

Multiple-Choice Questions on "Add and Model Data in Power BI"

1. What is the first step in importing data into Power BI?

- A. Visualizing data
- B. Modeling relationships
- C. Connecting to a data source
- D. Creating a report

Answer: C. Connecting to a data source

Explanation: The process begins by connecting to a data source to import data into Power BI. This step is essential before performing transformations or visualizations.

2. Which of the following data sources can Power BI connect to?

- A. Excel files
- B. SQL databases
- C. Web APIs
- D. All of the above

Answer: D. All of the above

Explanation: Power BI supports a wide range of data sources, including Excel, databases, and APIs, making it versatile for various data integration needs.

3. What is the primary purpose of the Power Query Editor in Power BI?

- A. Create visualizations
- B. Clean and transform data
- C. Model relationships
- D. Build reports

Answer: B. Clean and transform data

Explanation: The Power Query Editor is used to clean, transform, and prepare data before loading it into Power BI.

4. What does the "Close & Apply" button do in Power Query Editor?

- A. Closes Power BI
- B. Applies changes and loads data
- C. Discards changes
- D. Opens a new dataset

Answer: B. Applies changes and loads data

Explanation: "Close & Apply" applies all transformations made in Power Query and loads the data into the Power BI model.

5. What is a Data Model in Power BI?

- A. A collection of data visualizations
- B. A schema of tables and their relationships
- C. A repository for unstructured data
- D. A feature for creating dashboards

Answer: B. A schema of tables and their relationships

Explanation: A data model defines the structure of data tables and how they relate to each other within Power BI.

6. What is a "relationship" in Power BI?

- A. A connection between two visuals
- B. A link between two tables
- C. A hierarchy of fields
- D. A connection to a data source

Answer: B. A link between two tables

Explanation: Relationships in Power BI connect tables, enabling data to be used together in visualizations and calculations.

7. Which type of relationship cardinality is used when one table has unique values and the other has duplicate values?

- A. Many-to-Many
- B. One-to-One
- C. One-to-Many
- D. None

Answer: C. One-to-Many

Explanation: A One-to-Many relationship occurs when one table contains unique values, and the related table can have duplicates.

8. What visual indicator shows a relationship in Power BI's Model view?

- A. A dashed line
- B. A solid line with arrows

- C. A circular icon
- D. A star icon

Answer: B. A solid line with arrows

Explanation: Solid lines with arrows represent active relationships between tables in the Model view.

9. How can you create a relationship between tables in Power BI?

- A. Dragging and dropping fields in the Data view
- B. Using Power Query Editor
- C. Dragging and dropping tables in the Model view
- D. Writing a DAX formula

Answer: C. Dragging and dropping tables in the Model view

Explanation: Relationships can be created by dragging and dropping fields between tables in the Model view.

10. What type of join does Power BI use by default when combining data from multiple tables?

- A. Left Join
- B. Right Join
- C. Inner Join
- D. Full Outer Join

Answer: A. Left Join

Explanation: Power BI uses a Left Join by default when combining data, ensuring all rows from the first table and matching rows from the second are included.

11. What feature allows you to create calculated columns in Power BI?

- A. Power Query
- B. DAX (Data Analysis Expressions)
- C. Report Editor
- D. Power BI Service

Answer: B. DAX (Data Analysis Expressions)

Explanation: DAX is used to create calculated columns, measures, and custom logic in Power BI.

12. Which of the following is an example of a DAX function?

- A. SUM
- B. LEFT JOIN
- C. CONCATENATE
- D. All of the above

Answer: D. All of the above

Explanation: DAX provides functions like SUM for aggregation, CONCATENATE for string operations, and supports complex logic.

13. What is the purpose of the "Relationships" pane in Power BI?

- A. To transform data
- B. To manage relationships between tables
- C. To visualize data
- D. To connect to data sources

Answer: B. To manage relationships between tables

Explanation: The "Relationships" pane allows users to define and manage relationships between tables in the model.

