Power BI source control & DevOps
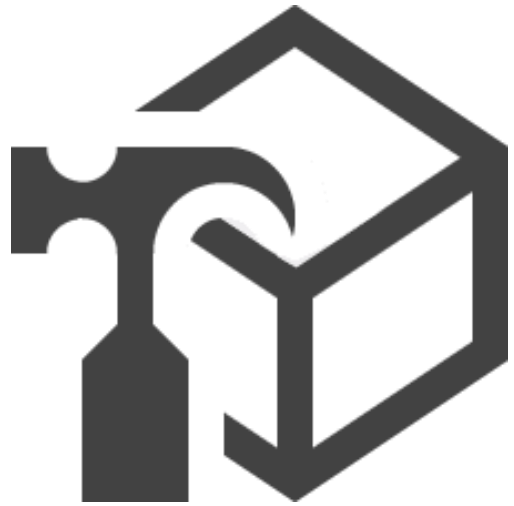
Just Blindbæk

▸ Self-employed BI consultant in justB
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  ◦ Power BI UG Denmark (PowerBI.dk)
  ◦ Next Step Conferences
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  ◦ Azure BI architecture
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  ◦ Power BI
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Microsoft CERTIFIED *Trainer*
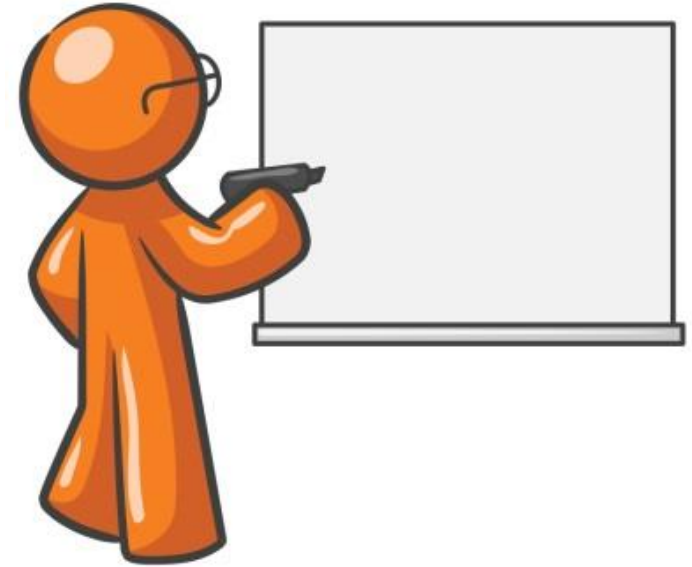
Microsoft CERTIFIED *IT Professional*

SSAS MAESTRO by Microsoft

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Agenda

▸ Tabular Model Definition Language (TMDL)
▸ Source Control with Git
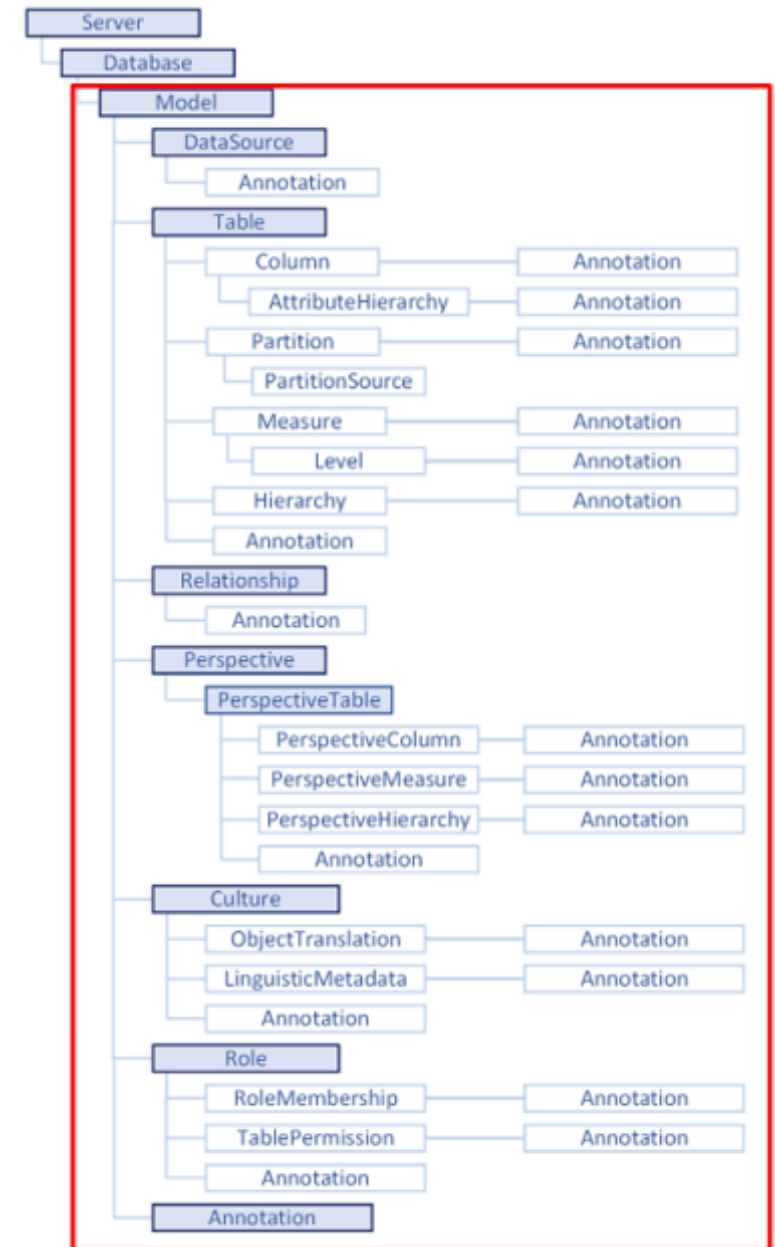▸ DevOps with pbi-tools
▸ What's next?
▸ Ressources

