

1)What is Relationship cardinality? Explain in details?

* The relationship cardinality means having unique or multiple instances per value for the joining field between two tables.

* Cardinality defined by the relationship and it refers to the relationship between two tables.

Types Of Cardinality data bases:

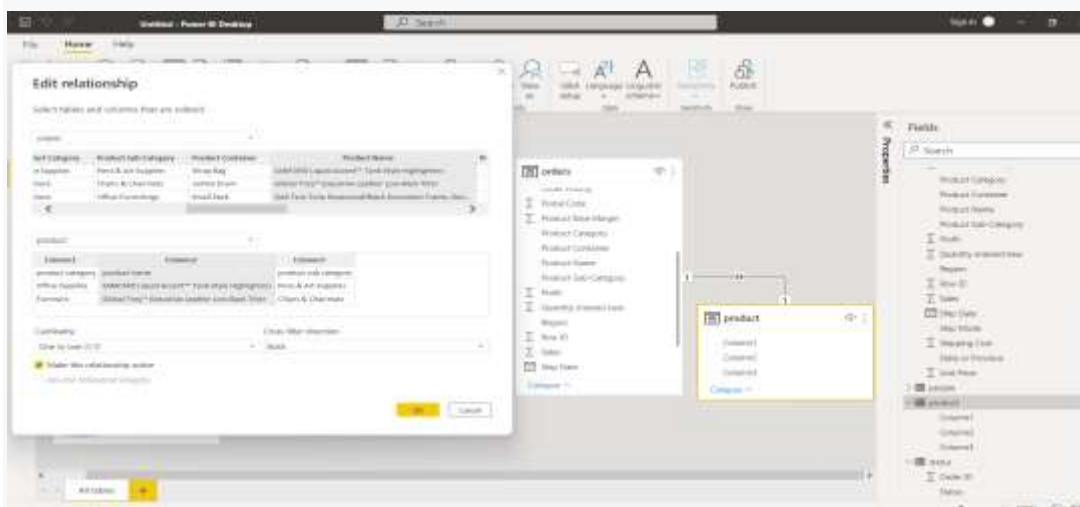
There are three types of cardinality that may apply to a database. These three types are one-to-one relationships, one-to-many relationships and many-to-many relationships.

❖ one-to-one relationships:


* An uncommon type of relationship cardinality


* Both sides of the columns need to have unique values

*The most accurate name would be “zero- or-one”-to-“zero-or-one” relationship

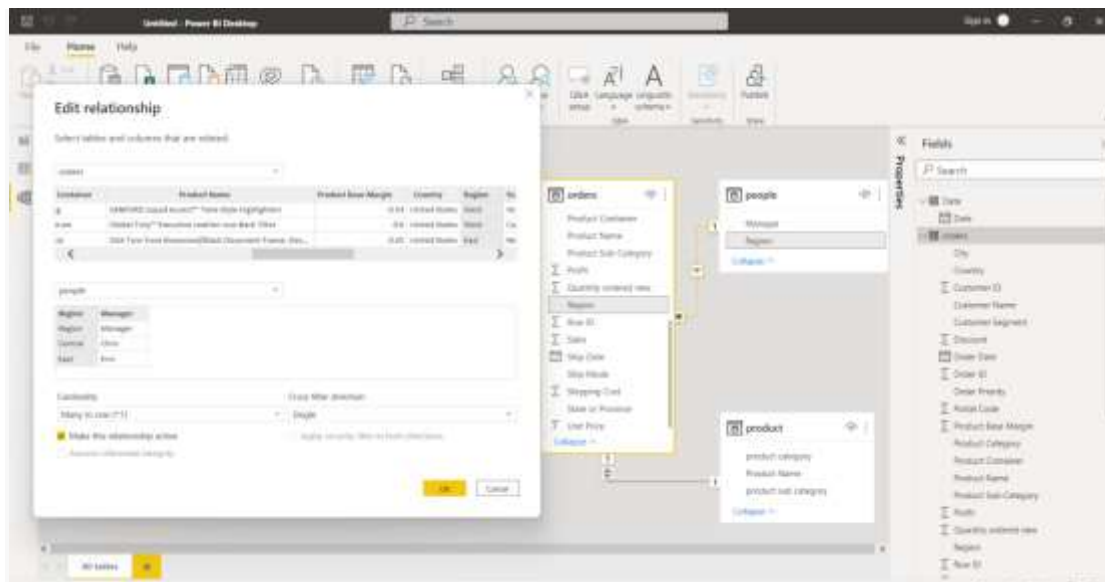


❖ One-to-many relationships:

