Axon Sales Analysis

## Loading Data

We begin the powerbi report by loading all the tables in powerBi

1. Load the database in the mysql workbench.
2. Connect PowerBi to mysql database and import the data.

## Data Cleaning and Transformation

1. **Employee:** Employee data does not have any empty values. Hence, it doesn't need any transformation
2. **Orders**: In the orders tables, the comment section was null for the orders which were successfully shipped. Changed the null values to No Comments. There were few rows in shipped\_date column which had null values. These orders were either on hold or cancelled or in process. Hence, we are filtering the rows which don't have the shipping date.
3. **Products**: In the product lines table, we can delete the columns html description and the image as they will not be used in analysis.
4. **Customers**: Transforming the customer's table
   1. In the customers table, address line 2 had maximum null values. As it was not playing any significant role in the analysis, we will remove this column
   2. There are 22 rows which belong to customers from different parts of the world who have not been assigned any sales representative. Since there are no sales representatives assigned and there are no records of these customers in the order table, these customers won't provide any insights into sales. We can filter these records from the table.
   3. There are 53% missing values in state column. The column has only values for the states which belong to US, Canada and Australia. Rest is null. We can remove this column as we have the city and the country names, and we can perform analysis using these two columns.
5. **Office**: We removed the state column and the address line2 from the office table as well.

## Insights:

1. Axon Retailers has a total of 94 customers.
2. Axon has total of 110 products belonging to different product lines-Classic cars, vintage cars, motorcycle and many more.
3. Almost 82% of customers belong to North America.
4. Top selling product line is the Classic car.
5. Maximum orders were placed in the year 2004 as compared to the year 2003 and 2005.
6. Year-2004 generated most revenue.
7. Number of sales representatives are more in North America and EMEA as compared to the other territories.