Power BI Cheat Sheet Explained!

Power BI Cheat Sheet

April 2019
https://bit.ly/cheatsheetpbi

Power Query

Tips & Tricks

1. Give every step an explanatory name and merge steps of the same type, for better manageability.
2. Give queries and columns user-friendly names (this is also necessary to utilize Q&A).
3. Make sure that each column has the correct data type. Making the model smaller and faster.
4. Remove columns you are not going to use in your report. Prefer 'Remove Other Columns' above the 'Remove Columns' option, for lower risk that structural changes in your data source break the query.
5. Maximize the use of Query Folding for faster and more efficient queries. With Query Folding, multiple transformations are merged as one query and then sent to the source. If 'View Native Query' is not available, Query Folding has stopped before that step.
6. Structure your queries in folders. For example Facts, Dimensions, Functions, Misc.
7. You can copy and paste Queries easily between files. Dependencies will be included (parameters/queries/functions), and Data Sources will be automatically listed.
8. Turn off 'Enable Load' for queries/tables that you don't need in the Data Model.
9. Re-use Power Query code and lower impact on your data source by using Power BI dataflows.
10. Turn on the Formula Bar so you get familiar with Power Query (M) code.
11. In general, prefer "import" over "DirectQuery". Unless the amount of data is too large to import, or when there are other requirements (like real-time insights).
12. Automatically beautify all column names in a query, e.g. "CustomerName" → "Customer Name", by using the Power Query function Alex Powers shared on his GitHub repo: http://bit.ly/PQSplitByCase. Note: he also has a function to replace underscores in all column names automatically. new

Code examples (don't forget that Power Query / M is case-sensitive!)

- **if** T > 0 **then** A **else** B
- **try** A/B **otherwise** 0
- **#table**({"X", "Y"}, {{1, 2}, {3, 4}})
- **DateTime.LocalNow()**
- **Date.From**(DateTime.LocalNow())
- **Excel.Workbook**(Web.Contents("[url]/[filename].xlsx"), null, true)

Resources

- Power Query M Formula Reference: http://bit.ly/PQMReference.
- Notepad++ Power Query support by Lars Schreiber: http://bit.ly/PQinNotepad.

Data Model

Tips & Tricks

1. Always use a separate Date table in your data model. Mark it as a Date Table.
2. Only use DAX Calculated Columns when it's not possible to create it using Power Query. This improves clarity and manageability of your report as transformations are located where you expect them. And, it also improves query speed of the model and reduces refresh duration.
3. Give measures a prefix (%, #, €).
4. Use standard abbreviations like YTD, LY, PY, PP as a suffix, to keep the base fields together.
5. Hide columns that are needed but are irrelevant for the user.
6. Hide the key at the many side of a many-to-one relation (e.g. [OrderDate] in the 'Revenue' table).
7. Think about using the new Filter Pane, as this provides options to hide or lock filters for end users.
8. For each measure column in your data model, make a DAX Calculated Measure instead of using the 'Default Summarization', then hide the original column. This way all measures will have the same icon. And it enables you to easily change the calculation in the future (e.g. adding a filter condition). Also, it is easier to reference this measure in other DAX calculations.
9. Always use the table name when you refer to a column, for example: 'Product'[Category].
10. Use DIVIDE() to prevent division by 0, and to improve the speed of your divisions.
11. Use IsInScope to get the right hierarchy level in DAX (read all about it in Kasper de Jonge's blog: https://bit.ly/KasperOnBIInScope).
12. In DAX: (un)comment DAX lines by pressing Alt + Shift + A or CTRL + /, and Shift + Enter for line breaks.
13. Use aggregations to keep your model small and performant, and still have all detailed data available.
14. Use Tabular Editor to make changes to your Power BI file (currently unsupported by Microsoft). Also, make sure to check-out its best-practices analyzer.
15. In the improved model diagram, break-out complex models by subject area in separate diagrams.
16. Bulk edit fields in the improved model diagram, and group measures or attributes in display folders.
17. Combine historical data with live data by using composite models.

Resources

- Increase the readability of your DAX calculations: https://www.daxformatter.com.
- Practical DAX use cases, with incredible explanations: https://www.daxpatterns.com.
- Use DAX Studio to analyze and tune your calculations: http://daxstudio.org.
- Find all about DAX expressions: https://dax.guide.
- Download Tabular Editor: https://tabulareditor.github.io/.
- Show the last refresh date of your dataset: https://bit.ly/KasperOnBIRefreshDate.

