

**MINI PROJECT**  
**DATA ENGINEERING**  
**DSLS 2023**

Name :

Ni Putu Ananda Vika Jantika

Date :

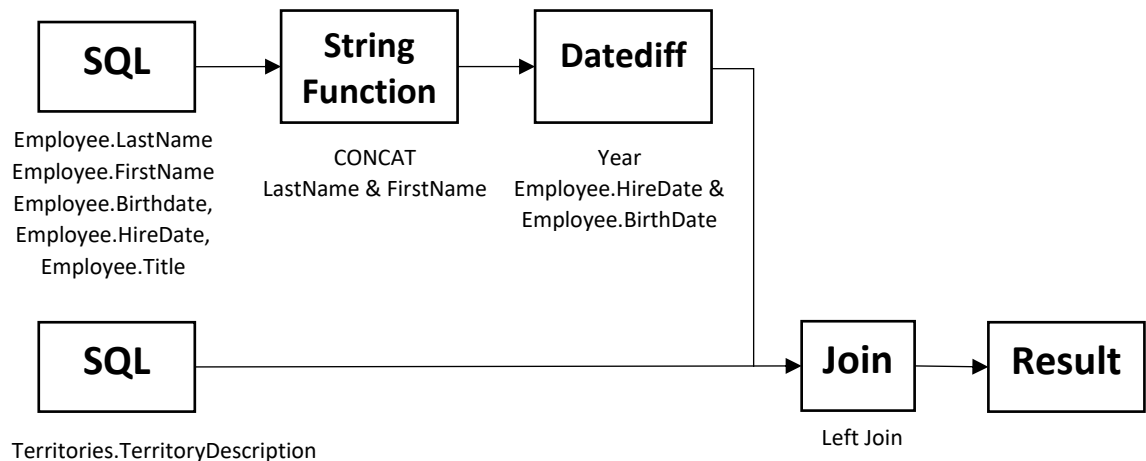
January, 2023

## Bagian 2a Transform : Case Study

### 1. Territory Analysis

Data / Tabel : Tabel EmployeeTerritories, Tabel Employees, dan Tabel Territories

Flowchart :



Query :

```
SELECT
    CONCAT(Employees.FirstName, ' ', Employees.LastName) AS Employee_FullName,
    DATEDIFF(YEAR, Employees.BirthDate, Employees.HireDate) AS Employee_Age,
    Employees.Title,
    Territories.TerritoryDescription
FROM
    EmployeeTerritories
    LEFT JOIN Employees ON EmployeeTerritories.EmployeeID =
        Employees.EmployeeID
    LEFT JOIN Territories ON EmployeeTerritories.TerritoryID =
        Territories.TerritoryID
ORDER BY
    Employee_FullName, TerritoryDescription
```

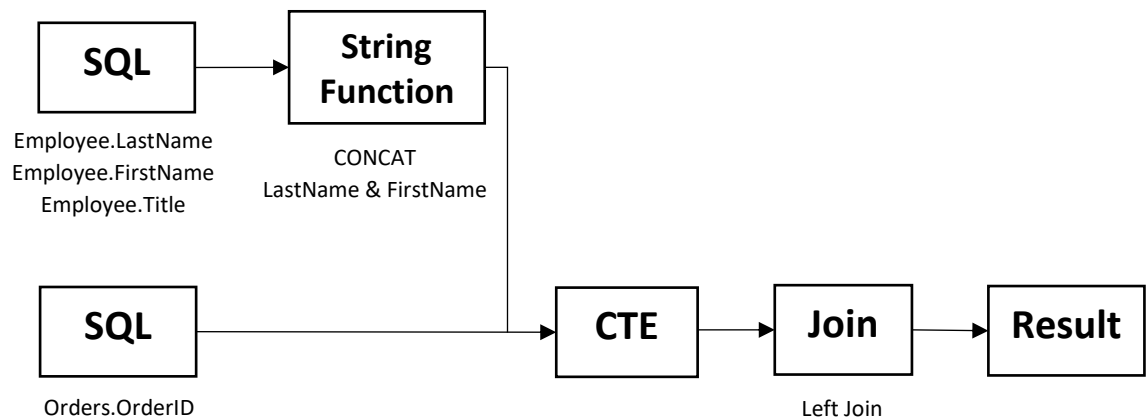
Hasil :

Results Messages				
	Employee_FullName	Employee_Age	Title	TerritoryDescription
1	Andrew Fuller	40	Vice President, Sales	Bedford
2	Andrew Fuller	40	Vice President, Sales	Boston
3	Andrew Fuller	40	Vice President, Sales	Braintree
4	Andrew Fuller	40	Vice President, Sales	Cambridge
5	Andrew Fuller	40	Vice President, Sales	Georgetow
6	Andrew Fuller	40	Vice President, Sales	Louisville
7	Andrew Fuller	40	Vice President, Sales	Westboro
8	Anne Dodsworth	28	Sales Representative	Bloomfield Hills
9	Anne Dodsworth	28	Sales Representative	Hollis
10	Anne Dodsworth	28	Sales Representative	Minneapolis

## 2. Employee Analysis

Data / Tabel : Tabel Employees dan Tabel Orders

Flowchart :



