# Power BI

From Zero to Hero
2022 series of talks & presentations
in preparation for PL-300 (old DA-100)

#### Power BI

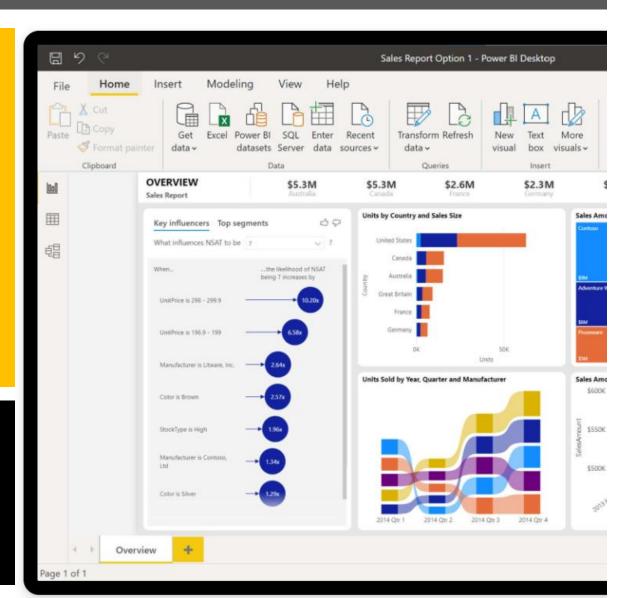
preparation for PL-300 (old DA-100) online training course



#### Introduction to Power BI free online training

POWER BI
BEGINNER
Preparation
DA-100 & PL-300

Monday 14<sup>th</sup> FEB 21:00 GMT



#### Power BI

Introduction to Power BI and your first Power BI report.

- Recording on Youtube. Leave if not happy to be recorded
- Each session sign up on Meetup.com for the live call
- Each session will be a new Zoom link
- Questions into the chat or raise your hand
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### **David Moss**





@wottabyte



wottabyte



www.wottabyte.com



#### Azure | Power Platform | D365 Solutions Architect

Delivering end to end Azure, Power Platform, D365 BI hybrid solutions with a passion for Power Platform integration & Power BI reports across IoT, e-commerce, telcos, fintech, manufacturing & blockchain verticals.

#### **MVP Data Platform**

Since 2017 awarded MVP - Microsoft Valued Professional - for my community contributions.

Leader of Power BI meetup user groups online.

Community & conference presenter & MCT

#### ACMA, CGMA Accountant

A qualified ACMA accountant all my career which keeps me commercially aware & business facing partner on projects.







#### Power BI

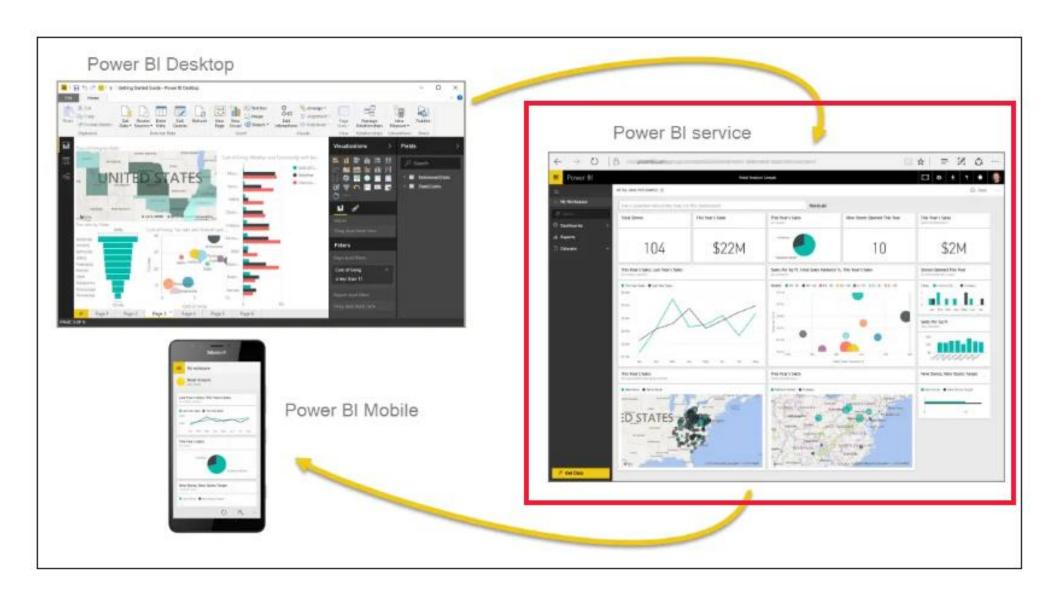
## series of talks & presentations in preparation for PL-300 (old DA-100)

- Introduction to Power BI and your first Power BI report.
- Use Power Query Editor to get data & prepare your data.
- Use Power BI desktop to structure & create datamodels.
- Design & configure Power BI visuals like charts, maps & KPIs.
- Add user friendly report navigation features, slicers & tooltips.
- Publish & share Power BI reports & dashboards.
- Get to grips with Power BI cloud service & mobile features.
- Enhance your data with DAX for KPIs reporting.
- Data analytics reporting & AI features in Power BI.
- Power BI at work with workspaces, datasets & security.





