SUSTAINABLE SUPPLY CHAIN PERFORMANCE DASHBOARD USING POWER BI

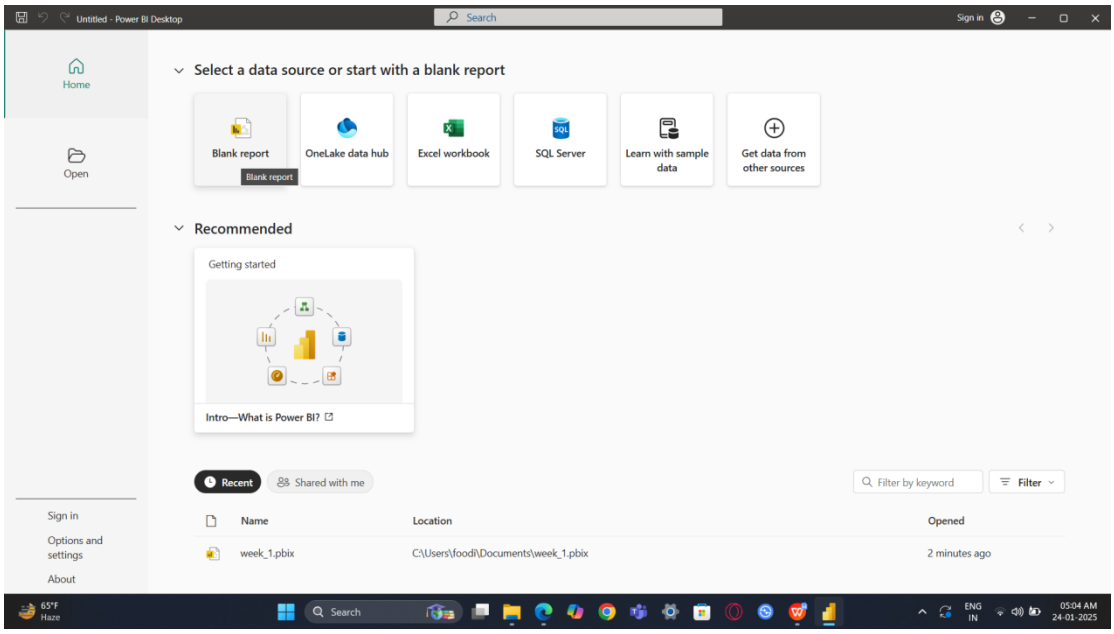
Week 1: Steps to Extract Required Tables from the Dataset

Input: Sustainable supply chain performance dataset

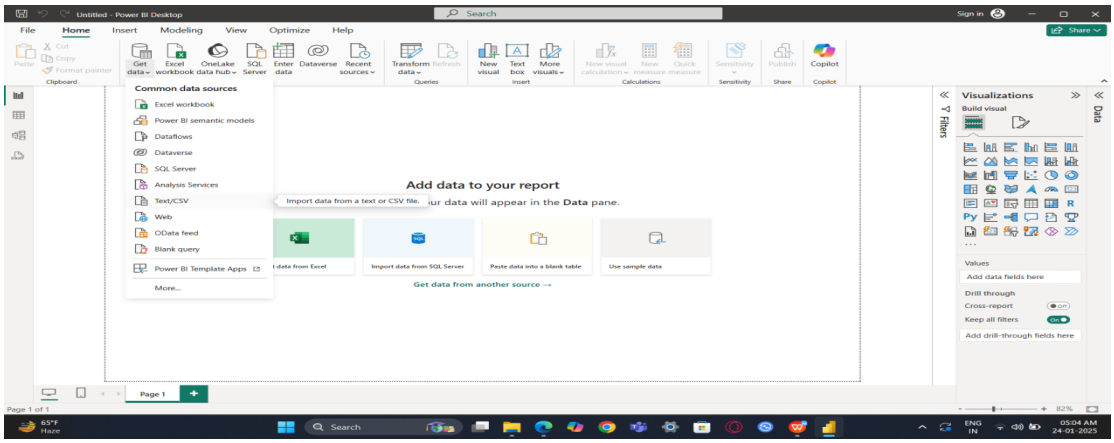
This guide outlines the step-by-step process to extract and analyze the required tables from your sustainable supply chain performance dataset using Power BI.

