# Cover page

**Data Warehousing and Business Intelligence**

**IT3021**

**Assignment 2**

**Delivery Center: Food & Goods orders in Brazil**

**2022**

**IT20220860**

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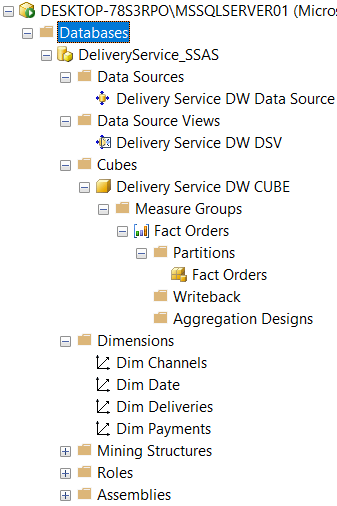
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# Step 1: Data source for the assignment 2

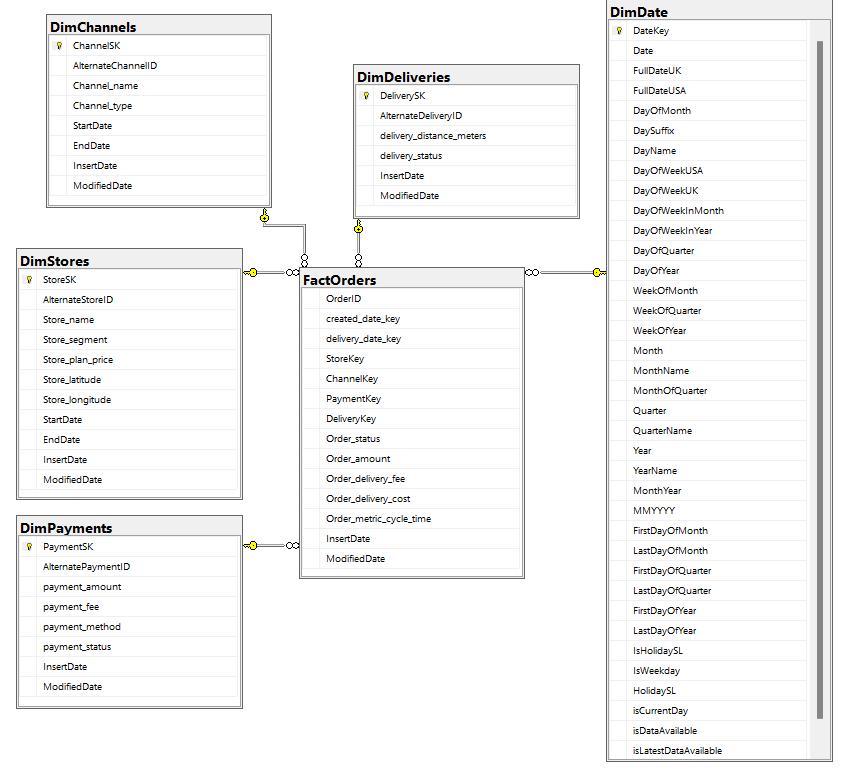
I have used the same data warehouse I implemented and loaded with data in assignment 1 as the data source for the assignment 2

<https://www.kaggle.com/datasets/nosbielcs/brazilian-delivery-center>

The Delivery Center is a platform that integrates retailers and marketplaces, creating a healthy ecosystem for sales of goods and food in Brazilian retail. I currently have a register with more than 14000 records. Thousands of orders and deliveries are processed daily with a network of thousands of merchants and delivery partners spread across all country regions.



## ER Diagram from SSMS



# Step 2: SSAS Cube implementation

## Data Source View Diagram

The data source view created using the data source imported from the DeliveryService\_DW data warehouse.

