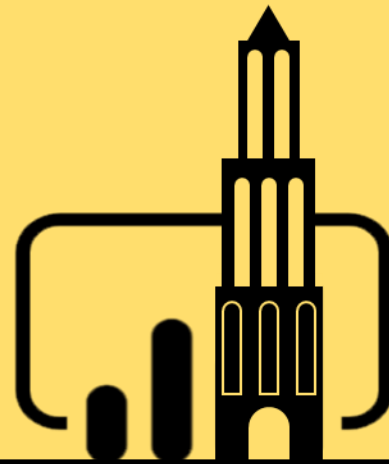




# Use parameters

to add extra flexibility to your Power BI content



Working on it...

⋮ This shouldn't take long.



# Marc Lelijveld

Data & Analytics Consultant  
Macaw Netherlands



Marc.Lelijveld@macaw.nl



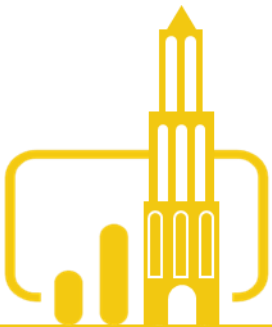
@MarcLelijveld



linkedin.com/in/MarcLelijveld



Data-Marc.com



@MarcLelijveld  
#PBIG2019

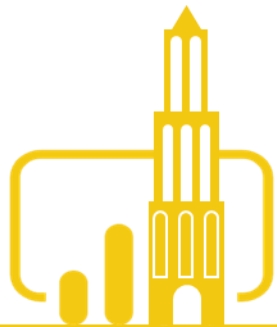
Power BI Gebruikersdag 2019  
Jaarbeurs, Utrecht

# MET DANK AAN ONZE PARTNERS

## Platinum Partners



## Gold Partner



@MarcLelijveld  
#PBIG2019

Power BI Gebruikersdag 2019  
Jaarbeurs, Utrecht

# MET DANK AAN ONZE PARTNERS

## Silver Partners



## Community Partners

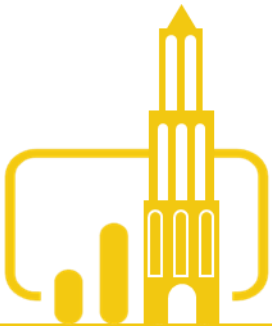


@MarcLelijveld  
#PBIG2019

Power BI Gebruikersdag 2019  
Jaarbeurs, Utrecht

# Agenda

- Apply parameters to your DTAP pipeline
- Optimize report building
- Building a date dimension
- Parameters in the Power BI Service
- Create templates
- What If parameters