➢ Load Data into Power BI

1.Open Power BI Desktop and click on Blank Report to start creating your visualizations.

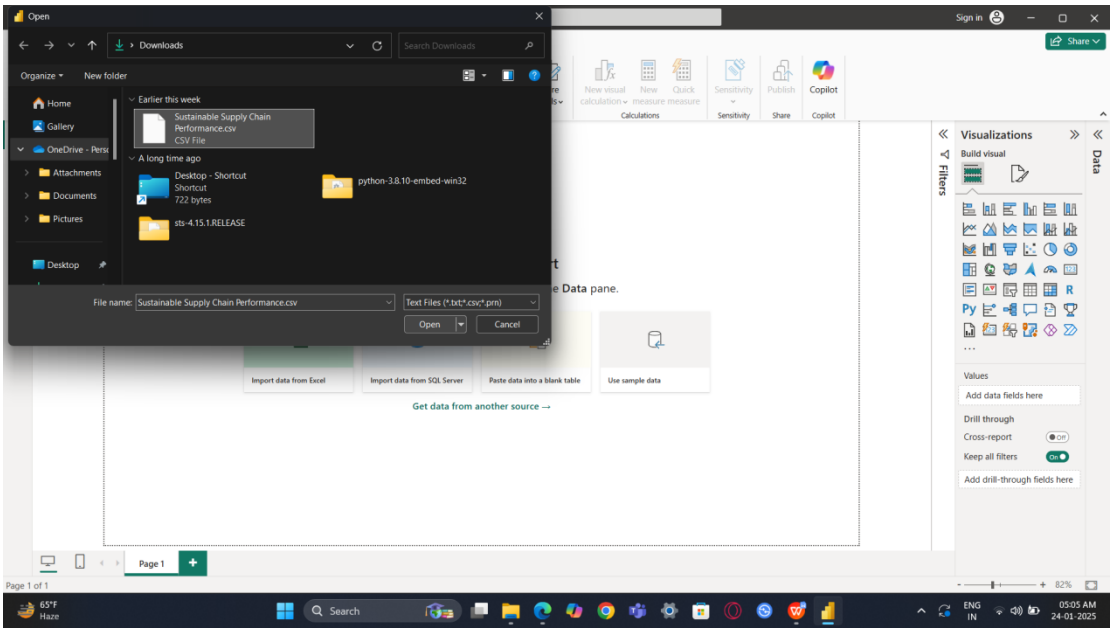


2.Navigate to the Home tab and click on Get Data

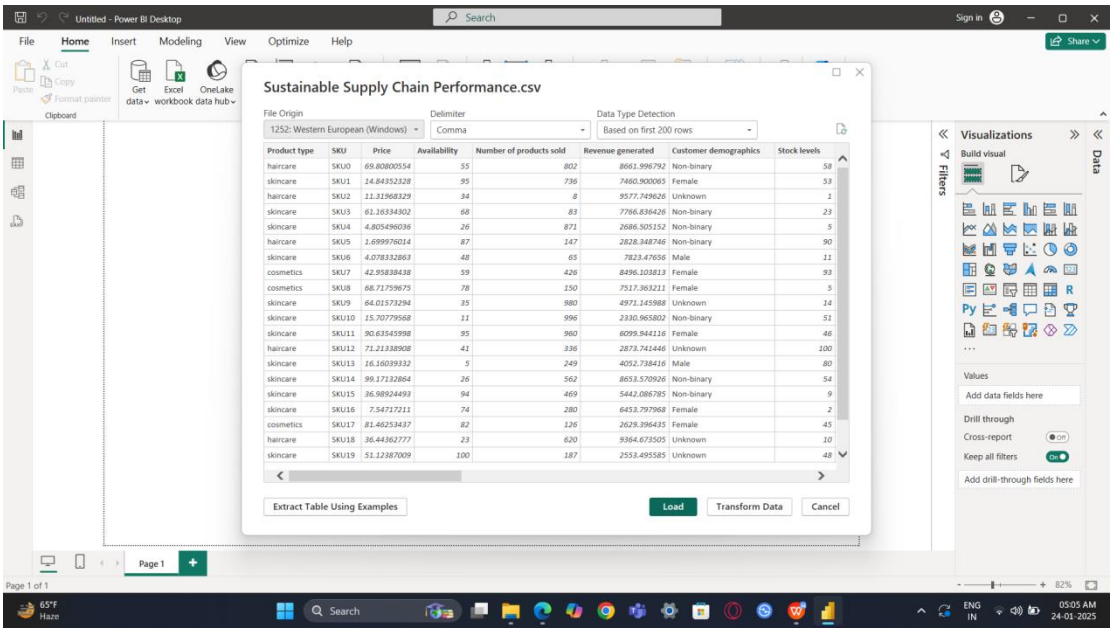


