

The screenshot shows the Power BI Desktop interface with the 'Datasets' tab selected. A table with one row, 'Parameterize Datasource', is visible. The 'ACTIONS' column has a dropdown menu open, showing 'Settings', 'Rename', 'Delete', and 'More options'. The 'More options' button is highlighted. Below this, the 'Filter Rows' dialog is open, showing a filter for 'Country' with the value 'equals'. The 'And' radio button is selected. The 'Country' field is expanded, showing 'Text' and 'Parameter' options. The 'Parameter' option is selected. The 'OK' button is highlighted.

The 'Parameters' dialog box is open, showing a list of parameters. The 'Country' parameter is selected. The 'Name' field is 'Country'. The 'Description' field is 'Customer country to filter by in our report.' The 'Required' checkbox is checked. The 'Type' is 'Text'. The 'Allowed Values' are 'List of values'. The 'List of values' table is shown with the following data:

1	Spain
2	Germany
3	France
4	Canada
*	

The 'Default Value' is 'Spain' and the 'Current Value' is 'Spain'. The 'OK' button is highlighted.

Use parameters

To add extra flexibility to your Power BI content

Working on it...

⋮ This shouldn't take long.





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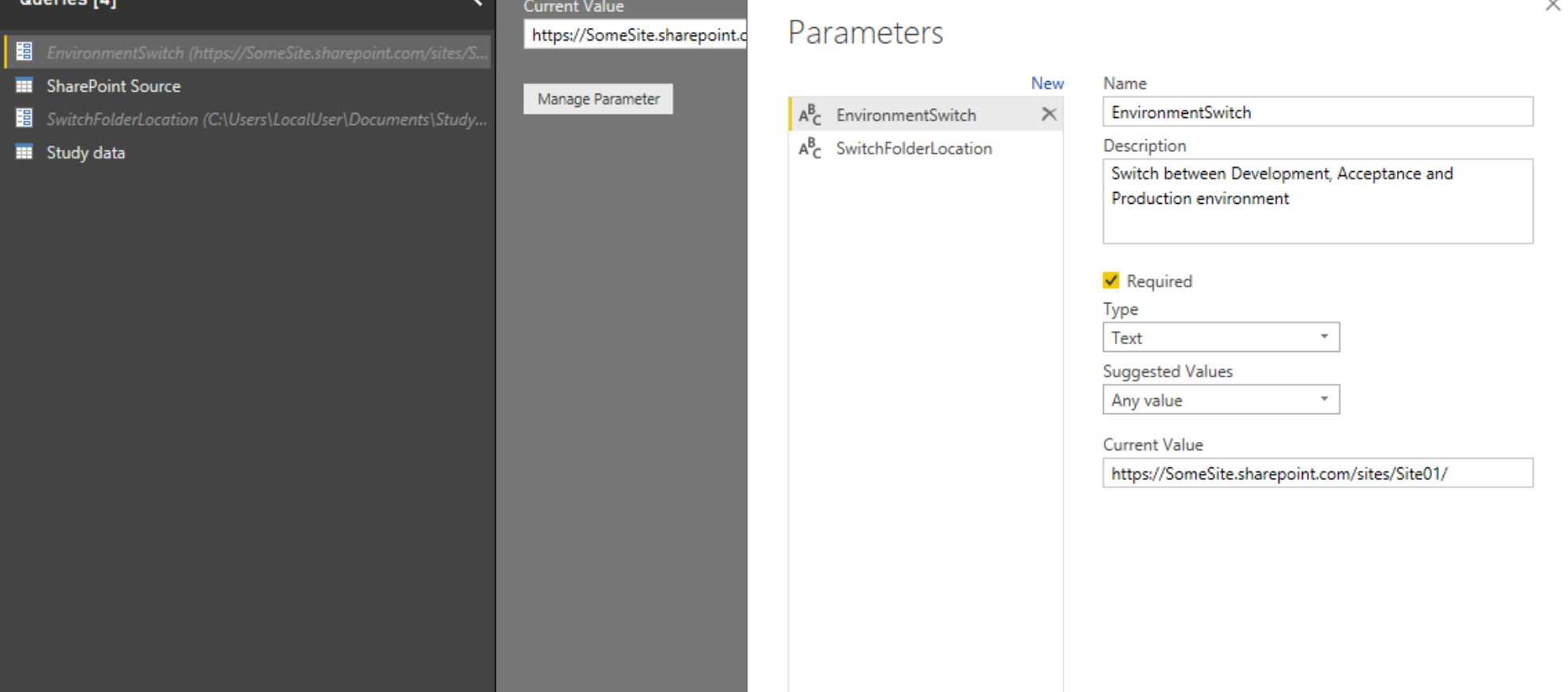


