

# MICROSOFT POWER BI

DATA  
MODELLING: 2



Power BI

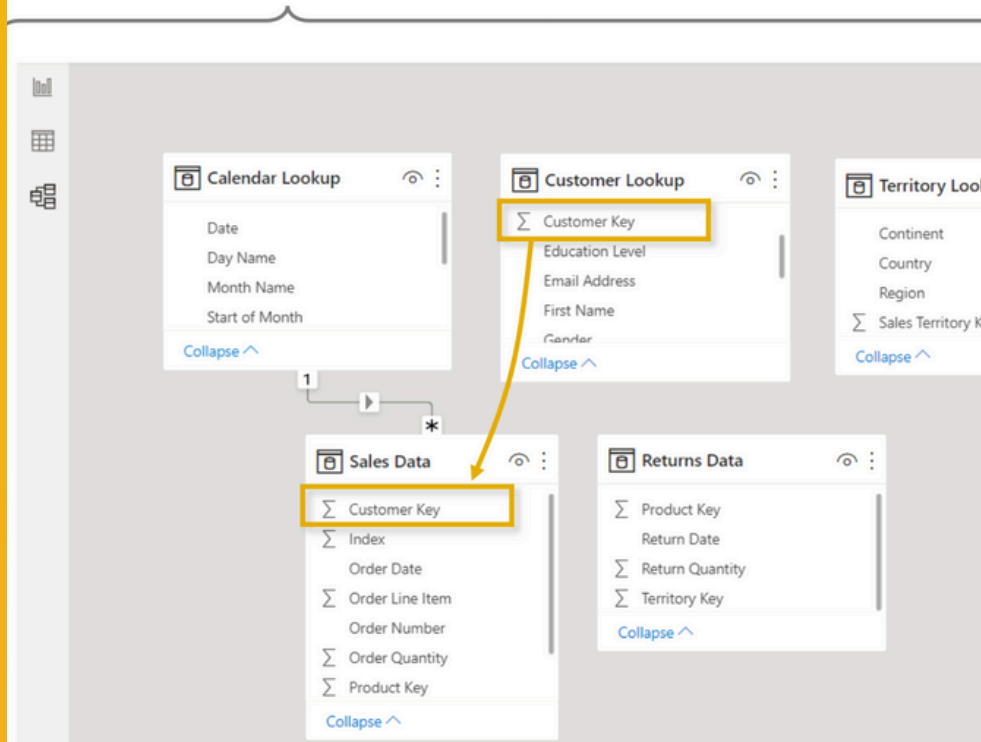
**BY** HITESH GUPTA



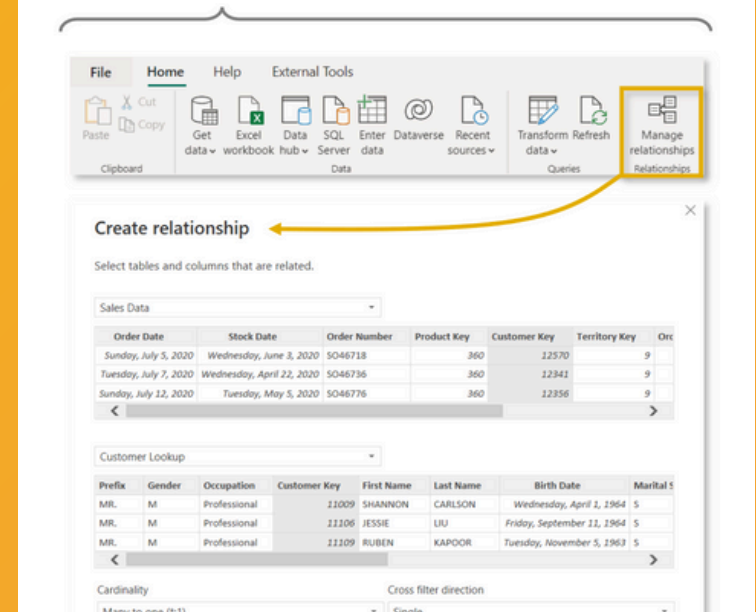
[www.vistacompany.ir](http://www.vistacompany.ir)

