

Most Asked Interview Questions

ETL (Power Query in Power BI)

✓ 1. What is Power Query?

Answer: Power Query is a data connection and transformation tool in Power BI and Excel that helps perform ETL (Extract, Transform, Load) operations using a graphical interface or M code.

✓ 2. What are the three main stages of ETL in Power BI?

Answer:

- Extract: Importing data from various sources.
 - Transform: Cleaning and shaping the data using Power Query.
 - Load: Loading the transformed data into the Power BI data model.
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✓ 3. What data sources can Power Query connect to?

Answer: Power Query supports various sources like Excel, CSV, SQL Server, SharePoint, Web, JSON, XML, Azure services, and more than 100 others.

✓ 4. What is the difference between Merge and Append in Power Query?

Answer:

- Merge: Combines columns from two queries based on a matching key (like SQL JOIN).
 - Append: Stacks rows from two or more queries (like SQL UNION).
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✓ 5. How do you remove duplicates in Power Query?

Answer: Select the column(s), then click "Remove Duplicates" under the Home tab. This removes rows with identical values in those columns.

✓ 6. What is the purpose of the "Group By" feature in Power Query?

Answer: "Group By" summarizes data by grouping rows based on column values and applying aggregate functions like sum, count, average, etc.

✓ 7. What is the M language in Power Query?

Answer: M is the formula language behind Power Query. It allows you to write or edit queries manually for advanced transformations that are not available through the UI.

✓ 8. How do you handle missing or null values in Power Query?

Answer: You can use options like Replace Values, Fill Down/Up, or Remove Rows with Nulls to handle missing values.

✓ 9. What is the difference between Power Query and DAX?

Answer: Power Query is used for data transformation and preparation (before loading), while DAX is used for data analysis and calculations in the data model (after loading).

✓ 10. How do you unpivot columns in Power Query?

Answer: Select the columns you want to unpivot, right-click, and choose "Unpivot Columns". This converts columns into attribute-value pairs, useful for normalized data.

✓ 11. What is a custom column in Power Query?

Answer: A custom column is a user-defined column created using formulas (M code) to perform transformations or calculations on other columns.

✓ 12. How do you filter rows in Power Query?

Answer: You can use the filter options in the column header dropdowns, similar to Excel, to filter values based on conditions or ranges.

✓ 13. How do you create conditional logic in Power Query?

Answer: Use the "Add Column" > "Conditional Column" feature or write an M expression using if ... then ... else.

✓ 14. What is the use of parameters in Power Query?

Answer: Parameters allow you to create dynamic queries, such as switching data sources, filtering values, or defining date ranges, without editing the query manually.

✓ 15. How do you handle column name changes in Power Query?

Answer: To avoid errors, use the "Rename Columns" step carefully or write dynamic logic using Table.ColumnNames() if columns may change.

✓ 16. What happens when you refresh a Power Query?

Answer: Power Query re-runs the entire ETL process: it extracts the latest data, re-applies transformations, and loads the updated result to the model or worksheet.

✓ 17. What is data profiling in Power Query?

Answer: Data profiling tools show summary stats like column distribution, unique values, null values, and errors to understand data quality.

✓ 18. How do you improve performance in Power Query for large datasets?

Answer:

- Reduce steps in queries
 - Use filtering early
 - Disable "Enable Load" for intermediate queries
 - Avoid unnecessary data types and calculations
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✓ 19. What are query dependencies in Power Query?

Answer: Query dependencies show how queries are related to each other, especially when one query references another. You can view them using the Query Dependencies view.

✓ 20. How do you merge queries with multiple matching columns?

Answer: In the Merge dialog, select multiple columns in both tables (in the same order). Power Query matches rows based on all selected columns.

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