

"From Data to Decisions: Unlocking Western Market Trends"

*"A Capstone Project Using Excel, SQL, and Power
BI to Analyse Sales and Profitability"*

Dataset Exploration & Summary

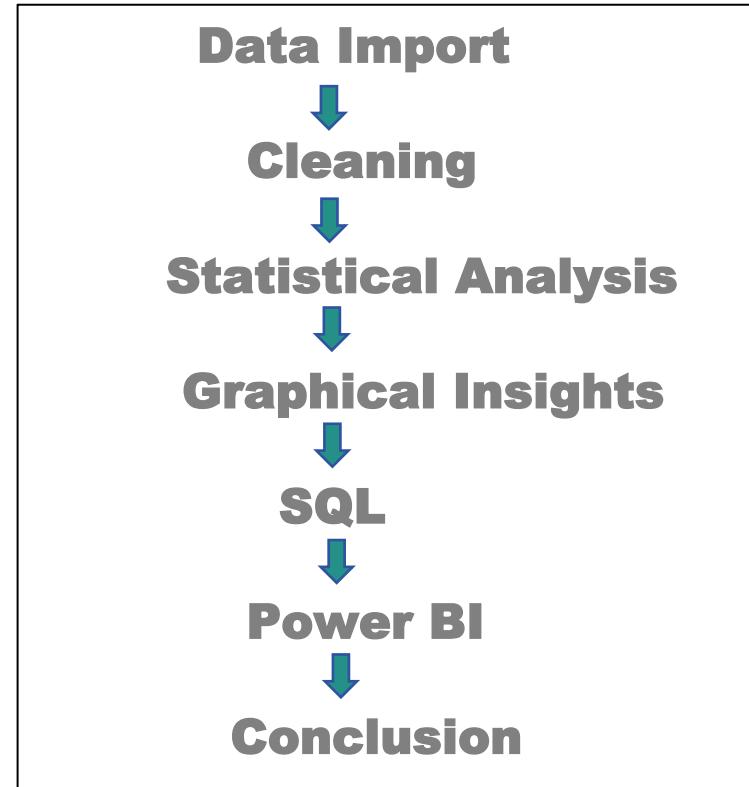
- 1) Name:** Western Countries Financial Data
- 2) Records:** 700 | Columns: 16
- 3) Period:** 2013 - 2014
- 4) Region:** Multiple Western countries
(Canada, Germany, France, Mexico, USA)
- 5) Industry:** Bicycle manufacturing & sales
- 6) Content:** Segment, Country, Product,
Discounts, Sales, Profit, Dates
- 7) Goal:** Analyse sales trends, profitability,
product performance & discount impact



BUSINESS OBJECTIVE

- **Identify Top-Performing Markets** – Find the countries contributing highest sales and profit.
- **Spot Under-Performing Products** – Highlight products with low sales or profit for review.
- **Analyse Segment Performance** – Compare Government, Midmarket, Channel Partners, Enterprise, and Small Business segments.
- **Detect Seasonal Trends** – Understand how sales vary by month, quarter, and year.
- **Evaluate Discount Impact** – Assess if discounts are boosting sales or hurting profits.
- **Provide Strategic Recommendations** – Suggest where to invest, which products to promote, and where to reduce costs.

“Project Workflow”



"Data Cleaning & Transformation"



Recalculated COGS (Cost of Goods Sold) → corrected it using formula:
“COGS=UnitsSold × ManufacturingPrice”



Updated Profit values → corrected as:
“Profit=Sales–COGS”



Found mismatches in existing values, replaced them with correct calculated figures.



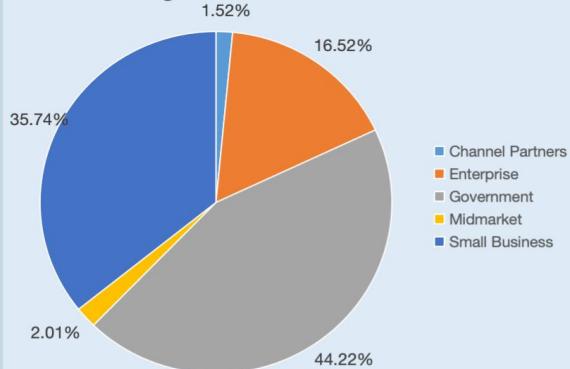
Added a new column “Profit/Loss” → if Profit < 0 then marked as Loss, else marked as Profit.

STATISTICAL ANALYSIS

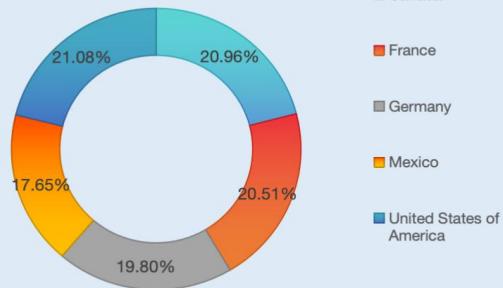
STATISTICAL ANALYSIS

“Graphical Analysis & Insights”

Segment Wise Sales



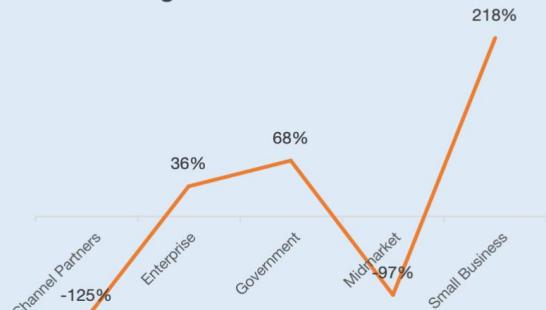
Country Wise Sales



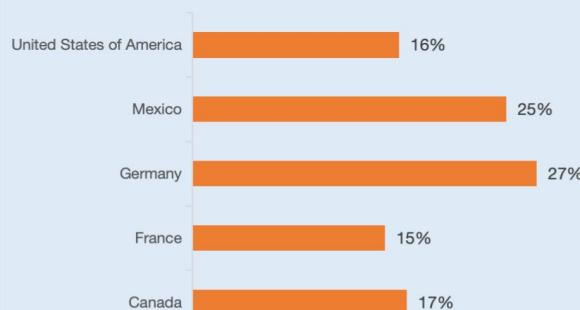
Product Wise Sales



Segment Wise Profit

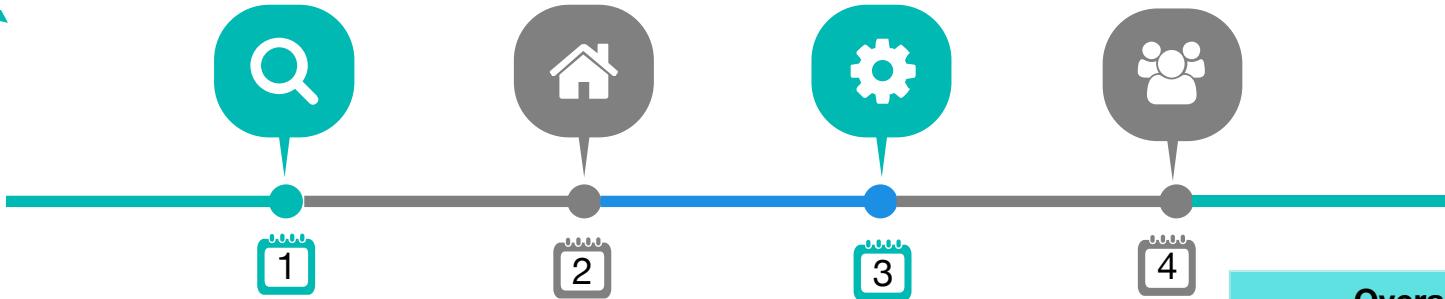


Country Wise Profit



Product Wise Profit





Segment-wise Sales & Profit

- Government (44%) & Small Business (35%) dominate sales.
- Profitability: Small Business (218%) and Government (68%) are highly profitable.
- Channel Partners (-125%) & Midmarket (-97%) show heavy losses.

Country-wise Sales & Profit

- Sales distributed among: USA (21%), Canada (21%), France (20%), Germany (19%), Mexico (17%).
- Profitability highest in Germany (27%) & Mexico (25%).
- France (15%) contributes low profit despite decent sales share.

Product-wise Sales & Profit

- Top selling products: Paseo (28%), VTT (17%), Velo (15%).
- Profitable products: Paseo (246%), Montana (121%), Carretera (111%).
- Loss-making products: Amarilla (-188%), VTT (-180%), Velo (-10%).

Overall Insights

- Sales ≠ Profit → Some high sales segments/products (e.g., VTT) are loss-making.
- Small Business & Government are the most profitable customer segments.
- Germany & Mexico are the strongest profit markets.
- Company should review Channel Partner segment and discontinue/restructure Amarilla & VTT products due to heavy losses.

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 left sidebar displays the schema tree under the 'capstone' database, showing tables like 'cleaned data', 'Columns', and various dimensions. The main query editor window contains the following SQL code:

```
1 • create database capstone;
2 • use capstone;
3
4 #1. Fix the table and columns names.
5
6
7
```

The 'Object Info' tab at the bottom indicates the schema is 'capstone'. The 'Session' tab shows the current session details. The 'Action Output' tab at the bottom lists the execution history with the following results:

Action	Time	Response	Duration / Fetch Time
create database capstone	20:41:46	1 row(s) affected	0.00016 sec
use capstone	20:41:55	0 row(s) affected	0.00049 sec
SHOW SESSION VARIABLES LIKE 'lower_case_table_names'	20:42:07	OK	0.000 sec
SHOW DATABASES	20:42:07	OK	0.000 sec
SHOW SESSION VARIABLES LIKE 'lower_case_table_names'	20:42:08	OK	0.000 sec
SHOW TABLES FROM 'capstone' like 'cleaned data'	20:42:08	OK	0.000 sec
CREATE TABLE `capstone`.`cleaned data` (`Segment` text, `Country` text, `Product` text, `Discount Band` text, `Units Sold` double, `Manufacturing Price` double, `Sale Price` double, `Gross Profit` double) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4	20:42:10	OK	0.000 sec
PREPARE stmt FROM 'INSERT INTO `capstone`.`cleaned data` (`Segment`, `Country`, `Product`, `Discount Band`, `Units Sold`, `Manufacturing Price`, `Sale Price`, `Gross Profit`) VALUES (?, ?, ?, ?, ?, ?, ?, ?)'	20:42:10	OK	0.000 sec
DEALLOCATE PREPARE stmt	20:42:10	OK	0.000 sec

Verify If the data is properly Imported into the SQL Database (try running few queries):

Schemas Administration

SCHEMAS Filter objects

capstone Tables

- cleaned data
- Columns
- Segment
- Country
- Product
- Discount Band
- Units Sold
- Manufacturing...

