

CAPSTONE PROJECT

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

BY ANKITA CHOUBEY

EMAIL:- 15ANKITACHOUBEY@GMAIL.COM



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.

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

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW ACROBAT

Clipboard: Cut, Copy, Paste, Format Painter

Font: Calibri, 11, Bold, Italic, Underline, Color, Background Color, Text Color, Text Background Color

Alignment: Wrap Text, Merge & Center, Left, Center, Right, Indent, Decrease Indent, Increase Indent

Number: General, Currency, Percentage, Decimals, Fractions, Text, Scientific, Custom

Styles: Conditional Formatting, Format as Table, Cell Styles

Cells: Insert, Delete, Format, Delete Format

Editing: AutoSum, Fill, Clear, Sort & Find & Filter, Select

Adobe Acrobat: Create a PDF

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			

Sheet1 Sheet2

READY 100%



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

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

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW ACROBAT

DESIGN

Clipboard Font Alignment Number Styles Cells Editing Adobe Acrobat

H6 37050

	A	B	C	D	E	F	G	H	I	J	K	
1	Segment	Country	Product	Discount Band	Units Sold	Manufacturing P	Sale Price	Gross Sales	Discounts	Sales	COGS	Profit
2	Government	Canada	Carretera	No discount	1618.5	3	20	32370	0	32370	16185	16185
3	Government	Germany	Carretera	No discount	1321	3	20	26420	0	26420	13210	13210
4	Midmarket	France	Carretera	No discount	2178	3	15	32670	0	32670	21780	10900
5	Midmarket	Germany	Carretera	No discount	888	3	15	13320	0	13320	8880	4440
6	Midmarket	Mexico	Carretera	No discount	2470	3	15	37050	0	37050	24700	12350
7	Government	Germany	Carretera	No discount	1513	3	350	529550	0	529550	393380	136170
8	Midmarket	Germany	Montana	No discount	921	5	15	13815	0	13815	9210	4605
9	Channel Partners	Canada	Montana	No discount	2518	5	12	30216	0	30216	7554	22662
10	Government	France	Montana	No discount	1899	5	20	37980	0	37980	18990	18990
11	Channel Partners	Germany	Montana	No discount	1545	5	12	18540	0	18540	4635	13905
12	Midmarket	Mexico	Montana	No discount	2470	5	15	37050	0	37050	24700	12350
13	Enterprise	Canada	Montana	No discount	2665.5	5	125	333187.5	0	333187.5	319860	133327.5
14	Small Business	Mexico	Montana	No discount	958	5	300	287400	0	287400	239500	47900
15	Government	Germany	Montana	No discount	2146	5	7	15022	0	15022	10730	4292
16	Enterprise	Canada	Montana	No discount	345	5	125	43125	0	43125	41400	1725
17	Midmarket	United States of America	Montana	No discount	615	5	15	9225	0	9225	6150	3075
18	Government	Canada	Paseo	No discount	292	10	20	5840	0	5840	2920	2920
19	Midmarket	Mexico	Paseo	No discount	974	10	15	14610	0	14610	9740	4870
20	Channel Partners	Canada	Paseo	No discount	2518	10	12	30216	0	30216	7554	22662
21	Government	Germany	Paseo	No discount	1006	10	350	352100	0	352100	261560	90540
22	Channel Partners	Germany	Paseo	No discount	367	10	12	4404	0	4404	1101	3303
23	Government	Mexico	Paseo	No discount	883	10	7	6181	0	6181	4415	1766
24	Midmarket	France	Paseo	No discount	549	10	15	8235	0	8235	5490	2745
25	Small Business	Mexico	Paseo	No discount	788	10	300	236400	0	236400	197000	39400
26	Midmarket	Mexico	Paseo	No discount	2472	10	15	37080	0	37080	24720	12360

Sheet1 Sheet2

READY 85%



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)