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Tabular Model Definition Language (TMDL)

▸ Object model definition syntax for tabular data models

▸ Human readable, editable, and allows collaboration

▸ Full compatibility with the entire Tabular Object Model (TOM)

▸ Copy, paste and edit M and DAX expressions

▸ Indentation only matters for nested objects

▸ Like Tabular Editor "Save to Folder" - but better

▸ Author: Mathias Thierbach – developed as part of the Power BI contributor program. Like when Daniel Otykier made External Tools.

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TMDL folder structure

‣ The default folder structure has only one level of sub-folders, all with inner .tmd files

‣ TMDL exposes the entire TOM Model object tree in the Microsoft.AnalysisServices.Tabular namespace.

📁 cultures

📁 perspectives

📁 roles

📁 tables

📄 dataSources.tmd

📄 expressions.tmd

📄 model.tmd

📄 relationships.tmd

```
          dataSources.tmd
          expressions.tmd
          model.tmd
          relationships.tmd

    ┌─cultures
          en-US.tmd
          pt-PT.tmd

    ┌─perspectives
          Sales.tmd

    ┌─roles
          Stores Cluster 1.tmd
          Stores Cluster 2.tmd

    ┌─tables
          About.tmd
          Calendar.tmd
          Customer.tmd
          Dynamic Measure.tmd
          Product.tmd
          Sales.tmd
          Smart Calcs.tmd
          Store.tmd
```


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Source Control and Git

▸ "Save to Folder" with Tabular Editor 2.18 or newer
  ◦ Serialization mode: TMDL (preview)
▸ Open-source Visual Studio Code extension
▸ Add to Git
  ◦ History of changes
  ◦ Compare changes
  ◦ Multiple developers

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DevOps with pbi-tools

▸ Brings source-control features to Power BI

▸ Professional development workflows and enhanced governance

▸ Extracts the contents of a PBIX/PBIT file into a folder structure optimized for source control (PbixProj folder)

▸ Generates a PBIX/PBIT file from PbixProj folder

▸ "Watch mode" with open Power BI Desktop that saves changes continuously to PbixProj folder

▸ Deploy content from PbixProj folder – manually or automated

▸ Developed by Mathias Thierbach

What's next?

▸ 4 TMDL previews in total, goal is for GA at end of the year
  ◦ Second preview just released on May 5th

▸ First small step to get proper source control in Power BI

▸ What could be next?

▸ Maybe announcements on Microsoft Build ?

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Ressources

- https://powerbi.microsoft.com/en-us/blog/announcing-public-preview-of-the-tabular-model-definition-language-tmdl/

- https://learn.microsoft.com/en-us/analysis-services/tmdl/tmdl-overview

- https://learn.microsoft.com/en-us/analysis-services/tmdl/tmdl-how-to

- https://www.nuget.org/packages/Microsoft.AnalysisServices.Tabular.Tmdl.retail.amd64#versions-body-tab

- https://pbi.tools/

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