Power BI Assignment 1 – Data Transformation & Data Modeling

Import Data:

Import

      List of Orders.csv

      Order Details.csv

      Sales target.csv

Data Transformation:

Restrict the "List of Orders" table to only the first 500 row

Ensure the "Order Date" column in the "List of Orders" table is set to data type 'Date'

Change the data type of "Amount" and "Target" columns to 'Fixed Decimal Number'

Untitled - Power Query Editor

File | Home | Transform | Add Column | View | Tools | Help

Data Type: Fixed decimal number

= Table.TransformColumnTypes(#"Promoted Headers",{{"Month of Order Date", type date}, {"Category", type text}, {"Target", Currency.Type}})

Queries [3]
- List of Orders
- Sales target
- Order Details

	Month of Order Date	Category	Target
1	4/18/2026	Furniture	10,400.00
2	5/18/2026	Furniture	10,500.00
3	6/18/2026	Furniture	10,600.00
4	7/18/2026	Furniture	10,800.00
5	8/18/2026	Furniture	10,900.00
6	9/18/2026	Furniture	11,000.00
7	10/18/2026	Furniture	11,100.00
8	11/18/2026	Furniture	11,300.00
9	12/18/2026	Furniture	11,400.00
10	1/19/2026	Furniture	11,500.00
11	2/19/2026	Furniture	11,600.00
12	3/19/2026	Furniture	11,800.00
13	4/18/2026	Clothing	12,000.00
14	5/18/2026	Clothing	12,000.00
15	6/18/2026	Clothing	12,000.00
16	7/18/2026	Clothing	14,000.00
17	8/18/2026	Clothing	14,000.00
18	9/18/2026	Clothing	14,000.00
19	10/18/2026	Clothing	16,000.00
20	11/18/2026	Clothing	16,000.00
21	12/18/2026	Clothing	16,000.00
22	1/19/2026	Clothing	16,000.00
23	2/19/2026	Clothing	16,000.00
24	3/19/2026	Clothing	16,000.00
25	4/18/2026	Electronics	9,000.00
26	5/18/2026	Electronics	9,000.00
27	6/18/2026	Electronics	9,000.00
28	7/18/2026	Electronics	9,000.00
29	8/18/2026	Electronics	9,000.00
30	9/18/2026	Electronics	9,000.00

Query Settings

PROPERTIES
Name
Sales target
All Properties

APPLIED STEPS
Source
Promoted Headers
Changed Type

3 COLUMNS, 36 ROWS   Column profiling based on top 1000 rows   PREVIEW DOWNLOADED AT 10:29 PM

Untitled - Power Query Editor

File | Home | Transform | Add Column | View | Tools | Help

Data Type: Fixed decimal number

= Table.TransformColumnTypes(#"Promoted Headers",{{"Order ID", type text}, {"Amount", Currency.Type}, {"Profit", Int64.Type}, {"Quantity",

Queries [3]
- List of Orders
- Sales target
- Order Details

	Order ID	Amount	Profit	Quantity	Category	Sub-Category
1	B-25601	1,275.00	-1148	7	Furniture	Bookcases
2	B-25601	66.00	-12	5	Clothing	Stole
3	B-25601	8.00	-2	3	Clothing	Hankerchief
4	B-25601	80.00	-56	4	Electronics	Electronic Games
5	B-25602	168.00	-111	2	Electronics	Phones
6	B-25602	424.00	-272	5	Electronics	Phones
7	B-25602	2,617.00	1151	4	Electronics	Phones
8	B-25602	561.00	212	3	Clothing	Saree
9	B-25602	119.00	-5	8	Clothing	Saree
10	B-25603	1,355.00	-60	5	Clothing	Trousers
11	B-25603	24.00	-30	1	Furniture	Chairs
12	B-25603	193.00	-166	3	Clothing	Saree
13	B-25603	180.00	5	3	Clothing	Trousers
14	B-25603	116.00	16	4	Clothing	Stole
15	B-25603	107.00	36	6	Clothing	Stole
16	B-25603	12.00	1	2	Clothing	Hankerchief
17	B-25603	38.00	18	1	Clothing	Kurti
18	B-25604	65.00	17	2	Clothing	T-shirt
19	B-25604	157.00	5	9	Clothing	Saree
20	B-25605	75.00	0	7	Clothing	Saree
21	B-25606	87.00	4	2	Clothing	Shirt
22	B-25607	50.00	15	4	Clothing	Leggings
23	B-25608	1,364.00	-1864	5	Furniture	Tables
24	B-25608	476.00	0	3	Furniture	Chairs
25	B-25608	257.00	23	5	Clothing	Hankerchief
26	B-25608	856.00	385	6	Electronics	Printers
27	B-25609	485.00	29	4	Electronics	Electronic Games
28	B-25609	25.00	-5	4	Clothing	Saree
29	B-25610	1,076.00	-38	4	Electronics	Printers
30	B-25610	107.00	-54	4	Clothing	Stole

Query Settings

PROPERTIES
Name
Order Details
All Properties

APPLIED STEPS
Source
Promoted Headers
Changed Type

6 COLUMNS, 999+ ROWS   Column profiling based on top 1000 rows   PREVIEW DOWNLOADED AT 10:31 PM

Format the "CustomerName" column into proper case, ensuring consistent capitalization for each word

Merge the "State" and "City" columns to create a new column named "Location" in the format 'City, State'

Create a new custom column named "Profit Margin" as the percentage of "Profit" divided by "Amount"

Add a new conditional column named "Profit Status" based on the values in the "Profit" column. The conditions are as follows: if the profit is less than 0, the label should be "Loss"; if the profit equals 0, the label should be "Break-Even"; and if the profit is greater than 0, the label should be "Profit"

Merging Data (Joins):

Merge the "List of Orders" and "Order Details" tables into a new single table named "Orders Data" based on the "Order ID" relationship.

Handling Missing Data & Duplicate Data:

Identify missing values in the data and determine a strategy to address them.

Check for duplicate rows and define a strategy to handle duplicates.

(No empty value check by column quality)

Sorting and Filtering Data:

In the 'Orders Data' table, utilize sorting and filtering techniques on columns like Order Date, State or Category to analyze data based on specific criteria:

- Sort the orders by Order Date in descending order to analyze recent trends.
- Filter the orders to focus only on a specific state (e.g., Tamil Nadu) for regional analysis.

Grouping and Aggregating Data:

Duplicate the "Order Details" table and calculate the count of each Order ID, average profit by Category or total amount by Sub-Category.

Duplicate the "Sales Target" table and aggregate the total target amount by Month of Order Date.

Data »

Search

> ⊞ List of Orders
> ⊞ Order Details
> ⊞ Order Details Grouping
> ⊞ Orders Data
> ⊞ Sales target
> ⊞ Sales target Grouping

Data Modeling:

Establish a relationship between the "List of Orders" and "Order Details" tables using the 'Order ID' column.

Build a relationship between the "Order Details" and "Sales Target" tables based on the 'Category' column. Click "Manage relationships" and ensure this relationship is active.