3.Select the data source type (e.g., "Text/CSV") and locate the dataset from its storage location.

4.Select the dataset and click Open.

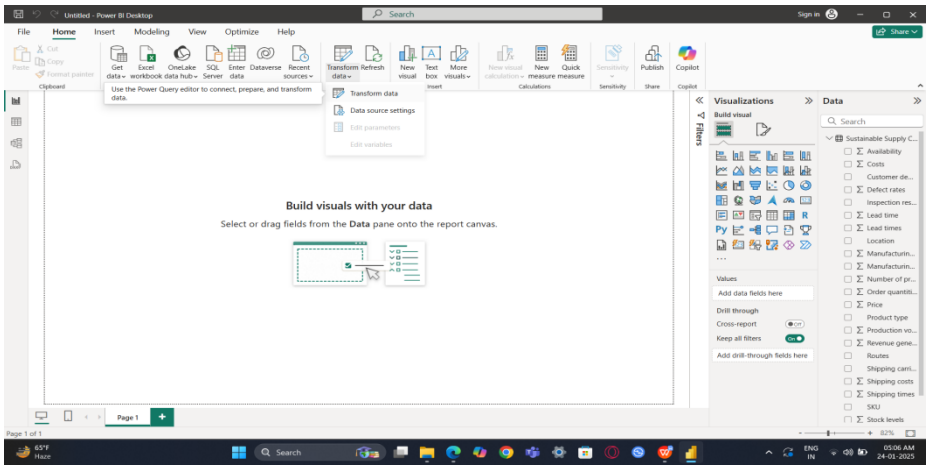


5. Preview the data and click Load to import

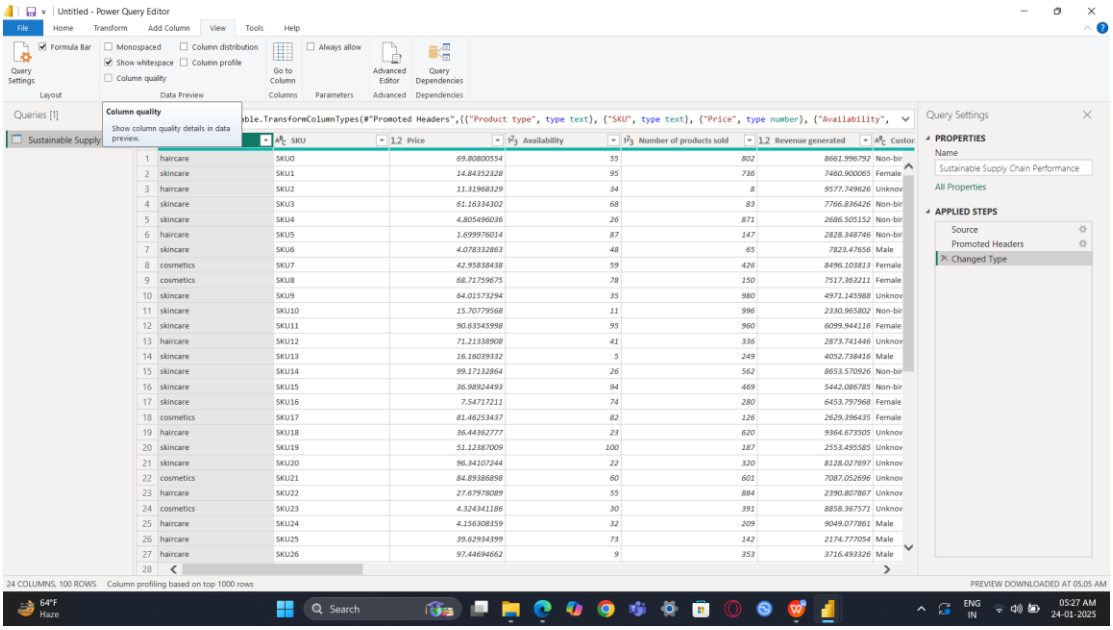
6. 

