

# CAPSTONE PROJECT

## ***FINANCIAL PERFORMANCE ANALYSIS A CASE STUDY ON PROFITABILITY AND SALES TRENDS IN WESTERN ECONOMIES***

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 EXPLORE THE DATA USING EXCEL, UNDERSTAND THE DATA AND PREPARE A SHORT SUMMARY ABOUT THE DATASET.

This dataset shows product sales in different countries for the year 2013-2014. It includes details like segments, product name, unit sold, sales price, and profit. It helps track how much was sold, how much it cost to make, and the profit earned. Each row is a sales transaction with its date and country. It can be used to analyze sales trends, performance, and probability.

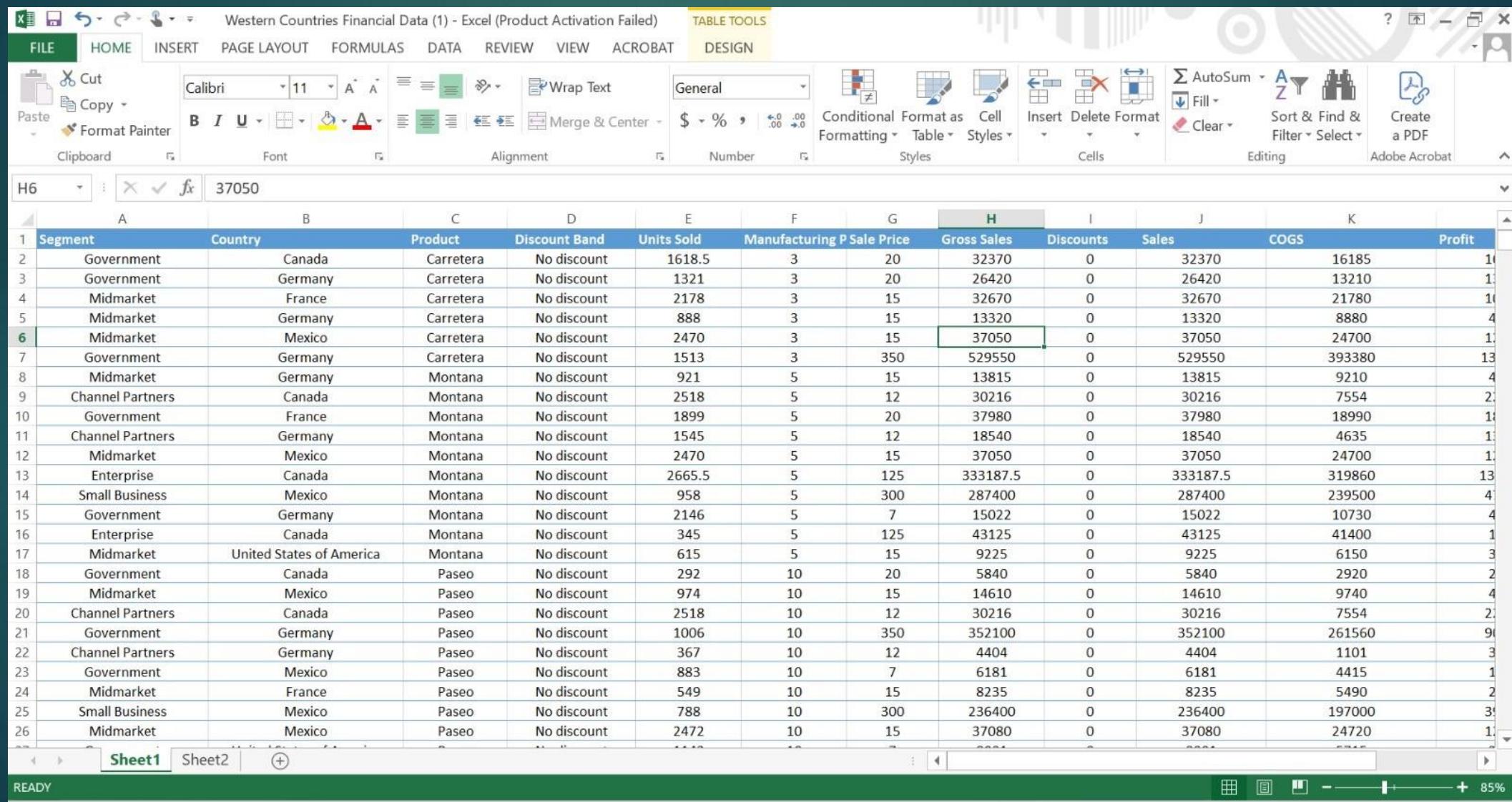
# EXPLORE THE DATA USING EXCEL, UNDERSTAND THE DATA AND PREPARE A SHORT SUMMARY ABOUT THE DATASET.

The screenshot shows a Microsoft Excel spreadsheet titled "Western Countries Financial Data (1) - Excel (Product Activation Failed)". The data is presented in a table with the following columns:

No. of Column	No. of Rows	Column List	Time Period	Blank Column	Duplicates
16	700	Segment	2013-2014	0	0
		Country			
		Product			
		Discount Band			
		Units Sold			
		Manufacturing Price			
		Sale Price			
		Gross Sales			
		Discounts			
		Sales			
		COGS			
		Profit			
		Date			
		Month Number			
		Month Name			
		Year			

The table spans from row 2 to row 18. The first two rows contain summary statistics: 16 columns and 700 rows. The subsequent rows list various financial and temporal dimensions of the data. The last three rows (16-18) are empty.

# PERFORM DATA CLEANING IF REQUIRED AND THEN DO STATISTICAL ANALYSIS ON DATA USING STATISTICAL TOOLS



Segment	Country	Product	Discount Band	Units Sold	Manufacturing P	Sale Price	Gross Sales	Discounts	Sales	COGS	Profit
Government	Canada	Carretera	No discount	1618.5	3	20	32370	0	32370	16185	16185
Government	Germany	Carretera	No discount	1321	3	20	26420	0	26420	13210	13210
Midmarket	France	Carretera	No discount	2178	3	15	32670	0	32670	21780	21780
Midmarket	Germany	Carretera	No discount	888	3	15	13320	0	13320	8880	4440
Midmarket	Mexico	Carretera	No discount	2470	3	15	37050	0	37050	24700	12350
Government	Germany	Carretera	No discount	1513	3	350	529550	0	529550	393380	136170
Midmarket	Germany	Montana	No discount	921	5	15	13815	0	13815	9210	4604
Channel Partners	Canada	Montana	No discount	2518	5	12	30216	0	30216	7554	22602
Government	France	Montana	No discount	1899	5	20	37980	0	37980	18990	18990
Channel Partners	Germany	Montana	No discount	1545	5	12	18540	0	18540	4635	13905
Midmarket	Mexico	Montana	No discount	2470	5	15	37050	0	37050	24700	12350
Enterprise	Canada	Montana	No discount	2665.5	5	125	333187.5	0	333187.5	319860	132320
Small Business	Mexico	Montana	No discount	958	5	300	287400	0	287400	239500	47900
Government	Germany	Montana	No discount	2146	5	7	15022	0	15022	10730	42970
Enterprise	Canada	Montana	No discount	345	5	125	43125	0	43125	41400	1725
Midmarket	United States of America	Montana	No discount	615	5	15	9225	0	9225	6150	3075
Government	Canada	Paseo	No discount	292	10	20	5840	0	5840	2920	2920
Midmarket	Mexico	Paseo	No discount	974	10	15	14610	0	14610	9740	4866
Channel Partners	Canada	Paseo	No discount	2518	10	12	30216	0	30216	7554	22602
Government	Germany	Paseo	No discount	1006	10	350	352100	0	352100	261560	90990
Channel Partners	Germany	Paseo	No discount	367	10	12	4404	0	4404	1101	3303
Government	Mexico	Paseo	No discount	883	10	7	6181	0	6181	4415	1666
Midmarket	France	Paseo	No discount	549	10	15	8235	0	8235	5490	2995
Small Business	Mexico	Paseo	No discount	788	10	300	236400	0	236400	197000	39300
Midmarket	Mexico	Paseo	No discount	2472	10	15	37080	0	37080	24720	12350

