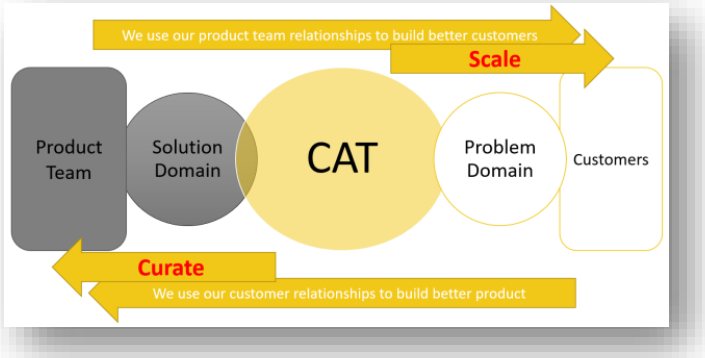
Power BI Development on Steroids

2022-01

Rui Romano

Power BI CAT

Microsoft



Lives in Porto, Portugal

+15 years working on Microsoft Data Stack

Power BI & Data

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https://ruiromanoblog.wordpress.com

Slides here:

https://github.com/RuiRomano/sessionslides

Power BI Dev on Steroids

- Tools
- {Dev} Techniques
- Fast Paced ☺

Focus on the possibilities not details…

Tools

My personal take on:

- DAX Studio
- Tabular Editor
- ALM Toolkit

DAX Studio

https://daxstudio.org/ by Darren Gosbell

Main Use Cases:

- DAX Query Editor / Builder / Formatter
- DAX Performance Tuning & Debugging
- **Quick Inspect Model w/ “View Metrics”**
- Export Data: Folder / SQL Server ♥