Query :

```
WITH cte AS (
SELECT
    CONCAT(Employees.FirstName, ' ', Employees.LastName) AS Employee_FullName,
    Employees.Title,
    COUNT(Orders.OrderID) AS Jumlah_OrderID
FROM
    Orders
    LEFT JOIN Employees ON Orders.EmployeeID = Employees.EmployeeID
GROUP BY
    CONCAT(Employees.FirstName, ' ', Employees.LastName),
    Employees.Title
)

SELECT * FROM cte
ORDER BY Jumlah_OrderID
```

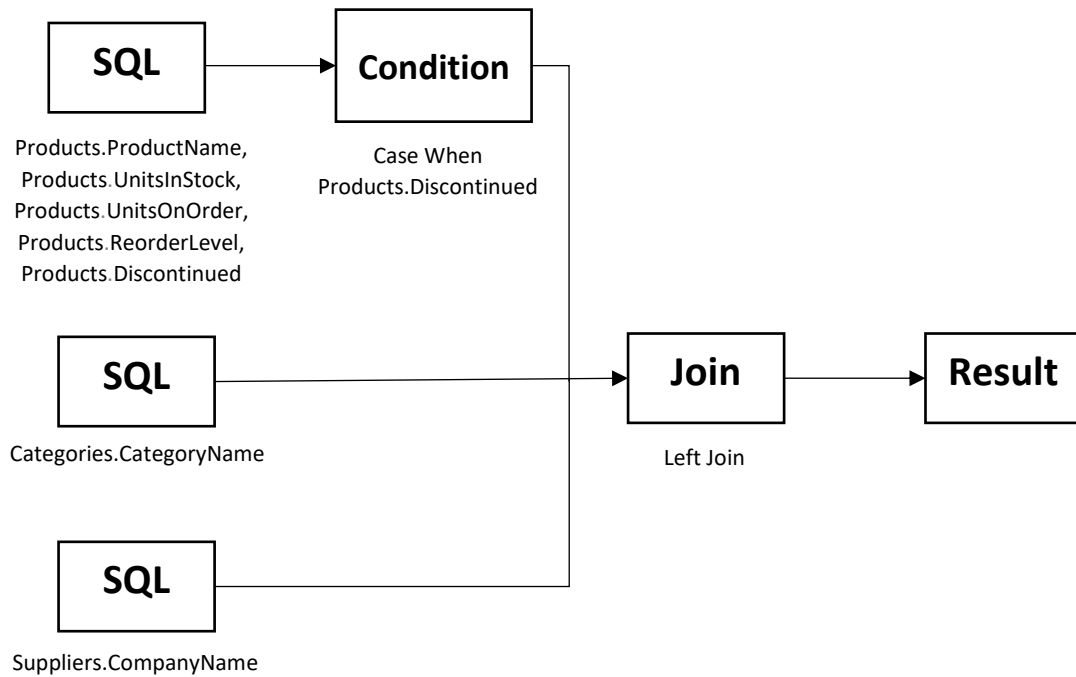
Hasil :

	Employee_FullName	Title	Jumlah_OrderID
1	Steven Buchanan	Sales Manager	42
2	Anne Dodsworth	Sales Representative	43
3	Michael Suyama	Sales Representative	67
4	Robert King	Sales Representative	72
5	Andrew Fuller	Vice President, Sales	96
6	Laura Callahan	Inside Sales Coordinator	104
7	Nancy Davolio	Sales Representative	123
8	Janet Leverling	Sales Representative	127
9	Margaret Peacock	Sales Representative	156

## 3. Supplier Analysis

Data / Tabel : Tabel Products, Tabel Categories, dan Tabel Suppliers

Flowchart :



Query:

SELECT

Products.ProductName,  
Categories.CategoryName,  
Suppliers.CompanyName AS SupplierName,  
Products.UnitsInStock,  
Products.UnitsOnOrder,  
Products.ReorderLevel,

CASE

WHEN Products.Discontinued = '1' THEN 'Discontinued'

WHEN Products.Discontinued = '0' THEN 'Continued'

END AS Product\_Status

FROM

Products

LEFT JOIN Categories ON Products.CategoryID = Categories.CategoryID

LEFT JOIN Suppliers ON Products.SupplierID = Suppliers.SupplierID

ORDER BY

Product\_Status,

Products.ReorderLevel DESC

Hasil :

Results		Messages					
	ProductName	CategoryName	SupplierName	UnitsInStock	UnitsOnOrder	ReorderLevel	Product_Status
1	Queso Cabrales	Dairy Products	Cooperativa de Quesos 'Las Cabras'	22	30	30	Continued
2	NuNuCa Nuß-Nougat-Creme	Confections	Heli Süßwaren GmbH & Co. KG	76	0	30	Continued
3	Schoggi Schokolade	Confections	Heli Süßwaren GmbH & Co. KG	49	0	30	Continued
4	Boston Crab Meat	Seafood	New England Seafood Cannery	123	0	30	Continued
5	Valkoinen suklaa	Confections	Karkki Oy	65	0	30	Continued
6	Gnocchi di nonna Alice	Grains/Cereals	Pasta Buttini s.r.l.	21	10	30	Continued
7	Wimmers gute Semmelknödel	Grains/Cereals	Plutzer Lebensmittelgroßmärkte AG	22	80	30	Continued
8	Outback Lager	Beverages	Pavlova, Ltd.	15	10	30	Continued
9	Sirop d'érable	Condiments	Forêts d'érables	113	0	25	Continued
10	Filo Mix	Grains/Cereals	G'day, Mate	38	0	25	Continued