

Generate a star schema model using the tables provided in the dataset. Feel free to perform any modifications/transformations/aggregations as you see fit/required. During this entire exercise you can add anything you want/require aside from new data sources. If unspecified you can choose any visualization you want to respond to the requirement. The below questions will increase in difficulty.

Question 1 (Page 1)

Business wants an **overview** of **Sales amount** by the **year** in which the **order** was placed. They **also** want the **possibility** to view this overview on a **month** level. They **also** want to see the different **product categories** in this overview.

Replicate the above overview but this time once for the year in which the order was shipped (with the possibility to drill to month level).

Aside from this, business wants some simple **KPI's** calculated on the **ORDER DATE**. They want to see the **current Month-To-Date** of the **sales amount**, the **previous Month-to-Date** of the **sales amount**, and the **entire previous month's sales amount**. Additionally, they want the **current month-to-date total to appear green** if that total is 1% greater than the previous MTD and **red** if it lower (any %) than the previous MTD.

Question 2 (Page 2)

On a separate page, Business wants to perform an **interactive analysis** of different metrics for each Product Category. They want to be able to select one of the following metrics:

- Total Order Quantity
- Total Sales Amount
- Total Product Cost

They want to see this metric displayed for all different **product categories** but **change** which of the three **metrics** is shown by the **click** of a **button**.

On this same page they also want a simple **top 10 list** of their **customers**. This list should contain the customer's name and their **ranking** (1 to 10). The ranking should be based on the **total sales amount**.

This page should be filtered to only include orders placed in 2023.

Question 3

(Page 2)

Business wants to expand the previously created **interactive analysis**. They want to not only be able to choose the metrics, but also **choose** what is shown on the **categorical axis**. They want to switch between one of the following 3 options:

- Product Category
- Product Color
- Customer Country

(Page 3)

They'd also like to have an additional page showing a **line chart** showing **all months for 2023 up to and including the current month** on the x-axis.

They want to see **three elements** on this chart (an example image is provided for clarification)

1. The **Total sales amount**
2. A **forecast** for the End-of-month sales amount for the current month (you can extrapolate the average daily sales amount for the past days of this month, for the whole month.)
3. They want to use a selectable slider from 0% to 100% indicating a potential revenue increase for the product category 'bikes'. The line chart should thus also include a line that shows the total sales amount, increased by the selected percentage **increase in 'bikes' sales amount**. (In other words: allow the user to increase the revenue amounts for 2023 by increasing the revenue in bikes by the selected percentage)