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Agenda

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





Apply parameters to your DTAP pipeline



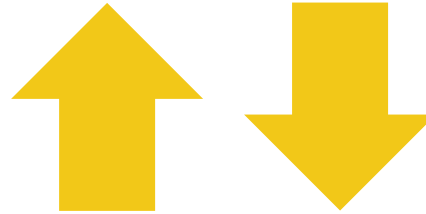
Deployment scenarios

**Business-Led
Self-Service BI**



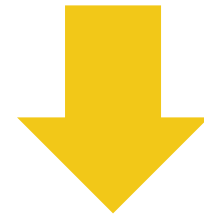
Bottom-Up

**IT- Managed
Self-Service BI**



Blended

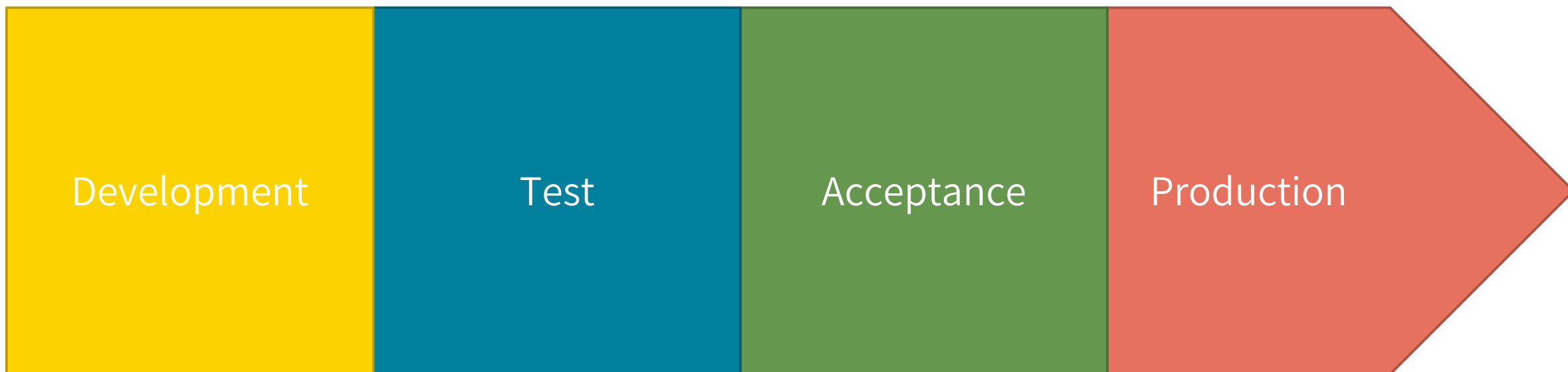
Corporate BI



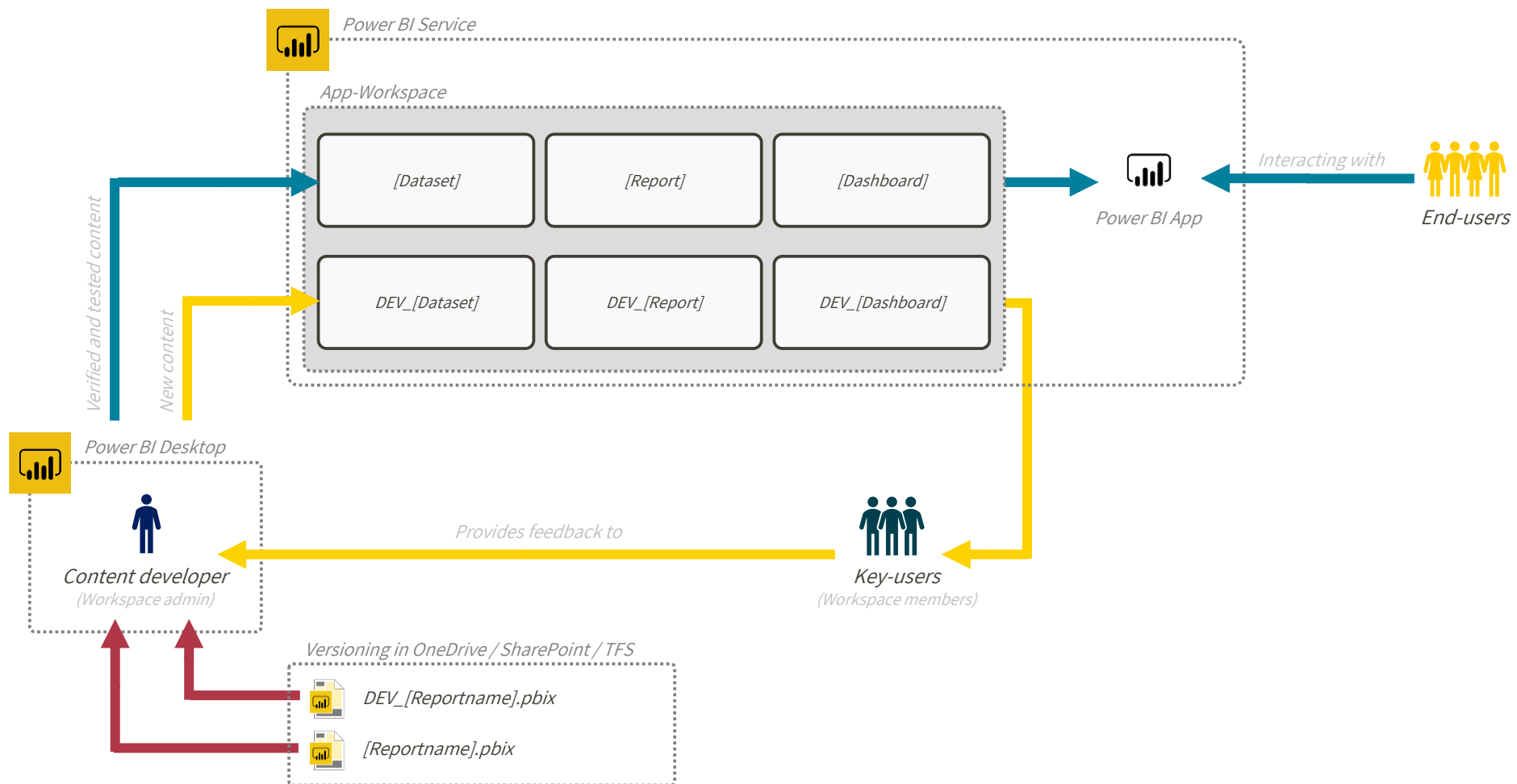
Top-Down



DTAP



Power BI Deployment



Parameter settings

Desktop

Parameters

New

EnvironmentSwitch

Name
EnvironmentSwitch

Description
Switch between Development, Acceptance and Production environment.

☒ Required

Type
Text

Suggested Values
List of values

1	https://
2	https://
3	https://
*	

Default Value
https://

Current Value
https://

OK Cancel

Service

Settings for Parameterize Datasource

[Refresh history](#)

▸ Gateway connection

▸ Data source credentials

▾ Parameters

EnvironmentSwitch
Switch between Development, Acceptance and Production environment