	A	B	C	D	E	F	G	H	I
1	Units Sold		Mnufacturing Price		Profit		COGS		Sales
2	Mean: 1608.794286		Mean: 96.47714286		Mean: 17234.05233		Mean: 152375.0186		Mean: 169690.0718
3	Standard Error: 32.785694136		Standard Error: 4.104079908		Standard Error: 10841.34726		Standard Error: 8077.714468		Standard Error: 8947.414896
4	Median: 1542.5		Median: 100		Median: 3827.875		Median: 29375.7		Median: 35540
5	Mode: 727		Mode: 10		Mode: 18170		Mode: 24750		Mode: 19780
6	Standard Deviation: 867.4278591		Standard Deviation: 108.6061227		Standard Deviation: 286835.0872		Standard Deviation: 213716.2412		Standard Deviation: 236726.3496
7	Sample Variance: 752431.0907		Sample Variance: 11794.57327		Sample Variance: 82217367274		Sample Variance: 45674266372		Sample Variance: 56040960932
8	Kurtosis: -0.351317997		Kurtosis: -1.49289668		Kurtosis: 6.111678185		Kurtosis: 2.157466737		Kurtosis: 2.186395817
9	Skewness: 0.436153562		Skewness: 0.592583952		Skewness: 0.138529715		Skewness: 1.50469282		Skewness: 1.539813398
10	Range: 42925		Range: 257		Range: 1124420		Range: 1396770		Range: 1555001
11	Minimum: 400		Minimum: 3		Minimum: -974816.6		Minimum: 10970		Minimum: 1555.08
12	Maximum: 42925		Maximum: 260		Maximum: 149600		Maximum: 1407740		Maximum: 1556556
13	Sum: 1125806		Sum: 67534		Sum: 12063837.26		Sum: 106662513		Sum: 118726350.3
14	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 | **Statical Analysis**