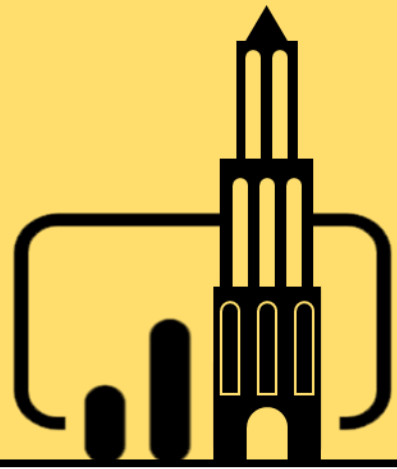


@MarcLelijveld  
#PBIG2019

Power BI Gebruikersdag 2019  
Jaarbeurs, Utrecht



# Apply parameters to your DTAP pipeline



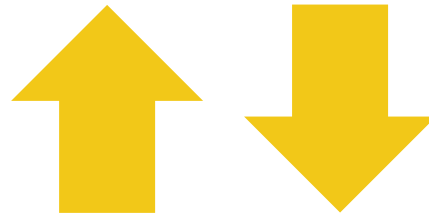
# Deployment Scenarios

**Business-Led  
Self-Service BI**



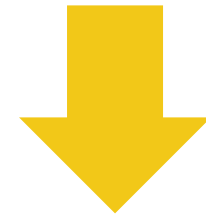
Bottom-Up

**IT- Managed  
Self-Service BI**



Blended

**Corporate BI**

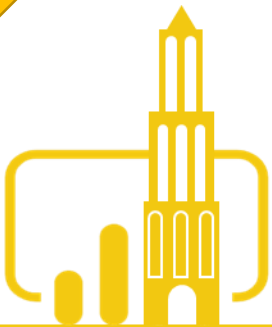


Top-Down

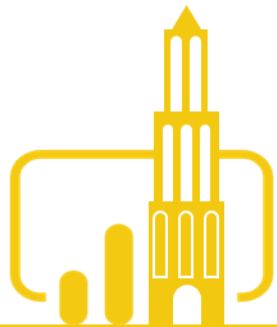
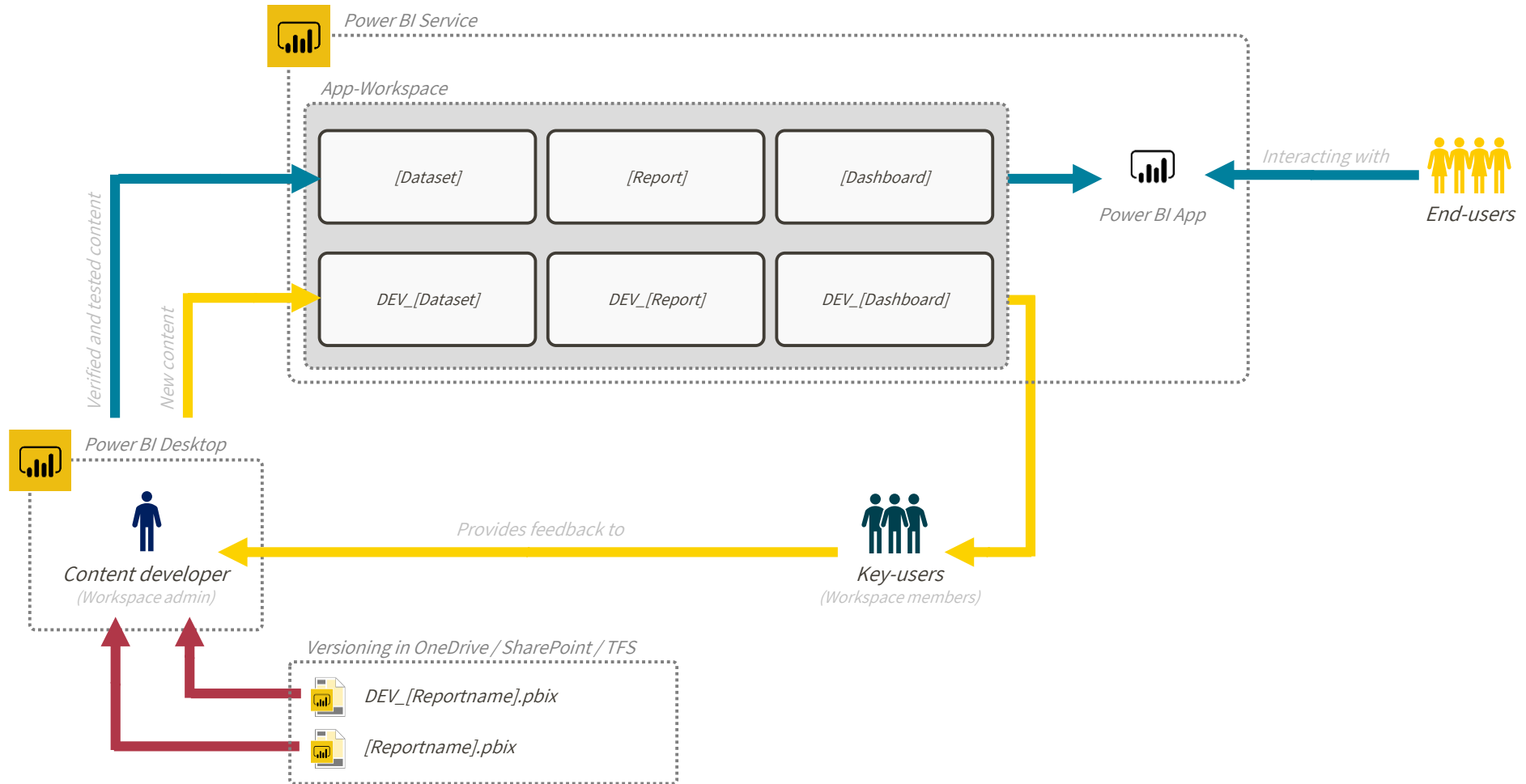




# DTAP



# Power BI Deployment



# Parameter settings

## Desktop

The screenshot shows the 'Parameters' dialog box in Power BI Desktop. On the left, a list contains 'EnvironmentSwitch' with a 'New' button and a close icon. The main area shows details for 'EnvironmentSwitch':

- Name:** EnvironmentSwitch
- Description:** Switch between Development, Acceptance and Production environment.
- Required:** ☒
- Type:** Text
- Suggested Values:** List of values
- Default Value:** https://
- Current Value:** https://

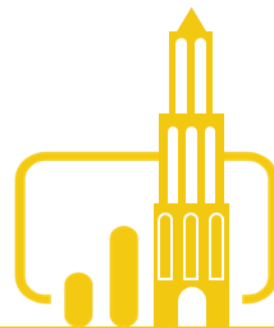
At the bottom are 'OK' and 'Cancel' buttons.

## Service

The screenshot shows the 'Settings for Parameterize Datasource' page in the Power BI Service. It includes a 'Refresh history' link and several expandable sections:

