )
    )
);
O/P:

```

	PRODUCT_NO	DESCRIPTION
1	P00001	1.44floppies
2	P03453	Monitors
3	P07885	CD Drive
4	P07965	540 HDD

7. Select all the clients and the salesman in the city of Bombay.

```

SELECT C.NAME
FROM CLIENT_MASTER C
WHERE C.CITY = 'Bombay'

```

UNION

```
SELECT S.SAL_NAME
FROM SALES_MASTER S
WHERE S.CITY = 'Mumbai';
```

O/P:

	NAME
1	Ivan
2	Pramada
3	Basu
4	Rukmini
5	Aman
6	Omkar
7	Raj
8	Ashish

8. Select salesman name in “Bombay” who has at least one client located at “Bombay”

```
SELECT S.SAL_NAME FROM SALES_MASTER S
WHERE S.SALESMAN_NO IN (
    SELECT SALESMAN_NO FROM SALES_ORDER
    WHERE CLIENT_NO IN (
        SELECT CLIENT_NO FROM SALES_ORDER
        INTERSECT
        SELECT CLIENT_NO FROM CLIENT_MASTER
        WHERE CITY='Bombay'
    )
);
```

O/P:

	SAL_NAME
1	Aman
2	Omkar
3	Raj

9. Select the product_no, description, qty_on-hand, cost_price of non_moving items in the product_master table.

```
SELECT PRODUCT_NO, DESCRIPTION, QTY_ON_HAND, COST_PRICE FROM PRODUCT_MASTER
```

```

WHERE PRODUCT_NO IN(
    SELECT PRODUCT_NO FROM PRODUCT_MASTER
INTERSECT
    SELECT PRODUCT_NO FROM SALES_ORDER_DETAILS
WHERE S_ORDER_NO IN(
    SELECT S_ORDER_NO FROM SALES_ORDER_DETAILS
MINUS
    SELECT S_ORDER_NO FROM SALES_ORDER
WHERE ORDER_STATUS='inprocess'
)
);

```

O/P:

	PRODUCT_NO	DESCRIPTION	QTY_ON_HAND	COST_PRICE
1	P00001	1.44floppies	100	500
2	P03453	Monitors	10	11200
3	P06734	Mouse	20	500
4	P07865	1.22 floppies	100	500
5	P07868	Keyboards	10	3050
6	P07885	CD Drive	10	5100