#### What is Power BI?



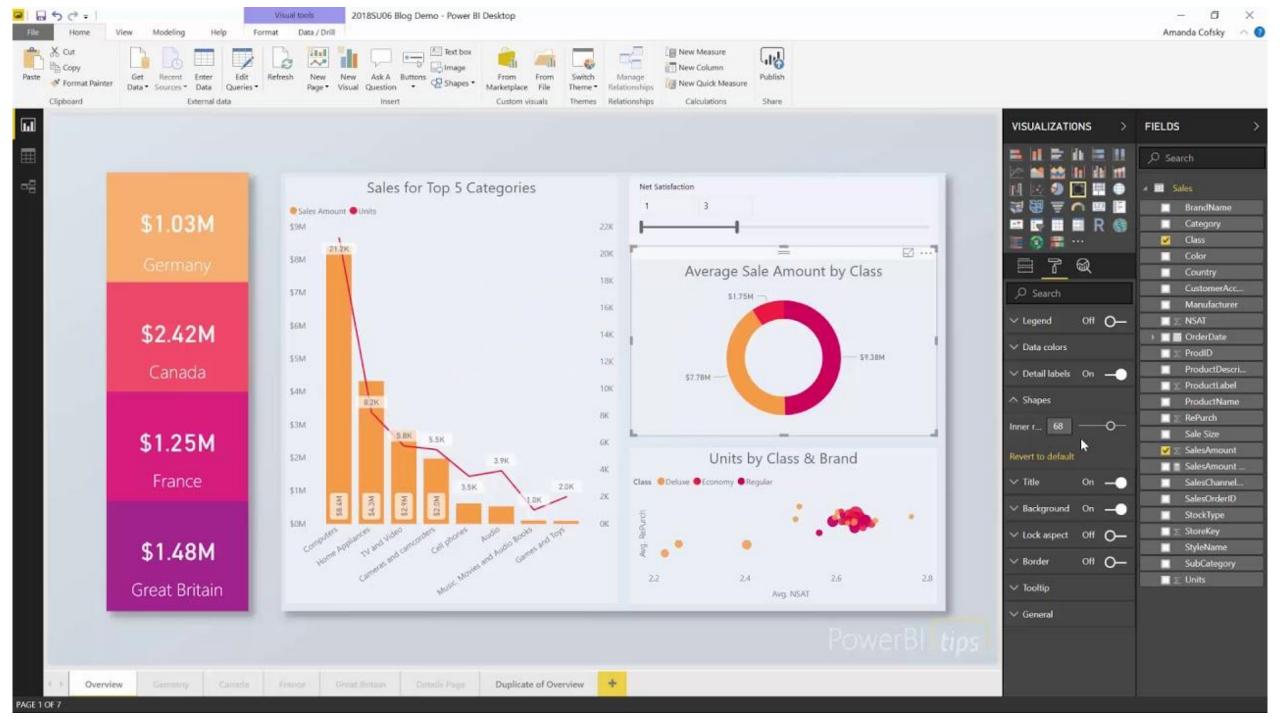
# PBI Desktop, PBI Service, PBI Mobile apps

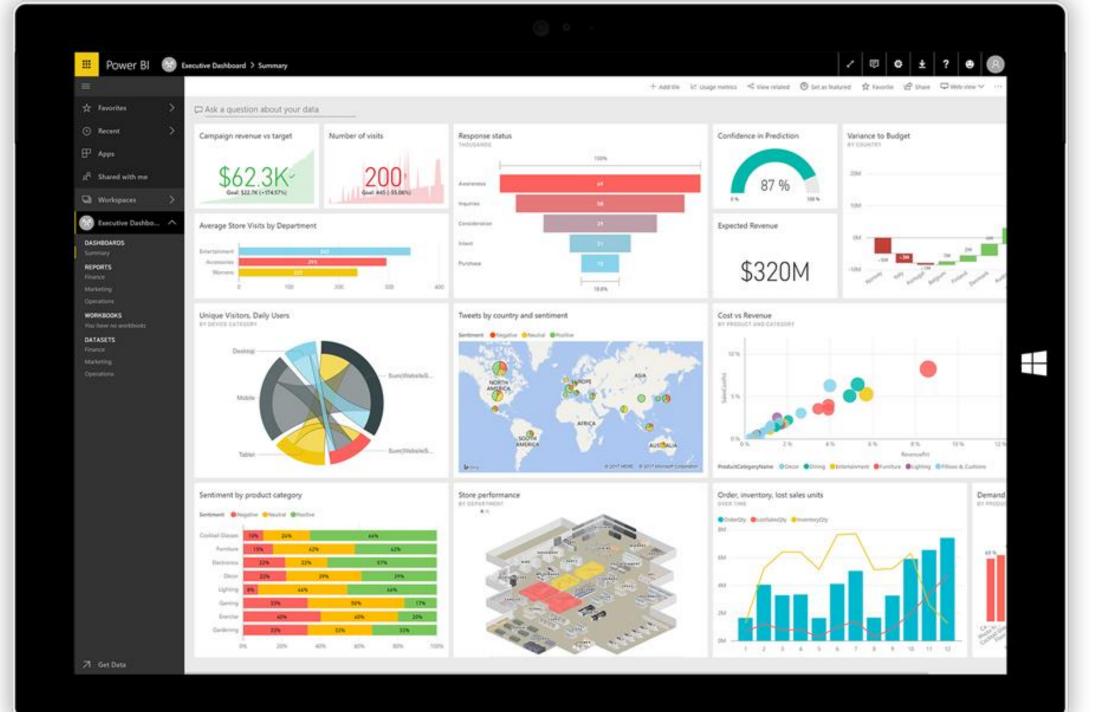
#### Parts of Power BI

These three elements—Desktop, the service, and Mobile apps—are designed to let people create, share, and consume business insights









#### Power BI Desktop

- Download Power BI Desktop from <a href="https://powerbi.microsoft.com/">https://powerbi.microsoft.com/</a>
- Install
- Build your first report use blog next page
- Quick look at PBI Desktop features
- Save your report as .pbix
- Get a Microsoft account
- Publish to Power BI Service app.powerbi.com



### Power BI Desktop

In the following Install Instructions, please start at the step after the mention of clicking the Download button.

