TATA DATA ANALYSIS & VISUALISATION POWER BI

PROJECT WITH CASE STUDY

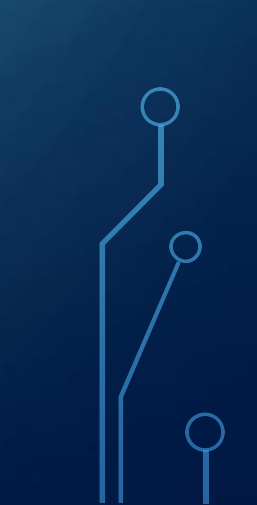BY

AJINKYA ADSULE

TASK-1

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. Submit your eight questions in total (4 for the CEO and 4 for the CMO) in the text submission box below.

Four questions for the CEO:

1. Can you provide a revenue trend analysis to determine whether retail sales are seasonal?

2. Which countries have the most potential for growth and what steps can be taken to further seize those markets?

3. Who are the top consumers making the most purchases from the business, and what is their contribution to the company's overall revenue?

4. Which regions are producing the greatest revenue and what strategies can be implemented to expand sales in untapped markets?

Four questions for the CMO:

1. What marketing strategies have been most effective in driving sales and increasing revenue?

2. How has customer demographic data influenced the business's marketing decisions, and what insights can be gleaned from that data to further optimize marketing efforts?

3. Are there any notable differences in purchasing behavior across different customer segments, and how can marketing efforts be tailored to those differences?

What metrics are being used to measure the effectiveness of marketing campaigns, and how can those metrics be improved to better inform marketing decisions?

VISUALIZATION OF DATA IN POWERBI FOR EACH QUESTION FOR THE CEO:

Question 1

The CEO of the retail store is interested to view the time series of the revenue data for the year 2011 only. He would like to view granular data by looking into revenue for each month. The CEO is interested in viewing the seasonal trends and wants to dig deeper into why these trends occur. This analysis will be helpful for the CEO to forecast for the next year.

Revenue trend analysis to determine whether retail sales are seasonal
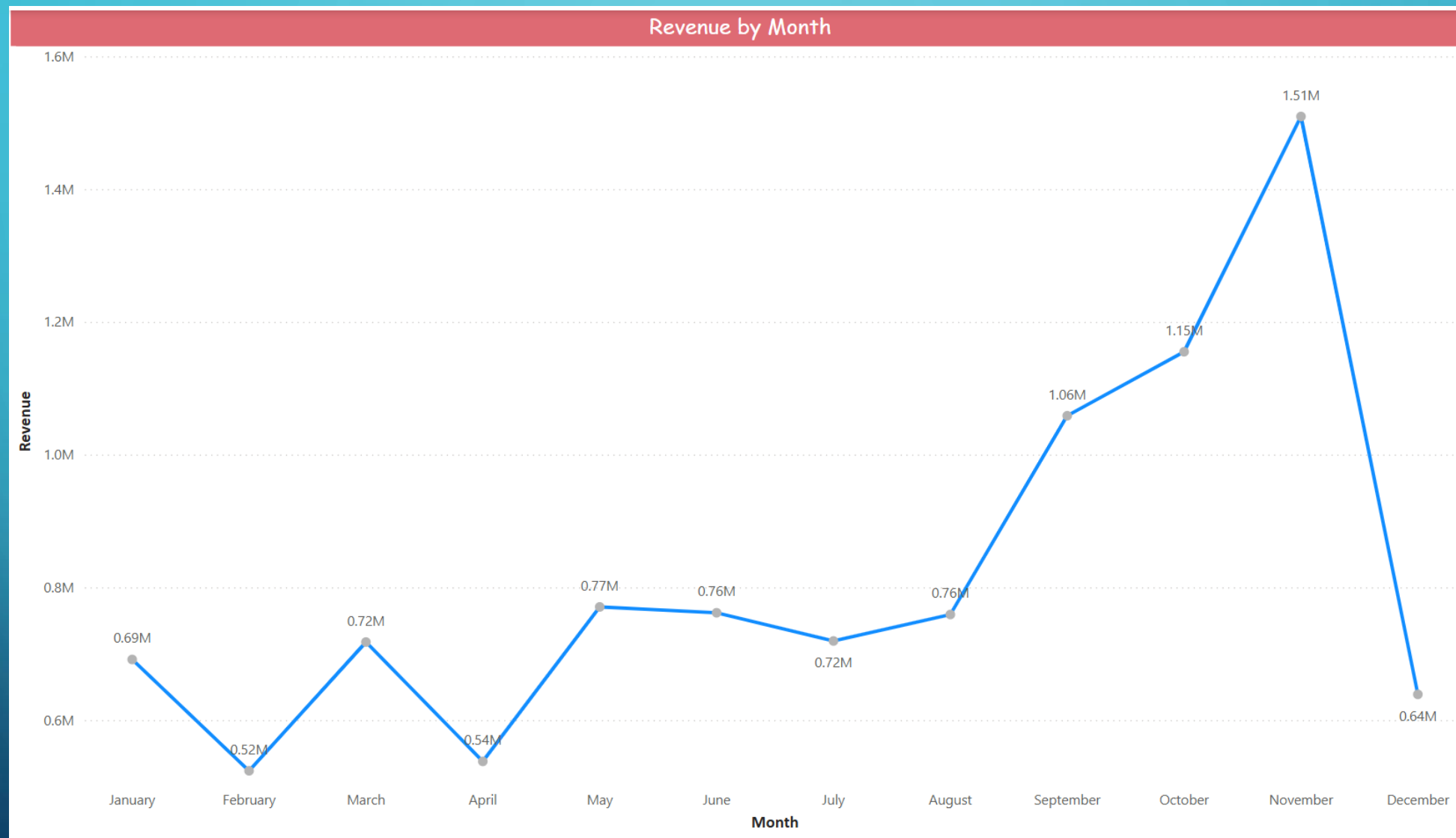
Question 2