# PERFORM DATA CLEANING IF REQUIRED AND THEN DO STATISTICAL ANALYSIS ON DATA USING STATISTICAL TOOLS

Western Countries Financial Data (1) (Autosaved) project (Autosaved) - Excel (Product Activation Failed)

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW ACROBAT

C18

A	B	C	D	E	F	G	H	I
<b>Units Sold</b>		<b>Mnufacturing Price</b>		<b>Profit</b>		<b>COGS</b>		<b>Sales</b>
Mean: 1608.794286		Mean: 96.47714286		Mean: 17234.05233		Mean: 152375.0186		Mean: 169690.0718
Standard Error: 32.785694136		Standard Error: 4.104079908		Standard Error: 10841.34726		Standard Error: 8077.714468		Standard Error: 8947.414896
Median: 1542.5		Median: 100		Median: 3827.875		Median: 29375.7		Median: 35540
Mode: 727		Mode: 10		Mode: 18170		Mode: 24750		Mode: 19780
Standard Deviation: 867.4278591		Standard Deviation: 108.6061227		Standard Deviation: 286835.0872		Standard Deviation: 213716.2412		Standard Deviation: 236726.3496
Sample Variance: 752431.0907		Sample Variance: 11794.57327		Sample Variance: 82217367274		Sample Variance: 45674266372		Sample Variance: 56040960932
Kurtosis: -0.351317997		Kurtosis: -1.49289668		Kurtosis: 6.111678185		Kurtosis: 2.157466737		Kurtosis: 2.186395817
Skewness: 0.436153562		Skewness: 0.592583952		Skewness: 0.138529715		Skewness: 1.50469282		Skewness: 1.539813398
Range: 42925		Range: 257		Range: 1124420		Range: 1396770		Range: 1555001
Minimum: 400		Minimum: 3		Minimum: -974816.6		Minimum: 10970		Minimum: 1555.08
Maximum: 42925		Maximum: 260		Maximum: 149600		Maximum: 1407740		Maximum: 1556556
Sum: 1125806		Sum: 67534		Sum: 12063837.26		Sum: 106662513		Sum: 118726350.3
Count: 700		Count: 700		Count: 700		Count: 700		Count: 700
15								
16								
17								
18								
19								
20								
21								
22								
23								

Sheet1 Summery Sheet 2 Graphical Analysis **Statistical Analysis** +

READY 100%

# PERFORM DATA CLEANING IF REQUIRED AND THEN DO STATISTICAL ANALYSIS ON DATA USING STATISTICAL TOOLS.

Western Countries Financial Data (1) (Autosaved) project (Autosaved) - Excel (Product Activation Failed)

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW ACROBAT

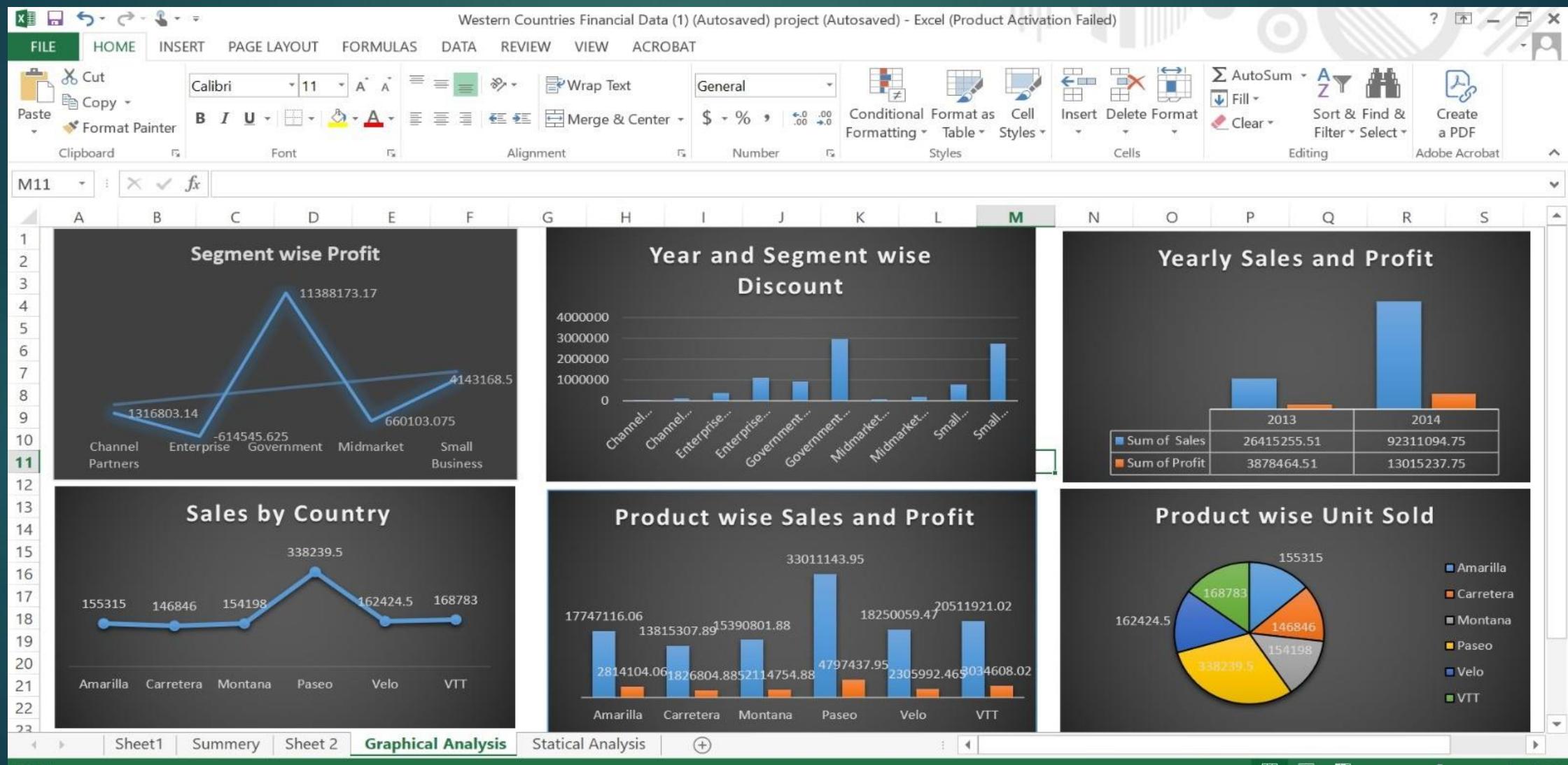
Cut Copy Paste Format Painter Clipboard Calibri 11 A A Wrap Text General \$ % , Conditional Formatting Merge & Center Cell Styles Insert Delete Format AutoSum Fill Clear Sort & Find & Filter Select Create a PDF