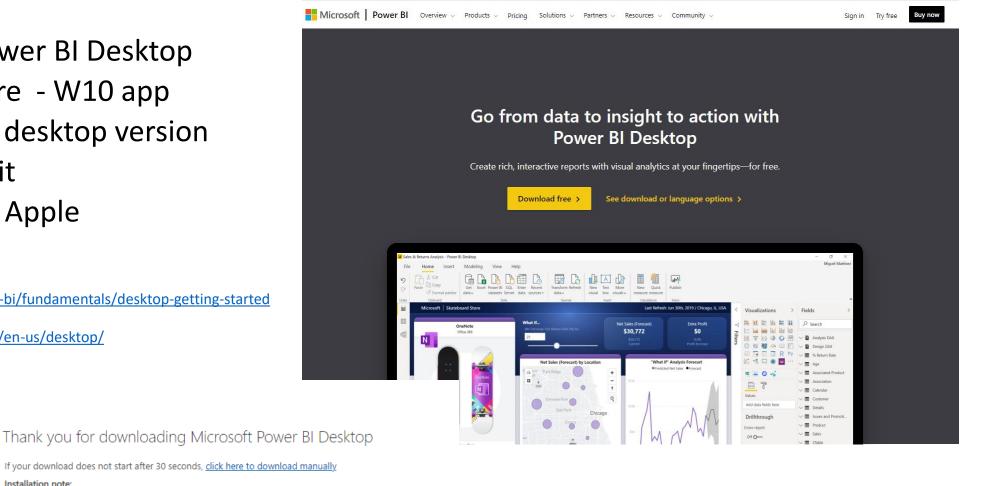
- Download Power BI Desktop
- Windows Store W10 app
- Or Download desktop version
- 32 bit or 64 bit
- Windows not Apple

#### What is PBI desktop?

https://docs.microsoft.com/en-us/power-bi/fundamentals/desktop-getting-started

Desktop: https://powerbi.microsoft.com/en-us/desktop/

Store: https://aka.ms/pbidesktopstore





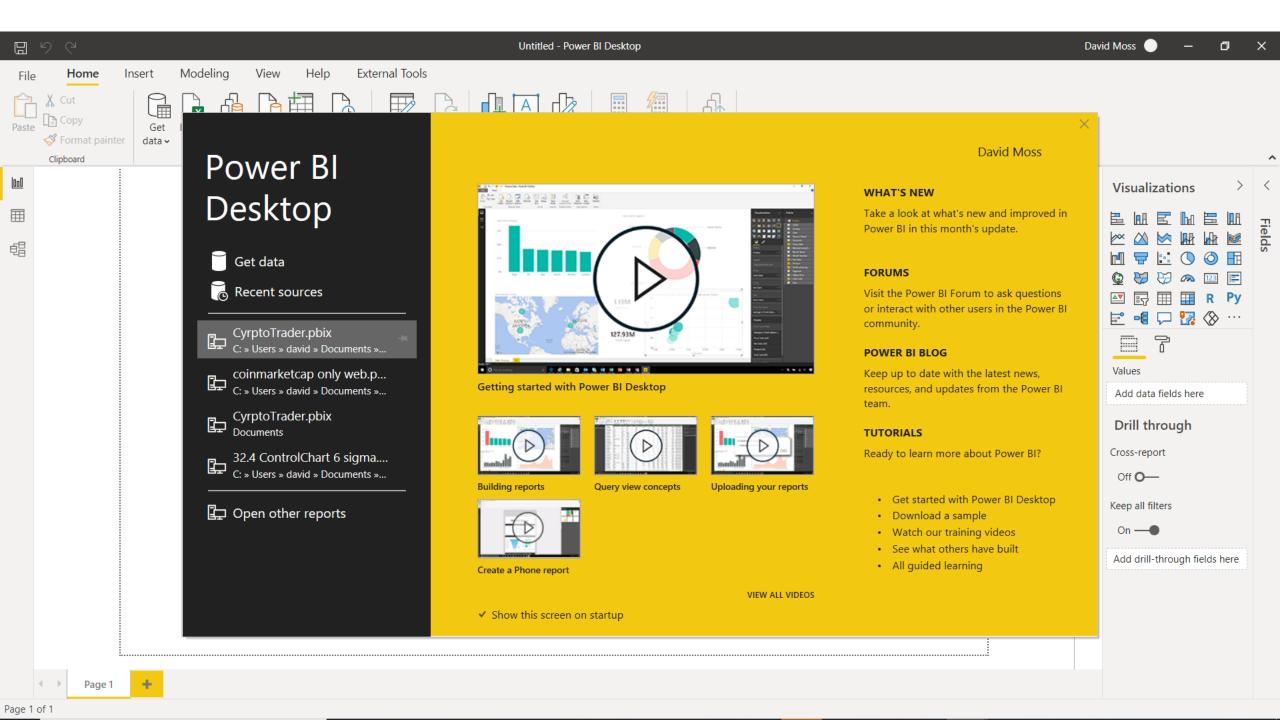




#### **Download Power BI Desktop**

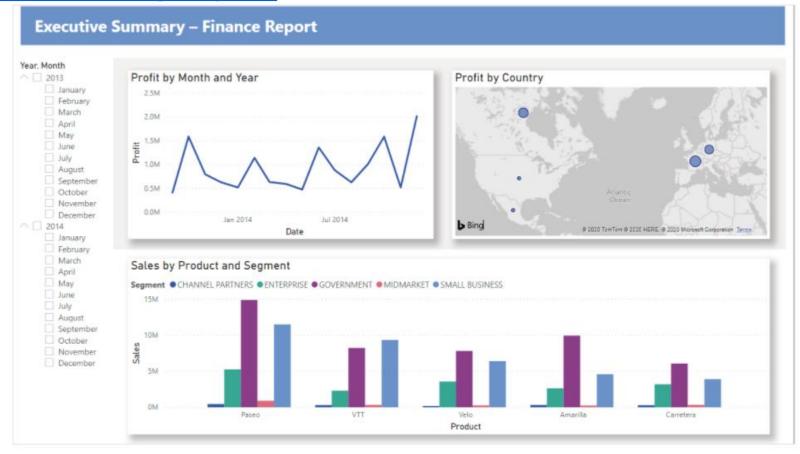
You can download Power BI Desktop from the web or as an app from the Microsoft Store on the Windows tab.