Object Info Session Schema: capstone

Query 1 cleaned data

Limit to 1000 rows

```
1 • SELECT * FROM capstone.`cleaned data`;
```

Result Grid Filter Rows: Search Export:

Segment	Country	Product	Discount Band	Units Sold	Manufacturing Pri...	Sale Price	Gross Sales	Discounts	Sales	COGS	Profit	Date	Year	P/L
Government	Canada	Carretera	None	1618.5	3	20	32370	0	32370	4855.5	27514.5	1/1/2014	2014	Profit
Government	Germany	Carretera	None	1321	3	20	26420	0	26420	3963	22457	1/1/2014	2014	Profit
Midmarket	France	Carretera	None	2178	3	15	32670	0	32670	6534	26136	6/1/2014	2014	Profit
Midmarket	Germany	Carretera	None	888	3	15	13320	0	13320	2664	10656	6/1/2014	2014	Profit
Midmarket	Mexico	Carretera	None	2470	3	15	37050	0	37050	7410	29640	6/1/2014	2014	Profit
Government	Germany	Carretera	None	1513	3	350	529550	0	529550	4539	525011	12/1/2014	2014	Profit
Midmarket	Germany	Montana	None	921	5	15	13815	0	13815	4605	9210	3/1/2014	2014	Profit
Channel Partners	Canada	Montana	None	2518	5	12	30216	0	30216	12590	17626	6/1/2014	2014	Profit
Government	France	Montana	None	1899	5	20	37980	0	37980	9495	28485	6/1/2014	2014	Profit
Channel Partners	Germany	Montana	None	1565	5	12	18540	0	18540	7725	10815	6/1/2014	2014	Profit
Midmarket	Mexico	Montana	None	2470	5	15	32650	0	37050	12350	24700	6/1/2014	2014	Profit
Enterprise	Canada	Montana	None	2665.5	5	125	330167.5	0	330167.5	1032...	319860	7/1/2014	2014	Profit
Small Business	Mexico	Montana	None	659	5	300	287400	0	287400	4790	282610	8/1/2014	2014	Profit
Government	Germany	Montana	None	2146	5	7	15022	0	15022	10730	4292	9/1/2014	2014	Profit
Enterprise	Canada	Montana	None	345	5	125	43125	0	43125	1725	41400	10/1/2013	2013	Profit
Midmarket	United...	Montana	None	615	5	15	9225	0	9225	3075	6150	12/1/2014	2014	Profit
Government	Canada	Paseo	None	292	10	20	5840	0	5840	2920	2920	2/1/2014	2014	Profit
Midmarket	Mexico	Paseo	None	974	10	15	14610	0	14610	9740	4870	2/1/2014	2014	Profit
Channel Partners	Canada	Paseo	None	2518	10	12	30216	0	30216	25180	5036	6/1/2014	2014	Profit
Government	Germany	Paseo	None	1006	10	350	352100	0	352100	10060	342040	6/1/2014	2014	Profit
Channel Partners	Germany	Paseo	None	367	10	12	4404	0	4404	3670	734	7/1/2014	2014	Profit
Government	Mexico	Paseo	None	883	10	7	6181	0	6181	8830	-2649	8/1/2014	2014	Loss
Midmarket	France	Paseo	None	549	10	15	8235	0	8235	5490	2745	9/1/2013	2013	Profit
Small Business	Mexico	Paseo	None	788	10	300	293400	0	293400	7880	225620	9/1/2013	2013	Profit
Midmarket	Mexico	Paseo	None	2472	10	15	35080	0	37050	1720	2650	9/1/2014	2014	Profit
Government	United...	Paseo	None	1143	10	7	800	0	800	11430	-3420	10/1/2014	2014	Loss
Government	Canada	Paseo	None	1725	10	350	6003750	0	6003750	17250	586500	11/1/2013	2013	Profit
Channel Partners	United...	Paseo	None	9126	10	12	10944	0	10944	9120	1824	11/1/2013	2013	Profit
Midmarket	Canada	Paseo	None	2152	10	15	32280	0	32280	21520	10760	12/1/2013	2013	Profit
Government	Canada	Paseo	None	1817	10	20	36340	0	36340	18170	18170	12/1/2014	2014	Profit
Government	Germany	Paseo	None	1513	10	350	529550	0	529550	15130	514420	12/1/2014	2014	Profit
Government	Mexico	Velo	None	1493	120	7	10451	0	10451	179160	-168709	1/1/2014	2014	Loss
Enterprise	France	Velo	None	1804	120	125	225500	0	225500	216480	9020	2/1/2014	2014	Profit
Channel Partners	Germany	Velo	None	2161	120	12	25932	0	25932	259320	-233388	3/1/2014	2014	Loss
Government	Germany	Velo	None	1006	120	350	352100	0	352100	120720	231380	6/1/2014	2014	Profit
Channel Partners	Germany	Velo	None	1545	120	12	18540	0	18540	185400	-166860	6/1/2014	2014	Loss
Enterprise	United...	Velo	None	2821	120	125	352625	0	352625	338520	14105	8/1/2014	2014	Profit
Enterprise	Canada	Velo	None	345	120	125	43125	0	43125	41400	1725	10/1/2013	2013	Profit
Small Business	Canada	VTT	None	2001	250	300	600300	0	600300	500250	100050	2/1/2014	2014	Profit
Channel Partners	Germany	VTT	None	2838	250	12	34056	0	34056	709500	-675444	4/1/2014	2014	Loss

cleaned data 1

Action Output

Time	Action	Response	Duration / Fetch Time
20:41:46	create database capstone	1 row(s) affected	0.0016 sec
20:41:55	use capstone	0 row(s) affected	0.00049 sec

Result Grid Form Editor Field Types Query Stats Execution Plan Read Only

Local instance 3306 - Warning - not supported

Administration Schemas

SCHEMAS

Filter objects

capstone

Tables

cleaned data

Columns

- Segment
- Country
- Product
- Discount Band
- Units Sold
- Manufacturing...

Object Info Session

Table: cleaned data

Columns:

Column	Type
Segment	text
Country	text
Product	text
Discount Band	text
Units Sold	double
Manufacturing Price	double
Sale Price	double
Gross Sales	double
Discounts	double
Sales	double
COGS	double
Profit	double
Date	text
Year	int
P/L	text

Result Grid Filter Rows: Search Export:

country
Canada
Germany
France
Mexico
United States of America

Read Only

Action Output

Time	Action	Response	Duration / Fetch Time
20:07:21	select distinct country from capstone.`cleaned data` LIMIT 0, 1000	5 row(s) returned	0.0024 sec / 0.00000...

Schemas

Administration Schemas

Query 1 cleaned data SQL File 3*

Limit to 1000 rows

Filter objects

SCHEMAS

capstone

Tables

cleaned data

Columns

- Segment
- Country
- Product
- Discount Band
- Units Sold
- Manufacturing...

Object Info Session

Table: cleaned data

Columns:

Segment	text
Country	text
Product	text
Discount Band	text
Units Sold	double
Manufacturing Price	double
Sale Price	double
Gross Sales	double
Discounts	double
Sales	double
COGS	double
Profit	double
Date	text
Year	int
P/L	text

100% 1:13

Result Grid Filter Rows: Search Export:

Total_Units_So...

1125806

Result 2

Action Output Action

	Time	Action	Response	Duration / Fetch Time
1	20:07:21	select distinct country from capstone.`cleaned data` LIMIT 0, 1000	5 row(s) returned	0.0024 sec / 0.00000...
2	20:09:14	select sum(`units sold`) as 'Total_Units_Sold' from capstone.`cleaned data` LIMIT 0, 1000	1 row(s) returned	0.0014 sec / 0.00000...

Read Only

Result Grid Form Editor

SQL Schemas Administration Schemas

Query 1 cleaned data SQL File 3*

Limit to 1000 rows

Filter objects

SCHEMAS

capstone

Tables

cleaned data

Columns

- Segment
- Country
- Product
- Discount Band
- Units Sold
- Manufacturing...

Object Info Session

Table: cleaned data

Columns:

Column	Type
Segment	text
Country	text
Product	text
Discount Band	text
Units Sold	double
Manufacturing Price	double
Sale Price	double
Gross Sales	double
Discounts	double
Sales	double
COGS	double
Profit	double
Date	text
Year	int
P/L	text

Result Grid Filter Rows: Search Export

product

Carretera
Montana
Paseo
Velo
VTT
Amarilla

cleaned data 3

Action Output

Action

	Time	Action	Response	Duration / Fetch Time
1	20:07:21	select distinct country from capstone.`cleaned data` LIMIT 0, 1000	5 row(s) returned	0.0024 sec / 0.00000...
2	20:09:14	select sum(`units sold`) as 'Total_Units_Sold' from capstone.`cleaned data` LIMIT 0, 1000	1 row(s) returned	0.0014 sec / 0.00000...
3	20:10:22	select distinct product from capstone.`cleaned data` LIMIT 0, 1000	6 row(s) returned	0.0023 sec / 0.00000...