The CMO is interested in viewing the top 10 countries which are generating the highest revenue. Additionally, the CMO is also interested in viewing the quantity sold along with the revenue generated. The CMO does not want to have the United Kingdom in this visual.
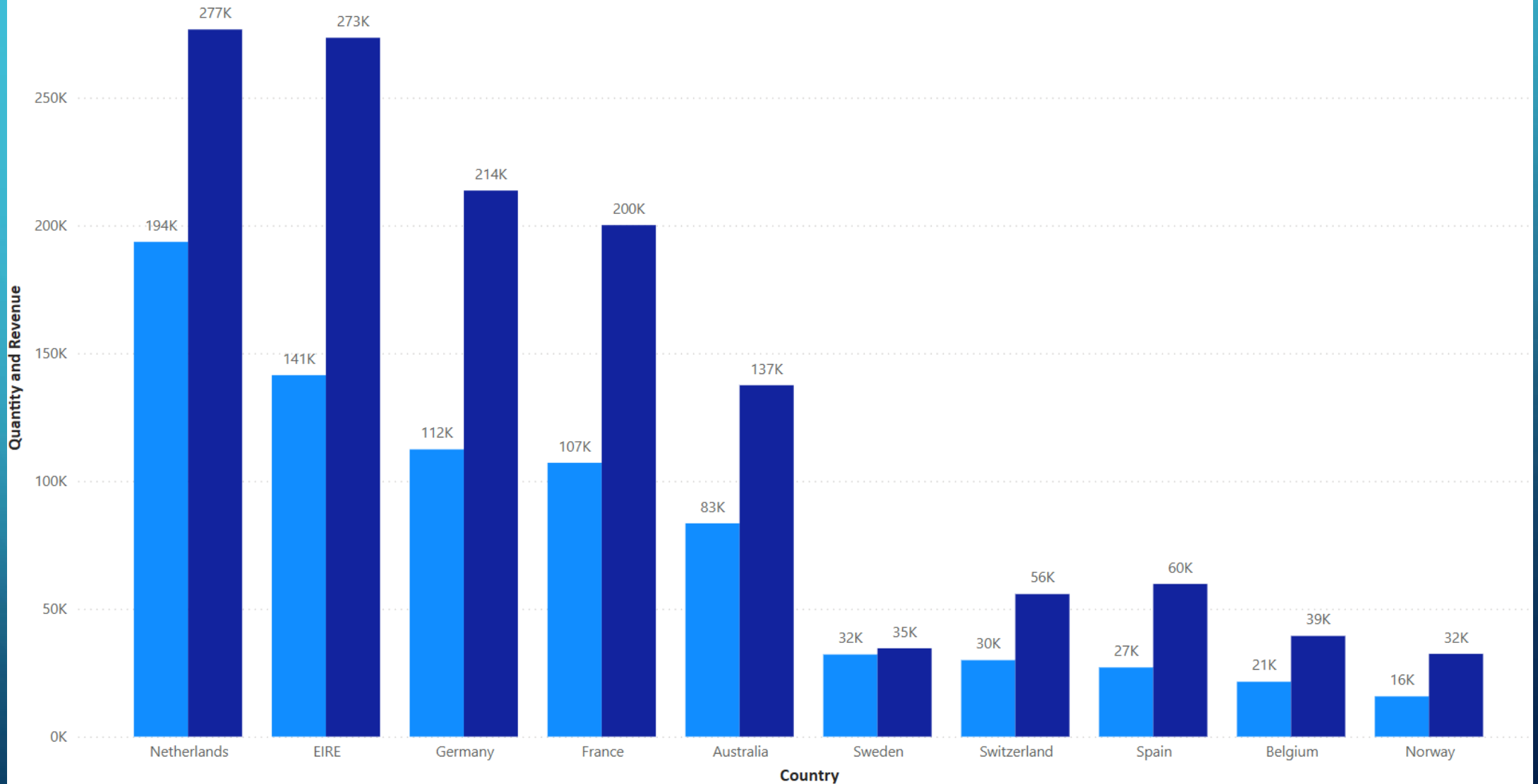
Countries with the most potential for growth