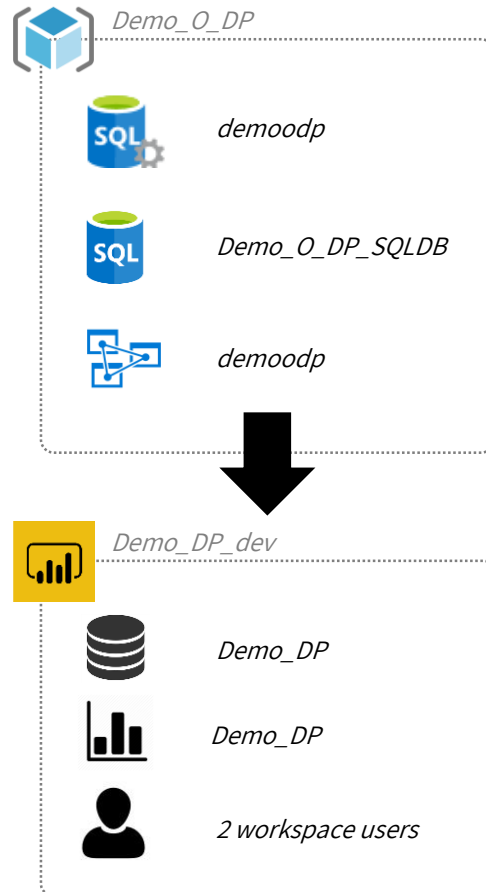
- Gateway connection**
- Data source credentials**
- Parameters**
  - EnvironmentSwitch**  
Switch between Development, Acceptance and Production environment  
https://SomeSite.sharepoint.com/sites/Site01/
  - SwitchFolderLocation**  
Switches folders  
C:\Users\MarcL\Documents\Study.xlsx
- Scheduled refresh**
- Q&A and Cortana**
- Featured Q&A questions**

'Apply' and 'Discard' buttons are located below the 'SwitchFolderLocation' section.

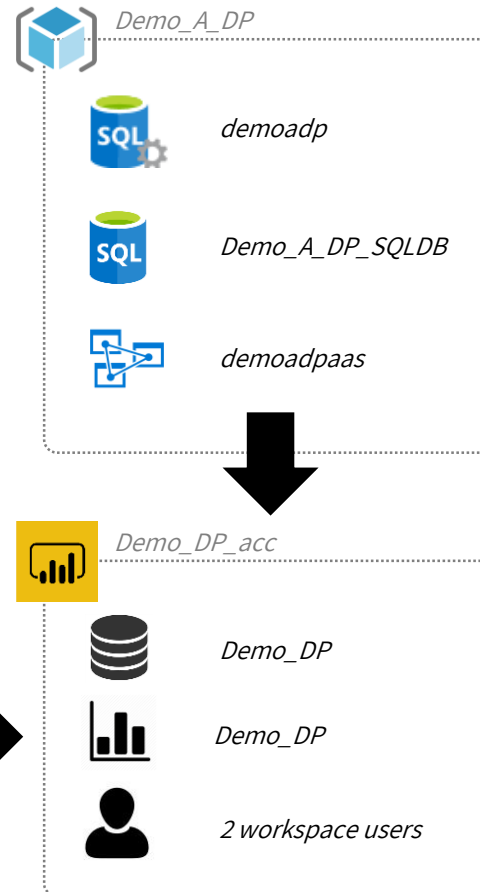


# Demo Context

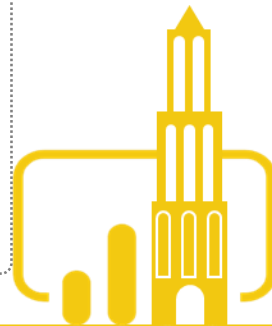
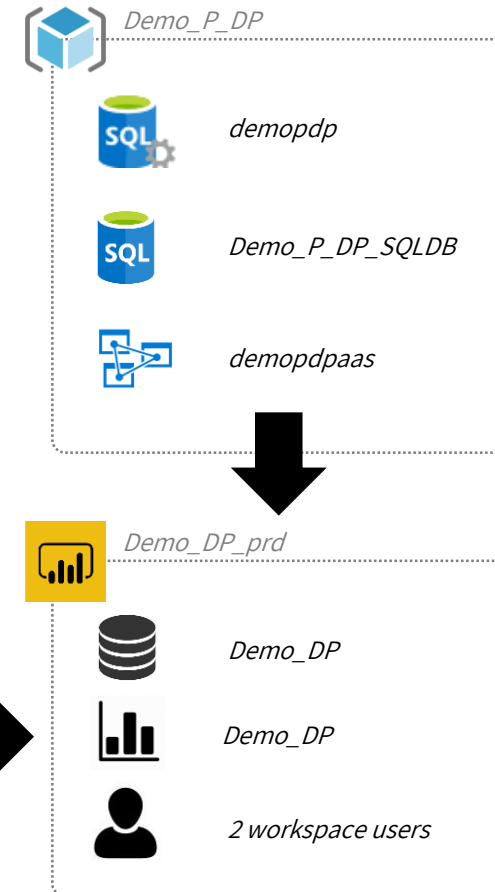
## Development