Result Grid Form Editor Field Types Query Stats Execution Plan

Read Only

Administration Schemas Query 1 cleaned data SQL File 3*

SCHEMAS

Filter objects

13
14 #6.Show the top 10 rows ordered by highest sales.
15 • select * FROM capstone.`cleaned data`
16 order by sales desc
17 limit 10;
18
19
20

100% 10:17

Result Grid Filter Rows: Search Export: Fetch rows:

Segment	Country	Product	Discount Band	Units Sold	Manufacturing Pri...	Sale Price	Gross Sales	Discounts	Sales	COGS	Profit	Date	Year	P/L
Government	United States of America	Paseo	Low	3450	10	350	1207500	48300	1159200	34500	1124700	7/1/2014	2014	Profit
Small Business	Canada	Montana	Medium	3802.5	5	300	1140750	102667.5	1038082.5	19012.5	1019070	4/1/2014	2014	Profit
Small Business	Canada	Velo	Medium	3793.5	120	300	1138050	102424.5	1035625.5	455220	580405.5	7/1/2014	2014	Profit
Government	Germany	Amarilla	Low	2966	260	350	1038100	20762	1017338	771160	246178	10/1/2013	2013	Profit
Government	Germany	Velo	Low	2966	120	350	1038100	20762	1017338	355920	661418	10/1/2013	2013	Profit
Government	Germany	VTT	Low	2877	120	350	1006950	20139	986811	345240	641571	10/1/2014	2014	Profit
Government	Canada	Carretera	Low	2852	3	350	998200	19964	978236	8556	969680	12/1/2014	2014	Profit
Government	Canada	Paseo	Low	2852	10	350	998200	19964	978236	28520	949716	12/1/2014	2014	Profit
Government	France	Amarilla	None	2750	260	350	962500	0	962500	715000	247500	2/1/2014	2014	Profit

cleaned data 4

Action Output

Time	Action	Response	Duration / Fetch Time
20:07:21	select distinct country from capstone.`cleaned data` LIMIT 0, 1000	5 row(s) returned	0.0024 sec / 0.00000...
20:09:14	select sum(`units sold`) as `Total_Units_Sold` from capstone.`cleaned data` LIMIT 0, 1000	1 row(s) returned	0.0014 sec / 0.00000...
20:10:22	select distinct product from capstone.`cleaned data` LIMIT 0, 1000	6 row(s) returned	0.0023 sec / 0.00000...
20:12:00	select * FROM capstone.`cleaned data` order by sales desc limit 10	10 row(s) returned	0.0028 sec / 0.00001...

Read Only

Administration Schemas Query 1 cleaned data SQL File 3*

SCHEMAS

Filter objects

- capstone
 - Tables
 - cleaned data
 - Columns
 - Segment
 - Country
 - Product
 - Discount Band
 - Units Sold
 - Manufacturing...

```

18 #7.Calculate total sales per country.
19 • select country,
20     ROUND(sum(sales), 0) as 'Total Sales'
21 from capstone.`cleaned data`
22 group by country
23 order by 'Total Sales' desc;
24
25
26
27

```

100% 1:25

Result Grid Filter Rows: Search Export:

Object Info	Session	country	Total Sales
Table: cleaned data		Canada	24887655
Columns:		Germany	23505341
Segment	text	France	24354172
Country	text	Mexico	20949352
Product	text	United States of America	25029830
Discount Band	text		
Units Sold	double		
Manufacturing Price	double		
Sale Price	double		
Gross Sales	double		
Discounts	double		
Sales	double		
COGS	double		
Profit	double		
Date	text		
Year	int		
P/L	text		

Result 5

Read Only

Action Output

	Time	Action	Response	Duration / Fetch Time
1	20:07:21	select distinct country from capstone.`cleaned data` LIMIT 0, 1000	5 row(s) returned	0.0024 sec / 0.00000...
2	20:09:14	select sum(`units sold`) as 'Total_Units_Sold' from capstone.`cleaned data` LIMIT 0, 1000	1 row(s) returned	0.0014 sec / 0.00000...
3	20:10:22	select distinct product from capstone.`cleaned data` LIMIT 0, 1000	6 row(s) returned	0.0023 sec / 0.00000...
4	20:12:00	select * FROM capstone.`cleaned data` order by sales desc limit 10	10 row(s) returned	0.0028 sec / 0.00001...
5	20:13:10	select country, ROUND(sum(sales), 0) as 'Total Sales' from capstone.`cleaned data` group by country order by 'Total Sales' desc LIMIT 0, 1000	5 row(s) returned	0.0031 sec / 0.00000...

Administration Schemas Query 1 cleaned data SQL File 3*

SCHEMAS

Filter objects

capstone

Tables

cleaned data

Columns

- Segment
- Country
- Product
- Discount Band
- Units Sold
- Manufacturing...

```

24
25
26
27
28
29 #8.Find the average units sold per segment.
30 • select segment, round(avg(`Units Sold`),0) as Avg_Units_Sold
31   from capstone.`cleaned data`
32   group by segment
33   order by Avg_Units_Sold;|
34

```

100% 25:33 |

Result Grid Filter Rows: Search Export:

	segment	Avg_Units_Sold
1	Small Business	1531
2	Government	1569
3	Channel Partners	1613
4	Enterprise	1686
5	Midmarket	1722

Table: cleaned data

Object Info Session

Columns:

Segment	text
Country	text
Product	text
Discount Band	text
Units Sold	double
Manufacturing Price	double
Sale Price	double
Gross Sales	double
Discounts	double
Sales	double
COGS	double
Profit	double
Date	text
Year	int
P/L	text

Result 6 Read Only

Action Output

	Time	Action	Response	Duration / Fetch Time
1	20:07:21	select distinct country from capstone.`cleaned data` LIMIT 0, 1000	5 row(s) returned	0.0024 sec / 0.0000...
2	20:09:14	select sum(`units sold`) as 'Total_Units_Sold' from capstone.`cleaned data` LIMIT 0, 1000	1 row(s) returned	0.0014 sec / 0.0000...
3	20:10:22	select distinct product from capstone.`cleaned data` LIMIT 0, 1000	6 row(s) returned	0.0023 sec / 0.0000...
4	20:12:00	select * FROM capstone.`cleaned data` order by sales desc limit 10	10 row(s) returned	0.0028 sec / 0.00001...
5	20:13:10	select country, ROUND(sum(sales), 0) as 'Total Sales' from capstone.`cleaned data` group by country order by 'Total Sales' desc LIMIT 0, 1000	5 row(s) returned	0.0031 sec / 0.0000...
6	20:14:17	select segment, round(avg(`Units Sold`),0) as Avg_Units_Sold from capstone.`cleaned data` group by segment order by Avg_Units_Sold LIMIT 0, 1000	5 row(s) returned	0.0029 sec / 0.0000...

Administration Schemas

Query 1 cleaned data SQL File 3*

Filter objects

SCHEMAS

- Segment
- Country
- Product
- Discount Band
- Units Sold
- Manufacturing...
- Sale Price
- Gross Sales**
- Discounts
- Sales
- COGS

#9.Get the sum of gross sales for each product.

```

32
33
34
35
36 #9.Get the sum of gross sales for each product.
37 • select product,sum(`Gross Sales`) as Total_Gross_Sales
38 from capstone.`cleaned data`
39 group by product;
40
41
42
43

```

100% 1:40

Result Grid Filter Rows: Search Export:

product	Total_Gross_Sales
Carretera	14937520.5
Montana	16549834.5
Paseo	35611662
Velo	19826768.5
VTT	21966533.5
Amarilla	19037279.5

Result 7

Object Info Session

Column: Gross Sales

Definition: Gross Sales double

Result Grid Form Editor Field Types Query Stats

Action Output

Time	Action	Response	Duration / Fetch Time
20:07:21	select distinct country from capstone.`cleaned data` LIMIT 0, 1000	5 row(s) returned	0.0024 sec / 0.00000...
20:09:14	select sum(`units sold`) as `Total_Units_Sold` from capstone.`cleaned data` LIMIT 0, 1000	1 row(s) returned	0.0014 sec / 0.00000...
20:10:22	select distinct product from capstone.`cleaned data` LIMIT 0, 1000	6 row(s) returned	0.0023 sec / 0.00000...
20:12:00	select * FROM capstone.`cleaned data` order by sales desc limit 10	10 row(s) returned	0.0028 sec / 0.00001...
20:13:10	select country, ROUND(sum(sales), 0) as `Total Sales` from capstone.`cleaned data` group by country order by `Total Sales` desc LIMIT 0, 1000	5 row(s) returned	0.0031 sec / 0.00000...
20:14:17	select segment, round(avg(`Units Sold`),0) as Avg_Units_Sold from capstone.`cleaned data` group by segment order by Avg_Units_Sold LIMIT 0, 1000	5 row(s) returned	0.0029 sec / 0.00000...
20:17:05	select product,sum(`Gross Sales`) as Total_Gross_Sales from capstone.`cleaned data` group by product LIMIT 0, 1000	6 row(s) returned	0.0029 sec / 0.00000...

Read Only

Administration Schemas

SCHEMAS

Filter objects

capstone

Tables

cleaned data

Columns

- Segment
- Country
- Product
- Discount Band
- Units Sold
- Manufacturing...

Query 1 cleaned data SQL File 3*

Limit to 1000 rows

```

40
41 #10. Show the maximum and minimum sale price of each product.
42 • select product, max('Sale Price') as max_price, min('Sale Price') as min_price
43 from capstone.`cleaned data`
44 group by product;
45
46
47
48

```

100% 18:44

Result Grid Filter Rows: Search Export:

product	max_price	min_price
Carretera	350	7
Montana	350	7
Paseo	350	7
Velo	350	7
VTT	350	7
Amarilla	350	7

Table: cleaned data

Object Info Session

Columns:

Segment	text
Country	text
Product	text
Discount Band	text
Units Sold	double
Manufacturing Price	double
Sale Price	double
Gross Sales	double
Discounts	double
Sales	double
COGS	double
Profit	double
Date	text
Year	int
PL	text

Result 8

Read Only

Action Output

	Time	Action	Response	Duration / Fetch Time
1	20:07:21	select distinct country from capstone.`cleaned data` LIMIT 0, 1000	5 row(s) returned	0.0024 sec / 0.00000...
2	20:09:14	select sum('units sold') as 'Total_Units_Sold' from capstone.`cleaned data` LIMIT 0, 1000	1 row(s) returned	0.0014 sec / 0.00000...
3	20:10:22	select distinct product from capstone.`cleaned data` LIMIT 0, 1000	6 row(s) returned	0.0023 sec / 0.00000...
4	20:12:00	select * FROM capstone.`cleaned data` order by sales desc limit 10	10 row(s) returned	0.0028 sec / 0.00001...
5	20:13:10	select country, ROUND(sum(sales), 0) as 'Total Sales' from capstone.`cleaned data` group by country order by 'Total Sales' desc LIMIT 0, 1000	5 row(s) returned	0.0031 sec / 0.00000...
6	20:14:17	select segment, round(avg('Units Sold'),0) as Avg_Units_Sold from capstone.`cleaned data` group by segment order by Avg_Units_Sold LIMIT 0, 1000	5 row(s) returned	0.0029 sec / 0.00000...
7	20:17:05	select product,sum('Gross Sales') as Total_Gross_Sales from capstone.`cleaned data` group by product LIMIT 0, 1000	6 row(s) returned	0.0029 sec / 0.00000...
8	20:19:32	select product, max('Sale Price') as max_price, min('Sale Price') as min_price from capstone.`cleaned data` group by product LIMIT 0, 1000	Error Code: 1049. Unknown database 'caostone'	0.0019 sec
9	20:19:43	select product, max('Sale Price') as max_price, min('Sale Price') as min_price from capstone.`cleaned data` group by product LIMIT 0, 1000	6 row(s) returned	0.0033 sec / 0.00000...

