

## ASSIGNMENT:- 4

**NAME:**

**ROLL NO:**

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**PROBLEM STATEMENT:** DESIGN AT LEAST 10 SQL QUERIES FOR SUTABLE DATABASE APPLICATION USING SQL DML STATEMENTS:ALL TYPES OF JOIN,SUB-QUERY AND VIEW.

### **A) Exercise on Joins and Correlations :**

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**1) Find out the products. Which have been sold to 'Ivan Bayross'.**

```
mysql> SELECT
NAME,
PRODUCT_MASTER.PRODUCT_NO,
DESCRIPTION,
SALES_ORDER.ORDER_NO
FROM
CLIENT_MASTER,
PRODUCT_MASTER,
SALES_ORDER,
SALES_ORDER_DETAILS
WHERE
CLIENT_MASTER.NAME = 'Ivan Bayross'
AND
CLIENT_MASTER.CLIENT_NO = SALES_ORDER.CLIENT_NO
AND
SALES_ORDER.ORDER_NO = SALES_ORDER_DETAILS.ORDER_NO
AND
SALES_ORDER_DETAILS.PRODUCT_NO = PRODUCT_MASTER.PRODUCT_NO;
```

```
+-----+-----+-----+-----+
| NAME      | PRODUCT_NO | DESCRIPTION | ORDER_NO |
+-----+-----+-----+-----+
| IVAN BAYROSS | P0001      | T-SHIRTS   | O19001   |
| IVAN BAYROSS | P07965     | DEIM SHIRTS | O19001   |
| IVAN BAYROSS | P07885     | PULL OVERS  | O19001   |
| IVAN BAYROSS | P0345      | SHIRTS      | O19003   |
| IVAN BAYROSS | P06734     | COTTON JEANS | O19003   |
+-----+-----+-----+-----+
```

5 rows in set (0.00 sec)

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**2) Find out the products and their quantities that will have to be delivered in the current month. (ANS NOT SURE)**

```
mysql> SELECT DELY_DATE,
SALES_ORDER_DETAILS.PRODUCT_NO,QTY_ORDERED,DESCRIPTION FROM
SALES_ORDER,SALES_ORDER_DETAILS,PRODUCT_MASTER WHERE SALES_ORDER.ORDER_NO
= SALES_ORDER_DETAILS.ORDER_NO AND SALES_ORDER_DETAILS.PRODUCT_NO =
```

```
PRODUCT_MASTER.PRODUCT_NO AND DATE_FORMAT(SALES_ORDER.DELY_DATE,'MM') =
DATE_FORMAT(SYSDATE(),'MM');
```

```
+-----+-----+-----+-----+
| DELY_DATE | PRODUCT_NO | QTY_ORDERED | DESCRIPTION |
+-----+-----+-----+-----+
| 2002-07-20 | P0001      | 4 | T-SHIRTS |
| 2002-07-20 | P07965     | 2 | DEIM SHIRTS |
| 2002-07-20 | P07885     | 2 | PULL OVERS |
| 2002-06-27 | P0001      | 10 | T-SHIRTS |
| 2002-04-07 | P0345      | 2 | SHIRTS |
| 2002-04-07 | P06734     | 1 | COTTON JEANS |
| 2002-07-26 | P0001      | 10 | T-SHIRTS |
| 2002-07-26 | P07975     | 5 | LYCRA TOPS |
| 2002-02-20 | P07868     | 3 | TROUSERS |
| 2002-02-20 | P07885     | 3 | PULL OVERS |
| 2002-02-20 | P0001      | 10 | T-SHIRTS |
| 2002-02-20 | P0345      | 4 | SHIRTS |
| 2002-05-22 | P07965     | 1 | DEIM SHIRTS |
| 2002-05-22 | P07975     | 1 | LYCRA TOPS |
+-----+-----+-----+-----+
14 rows in set (0.00 sec)
```

