

# Project: Sales Performance Analysis

## Business Requirements:

Objective: Analyse sales data to provide insights into the performance of different products, regions, and sales representatives.

## Key Questions to Answer:

- 1. What are the total sales and the number of units sold for each product?
- 2. Which products are the top performers and which are underperforming?
- 3. How do sales vary across different regions?
- 4. Are there any noticeable trends or seasonality in the sales data?
- 5. Provide recommendations for improving sales based on your analysis.

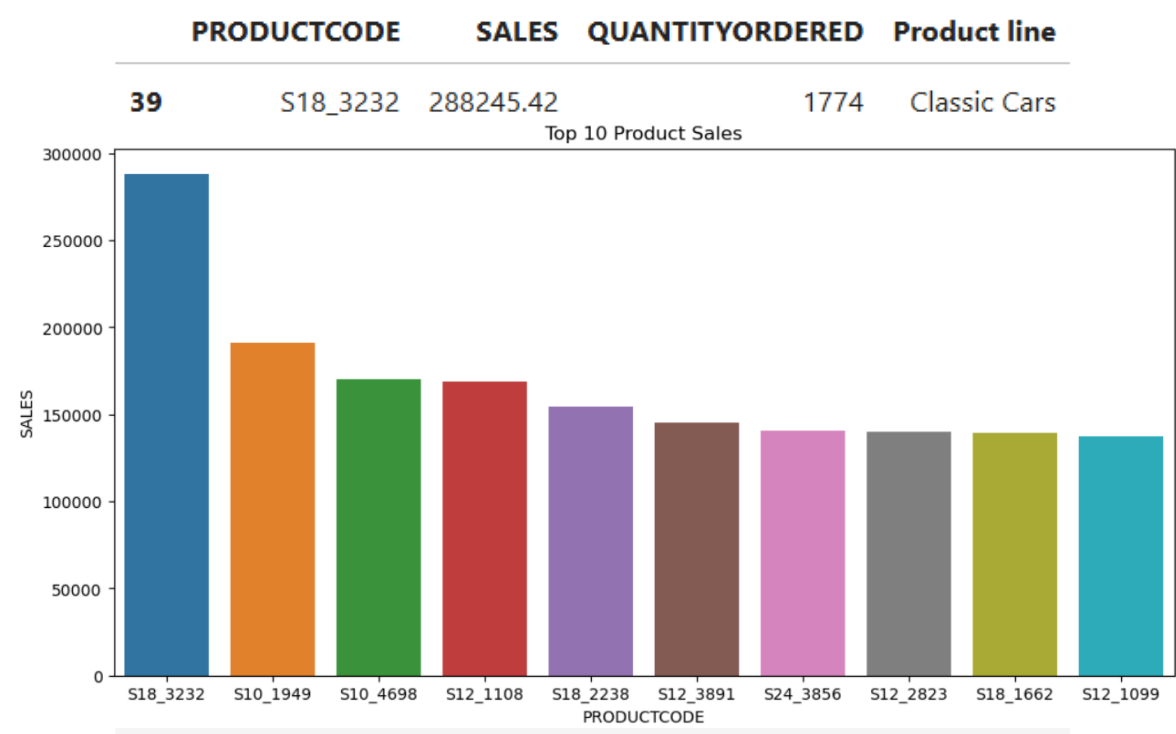
In this report I was tasked with answering the above questions. I followed ETL pipelines using Python to clean and transform the data to answer the above questions.

### 1. What are the total sales and the number of units sold for each product?

A detailed Excel file has been compiled, showcasing the total sales revenue and units sold for each product. This provides a comprehensive overview, setting the stage for further analysis.