Learn more: Tool Intro

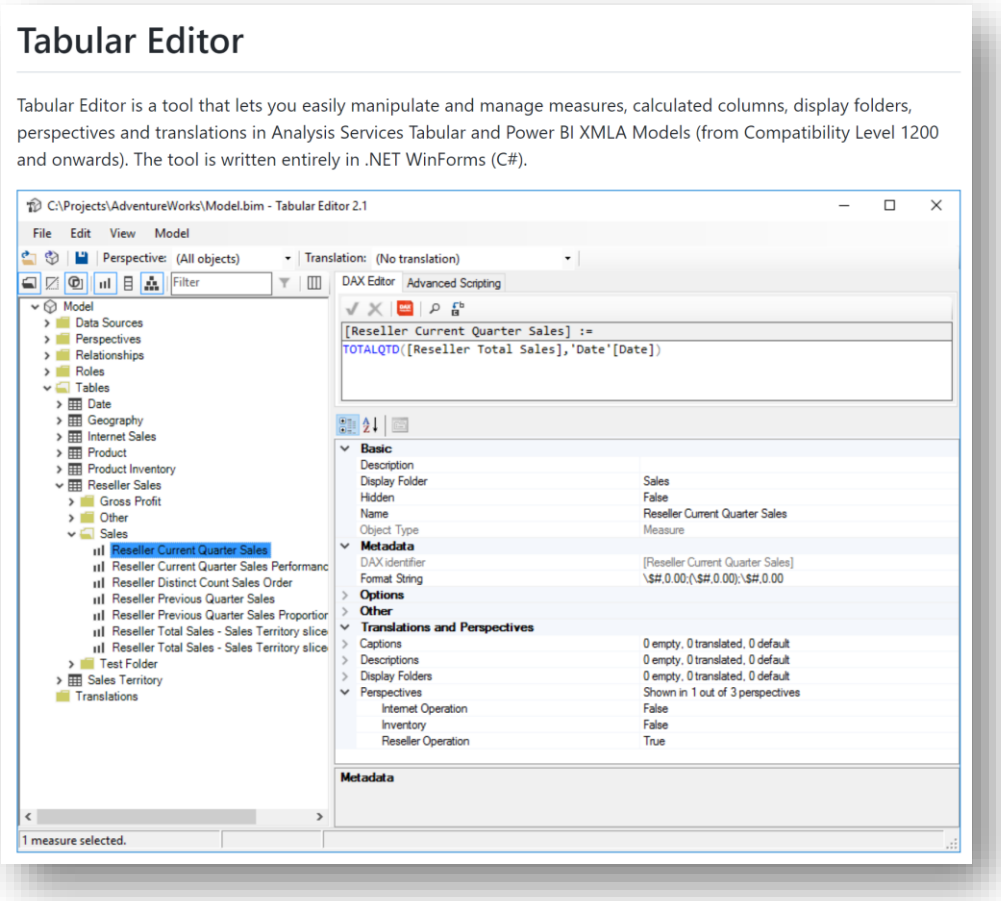
Tabular Editor

https://tabulareditor.com/ by Daniel Otykier

Massive productivity boost!

Main use cases:

- Model Development – Efficiently & Faster
- **Deployment with options** (ex: only schema)
- Automation with Scripting
- Copy items between PBIX files
- **Best Practices Analyzer**
- Restore a PBIX from powerbi.com



Learn more: Tool Intro

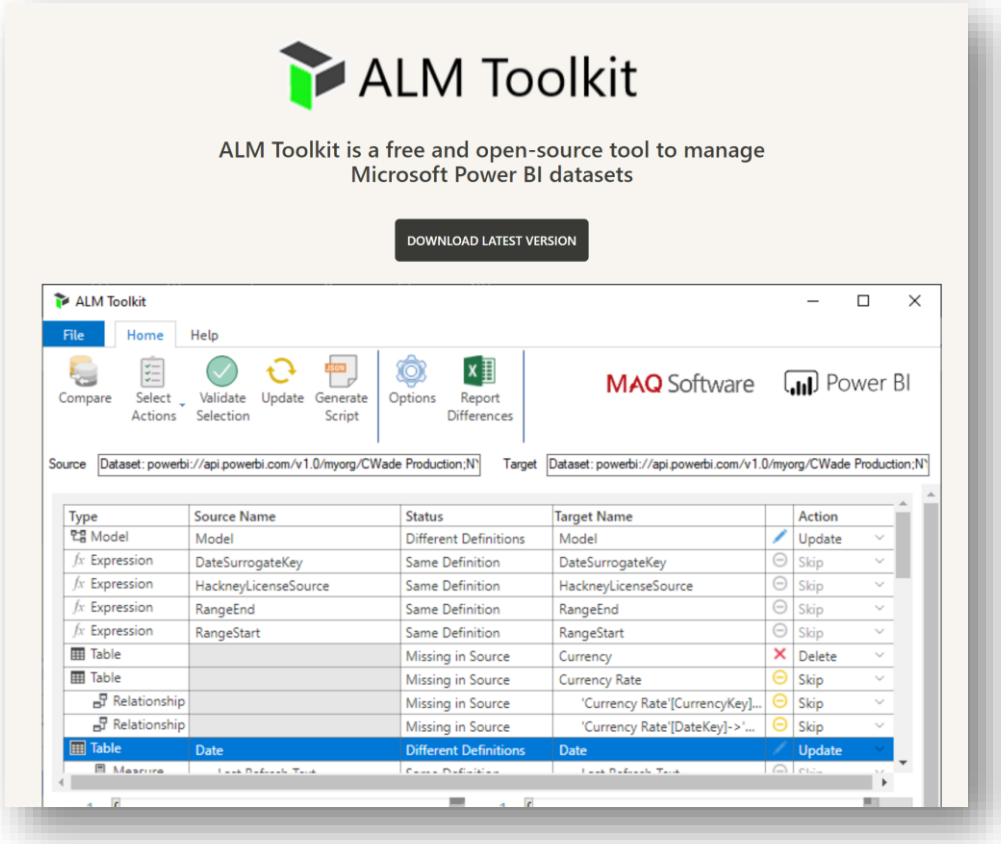
ALM Toolkit

http://alm-toolkit.com/ by Christian Wade

Schema diff tool for Tabular Datasets

Main Use Cases:

- Compare between PBIX Files
- Compare local to published
- Merge models => Multiple Developers!