14. What is the difference between a calculated column and a measure in Power BI?

- A. Measures are row-level calculations; calculated columns are aggregated.
- B. Measures are aggregated; calculated columns are row-level calculations.
- C. Measures and calculated columns are the same.
- D. Measures are stored in Power Query.

Answer: B. Measures are aggregated; calculated columns are row-level calculations.

Explanation: Calculated columns are computed for each row, while measures aggregate data for reporting purposes.

15. What is "data type" in Power BI?

- A. The visualization type of a chart
- B. The format of a dataset file
- C. The kind of data stored in a column
- D. The connection method

Answer: C. The kind of data stored in a column

Explanation: Data types define the kind of data (e.g., text, number, date) in a column, ensuring proper handling in analyses.

16. How can you change the data type of a column in Power BI?

- A. By renaming the column
- B. Using the "Data Type" dropdown in Power Query
- C. By adding a new table
- D. It cannot be changed

Answer: B. Using the "Data Type" dropdown in Power Query

Explanation: Data types can be modified in the Power Query Editor to ensure consistency and accuracy.

17. What is a Star Schema in Power BI?

- A. A network of relationships
- B. A database schema for dashboards
- C. A design where a central fact table is linked to dimension tables
- D. A visual chart type

Answer: C. A design where a central fact table is linked to dimension tables

Explanation: A Star Schema organizes data for efficient querying by linking a fact table to dimension tables.

18. Which of the following is a valid cardinality option in Power BI relationships?

- A. Many-to-Many
- B. Many-to-One
- C. One-to-One
- D. All of the above

Answer: D. All of the above

Explanation: Power BI supports various cardinality options depending on the nature of the data relationship.

19. What does "Bidirectional filtering" do in Power BI?

- A. Filters data only from the fact table
- B. Filters data only from the dimension table
- C. Allows filtering in both directions between tables
- D. Disables filtering

Answer: C. Allows filtering in both directions between tables

Explanation: Bidirectional filtering ensures data can flow in both directions, useful for certain analysis scenarios.

20. How can you handle missing data in Power Query?

- A. Replace values with NULL
- B. Remove rows
- C. Replace values with a default value
- D. All of the above

Answer: D. All of the above

Explanation: Power Query offers multiple methods for handling missing data, including replacing or removing rows.

Would you like me to continue with more?

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You said:

yes

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21. What is the purpose of the "Merge Queries" operation in Power Query?

- A. To filter rows from a table
- B. To join tables based on a common field
- C. To add a new column to a table
- D. To remove duplicates from a table

Answer: B. To join tables based on a common field

Explanation: "Merge Queries" allows users to combine data from two tables by defining a relationship using a shared field.

22. Which of the following visualizations is best for showing relationships in a data model?

- A. Scatter plot
- B. Data Model view
- C. Bar chart
- D. Line chart

Answer: B. Data Model view

Explanation: The Data Model view visually represents relationships between tables and allows users to manage them effectively.

23. What does the term "fact table" refer to in a data model?

- A. A table containing detailed data for transactions or events
- B. A table storing descriptive information about entities
- C. A table storing unrelated data
- D. A table exclusively for numerical data

Answer: A. A table containing detailed data for transactions or events

Explanation: Fact tables store transactional or event data, typically used in conjunction with dimension tables in a data model.

24. What is the purpose of a "dimension table"?

- A. To store aggregated data
- B. To provide descriptive attributes for a fact table
- C. To hold measures
- D. To serve as a standalone table

Answer: B. To provide descriptive attributes for a fact table

Explanation: Dimension tables store descriptive data (e.g., names, categories) that contextualize the numerical data in fact tables.

25. How can you improve performance in a Power BI data model?

- A. Avoid using too many visuals
- B. Use calculated columns instead of measures
- C. Reduce data by using filters or aggregations
- D. Disable relationships

Answer: C. Reduce data by using filters or aggregations

Explanation: Minimizing the size of data by filtering or aggregating helps improve Power BI performance.