https://SomeSite.sharepoint.com/sites/Site01/

SwitchFolderLocation
Switchs folders

C:\Users\MarcL\Documents\Study.xlsx

Apply Discard

▸ Scheduled refresh

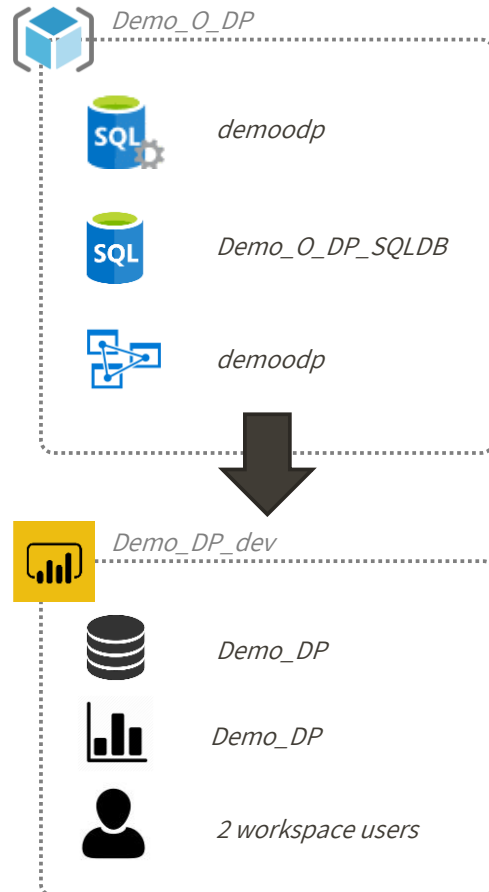
▸ Q&A and Cortana

▸ Featured Q&A questions

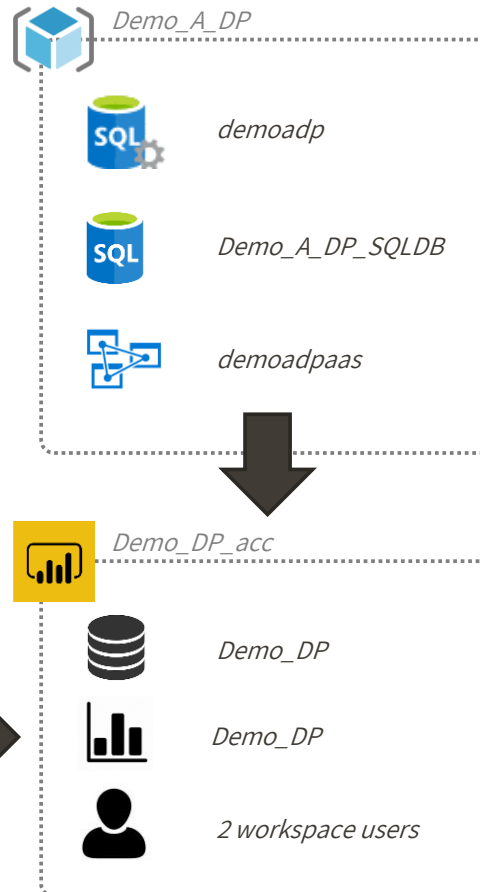


Demo context

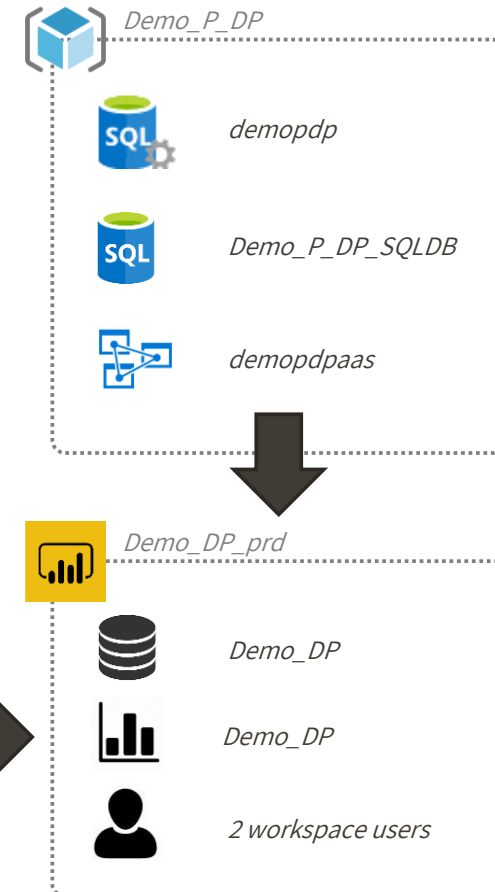
Development



Acceptance