I'VE GOT THE POWER BI

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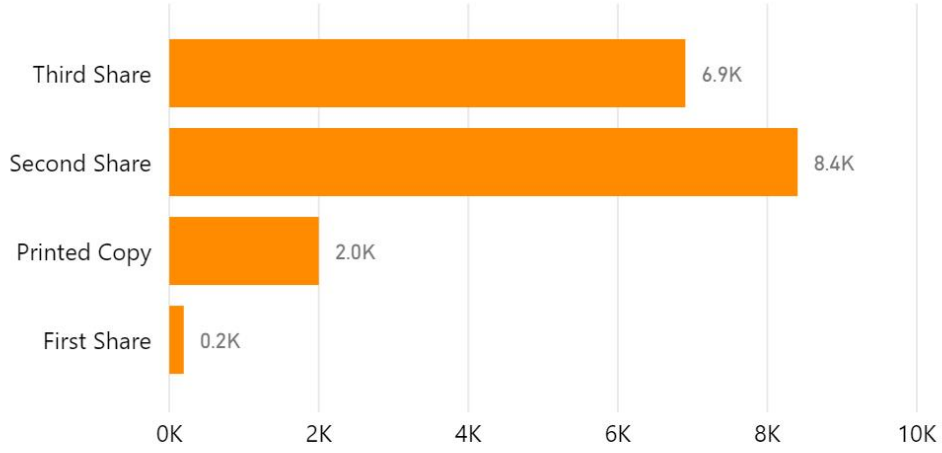
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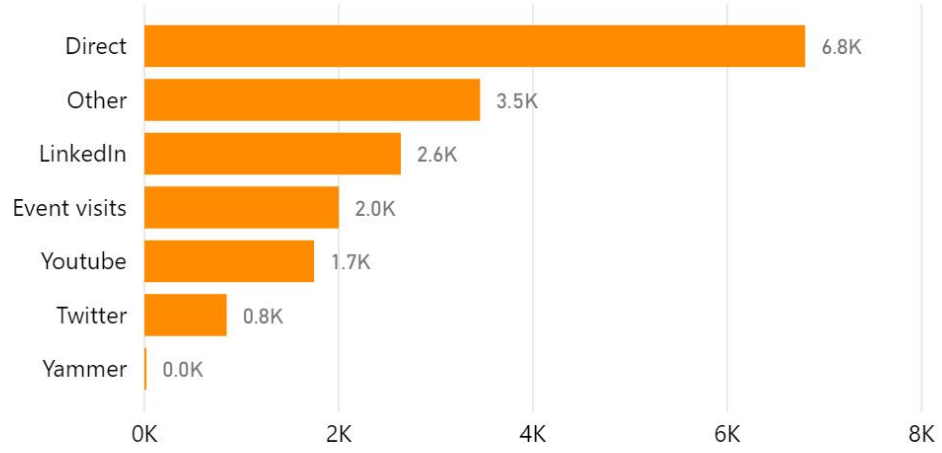
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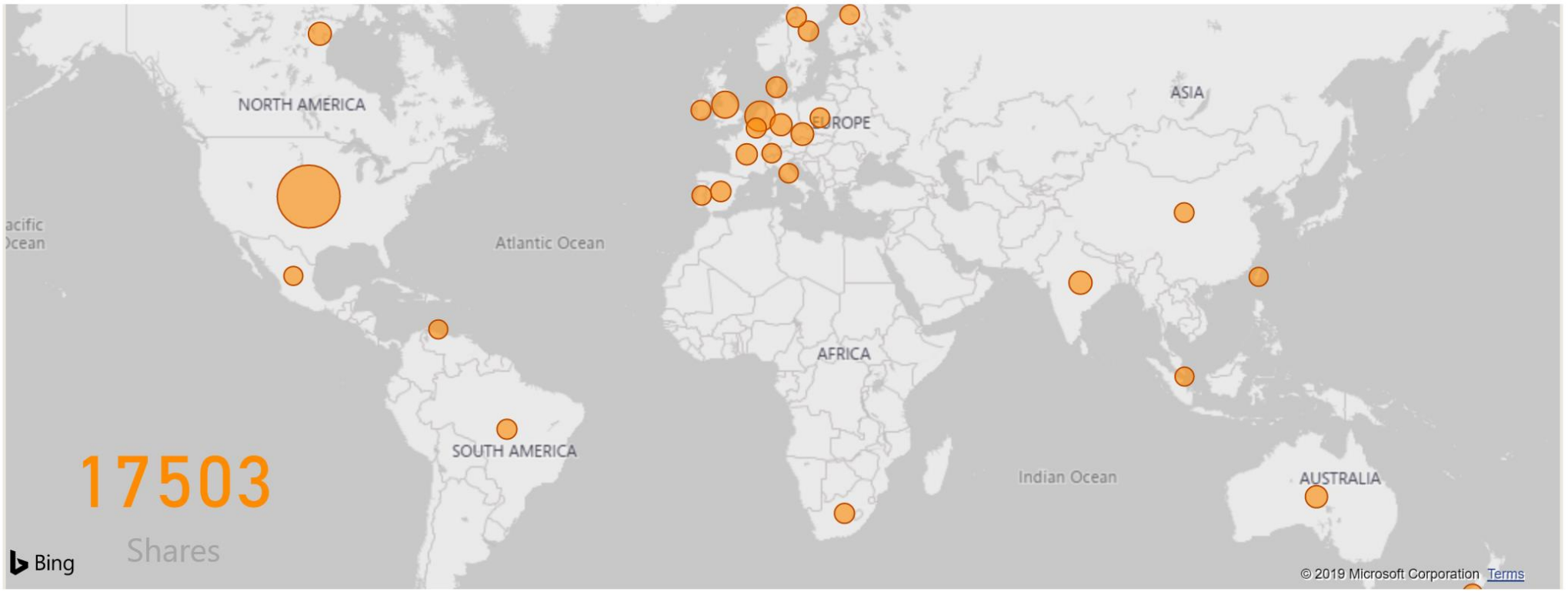
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All demos from here!

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https://bit.ly/cheatsheetpbi

Give us feedback!

https://bit.ly/DataGrillen2019Day1

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