DOWNLOAD POWER BI DESKTOP		
Download Strategy	Link	Notes
Windows Store App	Windows Store	Will automatically stay updated
Download from web	<u>Download .msi</u>	Must manually update periodically



# 1 - build your first report

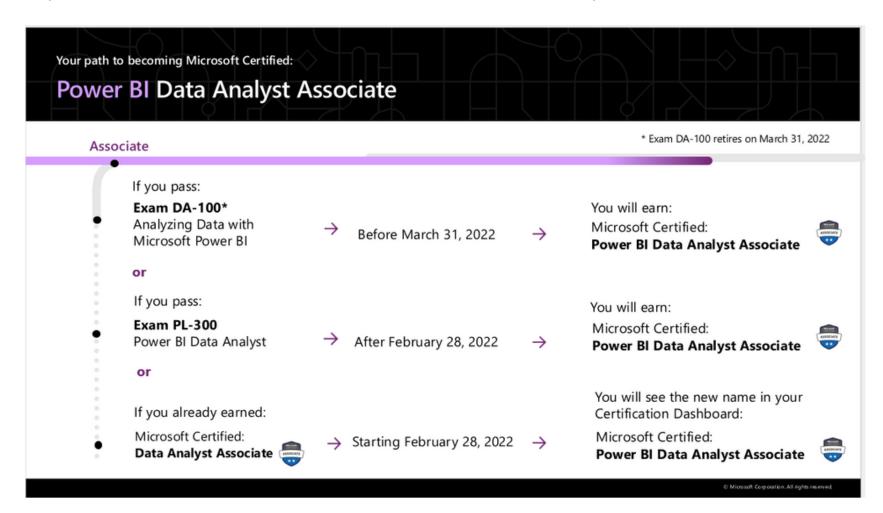
• <a href="https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-excel-stunning-report">https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-excel-stunning-report</a>





#### Microsoft Learn PL-300

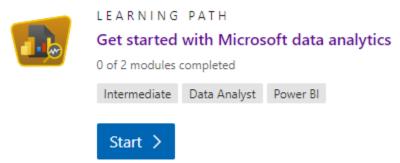
- Review curriculum
- https://techcommunity.microsoft.com/t5/microsoft-learn-blog/announcing-a-new-name-for-the-data-analyst-associate/ba-p/2388941
- https://docs.microsoft.com/en-us/learn/certifications/exams/da-100
- https://docs.microsoft.com/en-us/learn/certifications/exams/pl-300





## Preparation for next week

- Microsoft Learn : <a href="https://docs.microsoft.com/en-us/learn/certifications/exams/da-100">https://docs.microsoft.com/en-us/learn/certifications/exams/da-100</a>
- Get started with MS data analytics <a href="https://docs.microsoft.com/en-us/learn/paths/data-analytics-microsoft/">https://docs.microsoft.com/en-us/learn/paths/data-analytics-microsoft/</a>



• Microsoft documentation : <a href="https://docs.microsoft.com/en-us/power-bi/learning-catalog/">https://docs.microsoft.com/en-us/power-bi/learning-catalog/</a>

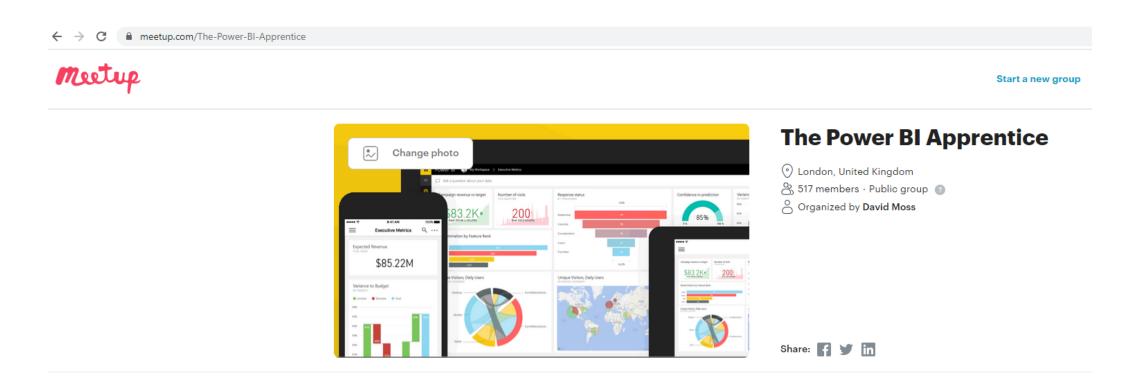


## Publish to www.powerbi.com

- Sign in at <u>www.powerbi.com</u>
- You need a MS a/c work account not a social email not gmail !!
- <a href="https://docs.microsoft.com/en-us/power-bi/fundamentals/service-self-service-signup-for-power-bi">https://docs.microsoft.com/en-us/power-bi/fundamentals/service-self-service-signup-for-power-bi</a>