Quantity and Revenue by Country

Question 3

The CMO of the online retail store wants to view the information on the top 10 customers by revenue. He is interested in a visual that shows the greatest revenue generating customer at the start and gradually declines to the lower revenue generating customers. The CMO wants to target the higher revenue generating customers and ensure that they remain satisfied with their products.

Top consumers making the most purchases from the business
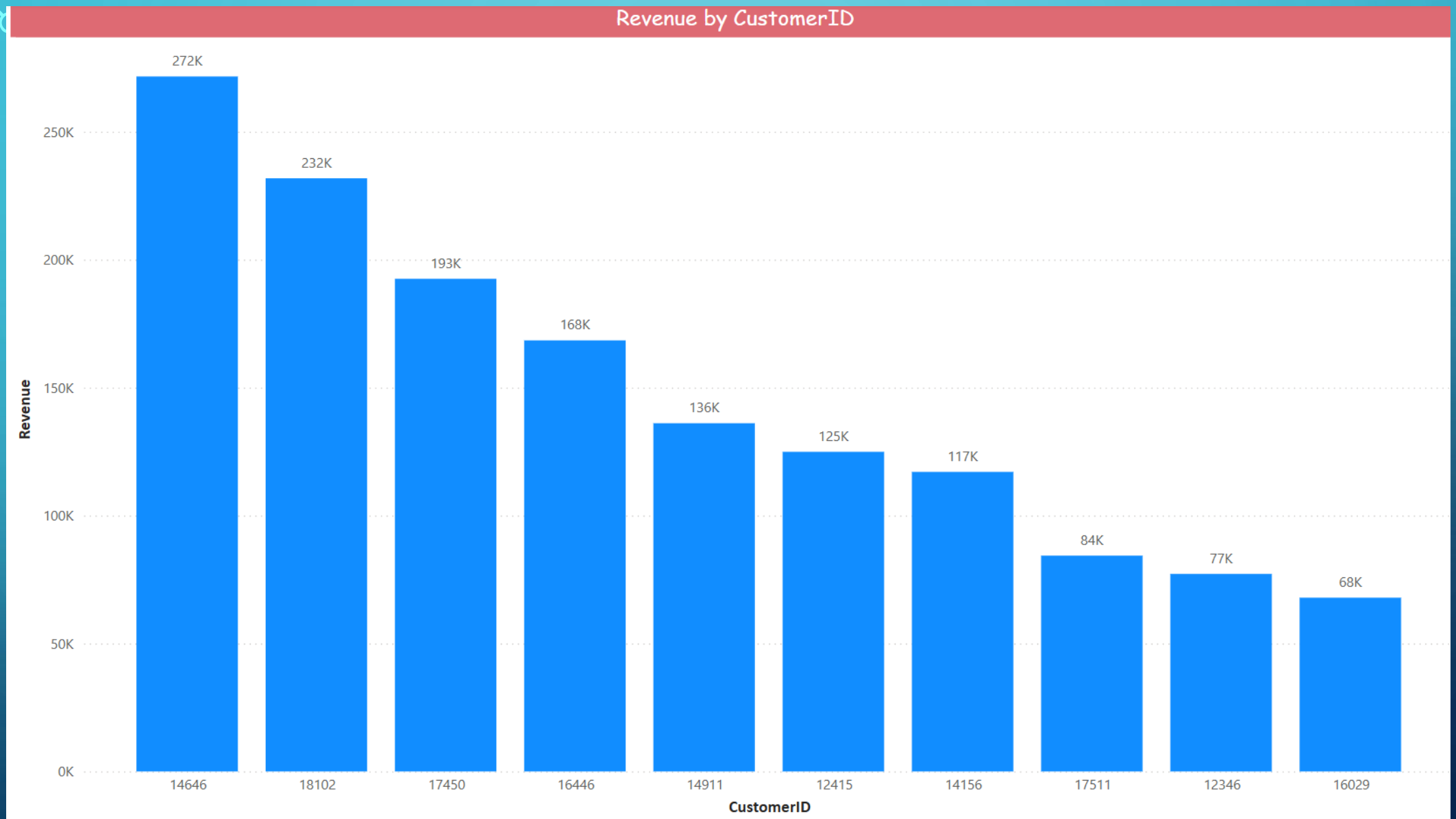
Question 4