E17 A B C D E F G H I J K L

	Average of Profit	Min of Profit	Max of Profit	Min of Sales	Average of Sales	Max of Sales	Product	Sum of Discounts
2	24133.86037	-40617.5	262200	1655.08	169609.0718	1159200	Channel Par	134568.36
3							2013	34713.72
4							2014	99854.64
5	Product	Sum of Profit	Segment	Sum of Profit	Product	Sum of Sales Sum of Profit	Enterprise	1457305.625
6	Channel Partners	1316803.14	Amarilla	2814104.06	Amarilla	17747116.1 2814104.06	2013	370562.5
7	Enterprise	-614545.625	Carretera	1826804.885	Carretera	13815307.9 1826804.885	2014	1086743.125
8	Government	11388173.17	Montana	2114754.88	Montana	15390801.9 2114754.88	Governmen	3898805.83
9	Midmarket	660103.075	Paseo	4797437.95	Paseo	33011144 4797437.95	2013	920352.72
10	Small Business	4143168.5	Velo	2305992.465	Velo	18250059.5 2305992.465	2014	2978453.11
11	Grand Total	16893702.26	VTT	3034608.02	VTT	20511921 3034608.02	Midmarket	200786.925
12			Grand Total	16893702.26	Grand Total	118726350 16893702.26	2013	45476.55
13	Segment	Sum of Profit					2014	155310.375
14	Channel Partners	1316803.14					Small Busine	3513781.5
15	Enterprise	-614545.625					2013	774426
16	Government	11388173.17					2014	2739355.5
17	Midmarket	660103.075					Grand Total	9205248.24
18	Small Business	4143168.5						
19	Grand Total	16893702.26						
20								
21								
22								
23								

Sheet1 Summery Sheet 2 Graphical Analysis Statical Analysis +

# PERFORM GRAPHICAL ANALYSIS ON THE DATA USING EXCEL AND DERIVE INSIGHTS FROM IT.



**→ INSERT THE GIVEN DATA INTO THE SQL SERVER BY MAKING A DATABASE AND DEFINING THE REQUIRED PARAMETERS FOR THE CONSTRUCTION OF DATABASE AND DATABASE TABLES.**

The screenshot shows the MySQL Workbench interface. The top navigation bar includes File, Edit, View, Query, Database, Server, Tools, Scripting, and Help. Below the menu is a toolbar with various icons. The main area has tabs for Query 1 through SQL File 9\*. The left sidebar displays the Navigator and Schemas. Under Schemas, the westernfinancials database is selected, showing its Tables (western), Views, Stored Procedures, and Functions. Below it, the world database is shown with its Tables (city, country, countrylanguage), Views, Stored Procedures, and Functions. The central pane contains a query editor with the following SQL code:

```
10 •  SELECT COUNT(*) AS TotalRows FROM western;
11
12      -- Check distinct years
13 •  SELECT DISTINCT Year FROM western;
14
15      -- Quick total sales check
16 •  SELECT SUM(Sales) AS TotalSales FROM western;
```

The Result Grid shows the output for the first query:

TotalRows
700

The bottom pane shows the Output tab with a table of actions and their results:

#	Time	Action	Message	Duration / Fetch
18	21:40:52	SELECT * FROM western LIMIT 0, 1000	700 row(s) returned	0.000 sec / 0.000 sec
19	21:42:43	SELECT COUNT(*) AS TotalRows FROM FinancialData LIMIT 0, 1000	Error Code: 1146. Table 'westernfinancials.financialdata' doesn't exist	0.031 sec
20	21:43:32	SELECT COUNT(*) AS TotalRows FROM western LIMIT 0, 1000	1 row(s) returned	0.250 sec / 0.000 sec
21	21:43:32	SELECT COUNT(*) AS TotalRows FROM western LIMIT 0, 1000	1 row(s) returned	Activate Windows 0.000 sec / 0.000 sec
22	21:43:32	SELECT DISTINCT Year FROM western LIMIT 0, 1000	2 row(s) returned	Go to Settings to activate 0.062 sec / 0.000 sec
23	21:43:32	SELECT SUM(Sales) AS TotalSales FROM western LIMIT 0, 1000	1 row(s) returned	0.015 sec / 0.000 sec

# VERIFY IF THE DATA IS PROPERLY IMPORTED INTO THE SQL DATABASE (TRY RUNNING FEW QUERIES).

The screenshot shows the MySQL Workbench interface. The left sidebar displays the Navigator with the 'SCHEMAS' tab selected, showing databases like sakila, school, store, sys, universal, and westernfinancials. The 'western' table under westernfinancials is selected, and its columns (Segment, Country, Product, Discount, Band, Units Sold, Manufacturing, Sale Price, Gross Sales, Discounts) are listed. The main area shows a query editor with the following SQL code:

```
10 •  SELECT COUNT(*) AS TotalRows FROM western;
11
12 -- Check distinct years
13 •  SELECT DISTINCT Year FROM western;
14
15 -- Quick total sales check
16 •  SELECT SUM(Sales) AS TotalSales FROM western;
```

The results grid shows the output of the last query:

TotalSales
118726385

The bottom pane shows the 'Action Output' log with several entries:

#	Time	Action	Message	Duration / Fetch
18	21:40:52	SELECT * FROM western LIMIT 0, 1000	700 row(s) returned	0.000 sec / 0.000 sec
19	21:42:43	SELECT COUNT(*) AS TotalRows FROM FinancialData LIMIT 0, 1000	Error Code: 1146. Table 'westernfinancials.financialdata' doesn't exist	0.031 sec
20	21:43:32	SELECT COUNT(*) AS TotalRows FROM western LIMIT 0, 1000	1 row(s) returned	0.250 sec / 0.000 sec
21	21:43:32	SELECT COUNT(*) AS TotalRows FROM western LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
22	21:43:32	SELECT DISTINCT Year FROM western LIMIT 0, 1000	2 row(s) returned	0.062 sec / 0.000 sec
23	21:43:32	SELECT SUM(Sales) AS TotalSales FROM western LIMIT 0, 1000	1 row(s) returned	0.015 sec / 0.000 sec

MySQL Workbench

Local instance MySQL80 ×

File Edit View Query Database Server Tools Scripting Help

Navigator

Query 1 SQL File 4\* SQL File 6\* SQL File 8\* SQL File 7\* SQL File 8\* SQL File 9\* ×

