

Power BI

beginners free 10 weeks online training course

Power BI

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Power BI Week 1

Monday 18th Jan 2021

Introduction to Power BI and your first Power BI report.

- Hi & Intros: David, Conrad
- Logistics: Classroom course
- Recording on Youtube. Leave if not happy to be recorded
- Each week sign up on Meetup.com for the weekly event & Q&A workshop
- Each session will be a new Zoom link
- Questions into the chat or raise your hand
- 2 screens is better than 1.
- Microphones on mute

David Moss



Azure | Power Platform | D365 Solutions Architect

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

MVP Data Platform

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

Leader of Power BI meetup user groups in London and online.
Community & conference presenter.

ACMA, CGMA Accountant

A qualified ACMA accountant all my career which keeps me commercially aware & business facing partner on D365 F&O projects.



@wottabyte



wottabyte

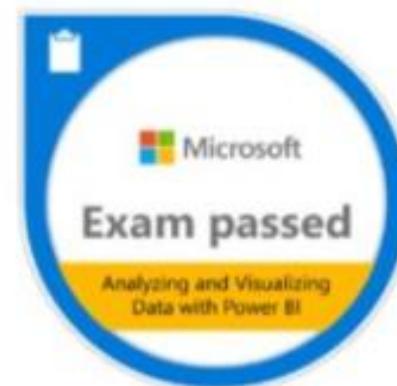
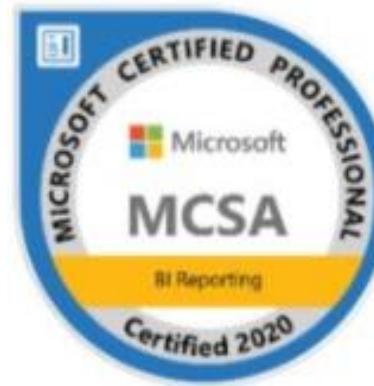


www.wottabyte.com



Conrad Moss : Power BI Developer

- Certified MCSA BI Reporting : Power BI & Excel
- Power BI Certification 70-778 preparing to take DA-100
- Manchester United fan



Linkedin : QR Codes



David Moss

Solutions Architect - Azure | Power Platform | D365 | (SC Cleared)



