Power BI

POWER PIVOT

DATA MODELING IN POWER BI

The Current State & Next Steps

- Source File Connection
- Row & Column Operations
- Filtering Data
- Appending Queries
- Pivoting & Unpivoting
- Formatting data
- Handling errors
- Splitting & Extracting Data

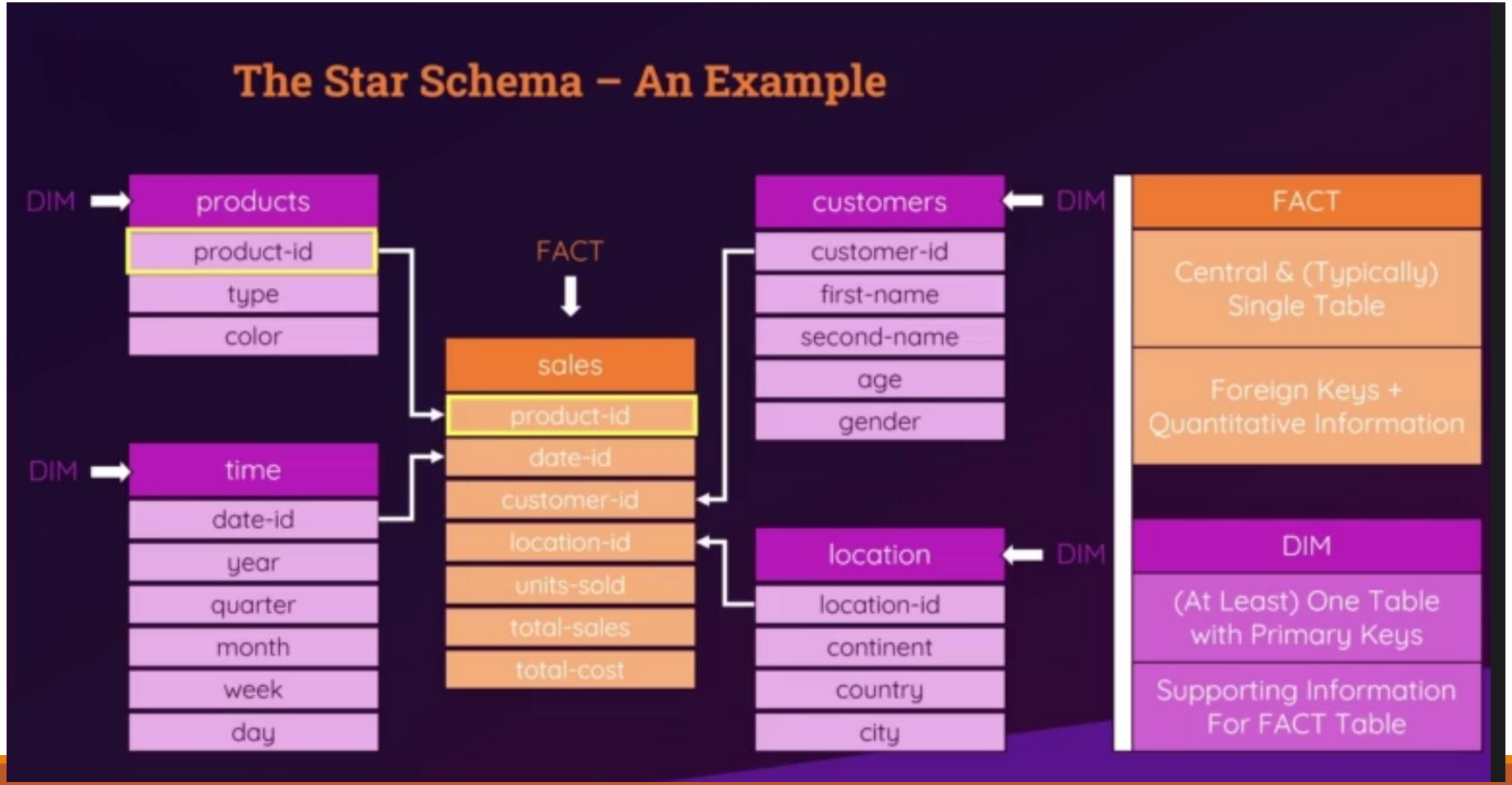
Country-id	country	...	population
36	australia	...	711.4
276	germany	...	1738.8
...	...	...	...