### 2. Which products are the top performers and which are underperforming?

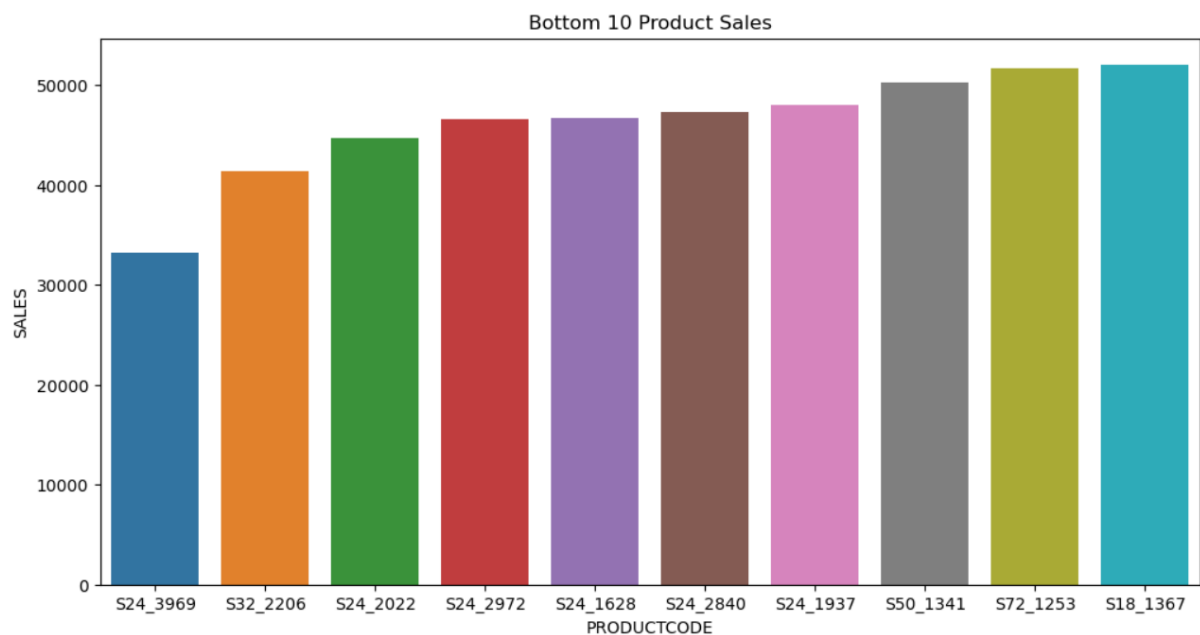
From the analysis these are the top 10 products by sales:



We can see product code s18\_3232 is the product with the highest total sales, beating second by \$100,000 roughly. To know which actual products these are we would need the list matching product codes to actual products.

The top 10 worst performing products were:

	PRODUCTCODE	SALES	QUANTITYORDERED	Product line
78	S24_3969	33181.66	745	Motorcycles
85	S32_2206	41353.43	836	Motorcycles
62	S24_2022	44667.16	851	Motorcycles
69	S24_2972	46515.92	912	Motorcycles
57	S24_1628	46676.51	883	Motorcycles
66	S24_2840	47235.48	983	Motorcycles
59	S24_1937	47981.09	844	Motorcycles
91	S50_1341	50217.95	999	Motorcycles
107	S72_1253	51661.82	920	Classic Cars
19	S18_1367	52045.03	890	Motorcycles



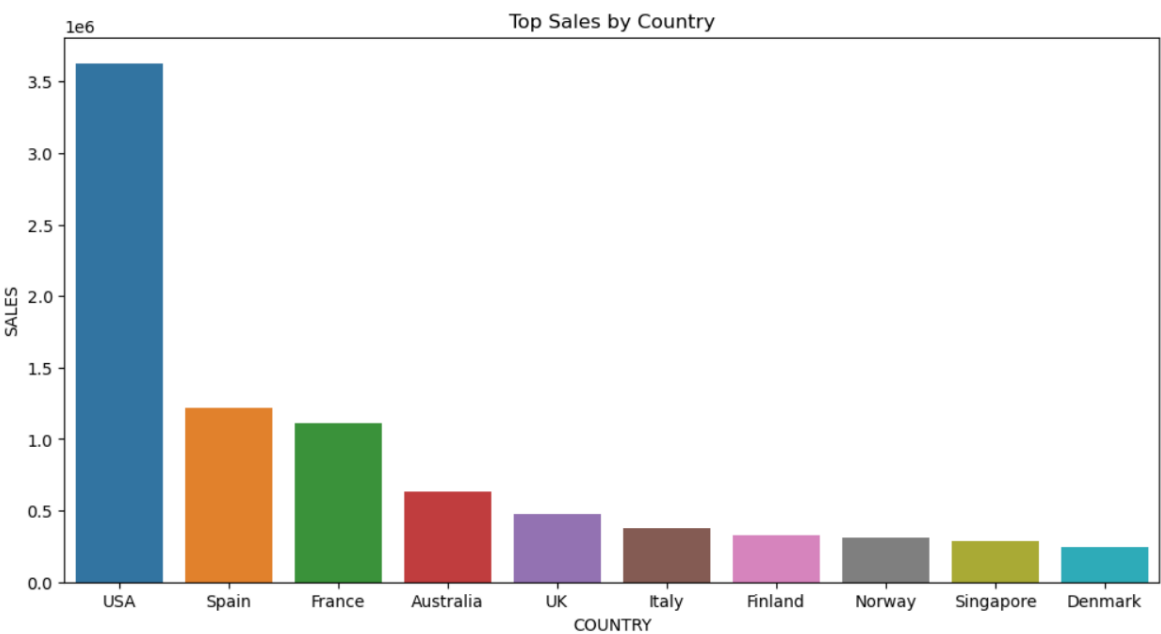
Product code S24\_3969 was the worst performing product in terms of sales.