Conrad Moss

Power BI Developer at Hamilton Insurance Group

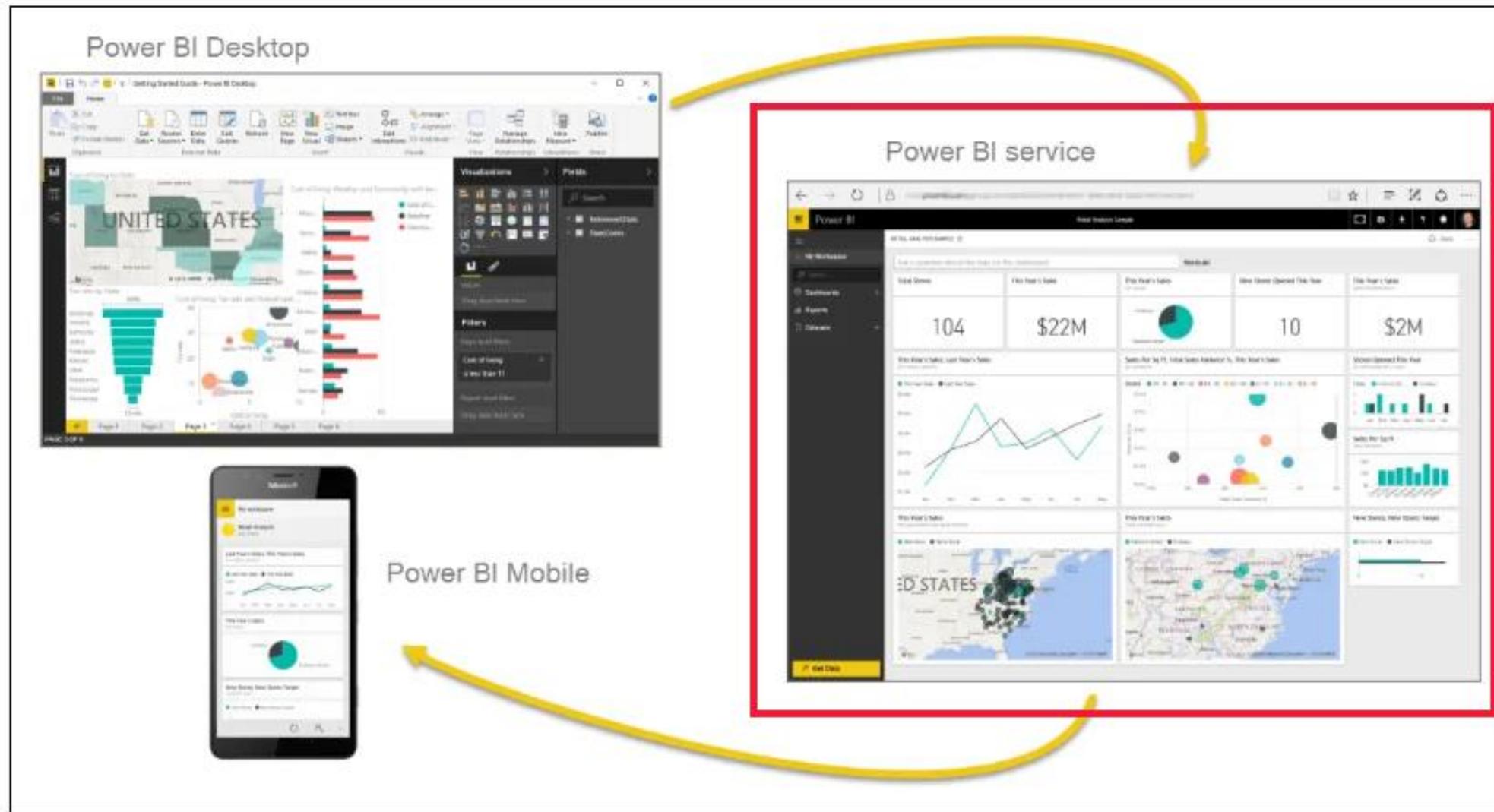


Power BI

beginners free 10 weeks online training course

- Week 1: Monday 18th Jan 2021 : Introduction to Power BI and your first Power BI report.
- Week 2: Monday 25th Jan 2021 : Use Power Query Editor to get data & prepare your data.
- Week 3: Monday 1st Feb 2021 : Use Power BI desktop to structure & create datamodels.
- Week 4: Monday 8th Feb 2021 : Design & configure Power BI visuals like charts, maps & KPIs.