➢ Transform Data Using Power Query

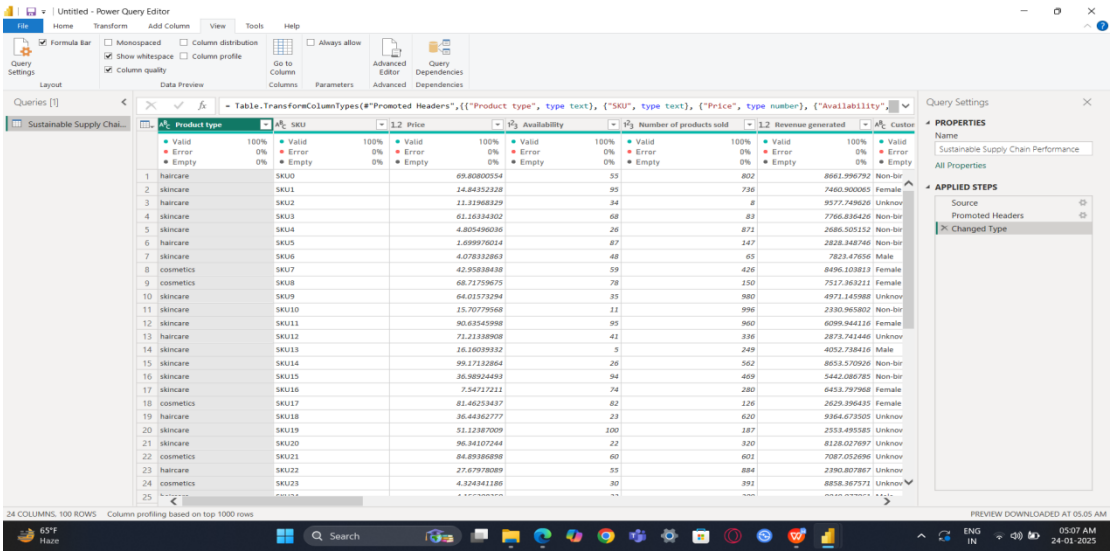
1. Click on Transform Data under the Queries tab in the ribbon.



2. In the Power Query Editor window, enable Column Quality under the View tab to identify any errors or anomalies in the dataset.



3. Ensure that the dataset is properly transformed and ready for analysis. Perform necessary cleaning, such as removing duplicates, handling missing values, and ensuring consistent formatting



3. Extracting Tables for Efficient Analysis

The following tables need to be extracted from the dataset:

- Inventory Table
- Manufacturing Table
- Supplier Table
- Supply Chain Table

4. Performing Analysis on the Inventory Table

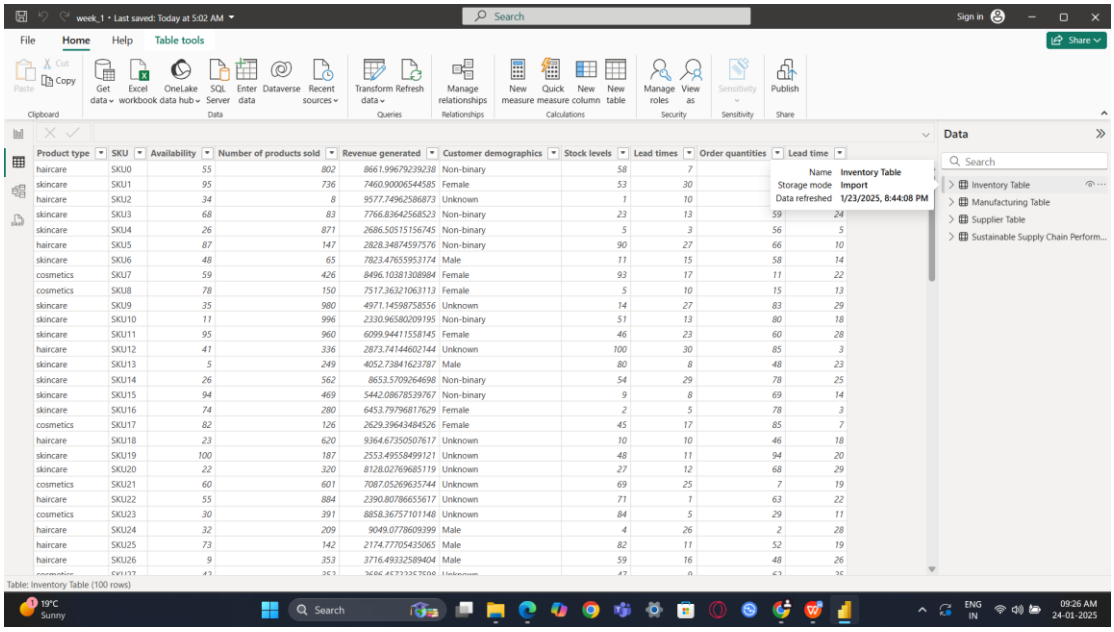
A. To create the Inventory Table from the original dataset:

Right-click on the table name in the left pane of the Power BI canvas.

Select Duplicate. A new dataset will be created without affecting the original data.

Double-click on the newly created dataset and rename it as Inventory Table.

Apply remove column option for columns irrelevant to inventory data to facilitate the analysis.



B. To create the Manufacturing Table from the original dataset:

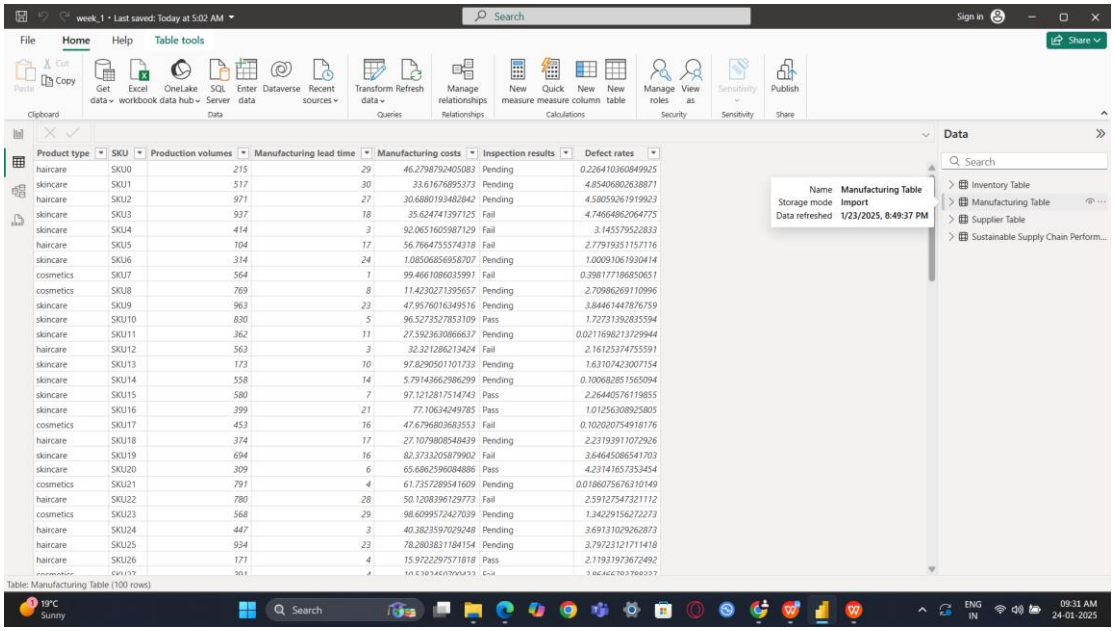
Right-click on the supply chain dataset in the left pane of the Power BI canvas.