## Acceptance



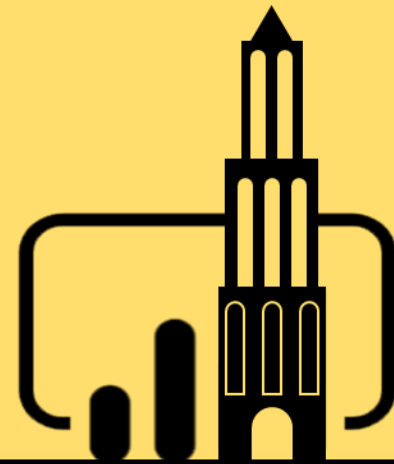
## Production



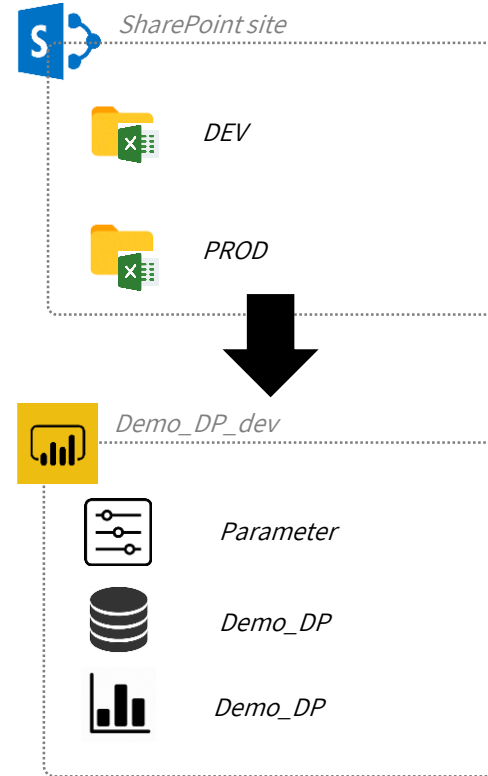


# DEMO

Change data source connection string



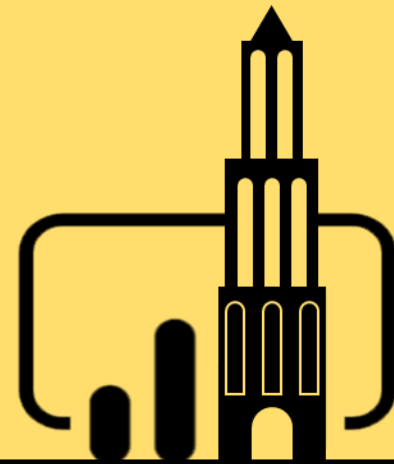
# Switching folders!





# DEMO

Change folder



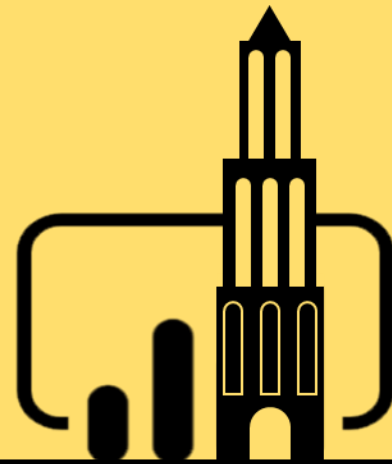
Power BI Gebruikersdag 2019



@MarcLelijveld  
#PBIG2019



# Optimize report building



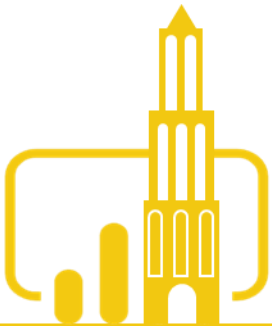
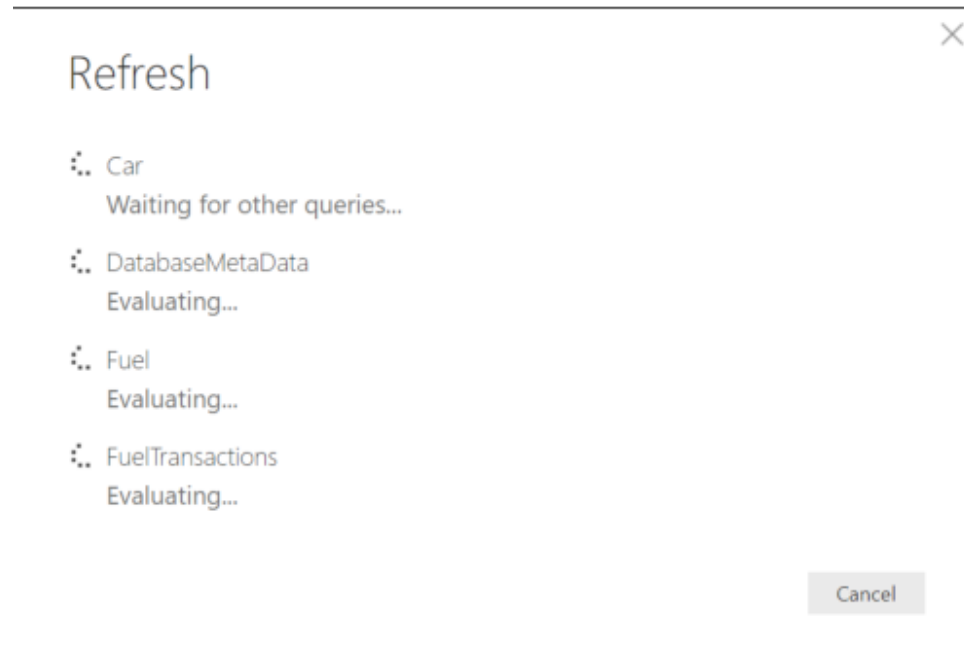
Power BI Gebruikersdag 2019