26. Which of the following is a common type of table relationship issue in Power BI?

- A. Incorrect joins
- B. Circular references
- C. Missing keys
- D. All of the above

Answer: D. All of the above

Explanation: Issues like incorrect joins, circular references, or missing keys can disrupt relationships and cause errors in the model.

27. What is the significance of the "Auto Date/Time" feature in Power BI?

- A. Automatically formats date columns
- B. Creates a hidden date table for every date field
- C. Enables time zone adjustments
- D. Groups dates into fiscal periods

Answer: B. Creates a hidden date table for every date field

Explanation: The Auto Date/Time feature simplifies date analysis by automatically creating a hidden table for each date field.

28. What is the default filter direction for a One-to-Many relationship in Power BI?

- A. Single
- B. Both
- C. None
- D. Cross

Answer: A. Single

Explanation: The default filter direction is from the "One" side to the "Many" side, ensuring accurate filtering.

29. What feature allows you to group rows in Power Query?

- A. Append Queries
- B. Group By
- C. Filter Rows
- D. Merge Queries

Answer: B. Group By

Explanation: The "Group By" feature in Power Query aggregates data based on specified fields.

30. Which tool in Power BI is primarily used for writing complex queries?

- A. Power Query Editor
- B. DAX Studio
- C. Relationships view
- D. Report Editor

Answer: B. DAX Studio

Explanation: DAX Studio is a tool for writing and testing complex DAX queries outside Power BI.

31. What is a Many-to-Many relationship in Power BI?

- A. A relationship where both tables contain unique values
- B. A relationship where both tables have duplicate values
- C. A connection without primary keys
- D. A deprecated feature

Answer: B. A relationship where both tables have duplicate values

Explanation: Many-to-Many relationships occur when both tables can have duplicate values for the key field.

32. What is a calculated table in Power BI?

- A. A table imported from a data source
- B. A table created using a DAX formula
- C. A table without relationships
- D. A table with default columns

Answer: B. A table created using a DAX formula

Explanation: Calculated tables are created in Power BI using DAX expressions for custom analyses.

33. What is the purpose of "Hierarchies" in Power BI?

- A. To join tables
- B. To simplify navigation through related fields
- C. To filter data across tables
- D. To export data

Answer: B. To simplify navigation through related fields

Explanation: Hierarchies group fields into levels, such as Year > Month > Day, for easier drill-down analysis.

34. What type of field is essential to create a relationship between two tables?

- A. Numeric field
- B. Text field

- C. Common key field
- D. Date field

Answer: C. Common key field

Explanation: A common key field, such as an ID or name, is required to establish relationships between tables.

35. What is the use of "Data Categories" in Power BI?

- A. Formatting numbers
- B. Defining data types
- C. Assigning semantic meaning to data (e.g., Geo, URL)
- D. Managing relationships

Answer: C. Assigning semantic meaning to data (e.g., Geo, URL)

Explanation: Data Categories help Power BI understand how to treat fields, like geocoding locations or linking URLs.

36. How do you ensure data integrity in Power BI relationships?

- A. Avoid using primary keys
- B. Use consistent data types in related fields
- C. Only use Many-to-Many relationships
- D. Avoid bidirectional filters

Answer: B. Use consistent data types in related fields

Explanation: Ensuring consistent data types in related fields prevents relationship errors.

37. What is the purpose of the "Append Queries" operation in Power Query?

- A. To combine data from multiple tables into one
- B. To filter data
- C. To aggregate data
- D. To join tables

Answer: A. To combine data from multiple tables into one

Explanation: "Append Queries" stacks rows from different tables or queries into a single dataset.

38. How does Power BI handle case sensitivity in relationships?

- A. Relationships are case-sensitive
- B. Relationships are not case-sensitive
- C. Case sensitivity is optional
- D. Power BI prompts users

Answer: B. Relationships are not case-sensitive

Explanation: Power BI treats relationships as case-insensitive, so "ABC" and "abc" are considered equal.