Select Duplicate. A new dataset will be created without affecting the original data.

Double-click on the newly created dataset and rename it as Manufacturing Table.

Apply remove column option for columns irrelevant to inventory data to facilitate the analysis.

1. Product type
2. SKU
3. Production volumes
4. Manutacturing lead time
5. Manufacturing costs
6. Inspection results
7. □ defect rates



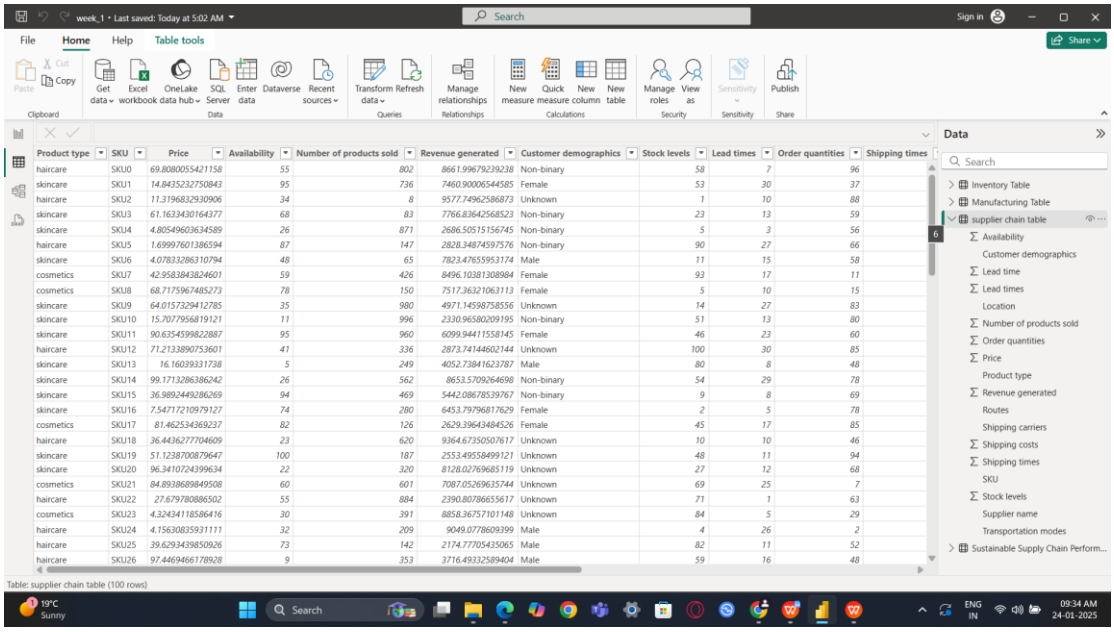
C. To create the Supply Chain Table from the original dataset:

Right-click on the table name in the left pane of the Power BI canvas.

Select Duplicate. A new dataset will be created without affecting the original data.

Double-click on the newly created dataset and rename it as Supplier Table.

Apply remove column option for columns irrelevant to supply chain table data to facilitate the analysis.