- The CEO is looking to gain insights on the demand for their products. He wants to look at all countries and see which regions have the greatest demand for their products. Once the CEO gets an idea of the regions that have high demand, he will initiate an expansion strategy which will allow the company to target these areas and generate more business from these regions. He wants to view the entire data on a single view without the need to scroll or hover over the data points to identify the demand. There is no need to show data for the United Kingdom as the CEO is more interested in viewing the countries that have expansion opportunities.

Quantity by Country
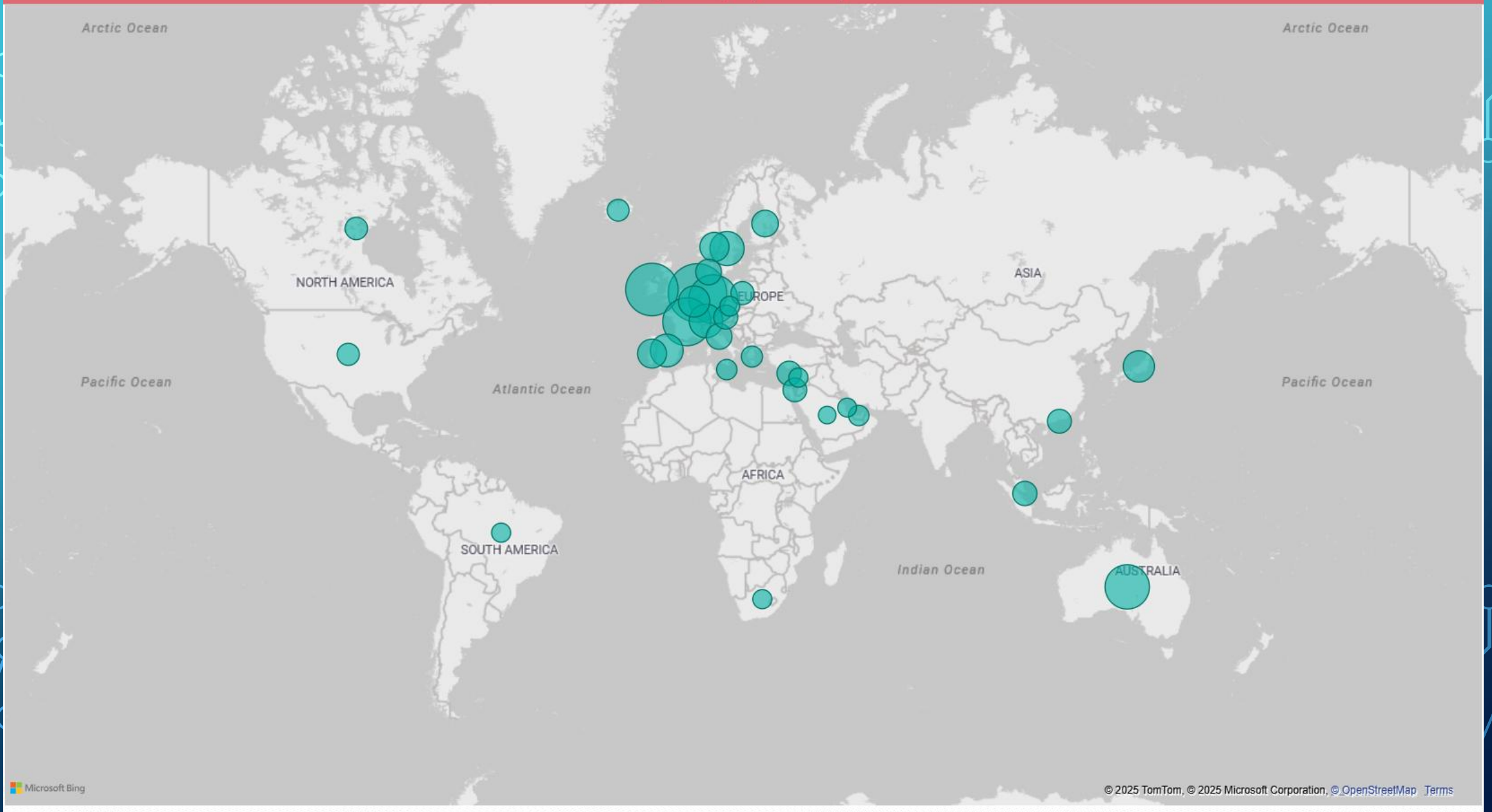
TASK-4

Develop a script and record a video presenting your findings to the CEO and CMO based on the four questions they asked and the visuals you created in the previous tasks.

You can use your work or the model answer from the previous task to develop your presentation.

When writing your script, you should speak about your entire process, including the initial data load and clean-up steps so that your leaders know you've done your due diligence in providing error-free analysis. Data analysis provides heaps of information but remember to focus on the information that is most important to your leaders.

Your video should be approximately 5 minutes in length. You can record your video in the browser or upload a video from your device below.

Remember, this is not just a read out of your visuals, you're presenting to the CEO and CMO and need to provide context for each scenario and how it relates to their questioning.

You do not need to submit your script or talking points for this deliverable.

Script:

Hey good evening and welcome to the presentation of insights and conclusion of TATA Power bi Project,

I'm Ajinkya Adsule , and I'm eager to share some information with you regarding your company. I appreciate you giving me the leading questions. Seeing the sorts of insights, you expect to derive from the data was useful. I really believe you will find the analysis convincing and useful as you decide how to proceed with your next business prospects.

- I want to start by assuring you that I have given the most accurate and current analysis. I cleaned up any records with negative quantities and unit prices after loading the data into my software, since it was necessary to do so in order to give useful analysis.

1st

