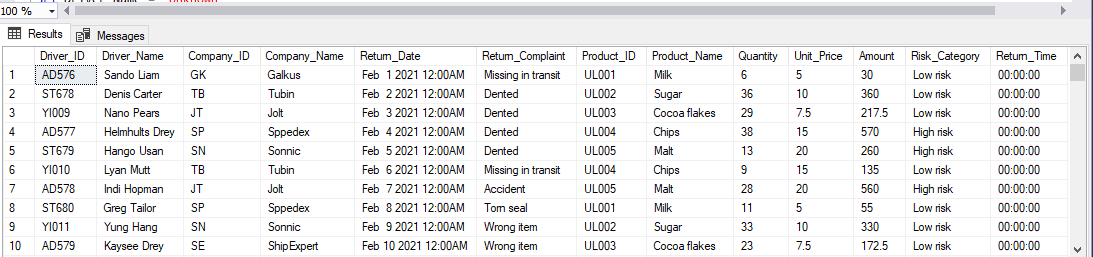
**Supply Chain Logistic**

SELECT \*

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]



--Removing duplicate

WITH CTE AS (

SELECT \*,

ROW\_NUMBER() OVER (PARTITION BY Driver\_ID, Return\_Date, Product\_ID ORDER BY (SELECT NULL)) AS RowNum

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

)

DELETE FROM CTE

WHERE RowNum > 1;

--Handing Missing Values

UPDATE [Supply].[dbo].[Supply Chain Returns 250224 (1)]

SET Driver\_Name = 'Unknown'

WHERE Driver\_Name IS NULL OR Driver\_Name = '';

UPDATE [Supply].[dbo].[Supply Chain Returns 250224 (1)]

SET Company\_Name = 'Unknown'

WHERE Company\_Name IS NULL OR Company\_Name = '';

UPDATE [Supply].[dbo].[Supply Chain Returns 250224 (1)]

SET Return\_Complaint = 'Unknown'

WHERE Return\_Complaint IS NULL OR Return\_Complaint = '';

--Convert Return\_Date to Date Format

UPDATE [Supply].[dbo].[Supply Chain Returns 250224 (1)]

SET Return\_Date = DATEADD(DAY, CAST(Return\_Date AS INT), '1899-12-30');

select [Return\_Date]

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

UPDATE [Supply].[dbo].[Supply Chain Returns 250224 (1)]

SET Return\_Date = DATEADD(DAY, TRY\_CAST(Return\_Date AS INT), '1899-12-30')

WHERE TRY\_CAST(Return\_Date AS INT) IS NOT NULL;

--Check for Missing Values in Key Columns

SELECT \*

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

WHERE Driver\_ID IS NULL OR Driver\_ID = ''

OR Company\_ID IS NULL OR Company\_ID = ''

OR Product\_ID IS NULL OR Product\_ID = '';

--Final Check for Clean Data

-- Check for duplicates

SELECT Driver\_ID, Return\_Date, Product\_ID, COUNT(\*) AS Count

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Driver\_ID, Return\_Date, Product\_ID

HAVING COUNT(\*) > 1;

-- Check for missing values

SELECT \*

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

WHERE Driver\_Name IS NULL OR Company\_Name IS NULL OR Product\_Name IS NULL;

-- Ensure Return\_Date is in DATETIME format

SELECT CAST(Return\_Date AS DATETIME) AS Converted\_Return\_Date

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)];

-- Extract time part

SELECT CONVERT(VARCHAR(8), CAST(Return\_Date AS DATETIME), 108) AS Return\_Time

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)];

-- Add a new column for time

ALTER TABLE [Supply].[dbo].[Supply Chain Returns 250224 (1)]

ADD Return\_Time VARCHAR(8);

-- Update the new column with the extracted time

UPDATE [Supply].[dbo].[Supply Chain Returns 250224 (1)]

SET Return\_Time = CONVERT (VARCHAR (8), CAST (Return\_Date AS DATETIME), 108);

--create a month column

ALTER TABLE [Supply].[dbo].[Supply Chain Returns 250224 (1)]

ADD Return\_Month AS MONTH(CONVERT(DATE, Return\_Date));

ALTER TABLE [Supply].[dbo].[Supply Chain Returns 250224 (1)]

ADD Return\_MonthName AS DATENAME(MONTH, CONVERT(DATE, Return\_Date));

--create a days column

ALTER TABLE [Supply].[dbo].[Supply Chain Returns 250224 (1)]