Learn more: Tool Intro

Development Techniques

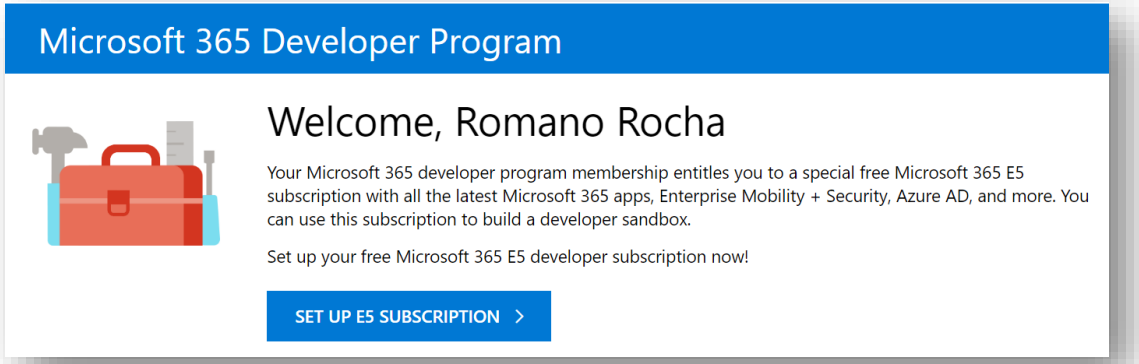
Create your own Power BI Playground

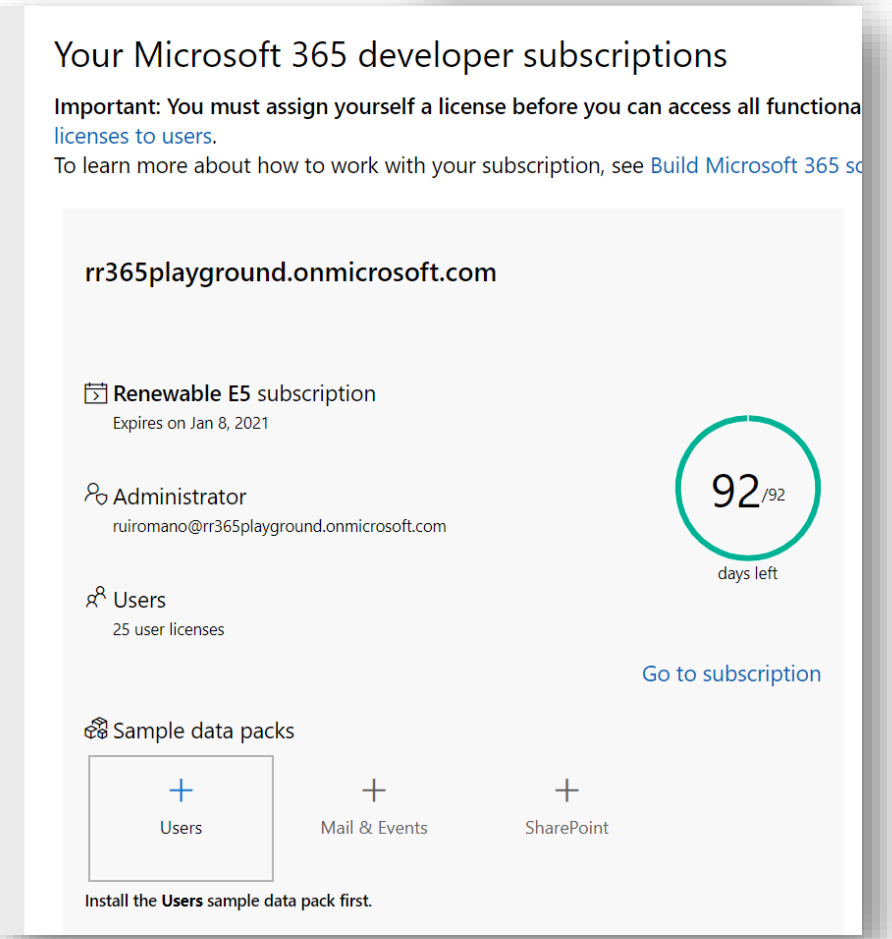
Very useful to try admin features ☺

Create a **365 Developer subscription**

- 90 days (renew automatically, if used for DEV)
- 25 Licenses of O365 E5 😮 (PowerBI, PowerApps, PowerAutomate)
- Full Tenant Control

