# Support materials

SQLBits - Power BI **Composite and Hybrid Models** [>>video](https://www.youtube.com/watch?v=omW8nikWwpU&ab_channel=SQLBits)

SQLBits - Data **modeling** for experts with Power BI [>>video](https://www.youtube.com/watch?v=3EWmkEdaA2U&ab_channel=SQLBits)

Pragmatic - Master Data **modeling** in Power BI [>>video](https://www.youtube.com/watch?v=air7T8wCYkU&ab_channel=PragmaticWorks)

Pragmatic - Create a **date dimension** with Power Query [>>blog avec code](https://devinknightsql.com/2015/06/16/creating-a-date-dimension-with-power-query/) qui cree la table

Pragmatic - Power BI **DAX** Functions [>>video](https://www.youtube.com/watch?v=QJw4HkagVWc&list=PLcwrIWK7WBcQmoBMuBRnRv1LaGUEdbYCT&ab_channel=PragmaticWorks)

Power BI **Licensing Calculator** [>>calculator](https://app.fabric.microsoft.com/view?r=eyJrIjoiODBiNzNmZTUtYzI2ZC00ZjcwLThkZTgtMDI5MzVhMjQzNzYxIiwidCI6IjY2NjE5MTlhLThmMTQtNGRjMi1iMjQ4LTdkMWY2YmUwNTkxNiIsImMiOjF9&embedImagePlaceholder=true)

Pragmatic - Data **Modeling** for Power BI [2024 Edition] Q & A [>>video](https://www.youtube.com/watch?v=oIyg-Lq_jaU&ab_channel=PragmaticWorks)

Guy in a Cube - Working with **Slowly Changing Dimensions** in Power BI [>>video](https://www.youtube.com/watch?v=tKeaQpWynzg&t=1s&ab_channel=GuyinaCube)

**Slowly Changing Dimensions** in Power BI [>>video](https://www.youtube.com/watch?v=E1ZABKBpkdg&ab_channel=LondonBusinessAnalyticsGroup)

Download free DAX studio [>>page](https://daxstudio.org/)

DAX Formatter [>>page](https://www.daxformatter.com/)

Rapports et Audiences [>>page](https://learn.microsoft.com/fr-fr/training/modules/power-bi-effective-requirements/3-determine)

Optimizing Power BI - Measuring Performance using DAX Studio [>>video](https://www.youtube.com/watch?v=jpGmTXkXq1A&t=24s&ab_channel=MicrosoftReactor) PM chez Microsoft

KPI’s for Overview Page [>>video](https://www.youtube.com/watch?v=ZFZmqdECBMs&t=11s&ab_channel=PowerBIPark)

**Maps Visualizations** Power BI ? [>>video](https://www.youtube.com/watch?v=NpN_zyMS_7s&ab_channel=LighthouseAnalytix)

Using **QGIS** to build a layer for Power BI map visuals [>>video](https://www.youtube.com/watch?v=Atg6myINukg&t=3275s&ab_channel=IlgarZarbaliyev%28ExcelWorld%29)

How to use **ICON MAP** to visualise GeoJSON files [>>video](https://www.youtube.com/watch?v=0OjejZnEt1g&t=379s&ab_channel=Fernan)

Free exercises Power BI, DAX, and others: [website](https://www.wiseowl.co.uk/power-bi/exercises/dax)

PPU Semantic **Model Capacity** [>>website](https://learn.microsoft.com/en-us/power-bi/enterprise/service-premium-what-is#capacities-and-skus)

**Power BI Embedded** :

<https://www.hakoit.com/en/how-to-use-power-bi-embedded-tutorial-step-by-step/>

<https://app.powerbi.com/embedsetup/AppOwnsData>

<https://github.com/microsoft/PowerBI-Developer-Samples>

<https://community.fabric.microsoft.com/>

<https://www.pulsweb.fr/power-bi-embedded-rls/>

# Notes

* The **fixed decimal n**umber data type allows for 19 digits, and allows for more precision to avoid rounding errors. It’s important to use the fixed decimal number type for financial values, or rates (like exchange rates).
* **AVERAGE** takes the total and divides by the number of **non-null** values. **If NULL** is synonymous with zero in the data, the average will be different from the accurate average.
* **Calculated columns**: better to create before bring to power bi (à la source or power query) and not using DAX
* **Calculated tables** are defined by using a DAX formula that returns a table. It’s important to understand that **calculated tables** increase the size of the data model because they materialize and **store values**. They’re **recomputed** whenever formula dependencies are refreshed, as will be the case for this data model when new (future) date values are loaded into tables.
* Unlike Power Query-sourced tables, calculated tables can’t be used to load data from external data sources. They can only transform data based on what has already been loaded into the data model.
* All comparison operators, except **strict equal to (==)**, treat **BLANK as equal to the number zero**, an empty string (""), the date December 30, 1899, or FALSE. It means that the expression [Revenue] = 0 will be TRUE when the value of [Revenue] is either zero or BLANK. In contrast, [Revenue] == 0 is TRUE only when the value of [Revenue] is zero.
* DAX **logical operators** && = AND, || = OR
* When your DAX formula includes multiple operators, DAX uses rules to determine the evaluation order, which is known as an **operator precedence**. ^ - Exponentiation, – - Sign, \*, / - Multiplication and Division, ! - NOT, +, – - Addition and Subtraction, & - Concatenation, =, <, >, <=, >=, <> - Equal to, Less than, Greater than, Less than or equal to, Greater than or equal to, Not equal to.
* By default, to **refresh a table**, Power BI removes all data and reloads it again.To reduce this burden, you can set up the incremental refresh feature [>>doc](https://learn.microsoft.com/en-us/training/modules/choose-power-bi-model-framework/3-determine-when-to-develop-import-model)
* Composite model: A model **relationship is limited** when the Power BI can’t determine a “one” side of a relationship.Limited relationships may result in different evaluations of model queries and calculations.
* Semantic model **impact analysis** is easily launched from within data lineage view.
* **Deliver real-time data from an import model**.When you set up an **import table** with **incremental refresh**, you can enable the **Get the latest data in real-time** with DirectQuery option.By enabling this option, Power BI automatically creates a table partition that uses DirectQuery storage mode. In this case, the table becomes a hybrid table, meaning it has import partitions to store older data, and a single DirectQuery partition for current data.his option is only available with a Premium license.
* Another item to consider when optimizing performance is the **Auto date/time** option in Power BI Desktop. By default, this feature is enabled globally, which means that Power BI Desktop automatically **creates a hidden calculated table** for each date column, provided that certain conditions are met. The new, hidden tables are in addition to the tables that you already have in your semantic model. File > Options and settings > Options > Global or Current File