Basic Cleaning & Shaping

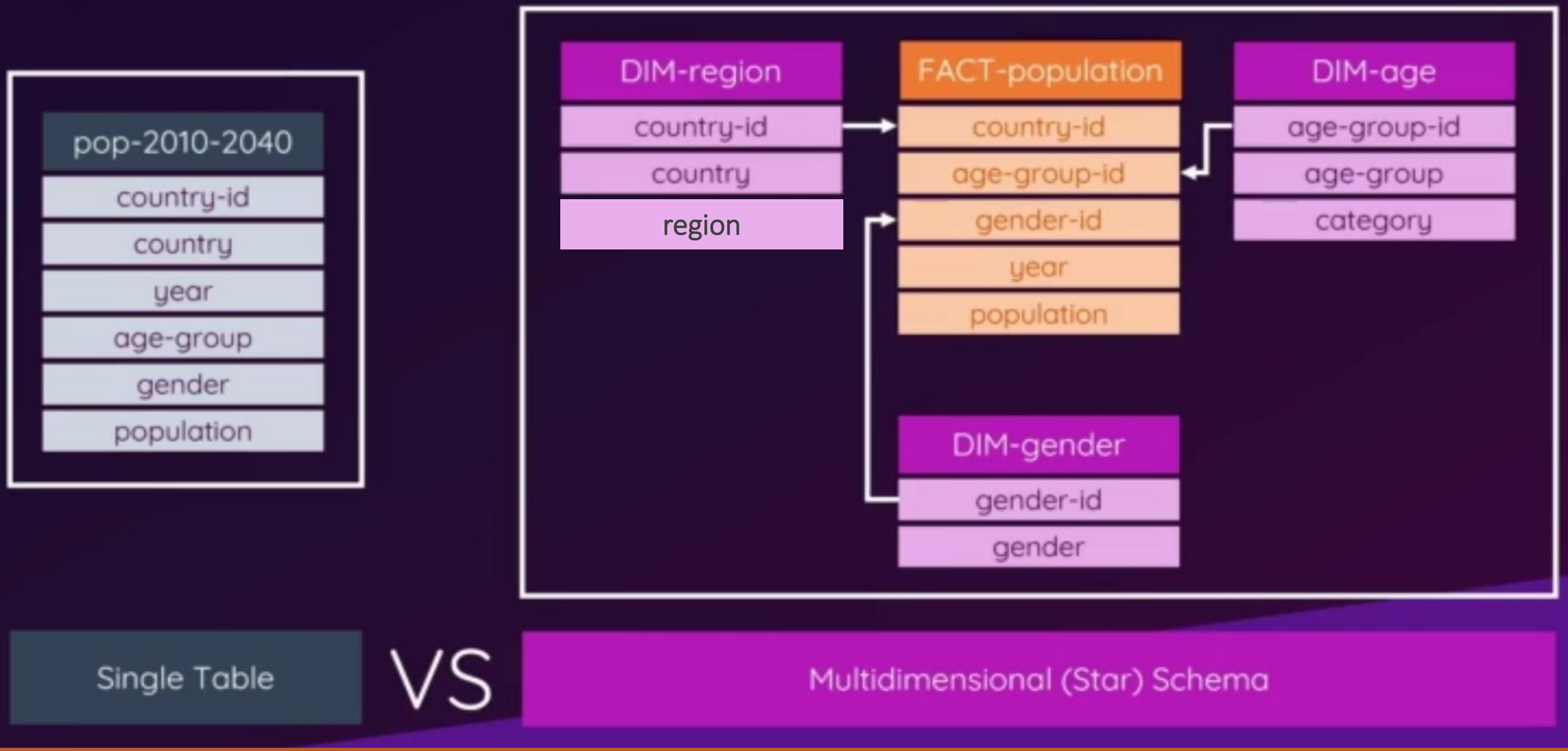
Develop &
Create Data Model

Data Models – What & Why?

Data Warehouse	Data Model	Multidimensional Schema
Large store of data retrieved from various sources designed to enable BI activities	Structured & logical organization of data elements (e.g. tables) and the relationship between different data elements	Model different dimensions to keep track of entities / actions concerning the warehouse's actitivies


The Star Schema – An Example
DIM
products
product-id
type
color
DIM
time
date-id
year
quarter
month
week
day
FACT
sales
product-id
date-id
customer-id
location-id
units-sold
total-sales
total-cost
DIM
customers
customer-id
first-name
second-name
age
gender
DIM
location
location-id
continent
country
city
FACT
Central & (Typically) Single Table
Foreign Keys + Quantitative Information
DIM
(At Least) One Table with Primary Keys
Supporting Information For FACT Table