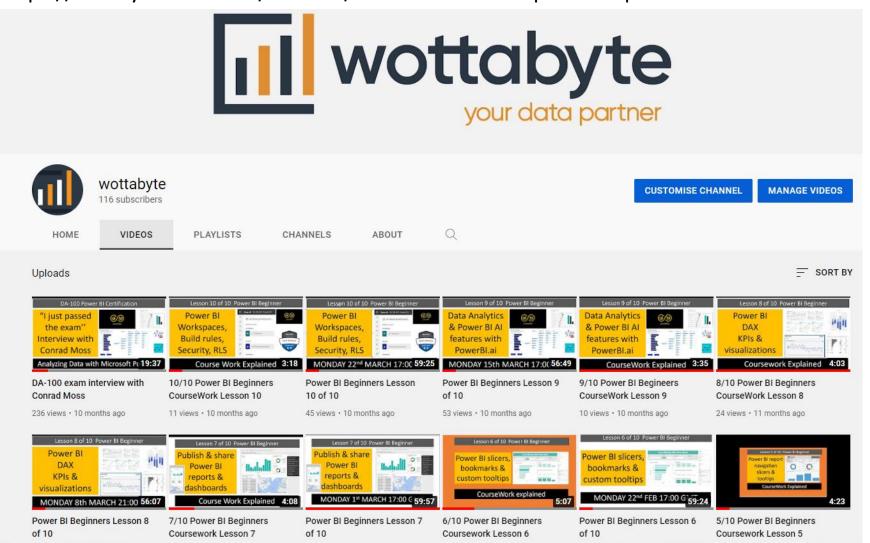


# Social Media: Meetup, LinkedIN, YouTube



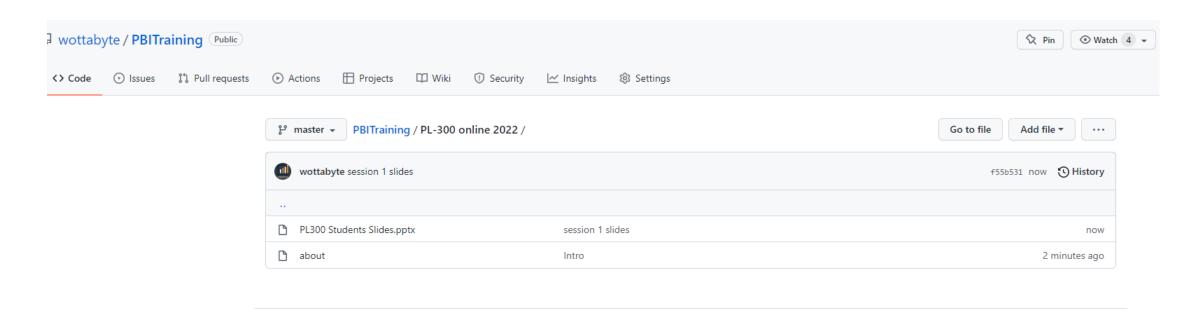
#### You Tube

https://www.youtube.com/channel/UCDtmmwK3YxWqzDNZ5L3pdMw



# Github copy of Slides

 https://github.com/wottabyte/PBITraining/tree/master/PL-300%20online%202022



#### The End





#### PL-300 Student's Slides

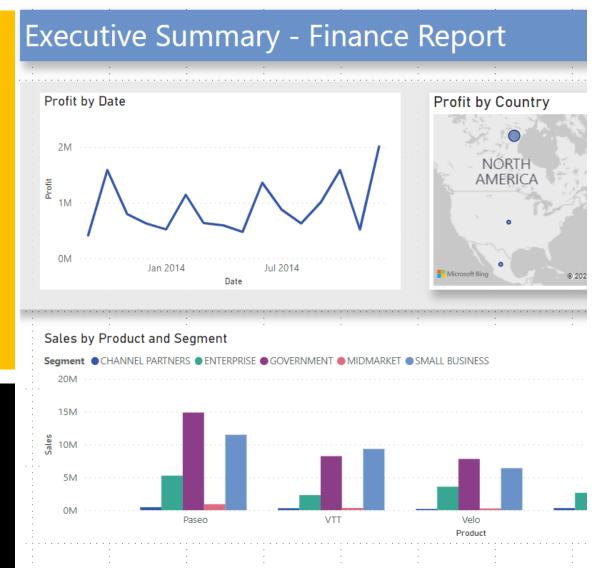
• Includes upto session 1

### Lesson 2

### Introduction to Power BI free online training

2 - Build your 1<sup>st</sup>
Power Bl report.
DA-100 & PL-300
syllabus

Monday 21<sup>st</sup> FEB 20:00 GMT



#### Power BI

Introduction to Power BI and your first Power BI report.

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#### Power Bl

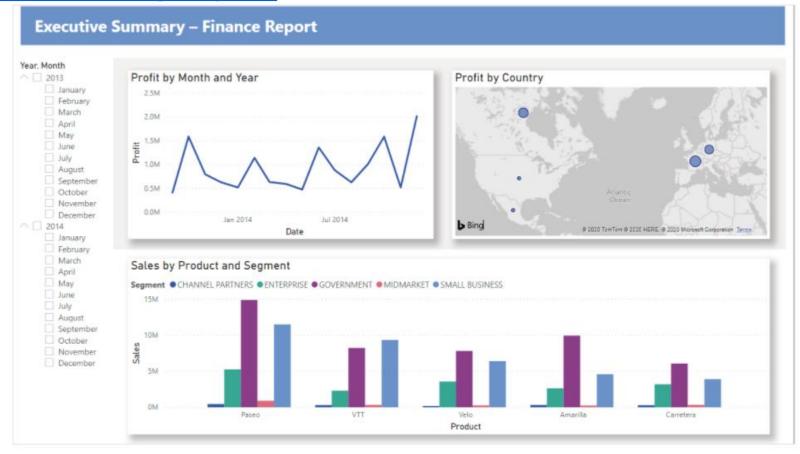
series of talks & presentations in preparation for PL-300 (old DA-100)

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- PL-300 syllabus
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# 1 - build your first report

• <a href="https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-excel-stunning-report">https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-excel-stunning-report</a>



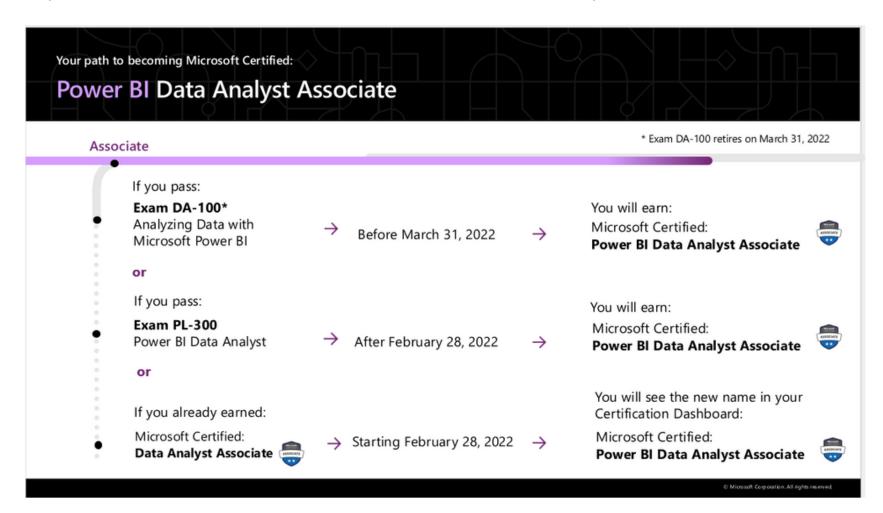


# Tidy up report

- Last week we ingested the data in the Power Query Editor
- We made some simple transformations
- We started to build the report
- Lets continue in Power BI Desktop and build 1<sup>st</sup> report.

