

1. What is a primary key in a table?

A primary key in Power BI refers to a column or a combination of columns in a table that uniquely identifies each row.

2. Name the two types of table relationships in Power BI.

One-to-Many (1: or 1-to- $\infty$ ) Relationship\*. Many-to-Many (:) Relationship

3. How do you create a relationship between two tables in Power BI?

In Power BI's model view, locate the tables you wish to create a relationship between, and then drag the column from the first table onto the column of the second table.

4. What is a "star schema"?

It is a type of modelling where at the center will be a fact table and all dimension tables will be connected to it.

5. Which table is typically the fact table in a sales dataset?

Mainly, Sales table stays at the center of a sales dataset, which contains mainly quantitative data.

6. Link Sales.csv to Customers.csv using CustomerID (one-to-many).

Connected.

7. Why is ProductID in Sales.csv a foreign key?

Because the full list of products is in Products table.

8. Fix a relationship error where ProductID has mismatched data types.

Fixed.

9. Explain why a star schema improves performance.

In a star schema, since every relationship is connected through a central fact table, the data is organized in a denormalized structure.

10. Add a new column TotalSales in Sales (Quantity \* Price from Products).

Added.

11. Optimize a model with circular relationships—how would you resolve it?

Delete one of the relationships forming the loop. Replace it with a calculated column or DAX measure to simulate the needed behavior. If circular issues stem from bi-directional filters, change them to single-directional where possible.

12. Create a role-playing dimension for OrderDate and ShipDate.

Created.

13. Handle a many-to-many relationship between Customers and Products.

Handled.

14. Use bidirectional filtering sparingly—when is it appropriate?

You've tested that it doesn't create ambiguity or poor performance.

15. Write DAX to enforce referential integrity if a CustomerID is deleted.