Examining the top 10 products by sales reveals notable insights. For instance, product code S18\_3232 emerges as the top performer, outpacing competitors by a significant margin. Conversely, product code S24\_3969 lags behind, indicating areas for improvement.

3. How do sales vary across different regions?

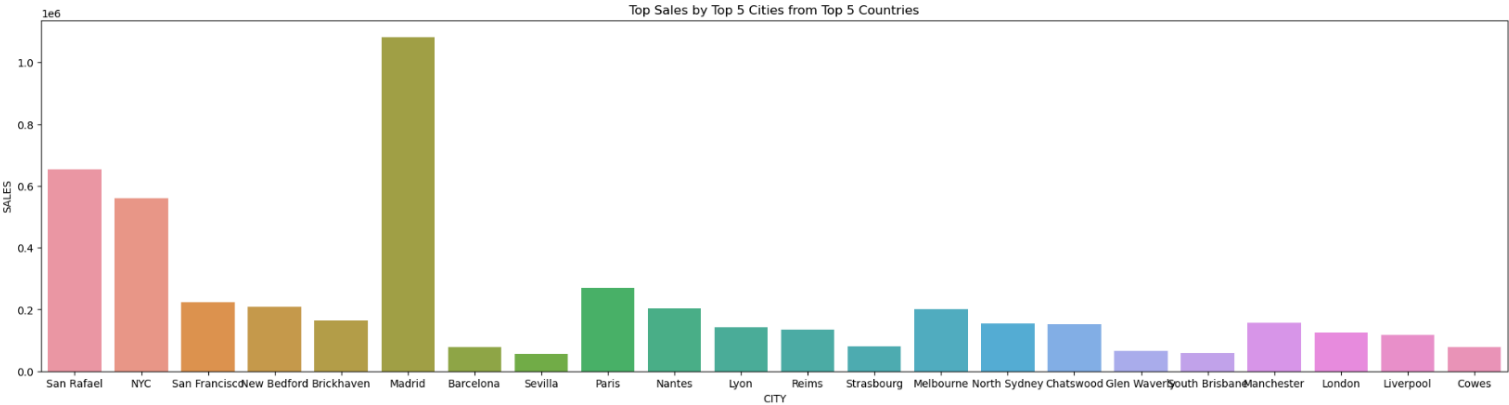
The top 10 countries by sales were:

	COUNTRY	SALES
0	USA	3627982.83
1	Spain	1215686.92
2	France	1110916.52
3	Australia	630623.10
4	UK	478880.46
5	Italy	374674.31
6	Finland	329581.91
7	Norway	307463.70
8	Singapore	288488.41
9	Denmark	245637.15



The bar chart shows clearly the dominance in the US market, more then 2 million dollars in sales compared to second.

Another interesting comparison is to look at the top 5 cities in the top 5 countries to gather more insights about which cities to target.

