

Assignment 6 - Power Bi Basics

A. Write how each existing chart is created

1. Sum of Order Total by Year and Month

Chart Type: Bar chart

X-Axis: Categorical values for months (February and March) grouped by year (2023).

Y-Axis: Sum of Order Total (aggregated numeric values).

Process:

The dataset likely includes a 'Date' or 'Order Date' column.

The dates are grouped by month and year.

The 'Order Total' column is summed for each month (e.g., February and March) for the year 2023.

The result is displayed as a bar chart with distinct bars for each month.

Visualization: Simple bar chart with a clear distinction between February and March, using blue bars and Y-axis values represented in thousands (K).

2. Sum of Order Total by Product Category

Chart Type: Bar chart

X-Axis: Product categories (Mountain Bikes, Road Bikes, etc.).

Y-Axis: Sum of Order Total (aggregated numeric values).

Process:

The dataset contains a 'Product Category' column.

The 'Order Total' is summed up for each product category.

Categories are displayed on the X-axis, with the corresponding sums of orders represented by the height of each bar.

Visualization: A vertical bar chart where product categories are shown with decreasing order of their sum of order total. The tallest bars (Mountain Bikes, Road Bikes, Touring Bikes) represent the highest order totals, with the value decreasing for the subsequent categories.

3. Sum of Order Total by Total Day of the Week

Chart Type: Bar chart

X-Axis: Days of the week (Tuesday, Wednesday, Friday, etc.).

Y-Axis: Sum of Order Total (aggregated numeric values).

Process:

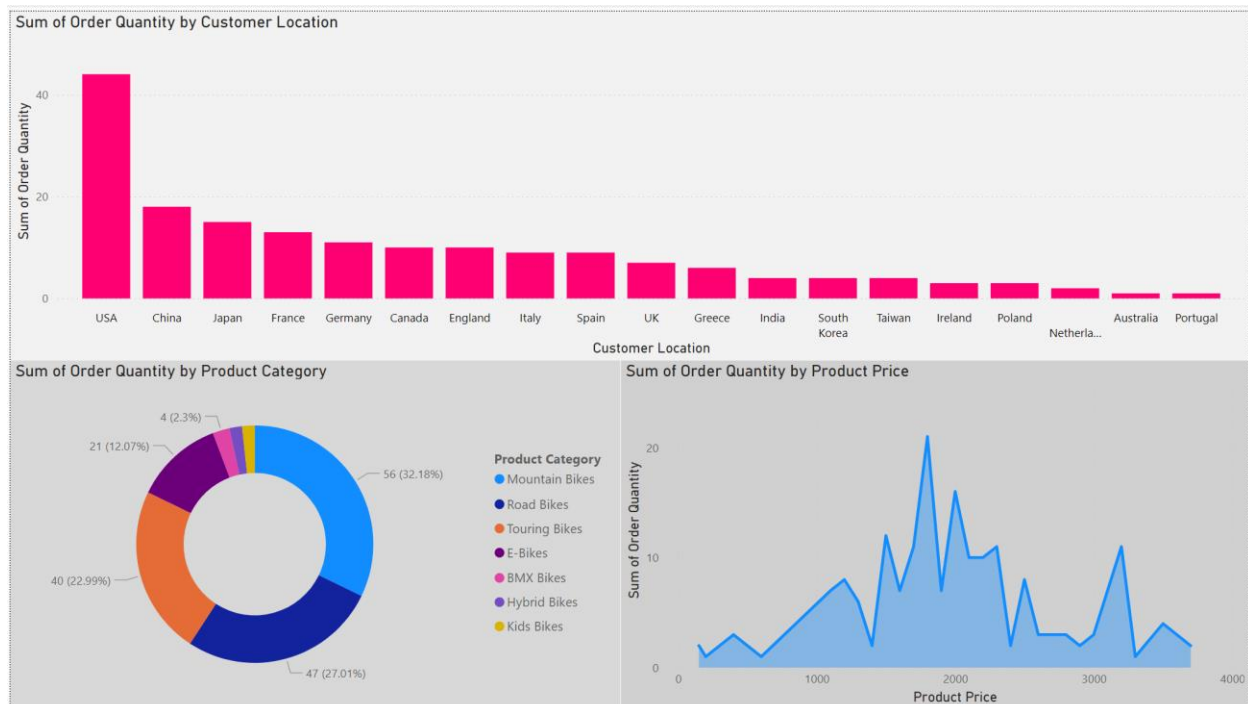
The dataset includes a 'Day of Week' column.