Local instance 3306 - Warning - not supported

Administration Schemas Query 1 cleaned data SQL File 3*

SCHEMAS

Filter objects

capstone

Tables

cleaned data

Columns

- Segment
- Country
- Product
- Discount Band
- Units Sold
- Manufacturing...

100% 18:49

#11.Count how many transactions (rows) each segment has.

```
44
45
46 #11.Count how many transactions (rows) each segment has.
47 • select segment, count(sales) as Total_Transaction
48 from capstone.'cleaned data'
49 group by segment;
```

Result Grid Filter Rows: Search Export:

segment	Total_Transacti...
Government	300
Midmarket	100
Channel Partners	100
Enterprise	100
Small Business	100

Object Info Session

Table: cleaned data

Columns:

Segment	text
Country	text
Product	text
Discount Band	text
Units Sold	double
Manufacturing Price	double
Sale Price	double
Gross Sales	double
Discounts	double
Sales	double
COGS	double
Profit	double
Date	text
Year	int
P/L	text

Result 9

Action Output

Time	Action	Response	Duration / Fetch Time
20:07:21	select distinct country from capstone.'cleaned data' LIMIT 0, 1000	5 row(s) returned	0.0024 sec / 0.0000...
20:09:14	select sum('units sold') as 'Total_Units_Sold' from capstone.'cleaned data' LIMIT 0, 1000	1 row(s) returned	0.0014 sec / 0.0000...
20:10:22	select distinct product from capstone.'cleaned data' LIMIT 0, 1000	6 row(s) returned	0.0023 sec / 0.0000...
20:12:00	select * FROM capstone.'cleaned data' order by sales desc limit 10	10 row(s) returned	0.0028 sec / 0.0001...
20:13:10	select country, ROUND(sum(sales), 0) as 'Total Sales' from capstone.'cleaned data' group by country order by 'Total Sales' desc LIMIT 0, 1000	5 row(s) returned	0.0031 sec / 0.0000...
20:14:17	select segment, round(avg('Units Sold'),0) as Avg_Units_Sold from capstone.'cleaned data' group by segment order by Avg_Units_Sold LIMIT 0, 1000	5 row(s) returned	0.0029 sec / 0.0000...
20:17:05	select product,sum('Gross Sales') as Total_Gross_Sales from capstone.'cleaned data' group by product LIMIT 0, 1000	6 row(s) returned	0.0029 sec / 0.0000...
20:19:32	select product, max('Sale Price') as max_price, min('Sale Price') as min_price from capstone.'cleaned data' group by product LIMIT 0, 1000	Error Code: 1049. Unknown database 'caostone'	0.0019 sec
20:19:43	select product, max('Sale Price') as max_price, min('Sale Price') as min_price from capstone.'cleaned data' group by product LIMIT 0, 1000	6 row(s) returned	0.0033 sec / 0.0000...
20:24:30	select segment, count(sales) as Total_Transaction from capstone.'cleaned data' group by segment LIMIT 0, 1000	5 row(s) returned	0.0029 sec / 0.0000...

Result Grid Form Editor Field Types Query Stats Read Only

Administration Schemas

SCHEMAS Filter objects

capstone Tables cleaned data

Query 1 cleaned data SQL File 3* Limit to 1000 rows

```

51
52 #12. Find all records where sales are greater than 50,000.
53 • select * from capstone.`cleaned data`
54 where sales > 50000;
55
56

```

100% 21:54 Result Grid Filter Rows: Search Export:

Segment	Country	Product	Discount Band	Units Sold	Manufacturing Price	Sale Price	Gross Sales	Discounts	Sales	COGS	Profit	Date	Year	P/L
Government	Germany	Carretera	None	1513	3	350	529550	0	529550	4539	525011	12/1/2014	2014	Profit
Enterprise	Canada	Montana	None	2665.5	5	125	333187.5	0	333187.5	13327.5	319860	7/1/2014	2014	Profit
Small Business	Mexico	Montana	None	958	5	300	287400	0	287400	4790	282610	8/1/2014	2014	Profit
Government	Germany	Paseo	None	1006	10	350	352100	0	352100	10060	342040	6/1/2014	2014	Profit
Small Business	Mexico	Paseo	None	788	10	300	236400	0	236400	7880	228520	9/1/2013	2013	Profit
Government	Canada	Paseo	None	1725	10	350	603750	0	603750	17250	586500	11/1/2013	2013	Profit
Government	Germany	Paseo	None	1513	10	350	529550	0	529550	15130	514420	12/1/2014	2014	Profit
Enterprise	France	Velo	None	1804	120	125	225500	0	225500	216480	9020	2/1/2014	2014	Profit
Government	Germany	Velo	None	1006	120	350	352100	0	352100	120720	231380	6/1/2014	2014	Profit
Enterprise	United States of America	Velo	None	2821	120	125	352625	0	352625	338520	14105	8/1/2014	2014	Profit
Small Business	Canada	VTT	None	2001	250	300	600300	0	600300	500250	100050	2/1/2014	2014	Profit
Government	France	VTT	None	1527	250	350	534450	0	534450	381750	152700	9/1/2013	2013	Profit
Small Business	France	VTT	None	2151	250	300	645300	0	645300	537750	107550	9/1/2014	2014	Profit
Government	France	Amarilla	None	2750	260	350	962500	0	962500	715000	247500	2/1/2014	2014	Profit
Enterprise	Germany	Amarilla	None	4219.5	260	125	527437.5	0	527437.5	1097070	-5696... 4/1/2014	2014	Loss	
Government	Mexico	Carretera	Low	1210	3	350	423500	4235	419265	3630	415635	3/1/2014	2014	Profit
Small Business	Mexico	Carretera	Low	494	3	300	148200	1482	146718	1482	145236	10/1/2013	2013	Profit
Government	Mexico	Carretera	Low	1397	3	350	488950	4889.5	484060.5	4191	47986...	10/1/2014	2014	Profit
Government	France	Carretera	Low	2155	3	350	754250	7542.5	746707.5	6465	74024...	12/1/2014	2014	Profit
Small Business	United States of America	Montana	Low	2301	5	300	690300	6903	683397	11505	671892	4/1/2014	2014	Profit
Small Business	United States of America	Montana	Low	2498	5	300	749400	7494	741906	12490	729416	9/1/2013	2013	Profit
Enterprise	United States of America	Montana	Low	663	5	125	82875	828.75	82046.25	3315	78731...	10/1/2013	2013	Profit
Enterprise	United States of America	Paseo	Low	727	10	125	90875	908.75	89966.25	7270	82696...	6/1/2014	2014	Profit
Enterprise	France	Paseo	Low	787	10	125	98375	983.75	97391.25	7870	89521...	6/1/2014	2014	Profit
Enterprise	Mexico	Paseo	Low	1823	10	125	227875	2278.75	225596...	18230	20736...	7/1/2014	2014	Profit
Small Business	United States of America	Paseo	Low	2905	10	300	871500	8715	862785	29050	833735	11/1/2014	2014	Profit
Government	France	Paseo	Low	2155	10	350	754250	7542.5	746707.5	21550	72515...	12/1/2014	2014	Profit

cleaned data 10

Action Output

Time	Action	Response	Duration / Fetch Time
20:07:21	select distinct country from capstone.`cleaned data` LIMIT 0, 1000	5 row(s) returned	0.0024 sec / 0.0000...
20:09:14	select sum(`units sold`) as `Total_Units_Sold` from capstone.`cleaned data` LIMIT 0, 1000	1 row(s) returned	0.0014 sec / 0.0000...
20:10:22	select distinct product from capstone.`cleaned data` LIMIT 0, 1000	6 row(s) returned	0.0023 sec / 0.0000...
20:12:00	select * FROM capstone.`cleaned data` order by sales desc limit 10	10 row(s) returned	0.0028 sec / 0.0001...
20:13:10	select country, ROUND(sum(sales), 0) as `Total Sales` from capstone.`cleaned data` group by country order by `Total Sales` desc LIMIT 0, 1000	5 row(s) returned	0.0031 sec / 0.0000...
20:14:17	select segment, round(avg(`Units Sold`),0) as Avg_Units_Sold from capstone.`cleaned data` group by segment order by Avg_Units_Sold LIMIT 0, 1000	5 row(s) returned	0.0029 sec / 0.0000...
20:17:05	select product,sum(`Gross Sales`) as Total_Gross_Sales from capstone.`cleaned data` group by product LIMIT 0, 1000	6 row(s) returned	0.0029 sec / 0.0000...
20:19:32	select product, max(`Sale Price`) as max_price, min(`Sale Price`) as min_price from capstone.`cleaned data` group by product LIMIT 0, 1000	Error Code: 1049. Unknown database 'castoneone'	0.0019 sec
20:19:43	select product, max(`Sale Price`) as max_price, min(`Sale Price`) as min_price from capstone.`cleaned data` group by product LIMIT 0, 1000	6 row(s) returned	0.0033 sec / 0.0000...
20:24:30	select segment, count(sales) as Total_Transaction from capstone.`cleaned data` group by segment LIMIT 0, 1000	5 row(s) returned	0.0029 sec / 0.0000...
20:48:15	select * from capstone.`cleaned data` where sales > 50000 LIMIT 0, 1000	311 row(s) returned	0.0018 sec / 0.0018 ...

Result Grid Form Editor Field Types Query Stats Execution Plan Read Only

Local Instance 3306 - Warning - not supported

Administration Schemas

SCHEMAS

Filter objects

capstone

Tables

cleaned data

Columns

- Segment
- Country
- Product
- Discount Band
- Units Sold
- Manufacturing...