SCHEMAS

Filter objects

sakila  
school  
store  
sys  
universal  
**westernfinancials**

Tables

western

Columns

- Segment
- Country
- Product
- Discount
- Ban
- Units Sold
- Manufacturing
- Sale Price
- Gross Sales
- Discounts

Result Grid | Filter Rows: [ ] Export: [ ] Wrap Cell Content: [ ]

Country	TotalSales
United States of America	25029834
Canada	24887660
France	24354182
Germany	23505352
Mexico	20949357

Administration Schemas

Information Result 7 Result 8 Result 9 × Read Only

Output:

Action Output

#	Time	Action	Message	Duration / Fetch
1	21:38:46	SELECT COUNT(*) AS TotalRows FROM western LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec
2	21:38:47	SELECT COUNT(DISTINCT Country) AS TotalCountries FROM western LIMIT 0, 1000	1 row(s) returned	0.047 sec / 0.000 sec
3	21:39:12	SELECT Segment, SUM(Profit) AS TotalProfit FROM western GROUP BY Segment ORDER BY ...	5 row(s) returned	0.015 sec / 0.000 sec
4	21:39:12	SELECT Year, SUM(Sales) AS TotalSales, SUM(Profit) AS TotalProfit FROM western GROUP BY Year ORDER BY ...	2 row(s) returned	0.000 sec / 0.000 sec
5	21:39:12	SELECT Country, SUM(Sales) AS TotalSales FROM western GROUP BY Country ORDER BY ...	5 row(s) returned	0.000 sec / 0.000 sec

Activate Windows Go to Settings to activate Windows

Object Info Session

MySQL Workbench

Local instance MySQL80 ×

File Edit View Query Database Server Tools Scripting Help

Navigator: SQL File 4\* SQL File 6\* SQL File 7\* SQL File 8\* SQL File 9\* ×

SCHEMAS

Filter objects

- sakila
- school
- store
- sys
- universal
- westernfinancials**

Tables

- western

Columns

- Segment
- Country
- Product
- Discount
- Ban
- Units Sold
- Manufacturing
- Sale Price
- Gross Sales
- Discounts

Administration Schemas

Information

Schema: westernfinancials

Object Info Session

Query 1 SQL File 4\* SQL File 6\* SQL File 7\* SQL File 8\* SQL File 9\* ×

25 FROM western  
26 GROUP BY Year;  
27  
28 -- 5. Country-wise sales summary  
29 • SELECT Country, SUM(Sales) AS TotalSales  
30 FROM western  
31 GROUP BY Country  
32 ORDER BY TotalSales DESC

Result Grid | Filter Rows: Export: Wrap Cell Content:

Country	TotalSales
United States of America	25029834
Canada	24887660
France	24354182
Germany	23505352
Mexico	20949357

Result Grid Result Grid Form Editor

Result 7 Result 8 Result 9 ×

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	21:38:46	SELECT COUNT(*) AS TotalRows FROM western LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec
2	21:38:47	SELECT COUNT(DISTINCT Country) AS TotalCountries FROM western LIMIT 0, 1000	1 row(s) returned	0.047 sec / 0.000 sec
3	21:39:12	SELECT Segment, SUM(Profit) AS TotalProfit FROM western GROUP BY Segment ORDER BY ...	5 row(s) returned	0.015 sec / 0.000 sec
4	21:39:12	SELECT Year, SUM(Sales) AS TotalSales, SUM(Profit) AS TotalProfit FROM western GROUP ...	2 row(s) returned	Activate Windows 0.000 sec / 0.000 sec
5	21:39:12	SELECT Country, SUM(Sales) AS TotalSales FROM western GROUP BY Country ORDER BY ...	5 row(s) returned	Go to Settings to activate 0.000 sec / 0.000 sec

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

- sakila
- school
- store
- sys
- universal
- westernfinancials**

Tables

- western

  - Columns
  - Segment
  - Country
  - Product
  - Discount Ban
  - Units Sold
  - Manufacturing
  - Sale Price
  - Gross Sales
  - Discounts

Administration Schemas

Information

Result Grid | Filter Rows: Export: Wrap Cell Content:

Year	TotalSales	TotalProfit
2014	92311117	13015253
2013	26415268	3878471

Result Grid Form Editor

Result 7 Result 8 Result 9

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	21:38:46	SELECT COUNT(*) AS TotalRows FROM western LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec
2	21:38:47	SELECT COUNT(DISTINCT Country) AS TotalCountries FROM western LIMIT 0, 1000	1 row(s) returned	0.047 sec / 0.000 sec
3	21:39:12	SELECT Segment, SUM(Profit) AS TotalProfit FROM western GROUP BY Segment ORDER BY ...	5 row(s) returned	0.015 sec / 0.000 sec
4	21:39:12	SELECT Year, SUM(Sales) AS TotalSales, SUM(Profit) AS TotalProfit FROM western GROUP ...	2 row(s) returned	Activate Windows 0.000 sec / 0.000 sec
5	21:39:12	SELECT Country, SUM(Sales) AS TotalSales FROM western GROUP BY Country ORDER BY ...	5 row(s) returned	Go to Settings to activate 0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator: SQL File 4\* SQL File 6\* SQL File 8\* SQL File 7\* SQL File 8\* SQL File 9\*

SCHEMAS

Filter objects

- sakila
- school
- store
- sys
- universal
- westernfinancials**

Tables

- western

Columns

- Segment
- Country
- Product
- Discount Ban
- Units Sold
- Manufacturing
- Sale Price
- Gross Sales
- Discounts

Query Editor:

```
25 FROM western
26 GROUP BY Year;
27
28 -- 5. Country-wise sales summary
29 • SELECT Country, SUM(Sales) AS TotalSales
30 FROM western
31 GROUP BY Country
32 ORDER BY TotalSales DESC
```

Result Grid:

Segment	TotalProfit
Government	11388197
Small Business	4143170
Channel Partners	1316803
Midmarket	660103
Enterprise	-614549

Information:

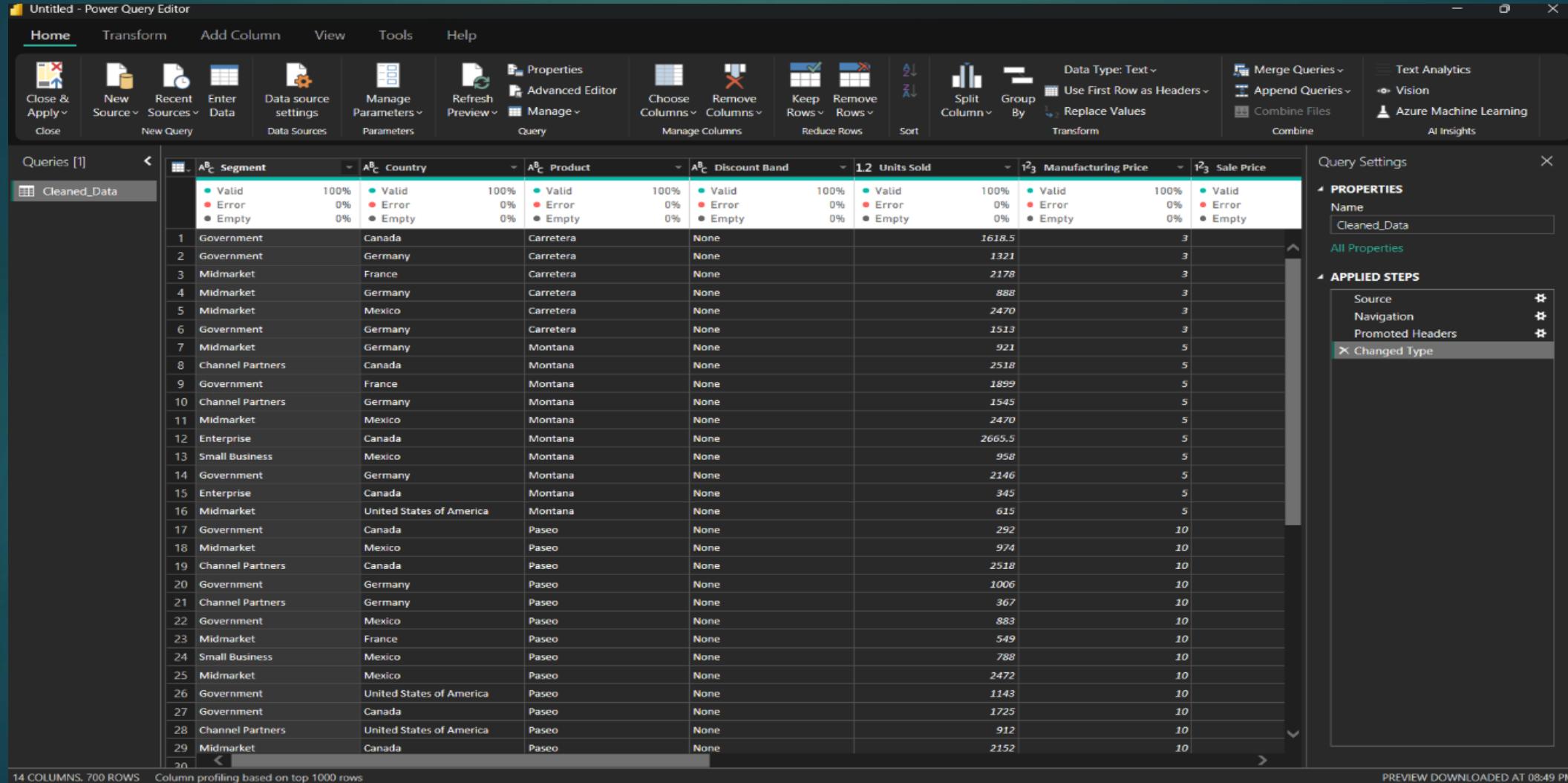
Schema: **westernfinancials**

Action Output:

#	Time	Action	Message	Duration / Fetch
1	21:38:46	SELECT COUNT(*) AS TotalRows FROM western LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec
2	21:38:47	SELECT COUNT(DISTINCT Country) AS TotalCountries FROM western LIMIT 0, 1000	1 row(s) returned	0.047 sec / 0.000 sec
3	21:39:12	SELECT Segment, SUM(Profit) AS TotalProfit FROM western GROUP BY Segment ORDER BY ...	5 row(s) returned	0.015 sec / 0.000 sec
4	21:39:12	SELECT Year, SUM(Sales) AS TotalSales, SUM(Profit) AS TotalProfit FROM western GROUP ...	2 row(s) returned	Activate Windows 0.000 sec / 0.000 sec
5	21:39:12	SELECT Country, SUM(Sales) AS TotalSales FROM western GROUP BY Country ORDER BY ...	5 row(s) returned	Go to Settings to activate 0.000 sec / 0.000 sec

Object Info Session

 IMPORT THE DATA FROM THE SQL DATABASE INTO POWER BI, VERIFY IF THE DATA IS PROPERLY IMPORTED OR NOT.



The screenshot shows the Power Query Editor interface with a dark theme. On the left, the 'Queries [1]' pane lists a single query named 'Cleaned\_Data'. The main area displays a table with 14 columns and 700 rows. The columns are labeled: Segment, Country, Product, Discount Band, Units Sold, Manufacturing Price, and Sale Price. The data includes various market segments like Government, Midmarket, and Enterprise, and countries like Canada, Germany, France, Mexico, and the United States. The 'Query Settings' pane on the right shows the query name is 'Cleaned\_Data' and the applied step 'Changed Type' is selected. The bottom status bar indicates '14 COLUMNS, 700 ROWS' and 'Column profiling based on top 1000 rows'.

Segment	Country	Product	Discount Band	Units Sold	Manufacturing Price	Sale Price
Government	Canada	Carretera	None	1618.5	3	3
Government	Germany	Carretera	None	1321	3	3
Midmarket	France	Carretera	None	2178	3	3
Midmarket	Germany	Carretera	None	888	3	3
Midmarket	Mexico	Carretera	None	2470	3	3
Government	Germany	Carretera	None	1513	3	3
Midmarket	Germany	Montana	None	921	5	5
Channel Partners	Canada	Montana	None	2518	5	5
Government	France	Montana	None	1899	5	5
Channel Partners	Germany	Montana	None	1545	5	5
Midmarket	Mexico	Montana	None	2470	5	5
Enterprise	Canada	Montana	None	2665.5	5	5
Small Business	Mexico	Montana	None	958	5	5
Government	Germany	Montana	None	2146	5	5
Enterprise	Canada	Montana	None	345	5	5
Midmarket	United States of America	Montana	None	615	5	5
Government	Canada	Paseo	None	292	10	10
Midmarket	Mexico	Paseo	None	974	10	10
Channel Partners	Canada	Paseo	None	2518	10	10
Government	Germany	Paseo	None	1006	10	10
Channel Partners	Germany	Paseo	None	367	10	10
Government	Mexico	Paseo	None	883	10	10
Midmarket	France	Paseo	None	549	10	10
Small Business	Mexico	Paseo	None	788	10	10
Midmarket	Mexico	Paseo	None	2472	10	10
Government	United States of America	Paseo	None	1143	10	10
Government	Canada	Paseo	None	1725	10	10
Channel Partners	United States of America	Paseo	None	912	10	10
Midmarket	Canada	Paseo	None	2152	10	10

**→ PERFORM DATA CLEANING AND OTHER POSSIBLE OPERATIONS ON DATA USING QUERY EDITOR, CREATE MEASURES IF NECESSARY AND USE THEM TO VISUALIZE THE DATA AND MAKE AN INTERACTIVE VISUALIZATION.**