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### 3) List the ProductNo and description of constantly sold (i.e. rapidly moving) products.

```
mysql> SELECT PRODUCT_NO FROM SALES_ORDER_DETAILS WHERE PRODUCT_RATE = (SELECT
MAX(PRODUCT_RATE) FROM SALES_ORDER_DETAILS );
```

```
+-----+
| PRODUCT_NO |
+-----+
| P06734     |
+-----+
1 row in set (0.00 sec)
```

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### 4) Find the names of the clients who have purchased 'Trousers'.

```
mysql> SELECT DISTINCT SO.CLIENT_NO, CM.NAME FROM SALES_ORDER_DETAILS SOD,
SALES_ORDER SO, PRODUCT_MASTER PM, CLIENT_MASTER CM WHERE PM.PRODUCT_NO =
SOD.PRODUCT_NO AND SO.ORDER_NO = SOD.ORDER_NO AND CM.CLIENT_NO =
SO.CLIENT_NO AND DESCRIPTION = 'TROUSERS';
```

```
+-----+-----+
| CLIENT_NO | NAME          |
+-----+-----+
| C00003    | CHHAYA BANKER |
+-----+-----+
1 row in set (0.00 sec)
```

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### 5) List the products and orders from customers who have orderd less than 5 units of 'Pull Overs'.

```
mysql> select PRODUCT_MASTER.PRODUCT_NO,ORDER_NO from
PRODUCT_MASTER,SALES_ORDER_DETAILS where DESCRIPTION = 'PULL OVERS' and
PRODUCT_MASTER.PRODUCT_NO = SALES_ORDER_DETAILS.PRODUCT_NO and QTY_ORDERED <
5;
```

```
+-----+-----+
| PRODUCT_NO | ORDER_NO |
+-----+-----+
| P07885     | O19001   |
| P07885     | O46865   |
+-----+-----+
```

2 rows in set (0.00 sec)

---

**6) Find the products and their quantities for the orders placed by ‘Ivan Bayross’ and ‘Mamta Muzumdar’.**

```
mysql> SELECT SOD.PRODUCT_NO, PM.DESCRPTION, SUM(QTY_ORDERED) UNITS_ORDERED
FROM SALES_ORDER_DETAILS SOD, SALES_ORDER SO, PRODUCT_MASTER PM,
CLIENT_MASTER CM WHERE SO.ORDER_NO = SOD.ORDER_NO AND PM.PRODUCT_NO =
SOD.PRODUCT_NO AND CM.CLIENT_NO = SO.CLIENT_NO AND (CM.NAME = 'IVAN BAYROSS' OR
CM.NAME = 'MAMTA MUZUMDAR') GROUP BY SOD.PRODUCT_NO, PM.DESCRPTION;
```

```
+-----+-----+-----+
| PRODUCT_NO | DESCRIPTION | UNITS_ORDERED |
+-----+-----+-----+
| P0001      | T-SHIRTS   | 14 |
| P0345      | SHIRTS     | 2 |
| P06734     | COTTON JEANS | 1 |
| P07885     | PULL OVERS | 2 |
| P07965     | DEIM SHIRTS | 2 |
+-----+-----+-----+
```

5 rows in set (0.00 sec)

---

**7) Find the products and their quantities for the orders placed by Client\_No ‘C00001’ and ‘C00002’.**

```
mysql> SELECT SO.CLIENT_NO, SOD.PRODUCT_NO, PM.DESCRPTION, SUM(QTY_ORDERED)
UNITS_ORDERED FROM SALES_ORDER SO, SALES_ORDER_DETAILS SOD, PRODUCT_MASTER
PM, CLIENT_MASTER CM WHERE SO.ORDER_NO = SOD.ORDER_NO AND SOD.PRODUCT_NO =
```