Production



DEMO

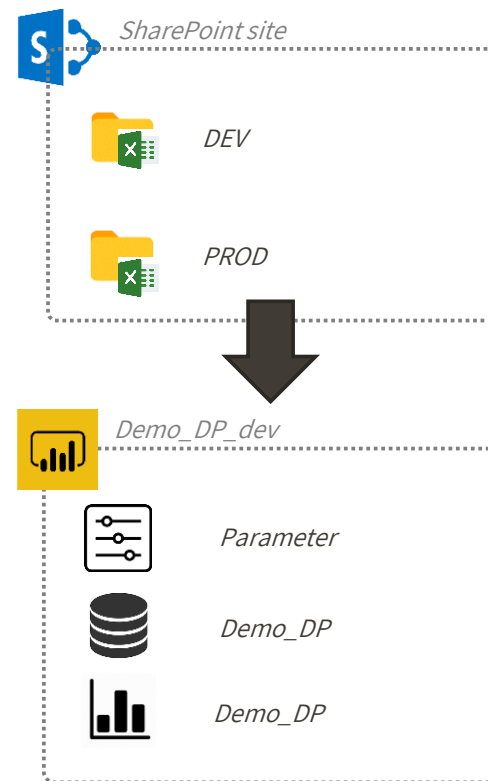
Change data source connection string



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Switch Folders



DEMO

Change folder



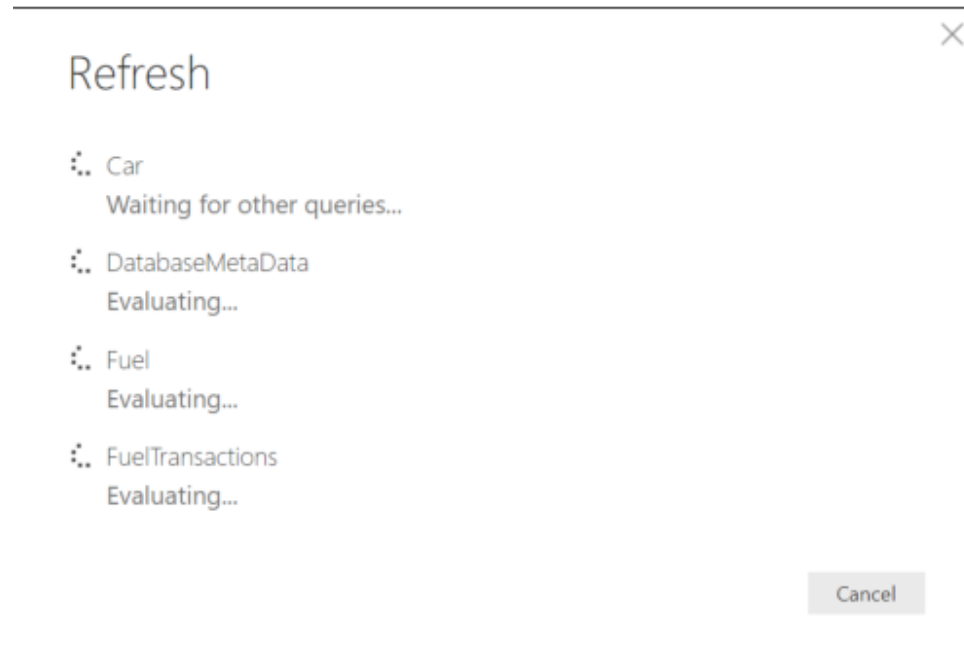
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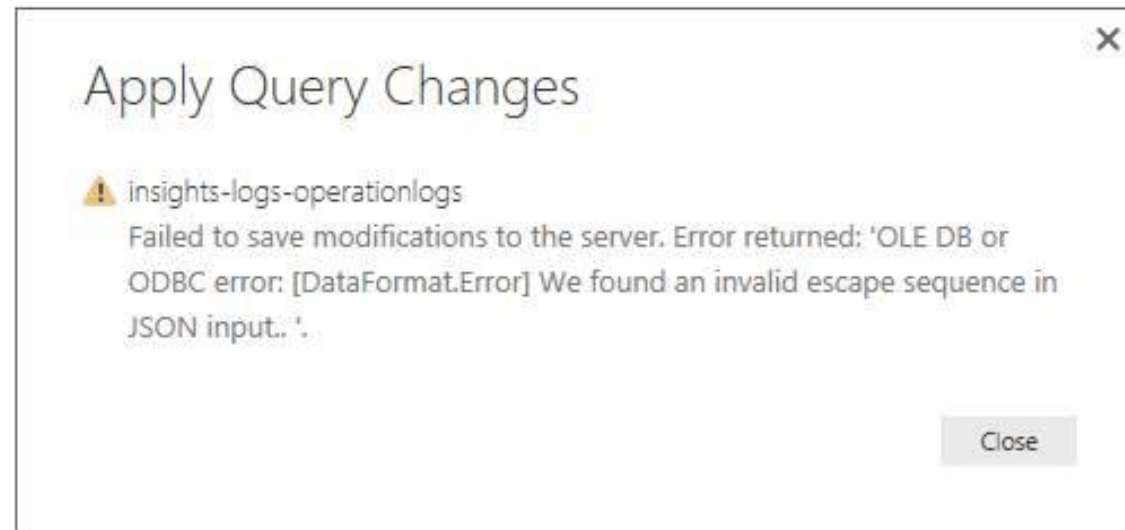
Optimize Report Building