*One side column unique values 

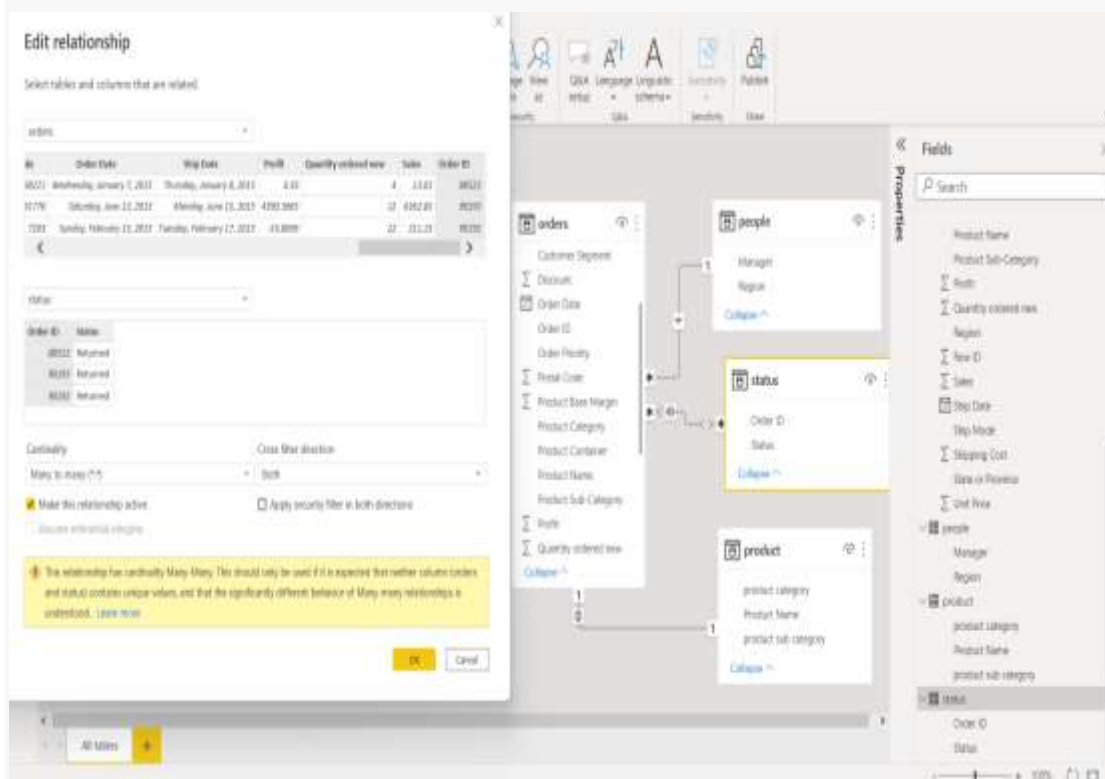
*Other side values duplicates 

*One-to-many & many-one relations are the same type of relationship



***Many-to-many relationships:**

* On both sides of the relationship the columns can have duplicates



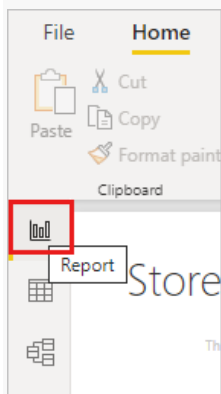
2)What is filter flow? Explain with an example of filter flow?