Create a trial tenant to explore Power BI Administration

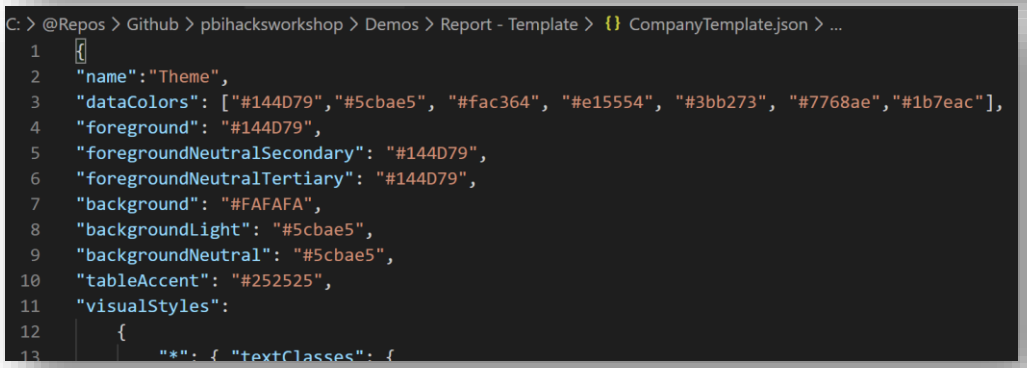




Use Templates!

- FastTrack to new Developments
- Theme files
  Much more than just colors
- Built in common tables
  Calendar & Time
  Calculation Groups
  About
  …

[Sample PBIT Download]



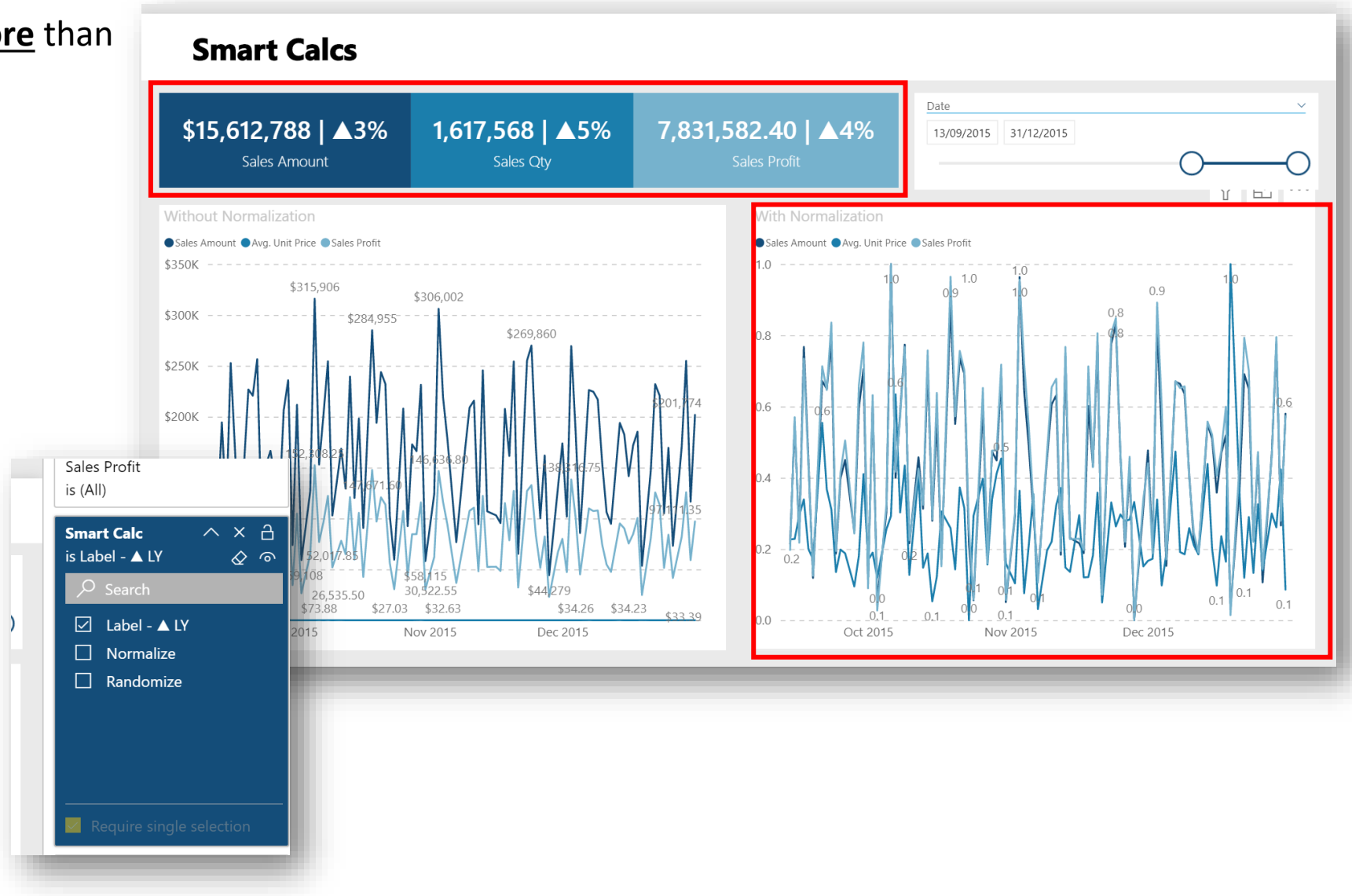
Learn more: https://docs.microsoft.com/en-us/power-bi/desktop-report-themes