#### Microsoft Learn PL-300

- Review curriculum
- https://techcommunity.microsoft.com/t5/microsoft-learn-blog/announcing-a-new-name-for-the-data-analyst-associate/ba-p/2388941
- https://docs.microsoft.com/en-us/learn/certifications/exams/da-100
- https://docs.microsoft.com/en-us/learn/certifications/exams/pl-300



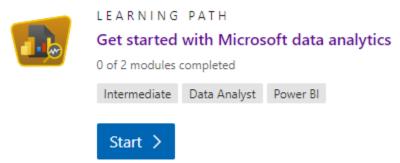


# PL-300 syllabus

• See the excel sheet with the breakdown of the PL-300 syllabus

## Preparation for next week

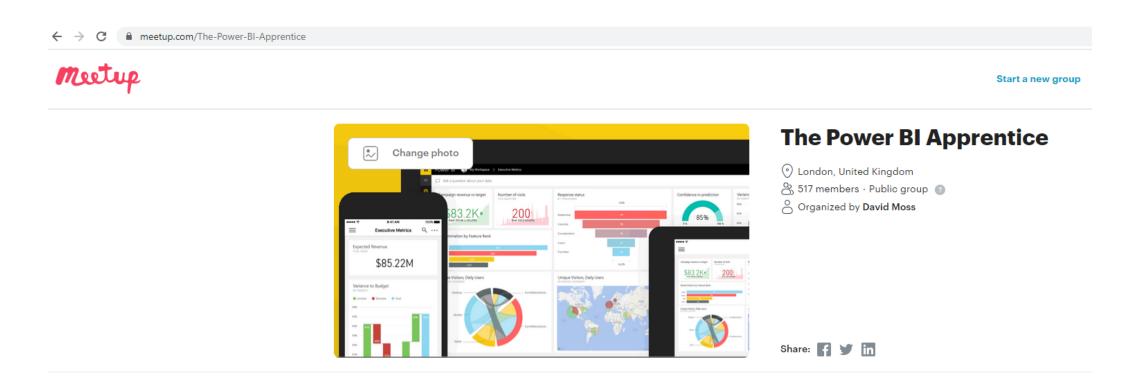
- Microsoft Learn : <a href="https://docs.microsoft.com/en-us/learn/certifications/exams/da-100">https://docs.microsoft.com/en-us/learn/certifications/exams/da-100</a>
- Get started with MS data analytics <a href="https://docs.microsoft.com/en-us/learn/paths/data-analytics-microsoft/">https://docs.microsoft.com/en-us/learn/paths/data-analytics-microsoft/</a>



• Microsoft documentation : <a href="https://docs.microsoft.com/en-us/power-bi/learning-catalog/">https://docs.microsoft.com/en-us/power-bi/learning-catalog/</a>

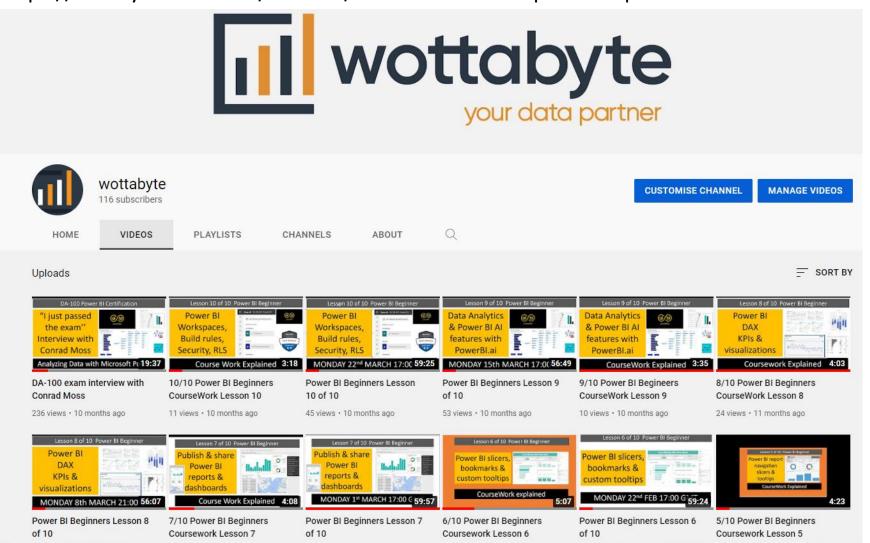


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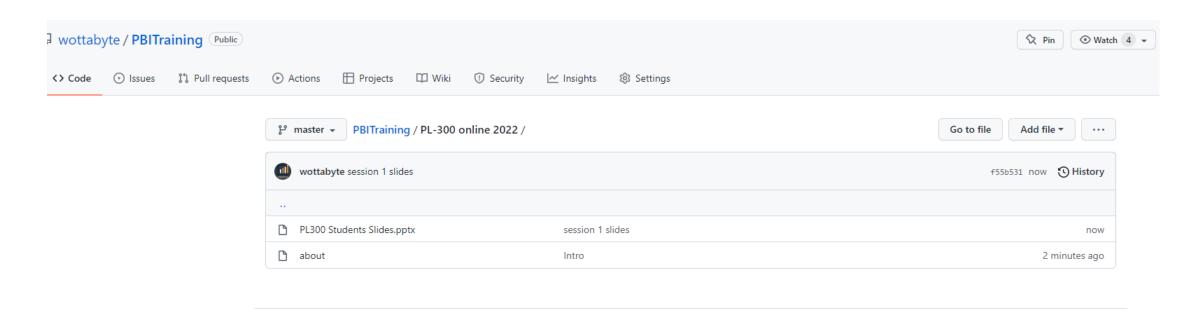
#### You Tube

https://www.youtube.com/channel/UCDtmmwK3YxWqzDNZ5L3pdMw



# Github copy of Slides

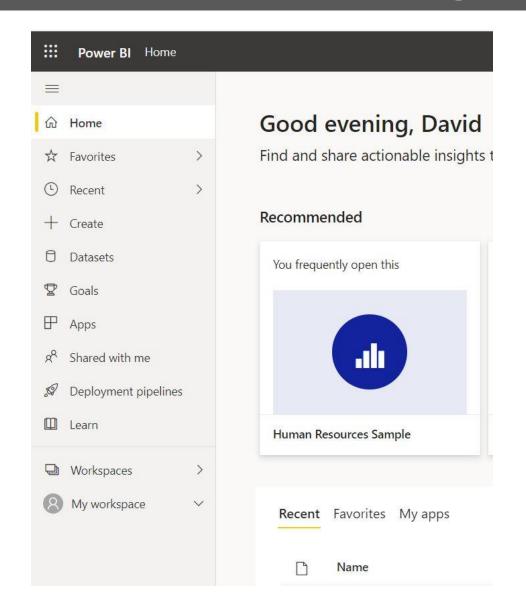
 https://github.com/wottabyte/PBITraining/tree/master/PL-300%20online%202022



### Introduction to Power BI free online training

3 – Power BI service. Install sample reports & dashboards.