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
- ...



Query folding – supported operations

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



DEMO

Apply top N rows



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Building a date dimension

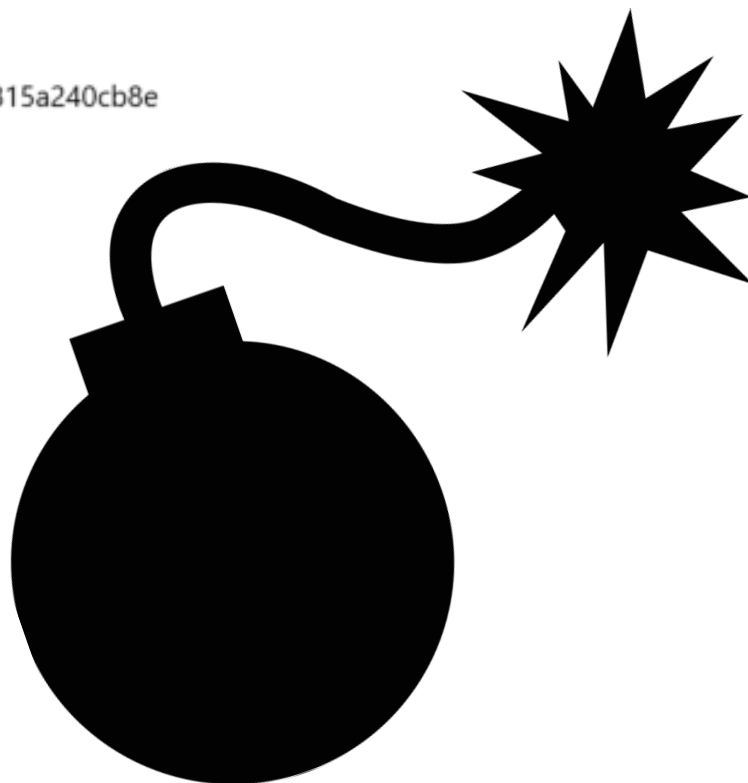
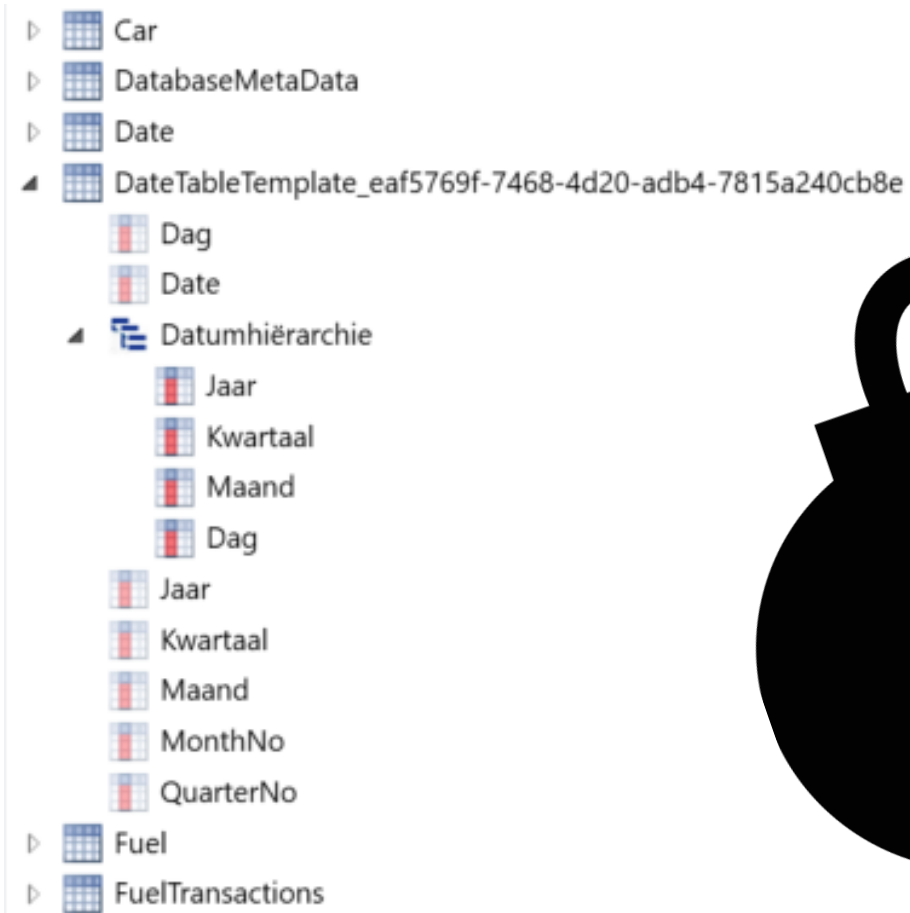


