

Database Management Systems Lab Experiment No: - 08

Aim: - Implement Joins and Nested SQL Queries

Joins:-

1) find out the product which has been sold to 'ivan bayroos'.

Query : SELECT p.product_no FROM Product_master p, Sales_order s, Sales_order_details sd, Client_master c WHERE p.product_no = sd.product_no AND s.client_no = c.client_no AND s.s_order_no = sd.s_order_no AND c.name like "Ivan Bayross";

Output :

```
mysql> select p.product_no from Product_master p, Sales_order s, Sales_order_details sd, Client_master c WHERE p.product_no = sd.product_no AND s.client_no = c.client_no AND s.s_order_no = sd.s_order_no AND c.name like "Ivan Bayross";
+-----+
| product_no |
+-----+
| P00001     |
| P07885     |
| P07965     |
| P03453     |
| P06734     |
+-----+
5 rows in set (0.00 sec)

mysql>
```

2) find the product_no and description of moving products.

Query : SELECT p.product_no, p.description FROM Product_master p, Sales_order s, Sales_order_details sd, Client_master c WHERE p.product_no = sd.product_no AND s.client_no = c.client_no AND s.s_order_no = sd.s_order_no AND sd.Qty_disp > 0;

Output :

```
+-----+-----+
| product_no | description |
+-----+-----+
| P00001     | 1.44 Floppies |
| P07885     | CD Drive     |
| P07965     | 540 HDD     |
| P03453     | Monitors     |
| P06734     | Mouse        |
| P00001     | 1.44 Floppies |
| P03453     | Monitors     |
| P07868     | Keyboards    |
| P07885     | CD Drive     |
+-----+-----+
9 rows in set (0.00 sec)
```

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3) find the names of the clients who have purchased 'CD Drive'.

Query : SELECT c.Name FROM Client_master c JOIN Sales_order s ON c.Client_no = s.Client_no AND Sales_order_details sd ON s.S_order_no = sd.S_order_no AND Product_master p ON sd.Product_no = p.Product_no WHERE p.Description = 'CD Drive';

Output :

```
+-----+
| Name |
+-----+
| Ivan Bayross |
| Pramada Jaguste |
+-----+
2 rows in set (0.00 sec)
```

4) List the product_no and s_order_no of customers having qty_ordered less than 5 from the order detail Table for the product '1.44 Floppies'.

Query : SELECT sd.product_no, sd.s_order_no FROM Sales_order_details sd JOIN Product_master p ON sd.product_no = p.product_no JOIN Sales_order so ON sd.s_order_no = so.s_order_no JOIN Client_master c ON so.client_no = c.client_no WHERE p.Description = '1.44 Floppies' AND sd.Qty_ordered < 5;

Output :

```
+-----+-----+
| product_no | s_order_no |
+-----+-----+
| P00001 | 019001 |
+-----+-----+
1 row in set (0.00 sec)
```

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5) Find the products and their quantities for the orders placed by 'Vandana Saitwal' and 'Ivan Bayross'.

Query : SELECT sd.product_no, sd.qty_ordered FROM Sales_order_details sd JOIN Sales_order so ON
sd.s_order_no = so.s_order_no JOIN Client_master c ON so.client_no = c.client_no WHERE
c.Name IN ('Vandana Saitwal', 'Ivan Bayross');

Output :

product_no	qty_ordered
P00001	4
P07885	2
P07965	2
P00001	10
P03453	2
P06734	1

6 rows in set (0.00 sec)

6) Find the products and their quantities for the orders placed by client_no'C00001' and 'C00002'.

Query : SELECT sd.product_no, sd.qty_ordered FROM Sales_order_details sd JOIN Sales_order so ON
sd.s_order_no = so.s_order_no WHERE so.client_no IN ('C00001', 'C00002');

Output :

product_no	qty_ordered
P00001	4
P07885	2
P07965	2
P00001	10
P03453	2
P06734	1

6 rows in set (0.00 sec)

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Nested Queries:-

1) Find the product_no and description of non-moving products (eg. products not being sold).

Query : SELECT product_no, description FROM Product_master WHERE product_no NOT IN
(SELECT product_no FROM Sales_order_detail);

Output :

```
+-----+-----+
| product_no | description |
+-----+-----+
| P07865     | 1.22 Floppies |
| P08865     | 1.22 Drive   |
+-----+-----+
2 rows in set (0.01 sec)
```

2) Find the customers name ,city and pincode for the client who has placed order no “O19001”.

Query : SELECT Name, City, Pincode FROM Client_master WHERE Client_no IN (SELECT client_no
FROM Sales_order WHERE S_order_no = 'O19001');

Output :

```
+-----+-----+-----+
| Name      | City   | Pincode |
+-----+-----+-----+
| Ivan Bayross | Bombay | 400054 |
+-----+-----+-----+
1 row in set (0.01 sec)
```

Conclusion:- LO mapped LO2,LO3.