Monday 28<sup>th</sup> FEB 20:00 GMT



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- Microphones on mute....you are been recorded!!



#### Lesson 3

- Did you do the homework from session 2 ? see next slide
- Microsoft account or use a test@wottabyte.com account
- Log into Power Bl
- Get sample reports & dashboard
- Publish your 1<sup>st</sup> .pbix

# Preparation from last sessions

LEARNING PATH

Start >

Get started with Microsoft data analytics

Intermediate Data Analyst Power BI

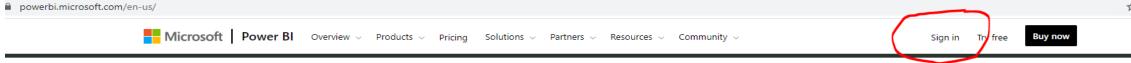
• Microsoft Learn: <a href="https://docs.microsoft.com/en-us/learn/certifications/exams/da-100">https://docs.microsoft.com/en-us/learn/certifications/exams/da-100</a>

Get started with MS data analytics <a href="https://docs.microsoft.com/en-us/learn/paths/data-analytics-microsoft/">https://docs.microsoft.com/en-us/learn/paths/data-analytics-microsoft/</a>

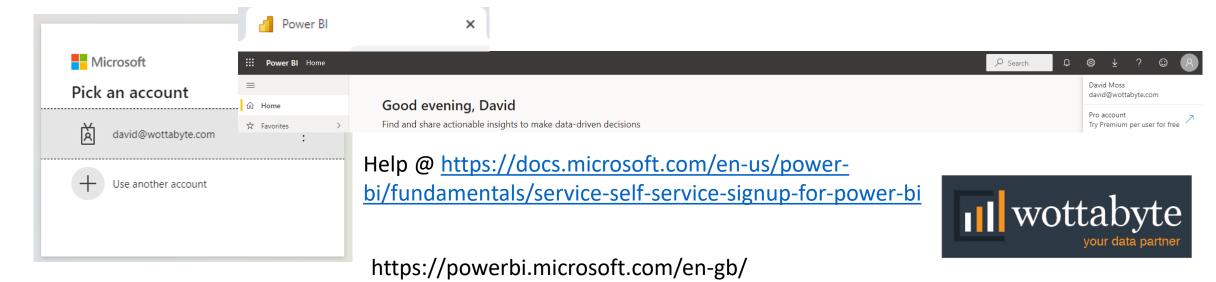
- Data analyst Role
- PBI workflow: PQE, Datamodel, visuals, publish
- Power BI building blocks: datasources, datasets, visualizations, reports, dashboards, tiles & apps.
- Install your first app
- Microsoft documentation : <a href="https://docs.microsoft.com/en-us/power-bi/learning-catalog/">https://docs.microsoft.com/en-us/power-bi/learning-catalog/</a>



# Create a Power BI Service account Sign up & login with Power BI account (needs a Microsoft a/c)



- Goto www.powerbi.com and click 'Sign in'. Free license.
- Work or school a/c? If none then create a Microsoft a/c but cannot use a gmail. <a href="https://docs.microsoft.com/en-us/power-bi/consumer/end-user-sign-in">https://docs.microsoft.com/en-us/power-bi/consumer/end-user-sign-in</a>
- If fails we can help you with a <a href="mailto:name@wottabyte.com">name@wottabyte.com</a> email
- Show Power BI Service Home page My workspace is blank.

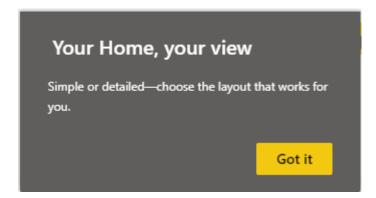


#### Need a Microsoft work account?

- test10@wottabyte.com
- test12@wottabyte.com
- test13@wottabyte.com
- test14@wottabyte.com
- test15@wottabyte.com
- test21@wottabyte.com
- PL300-password
- David use an Incognito browser to show logging in with the above email accounts

# Sign In to Power BI cloud service www.powerbi.com

- Sign in at <u>www.powerbi.com</u>
- You need a MS a/c work account not a social email not gmail !!
- <a href="https://docs.microsoft.com/en-us/power-bi/fundamentals/service-self-service-signup-for-power-bi">https://docs.microsoft.com/en-us/power-bi/fundamentals/service-self-service-signup-for-power-bi</a>





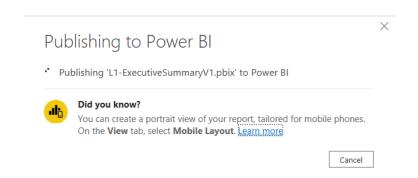
# Sign In to Power BI cloud service www.powerbi.com

- Sign in at <u>www.powerbi.com</u>
- Get Data > Samples > load a sample app
- Show report, dashboard and generally the layout of the PBI Service.



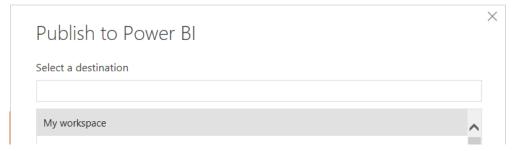
# Publish to Power BI .pbix report

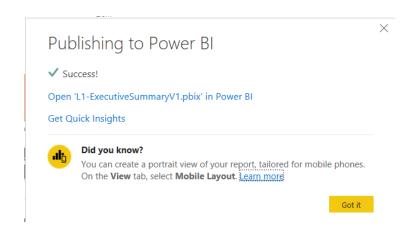
- Back in Power BI Desktop
- open .pbix then Click Publish
- Select My Workspace and click confirm.
- Check success message
- Goto <u>www.powerbi.com</u>
- Open My Workspace
- See you report
- Navigate report
- Share report ? How ?













