Omkar Mankame

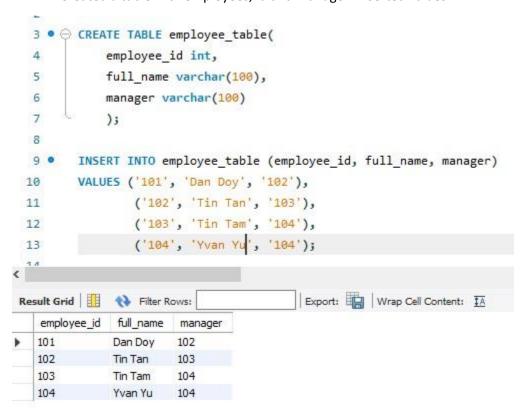
SQL Queries

Query 1 - Employee_Manager Table - Self Join

Problem Statement: Display names of employees and their manager names.

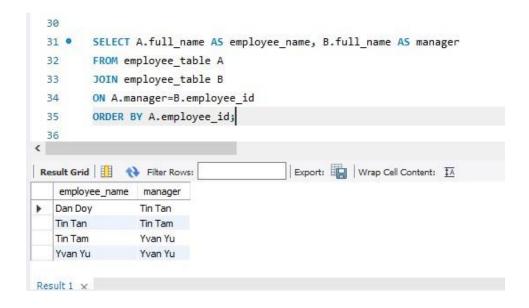
Solution:

- 1. Created database.
- 2. Created a table with employees, id and manager. Inserted values.



Given Data:

Result: Used Self Join to produce result as seen below.



SQL code (Also available in GitHub Codespace) -

```
Use myproject;
CREATE TABLE employee_table(
  employee_id int,
  full_name varchar(100),
  manager varchar(100)
  );
INSERT INTO employee_table (employee_id, full_name, manager)
VALUES ('101', 'Dan Doy ', '102'),
    ('102', 'Tin Tan', '103'),
    ('103', 'Tin Tam', '104'),
    ('104', 'Yvan Yu', '104');
SELECT A.full_name AS employee_name, B.full_name AS manager
FROM employee_table A
JOIN employee table B
ON A.manager=B.employee_id
ORDER BY A.employee_id;
```

Query 2 – Credit Limit of Credit Card – Correlated Query

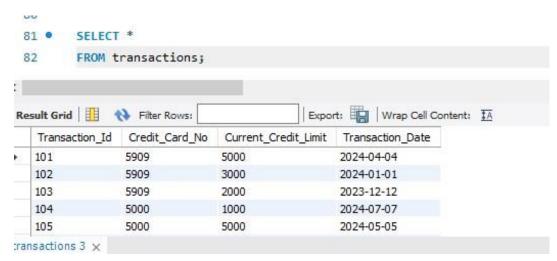
Problem Statement: Find the credit limit of a credit card for the maximum transaction date.

Solution:

- 1. Created database and Table with transaction id, credit card number, credit card limit and transaction date.
- 2. Inserted values in the table.

```
Limit to 1000 rows
1 .
       USE casestudies;
2
3 • ⊖ CREATE TABLE Transactions (
           Transaction_Id int,
4
5
           Credit Card No int,
           Current_Credit_Limit int,
6
           Transaction Date date
7
8
           );
9
10 •
       INSERT INTO Transactions (Transaction_Id, Credit_Card_No, Current_
       VALUES ('101', '5909', '5000', '2024-04-04'),
11
               ('102', '5909', '3000', '2024-01-01'),
12
13
               ('103', '5909', '2000', '2023-12-12'),
               ('104', '5000', '1000', '2024-07-07'),
14
                ('105', '5000', '5000', '2024-05-05'),
15
               ('106', '5000', '3000', '2023-12-12'),
16
               ('107', '5000', '3000', '2023-11-11');
17
18
19 •
       SELECT Credit Card No,
            Current Credit Limit,
20
```

Given Data:



Result: Final result was attained using joins, group by and alias.

```
69
70 .
        SELECT Credit_Card_No,
71
             Current Credit Limit
72
        FROM transactions AS a

→ WHERE Transaction Date = (SELECT max(Transaction Date))

73
74
                                      FROM transactions as b
                                  WHERE a.Credit Card No = b.Credit Card No);
75
esult Grid
             Filter Rows:
                                          Export: Wrap Cell Content: IA
  Credit Card No
                Current Credit Limit
  5909
                5000
 5000
                1000
```

SQL code (Also available in GitHub Codespace) -

```
USE casestudies;
CREATE TABLE Transactions (
  Transaction_Id int,
  Credit Card No int,
  Current Credit Limit int,
  Transaction Date date
INSERT INTO Transactions (Transaction_Id, Credit_Card_No, Current_Credit_Limit, Transaction_Date)
VALUES ('101', '5909', '5000', '2024-04-04'),
    ('102', '5909', '3000', '2024-01-01'),
    ('103', '5909', '2000', '2023-12-12'),
    ('104', '5000', '1000', '2024-07-07'),
    ('105', '5000', '5000', '2024-05-05'),
    ('106', '5000', '3000', '2023-12-12'),
    ('107', '5000', '3000', '2023-11-11');
SELECT Credit_Card_No,
          Current_Credit_Limit
FROM transactions AS a
WHERE Transaction Date = (SELECT max(Transaction Date) FROM transactions as b WHERE a.Credit Card No =
b.Credit_Card_No);
```

Query 3 – GROUP BY_ORDER BY

Problem Statement: Find customer count from each country from customer table.

Given Data:

Number of Records: 91

CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209	Germany
2	Ana Trujillo Emparedados y helados	Ana Trujillo	Avda. de la Constitución 2222	México D.F.	05021	Mexico
3	Antonio Moreno Taquería	Antonio Moreno	Mataderos 2312	México D.F.	05023	Mexico
4	Around the Horn	Thomas Hardy	120 Hanover Sq.	London	WA1 1DP	UK
5	Berglunds snabbköp	Christina Berglund	Berguvsvägen 8	Luleå	S-958 22	Sweden
6	Blauer See Delikatessen	Hanna Moos	Forsterstr. 57	Mannheim	68306	Germany

Result Table:

SELECT COUNT(CustomerID), Country
FROM Customers
GROUP BY Country
ORDER BY COUNT(CustomerID);

Number of Records: 21

COUNT(CustomerID)	Country
1	Ireland
1	Norway
1	Poland
2	Belgium
2	Denmark
2	Finland
2	Sweden
2	Switzerland