CoachX

AUTOMOBILE DASHBOARD ANALYSIS

A robust teaching-learning platform dedicated for you to gain the industrial skills and knowledge by, making your learning journey more valuable.

Objective :

The primary objective of the analysis is to gain insights into the sales performance of different car brands across various countries, track sales trends over time, and identify patterns and relationships in the dataset. This can help in understanding customer preferences, optimizing inventory, and improving sales strategies.

Introduction:

Detailed Information of Each Column

InvoiceDate:

Description: The date on which the sale was invoiced.

Type: Date

Example: 2-Dec-13

Make:

Description: The brand or manufacturer of the car.

Type: Text

Example: Aston Martin

CountryName:

Description: The country where the sale was made.

Type: Text

Example: United Kingdom

SalePrice:

Description: The price at which the car was sold.

Type: Numeric

Example: 110000

CostPrice:

Description: The cost price of the car.

Type: Numeric

Example: 125000

TotalDiscount:

Description: The total discount offered on the sale.

Type: Numeric

Example: 0

DeliveryCharge:

Description: The delivery charge associated with the sale.

Type: Numeric

Example: 1750

SpareParts:

Description: The cost of spare parts included in the sale.

Type: Numeric

Example: 1950

LaborCost:

Description: The labor cost associated with the sale.

Type: Numeric

Example: 1950

ClientName:

Description: The name of the client who made the purchase.

Type: Text

Example: Cut'n'Shut

Model:

Description: The model of the car sold.

Type: Text

Example: Vanquish

Color:

Description: The color of the car sold.

Type: Text

Example: Red

ReportingYear:

Description: The year in which the sale was reported.

Type: Numeric

Example: 2013

ReportingMonth:

Description: The month in which the sale was reported.

Type: Numeric

Example: 12

Registration_Date:

Description: The date on which the car was registered.

Type: Date

Example: 1-Sep-01

VehicleType:

Description: The type of vehicle (e.g., Coupe, Saloon, Convertible).

Type: Text

Example: Coupe

The dataset includes various columns that provide detailed information about car sales, including financial aspects (sale price, cost price, discounts), logistical aspects (delivery charges,

spare parts, labor costs), client details, and vehicle details (make, model, color, type). This comprehensive data allows for in-depth analysis of sales performance, cost management, and customer preferences across different regions and time periods.

Task-1

1. How can you calculate the total sales for each year using DAX?

2. Create a measure to calculate the average sales per month.

3. How would you create a cumulative total of sales over months?

4. Write a DAX formula to calculate the Year-to-Date (YTD) sales.

5. How can you calculate the percentage growth in sales compared to the previous year?

6. Create a measure to calculate the total sales for the last 12 months.

7. How would you calculate the highest sales month using DAX?

8. Write a DAX formula to find the top 5 selling products.

9. How can you calculate the sales contribution of each product category?

10. Create a measure to find the total sales where the sales amount is greater than a specific value.
11. How can you calculate the running total of sales for each product?

12. Write a DAX formula to calculate the average sales per customer.

13. How would you calculate the total number of distinct customers?

14. Create a measure to calculate the sales per region.

15. How can you calculate the moving average of sales over 3 months?

16. Write a DAX formula to filter sales data for a specific product category.

17. How can you calculate the sales variance compared to the budget?

18. Create a measure to calculate the total profit margin.

19. How would you calculate the sales rank of each product?

20. Write a DAX formula to calculate the total sales for a specific date range.

Task-2

1. How do you filter the data to show only records where the Make is "Jaguar"?

2. How can you remove the columns ClientName and LaborCost from the dataset?

3. How can you replace the values "Coupe" with "Convertible" in the VehicleType column?

4. How can you add a new column that calculates the total cost (CostPrice + DeliveryCharge + SpareParts + LaborCost) for each record?

5. How can you split the InvoiceDate column into two separate columns: InvoiceYear and InvoiceMonth?

6. How can you group the data by Make and CountryName to get the sum of SalePrice for each group?

7. How can you sort the data by SalePrice in descending order?

8. How can you merge this dataset with another table that contains additional ClientName information, using ClientName as the key?

9. How can you remove duplicate records based on the combination of InvoiceDate and Make?

10. How can you pivot the Color column so that each unique color becomes a new column and the values are the SalePrice?

Task-3

1. How can you create a bar chart to compare total sales by product category?
2. What steps would you take to create a line chart showing monthly sales trends?
3. How can you use a pie chart to show the sales distribution by region?
4. Create a scatter plot to visualize the relationship between sales and profit.
5. How can you add a trend line to a line chart to show sales growth over time?
6. What is the process to create a stacked bar chart to show sales by product category and region?
7. How can you use a map visualization to display sales data by geographic location?
8. Create a heat map to show the intensity of sales across different regions.
9. How can you use a tree map to visualize the sales contribution of each product category?
10. What steps would you take to create a waterfall chart to show sales variances?
11. How can you create a KPI visual to display key sales metrics?

12. What is the process to create a funnel chart to visualize the sales pipeline?
13. How can you use a gauge chart to show the performance against a sales target?
14. Create a histogram to show the distribution of sales amounts.
15. How can you use slicers to filter visualizations based on product categories?
16. What steps would you take to create a combo chart to compare sales and profit?
17. How can you use a card visual to display the total sales amount?
18. Create a bullet chart to compare actual sales against a target.
19. How can you use bookmarks to create a storytelling experience in Power BI?
20. What is the process to create a matrix visual to display sales data in a tabular format?

DOCUMENTATION

After Completeion of the projects you have to Create one Docx file in that you have to Make Report of above Projects and include some Key Factors like

1. Introduction

2. Methodology

3. Requirement Analysis

4. Other Parameters depending upon the Projects

5. All Visualization like All Charts which is there in the Dashboards

6. Insights from the Charts as well as Dashboards

7. Conclusion After creating the Reports for above project upload that docx file or pdf file in Assignment links

Submission Guidelines Format:

PowerPoint or PDF

Length: 1-20 slides.

Sections: Introduction, Key Findings, Actionable, Methodologies , Approaches, Insights, Conclusions

Tools and Technologies :

POWER BI O/R TABLEAU

Deadline:

Submit your report and presentation within 21 Days from the day you will start

********** **Thank You** **********