The 'Order Total' is summed up for each day of the week.

The chart is sorted in descending order, showing Tuesday as the highest and Thursday as the lowest.

Visualization: Bar chart in decreasing order from Tuesday to Thursday, with days sorted based on the sum of the order totals.

B. Add another sheet with more charts.



1. Sum of Order Quantity by Customer Location (Bar Graph)

Chart Type: Bar Graph

X-Axis: Customer location (e.g., country names like China, USA, etc.).

Y-Axis: Sum of order quantities (total number of orders placed by customers from each location).

Process:

The dataset includes a 'Customer Location' and 'Order Quantity' column.

You grouped the data by customer location (country or city) and calculated the total order quantities for each location.

The bar graph format was chosen to represent the differences in the sum of order quantities across locations. Each bar represents a country or region, with the height of the bar corresponding to the total number of orders from that location.

Purpose:

This bar graph is helpful for identifying which countries or regions contribute the most to the company's total order volume.

It can be used to determine potential opportunities for expanding international operations, optimizing shipping logistics, or setting up new factories or warehouses. For instance, if China has the second-highest order quantity, it could be a strategic location to establish a factory.

The chart also helps visualize customer demand across different geographic locations, enabling targeted marketing or localization of products and services for high-performing regions.

2. Sum of Order Quantity by Product Category (Donut Chart)

Chart Type: Donut Chart (a type of pie chart)

X-Axis/Segments: Product categories (e.g., Mountain Bikes, Road Bikes, etc.).

Y-Axis/Values: Sum of order quantities (the total number of orders for each product category).

Process:

The dataset contains a 'Product Category' and 'Order Quantity' column.

You grouped the data by product category and calculated the total number of orders (sum of order quantity) for each category.

Instead of using a regular pie chart, you opted for a donut chart, which creates a more modern and visually appealing representation by adding a hole in the center, often used for better data readability.

Each segment of the donut represents a product category, and the size of the segment reflects the proportion of total order quantities for that category.

Purpose:

The donut chart helps visualize the distribution of order quantities across various product categories.

It's particularly useful for quickly comparing which product categories are performing best in terms of sales volume.

For business strategy, this chart helps identify the best-selling products, allowing the company to focus more on high-demand products, adjust inventory, or target specific product promotions.

3. Sum of Order Quantity by Product Price (Line Graph)

Chart Type: Line Graph

X-Axis: Product prices or price ranges (e.g., binned into specific intervals such as \$0-\$50, \$50-\$100, etc.).

Y-Axis: Sum of order quantities (the total number of orders for each price range).

Process:

The dataset includes a 'Product Price' and 'Order Quantity' column.

You may have categorized or binned the product prices into ranges to simplify the visualization.

Then, you calculate the sum of order quantities for each price or price range.

The line graph is used here to show the trend of how order quantities vary with different product prices. As prices increase or decrease, the line will fluctuate accordingly, revealing patterns in consumer behavior based on price points.

Purpose:

The line graph is valuable for understanding how pricing affects order quantities, allowing you to see if customers tend to order more products at certain price points.

For instance, if there's a peak at mid-range pricing, it may indicate that products in that range are more popular, providing insights into optimal pricing strategies.

This chart can also help in identifying price-sensitive segments of the market or determine if premium products are performing well.