ADD Return\_Day AS DAY(CONVERT(DATE, Return\_Date));

ALTER TABLE [Supply].[dbo].[Supply Chain Returns 250224 (1)]

ADD Return\_Weekday AS DATENAME(WEEKDAY, CONVERT(DATE, Return\_Date));

--create a Year column

ALTER TABLE [Supply].[dbo].[Supply Chain Returns 250224 (1)]

ADD Return\_Year AS YEAR(Return\_Date);

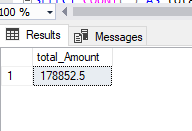
SELECT \*

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

-- Total Amount

SELECT SUM(CAST (Amount AS Float)) AS total\_Amount

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)];

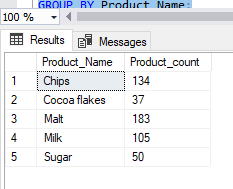


--Get a breakdown of product types

SELECT Product\_Name, COUNT(\*) AS Product\_count

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

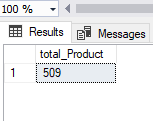
GROUP BY Product\_Name;



--Count the total number of products in the dataset

SELECT COUNT(\*) AS total\_Product

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)];

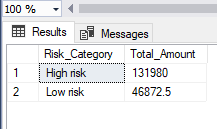


--Total Amount by Risk Category

SELECT Risk\_Category, SUM(CAST (Amount AS FLOAT)) AS Total\_Amount

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Risk\_Category;

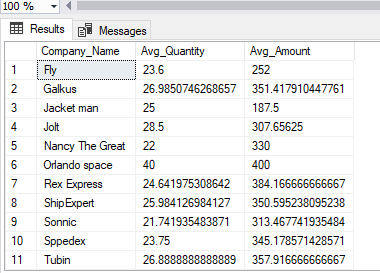


--Average Quantity and Amount by Company

SELECT Company\_Name, AVG(CAST (Quantity AS FLOAT)) AS Avg\_Quantity, AVG(CAST (Amount AS FLOAT)) AS Avg\_Amount

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Company\_Name;



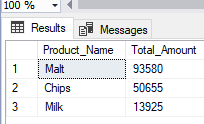
--Top 3 Products by Total Amount

SELECT TOP 3 Product\_Name, SUM(CAST (Amount AS FLOAT)) AS Total\_Amount

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Product\_Name

ORDER BY Total\_Amount DESC;

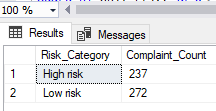


--Count of Complaints by Risk Category

SELECT Risk\_Category, COUNT(\*) AS Complaint\_Count

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Risk\_Category;

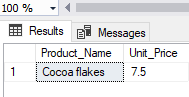


--Product with the Highest Unit Price

SELECT TOP 1 Product\_Name, Unit\_Price

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

ORDER BY Unit\_Price DESC;

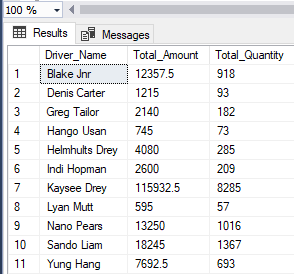


--Total Amount and Quantity by Driver

SELECT Driver\_Name, SUM(CAST (Amount AS FLOAT)) AS Total\_Amount, SUM(CAST (Quantity AS FLOAT)) AS Total\_Quantity

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Driver\_Name;

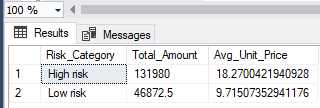


--Total Amount and Average Unit Price by Risk Category

SELECT Risk\_Category, SUM(CAST (Amount AS FLOAT)) AS Total\_Amount, AVG(CAST (Unit\_Price AS FLOAT)) AS Avg\_Unit\_Price

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Risk\_Category;



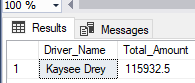
--Driver with the Highest Total Amount

SELECT TOP 1 Driver\_Name, SUM(CAST (Amount AS FLOAT)) AS Total\_Amount

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Driver\_Name

ORDER BY Total\_Amount DESC;



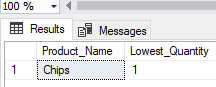
--Product with the Lowest Quantity

SELECT TOP 1 Product\_Name, MIN(Quantity) AS Lowest\_Quantity

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Product\_Name

ORDER BY Lowest\_Quantity ASC;