Applying the Star Schema to the Course Project



Reference vs Duplicate

Query 1

Reference

Query 2

Applied Steps

Filtered Data
Changed Data Type

Applied Steps

Query refers to "final state" of initial query, no applied steps displayed

Changes in Query 1 have an effect on Query 2

Query 1

Duplicate

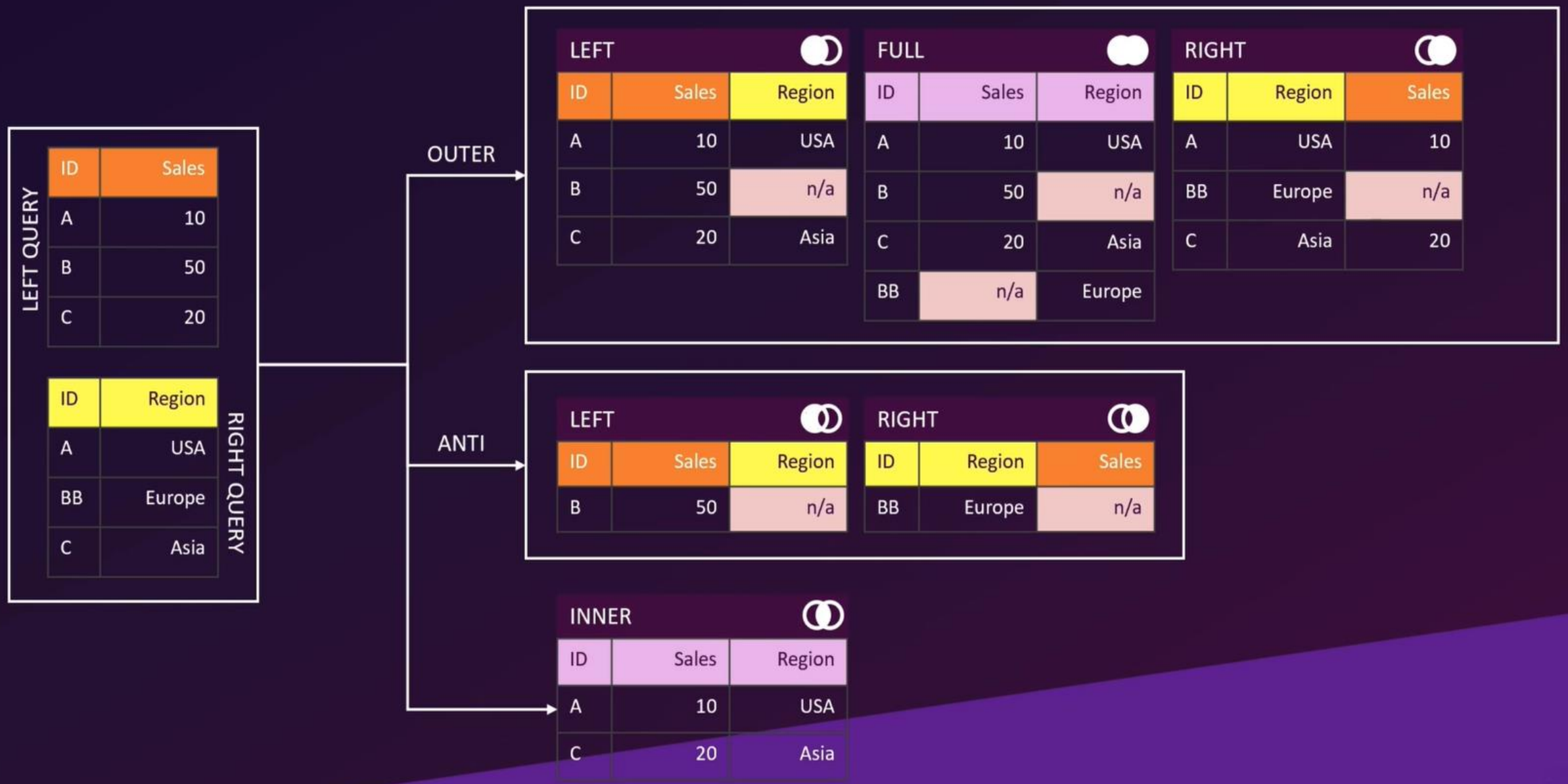
"Copy" of Query 1

Applied Steps

Filtered Data
Changed Data Type

Applied Steps

Filtered Data
Changed Data Type

Changes in Query 1 have no effect on Query 2

Understanding "Join Kind"