Product type	SKU	Price	Availability	Number of products sold	Revenue generated	Customer demographics	Stock levels	Lead times	Order quantities	Shipping times
haircare	SKU0	69.8080055421158	55	802	8661.99679239238	Non-binary	58	7	96	
skincare	SKU1	14.8435232750843	95	736	7460.90006544585	Female	53	30	37	
haircare	SKU2	11.3196832930906	34	8	9577.74962586873	Unknown	1	10	88	
skincare	SKU3	61.1633430164377	68	83	7766.83642568523	Non-binary	23	13	59	
skincare	SKU4	4.80549603634589	26	871	2686.50515156745	Non-binary	5	3	56	
haircare	SKU5	1.69997601386594	87	147	2828.34874597576	Non-binary	90	27	66	
skincare	SKU6	4.07833286310794	48	65	7823.47655953174	Male	11	15	58	
cosmetics	SKU7	42.9583843824601	59	426	8496.10381308984	Female	93	17	11	
cosmetics	SKU8	68.7175967485273	78	150	7517.36321063113	Female	5	10	15	
skincare	SKU9	64.0157329412785	35	980	4971.14598758556	Unknown	14	27	83	
skincare	SKU10	15.7077956819121	11	996	2330.96580209195	Non-binary	51	13	80	
skincare	SKU11	90.6354599822887	95	960	6099.94411558145	Female	46	23	60	
haircare	SKU12	71.2133890753601	41	336	2873.74144602144	Unknown	100	30	85	
skincare	SKU13	16.16039331738	5	249	4052.73841623787	Male	80	8	48	
skincare	SKU14	99.1713286386242	26	562	8653.5709264698	Non-binary	54	29	78	
skincare	SKU15	36.9892449286269	94	469	5442.08678539767	Non-binary	9	8	69	
skincare	SKU16	7.54717210979127	74	280	6453.79796817629	Female	2	5	78	
cosmetics	SKU17	81.462534369237	82	126	2629.39643484526	Female	45	17	85	
haircare	SKU18	36.4436277704609	23	620	9364.67350507617	Unknown	10	10	46	
skincare	SKU19	51.1238700879647	100	187	2553.49558499121	Unknown	48	11	94	
skincare	SKU20	96.3410724399634	22	320	8128.02769685119	Unknown	27	12	68	
cosmetics	SKU21	84.8938689849508	60	601	7087.05269635744	Unknown	69	25	7	
haircare	SKU22	27.679780886502	55	884	2390.80786655617	Unknown	71	1	63	
cosmetics	SKU23	4.32434118586416	30	391	8858.36757101148	Unknown	84	5	29	
haircare	SKU24	4.15630835931111	32	209	9049.0778609399	Male	4	26	2	
haircare	SKU25	39.6293439850926	73	142	2174.77705435065	Male	82	11	52	
haircare	SKU26	97.4469466178928	9	353	3716.49332589404	Male	59	16	48	

D. To create the Supplier Table from the original dataset:

Right-click on the table name in the left pane of the Power BI canvas.

Select Duplicate. A new dataset will be created without affecting the original data.

Double-click on the newly created dataset and rename it as Supplier Table.

Apply remove column option for columns irrelevant to supplier table data to facilitate the analysis.