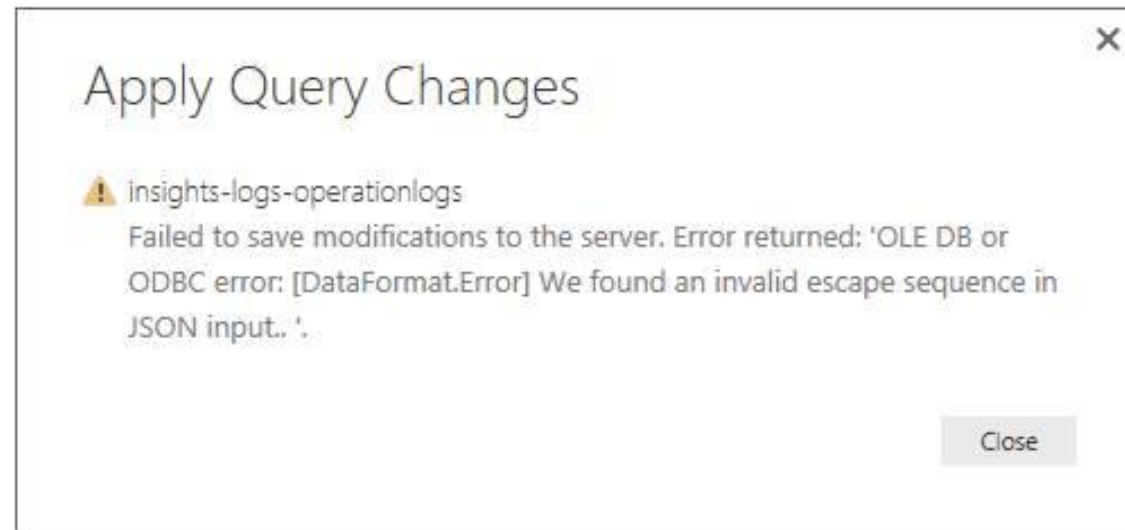
@MarcLelijveld  
#PBIG2019



# Big loads of data!



# Big loads of data!



# Query folding



Generate SQL queries



Push queries back to  
the source



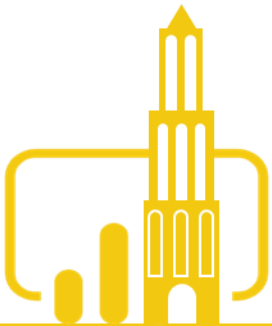
Improve performance  
in Power Query



# Query folding

## Supported Sources

- Relational data sources (SQL Server, Oracle... )
- OData sources (SharePoint lists...)
- Active Directory
- Exchange



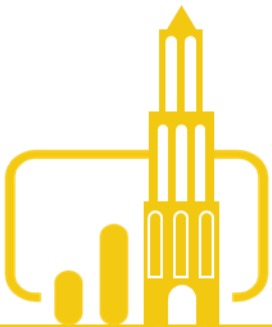
@MarcLelijveld  
#PBIG2019

Power BI Gebruikersdag 2019  
Jaarbeurs, Utrecht

# Query folding

## Supported Operations

- Filtering (both rows and columns)
- Joins
- Aggregation (Group By)
- Pivot and Unpivot
- Numeric Calculations
- Simple transformations (Uppercase / Lowercase)



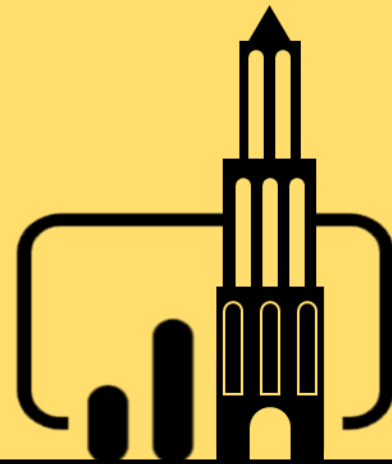
@MarcLelijveld  
#PBIG2019

Power BI Gebruikersdag 2019  
Jaarbeurs, Utrecht



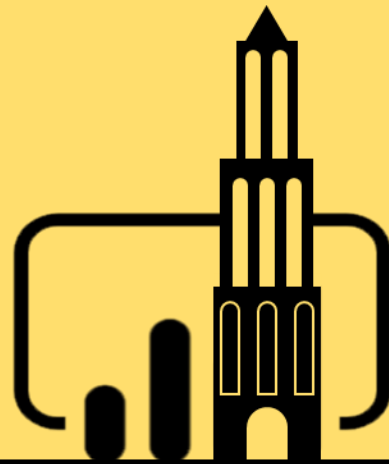
# DEMO

Apply top N rows





# Building a date dimension



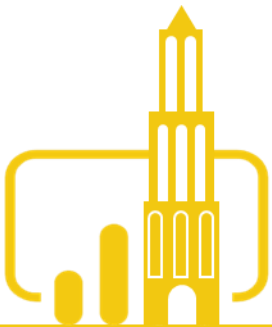
# Why build a date dimension

- Filter all attributes in all tables at one time
- Consistency
- Additional information (day of week, public holiday)
- Time Intelligence Calculations (YTD, PYTD, MTD)