Query 1 cleaned data SQL File 3*

Limit to 1000 rows

```

55
56 #13.Retrieve sales records only for Germany and France.
57 • SELECT Country, SUM(Sales) AS Total_Sales
58 FROM capstone.`cleaned data`
59 WHERE Country IN ('Germany', 'France')
60 GROUP BY Country;
61
62
63
64

```

100% 18:60

Result Grid Filter Rows: Search Export:

Object Info	Session
Table: cleaned data	
Columns:	
Segment	text
Country	text
Product	text
Discount Band	text
Units Sold	double
Manufacturing Price	double
Sale Price	double
Gross Sales	double
Discounts	double
Sales	double
COGS	double
Profit	double
Date	text
Year	int
P/L	text

Result Grid Form Editor

Country	Total_Sales
Germany	23505340.82000001
France	24354172.29000007

Result 11

Action Output

Time	Action	Response	Duration / Fetch Time
20:07:21	select distinct country from capstone.`cleaned data` LIMIT 0, 1000	5 row(s) returned	0.0024 sec / 0.00000...
20:09:14	select sum('units sold') as 'Total_Units_Sold' from capstone.`cleaned data` LIMIT 0, 1000	1 row(s) returned	0.0014 sec / 0.00000...
20:10:22	select distinct product from capstone.`cleaned data` LIMIT 0, 1000	6 row(s) returned	0.0023 sec / 0.00000...
20:12:00	select * FROM capstone.`cleaned data` order by sales desc limit 10	10 row(s) returned	0.0028 sec / 0.00001...
20:13:10	select country, ROUND(sum(sales), 0) as 'Total Sales' from capstone.`cleaned data` group by country order by 'Total Sales' desc LIMIT 0, 1000	5 row(s) returned	0.0031 sec / 0.00000...
20:14:17	select segment, round(avg('Units Sold'),0) as Avg_Units_Sold from capstone.`cleaned data` group by segment order by Avg_Units_Sold LIMIT 0, 1000	5 row(s) returned	0.0029 sec / 0.00000...
20:17:05	select product,sum('Gross Sales') as Total_Gross_Sales from capstone.`cleaned data` group by product LIMIT 0, 1000	6 row(s) returned	0.0029 sec / 0.00000...
20:19:32	select product, max('Sale Price') as max_price, min('Sale Price') as min_price from capstone.`cleaned data` group by product LIMIT 0, 1000	Error Code: 1049. Unknown database 'caostone'	0.0019 sec
20:19:43	select product, max('Sale Price') as max_price, min('Sale Price') as min_price from capstone.`cleaned data` group by product LIMIT 0, 1000	6 row(s) returned	0.0033 sec / 0.00000...
20:24:30	select segment, count(sales) as Total_Transaction from capstone.`cleaned data` group by segment LIMIT 0, 1000	5 row(s) returned	0.0029 sec / 0.00000...
20:48:15	select * from capstone.`cleaned data` where sales > 50000 LIMIT 0, 1000	311 row(s) returned	0.0018 sec / 0.0018 s...
21:24:09	SELECT Country, SUM(Sales) AS Total_Sales FROM capstone.`cleaned data` WHERE Country IN ('Germany', 'France') GROUP BY Country LIMIT 0, 1000	2 row(s) returned	0.0033 sec / 0.00000...

Read Only

Administration Schemas

Filter objects

- ◆ PRODUCT
- ◆ Discount Band
- ◆ Units Sold
- ◆ Manufacturing...
- ◆ Sale Price
- ◆ Gross Sales
- ◆ Discounts
- ◆ Sales
- ◆ COGS
- ◆ Profit
- ◆ Date

Object Info Session

Table: cleaned data

Columns:

Segment	text
Country	text
Product	text
Discount Band	text
Units Sold	double
Manufacturing Price	double
Sale Price	double
Gross Sales	double
Discounts	double
Sales	double
COGS	double
Profit	double
Date	text
Year	int
P/L	text

Result Grid

Limit to 1000 rows

```

61
62  #14 Show details of transactions where discount is not zero.
63 • select * from capstone.`cleaned data`
64 where discounts>0;
65
66
    
```

100% | 19:64 |

Result Grid

Filter Rows: Search Export:

Segment	Country	Product	Discount Band	Units Sold	Manufacturing Pri...	Sale Price	Gross Sales	Discounts	Sales	COGS	Profit	Date	Year	P/L
Government	France	Paseo	Low	3945	10	7	27615	276.15	37388.85	39450	-12111.15	1/1/2014	2014	Loss
Midmarket	France	Paseo	Low	2296	10	15	34440	344.4	34095.6	22960	11135.6	2/1/2014	2014	Profit
Government	France	Paseo	Low	1030	10	7	7210	72.1	7137.9	10300	-3162.1	5/1/2014	2014	Loss
Government	France	Velo	Low	639	120	7	4473	44.73	4428.27	76680	-72251.73	11/1/2014	2014	Loss
Government	Canada	VTT	Low	1326	250	7	9282	92.82	9189.18	331500	-322310.82	3/1/2014	2014	Loss
Channel Partners	United States of America	Carretera	Low	1858	3	12	22296	222.96	22073.04	5574	16499.04	2/1/2014	2014	Profit
Government	Mexico	Carretera	Low	1210	3	350	423500	423.5	419265	3630	415635	3/1/2014	2014	Profit
Government	United States of America	Carretera	Low	2529	3	7	17703	177.03	17525.97	7587	9938.97	7/1/2014	2014	Profit
Channel Partners	Canada	Carretera	Low	1445	3	12	17340	173.4	17166.6	4335	12831.6	9/1/2014	2014	Profit
Enterprise	United States of America	Carretera	Low	330	3	125	41250	412.5	40837.5	998	39847.5	9/1/2013	2013	Profit
Channel Partners	France	Carretera	Low	2671	3	12	32052	320.52	31731.48	8013	23718.48	9/1/2014	2014	Profit
Channel Partners	Germany	Carretera	Low	766	3	12	9192	91.92	9100.08	2298	6802.08	10/1/2013	2013	Profit
Small Business	Mexico	Carretera	Low	494	3	300	148200	1482	146718.18	1482	145236	10/1/2013	2013	Profit
Government	Mexico	Carretera	Low	1397	3	350	488950	4889.5	484060.5	4191	479869.5	10/1/2014	2014	Profit
Government	France	Carretera	Low	2155	3	350	754250	7542.5	746707.5	6465	740242.5	12/1/2014	2014	Profit
Midmarket	Mexico	Montana	Low	2214	5	15	33210	332.1	32877.9	11078	21807.9	3/1/2014	2014	Profit
Small Business	United States of America	Montana	Low	2301	5	300	690300	690	683397	11508	671892	4/1/2014	2014	Profit
Government	France	Montana	Low	1375.5	5	20	27510	275.1	27234.9	6877.5	20357.4	7/1/2014	2014	Profit
Government	Canada	Montana	Low	1830	5	7	12810	1281.0	12681.9	1910	1531.9	8/1/2014	2014	Profit
Small Business	United States of America	Montana	Low	2498	5	300	749400	7494	741906	12490	729416	9/1/2013	2013	Profit
Enterprise	United States of America	Montana	Low	865	5	125	82979	8297.9	82675.5	33140	81625	10/1/2013	2013	Profit
Midmarket	United States of America	Paseo	Low	1514	10	15	22710	227.1	22492.9	3140	7342.5	2/1/2014	2014	Profit
Government	United States of America	Paseo	Low	4492.5	10	7	31447.5	314.48	31130.3	44925	-13791.98	4/1/2014	2014	Loss
Enterprise	United States of America	Paseo	Low	727	10	125	90875	908.75	89966.25	7270	82696.25	6/1/2014	2014	Profit
Enterprise	France	Paseo	Low	787	10	125	98375	983.75	97391.25	7870	89521.25	6/1/2014	2014	Profit

cleaned data 12

Read Only

Action Output

Time	Action	Response	Duration / Fetch Time
1 20:07:21	select distinct country from capstone.`cleaned data` LIMIT 0, 1000	5 row(s) returned	0.0024 sec / 0.00000...
2 20:09:14	select sum(`units sold`) as `Total_Units_Sold` from capstone.`cleaned data` LIMIT 0, 1000	1 row(s) returned	0.0014 sec / 0.00000...
3 20:10:22	select distinct product from capstone.`cleaned data` LIMIT 0, 1000	6 row(s) returned	0.0023 sec / 0.00000...
4 20:12:00	select * FROM capstone.`cleaned data` order by sales desc limit 10	10 row(s) returned	0.0028 sec / 0.0001...
5 20:13:10	select country, ROUND(sum(sales), 0) as `Total Sales` from capstone.`cleaned data` group by country order by `Total Sales` desc LIMIT 0, 1000	5 row(s) returned	0.0031 sec / 0.00000...
6 20:14:17	select segment, round(avg(`Units Sold`),0) as Avg_Units_Sold from capstone.`cleaned data` group by segment order by Avg_Units_Sold LIMIT 0, 1000	5 row(s) returned	0.0029 sec / 0.00000...
7 20:17:05	select product,sum(`Gross Sales`) as Total_Gross_Sales from capstone.`cleaned data` group by product LIMIT 0, 1000	6 row(s) returned	0.0029 sec / 0.00000...
8 20:19:32	select product, max(`Sale Price`) as max_price, min(`Sale Price`) as min_price from capstone.`cleaned data` group by product LIMIT 0, 1000	Error Code: 1049. Unknown database 'caostone'	0.0019 sec
9 20:19:43	select product, max(`Sale Price`) as max_price, min(`Sale Price`) as min_price from capstone.`cleaned data` group by product LIMIT 0, 1000	6 row(s) returned	0.0028 sec / 0.00000...
10 20:24:30	select segment, count(sales) as Total_Transaction from capstone.`cleaned data` group by segment LIMIT 0, 1000	5 row(s) returned	0.0029 sec / 0.00000...
11 20:48:15	select * from capstone.`cleaned data` where sales > 50000 LIMIT 0, 1000	311 row(s) returned	0.0018 sec / 0.0018 s...
12 21:24:09	SELECT COUNT(COUNTRY), SUM(Sales) AS Total_Sales FROM capstone.`cleaned data` WHERE Country IN ('Germany', 'France') GROUP BY Country LIMIT 0, 1000	2 row(s) returned	0.0033 sec / 0.00000...
13 21:32:32	select * from capstone.`cleaned data` where discounts>0 LIMIT 0, 1000	647 row(s) returned	0.0017 sec / 0.0038 s...