- Week 5: Monday 15th Feb 2021 : Add user friendly report navigation features, slicers & tooltips.
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- Week 7: Monday 1st March 2021: Get to grips with Power BI cloud service & mobile features.
- Week 8: Monday 8th March 2021: Enhance your data with DAX for KPIs reporting.
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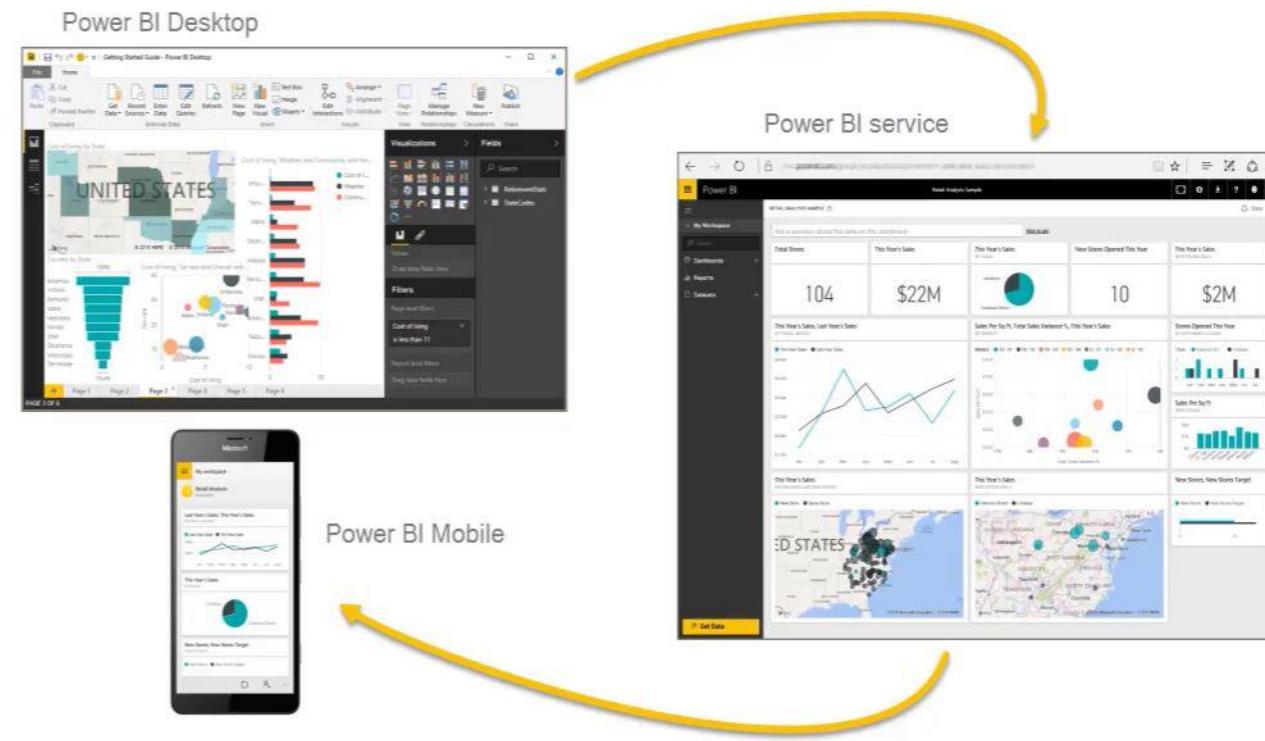
What is Power BI ?



