

# MARLEY INTERNATIONAL STORE

## DATA SET ANALYSIS AND PRESENTATION

### INTRODUCTION

Marley International Store is a leading retail establishment known for its commitment to delivering exceptional products and services to a diverse customer base. With a strong emphasis on customer satisfaction and product quality, Marley International Store has built a reputation for excellence and reliability in the retail sector.

Marley International Store continues to demonstrate a forward-thinking approach to business operations, leveraging cutting-edge technologies and data-driven insights to drive operational efficiency and elevate the overall customer experience.

### DATA SET ANALYSIS

Often as a data analyst a data set presents numerous data points. Using the accompanying data set, I used both **MS. Excel** (*for data cleaning and exploratory analysis*) and **Power-BI** (*for Extract, transform, and load purposes through power query, and visualization*) for my analysis to answer the **questions** below common in a retail company. The data set used in this analysis is fictitious and publicly available, spanning the months of **January through July 2015**. (Click on this [Data link](#) to access Marley International Store's Github repository):

1. What is the total revenue generated by the store per month?
2. Which category of products contributes the most to sales per month?
3. How has the sales trend been for the past year?
4. Which region has the highest sales and which one has the lowest?
5. What is the average profit margin of the store?
6. Which Category is Best Selling and Most Profitable?
7. What is the Best Selling and Most Profitable Sub-Category?

8. Which is the Top Selling Sub-Category?
9. Which Customer Segment is Most Profitable?
10. Which is the Preferred Ship Mode?
11. Which Region is the Most Profitable?
12. Which City has the Highest Number of Sales?

## PRESENTATION

I also prepared a slide presentation and a visualization report to present the findings for the analysis above that is visually appealing and its main goal is to enable the business to justify its continued investment in its strategy represented by the dataset numbers. I used the following guidelines:

- In the context of a data analyst for a retail company, I made a presentation to the business decision-makers.
- I reviewed the data and deducted a hypothesis against any metric that speaks to a business call to action.
- I summarized the analysis in bullet point form, creating a PowerPoint presentation, and highlighting a data visual to illustrate my call to action.

Click on this [Power-BI link](#) to access Marley International Store's Analysis report. Each visual in the report is titled by the question it addresses.

Click on this [PowerPoint link](#) to access Marley International Store's Analysis presentation.

## METHODOLOGY

Leveraging the Power of Power BI for Retail Analysis.

1. Data Collection and Preparation:
  - Collected comprehensive data from Marley International Store, including sales, customer information, and product details (as given in the [data set](#)).

- Conducted data cleaning and preprocessing to ensure data accuracy and consistency.
2. Exploratory Data Analysis:
    - Utilized Power BI's interactive features to explore various dimensions of the data, including sales trends, product categories, and regional performance.
    - Identified key metrics and performance indicators crucial for retail analysis.
  3. Data Modeling and Visualization:
    - Constructed a robust data model in Power BI to facilitate seamless data analysis and visualization.
    - Created interactive and visually compelling reports to communicate insights effectively.
  4. Measure Creation and Analysis:
    - Developed custom measures and calculated columns in Power BI to derive critical business metrics, such as total revenue, cost, and profit.
    - Conducted in-depth analysis of sales trends, customer segments, and product performance using dynamic visualizations.
  5. Insights and Recommendations:
    - Extracted actionable insights from the data analysis to guide strategic decision-making for Marley International Store.
    - Formulated recommendations aimed at enhancing revenue growth, optimizing operations, and improving customer satisfaction.
  6. Reporting and Presentation:
    - Compiled the findings into a comprehensive [PowerPoint](#) presentation and [Power BI](#) report, integrating visuals, key metrics, and strategic recommendations.
    - Designed the presentation to be visually engaging and easily comprehensible for stakeholders and decision-makers.
  7. Sharing and Collaboration:

- Shared the Power BI report through the Power BI service publication for review and feedback, fostering a collaborative approach to decision-making.

This methodology demonstrates the systematic approach I employed to conduct the retail analysis using Power BI, emphasizing data-driven decision-making and actionable insights for Marley International Store.

## **EMPOWERING REAL-TIME INSIGHTS**

Utilizing **On-premises Data Gateway (Personal Mode)** for weekly data refreshes at Marley International Store.

As part of the commitment to ensuring the timeliness and accuracy of insights, a scheduled weekly data refresh mechanism has been implemented for the Marley International Store Power BI report. This is facilitated through the utilization of the Power BI Personal Mode Gateway.

The Personal Mode Gateway serves as a bridge between the Power BI service and the on-premises data source, enabling seamless and automated data refreshes. By configuring the gateway in personal mode, scheduled refreshes are orchestrated directly from the Power BI Desktop, allowing for a dynamic and up-to-date representation of data in the report.

This approach ensures that stakeholders and decision-makers have access to the latest insights, empowering them to make informed decisions based on real-time data trends and performance metrics.