READY



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

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Adobe Acrobat: Create a PDF

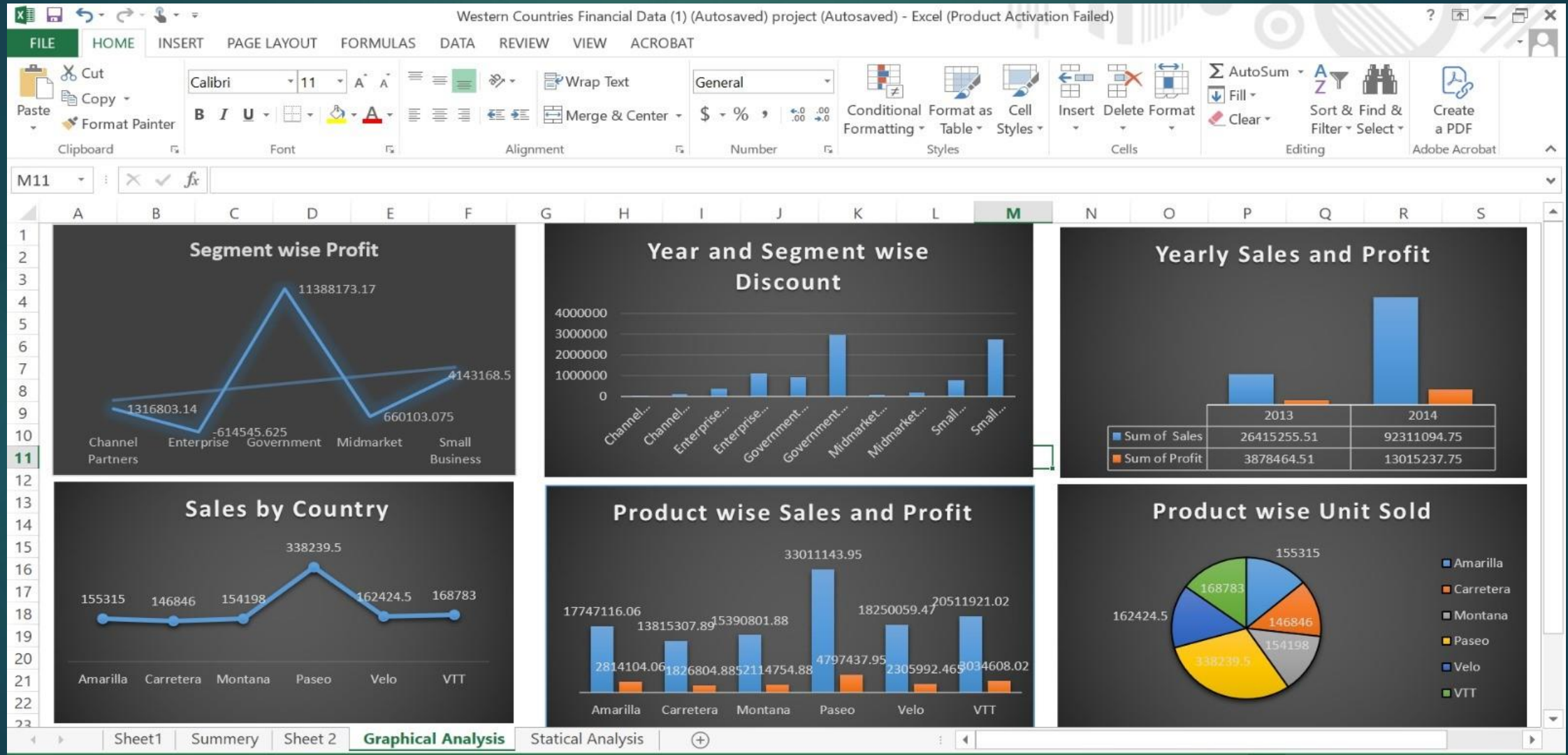
E17

	A	B	C	D	E	F	G	H	I	J	K	L
1												
2	Average of Profit	Min of Profit	Max of Profit	Min of Sales	Average of Sales	Max of Sales					Product	Sum of Discounts
3	24133.86037	-40617.5	262200	1655.08	169609.0718	1159200					Channel Par	134568.36
4											2013	34713.72
5	Product	Sum of Profit		Segment	Sum of Profit		Product	Sum of Sales	Sum of Profit		2014	99854.64
6	Channel Partners	1316803.14		Amarilla	2814104.06		Amarilla	17747116.1	2814104.06		Enterprise	1457305.625
7	Enterprise	-614545.625		Carretera	1826804.885		Carretera	13815307.9	1826804.885		2013	370562.5
8	Government	11388173.17		Montana	2114754.88		Montana	15390801.9	2114754.88		2014	1086743.125
9	Midmarket	660103.075		Paseo	4797437.95		Paseo	33011144	4797437.95		Government	3898805.83
10	Small Business	4143168.5		Velo	2305992.465		Velo	18250059.5	2305992.465		2013	920352.72
11	Grand Total	16893702.26		VTT	3034608.02		VTT	20511921	3034608.02		2014	2978453.11
12				Grand Total	16893702.26		Grand Total	118726350	16893702.26		Midmarket	200786.925
13	Segment	Sum of Profit									2013	45476.55
14	Channel Partners	1316803.14									2014	155310.375
15	Enterprise	-614545.625									Small Busine	3513781.5
16	Government	11388173.17									2013	774426
17	Midmarket	660103.075									2014	2739355.5
18	Small Business	4143168.5									Grand Total	9205248.24
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.

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
 - Views
 - Stored Procedures
 - Functions
- world
 - Tables
 - city
 - country
 - countrylanguage
 - Views
 - Stored Procedures
 - Functions

Administration Schemas

Information

Table: city

Columns:

ID	int
Name	AI
CountryCode	PK
District	char()
Population	char()
	int

Object Info Session

Query 1 SQL File 4* SQL File 6* SQL File 8* SQL File 7* SQL File 8* SQL File 9* x

Limit to 1000 rows

```
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;
```

Result Grid

TotalRows
700

Result 3 x Result 4 western 5 Result 6

Output

Action Output

#	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

Activate Windows
Go to Settings to activate Windows.



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

MySQL Workbench

Local instance MySQL80 x

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 Band
 - Units Sold
 - Manufacturing
 - Sale Price
 - Gross Sales
 - Discounts

Administration Schemas

Information

Table: western

Columns:

- Segment text
- Country text
- Product text
- Discount Band text
- Units Sold double
- Manufacturing int
- Price int
- Sale Price int

Object Info Session

Query 1 SQL File 4* SQL File 6* SQL File 8* SQL File 7* SQL File 8* SQL File 9* x

Limit to 1000 rows

```
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;
```

Result Grid

TotalSales
118726385

Result 3 Result 4 western 5 Result 6 x

Output

Action Output

#	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

Activate Windows
Go to Settings to activate Windows.

MySQL Workbench

Local instance MySQL80 x

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

Schema: **westernfinancials**

Object Info Session

Query 1 SQL File 4* SQL File 6* SQL File 8* SQL File 7* SQL File 8* SQL File 9* x

Limit to 1000 rows

```
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

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

Export: Wrap Cell Content: ☐

Result 7 Result 8 Result 9 x

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	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

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

Query 1

SQL File 4*

SQL File 6*

SQL File 8*

SQL File 7*

SQL File 8*

SQL File 9* x

Limit to 1000 rows

```
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 7

Result 8

Result 9 x

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 B...	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	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