Why build a date dimension

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



Default build-in date dimension



**Blow up your
data model!**



DEMO

Building a flexible date dimension



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DEMO

Parameters in the Power BI service




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Power BI REST API

Sample Request


HTTP

 Copy

POST <https://api.powerbi.com/v1.0/myorg/datasets/cfafbeb1-8037-4d0c-896e-a46fb27ff229/Default.UpdateParameters>

Request Body

JSON

 Copy

```
{
  "updateDetails": [
    {
      "name": "DatabaseName",
      "newValue": "NewDB"
    },
    {
      "name": "MaxId",
      "newValue": "5678"
    }
  ]
}
```

<https://docs.microsoft.com/en-us/rest/api/power-bi/datasets/updateparameters>

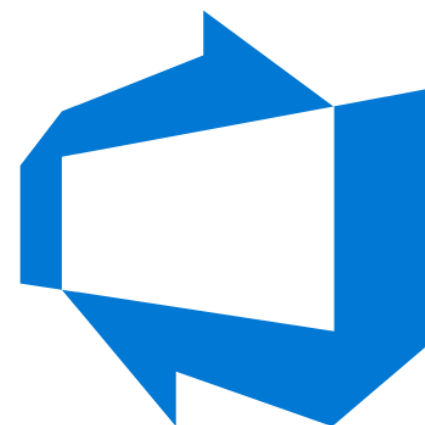


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Power BI cmdlets

```
25 function Update-DatasetParameter {
26     [CmdletBinding(DefaultParameterSetName='MyWorkspace')]
27     Param (
28         # GroupId help description
29         [Parameter(Mandatory=$true, ParameterSetName='SpecifiedWorkspace')]
30         [ValidateNotNullOrEmpty()]
31         [String]
32         $GroupId,
33
34         # DatasetKey help description
35         [Parameter(Mandatory=$true, ValueFromPipeline=$true, ParameterSetName='MyWorkspace')]
36         [Parameter(Mandatory=$true, ValueFromPipeline=$true, ParameterSetName='SpecifiedWorkspace')]
37         [ValidateNotNullOrEmpty()]
38         [String]
39         $DatasetKey,
40
41         # UpdateDetails help description
42         [Parameter(Mandatory=$true, ParameterSetName='MyWorkspace')]
43         [Parameter(Mandatory=$true, ParameterSetName='SpecifiedWorkspace')]
44         [ValidateNotNullOrEmpty()]
45         [Object]
46         $InputObject
47     )
48
49     begin {
50     }
51
52     process {
53
54         if ($InputObject -isnot [string]) {
55             $InputObject = ConvertTo-Json -InputObject $InputObject -Depth 100
56         }
57
58         if ($PSCmdlet.ParameterSetName -eq 'MyWorkspace') {
59             $path = '/v1.0/myorg/datasets/{0}/Default.UpdateParameters' -f $DatasetKey
60         } else {
61             $path = '/v1.0/myorg/groups/{0}/datasets/{1}/Default.UpdateParameters' -f $GroupId, $DatasetKey
62         }
63         Invoke-Api -Path $path -Method Post -Body $InputObject
64     }
65
66     end {
67     }
68 }
```