Capstone\_Dashboard • Last saved: Yesterday at 11:46 PM

Search Sign in Share

File Home Help Table tools

Name Cleaned\_Data

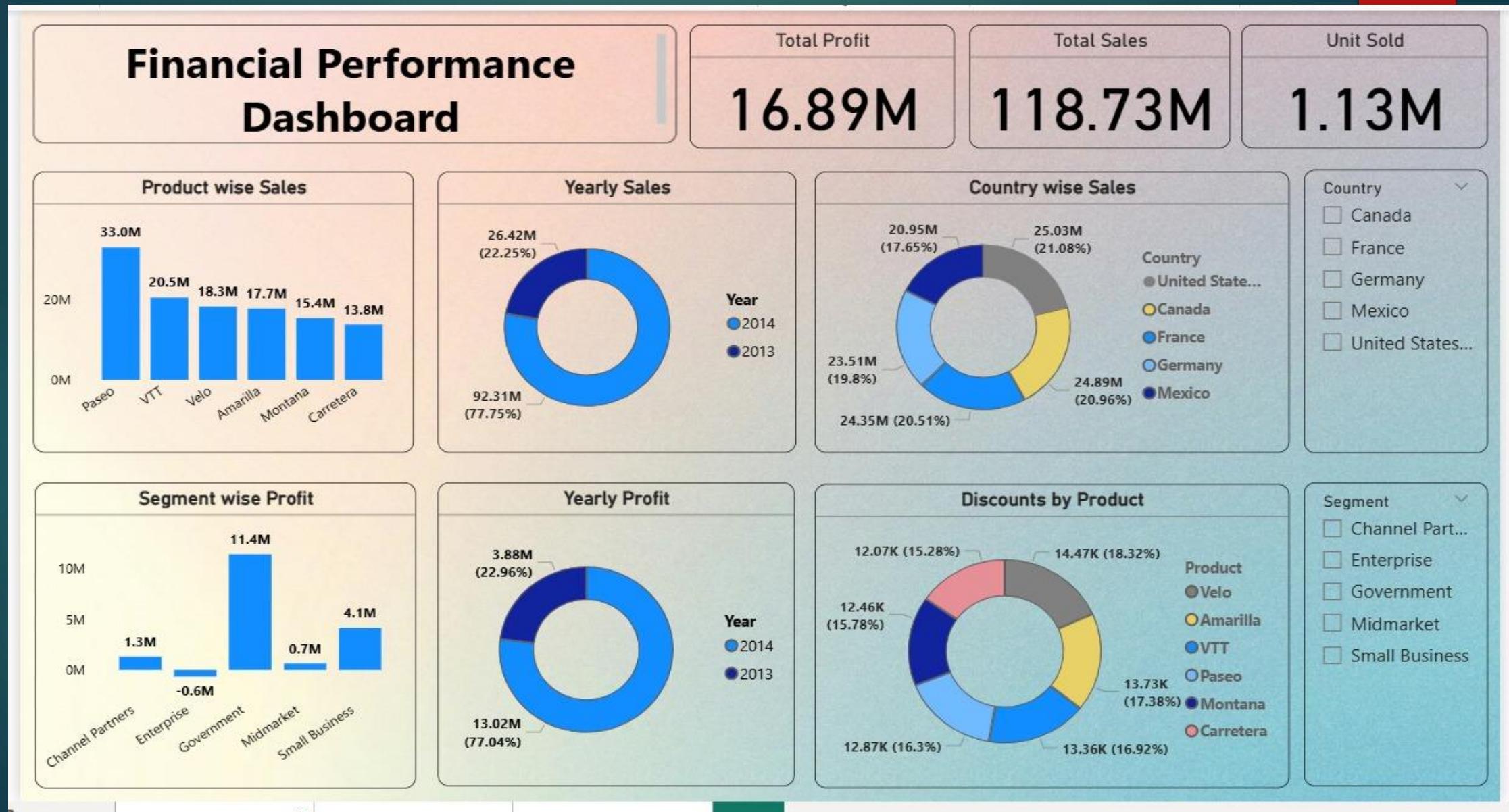
Manage relationships New measure Quick New column New table Mark as date table Calculations Calendars

Structure Relationships

Segment Country Product Discount Band Units Sold Manufacturing Price Sale Price Gross Sales Discounts Sales COGS Profit Date Profit or Loss

Segment	Country	Product	Discount Band	Units Sold	Manufacturing Price	Sale Price	Gross Sales	Discounts	Sales	COGS	Profit	Date	Profit or Loss
Government	Germany	Carretera	None	1513	3	350	529550	0	529550	4539	525011	Monday, 1 December, 2014	Profit
Government	Germany	Paseo	None	1006	10	350	352100	0	352100	10060	342040	Sunday, 1 June, 2014	Profit
Government	Canada	Paseo	None	1725	10	350	603750	0	603750	17250	586500	Friday, 1 November, 2013	Profit
Government	Germany	Paseo	None	1513	10	350	529550	0	529550	15130	514420	Monday, 1 December, 2014	Profit
Government	Germany	Velo	None	1006	120	350	352100	0	352100	120720	231380	Sunday, 1 June, 2014	Profit
Government	France	VTT	None	1527	250	350	534450	0	534450	381750	152700	Sunday, 1 September, 2013	Profit
Government	France	Amarilla	None	2750	260	350	962500	0	962500	715000	247500	Saturday, 1 February, 2014	Profit
Government	Mexico	Carretera	Low	1210	3	350	423500	4235	419265	3630	415635	Saturday, 1 March, 2014	Profit
Government	Mexico	Carretera	Low	1397	3	350	488950	4889.5	484060.5	4191	479869.5	Wednesday, 1 October, 2014	Profit
Government	France	Carretera	Low	2155	3	350	754250	7542.5	746707.5	6465	740242.5	Monday, 1 December, 2014	Profit
Government	France	Paseo	Low	2155	10	350	754250	7542.5	746707.5	21550	725157.5	Monday, 1 December, 2014	Profit
Government	Canada	VTT	Low	943.5	250	350	330225	33022.5	326922.75	235875	910477.5	Tuesday, 1 April, 2014	Profit
Government	Mexico	VTT	Low	1397	250	350	488950	4889.5	484060.5	349250	134810.5	Wednesday, 1 October, 2014	Profit
Government	Canada	Carretera	Low	2852	3	350	998200	19964	978236	8556	969680	Monday, 1 December, 2014	Profit
Government	Canada	Paseo	Low	2852	10	350	998200	19964	978236	28520	949716	Monday, 1 December, 2014	Profit
Government	Germany	Velo	Low	2966	120	350	1038100	20762	1017338	355920	661478	Tuesday, 1 October, 2013	Profit
Government	Germany	Velo	Low	2877	120	350	1006950	20139	986811	345240	641571	Wednesday, 1 October, 2014	Profit
Government	Germany	VTT	Low	2877	250	350	1006950	20139	986811	719250	267561	Wednesday, 1 October, 2014	Profit
Government	United States of America	VTT	Low	266	250	350	93100	1862	91238	66500	24738	Sunday, 1 December, 2013	Profit
Government	Mexico	VTT	Low	1940	250	350	679000	13580	665420	485000	180420	Sunday, 1 December, 2013	Profit
Government	Germany	Amarilla	Low	2966	260	350	1038100	20762	1017338	771160	246178	Tuesday, 1 October, 2013	Profit
Government	Germany	Montana	Low	1797	5	350	628950	18868.5	610081.5	8985	601096.5	Sunday, 1 September, 2013	Profit
Government	Mexico	VTT	Low	1642	250	350	574700	17241	557459	410500	146959	Friday, 1 August, 2014	Profit
Government	United States of America	Carretera	Low	274	3	350	95900	3836	92064	822	91242	Monday, 1 December, 2014	Profit
Government	United States of America	Paseo	Low	3450	10	350	1207500	48300	1159200	34500	1124700	Tuesday, 1 July, 2014	Profit
Government	United States of America	Paseo	Low	274	10	350	95900	3836	92064	2740	89324	Monday, 1 December, 2014	Profit
Government	France	Velo	Low	2177	120	350	761950	30478	731472	261240	470232	Wednesday, 1 October, 2014	Profit
Government	United States of America	VTT	Low	349	250	350	122150	4886	117264	87250	30014	Sunday, 1 September, 2013	Profit
Government	France	VTT	Low	2177	250	350	761950	30478	731472	544250	187222	Wednesday, 1 October, 2014	Profit
Government	Mexico	Amarilla	Low	1865	260	350	652750	26110	626640	484900	141740	Saturday, 1 February, 2014	Profit
Government	Germany	Amarilla	Low	1907	260	350	667450	26698	640752	495820	144932	Monday, 1 September, 2014	Profit
Government	Canada	Amarilla	Low	1778	260	350	622300	24892	597408	462280	135128	Sunday, 1 December, 2013	Profit