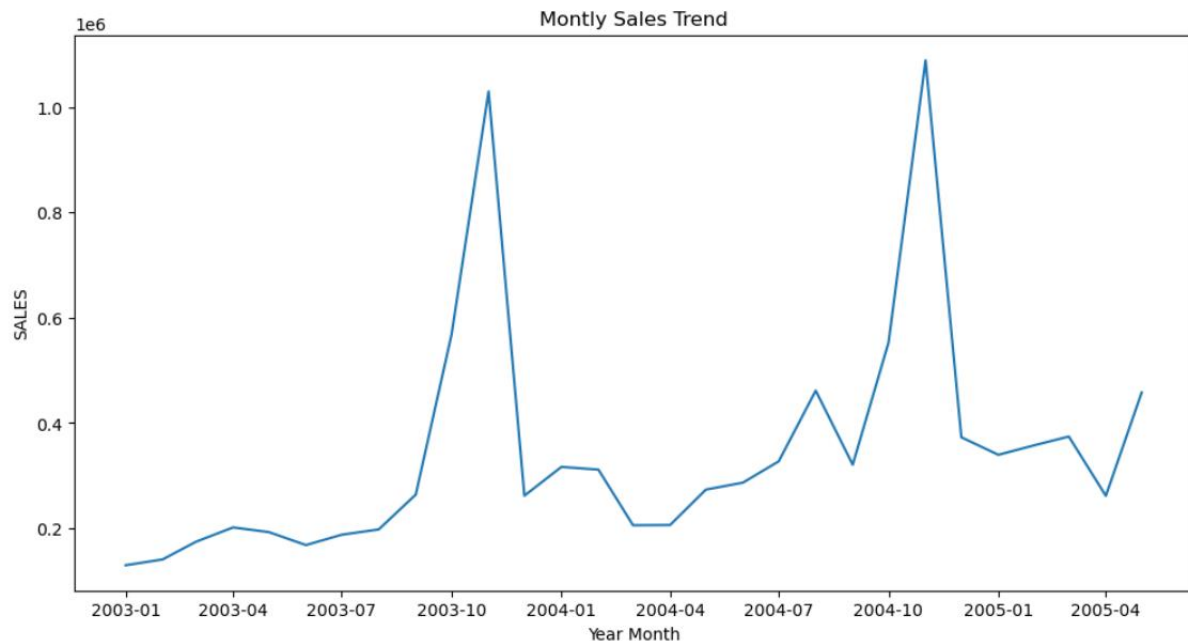


	CITY	SALES	COUNTRY
0	San Rafael	654858.06	USA
1	NYC	560787.77	USA
2	San Francisco	224358.68	USA
3	New Bedford	207874.86	USA
4	Brickhaven	165255.20	USA
5	Madrid	1082551.44	Spain
6	Barcelona	78411.86	Spain
7	Sevilla	54723.62	Spain
8	Paris	268944.68	France
9	Nantes	204304.86	France
10	Lyon	142874.25	France
11	Reims	135042.94	France
12	Strasbourg	80438.48	France
13	Melbourne	200995.41	Australia
14	North Sydney	153996.13	Australia
15	Chatswood	151570.98	Australia
16	Glen Waverly	64591.46	Australia
17	South Brisbane	59469.12	Australia
18	Manchester	157807.81	UK
19	London	124823.54	UK
20	Liverpool	118008.27	UK
21	Cowes	78240.84	UK

The analysis of top-selling countries underscores the dominance of the US market, followed by Spain, France, UK, and Australia. Further exploration into the top cities within these countries reveals intriguing patterns, with Madrid emerging as a key sales hub.

#### 4. Are there any noticeable trends or seasonality in the sales data?

To see if there was any seasonality I plotted Year Month against sales.



A visual representation of sales trends over time indicates pronounced spikes in October and November, suggesting seasonal fluctuations. This insight can inform strategic planning and resource allocation to capitalize on peak sales periods.

#### 5. Provide recommendations for improving sales based on your analysis.

Based on the analysis, several actionable recommendations can be proposed:

Intensify marketing efforts for top-performing products to maximize revenue potential.

Redirect resources away from underperforming products and focus on enhancing sales of top performers.

Channel marketing initiatives towards key markets, prioritizing cities with high sales volumes.

Prepare for heightened sales activity in October and November, leveraging targeted promotions and campaigns.

#### Conclusion:

By implementing these recommendations, organizations can optimize their sales strategies and drive sustainable growth. The insights gleaned from this analysis provide a solid foundation for informed decision-making and strategic planning.