PM.PRODUCT\_NO AND SO.CLIENT\_NO = CM.CLIENT\_NO GROUP BY SO.CLIENT\_NO,  
SOD.PRODUCT\_NO, PM.DESCRPTION HAVING SO.CLIENT\_NO = 'C00001' OR SO.CLIENT\_NO =  
'C00002';

```
+-----+-----+-----+-----+
| CLIENT_NO | PRODUCT_NO | DESCRIPTION | UNITS_ORDERED |
+-----+-----+-----+-----+
| C00001 | P0001 | T-SHIRTS | 4 |
| C00001 | P0345 | SHIRTS | 2 |
| C00001 | P06734 | COTTON JEANS | 1 |
| C00001 | P07885 | PULL OVERS | 2 |
| C00001 | P07965 | DEIM SHIRTS | 2 |
| C00002 | P0001 | T-SHIRTS | 10 |
+-----+-----+-----+-----+
6 rows in set (0.01 sec)
```

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## B) Exercise on subqueries

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**1)Find the Product\_No and Description of non-moving products i.e. Products not beign sold.**

mysql> SELECT PRODUCT\_NO, DESCRIPTION FROM PRODUCT\_MASTER WHERE  
PRODUCT\_NO NOT IN(SELECT PRODUCT\_NO FROM SALES\_ORDER\_DETAILS);

```
+-----+-----+
| PRODUCT_NO | DESCRIPTION |
+-----+-----+
| P07865 | JEANS |
| P08865 | SKIRTS |
+-----+-----+
2 rows in set (0.00 sec)
```

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**2) List the customer name, address1, address2, city and pincode for the client who has placed Order\_No 'O19001'.**

```
mysql> SELECT NAME, ADDRESS1, ADDRESS2, CITY, STATE, PINCODE FROM CLIENT_MASTER
WHERE CLIENT_NO IN(SELECT CLIENT_NO FROM SALES_ORDER WHERE ORDER_NO = 'O19001');
```

```
+-----+-----+-----+-----+-----+-----+
| NAME      | ADDRESS1 | ADDRESS2 | CITY  | STATE   | PINCODE |
+-----+-----+-----+-----+-----+-----+
| IVAN BAYROSS | NASHIK  | YEOLA   | MUMBAI | MAHARASHTRA | 400054 |
+-----+-----+-----+-----+-----+-----+

1 row in set (0.00 sec)
```

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### 3) List the client names that have placed orders before the month of May'02.

```
mysql> SELECT CLIENT_NO, NAME FROM CLIENT_MASTER WHERE CLIENT_NO IN(SELECT
CLIENT_NO FROM SALES_ORDER WHERE DATE_FORMAT(ORDER_DATE, 'MON,YY') < 'MAY,02');
```

Empty set (0.00 sec)

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### 4) List if the product 'LYCRA TOP' has been ordered by any client and print the Client\_No, name to whom it was sold.

```
mysql> SELECT CLIENT_NO, NAME FROM CLIENT_MASTER WHERE CLIENT_NO IN(SELECT
CLIENT_NO FROM SALES_ORDER WHERE ORDER_NO IN(SELECT ORDER_NO FROM
SALES_ORDER_DETAILS WHERE PRODUCT_NO IN(SELECT PRODUCT_NO FROM
PRODUCT_MASTER WHERE DESCRIPTION = 'LYCRA TOPS')));
```

```
+-----+-----+
| CLIENT_NO | NAME      |
+-----+-----+
| C00004    | ASHWINI JOSHI |
| C00005    | HANSEL COLACO |
+-----+-----+

2 rows in set (0.00 sec)
```

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### 5) List the names of clients who have placed orders worth Rs. 10000 or more.

```
mysql> SELECT NAME FROM CLIENT_MASTER WHERE CLIENT_NO IN(SELECT CLIENT_NO
FROM SALES_ORDER WHERE ORDER_NO IN(SELECT ORDER_NO FROM
SALES_ORDER_DETAILS WHERE (QTY_ORDERED * PRODUCT_RATE) >= 10000));
```

```
+-----+
| NAME      |
+-----+
```

| IVAN BAYROSS |

| CHHAYA BANKER |

+-----+

2 rows in set (0.00 sec)

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