Regarding your first query, the CEO has asked for a revenue trend to determine whether retail sales are seasonal. According to the data, there are several months of the year that have significant development. According to the statistics, the first eight months of sales from January to August were very stable, with an average of $685K (Six hundred eighty-five thousand US dollars) in revenue per month. The increase in revenue begins in September, when it grows by 40% over the previous month. This pattern persisted up until November, when it rose to 1.5 million US dollars, the largest amount of the whole year. Unfortunately, since the data for December is insufficient, no inferences can be made from it. This research demonstrates how seasonality—which generally happens in the last four months of the year—affects retail store sales

2nd

- The top 10 countries with the most potential for growth are represented in the second graph. Since the UK already has a large demand and I understand you are more interested in nations where demand may be boosted, the UK is not included in these statistics. According to the data, sales of units and income are quite high in nations like the Netherlands, Ireland, Germany, and France. To guarantee that steps are taken to further seize these markets, I would propose concentrating on these nations.

3rd

- The top 10 consumers who have made the most purchases from the business have been the subject of the third study. According to the statistics, there are not many differences between the top 10 consumer purchases. The fact that the highest revenue-producing consumer only spent 17% more than the second highest demonstrates that the company does not rely solely on a small number of consumers to generate income. This demonstrates that consumers' ability to negotiate is limited and that the state of business is positive.

4th

The map chart concludes by comparing the places that have produced the greatest revenue to those that have not. Apart from the UK, it is clear that nations like the Netherlands, Ireland, Germany, France, and Australia generate large profits, and the company should invest more in these nations to boost product demand. The map also reveals that the majority of sales occur only in the European zone, with only a small number in the American region. Along with Russia, there is no market for the items in Africa or Asia. Sales revenues and profitability might increase with the implementation of a fresh strategy focused on these areas.

I really appreciate your efforts and time to take part in my presentation today and please do not hesitate to ask me any questions if you have I would like to initiate a Qn A session now.

- Thank You and Have a Good Day.