Schemas Administration Schemas Query 1 cleaned data SQL File 3*

SCHEMAS

Filter objects capstone

Tables

cleaned data

Columns

Segment Country Product Discount Band Units Sold Manufacturing... Sale Drive

Object Info Session

Column: Segment

Collation: utf8mb4_0900_ai_ci

Definition: Segment text

```

66  #15. List all products sold in the "Government" segment.
67  select product
68  from capstone.`cleaned data`
69  where segment= 'Government';
70
71
72
73
    
```

Result Grid Filter Rows: Search Export:

product
Carretera
Carretera
Carretera
Montana
Montana
Paseo
Paseo
Paseo
Paseo
Velo
Velo
VTT
VTT
Amarilla
Amarilla
Amarilla
Amarilla

cleaned data 13 Read Only

Action Output

Action	Time	Response	Duration / Fetch Time
select sum('units sold') as 'Total_Units_Sold' from capstone.`cleaned data` LIMIT 0, 1000	20:09:14	1 row(s) returned	0.0014 sec / 0.00000...
select distinct product from capstone.`cleaned data` LIMIT 0, 1000	20:10:22	6 row(s) returned	0.0023 sec / 0.00000...
select * FROM capstone.`cleaned data` order by sales desc limit 10	20:12:00	10 row(s) returned	0.0028 sec / 0.00001...
select country, ROUND(sum(sales), 0) as 'Total Sales' from capstone.`cleaned data` group by country order by 'Total Sales' desc LIMIT 0, 1000	20:13:10	5 row(s) returned	0.0031 sec / 0.00000...
select segment, round(avg('Units Sold'),0) as Avg_Units_Sold from capstone.`cleaned data` group by segment order by Avg_Units_Sold LIMIT 0, 1000	20:14:17	5 row(s) returned	0.0029 sec / 0.00000...
select product,sum('Gross Sales') as Total_Gross_Sales from capstone.`cleaned data` group by product LIMIT 0, 1000	20:17:05	6 row(s) returned	0.0029 sec / 0.00000...
select product, max('Sale Price') as max_price, min('Sale Price') as min_price from capstone.`cleaned data` group by product LIMIT 0, 1000	20:19:32	Error Code: 1049. Unknown database 'caostone'	0.0019 sec
select product, max('Sale Price') as max_price, min('Sale Price') as min_price from capstone.`cleaned data` group by product LIMIT 0, 1000	20:19:43	6 row(s) returned	0.0033 sec / 0.00000...
select segment, count(sales) as Total_Transaction from capstone.`cleaned data` group by segment LIMIT 0, 1000	20:24:30	5 row(s) returned	0.0029 sec / 0.00000...
select * from capstone.`cleaned data` where sales > 50000 LIMIT 0, 1000	20:48:15	311 row(s) returned	0.0018 sec / 0.0018 s...
SELECT Country, SUM(Sales) AS Total_Sales FROM capstone.`cleaned data` WHERE Country IN ('Germany', 'France') GROUP BY Country LIMIT 0, 1000	21:24:09	2 row(s) returned	0.0033 sec / 0.00000...
select * from capstone.`cleaned data` where discounts>0 LIMIT 0, 1000	21:32:32	647 row(s) returned	0.0017 sec / 0.0038 s...
select product from capstone.`cleaned data` where segment= 'Government' LIMIT 0, 1000	21:37:21	300 row(s) returned	0.0017 sec / 0.00002...

Administration Schemas

SCHEMAS Filter objects

- Discount Band
- Units Sold
- Manufacturing...
- Sale Price
- Gross Sales
- Discounts
- Sales
- COGS
- Profit
- Date

Query 1 cleaned data SQL File 3*

Limit to 1000 rows

```

68
69
70
71 #16. Find sales where COGS > 20,000.
72 • select * from capstone.`cleaned data`
73 where COGS>20000;
74
75
76
77
78
    
```

Result Grid Filter Rows: Search Export:

Table: cleaned data

Object Info Session

Columns:

Segment	Country	Product	Discount	Band	Units Sold	Manufacturing	Pri...	Sale Price	Gross Sales	Discounts	Sales	COGS	Profit	Date	Year	P/L
Channel Partners	Canada	Paseo	None	2518	10	12	30216	0	30216	25180	5036	6/1/2014	2014	Profit		
Midmarket	Mexico	Paseo	None	2472	10	15	37080	0	37080	24720	12360	9/1/2014	2014	Profit		
Midmarket	Canada	Paseo	None	2152	10	15	32280	0	32280	21520	10760	12/1/2013	2013	Profit		
Government	Mexico	Velo	None	1493	120	7	10451	0	10451	179160	-168709	1/1/2014	2014	Loss		
Enterprise	France	Velo	None	1804	120	125	225500	0	225500	216480	9020	2/1/2014	2014	Profit		
Channel Partners	Germany	Velo	None	2161	120	12	25932	0	25932	259320	-233388	3/1/2014	2014	Loss		
Government	Germany	Velo	None	1006	120	350	352100	0	352100	120720	231380	6/1/2014	2014	Profit		
Channel Partners	Germany	Velo	None	1545	120	12	18540	0	18540	185400	-168680	6/1/2014	2014	Loss		
Enterprise	United States of America	Velo	None	2821	120	125	352625	0	352625	338520	14105	8/1/2014	2014	Profit		
Enterprise	Canada	Velo	None	345	120	125	43125	0	43125	41400	1725	10/1/2013	2013	Profit		
Small Business	Canada	VTT	None	2001	250	300	600300	0	600300	500250	100050	2/1/2014	2014	Profit		
Channel Partners	Germany	VTT	None	2838	250	12	34056	0	34056	709500	-675444	4/1/2014	2014	Loss		
Midmarket	France	VTT	None	2178	250	15	32670	0	32670	544500	-511830	6/1/2014	2014	Loss		
Midmarket	Germany	VTT	None	888	250	15	13320	0	13320	222000	-208680	6/1/2014	2014	Loss		
Government	France	VTT	None	1527	250	350	534450	0	534450	381750	152700	9/1/2013	2013	Profit		
Small Business	France	VTT	None	2151	250	300	645300	0	645300	537750	107550	9/1/2014	2014	Profit		
Government	Canada	VTT	None	1817	250	20	36340	0	36340	454250	-417910	12/1/2014	2014	Loss		
Government	France	Amarilla	None	2750	260	350	962500	0	962500	715000	247500	2/1/2014	2014	Profit		
Channel Partners	United States of America	Amarilla	None	1953	260	12	23436	0	23436	507780	-484344	4/1/2014	2014	Loss		
Enterprise	Germany	Amarilla	None	4219.5	260	125	527437.5	0	527437.5	527437.5	0	10/1/2014	2014	Loss		

cleaned data 14

Action Output

Action	Time	Response	Duration / Fetch Time
3	20:10:22	select distinct product from capstone.`cleaned data` LIMIT 0, 1000	6 row(s) returned 0.0023 sec / 0.00000...
4	20:12:00	select * FROM capstone.`cleaned data` order by sales desc limit 10	10 row(s) returned 0.0028 sec / 0.0001...
5	20:13:10	select country, ROUND(sum(sales), 0) as 'Total Sales' from capstone.`cleaned data` group by country order by 'Total Sales' desc LIMIT 0, 1000	5 row(s) returned 0.0031 sec / 0.00000...
6	20:14:17	select segment, round(avg(`Units Sold`),0) as Avg_Units_Sold from capstone.`cleaned data` group by segment order by Avg_Units_Sold LIMIT 0, 1000	5 row(s) returned 0.0029 sec / 0.00000...
7	20:17:05	select product,sum(`Gross Sales`) as Total_Gross_Sales from capstone.`cleaned data` group by product LIMIT 0, 1000	6 row(s) returned 0.0029 sec / 0.00000...
8	20:19:32	select product, max(`Sale Price`)*as max_price, min(`Sale Price`)*as min_price from capstone.`cleaned data` group by product LIMIT 0, 1000	Error Code: 1049. Unknown database 'caostone' 0.0019 sec
9	20:19:43	select product, max(`Sale Price`)*as max_price, min(`Sale Price`)*as min_price from capstone.`cleaned data` group by product LIMIT 0, 1000	6 row(s) returned 0.0033 sec / 0.00000...
10	20:24:30	select segment, count(sales) as Total_Transaction from capstone.`cleaned data` group by segment LIMIT 0, 1000	5 row(s) returned 0.0029 sec / 0.00000...
11	20:48:15	select * from capstone.`cleaned data` where sales > 50000 LIMIT 0, 1000	311 row(s) returned 0.0018 sec / 0.0018 s...
12	21:24:09	SELECT Country, SUM(Sales) AS Total_Sales FROM capstone.`cleaned data` WHERE Country IN ('Germany', 'France') GROUP BY Country LIMIT 0, 1000	2 row(s) returned 0.0033 sec / 0.00000...
13	21:32:32	select * from capstone.`cleaned data` where segments>0 LIMIT 0, 1000	647 row(s) returned 0.0017 sec / 0.0038 s...
14	21:37:21	select product from capstone.`cleaned data` where segments='Government' LIMIT 0, 1000	300 row(s) returned 0.0017 sec / 0.0002...
15	21:40:24	select * from capstone.`cleaned data` where COGS>20000 LIMIT 0, 1000	384 row(s) returned 0.0011 sec / 0.0022 s...

Read Only

Administration Schemas

Query 1 cleaned data SQL File 3*

SCHEMAS

Filter objects

capstone

Tables

cleaned data

Columns

- Segment
- Country
- Product
- Discount Band
- Units Sold
- Manufacturing...

73

74 #17.Find the country with the total profit.

