Step-by-Step Guide to Building a Car Sales Dashboard in Power BI

---

1. Data Preparation

1. Open **Power BI Desktop**.
2. Click on **Home > Get Data > Excel Workbook** and select your "Car Sales.xlsx" file.
3. Choose the **car_data** sheet and click **Load**.

Data Transformation in Power Query (Optional):

1. Click **Transform Data** to open Power Query Editor.
2. Ensure **Date** is recognized as a Date type.
3. Rename the columns for clarity if needed (e.g., "Price ($)" to "Price").
4. Click **Close & Apply** to load data.

---

2. Creating Key Performance Indicators (KPIs)

Navigate to the **Modelling** tab and use **New Measure** to create the following KPIs:

1. Sales Overview

- **Year-to-Date (YTD) Total Sales:**

  YTD Total Sales = CALCULATE (SUM(car_data[Price ($)]), DATESYTD(car_data[Date]))

- **Month-to-Date (MTD) Total Sales:**

  MTD Total Sales = CALCULATE (SUM(car_data[Price ($)]), DATESMTD(car_data[Date]))

- **Year-over-Year (YOY) Growth in Total Sales:**

  YOY Sales Growth = VAR CurrentYearSales = CALCULATE (SUM(car_data[Price ($)]), DATESYTD(car_data[Date]))
  VAR PreviousYearSales = CALCULATE (SUM (car_data [Price ($)]), DATESYTD (SAMEPERIODLASTYEAR (car_data [Date])))
  RETURN
  DIVIDE (CurrentYearSales - PreviousYearSales, PreviousYearSales, 0)

- **Difference between YTD Sales and Previous YTD (PTYD) Sales:**

  YTD vs PTYD Sales = CALCULATE (SUM (car_data [Price ($)]), DATESYTD (car_data [Date])) – CALCULATE (SUM (car_data [Price ($)]), DATESYTD (SAMEPERIODLASTYEAR (car_data [Date])))

2. Average Price Analysis

- **YTD Average Price:**

  YTD Avg Price = DIVIDE ([YTD Total Sales], CALCULATE (COUNT (car_data [Car_id]), DATESYTD (car_data [Date])), 0)

- **MTD Average Price:**

  MTD Avg Price = DIVIDE ([MTD Total Sales], CALCULATE (COUNT (car_data [Car_id]), DATESMTD (car_data [Date])), 0)

- **YOY Growth in Average Price:**

  YOY Avg Price Growth = VAR CurrentYearAvg = [YTD Avg Price]

  VAR PreviousYearAvg = CALCULATE ([YTD Avg Price], SAMEPERIODLASTYEAR (car_data [Date]))

  RETURN

  DIVIDE (CurrentYearAvg - PreviousYearAvg, PreviousYearAvg, 0)

3. Cars Sold Metrics

- **YTD Cars Sold:**

  YTD Cars Sold = CALCULATE(COUNT(car_data[Car_id]), DATESYTD(car_data[Date]))

- **MTD Cars Sold:**

  MTD Cars Sold = CALCULATE(COUNT(car_data[Car_id]), DATESMTD(car_data[Date]))

- **YOY Growth in Cars Sold:**

  YOY Cars Sold Growth = VAR CurrentYearCars = [YTD Cars Sold]

  VAR PreviousYearCars = CALCULATE([YTD Cars Sold], SAMEPERIODLASTYEAR(car_data[Date]))

  RETURN

  DIVIDE(CurrentYearCars - PreviousYearCars, PreviousYearCars, 0)

---

3. Creating Charts and Visualizations

1. YTD Sales Weekly Trend

- **Chart Type:** Line Chart
- **X-Axis:** Week Number (Create a Week Column using the formula below)
- Week Number = WEEKNUM(car_data[Date])
- **Y-Axis:** YTD Total Sales

2. YTD Total Sales by Body Style

- **Chart Type:** Pie Chart
- **Values:** YTD Total Sales
- **Legend:** Body Style

3. YTD Total Sales by Color

- **Chart Type:** Pie Chart
- **Values:** YTD Total Sales
- **Legend:** Color

4. YTD Cars Sold by Dealer Region

- **Chart Type:** Map Chart
- **Location:** Dealer_Region
- **Values:** YTD Cars Sold

5. Company-Wise Sales Trend in Grid Form

- **Chart Type:** Table
- **Columns:** Company, YTD Total Sales

6. Details Grid Showing All Car Sales Information

- **Chart Type:** Table
- **Columns:** Car_id, Date, Customer Name, Gender, Annual Income, Dealer_Name, Company, Model, Engine, Transmission, Color, Price ($), Dealer_Region

---

4. Dashboard Layout and Formatting Tips

1. **Arrange Sections**:
    - Top KPIs (Cards): YTD Total Sales, MTD Total Sales, YOY Growth, Cars Sold
    - Middle: Line Chart (YTD Weekly Sales), Pie Charts (Body Style, Color)
    - Bottom: Map (Dealer Region) and Data Grids (Company-wise and Details)
2. **Formatting:**
    - Use Data Labels for better insights.
    - Apply Slicers (Filters) for Date, Dealer Region, and Company.
3. **Interactivity:**
    - Enable Drill-through for detailed views.
    - Use Bookmarks for alternative views.
4. **Save and Publish:**
    - Save your report and click **Publish** to share it on the Power BI Service.

---

5. Final Review

Ensure the dashboard is dynamic, user-friendly, and provides real-time insights into:

- Sales performance over time
- Pricing trends
- Regional and model-specific sales

Congratulations! You've built a comprehensive Car Sales Dashboard in Power BI!

create a report with 0% plagiarism for above project to publish it.