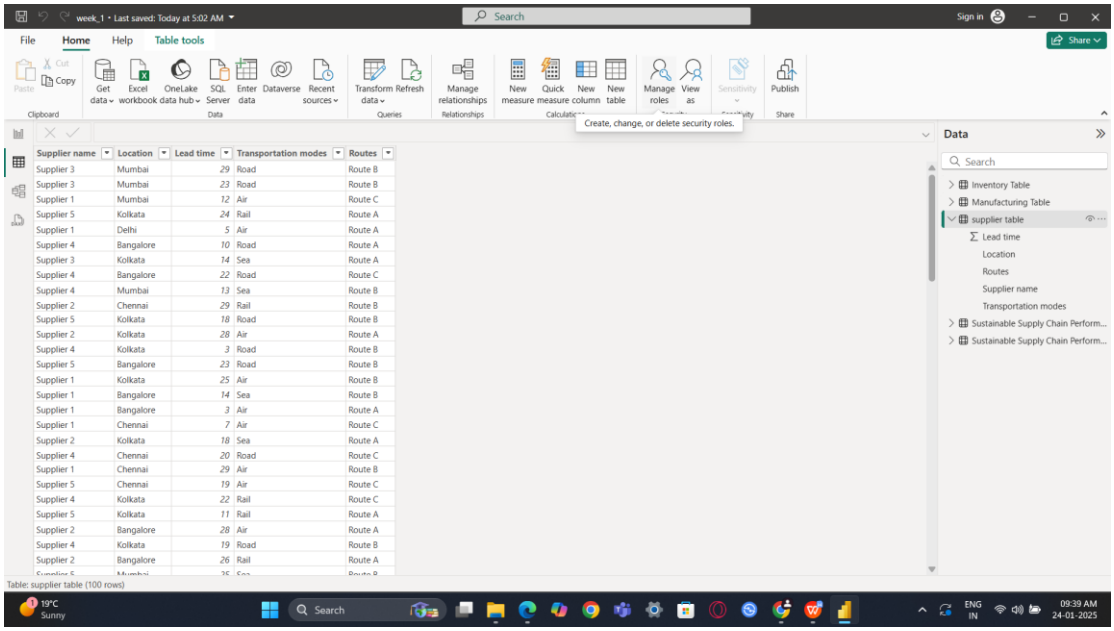

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Table tools
Share
Cut
Copy
Paste
Clipboard
Get data
Excel workbook
OneLake data hub
SQL Server
Enter data
Dataverse
Recent sources
Data
Transform data
Refresh
Queries
Manage relationships
Relationships
New measure
Quick measure
New column
New table
Calculations
Manage roles
View as
Security
Sensitivity
Publish
Share
Create, change, or delete security roles.
Supplier name | Location | Lead time | Transportation modes | Routes
Supplier 3 | Mumbai | 29 | Road | Route B
Supplier 3 | Mumbai | 23 | Road | Route B
Supplier 1 | Mumbai | 12 | Air | Route C
Supplier 5 | Kolkata | 24 | Rail | Route A
Supplier 1 | Delhi | 5 | Air | Route A
Supplier 4 | Bangalore | 10 | Road | Route A
Supplier 3 | Kolkata | 14 | Sea | Route A
Supplier 4 | Bangalore | 22 | Road | Route C
Supplier 4 | Mumbai | 13 | Sea | Route B
Supplier 2 | Chennai | 29 | Rail | Route B
Supplier 5 | Kolkata | 18 | Road | Route B
Supplier 2 | Kolkata | 28 | Air | Route A
Supplier 4 | Kolkata | 3 | Road | Route B
Supplier 5 | Bangalore | 23 | Road | Route B
Supplier 1 | Kolkata | 25 | Air | Route B
Supplier 1 | Bangalore | 14 | Sea | Route B
Supplier 1 | Bangalore | 3 | Air | Route A
Supplier 1 | Chennai | 7 | Air | Route C
Supplier 2 | Kolkata | 18 | Sea | Route A
Supplier 4 | Chennai | 20 | Road | Route C
Supplier 1 | Chennai | 29 | Air | Route B
Supplier 5 | Chennai | 19 | Air | Route C
Supplier 4 | Kolkata | 22 | Rail | Route C
Supplier 5 | Kolkata | 11 | Rail | Route A
Supplier 2 | Bangalore | 28 | Air | Route A
Supplier 4 | Kolkata | 19 | Road | Route B
Supplier 2 | Bangalore | 26 | Rail | Route A
Table: supplier table (100 rows)
Data
Search
Inventory Table
Manufacturing Table
supplier table
Lead time
Location
Routes
Supplier name
Transportation modes
Sustainable Supply Chain Perform...
Sustainable Supply Chain Perform...
19°C
Sunny
Search
ENG
IN
09:39 AM
24-01-2025