**Flexibility is key!**



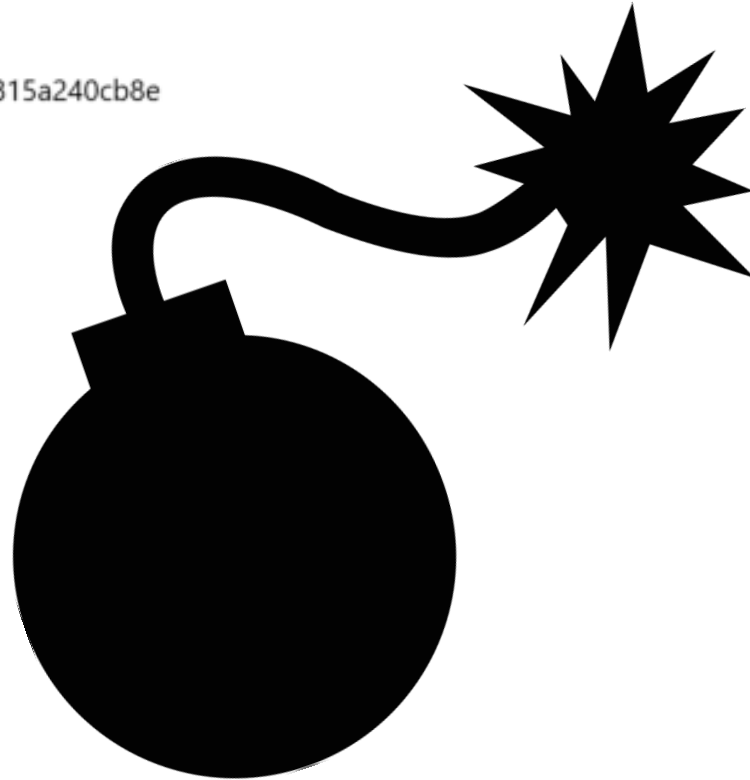
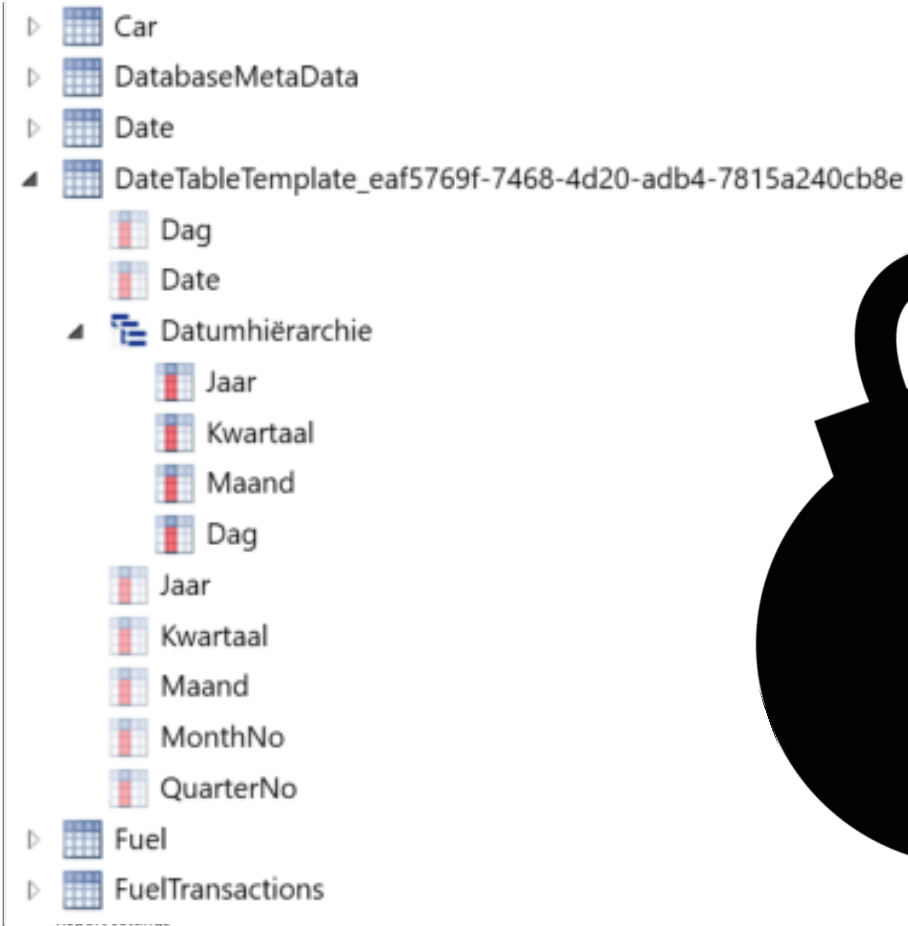
@MarcLelijveld  
#PBIG2019



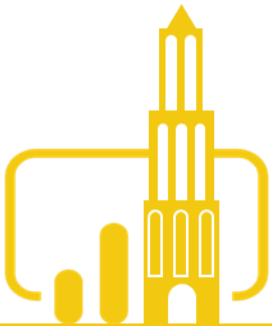
Power BI Gebruikersdag 2019  
Jaarbeurs, Utrecht