**MAKE A DETAILED INTERACTIVE DASHBOARD BY USING VISUALIZATION TOOLS SUCH AS POWER BI AND ANSWER THE FOLLOWING QUESTIONS:**



Segment

Channel Partners

Enterprise

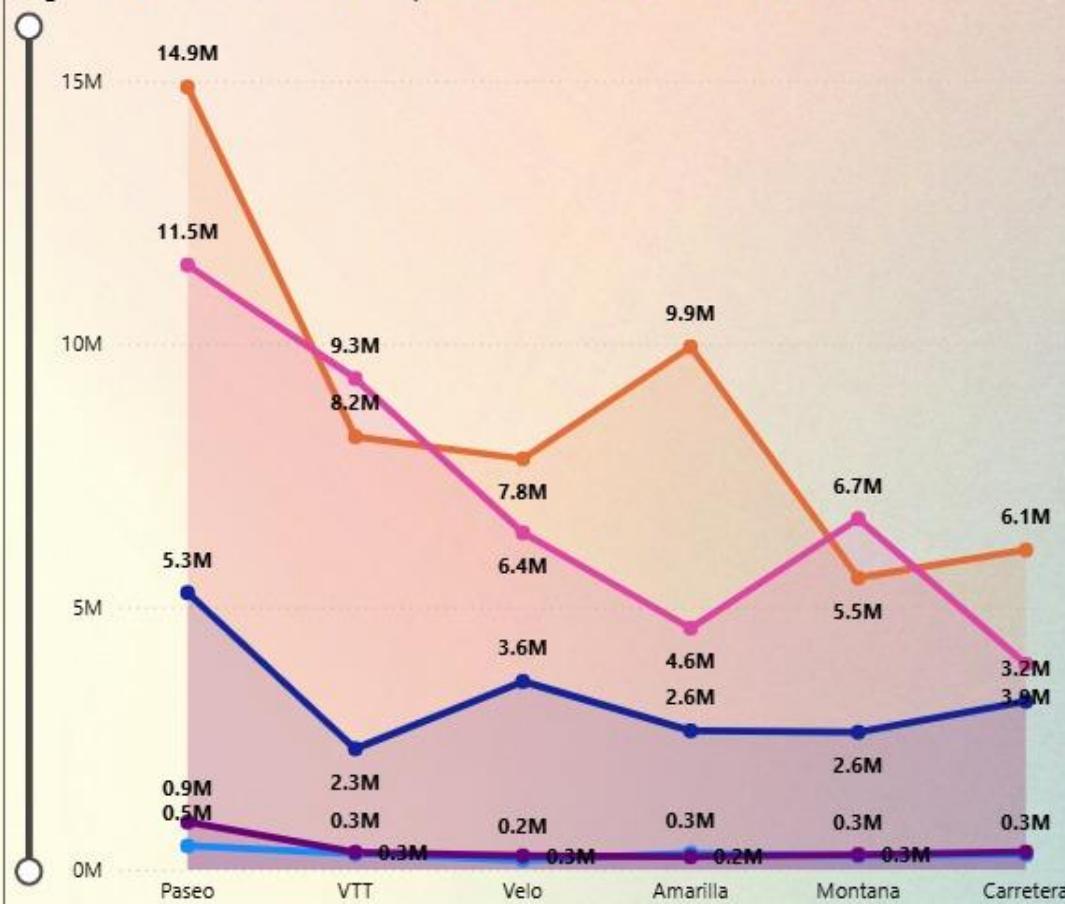
Government

Midmarket

Small Business

## Sales by Product and Segment

**Segment** ● Channel Partners ● Enterprise ● Government ● Midmarket ● Small Business



## Profit by Product and Segment

**Segment** ● Channel Partners ● Enterprise ● Government ● Midmarket ● Small Business

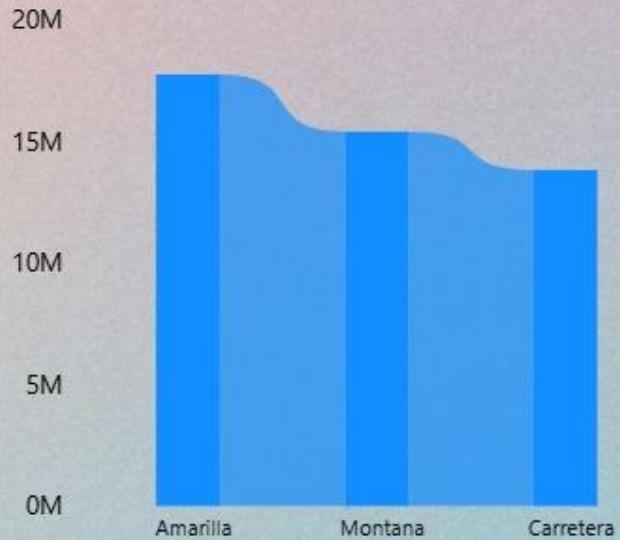


### No. of units sold year over year

Total Units Sold YoY% and Total Units Sold

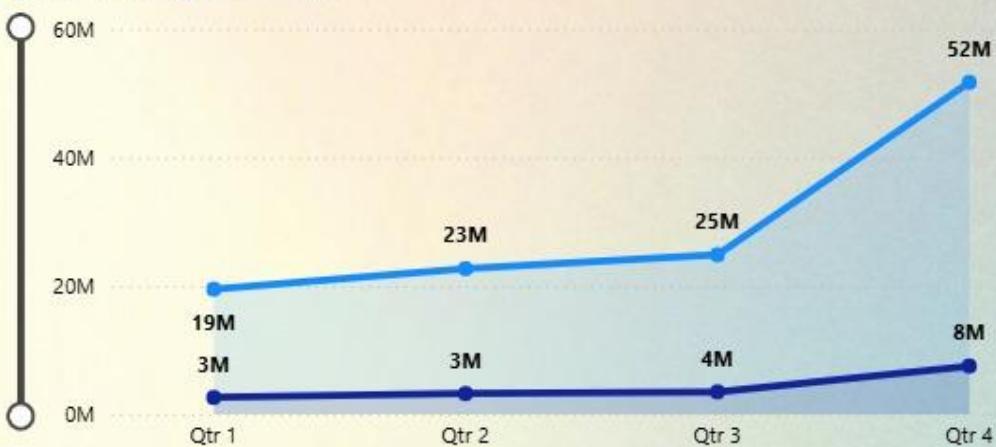


### Bottom 3 Product by Sales

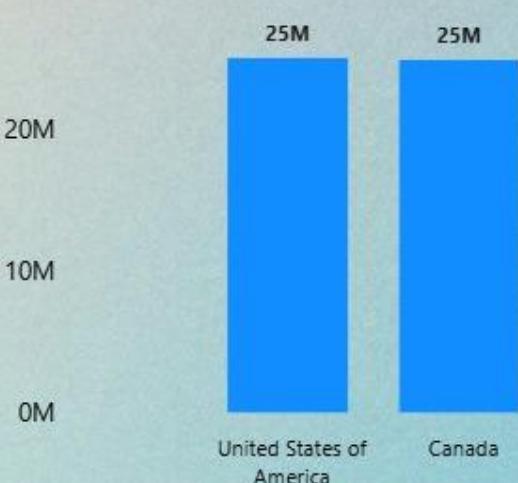


### Sales and Profit by Quarter

Sum of Sales Sum of Profit



### Top 2 Country by Sales



#### Quarter

- Qtr 1
- Qtr 2
- Qtr 3
- Qtr 4

#### Year

- 2013
- 2014

# CREATE A VISUALLY PLEASING DASHBOARD REPORT BY FOLLOWING THE RULES OF MAKING THE DASHBOARD

## **Objective:**

The purpose of this dashboard is to analyze the company's sales, profit, and units sold across different years, countries, products, and segments. It helps identify top-performing areas, underperforming products, and overall year-over-year growth trends.

## **Dashboard Highlights:**

Overall Performance (KPIs)

Total Sales: 118.73M

Total Profit: 16.89M Total Units Sold: 1.13M

These KPIs give a quick snapshot of the company's overall financial health.

# Dashboard Report

CREATE A VISUALLY PLEASING DASHBOARD REPORT BY FOLLOWING THE RULES OF MAKING THE DASHBOARD

## Product Analysis

Top Product by Sales: Paseo (33M)

Bottom 3 Products by Sales: Amarilla, Montana, Carretera

Product-wise Discounts: Clear distribution of discounts applied across six products.

## Segment Analysis

Most Profitable Segment: Small Business (4.1M profit)

Least Profitable Segment: Government (-0.6M loss)

Segment vs Product breakdown shows clear differences in contribution across categories.

## Yearly Trends

Sales jumped significantly from 2013 → 2014, with total sales increasing by ~249% YoY.

Yearly Sales: 2013 – 26.42M | 2014 – 92.31M

Yearly Profit: 2013 – 3.88M | 2014 – 13.02M

## CREATE A VISUALLY PLEASING DASHBOARD REPORT BY FOLLOWING THE RULES OF MAKING THE DASHBOARD

### Country Analysis

Top 2 Countries by Sales: United States & Canada (25M each)  
Germany & Mexico contributed more profit margins.

### Quarterly Analysis

Q4 had the highest performance with 52M sales and 8M profit, showing strong seasonal demand.

### Units Sold Year over Year (YoY)

Units sold fluctuated monthly but showed consistent growth in 2014 compared to 2013.

Peak months: October & December (2014) with over 100K units sold.



## CREATE A VISUALLY PLEASING DASHBOARD REPORT BY FOLLOWING THE RULES OF MAKING THE DASHBOARD

### Design Approach

KPIs at the top for quick overview (Sales, Profit, Units Sold).

Bar & Line charts for product, segment, and country analysis.

Donut charts for yearly & discount distribution.

Interactive filters for Year, Segment, and Country to allow dynamic analysis.