A picture containing timeline

Description automatically generated

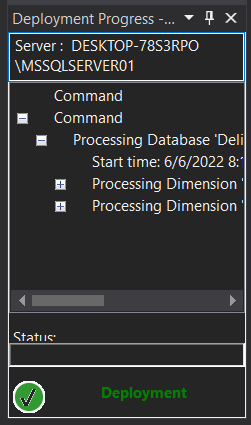
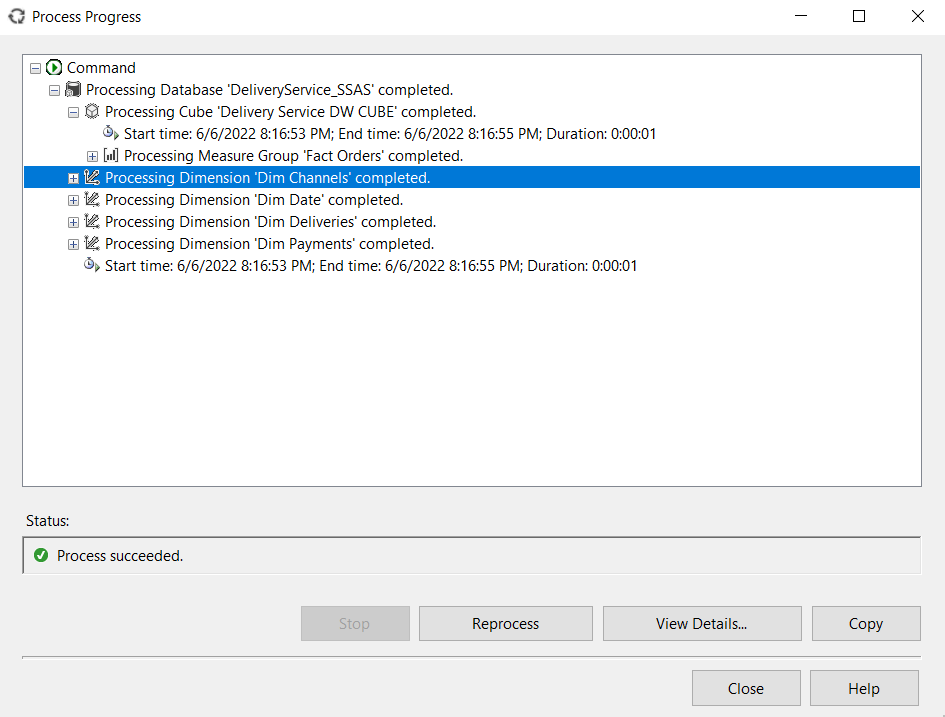
## Data CUBE Diagram

Data CUBE is created using the Data Source View implemented previously.