# Default build-in date dimension



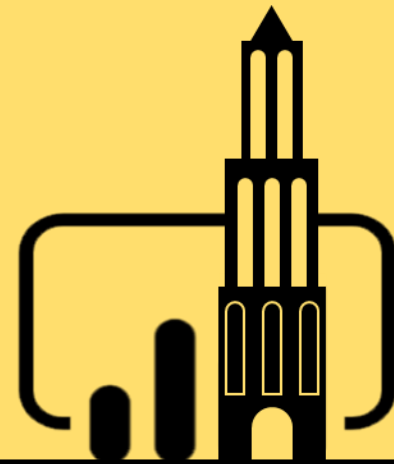
**Blow up your  
data model!**





# DEMO

Building a Date Dimension



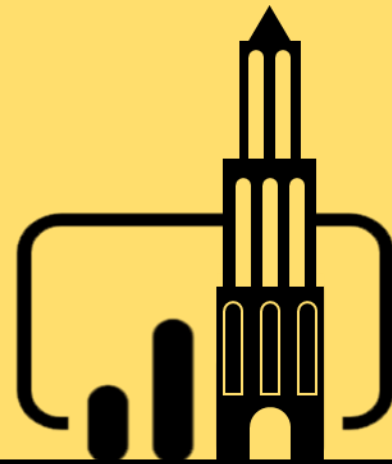
Power BI Gebruikersdag 2019



@MarcLelijveld  
#PBIG2019



# Parameters in the Power BI Service



Power BI Gebruikersdag 2019

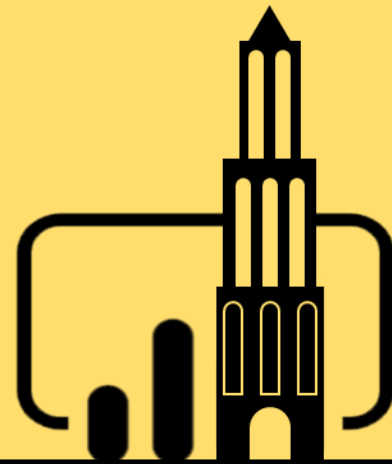


@MarcLelijveld  
#PBIG2019



# DEMO

Change parameters in the Power BI Service



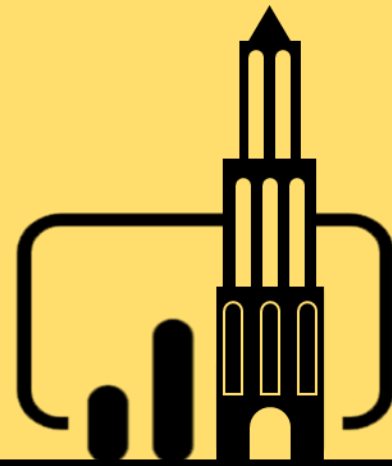
Power BI Gebruikersdag 2019



@MarcLelijveld  
#PBIG2019



# Creating templates



Power BI Gebruikersdag 2019



@MarcLelijveld  
#PBIG2019

# Why should I create templates?



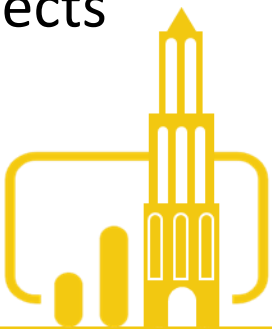
Add your corporate  
identity team file



Makes support easier



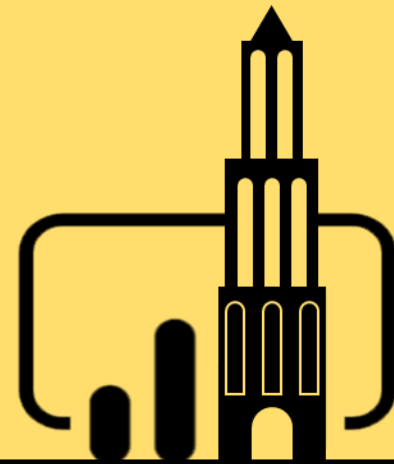
Kick-start new projects





# DEMO

Generate your Power BI Template file



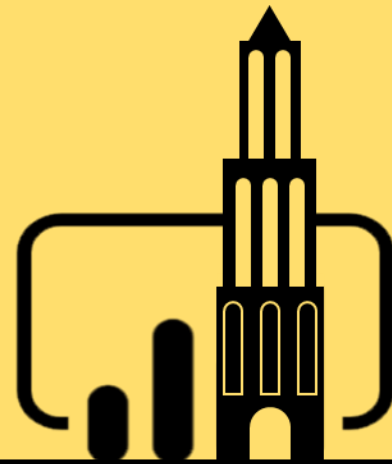
Power BI Gebruikersdag 2019



@MarcLelijveld  
