Task 12: Union

--Task 12 **ROUGH WORK[DOUBLE CHECK FOR ERRORS]** - **work [ REMOVE UOP.DBO. AND THE $ SIGN AND THEN EXECUTE THE QUERIES.]**

for example the query

**SELECT \* FROM uop.dbo.FactSales$;**

Should be typed as

**SELECT \* FROM FactSales; \*/**

--Try the following query and have a look at the results. Does it do what you expect? It combines result sets of two or more SELECT statements into a single result set.

Select Sum(Quantity) AS Sales, 'At most 25' AS [Age] from uop.dbo.DimEmployee$ inner join uop.dbo.FactSales$ on uop.dbo.FactSales$.EmployeeID = uop.dbo.DimEmployee$.EmployeeID

where UPPER(EmployeeActive) = 'YES' and Datediff(Year, EmployeeDOB, GETDATE()) <= 25

UNION

Select Sum(Quantity) AS Sales, 'At least 26' AS [Age] from uop.dbo.DimEmployee$ inner join uop.dbo.FactSales$ on uop.dbo.FactSales$.EmployeeID = uop.dbo.DimEmployee$.EmployeeID

where UPPER(EmployeeActive) = 'YES' and Datediff(Year, EmployeeDOB, GETDATE()) > 25 ;

/\*task 12 Now your turn. Try to give me the queries for below:

1. List the total sales amount and the total cost amount of all the sales per type of employee.

2. List the total sales amount and the total cost amount of all the sales per type of employee for the months January, February and March 2019\*/

/\*task 12 Now your turn. Try to give me the queries for below:

1. List the total sales amount and the total cost amount of all the sales per type of employee.\*/

-- Query 1: Total Sales Amount per Employee Type (All Time)

SELECT

de.EmployeeType,

'All Time' AS Period,

SUM(fs.SalesAmount) AS TotalSalesAmount,

0 AS TotalCostAmount

FROM uop.dbo.FactSales$ fs

INNER JOIN uop.dbo.DimEmployee$ de ON fs.EmployeeID = de.EmployeeID

GROUP BY de.EmployeeType

UNION

-- Query 2: Total Cost Amount per Employee Type (All Time)

SELECT

de.EmployeeType,

'All Time' AS Period,

0 AS TotalSalesAmount,

SUM(fs.CostAmount) AS TotalCostAmount

FROM uop.dbo.FactSales$ fs

INNER JOIN uop.dbo.DimEmployee$ de ON fs.EmployeeID = de.EmployeeID

GROUP BY de.EmployeeType

--Another type

-- Query 1: Total Sales and Cost Amount per Employee Type (All Time)

SELECT

de.EmployeeType,

'All Time' AS Period,

SUM(fs.SalesAmount) AS TotalSalesAmount,

SUM(fs.CostAmount) AS TotalCostAmount

FROM uop.dbo.FactSales$ fs

INNER JOIN uop.dbo.DimEmployee$ de ON fs.EmployeeID = de.EmployeeID

GROUP BY de.EmployeeType

UNION

-- Query 2: Total Sales and Cost Amount per Employee Type (Jan-Mar 2019)

SELECT

de.EmployeeType,

'Jan-Mar 2019' AS Period,

SUM(fs.SalesAmount) AS TotalSalesAmount,

SUM(fs.CostAmount) AS TotalCostAmount

FROM uop.dbo.FactSales$ fs

INNER JOIN uop.dbo.DimEmployee$ de ON fs.EmployeeID = de.EmployeeID

WHERE fs.FullDateTime BETWEEN '2019-01-01' AND '2019-03-31'

GROUP BY de.EmployeeType

ORDER BY EmployeeType, Period;

/\*Explanation FOR ABOVE

First SELECT: The query retrieves the total sales and total cost amounts per employee type for all time.

Second SELECT: The query retrieves the same totals but only for January, February, and March 2019.

UNION: Combines both queries into one result set.

ORDER BY: Sorts the final results by EmployeeType and Period.

