UnCodemy

Power BI Cheat Sheet PDF

This Power BI cheat sheet lists the build workflow (get data, transform, model, visualise, publish), which visual to choose, star schema model rules, ten common DAX patterns, Power Query actions and sharing basics. It is a lookup page for people who already know the tool and want a fast reminder.

Key takeaways

- The workflow is: get data, transform in Power Query, model, write measures, visualise and publish.
- Build a star schema: fact tables in the centre, dimension tables around them.
- Use measures for calculations that change with filters and calculated columns for row values.
- A dedicated date table is required for reliable time intelligence.
- Check visual interactions and slicer sync before publishing.

What is Power BI cheat sheet?

Power BI is Microsoft's business intelligence tool for connecting to data, shaping and modelling it, and building interactive reports and dashboards that can be shared across an organisation.

What is the Power BI workflow?

Get data from files, databases or services. **Transform** in Power Query. **Model** by creating relationships. **Calculate** with DAX measures. **Visualise** on report pages. **Publish** to the Power BI service and share with the right permissions. Refresh data on a schedule if the source changes.

Which visual should I choose?

Question	Visual
Trend over time	Line chart
Compare categories	Clustered bar or column
Parts of a whole (few parts)	Donut or stacked bar
Two numbers together	Scatter
A single key number	Card
Detailed rows	Table or matrix
Geography	Map or filled map

Question	Visual
Progress to target	Gauge or bullet-style bar

Use slicers for user filters and tooltips for extra detail. Avoid more than six or seven visuals on a page.

What are the model rules?

Use a **star schema**. Fact tables hold events such as sales. Dimension tables hold descriptions such as customers and products. Relationships should be one-to-many from the dimension to the fact, with a single filter direction unless you have a clear reason. Hide key columns that users should not drag into visuals. Create one date table, mark it as a date table and relate it to the fact date.

Which DAX patterns come up most?

```
Total Sales = SUM(Sales[Amount])
Orders = DISTINCTCOUNT(Sales[OrderID])
Avg Order Value = DIVIDE([Total Sales], [Orders])
Sales YTD = TOTALYTD([Total Sales], 'Date'[Date])
Sales LY = CALCULATE([Total Sales], SAMEPERIODLASTYEAR('Date'[Date]))
Growth % = DIVIDE([Total Sales] - [Sales LY], [Sales LY])
Sales All Regions = CALCULATE([Total Sales], ALL(Region))
Share of Total = DIVIDE([Total Sales], [Sales All Regions])
Top Product Sales = CALCULATE([Total Sales], TOPN(1, VALUES(Product[Name]), [Total Sales]))
Running Total = CALCULATE([Total Sales], FILTER(ALLSELECTED('Date'), 'Date'[Date] <= MAX('Date'[Date])))
```

`CALCULATE` changes filter context and is the key function. `DIVIDE` handles division by zero safely.

What are the common Power Query actions?

Remove columns, change types, filter rows, split a column, replace values, trim text, merge queries (join), append queries (stack), group by, pivot, unpivot and add a custom or conditional column. Put filters and column removals early to keep refresh fast.

What should I check before publishing?

Names of fields and pages are clear, number formats are consistent, the date table is marked, relationships are correct, visual interactions behave, slicers are synchronised where needed, mobile layout is considered and there is no sensitive data in a report that will be shared widely. Test with a real user's view of the data if row-level security is used.

What are the sharing basics?

Publish a report to a workspace. Share through apps, workspace access or links based on your organisation's policy. Schedule refresh and set up a gateway if the data is on-premises. Licence needs depend on your plan, so check Microsoft's current documentation.

Which mistakes happen often?

Using many-to-many relationships without need, writing calculated columns where a measure is better, forgetting a date table, overloading a page with visuals and leaving default titles such as "Sum of Amount".

Which shortcuts save time?

Copy and paste visuals across pages, use the format painter, group related visuals, use bookmarks for views and the selection pane to name objects. Naming objects helps accessibility and tidy maintenance.

How do I fix common problems quickly?

If a visual shows the same value in every row, the relationship may be missing or the filter direction is wrong. If a total looks too high, check for a many-to-many relationship or duplicated keys in a dimension table. If time intelligence fails, confirm that the date table is continuous and marked. If refresh fails, check credentials, gateway status and any changed column names in the source.

What should a report page contain?

A clear title, two to four key numbers at the top, one or two main charts and a few slicers. Add a short note on the data source and the refresh date. Align objects on a grid and keep fonts and colours consistent. Use the same colour for the same meaning across pages, such as one colour for actual and another for target.

How do I keep reports easy to maintain?

Name tables, columns and measures clearly, put measures in a dedicated table, add short descriptions to important measures and keep a simple document that lists data sources and refresh times. Maintainable reports save time when a requirement changes.

Frequently asked questions

What is Power BI used for?

It connects to data, models it and builds interactive reports and dashboards that can be shared across an organisation.

What is a star schema in Power BI?

A model with fact tables in the centre and dimension tables around them, joined by one-to-many relationships.

Measure or calculated column?

Use a measure for values that change with filters and a calculated column for a fixed value on each row.

Why do I need a date table?

Time intelligence functions such as year to date need a continuous, marked date table to work reliably.

Is this cheat sheet enough to learn Power BI?

No. It is a quick reference. Use the notes and projects pages to learn the ideas in depth.

Sources and further reading

- Microsoft Power BI documentation
- DAX reference

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