**Data Visualisation: Empowering Business with Effective Insights**

The virtual experience programme is provided by Tata IQ or Tata Insights and Quants. I discover how passionate, multidisciplinary experts utilize data visualization technologies like Tableau to take on some of the most difficult business problems and uncover fascinating insights buried in the mountains of produced data.

The programme demonstrates the kind of issues dealt with by Tata Insights and Quants every day and makes an effort to imitate the difficulties an individual could have.

There are 4 modules in this virtual experience programme.

♦ Framing the Business Scenario

♦ Choosing the Right Visuals

♦ Creating Effective Visuals

♦ Communicating Insights and Analysis

Data cleanup

Before you can begin the analysis, make sure that the data is cleaned properly. Perform the following steps to clean this data.

• Create a check that the quantity should not be below 1 unit

• Create a check that the Unit price should not be below $0

# Task 1: - Framing the Business Scenario

Learn how to anticipate the questions your business leaders will need answers to.

Background info and context

An online retail store has hired you as a consultant to review its data and provide insights that would be valuable to the CEO and CMO of the business. The business has been performing well and the management wants to analyses what the major contributing factors are to the revenue so they can strategically plan for next year.

The leadership is interested in viewing the metrics from both an operations and marketing perspective. Management also intends to expand the business and is interested in seeking guidance into areas that are performing well so they can keep a clear focus on what’s working. They would also like to view different metrics based on the demographic information that is available in the data. A meeting with the CEO and CMO has been scheduled for next month and you need to draft the relevant analytics and insights that would help evaluate the current business performance and suggest metrics that would enable them to make the decision on expansion.

Remember, thinking from the perspective of business leaders allows you to analyse the data more effectively and present better insights. Access the links in the resources below to better understand how business leaders think and approach business performance.

**Details for task**

To prepare for your meeting, you need to draft questions that you think will be important and relevant to the CEO and CMO. This preparation will be your guide as you develop your presentation. For this task, you are only required to draft the questions. Make sure to think both quantitatively and qualitatively. You’ve been provided a dataset in the resources below to use as the basis for your exploration. Review this data, taking note of what information has been provided, what insights you can garner, and what is relevant to both the CEO and CMO respectively.

Create a set of four questions that you anticipate each business leader will ask and want to know the answers to. Make sure you differentiate your questions, as both the CEO and CMO view business decisions through different lenses.

Eight (8) questions in total (4 for the CEO and 4 for the CMO)

Answer:

**For CEO :**

1. Which region is producing the most profit, and which region is producing the least? Which country has a large number of customers? Which country has generated the highest revenue?
2. What is the trend for revenue on a monthly basis, and which months have seen the highest rise or fall in revenue?
3. What quarters had the most revenue? Are sales impacted by the seasons?
4. What percentage of overall income are the top customers responsible for? Are these customers essential to the company's success, or are the customers more diverse?
5. Which items are contributing to the business’s success? Which item has generated the highest revenue? Which items are sold most and least? Which items are the most expensive and the cheapest?

**For CMO:**

1. Who are the customers who have returned the most frequently? What percentage of the revenue do they contribute? Who are the top 10 customers?
2. Which customers have placed many orders and how much profit is generated by them?
3. How long does it take for returning customers to place their next purchase after receiving the first one?
4. How many customers make the same purchases again and over again? Do they place similar orders or do they place distinct orders?