Schema: westernfinancials

Object Info Session

Activate Windows
Go to Settings to activate Windows

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

Manufacturin

Sale Price

Gross Sales

Discounts

Administration

Schemas

Information

Schema:
westernfinancials

Object Info

Session

Query 1 SQL File 4* SQL File 6* SQL File 8* SQL File 7* SQL File 8* SQL File 9* x

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

Limit to 1000 rows

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	Year	TotalSales	TotalProfit
▶	2014	92311117	13015253
	2013	26415268	3878471

Result 7 Result 8 x 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 B...	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	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

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

Schema: westernfinancials

Query 1 SQL File 4* SQL File 6* SQL File 8* SQL File 7* SQL File 8* SQL File 9* x

Limit to 1000 rows

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

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

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

Result 7 x 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 B...	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	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

Object Info Session

Activate Windows

Go to Settings to activate Windows



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

Untitled - Power Query Editor

Home Transform Add Column View Tools Help

Close & Apply New Source Recent Sources Enter Data Data source settings Manage Parameters Refresh Preview Properties Advanced Editor Manage Choose Columns Remove Columns Keep Rows Remove Rows Sort Split Column Group By Data Type: Text Use First Row as Headers Replace Values Merge Queries Append Queries Combine Files Text Analytics Vision Azure Machine Learning AI Insights

Queries [1] Cleaned_Data

	Segment	Country	Product	Discount Band	Units Sold	Manufacturing Price	Sale Price
1	Government	Canada	Carretera	None	1618.5	3	
2	Government	Germany	Carretera	None	1321	3	
3	Midmarket	France	Carretera	None	2178	3	
4	Midmarket	Germany	Carretera	None	888	3	
5	Midmarket	Mexico	Carretera	None	2470	3	
6	Government	Germany	Carretera	None	1513	3	
7	Midmarket	Germany	Montana	None	921	5	
8	Channel Partners	Canada	Montana	None	2518	5	
9	Government	France	Montana	None	1899	5	
10	Channel Partners	Germany	Montana	None	1545	5	
11	Midmarket	Mexico	Montana	None	2470	5	
12	Enterprise	Canada	Montana	None	2665.5	5	
13	Small Business	Mexico	Montana	None	958	5	
14	Government	Germany	Montana	None	2146	5	
15	Enterprise	Canada	Montana	None	345	5	
16	Midmarket	United States of America	Montana	None	615	5	
17	Government	Canada	Paseo	None	292	10	
18	Midmarket	Mexico	Paseo	None	974	10	
19	Channel Partners	Canada	Paseo	None	2518	10	
20	Government	Germany	Paseo	None	1006	10	
21	Channel Partners	Germany	Paseo	None	367	10	
22	Government	Mexico	Paseo	None	883	10	
23	Midmarket	France	Paseo	None	549	10	
24	Small Business	Mexico	Paseo	None	788	10	
25	Midmarket	Mexico	Paseo	None	2472	10	
26	Government	United States of America	Paseo	None	1143	10	
27	Government	Canada	Paseo	None	1725	10	
28	Channel Partners	United States of America	Paseo	None	912	10	
29	Midmarket	Canada	Paseo	None	2152	10	

