Capstone Project

**Problem Statement**

A small company Axon, which is a retailer selling classic cars, is facing issues in managing and analysing their sales data. The sales team is struggling to make sense of the data and they do not have a centralized system to manage and analyse the data. The management is unable to get accurate and up-to-date sales reports, which is affecting the decision-making process.

To address this issue, the company has decided to implement a Business Intelligence (BI) tool that can help them manage and analyse their sales data effectively. They have shortlisted Microsoft Power-BI and SQL as the BI tools for this project.

**GOAL**  
  
The goal of the capstone project is to design and implement a BI solution using PowerBI and SQL that can help the company manage and analyse their sales data effectively.  
  
  
  
  
  
  
**Database Description**

Here is a short description of the data tables included that contains typical business data such as customers, products, sales orders, sales order line items, etc.

**MySQL Sample Database Schema**

The MySQL sample database schema consists of the following 8 tables:

* Customers: stores customer’s data.
* Products: stores a list of scale model cars.
* Product Lines: stores a list of product line categories.
* Orders: stores sales orders placed by customers.
* Order Details: stores sales order line items for each sales order.
* Payments: stores payments made by customers based on their accounts.
* Employees: stores all employee information as well as the organization structure such as who reports to whom
* Offices: stores sales office data

**DATA CLEANING**  
  
From product table removed unnecessary columns.  
  
From product lines removed the column which has complete missing values.

* Made the 1st row as header wherever required.  
    
  From employees table, changed the null value to   
  0 as the president itself is the seniormost and he does not require to report to anyone.  
    
  From orders table changed the date format and also found the delivery date by subtracting the order date by shipped date.

Visualizations

Used card visuals for the KPIs.  
  
Used donut charts for the following:

To show the visual for sales wise top products.

To show the visual for sales wise top customers.

To show the visual for customer wise credit limit.  
  
Used line chart to show the monthly sales trend.  
  
Used Stacked bar chart to show the top profitable products.  
  
Used slicers to show the visual to select different years and different countries.

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Findings  
  
After analysing the dashboard we can see the top products on the basis of sales  
-The mayflower

-The queenmary  
-The Titanic  
-The schooner bluenose  
-Pont yacht  
  
Similarly we can see the top 5 customers as well

-Mini gifts distribution

-Muscle Machine inc  
-Land of toys

-The sharp gifts

-Corporate gift ideas   
  
we can also see the month wise trend of the sales  
sales were really high in the month of October and November  
  
  
The top 3 profitable products are:

-The Titanic

-The queenmary

- The mayflower  
  
we can also see the data as per the different year 2003,2004 and 2005  
  
similarly there are many insights which we can get from the dashboard

Conclusion  
  
The dashboard analysis will provide the useful insights in finding the business problem  
and likewise it will help in appropriate decision makings.