Power BI

Steps in Power BI

01. **Power BI Cloud Interface**

02. **Connect To Database/ Data**

03. **Data Transformation**

04. **Cardinality**

05. **Build Visuals**

06. **DAX**

07. **Publish the Dashboard**

WHAT IS A DATA WAREHOUSE

Data Warehouse

A data warehouse is a centralized, integrated repository that stores large volumes of structured, and historical data from various sources to support business intelligence, reporting, and analytics

Server Details Snowflake

Server Name: - FKXOXCO-BE08941.snowflakecomputing.com

Data Warehouse: - COMPUTE_WH

IMPORT VS DIRECT QUERY

Import vs Direct Query

Import Creates a Copy of the Datasets inside Power BI While Direct Query is Connected Directly to the Database.

Note: - Import Dataset has limitation upto 1GB space

IMPLICIT FUNCTIONS VS EXPLICIT FUNCTIONS

What is an implicit and explicit function in Power BI ?

In Power BI, "implicit" functions refer to measures automatically created by Power BI from numeric fields, while "explicit" functions are custom measures you define using DAX (Data Analysis Expressions) formulas for more complex, reusable, and flexible calculations.

CALCULATED COLUMNS VS MEASURES

What is Calculated Columns?

A calculated column is a new column that you create in a table using DAX (Data Analysis Expressions). The value for each row is calculated when the column is created, and it remains static unless the data is refreshed.

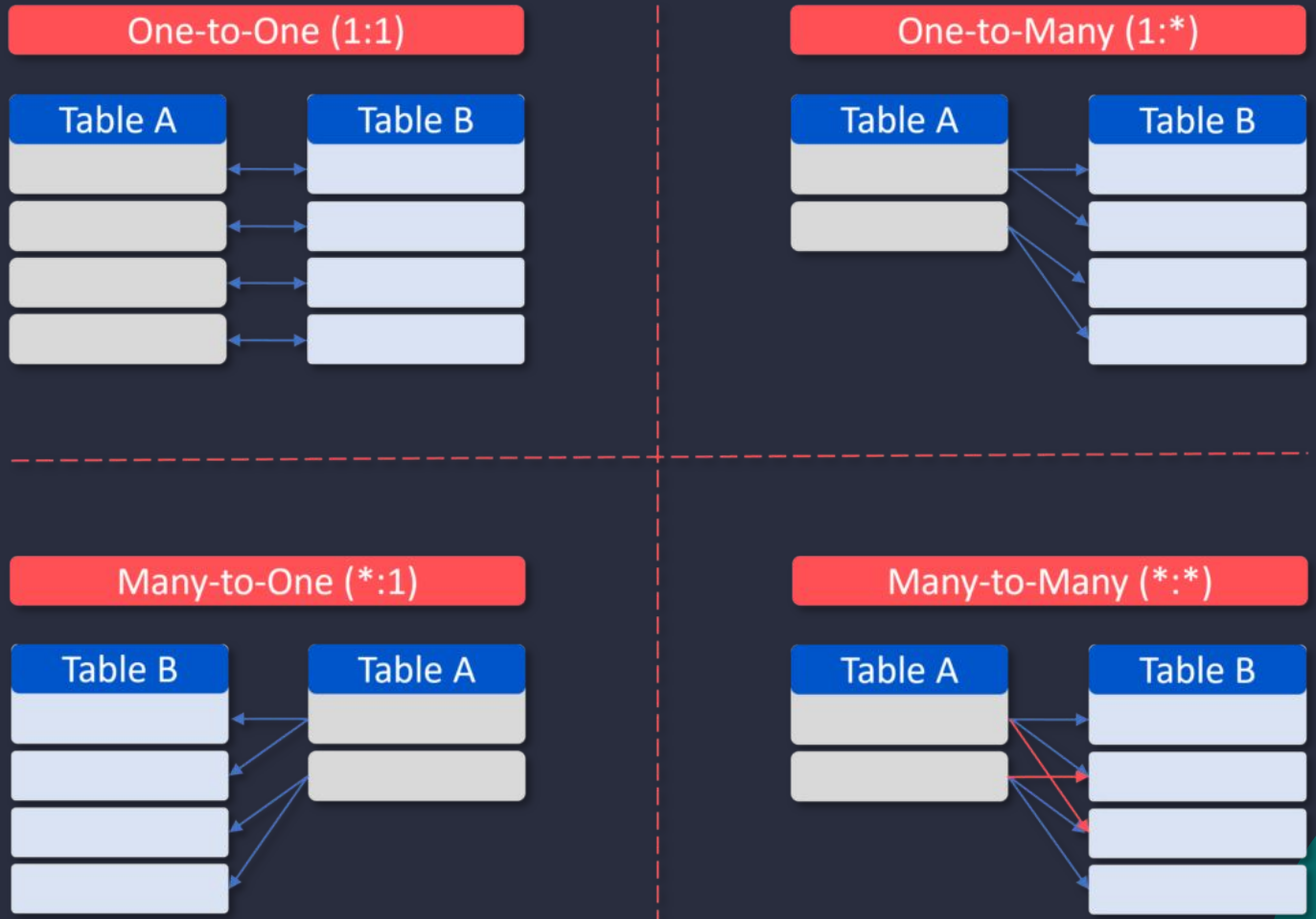
What is Calculated Measure ?

A calculated measure in Power BI is a custom, dynamic calculation created using Data Analysis Expressions (DAX) that computes summarized data in real-time, rather than storing a result row-by-row like a calculated column.

Key Differences:

Feature	Calculated Column	Measure
Calculation Timing	Calculated when the data is loaded or refreshed	Calculated dynamically during reporting
Storage	Stored in the data model	Not stored; calculated on the fly
Context	Row context (calculation per row)	Filter/context-dependent (changes dynamically)
Use	Adding new fields for each row	Aggregating or summarizing data
Performance Impact	Can increase model size and memory usage	Impacts report performance, not model size

CARDINALITY


One-to-One (1:1)
Table A
Table B
One-to-Many (1:*)
Table A
Table B
Many-to-One (*:1)
Table B
Table A
Many-to-Many (*:*)
Table A
Table B

FACT VS Dimension Tables

FACT Table

Fact tables contain the data that we want to analyze. The data is usually transactional in nature. A fact table also needs to include the keys to the related dimensions.

Dimension Table

Dimension tables provide the information to help us describe, categorize, group, or filter the data in the fact tables. You would normally have a different dimension table for each way that you want to analyze or report on your fact data.

Any questions?

Thank you