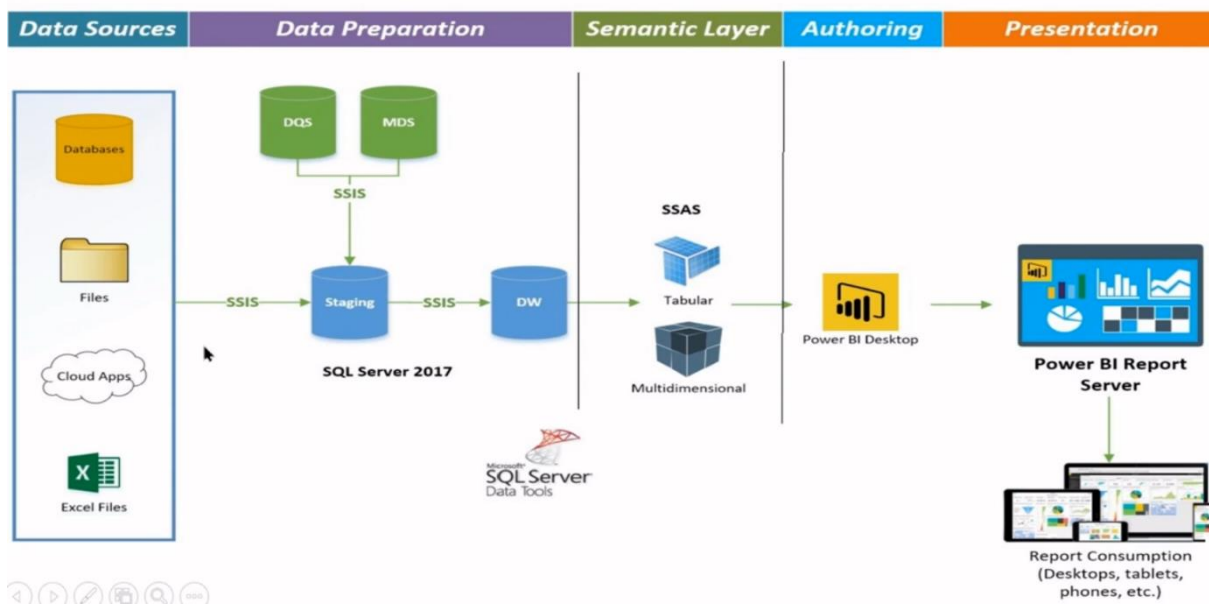


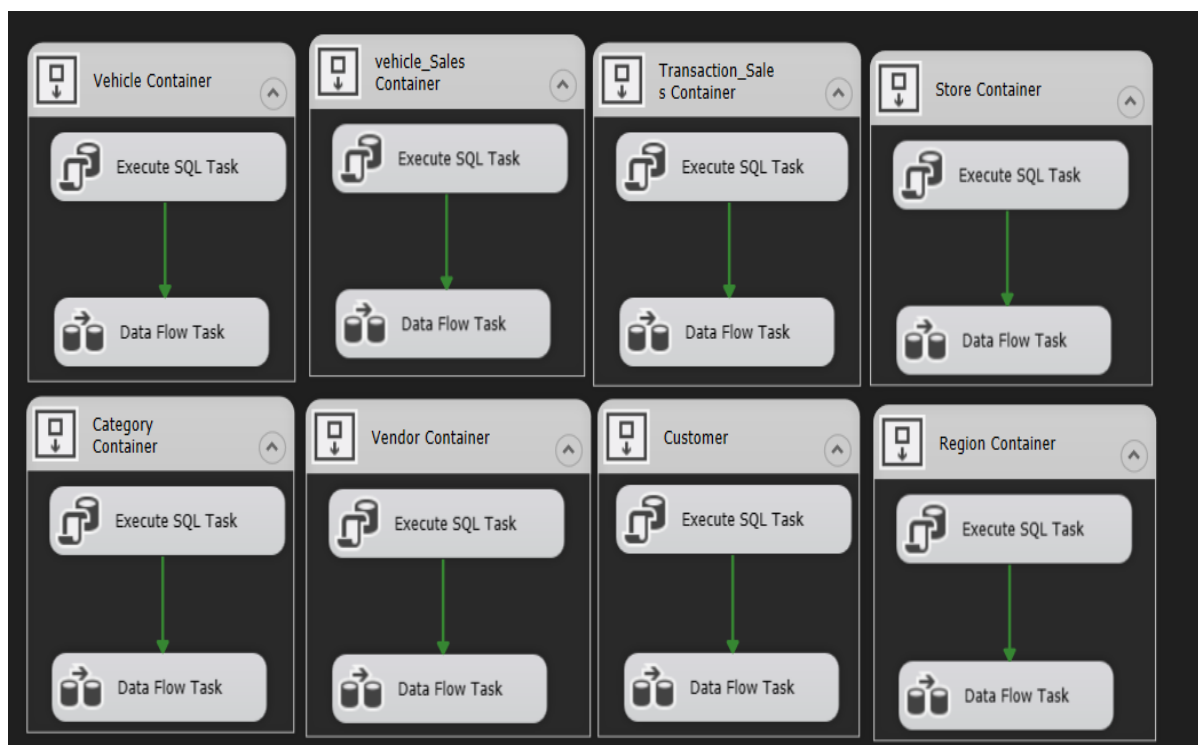
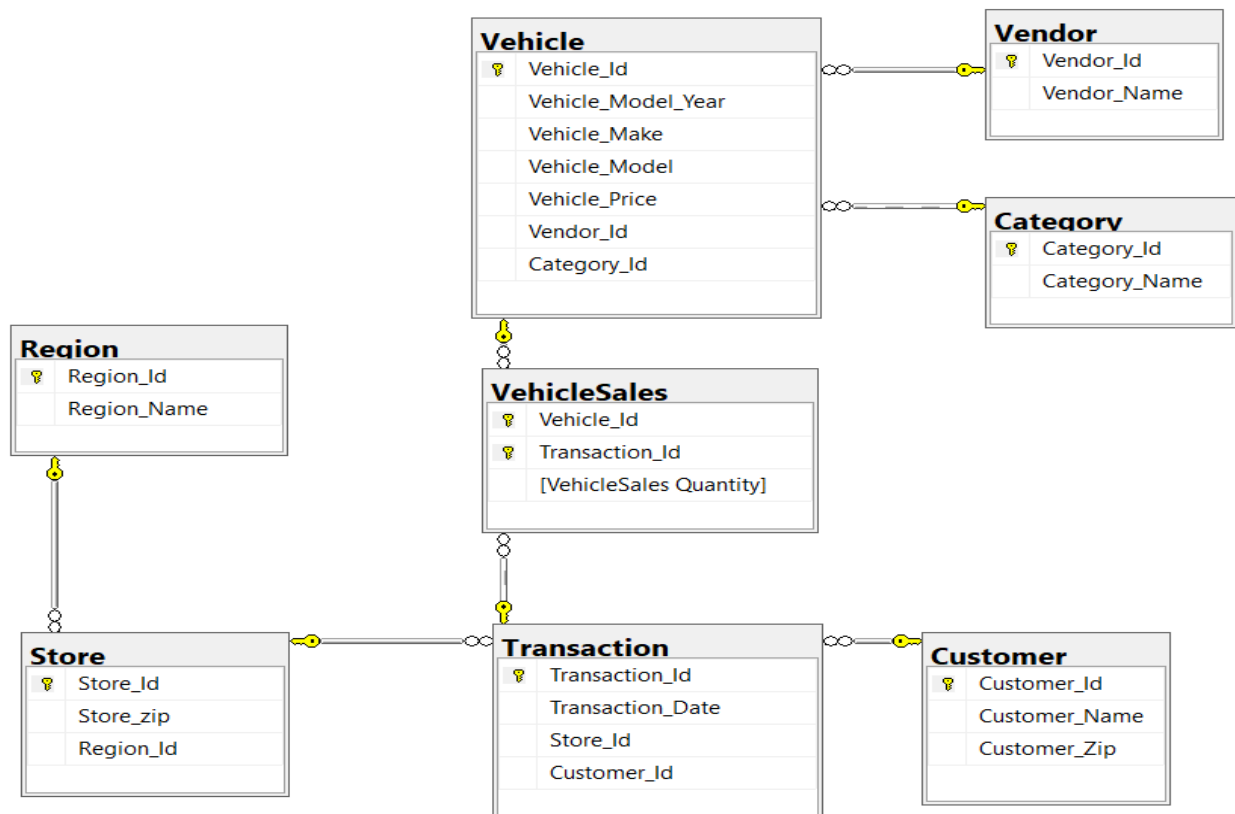
Electric Vehicle data warehouse project

For this project I have been able to create a Data Warehouse by using MSBI SQL Server tools, at the beginning I wrote a python code by using Faker library to generate the data based on a specific formats and conditions been set to generate the data and save as a set of CSV files.