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



Visual tools 2018SU06 Blog Demo - Power BI Desktop

File Home View Modeling Help Format Data / Drill Insert Themes Relationships Calculations Share

Cut Copy Format Painter Get Data Recent Sources Enter Data Edit Queries Refresh New Page Ask A Question Buttons Text box Image From Marketplace From File Switch Theme Manage Relationships New Measure New Column New Quick Measure Publish

Sales for Top 5 Categories

Net Satisfaction

Average Sale Amount by Class

Units by Class & Brand

PowerBI tips

VISUALIZATIONS FIELDS

\$1.03M
Germany

\$2.42M
Canada

\$1.25M
France

\$1.48M
Great Britain

Legend: Sales Amount (Orange), Units (Red)

Class: Deluxe (Orange), Economy (Red), Regular (Pink)

Country: Germany, Canada, France, Great Britain

Product: Computers, Home Appliances, TV and Video, Cameras and camcorders, Cell phones, Audio, Music, Movies and Audio Books, Games and Toys

NSAT: 1, 3

Avg. Sale Amount: \$1.75M, \$9.38M, \$7.78M

Avg. NSAT: 2.2, 2.4, 2.6, 2.8

Avg. Repurch: 1.0K, 2.0K

Inner radius: 68

Revert to default

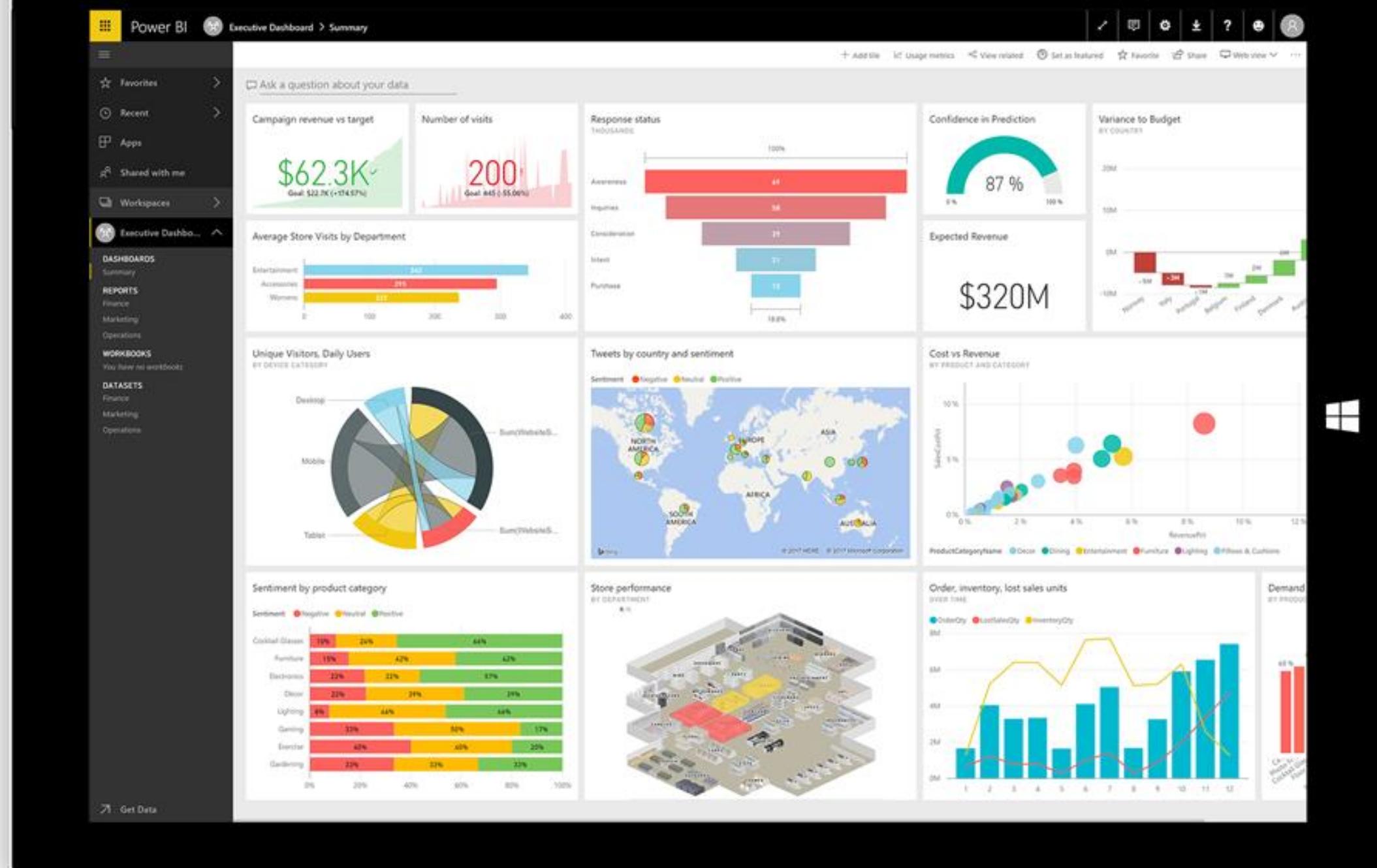
General

Search

Sales

- BrandName
- Category
- Class
- Color
- Country
- CustomerAcc...
- Manufacturer
- NSAT
- OrderDate
- ProdID
- ProductDescri...
- ProductLabel
- ProductName
- RePurch
- Sale Size
- SalesAmount
- SalesAmount ...
- SalesChannel...
- SalesOrderID
- StockType
- StoreKey
- StyleName
- SubCategory
- Units

PAGE 1 OF 7



Quick Survey of audience

<https://forms.office.com/Pages/ResponsePage.aspx?id=WkuituyrDEaGarPmYT9Z1NvMNOjKOFdHsnEJjP6WpoNUREdYRjdPUUQ0SzIQVzYzUEdJSkVKV1U5Ni4u>

Student go to form and submit
Trainer display live online results in Power BI dashboard