75 • select country, round(sum(profit),0)as Total_Profit

76 from capstone. `cleaned data`

77 group by country

78 order by Total_Profit desc;

80

81

82

83

84

100% 28:79

Result Grid Filter Rows: Search Export:

Object Info Session

Table: cleaned data

country Total_Profit

Germany	3264749
Mexico	2976080
Canada	2035760
United States of America	1961259
France	1825989

Result 1

Read Only

Action Output

	Time	Action	Response	Duration / Fetch Time
1	08:32:34	select country, round(sum(profit),0)as Total_Profit from capstone. `cleaned data` group by country order by Total_Profit desc LIMIT 0, 1000	5 row(s) returned	0.0069 sec / 0.0000...

Form Editor

Field Types

Local instance 3306 - Warning - not supported

Administration Schemas Query 1 cleaned data SQL File 3*

SCHEMAS

Filter objects

capstone

Tables

cleaned data

Columns

- Segment
- Country
- Product
- Discount Band
- Units Sold
- Manufacturing...

Object Info Session

Table: cleaned data

Columns:

Column	Type
Segment	text
Country	text
Product	text
Discount Band	text
Units Sold	double
Manufacturing Price	double
Sale Price	double
Gross Sales	double
Discounts	double
Sales	double
COGS	double
Profit	double
Date	text
Year	int
P/L	text

80
81 #18. Find the product with the highest total profit.
82 • select product, sum(profit) as max_profit
83 from capstone.`cleaned data`
84 group by product
85 order by max_profit desc
86 limit 1;
87

100% 9:86

Result Grid Filter Rows: Search Export: Fetch rows:

product	max_profit
Paseo	29628748.940000013

Result 2

Action Output

Time	Action	Response	Duration / Fetch Time
08:32:34	select country, round(sum(profit),0)as Total_Profit from capstone. `cleaned data` group by country order by Total_Profit desc LIMIT 0, 1000	5 row(s) returned	0.0069 sec / 0.0000...
08:37:04	select product, sum(profit) as max_profit from capstone.`cleaned data` group by product order by max_profit desc limit 1	1 row(s) returned	0.0036 sec / 0.0000...

Result Grid Form Editor

Read Only

Administration Schemas

Query 1 cleaned data SQL File 3*

Filter objects

SCHEMAS

capstone

Tables

cleaned data

Columns

- Segment
- Country
- Product
- Discount Band
- Units Sold
- Manufacturing...

Object Info Session

Table: cleaned data

Columns:

Segment	text
Country	text
Product	text
Discount Band	text
Units Sold	double
Manufacturing Price	double
Sale Price	double
Gross Sales	double
Discounts	double
Sales	double
COGS	double
Profit	double
Date	text
Year	int
P/L	text

Result Grid Filter Rows: Search Export:

segment	product	avg_sales
Government	Carretera	168915.11333333328
Midmarket	Carretera	28108.75
Midmarket	Montana	24186.587499999994
Channel Partners	Montana	21820.38
Government	Montana	132117.5242857143
Enterprise	Montana	217903.64583333334
Small Business	Montana	444995.9
Government	Paseo	169118.25806818178
Midmarket	Paseo	25214.704166666666
Channel Partners	Paseo	17481.323076923076
Small Business	Paseo	442261.9038461539
Government	Velo	169857.0010869565
Enterprise	Velo	170535.11904761905
Channel Partners	Velo	13066.002857142856
Small Business	VTT	444828.5714285714
Channel Partners	VTT	21487.782857142854
Midmarket	VTT	23816.132142857143
Government	VTT	179039.75456521733
Government	Amarilla	236735.69309523804
Channel Partners	Amarilla	19852.6875
Enterprise	Amarilla	220300.625
Midmarket	Amarilla	20723.788333333338
Channel Partners	Carretera	15713.259999999997
Enterprise	Carretera	213580.542
Small Business	Carretera	325876
Enterprise	Paseo	202610
Enterprise	VTT	164316.9642857143

Result 3

Action Output

Time	Action	Response	Duration / Fetch Time
08:32:34	select country, round(sum(profit),0)as Total_Profit from capstone. `cleaned data` group by country order by Total_Profit desc LIMIT 0, 1000	5 row(s) returned	0.0069 sec / 0.0000...
08:37:04	select product, sum(profit) as max_profit from capstone. `cleaned data` group by product order by max_profit desc limit 1	1 row(s) returned	0.0036 sec / 0.0000...
08:39:43	select segment, product , avg(sales) as avg_sales from capstone. `cleaned data` group by segment, product LIMIT 0, 1000	30 row(s) returned	0.0048 sec / 0.0000...

Result Grid Form Editor Field Types Query Stats Execution Plan

Read Only

Schemas

Administration

Query 1 cleaned data SQL File 3*

Limit to 1000 rows

Filter objects

capstone

#20. Rank countries by their total gross sales (use RANK() or DENSE_RANK()).

select country, SUM(`Gross Sales`) AS Total_Gross_Sales,
RANK() OVER (ORDER BY SUM(`Gross Sales`)DESC) AS Sales_Rank
from capstone.`cleaned data`
GROUP BY Country
ORDER BY Sales_Rank;

Result Grid

Filter Rows: Search Export:

country	Total_Gross_Sales	Sales_Rank
United States of America	27269358	1
Canada	26932163.5	2
France	26081674.5	3
Germany	24921467.5	4
Mexico	22726935	5

No object selected

Object Info Session

Result Grid

Form Editor

Field Types

Result 1

Read Only

Action Output

Time	Action	Response	Duration / Fetch Time
08:44:44	select country, SUM(`Gross Sales`) AS Total_Gross_Sales, RANK() OVER (ORDER BY SUM(`Gross Sales`)DESC) AS Sales_Rank from capstone.`cleaned data` GROUP B... 5 row(s) returned		0.0038 sec / 0.0000...

Administration Schemas

Query 1 cleaned data SQL File 3*

97
98
99
100 #21. Find the top 3 countries with the highest units sold.
101 • select country, sum('Units Sold') as Total_units_sold
102 from capstone. `cleaned data`
103 group by country
104 order by Total_units_sold desc
105 limit 3;
106
107
100% 9:105

Result Grid Filter Rows: Search Export: Fetch rows:

country	Total_units_s...
Canada	247428.5
France	240931
United States of America	232627.5

Object Info Session

Table: cleaned data

Columns:

Segment	text
Country	text
Product	text
Discount Band	text
Units Sold	double
Manufacturing Price	double
Sale Price	double
Gross Sales	double
Discounts	double
Sales	double
COGS	double
Profit	double
Date	text
Year	int
P/L	text

Result 2

Action Output

	Time	Action	Response	Duration / Fetch Time
1	08:44:44	select country, SUM('Gross Sales') AS Total_Gross_Sales, RANK() OVER (ORDER BY SUM('Gross Sales') DESC) AS Sales_Rank from capstone. `cleaned data` GROUP B...	5 row(s) returned	0.0038 sec / 0.0000...
2	08:47:35	select country, sum('Units Sold') as Total_units_sold from capstone. `cleaned data` group by country order by Total_units_sold desc limit 3	3 row(s) returned	0.0029 sec / 0.0000...

Result Grid Form Editor Field Types

Read Only

Import the Data from the SQL Database into PowerBI , verify if the data is properly imported or not.

Screenshot of the Microsoft Power BI desktop application interface showing a query editor and a query settings pane.

The ribbon menu includes: File, Home, Transform, Add Column, View, Tools, Help.

The toolbar includes: Close & Apply, New Source, Recent Sources, Enter Data, Data source settings, Manage Parameters, Refresh Preview, Properties, Advanced Editor, Choose Columns, Remove Columns, Keep Rows, Remove Rows, Sort, Split Column, Group By, Replace Values, Data Type: Decimal Number, Merge Queries, Append Queries, Combine Files, and Combine.

The Query Settings pane shows:

- PROPERTIES**: Name: Cleaned Sheet, All Properties.
- APPLIED STEPS**: Source, Navigation, Promoted Headers, **Changed Type**.

The main area displays a table with the following data:

	Segment	Country	Product	Discount Band	Units Sold	Manufacturing Price	Sale P
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							

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.

File Home Help Table tools

Name Cleaned Sheet

Manage relationships New measure Quick measure column New table

Mark as date table Calculations Calendars

Structure

Segment Country Product Discount Band Units Sold Manufacturing Price Sale Price Gross Sales Discounts Sales COGS Profit Year P/L

Segment	Country	Product	Discount Band	Units Sold	Manufacturing Price	Sale Price	Gross Sales	Discounts	Sales	COGS	Profit	Year	P/L
Government	Canada	Carretera	None	1618.5	3	20	32370	0	32370	4855.5	27514.5	2014	Profit
Government	Germany	Carretera	None	1321	3	20	26420	0	26420	3963	22457	2014	Profit
Midmarket	France	Carretera	None	2178	3	15	32670	0	32670	6534	26136	2014	Profit
Midmarket	Germany	Carretera	None	888	3	15	13320	0	13320	2664	10656	2014	Profit
Midmarket	Mexico	Carretera	None	2470	3	15	37050	0	37050	7410	29640	2014	Profit
Government	Germany	Carretera	None	1513	3	350	529550	0	529550	4539	525011	2014	Profit
Midmarket	Germany	Montana	None	921	5	15	13815	0	13815	4605	9210	2014	Profit
Channel Partners	Canada	Montana	None	2518	5	12	30216	0	30216	12590	17626	2014	Profit
Government	France	Montana	None	1899	5	20	37980	0	37980	9495	28485	2014	Profit
Channel Partners	Germany	Montana	None	1545	5	12	18540	0	18540	7725	10815	2014	Profit
Midmarket	Mexico	Montana	None	2470	5	15	37050	0	37050	12350	24700	2014	Profit
Enterprise	Canada	Montana	None	2665.5	5	125	333187.5	0	333187.5	13327.5	319860	2014	Profit
Small Business	Mexico	Montana	None	958	5	300	287400	0	287400	4790	282610	2014	Profit
Government	Germany	Montana	None	2146	5	7	15022	0	15022	10730	4292	2014	Profit
Enterprise	Canada	Montana	None	345	5	125	43125	0	43125	1725	41400	2013	Profit
Midmarket	United States of America	Montana	None	615	5	15	9225	0	9225	3075	6150	2014	Profit
Government	Canada	Paseo	None	292	10	20	5840	0	5840	2920	2920	2014	Profit
Midmarket	Mexico	Paseo	None	974	10	15	14610	0	14610	9740	4870	2014	Profit
Channel Partners	Canada	Paseo	None	2518	10	12	30216	0	30216	25180	5036	2014	Profit
Government	Germany	Paseo	None	1006	10	350	352100	0	352100	10060	342040	2014	Profit
Channel Partners	Germany	Paseo	None	367	10	12	4404	0	4404	3670	734	2014	Profit
Government	Mexico	Paseo	None	883	10	7	6181	0	6181	8830	-2649	2014	Loss
Midmarket	France	Paseo	None	549	10	15	8235	0	8235	5490	2745	2013	Profit