14 COLUMNS, 700 ROWS Column profiling based on top 1000 rows

Query Settings

PROPERTIES

Name

Cleaned_Data

APPLIED STEPS

Source

Navigation

Promoted Headers

Changed Type

PREVIEW DOWNLOADED AT 08:49 PM



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

File Home Help Table tools Share

Name: Cleaned_Data

Manage relationships Relationships

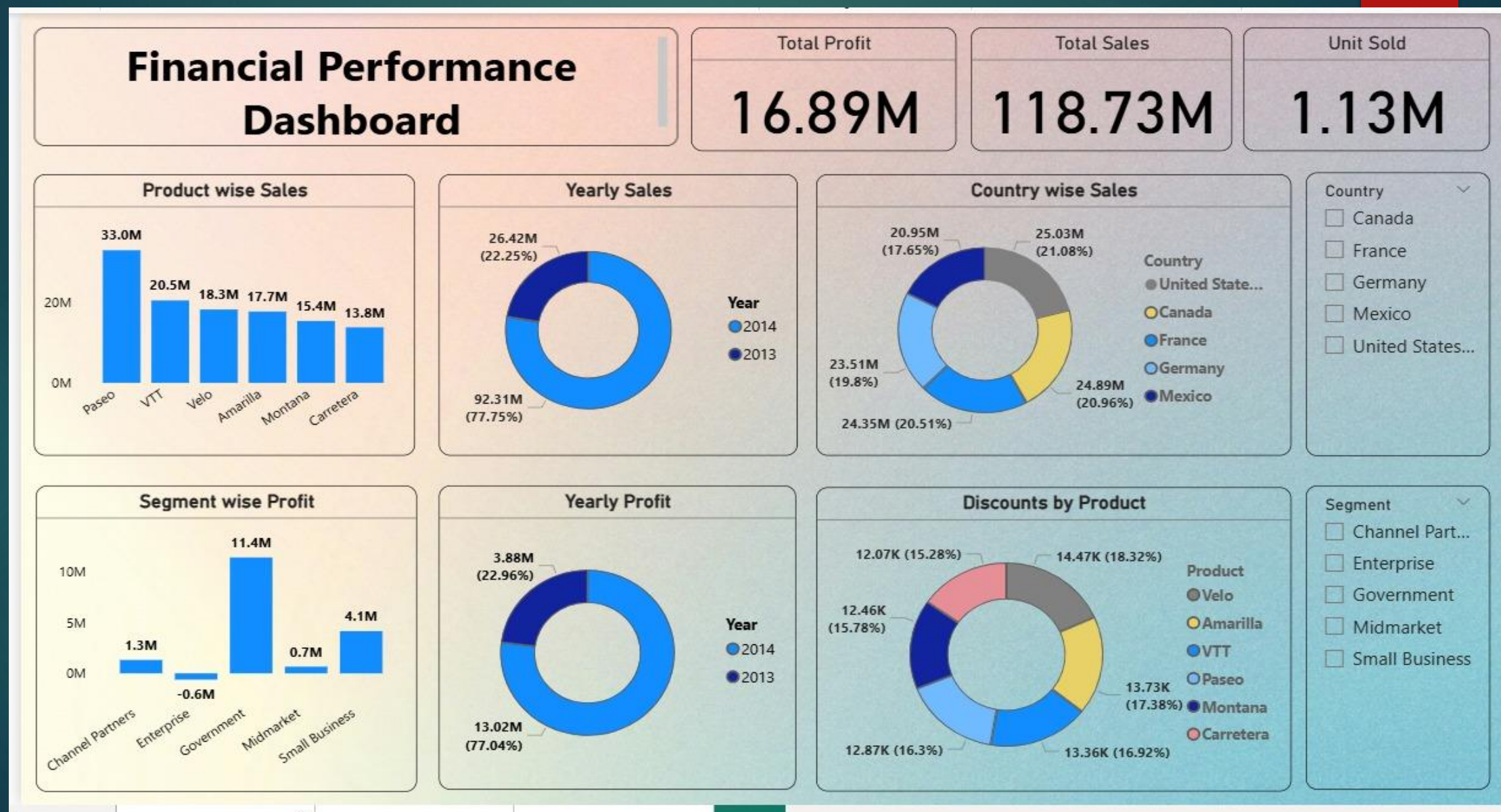
New measure Quick measure New column New table Mark as date table Calendars

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	3302.25	326922.75	235875	91047.75	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	661418	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

Table: Cleaned_Data (700 rows)



