Data Visualization and Reporting

Problem Set 2

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Dataset :

I have created dummy dataset. These all values are imaginary.

![Graphical user interface, application, table, Excel

Description automatically generated]()

Fact Table: I have created fact tables of truck data.

![Graphical user interface, application

Description automatically generated]()

Grain :

![Graphical user interface, application

Description automatically generated]()

![Graphical user interface, application, chat or text message

Description automatically generated]()

![Graphical user interface, text, application

Description automatically generated]()

Slowly Changing Dimension:

A Slowly Changing Dimension (SCD) is a dimension that stores and manages both current and historical data over time

Slowly Changing Dimension Type 1:

In a Type 1 SCD the new data overwrites the existing data. Thus the existing data is lost as it is not stored anywhere else. This is the default type of dimension you create. You do not need to specify any additional information to create a Type 1 SCD.

![Graphical user interface, application, chat or text message

Description automatically generated]()

Slowly Changing Dimension type 2:

A Type 2 SCD retains the full history of values. When the value of a chosen attribute changes, the current record is closed. A new record is created with the changed data values and this new record becomes the current record. Each record contains the effective time and expiration time to identify the time period between which the record was active.

![Graphical user interface, application

Description automatically generated]()

Star Schema:

![Graphical user interface, diagram

Description automatically generated]()

Based on the fact tables and dimension tables, I have connected tables through one to many relationships.

I have created star schema.

Power BI Visual :

I have created 2 visual.

![Chart, bar chart, histogram

Description automatically generated]()

I have selected these visuals depending upon the relationships I found with data table and created star schema.

![Chart, bar chart, histogram

Description automatically generated]()

As our scenario tells us that we have to create trucks data, This visual indicates that how many numbers of products are shipped from each of the supplier.