### Conclusion & Insights

Growth: Sales surged in 2014, with YoY growth of ~249%.

Products: Paseo dominates in sales, while Amarilla & VTT need improvement.

Segments: Small Business is most profitable; Government segment is underperforming.

Geography: USA & Canada are largest sales contributors; Germany & Mexico yield high profitability.

Seasonality: Q4 is the strongest quarter, indicating year-end demand spikes.



## DERIVE CONCLUSION AND INFERENCES FROM THE DASHBOARD

### Key Conclusions

#### 1:- Overall Growth

The company achieved Total Sales of 118.73M, Total Profit of 16.89M, and sold 1.13M units across 2013–2014.

A ~249% surge in sales in 2014 compared to 2013 highlights significant business expansion.

#### 2:- Product Insights

Paseo is the top-selling product (33M) and a major revenue driver.

Amarilla, Montana, and Carretera are the bottom 3 products with lowest sales, needing strategic review.

Discounts were spread fairly evenly across products, but they didn't always translate into higher profits.



## DERIVE CONCLUSION AND INFERENCES FROM THE DASHBOARD

### 3:- Segment Insights

Small Business is the most profitable segment (4.1M profit).

Government segment incurred losses (-0.6M), making it a critical area for improvement.

Midmarket and Channel Partners show mixed performance, needing optimized pricing and strategies.

### 4:- Geographical Insights

USA & Canada contributed the highest sales (25M each).

Germany & Mexico delivered strong profitability despite smaller sales volumes, showing better efficiency.

## → DERIVE CONCLUSION AND INFERENCES FROM THE DASHBOARD

### 5:- Yearly & Quarterly Trends

Sales and profit peaked in Q4 (52M sales, 8M profit), suggesting strong year-end demand.

Monthly unit sales highlight October & December as peak months (>100K units sold).

## → DERIVE CONCLUSION AND INFERENCES FROM THE DASHBOARD

### Inferences for Business Strategy

**Product Strategy:** Focus on high-demand products like Paseo and review underperforming ones (Amarilla, Montana, Carretera) for pricing, promotion, or discontinuation.

**Segment Strategy:** Strengthen efforts in Small Business while restructuring or limiting exposure to the Government segment to reduce losses.

**Geographic Strategy:** Increase investments in USA & Canada to sustain sales momentum and expand strategies in Germany & Mexico to capitalize on profitability.

**Seasonality Planning:** Leverage strong Q4 demand with targeted marketing campaigns, inventory stock-up, and promotional offers.

**Discount Optimization:** Reassess discount strategies to ensure they directly contribute to profit growth rather than only driving sales volume.

## → DERIVE CONCLUSION AND INFERENCES FROM THE DASHBOARD

### **Final Takeaway:**

The dashboard provides end-to-end visibility of financial health, enabling management to take data-driven decisions. By focusing on profitable regions and segments, optimizing underperforming products, and leveraging seasonal demand, the company can sustain growth and increase profitability in the coming years.

Thank you