Table: Cleaned Sheet (700 rows)

Create a Visually pleasing Dashboard report by following the rules of making the Dashboard

File Home Insert Modeling View Optimize Help Share ▾

Cut Copy Format painter Paste Clipboard Get data v Excel workbook catalog v OneLake SQL Server Enter data Dataverse Recent sources v Transform Refresh data v New visual Text box More visuals v New visual calculation v New measure measure Quick Calculations Sensitivity v Publish Prep data for Copilot AI Copilot

FINANCIAL PERFORMANCE DASHBOARD

Total Units Sold 1.13M Total Profit 12.06M Average Discount 13.15K Total Sales 118.73M Total Gross Sales 127.93M

Sales by Product

Product	Units Sold
Paseo	33M
VTT	21M
Velo	18M
Amarilla	18M
Montana	15M
Carretera	14M

Country wise Sales

Country	Sales
United States of America	25.03M
Canada	24.89M
Mexico	24.35M
France	23.51M
Germany	23.51M

Average of Discounts by Product

Product	Average Discount
Volo	14.5K
Amarilla	13.7K
VTT	13.4K
Paseo	12.3K
Montana	12.5K
Carretera	12.1K

Units Sold by Year

Sales by Year

Profit by Year

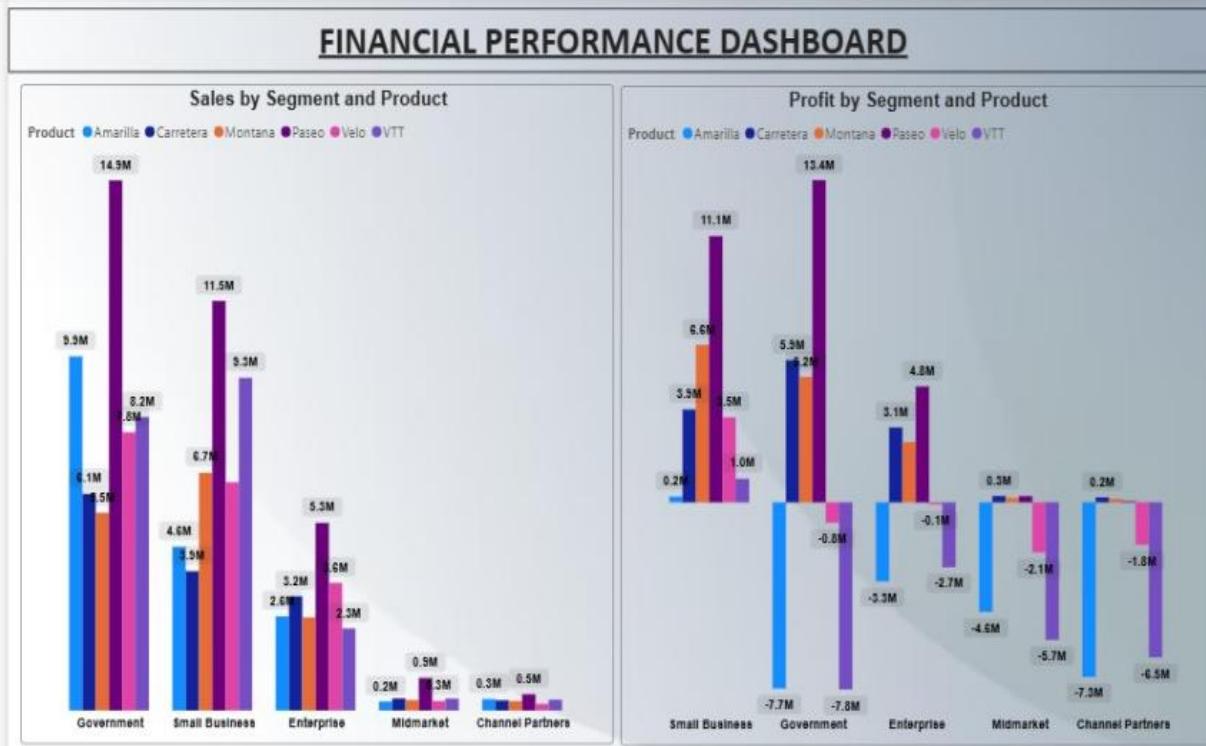
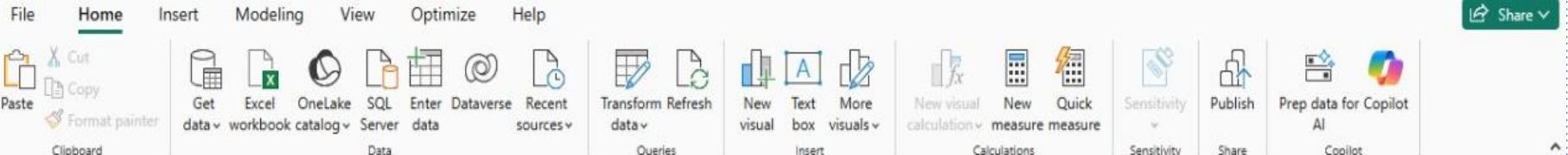
Segment Wise Profit

Segment	Profit
Small Business	26M
Government	8M
Enterprise	4M
Midmarket	-12M
Channel Partners	-15M

Activate Windows Go to Settings to activate Windows.

Dashboard 1 Dashboard 2 Dashboard 3 +

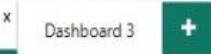
Filters Data Visualizations Quick measure



Dashboard 1



Dashboard 2



Dashboard 3



+

Activate Windows

Go to Settings to activate Windows.

Data
Visualizations
Filters
Quick measure

[File](#)[Home](#)[Insert](#)[Modeling](#)[View](#)[Optimize](#)[Help](#)[Share](#)

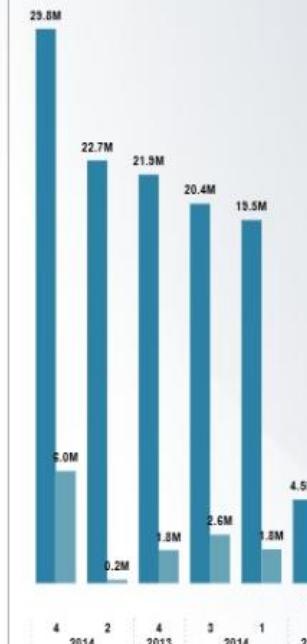
Format painter

Clipboard

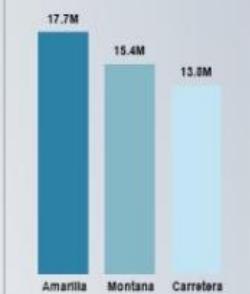


Sales & Profit by Year and Quarter

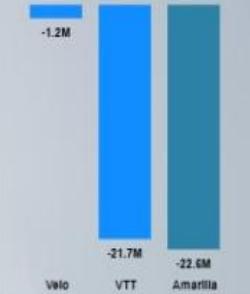
● Sum of Sales ● Sum of Profit



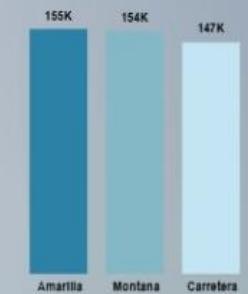
Bottom 3 Product by Sales



Bottom 3 Product by Profit



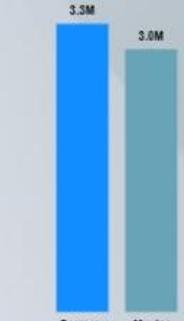
Bottom 3 Product by Units Sold



Top 2 Countries by Sales



Top 2 Countries by Profit



Top 2 Countries by Units Sold



Filters

Visualizations

Data

Quick measure



Dashboard 1

Dashboard 2

Dashboard 3



Activate Windows

Go to Settings to activate Windows.

Derive Conclusion and Inferences from the Dashboard

1

Where Money is Made

- Maximum profit comes from Germany & Mexico, showing strong market potential.
- Small Business & Government segments are driving consistent profitability.
- Paseo, Montana, and Carretera products are the backbone of revenue growth.

2

Where Growth is Hurt

- Channel Partners & Midmarket are dragging overall profitability with heavy losses.
- Products like Amarilla & VTT sell in good numbers but erode margins due to over-discounting.

3

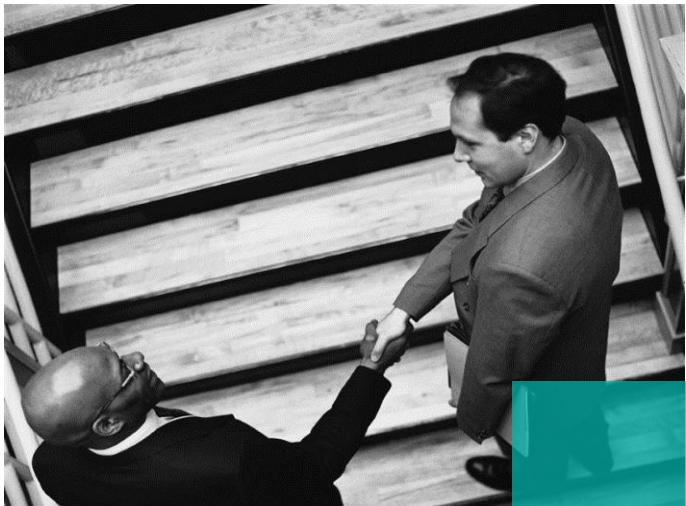
Growth Opportunities

- Expanding operations in Germany & Mexico can accelerate profit growth.
- Strengthening sales in profitable products (Paseo, Montana) ensures steady revenue.
- Balancing discounts will protect margins without hurting demand.

4

Revenue Balance

- Current revenue mix is imbalanced – high sales are not always converting to profit.
- Need to rebalance portfolio by focusing on profitable products & markets while fixing loss-making areas.



THANK YOU!