This way, you get both all-time totals and the totals for January-March 2019 in a single list.\*/

/\*2. List the total sales amount and the total cost amount of all the sales per type of employee for the months January, February and March 2019\*/

-- Query 1: Total Sales and Cost Amount per Employee Type (Jan 2019)

SELECT

de.EmployeeType,

'Jan 2019' AS Period,

SUM(fs.SalesAmount) AS TotalSalesAmount,

SUM(fs.CostAmount) AS TotalCostAmount

FROM uop.dbo.FactSales$ fs

INNER JOIN uop.dbo.DimEmployee$ de ON fs.EmployeeID = de.EmployeeID

WHERE fs.FullDateTime BETWEEN '2019-01-01' AND '2019-01-31'

GROUP BY de.EmployeeType

UNION

-- Query 2: Total Sales and Cost Amount per Employee Type (Feb 2019)

SELECT

de.EmployeeType,

'Feb 2019' AS Period,

SUM(fs.SalesAmount) AS TotalSalesAmount,

SUM(fs.CostAmount) AS TotalCostAmount

FROM uop.dbo.FactSales$ fs

INNER JOIN uop.dbo.DimEmployee$ de ON fs.EmployeeID = de.EmployeeID

WHERE fs.FullDateTime BETWEEN '2019-02-01' AND '2019-02-28'

GROUP BY de.EmployeeType

UNION

-- Query 3: Total Sales and Cost Amount per Employee Type (Mar 2019)

SELECT

de.EmployeeType,

'Mar 2019' AS Period,

SUM(fs.SalesAmount) AS TotalSalesAmount,

SUM(fs.CostAmount) AS TotalCostAmount

FROM uop.dbo.FactSales$ fs

INNER JOIN uop.dbo.DimEmployee$ de ON fs.EmployeeID = de.EmployeeID

WHERE fs.FullDateTime BETWEEN '2019-03-01' AND '2019-03-31'

GROUP BY de.EmployeeType

ORDER BY EmployeeType, Period;

/\* EXPLANATION FOR ABOVE : Explanation:

Query 1 (Jan 2019): Sums the sales amount and cost amount per employee type for January 2019.

Query 2 (Feb 2019): Does the same for February 2019.

Query 3 (Mar 2019): Does the same for March 2019.

The UNION operator combines the results of all three months into one result set.

ORDER BY: Ensures the results are sorted by employee type and month (Period).

This will give you the total sales and cost amounts per employee type for each of the months January, February, and March 2019.\*/

--Another way

SELECT

de.EmployeeType,

'Jan 2019' AS Period,

SUM(fs.SalesAmount) AS TotalSalesAmount,

SUM(fs.CostAmount) AS TotalCostAmount,

1 AS Monthorder

FROM uop.dbo.FactSales$ fs

INNER JOIN uop.dbo.DimEmployee$ de ON fs.EmployeeID = de.EmployeeID

WHERE fs.FullDateTime BETWEEN '2019-01-01' AND '2019-01-31'

GROUP BY de.EmployeeType

UNION

-- Query 2: Total Sales and Cost Amount per Employee Type (Feb 2019)

SELECT

de.EmployeeType,

'Feb 2019' AS Period,

SUM(fs.SalesAmount) AS TotalSalesAmount,

SUM(fs.CostAmount) AS TotalCostAmount,

2 AS Monthorder

FROM uop.dbo.FactSales$ fs

INNER JOIN uop.dbo.DimEmployee$ de ON fs.EmployeeID = de.EmployeeID

WHERE fs.FullDateTime BETWEEN '2019-02-01' AND '2019-02-28'

GROUP BY de.EmployeeType

UNION

-- Query 3: Total Sales and Cost Amount per Employee Type (Mar 2019)

SELECT

de.EmployeeType,

'Mar 2019' AS Period,

SUM(fs.SalesAmount) AS TotalSalesAmount,

SUM(fs.CostAmount) AS TotalCostAmount,

3 AS Monthorder

FROM uop.dbo.FactSales$ fs

INNER JOIN uop.dbo.DimEmployee$ de ON fs.EmployeeID = de.EmployeeID

WHERE fs.FullDateTime BETWEEN '2019-03-01' AND '2019-03-31'

GROUP BY de.EmployeeType

ORDER BY EmployeeType, Monthorder;