#PBIG2019



# What If parameters



Power BI Gebruikersdag 2019



@MarcLelijveld  
#PBIG2019

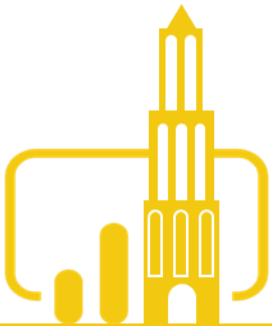


# What If...?

PayedPrice and Price After Price Increase by Jaar



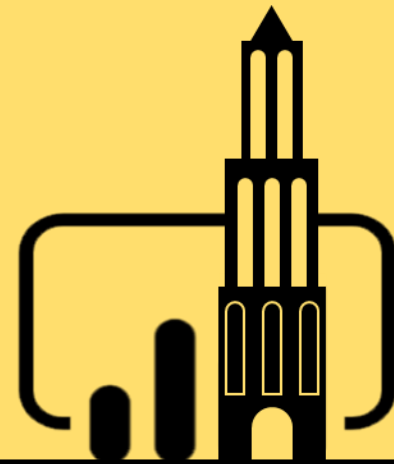
The price increased 10%





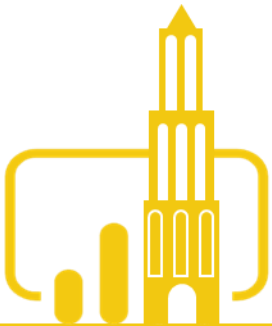
# DEMO

What If the price increased 10%?



# Parameters...

- ...makes it easier to move through your DTAP pipeline.
- ...improves the development performance and experience.
- ...are still changeable after publishing.
- ...easy to use for creating templates.
- ...add extra flexibility for explorative reporting.



# Download for free!

<https://bit.ly/cheatsheetpbi>



**Marc Lelijveld**  
Data & Analytics Consultant  
Macaw Netherlands



Marc.Lelijveld@macaw.nl



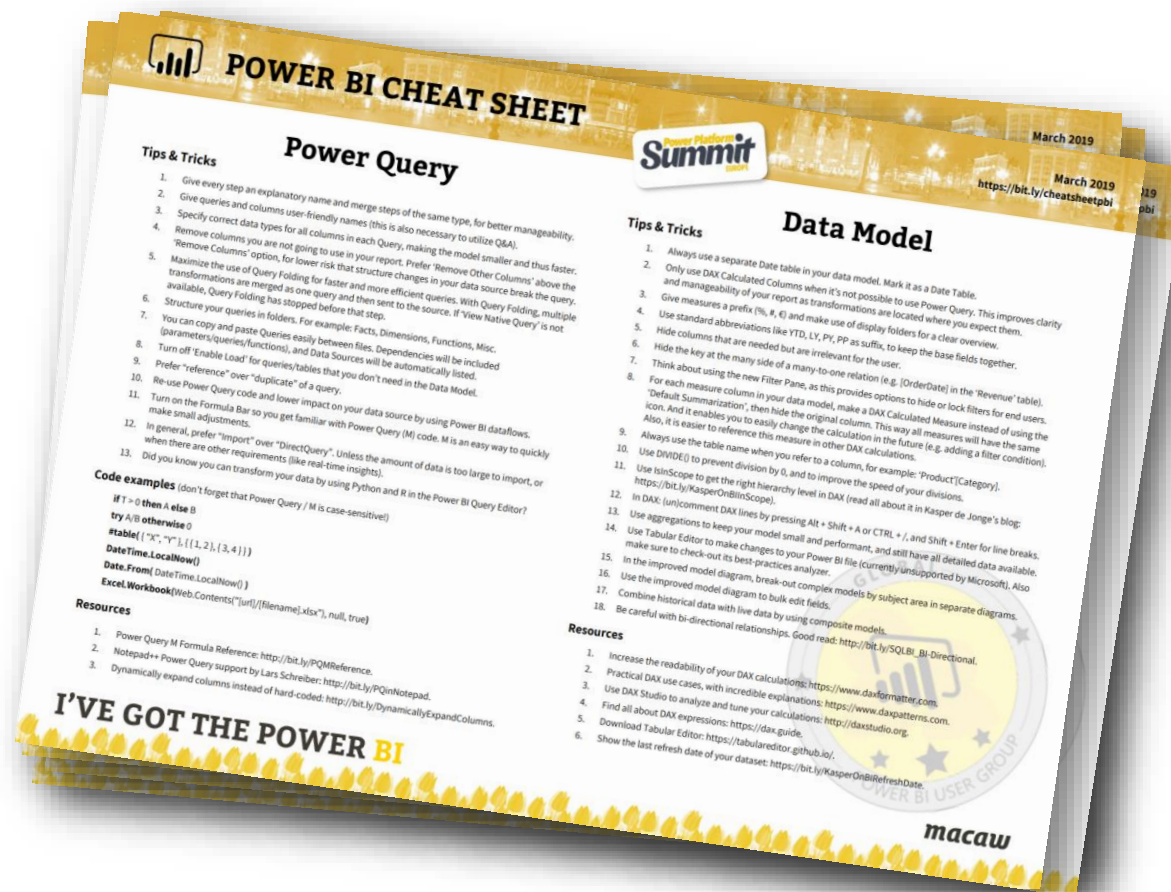
@MarcLelijveld



linkedin.com/in/MarcLelijveld



Data-Marc.com



@MarcLelijveld  
#PBIG2019



Power BI Gebruikersdag 2019  
Jaarbeurs, Utrecht