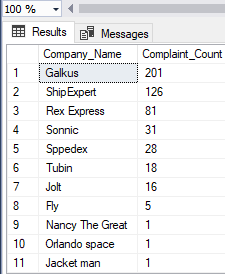
--Company with the Most Complaints

SELECT Company\_Name, COUNT(\*) AS Complaint\_Count

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Company\_Name

ORDER BY Complaint\_Count DESC;



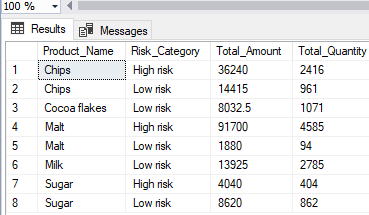
--Total Amount and Quantity by Product and Risk Category

SELECT Product\_Name, Risk\_Category, SUM(CAST (Amount AS FLOAT)) AS Total\_Amount, SUM(CAST (Quantity AS FLOAT)) AS Total\_Quantity

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Product\_Name, Risk\_Category

ORDER BY Product\_Name, Risk\_Category;



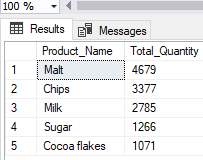
--Top 5 Products by Quantity Sold

SELECT TOP 5 Product\_Name, SUM(CAST (Quantity AS FLOAT)) AS Total\_Quantity

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Product\_Name

ORDER BY Total\_Quantity DESC;



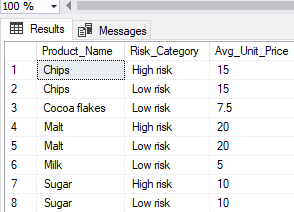
--Comparison of Average Unit Price by Product Name and Risk Category

SELECT Product\_Name, Risk\_Category, AVG(CAST (Unit\_Price AS FLOAT)) AS Avg\_Unit\_Price

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Product\_Name, Risk\_Category

ORDER BY Product\_Name, Risk\_Category;



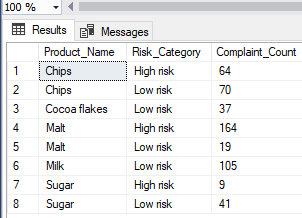
--Count of Complaints by Product and Risk Category

SELECT Product\_Name, Risk\_Category, COUNT(\*) AS Complaint\_Count

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Product\_Name, Risk\_Category

ORDER BY Product\_Name, Risk\_Category;



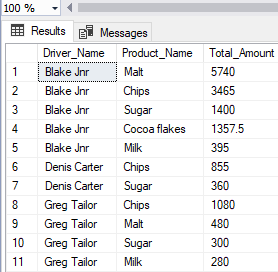
--Total Amount by Driver and Product

SELECT Driver\_Name, Product\_Name, SUM(CAST (Amount AS FLOAT)) AS Total\_Amount

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Driver\_Name, Product\_Name

ORDER BY Driver\_Name, Total\_Amount DESC;



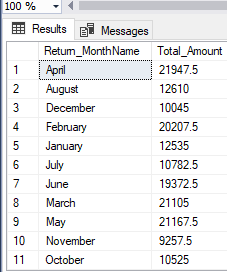
--Total Amount by Month

SELECT Return\_MonthName, SUM(CAST (Amount AS FLOAT)) AS Total\_Amount

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Return\_MonthName

ORDER BY Return\_MonthName;



SELECT \*

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

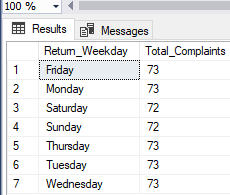
--Total Complaints by Day

SELECT Return\_Weekday, COUNT(\*) AS Total\_Complaints

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Return\_Weekday

ORDER BY Return\_Weekday;



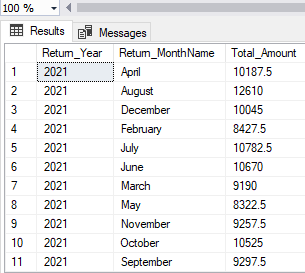
--Total Amount by Year and Month

SELECT Return\_Year, Return\_MonthName, SUM(CAST (Amount AS FLOAT)) AS Total\_Amount

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Return\_Year, Return\_MonthName

ORDER BY Return\_Year, Return\_MonthName;



--Count of Complaints by Year and Risk Category

SELECT Return\_Year, Risk\_Category, COUNT(\*) AS Complaint\_Count

FROM [Supply].[dbo].[Supply Chain Returns 250224 (1)]

GROUP BY Return\_Year, Risk\_Category

ORDER BY Return\_Year, Risk\_Category;