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



Segment

Channel Partners

Enterprise

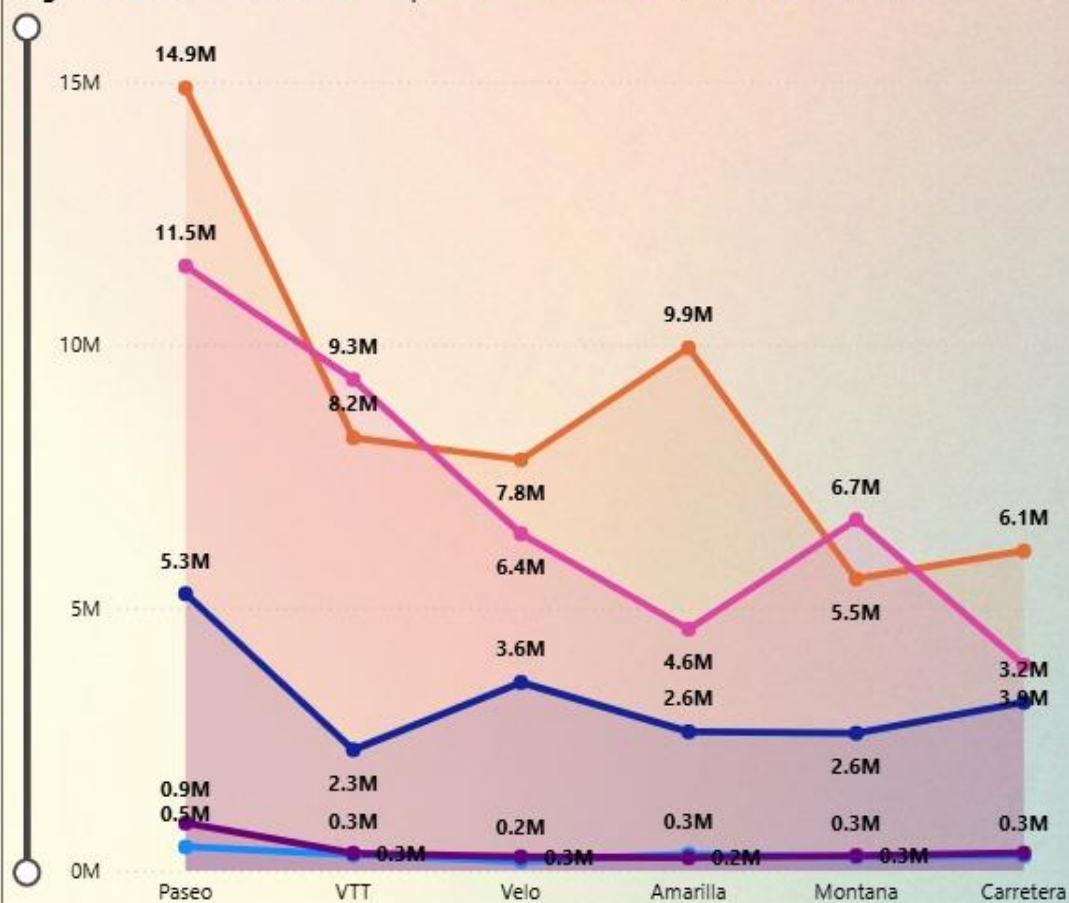
Government

Midmarket

Small Business

Sales by Product and Segment

Segment Channel Partners Enterprise Government Midmarket Small Business



Profit by Product and Segment

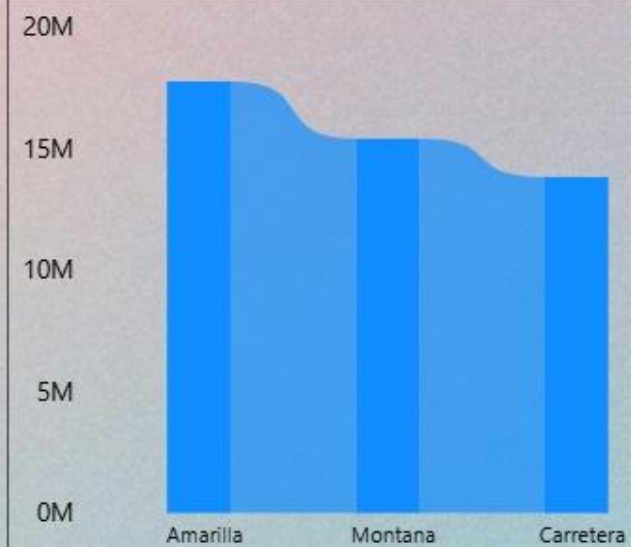
Segment Channel Partners Enterprise Government Midmarket Small Business



No. of units sold year over year



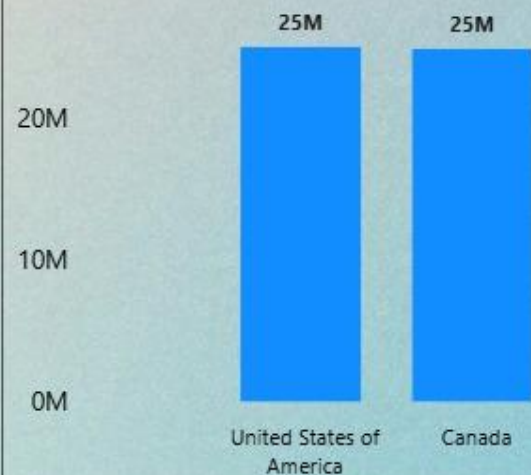
Bottom 3 Product by Sales



Sales and Profit by Quarter



Top 2 Country by Sales

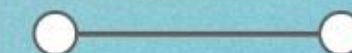


Quarter

- ☐ 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.

→ 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