A picture containing graphical user interface

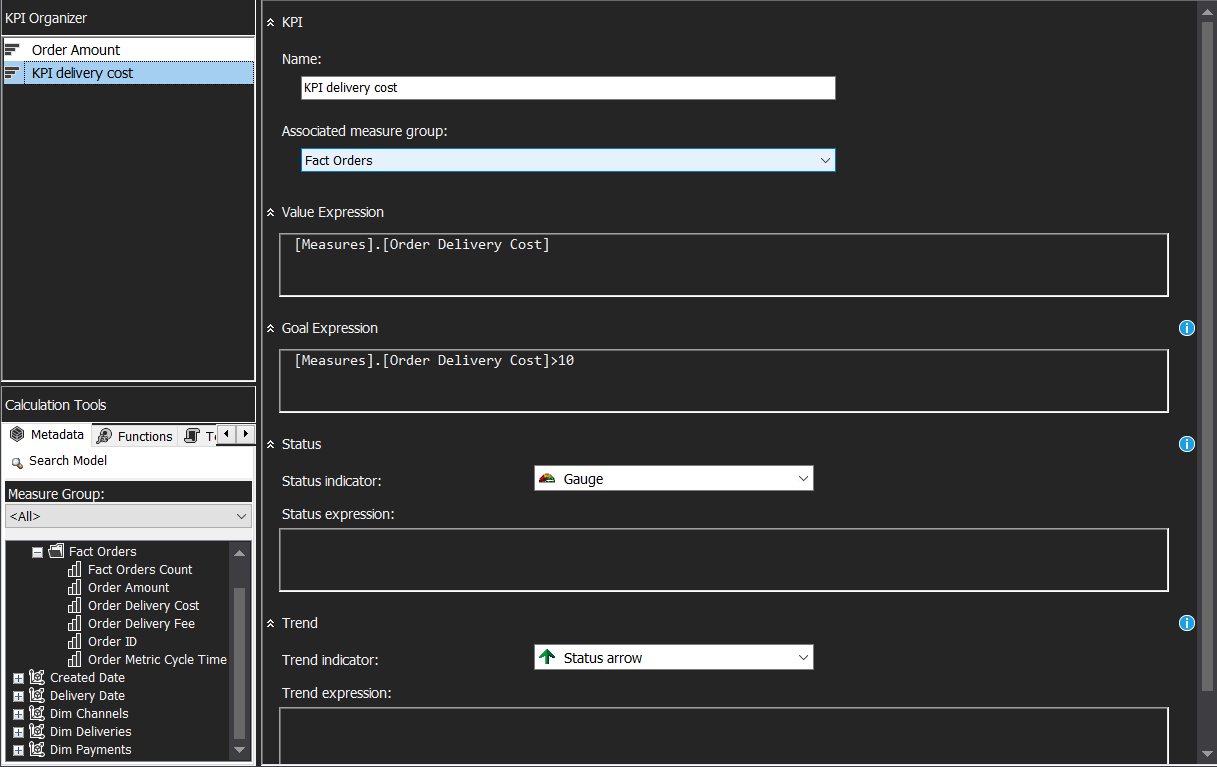
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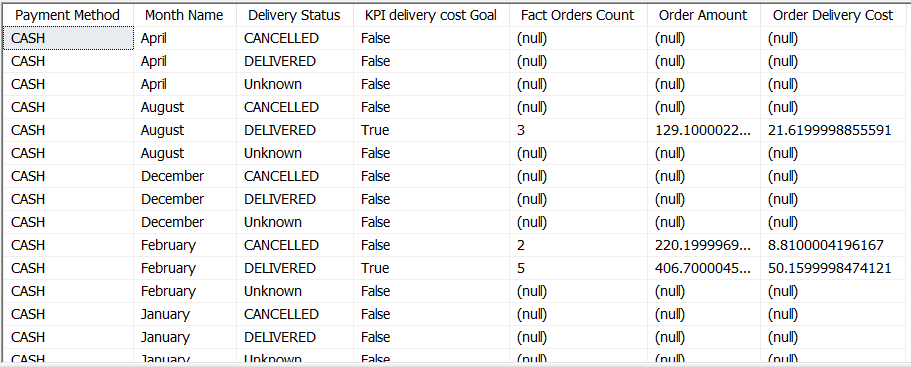
Deployment and processing the CUBE



Creating the KPI for the analysis process.

Using this KPI we can filter records with a order delivery cost higher than 10.0000 to further stages of analysis.

