

TUGAS 1 DATA LAKEHOUSE

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1. Yearly sales made by the employee sales person

a. Query :

```
-- Yearly sales made by employee sales person
SELECT
    EXTRACT(YEAR FROM soh.OrderDate) AS SaleYear,
    p.BusinessEntityID AS SalesPersonID,
    p.FirstName || ' ' || p.LastName AS SalesPersonName,
    SUM(soh.SubTotal) AS TotalSales
FROM
    Sales.SalesOrderHeader soh
    INNER JOIN Sales.SalesPerson sp ON soh.SalesPersonID = sp.BusinessEntityID
    INNER JOIN HumanResources.Employee e ON sp.BusinessEntityID = e.BusinessEntityID
    INNER JOIN Person.Person p ON e.BusinessEntityID = p.BusinessEntityID
GROUP BY
    EXTRACT(YEAR FROM soh.OrderDate),
    p.BusinessEntityID,
    p.FirstName,
    p.LastName
ORDER BY
    SaleYear,
    TotalSales DESC;
```

b. Result :

	12 saleyear	123 salespersonid	A salespersonname	123 totalsales
1	2,011	279	Tsvi Reiter	1,521,289.1881
2	2,011	277	Jillian Carson	1,311,627.2918
3	2,011	282	José Saraiva	1,175,007.4753
4	2,011	276	Linda Mitchell	1,149,715.3253
5	2,011	281	Shu Ito	967,597.2899
6	2,011	275	Michael Blythe	875,823.8318
7	2,011	280	Pamela Ansman-Wolfe	648,485.5862
8	2,011	283	David Campbell	599,987.9444
9	2,011	278	Garrett Vargas	500,091.8202
10	2,011	274	Stephen Jiang	28,926.2465
11	2,012	277	Jillian Carson	4,317,306.5741
12	2,012	276	Linda Mitchell	3,834,908.674
13	2,012	275	Michael Blythe	3,375,456.8947
14	2,012	289	Jae Pak	3,014,278.0472
15	2,012	279	Tsvi Reiter	2,674,436.3518
16	2,012	281	Shu Ito	2,294,210.5506

2. List of all product (Product that is ready for sale) made by Adventurework factory that have low stock.

a. Query

```
-- List of all product (Product that is ready for sale) made by Adventurework factory that have low stock.
SELECT
    p.ProductID,
    p.Name AS ProductName,
    p.ProductNumber,
    pi.Quantity AS CurrentStock,
    p.SafetyStockLevel AS SafetyStockLevel
FROM
    Production.Product p
    INNER JOIN Production.ProductInventory pi ON p.ProductID = pi.ProductID
WHERE
    p.sellstartdate is not null
    AND pi.Quantity <= p.SafetyStockLevel
ORDER BY
    p.Name ASC;
```

b. Result

	productid	productname	productnumber	currentstock	safetystocklevel
1	1	Adjustable Race	AR-5381	408	1,000
2	1	Adjustable Race	AR-5381	324	1,000
3	1	Adjustable Race	AR-5381	353	1,000
4	3	BB Ball Bearing	BE-2349	585	800
5	3	BB Ball Bearing	BE-2349	443	800
6	3	BB Ball Bearing	BE-2349	324	800
7	2	Bearing Ball	BA-8327	427	1,000
8	2	Bearing Ball	BA-8327	318	1,000
9	2	Bearing Ball	BA-8327	364	1,000
10	316	Blade	BL-2036	532	800
11	316	Blade	BL-2036	441	800
12	316	Blade	BL-2036	388	800
13	952	Chain	CH-0234	192	500
14	952	Chain	CH-0234	236	500
15	952	Chain	CH-0234	161	500
16	324	Chain Stays	CS-2812	476	1,000

3. List of order made by AdventureWorks to unpreferred vendor

a. Query

```
-- List of order made by adventureworks to unpreferred vendor
SELECT
    po.PurchaseOrderID,
    po.OrderDate,
    v.BusinessEntityID AS VendorID,
    v.Name AS VendorName
FROM
    Purchasing.PurchaseOrderHeader po
    INNER JOIN Purchasing.Vendor v ON po.VendorID = v.BusinessEntityID
WHERE
    v.PreferredVendorStatus = false
ORDER BY
    po.OrderDate DESC;
```

b. Result

	123 purchaseorderid	orderdate	123 vendorid	vendorname
1	3,994	2014-08-03 00:00:00.000	1,614	Reliance Fitness, Inc.
2	3,991	2014-08-03 00:00:00.000	1,686	Pro Sport Industries
3	3,986	2014-08-03 00:00:00.000	1,656	Mountain Works
4	3,980	2014-08-02 00:00:00.000	1,666	Leaf River Terrain
5	3,967	2014-08-01 00:00:00.000	1,516	Gardner Touring Cycles
6	3,940	2014-07-31 00:00:00.000	1,602	Beaumont Bikes
7	3,951	2014-07-31 00:00:00.000	1,544	Circuit Cycles
8	3,943	2014-07-31 00:00:00.000	1,604	Bike Satellite Inc.
9	3,937	2014-07-31 00:00:00.000	1,678	Proseware, Inc.
10	3,929	2014-07-30 00:00:00.000	1,554	WestAmerica Bicycle Co.
11	3,926	2014-07-30 00:00:00.000	1,578	Vision Cycles, Inc.
12	3,912	2014-07-29 00:00:00.000	1,686	Pro Sport Industries
13	3,915	2014-07-29 00:00:00.000	1,614	Reliance Fitness, Inc.
14	3,907	2014-07-29 00:00:00.000	1,656	Mountain Works
15	3,901	2014-07-28 00:00:00.000	1,666	Leaf River Terrain
16	3,888	2014-07-27 00:00:00.000	1,516	Gardner Touring Cycles

4. Customer Behaviour Patterns

a. Query

```
-- Customer Behaviour Patterns
SELECT
    c.CustomerID,
    p.FirstName || ' ' || p.LastName AS CustomerName,
    COUNT(soh.SalesOrderID) AS TotalOrders,
    SUM(soh.SubTotal) AS TotalSpent
FROM
    Sales.Customer c
    INNER JOIN Person.Person p ON c.PersonID = p.BusinessEntityID
    INNER JOIN Sales.SalesOrderHeader soh ON c.CustomerID = soh.CustomerID
GROUP BY
    c.CustomerID, p.FirstName, p.LastName
ORDER BY
    TotalSpent DESC;
```

b. Result

```
-- Customer Behaviour Patterns
SELECT
    c.CustomerID,
    p.FirstName || ' ' || p.LastName AS CustomerName,
    COUNT(soh.SalesOrderID) AS TotalOrders,
    SUM(soh.SubTotal) AS TotalSpent
FROM
    Sales.Customer c
    INNER JOIN Person.Person p ON c.PersonID = p.BusinessEntityID
    INNER JOIN Sales.SalesOrderHeader soh ON c.CustomerID = soh.CustomerID
GROUP BY
    c.CustomerID, p.FirstName, p.LastName
ORDER BY
    TotalSpent DESC;
```