## Power BI preparation

Microsoft Learn: https://docs.microsoft.com/en-us/learn/certifications/exams/da-100

- Microsoft Learn Complete Learning Path 'Prepare Data for analysis'
- Module 'Get data in Power BI
- Module 'Clean, transform and load data in Power BI
- Download the slides from GitHub



#### Prepare data for analysis

3 hr 26 min • Learning Path • 0 of 2 modules completed

Intermediate Data Analyst Power BI



#### Get data in Power BI

1 hr 25 min • Module • 0 of 12 units completed

**★ ★ ★ ★** 4.8 (2,587)



#### Clean, transform, and load data in Power BI

2 hr 1 min • Module • 0 of 10 units completed

**★★★★** 4.8 (2,754)

https://docs.microsoft.com/en-us/learn/paths/prepare-data-power-bi/



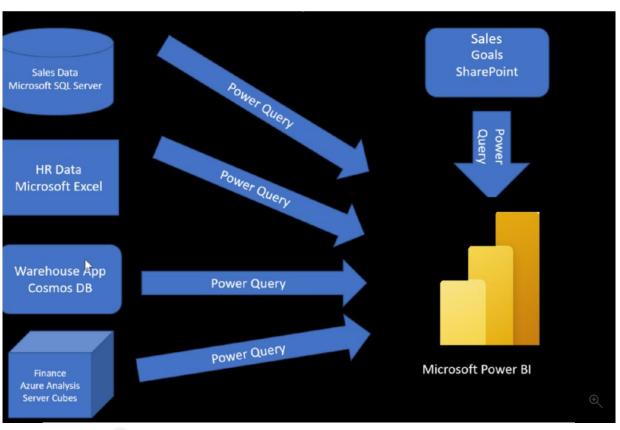
### Lesson 4

- Did you do the homework from session 3 ? 1<sup>st</sup> module : Get Data in Power BI
- Power Query Editor

# Introduction to Power BI free online training

4 – Power BI ETL with Power Query Editor & Get Data.

Monday 14<sup>th</sup> MAR 20:00 GMT





#### Prepare data for analysis

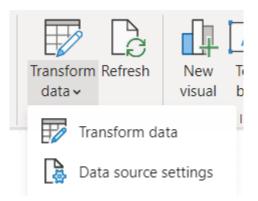
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Intermediate Data Analyst Power BI

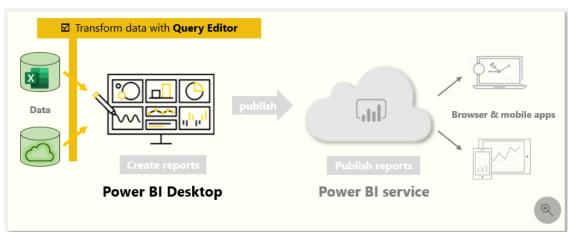
#### Power BI PL-300

Use Power Query Editor to get data & prepare your data

- Get & prepare data with Power Query Editor
- From Power BI Desktop open Power Query Editor...how ?
- Show PQE features
- Power Query Language = M
- BTW it's the same in Excel
- Get data & transform as demo in Learn







## Power BI preparation

Microsoft Learn: https://docs.microsoft.com/en-us/learn/certifications/exams/da-100

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2 hr 1 min • Module • 0 of 10 units completed

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https://docs.microsoft.com/en-us/learn/paths/prepare-data-power-bi/



## Learn portal: Get Data - demo

- Key takeaways:
- Datasource: SQL server DB (sales), excel (HR), Cosmos DB JSON (shipment)
- ETL: Connect to datasoure, Get Data, storage mode, Clean, rename, replace, remove, joins.
- Get data from files; .csv, .txt, xml, .xlxs local, 1 drive, sharepoint
- Connect, Navigator: preview then Transform Data or Load
- Data source settings, change source, edit permissions, clear permissions
- Get Data SQL server: server name, database. Authentication: Windows (AAD), Database (db user), Microsoft a/c (azure cloud)
- Get Data with SQL query; prepare in SSMS copy to SQL statement in PQE Get data dialogue window.
- No SQL db. Azure Cosmos DB, db & collection, PQE expand record (Json array).
- Sharepoint
- Storage mode: Import, Direct Query, Dual (composite)
- SSAS : import , connect live.
- Optimize: Query folding. Right click query (View native Query). Query Diagnostics
- PQE load errors: timeout, location, datatypes
- Data profiling

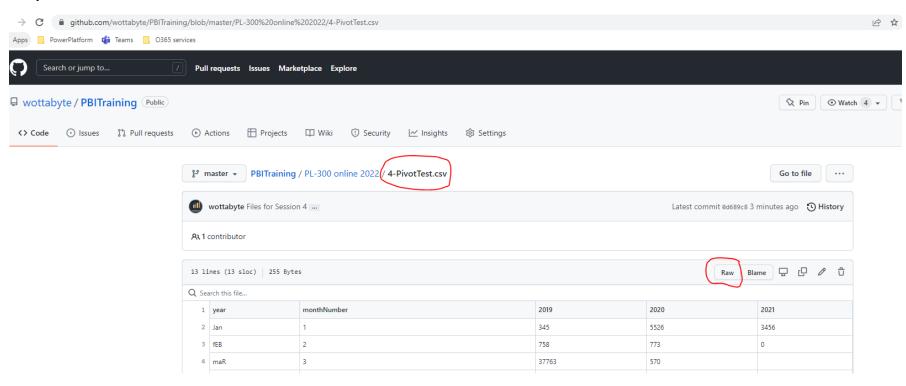


#### Power BI: Transform data | wottabyte



#### Power Query Editor: Capitalize & UNpivot data demo

- Csv > raw ? See url : https://github.com/wottabyte/PBITraining/tree/master/PL-300%20online%202022
- PQE use Web connector to the raw csv from the github
- Lowercase then capitalize
- Pivot years
- Close & Apply



#### Do the Learn modules

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- Module 'Get data in Power BI
- Module 'Clean, transform and load data in Power BI
- Download the slides from GitHub



#### Prepare data for analysis

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Intermediate Data Analyst Power BI



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