Filter flow:

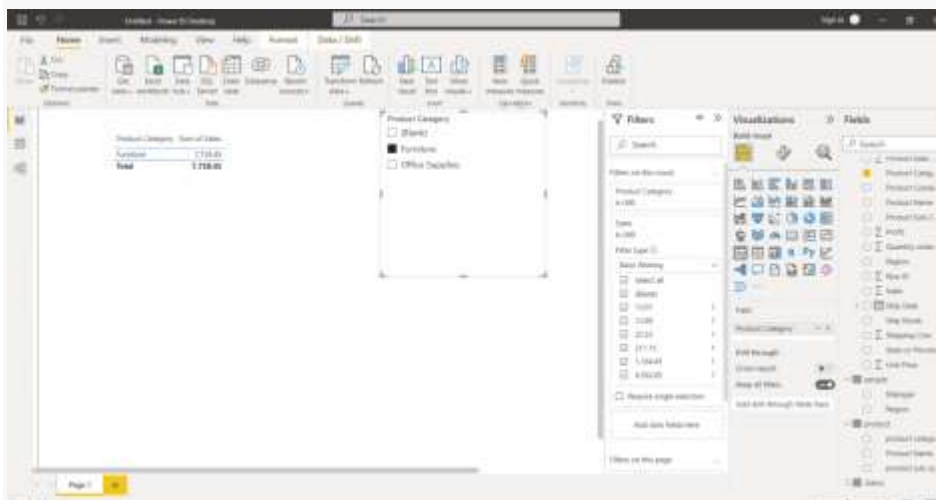
- * Data filter will be flown from lookup table to Data table
- * The filter context will be passed to all related data tables
- * Filter cannot be applied against the direction.

Example

- * Open the power bi desktop and load the data.
- *Then go to power bi desktop views & click on report view.
- * The following figure shows the report view icon.



- * Drag the data on to the data pane .
- * After that filter the data using filter which is in “visualizations”.
- * **The final output as shown in the below figure.**



3) Explain Many to Many Relationships with an example?

Many-to-many relationships are the most commonly used table relationships. They provide crucial information, such as which customers your salespeople have contacted and which products are in customer orders.

You create many-to-many relationships differently than you do one-to-one or one-to-many. For those relationships, you simply connect the appropriate fields with a line. To create many-to-many relationships, you need to create a new table to connect the other two. This new table is called an *intermediate* table (or sometimes a *linking* or *junction* table).

The screenshot displays the Microsoft Access interface. On the left, the 'Edit relationship' dialog box is open, showing the relationship between the 'orders' and 'product' tables. The 'orders' table is selected, and its fields (Order ID, Order Date, Ship Date, Product, Quantity ordered, Sales, Order ID) are listed. The 'product' table is also selected, and its fields (product category, Product Name, product sub-category) are listed. The 'status' table is highlighted as the intermediate table. The relationship is set to 'Many to many (*:*)' with 'Both' directions. A warning message states: 'This relationship has cardinality Many:Many. This should only be used if it is expected that neither column orders and status contains unique values, and that the significantly different behavior of Many:many relationships is understood. Learn more'. The 'status' table is shown in the center, with its fields (Order ID, Status) listed. The 'product' table is shown on the right, with its fields (product category, Product Name, product sub-category) listed. The 'orders' table is shown on the left, with its fields (Order ID, Order Date, Ship Date, Product, Quantity ordered, Sales, Order ID) listed. The 'status' table is highlighted as the intermediate table.

orders

Order ID	Order Date	Ship Date	Product	Quantity ordered	Sales	Order ID
10001	Wednesday, January 7, 2015	Thursday, January 8, 2015	4.00	4	11.01	10001
10176	Saturday, June 12, 2015	Monday, June 15, 2015	4293.3963	12	6362.81	10176
10001	Sunday, February 22, 2015	Tuesday, February 24, 2015	11.8899	22	11.21	10001

status

Order ID	Status
10001	Returned
10176	Returned
10001	Returned

product

product category	Product Name	product sub-category
product category	Product Name	product sub-category