“Smart” Calculation Groups

Calculation Groups can do **much more** than just Time Aggregations / Variations

Other very useful use cases:

- Auto Time Variation on Cards
- Normalization
- Randomize



REST API – Power BI DevOps

Avoid multiple development files

Declare your deployment strategy

Automate the deployment using REST API's

You can make mistakes, the computer don't ☺

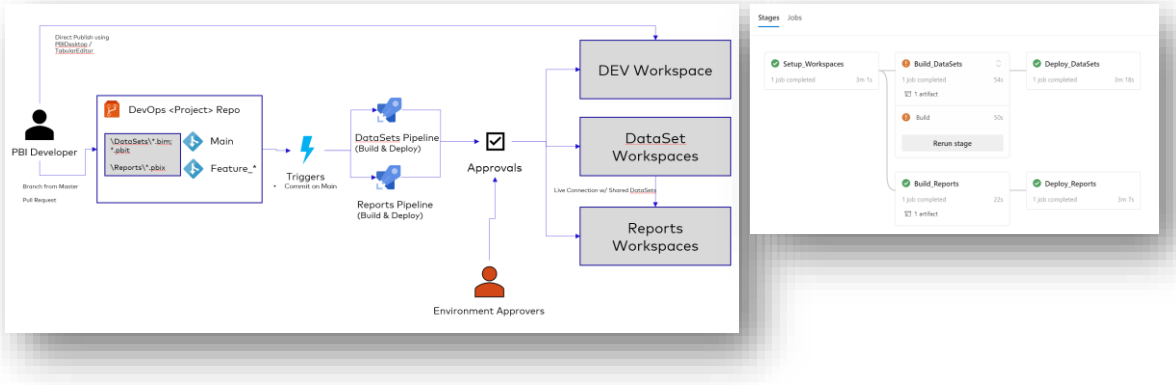
```powershell
Connect-PowerBIServiceAccount

if ($workspaces)
{
    Publish-PBIWorkspaces -configPath $configPath
}

if ($datasets)
{
    Publish-PBIDataSets -configPath $configPath -path "$path\DataSets"
}

if ($reports)
{
    # README - The live connected PBIX reports need to be binded to an existent Datas
    Publish-PBIReports -configPath $configPath -path "$path\Reports"
}

if ($paginatedReports)
{
    Publish-PBIReports -configPath $configPath -path "$path\PaginatedReports"
}
```