# CREATING TABLE RELATIONSHIPS

**OPTION 1:** Click and drag to connect primary and foreign keys within the **Model** view



**OPTION 2:** Add or detect relationships using the **Manage Relationships** dialog box

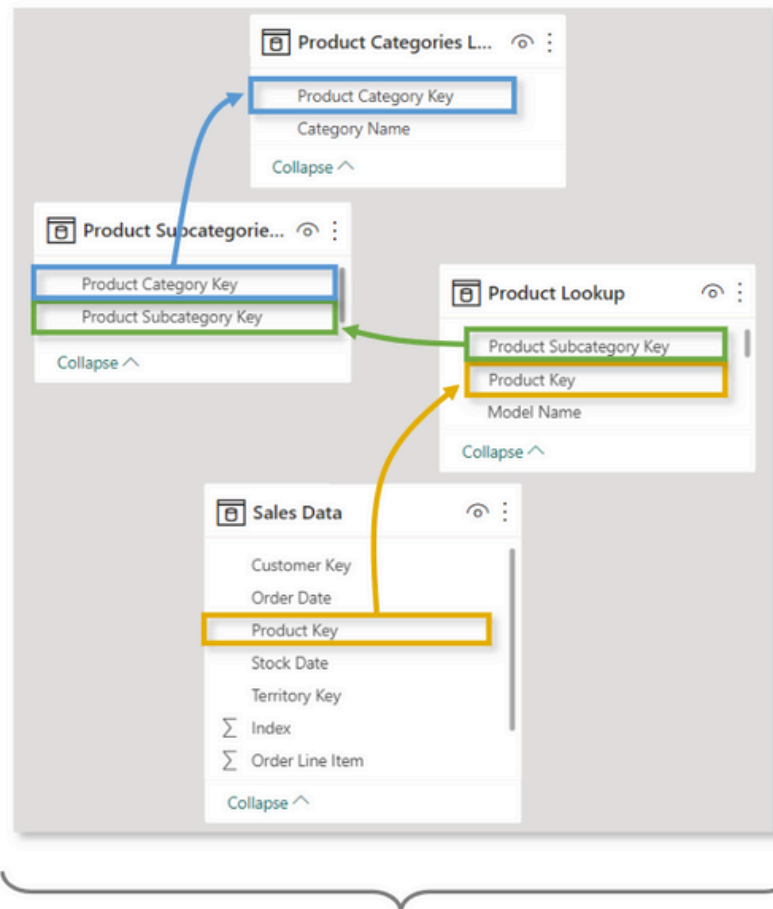


# STAR SCHEMA



A **star schema** is the simplest and most common type of data model, characterized by a single fact table surrounded by related dimension tables

# SNOWFLAKE SCHEMA



A **snowflake schema** is an extension of a star, and includes relationships between dimension tables and related sub-dimension tables

# RELATIONSHIP CARDINALITY

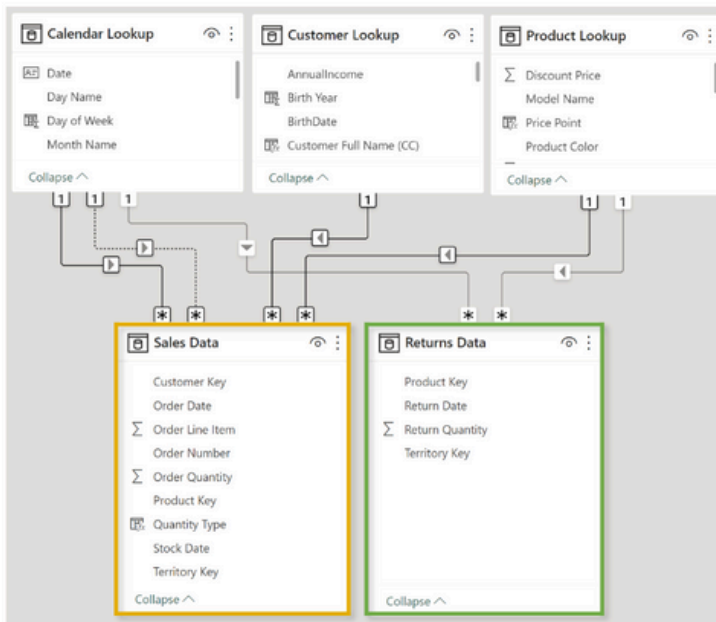
**Cardinality** refers to the uniqueness of values in a column

- Ideally, all relationships in the data model should follow a **one-to-many** cardinality: **one** instance of each primary key, and **many** instances of each foreign key

## PRO TIP: ACTIVE & INACTIVE RELATIONSHIPS

You can set relationships to active or inactive from either the **Edit Relationships** dialog box or the **Properties** (you must deactivate one before activating another).

# CONNECTING MULTIPLE FACT TABLES



This model contains two fact tables: **Sales Data** and **Returns Data**

- Since there is no primary/foreign key relationship, we can't connect them directly to each other
- But we *can* connect each fact table to related lookups, which allows us to filter both sales and returns data **using fields from any shared lookup tables**
- We can view orders and returns by product since both tables relate to Product Lookup, but we can't view returns by customer since no relationship exists

💡 Generally speaking, fact tables should **connect through shared dimension tables, not directly to each other.**

# HIDING FIELDS

**Hide in Report View** makes fields inaccessible from the Report tab, but still available in **Data** and **Model** views:

- This can be controlled by right-clicking a field in the Data or Model view, or by selecting **“Is hidden”** in the Properties pane.
- This is commonly used to prevent users from filtering using invalid fields, reduce clutter, or to hide irrelevant metrics from view.

# HIERARCHIES

**Hierarchies** are groups of columns that reflect multiple levels of granularity

- For example, a **Geography hierarchy** might include **Country**, **State** and **City** fields.
- Hierarchies are treated as a **single item** in tables and reports, allowing users to “drill up” and “drill down” through each level.



# DATA MODEL BEST PRACTICES

## **Focus on building a normalized model from the start**

- Leverage relationships and make sure that each table serves a clear, distinct purpose

## **Organize dimension tables above data tables in your model**

- This serves as a visual reminder that filters always flow “downstream”

## **Hide fields from report view to prevent invalid filter context**

- This forces report users to filter using primary keys from dimension tables.

## **Avoid complex relationships unless absolutely necessary**

- Aim to use 1-to-many table relationships and one-way filters whenever possible