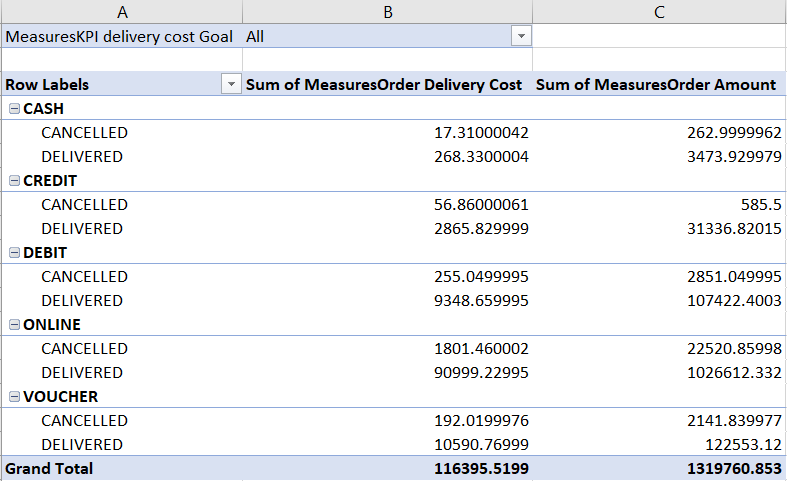




# Step 3: Demonstration of OLAP operations

## Roll-Up

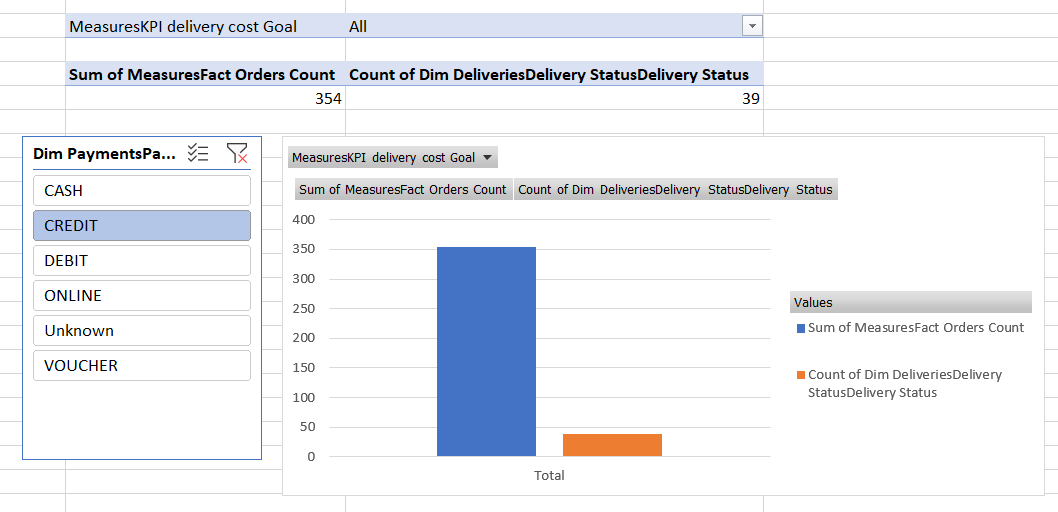
We can obtain the sum of order amounts and the sum of delivery costs of a corresponding payment methods used by customers according to the delivery status of the deliveries.



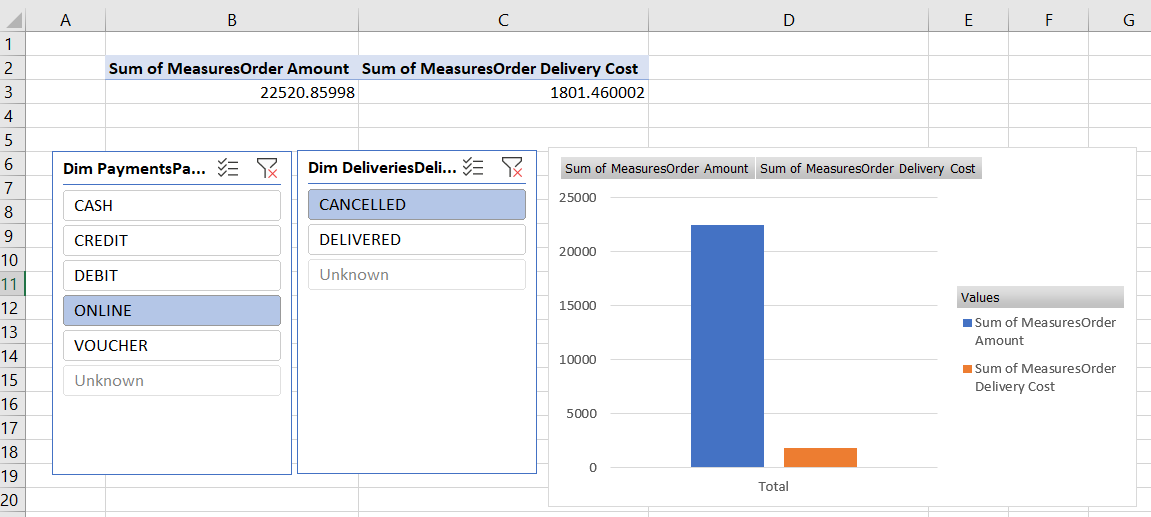
## Drill-Down

## Slice

This gives us the counts of orders and deliveries according to the delivery statuses of corresponding deliveries.



## Dice



# Step 4: SSRS Reports

# References

<https://docs.microsoft.com/en-us/sql/sql-server/end-of-support/sql-server-end-of-support-overview?view=sql-server-ver16>

<https://www.w3schools.com/sql/>

<https://stackoverflow.com/>

<https://www.sqlservercentral.com/forums/topic/cube-process-failure-is-there-a-way-to-process-dimensions-before-the-cubes-automatically>

Thank You