39. What happens if there are no relationships between tables in Power BI?

- A. Power BI automatically creates them
- B. Data cannot be analyzed across tables
- C. DAX queries automatically link tables
- D. Relationships are optional

Answer: B. Data cannot be analyzed across tables

Explanation: Without relationships, Power BI cannot combine data from multiple tables in a meaningful way.

40. What is the purpose of "Calculated Measures" in Power BI?

- A. To perform row-level calculations
- B. To aggregate data dynamically based on filters
- C. To join data sources
- D. To group data

Answer: B. To aggregate data dynamically based on filters

Explanation: Measures calculate values dynamically, reflecting changes in filters and slicers.

Let me know if you'd like to expand further or refine any section!

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You said:

yes

ChatGPT said:

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41. What is a common issue when importing data into Power BI from Excel?

- A. Data not refreshing automatically
- B. Unsupported file format

- C. Missing relationships
- D. Incorrect column headers

Answer: A. Data not refreshing automatically

Explanation: Data imported from Excel often requires manual refreshing unless connected via a dynamic link or through Power BI Service.

42. How does Power BI treat blank values in relationships?

- A. As NULL
- B. As distinct values
- C. As errors
- D. As matching values

Answer: B. As distinct values

Explanation: Power BI considers blank values as distinct, so they do not automatically match with any other value in relationships.

43. What does the "Enable Load" option do in Power Query?

- A. Loads data to the model
- B. Disables all relationships
- C. Stops data from being loaded to the model
- D. Automatically creates measures

Answer: C. Stops data from being loaded to the model

Explanation: The "Enable Load" option controls whether a table or query is loaded into the Power BI data model.

44. What is the primary advantage of using DAX over Power Query for calculations?

- A. DAX is simpler to use
- B. DAX calculations are dynamic and respond to filters
- C. DAX offers better data cleaning options
- D. DAX works on raw data directly

Answer: B. DAX calculations are dynamic and respond to filters

Explanation: DAX measures are recalculated dynamically based on slicers, filters, and other report elements.

45. How does Power BI resolve Many-to-Many relationships?

- A. By ignoring them
- B. By creating a bridging table
- C. By converting them to One-to-Many relationships
- D. By duplicating data

Answer: B. By creating a bridging table

Explanation: Many-to-Many relationships in Power BI are handled through implicit bridging tables to avoid data conflicts.

46. What is the role of "Field Formatting" in Power BI?

- A. To create relationships
- B. To adjust visual appearance of data fields
- C. To perform calculations
- D. To transform data

Answer: B. To adjust visual appearance of data fields

Explanation: Field formatting customizes how data appears, such as number formats, decimal places, or date formats.

47. What is the maximum number of tables that can be related in a single Power BI model?

- A. 50
- B. 200
- C. Unlimited
- D. 1,000

Answer: C. Unlimited

Explanation: There is no predefined limit to the number of tables that can be related in Power BI, though performance may degrade with very large models.

48. How do you hide a column from a report in Power BI?

- A. Delete the column
- B. Use the "Manage Relationships" pane
- C. Right-click the column and select "Hide"
- D. Change the column data type

Answer: C. Right-click the column and select "Hide"

Explanation: Columns can be hidden from reports but still remain in the model for calculations or relationships.

49. What is the purpose of "Row Level Security" (RLS) in Power BI?

- A. To restrict access to specific rows of data
- B. To format rows in a table
- C. To aggregate data dynamically
- D. To optimize model performance

Answer: A. To restrict access to specific rows of data

Explanation: RLS enforces security rules to ensure users only see data they are authorized to view.

50. What does the "Quick Measures" feature in Power BI do?

- A. Automatically builds DAX formulas for common calculations
- B. Simplifies Power Query transformations
- C. Automatically relates tables
- D. Adjusts visualization settings

Answer: A. Automatically builds DAX formulas for common calculations

Explanation: Quick Measures help users create common DAX calculations like running totals or percentage of totals without writing complex code.