LAB – 3 PRACTICAL SOLUTIONS

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TASK-1

Question: Select distinct customer name, id, account number, total loan amount of all female customer having exactly 3 loans.

```
SELECT DISTINCT NAME , C.C_ID , AC_NO , ABC.AV_AMOUNT FROM CUSTOMER
C,DEPOSITOR D ,(SELECT B3.CUST_ID , SUM(L.AMOUNT) AV_AMOUNT FROM LOAN L
INNER JOIN (SELECT B.CUST_ID , B.LOAN_NO FROM BORROWER B NATURAL JOIN
(SELECT CUST_ID, COUNT(*) CNT FROM BORROWER B2 GROUP BY CUST_ID HAVING
COUNT(*)=3) AS B1) AS B3 ON B3.LOAN_NO = L.LN_NO GROUP BY B3.CUST_ID )ABC
WHERE C.C_ID = D.CUST_ID AND C.C_ID = ABC.CUST_ID AND C.GENDER='f';
```

```
+----------+------+-------------+-----------+
| NAME     | C_ID | AC_NO       | AV_AMOUNT |
+----------+------+-------------+-----------+
| haritha  | c1   | 20012023094 |   7000000 |
| sachitra | c5   | 20012033046 |  2200000.0 |
+----------+------+-------------+-----------+
```

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TASK-2

Question: Find the time that passed between a payment and all payments occurring within year(365 days) later on the same payment number and amount paid on first date using cross join AND in ascending order of date1.

Hint:

- expected output - payment_number, date1 , date2 , date_diff , amount_paid_on_date1
- {DATEDIFF(date1, date2)} – gives difference between the dates in days.

Solution:

```
SELECT P2.PNO , P2.DATE1 , P2.DATE2 ,P2.D_DIFF , P1.AMOUNT FROM PAYMENT P1 CROSS
JOIN (select s1.P_NO PNO ,s1.DATE DATE1,s2.DATE DATE2,DATEDIFF(s2.DATE,s1.DATE) as
D_DIFF from
PAYMENT as s1 INNER JOIN PAYMENT as s2 ON s1.P_NO=s2.P_NO where s2.DATE>s1.DATE
and DATEDIFF(s2.DATE,s1.DATE)<=365 )P2 WHERE P1.DATE = P2.DATE1 ORDER BY
P2.DATE1;
```

```
+-----+------------+------------+--------+---------+
| PNO | DATE1      | DATE2      | D_DIFF | AMOUNT  |
+-----+------------+------------+--------+---------+
| p1  | 2011-01-09 | 2011-10-11 |    275 | 1038714 |
| p1  | 2011-01-09 | 2011-03-11 |     61 | 1038714 |
| p1  | 2011-01-09 | 2011-10-08 |    272 | 1038714 |
| p1  | 2011-03-11 | 2011-10-08 |    211 |    5000 |
| p1  | 2011-03-11 | 2011-10-11 |    214 |    5000 |
| p1  | 2011-10-08 | 2011-10-11 |      3 |    5000 |
| p1  | 2011-10-08 | 2012-04-11 |    186 |    5000 |
| p2  | 2011-10-09 | 2012-03-11 |    154 |    5000 |
| p1  | 2011-10-11 | 2012-04-11 |    183 |    5000 |
```

```
| p1  | 2012-04-11 | 2012-10-25 |    197 |    8000 |
+-----+------------+------------+--------+---------+
```

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TASK-3

Question: We want to see the results for all west region cities regardless whether there is a sale (with total amount) in the STORE_INFO table.

Solution:

```
SELECT A1.CITY STORE_INFO, SUM(A2.SALES) SALES
FROM GEOGRAPHY A1
LEFT OUTER JOIN STORE_INFO A2
ON A1.CITY = A2.CITY
WHERE REGION_NAME = 'WEST'
GROUP BY A1.CITY;
```

Answer:

```
|   CITY      |Total|
|   AHMEDABAD|112   |
|   MUMBAI    |125   |
|   NAGPUR    |NULL  |
|   PUNE      |NULL  |
```

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TASK-4

Question: We want to see the results for two employees (whose name is either WENG or ZHONG) only regardless whether he has booked less than 4 orders. A student should display three columns (employee ID, employee name, total # of orders) for the results and it should be sorted based on employee ID.

Solution:

```
SELECT EMPLOYEE.EMPLOYEE_ID, EMPLOYEE.NAME, COUNT(ORDERS.ORDER_ID) AS NumberOfOrders
FROM ORDERS
INNER JOIN EMPLOYEE ON ORDERS.EMPLOYEE_ID = EMPLOYEE.EMPLOYEE_ID
WHERE NAME = 'WENG' OR NAME = 'ZHONG'
GROUP BY  EMPLOYEE_ID
HAVING COUNT(ORDERS.ORDER_ID) < 4;
```

Solution:

```
|Employee_ID | Employee_name | Total |
|    2       |    WENG       |   2   |
|    3       |    ZHONG      |   1   |
```

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