If you have Premium 💎

Deployment Pipelines

Must Watch: Daniel Otykier Session

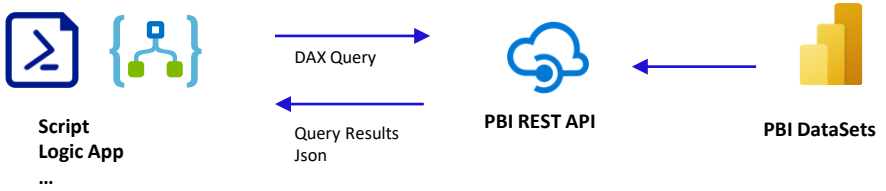
- Azure DevOps
- Tabular Editor / bim file vs pbix
- REST API's

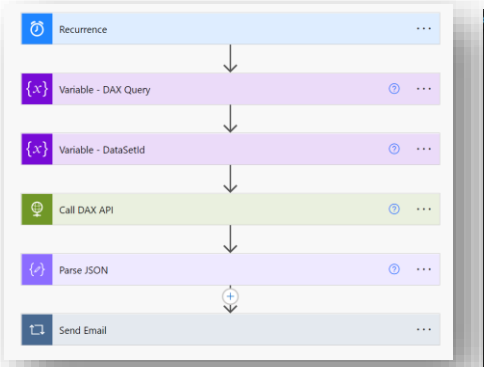


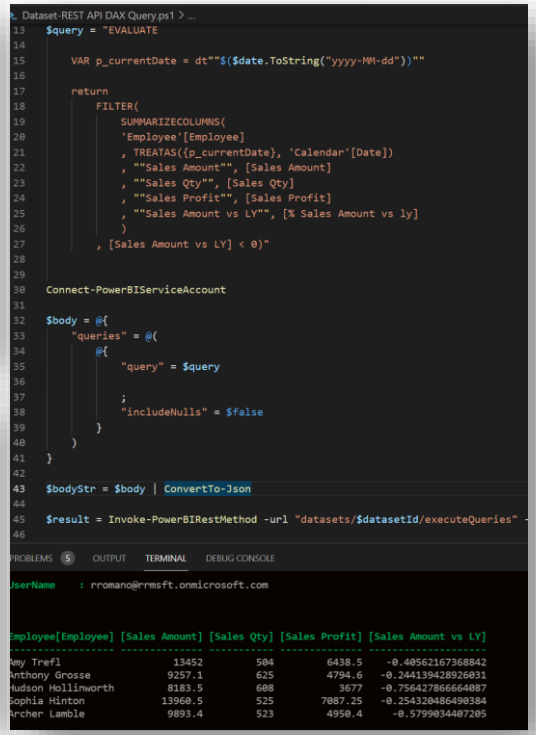
Links: pbidevops

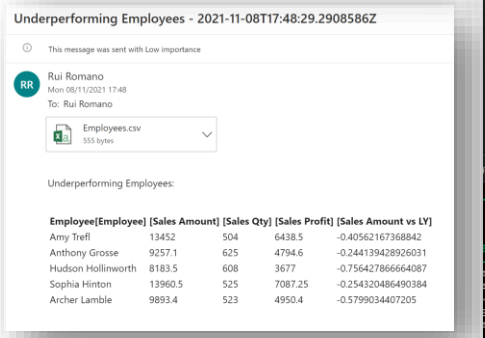
REST API - Dataset Execute Queries

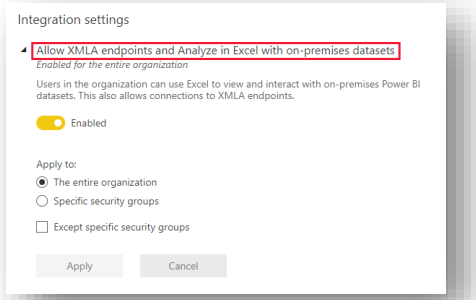
- The coolest API! ☺
- Useful Scenarios:
  Data Integration (*limited)
  Data Testing - blog post
  Alerting System using Power BI Data
  App/Website integrations
- Works on Premium & **Shared (PRO)**
- Requirements
  "Build" permission on the dataset
  "Allow XMLA Endpoints and Analyze in Excel"
- Main Limitations
  Result sets capped to 100k rows
  No parallel queries











Script: execute dax in PS

Thanks!

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