Azure DevOps

<https://www.powershellgallery.com/packages/Microsoft.PowerBI.PowerShell/1.0/Content/Microsoft.PowerBI.PowerShell.psm1>



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Creating templates



Why you should care about templates



Add your corporate
identity team file



Makes support easier



Kick-start new projects



DEMO

Generate your own template file



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What if parameters



What if...?

PayedPrice and Price After Price Increase by Jaar



DEMO

What if the price increased 10%?



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Wrap up

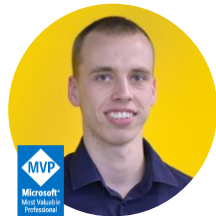
LET'S
RECAP...

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>



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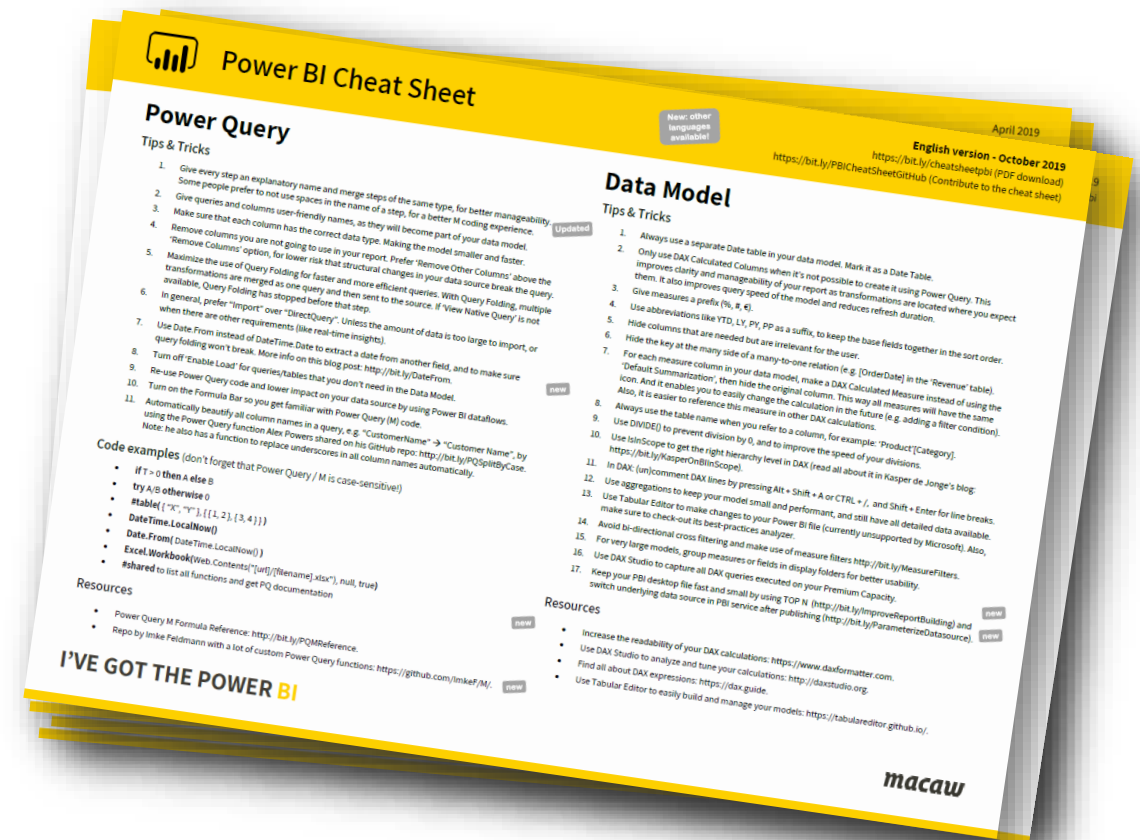
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