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40 Ways To Optimize Your Power BI Reports Today

1

Data Transformation

Remove Unnecessary Columns

Before importing data into Power BI, remove any columns that you don't need. This can improve performance and reduce clutter.

2

Data Transformation

Clean Data at Source

Whenever possible, clean and prepare your data at the source rather than in Power BI. This improves performance and makes your Power BI report easier to manage.

3

Data Transformation

Use Query Folding

Take advantage of query folding by pushing the computation back to the data source whenever possible.

4

Data Transformation

Limit Rows

If you're working with large datasets, consider limiting the number of rows you import during the development phase to speed up report development.

5

Data Transformation

Data Types

Ensure that the data types are appropriate for each column. Text fields that contain numbers should be converted to numerical data types, if applicable.

6

Data Transformation

Enable Load Settings

For tables that are only used as intermediaries for calculations, consider disabling the load setting to improve performance.

7

Data Transformation

Use Incremental Load

For large datasets, utilize incremental load options to only load new or changed records.

8

Data Transformation

Error Handling

Implement proper error handling in your queries to ensure that data load issues can be easily diagnosed.

9

Data Transformation

Parameterize Queries

Use parameters in your queries for more flexible data retrieval.

10

Data Transformation

Reuse Queries

Consider reusing queries across multiple Power BI projects to maintain a consistent data transformation logic.

11

Data Modelling

Use Star Schema

Whenever possible, model your data in a star schema. This simplifies your model and can improve query performance.

Or use Enterprise DNA's waterfall technique which is similar but visually more intuitive

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Data Modelling

Single Date Table

Use a single date table for all your time-based data to make it easier to manage and understand your data model.

13

Data Modelling

Optimize Relationships

Make sure you define primary and foreign key relationships between tables, and set the relationship to 'single' if you don't need a 'both' direction relationship.

14

Data Modelling

Indexing

Leverage indexing features in your source database for better performance in Power BI.

15

Data Modelling

Use Summarized Tables

For large datasets, consider creating summarized or aggregated tables to improve performance.

16

Data Modelling

Hierarchies

Create hierarchies in your data model to allow for easy drill-down in visuals.

17

Data Modelling

Use Descriptive Table Names

Name your tables and columns descriptively to make it easier for end-users to understand the data model.

18

Data Modelling

Implement Row-Level Security

For sensitive data, implement row-level security to restrict data access.

19

Data Modelling

Consider the Sort Order

Pay attention to the default sort order for columns, particularly for categorical data.

20

Data Modelling

Optimize Cardinality

Keep cardinality in mind when designing your model, as high-cardinality columns can impact performance.

21

DAX Calculation

Avoid Using CALCULATE in Iterators

Functions like SUMX and AVERAGEX can be performance hogs when combined with CALCULATE.

22

DAX Calculation

Use Variables

Utilize variables in your DAX formulas for better readability and debugging.

23

DAX Calculation

Limit Use of ALL Function

Be cautious when using the ALL function, as it can be a performance bottleneck.

24

DAX Calculation

Opt for Simple Aggregators

Use simple aggregation functions like SUM and COUNT whenever possible, instead of complex DAX calculations.

25

DAX Calculation

Use DIVIDE Function

Use the DIVIDE function for division operations to handle errors more gracefully.

26

DAX Calculation

Time Intelligence Functions

Use built-in time intelligence functions for time-based calculations.

27

DAX Calculation

Minimize Nested Functions

Try to avoid using too many nested functions in a single formula, as it can make the formula hard to read and may impact performance.

28

DAX Calculation

Avoid Using RANKX for Large Datasets

The RANKX function can slow down performance on large datasets.

29

DAX Calculation

Utilize SWITCH for Multiple Conditions

Use the SWITCH function for better performance and readability when dealing with multiple conditions.

30

DAX Calculation

Implement Error Handling in DAX

Use DAX functions like ISBLANK or IFERROR to gracefully handle errors in your calculations.

31

Data Visualization

Use Tooltips

Tooltips provide additional information without cluttering the report.

32

Data Visualization

Consistent Color Scheme

Use a consistent color scheme throughout your report for a more professional look and easier interpretation.

33

Data Visualization

Limit Visual Elements

Don't overload your report with too many visual elements; keep it simple for better user experience.

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Data Visualization

Use Slicers Wisely

Slicers are great for interactivity but can slow down your report. Use them judiciously.

35

Data Visualization

Optimize for Mobile

Ensure your report is easy to read and interact with on mobile devices.

36

Data Visualization

Use Custom Visuals Sparingly

Custom visuals can be performance hogs; use them only when necessary.

37

Data Visualization

Interactive Legends

Use interactive legends to allow users to more dynamically interact with the data.

38

Data Visualization

Visual Consistency

Ensure that similar metrics and categories are displayed in a consistent way across all pages.

39

Data Visualization

Use Drillthrough

Implement drillthrough features for a more detailed analysis.

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Data Visualization

Prioritize Key Metrics

Place the most important metrics and visuals in the top-left corner of your report, as this is where viewers typically look first.

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