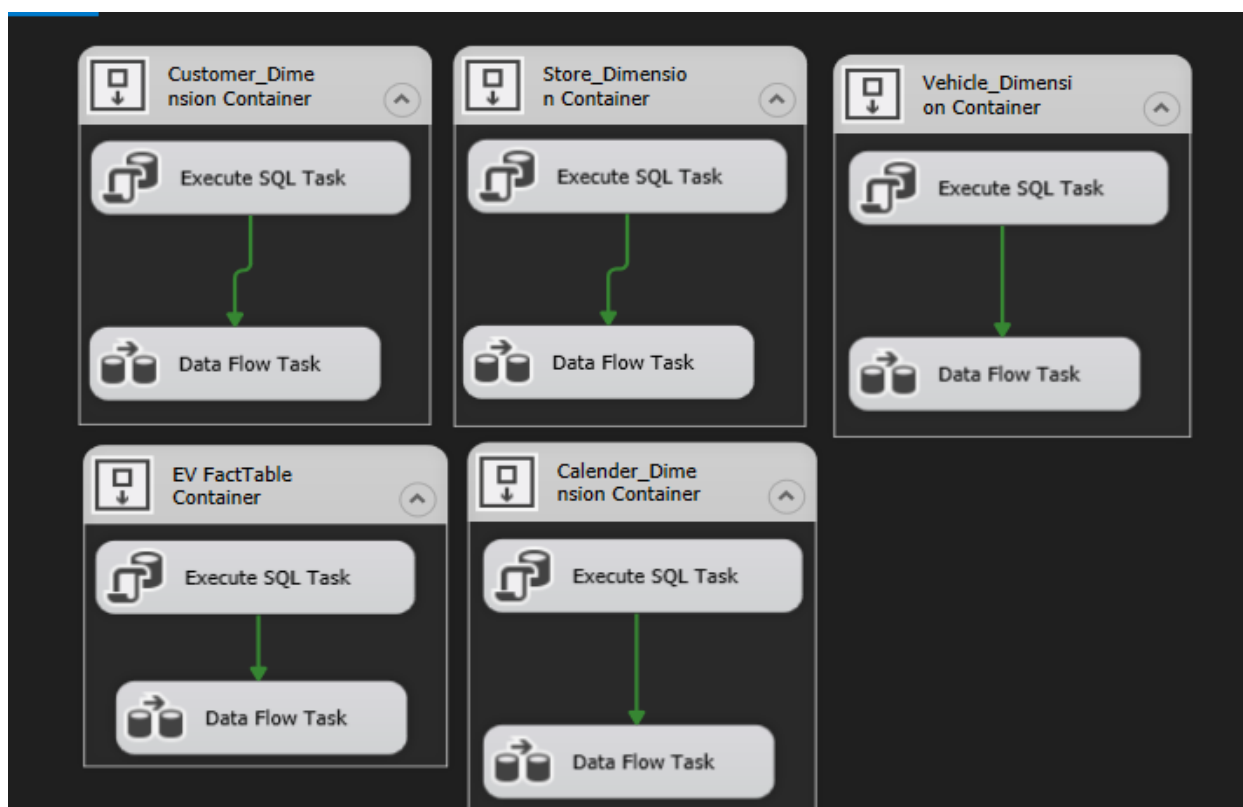
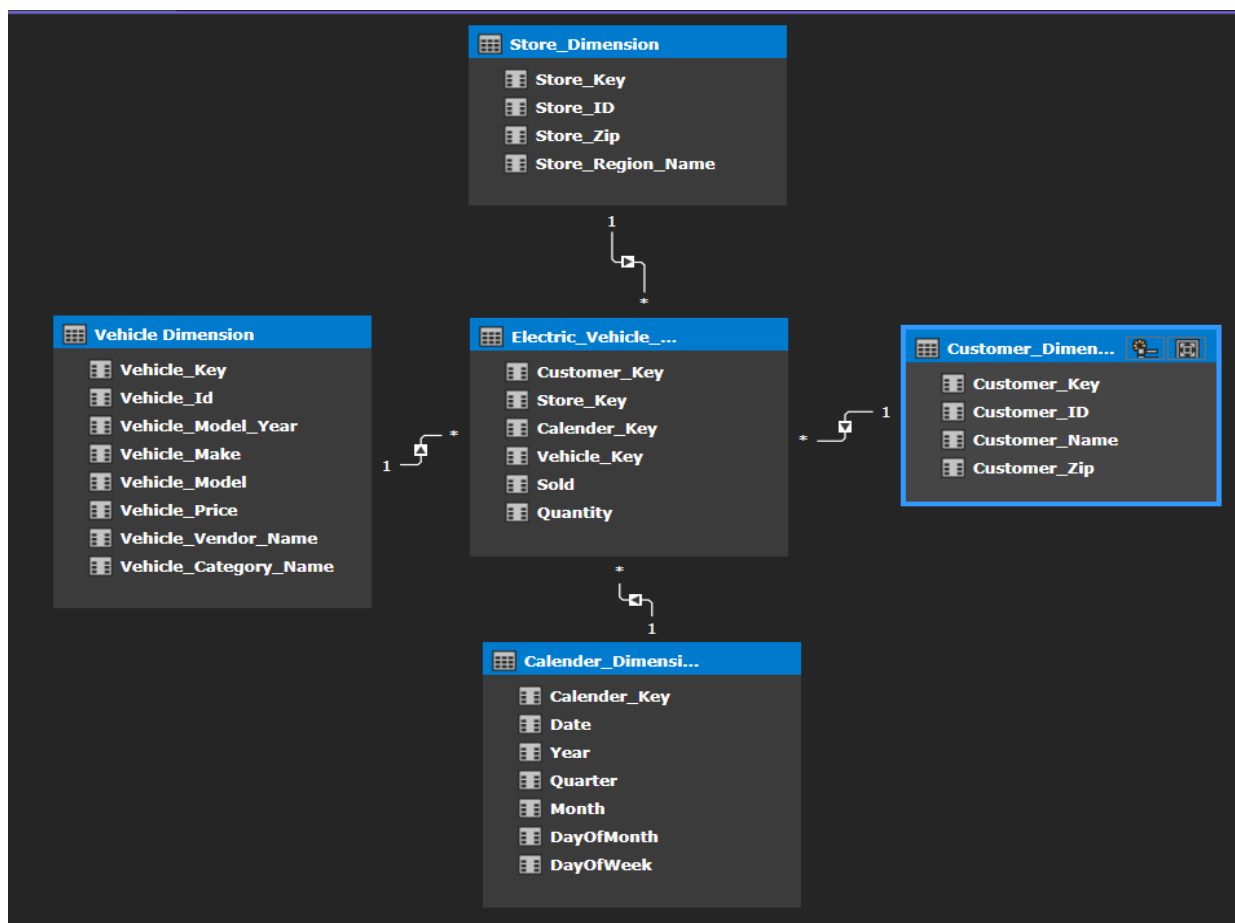
Now this is the MSBI architecture to deal with on embedded data, as we have at the beginning a set of file sources to be extract out of to a temporary staging database by using an ETL tool (SSIS) to extract the data from the source to the staging database and from that to the Data Warehouse after it's been created by using another ETL process to the Analysis Service (SSAS) to manage the process of data modelling for creating new table, columns, measures and KPI's, also to establish relationship between the tables, at the end create a report or a dashboard using Power BI service.

Staging Database Diagram and ETL package:



An SSIS ETL package been created to extract the data from the CSV files to the staging database, the main component is SQL task to truncate the data when needed and Data flow task to transform the data from source to Destination.

Data Warehouse Diagram, ETL Package and Tabular model:



As we can see four dimensions been set as part of the star schema model it's been created at SQL server then transform the data from the staging to the data warehouse and finally connect it to the Analysis Service (SSAS) to create a Tabular model and set of measures by using DAX, to finally deploy the Tabular model to the server, after that would of connect the analysis service to the Tabular model to create a report about the sales of electric vehicles.