Power BI Desktop

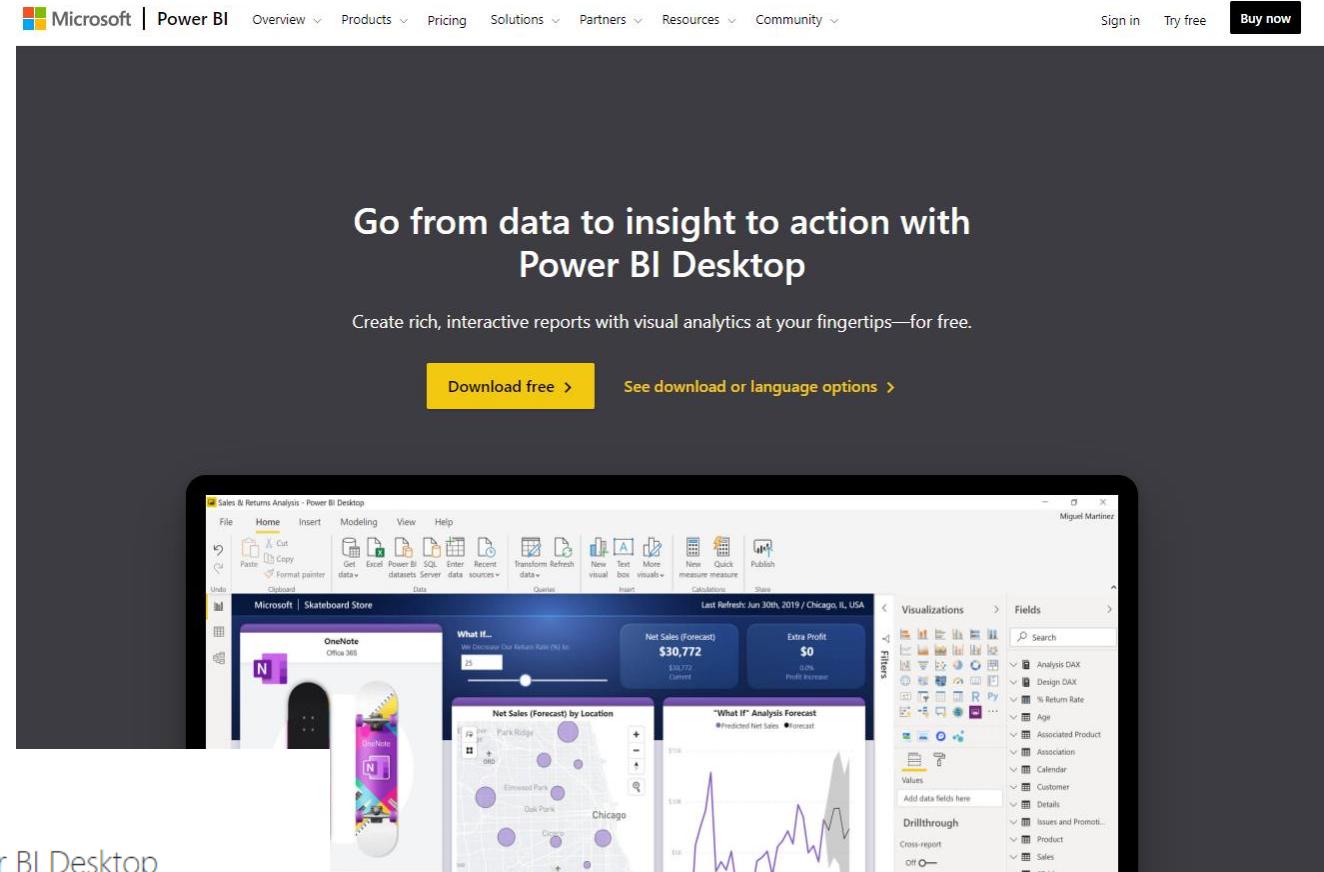
- Download Power BI Desktop from www.powerbi.com
- Install
- Build your first report - use blog next page
- Quick look at PBI Desktop features
- Save your report as .pbix
- Get a Microsoft account
- Publish to Power BI Service app.powerbi.com
- Workshop this eve at 21:00 – 22:00 for 1-2-1 help.

Power BI Desktop

- 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>



Thank you for downloading Microsoft Power BI Desktop

If your download does not start after 30 seconds, [click here to download manually](#)

Installation note:

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

⊕ [Install Instructions](#)

Untitled - Power BI Desktop

David Moss

File Home Insert Modeling View Help External Tools

Cut Copy Get data Clipboard

Power BI Desktop

Get data Recent sources

CryptoTrader.pbix C: > Users > david > Documents >...

coinmarketcap only web.p... C: > Users > david > Documents >...

CryptoTrader.pbix Documents

32.4 ControlChart 6 sigma.... C: > Users > david > Documents >...

Open other reports

WHAT'S NEW

Take a look at what's new and improved in Power BI in this month's update.

FORUMS

Visit the Power BI Forum to ask questions or interact with other users in the Power BI community.

POWER BI BLOG

Keep up to date with the latest news, resources, and updates from the Power BI team.

TUTORIALS

Ready to learn more about Power BI?

- Get started with Power BI Desktop
- Download a sample
- Watch our training videos
- See what others have built
- All guided learning

Visualizations Fields

Add data fields here

Drill through

Cross-report Off

Keep all filters On

Add drill-through fields here

Getting started with Power BI Desktop

Building reports Query view concepts Uploading your reports

Create a Phone report

VIEWS ALL VIDEOS

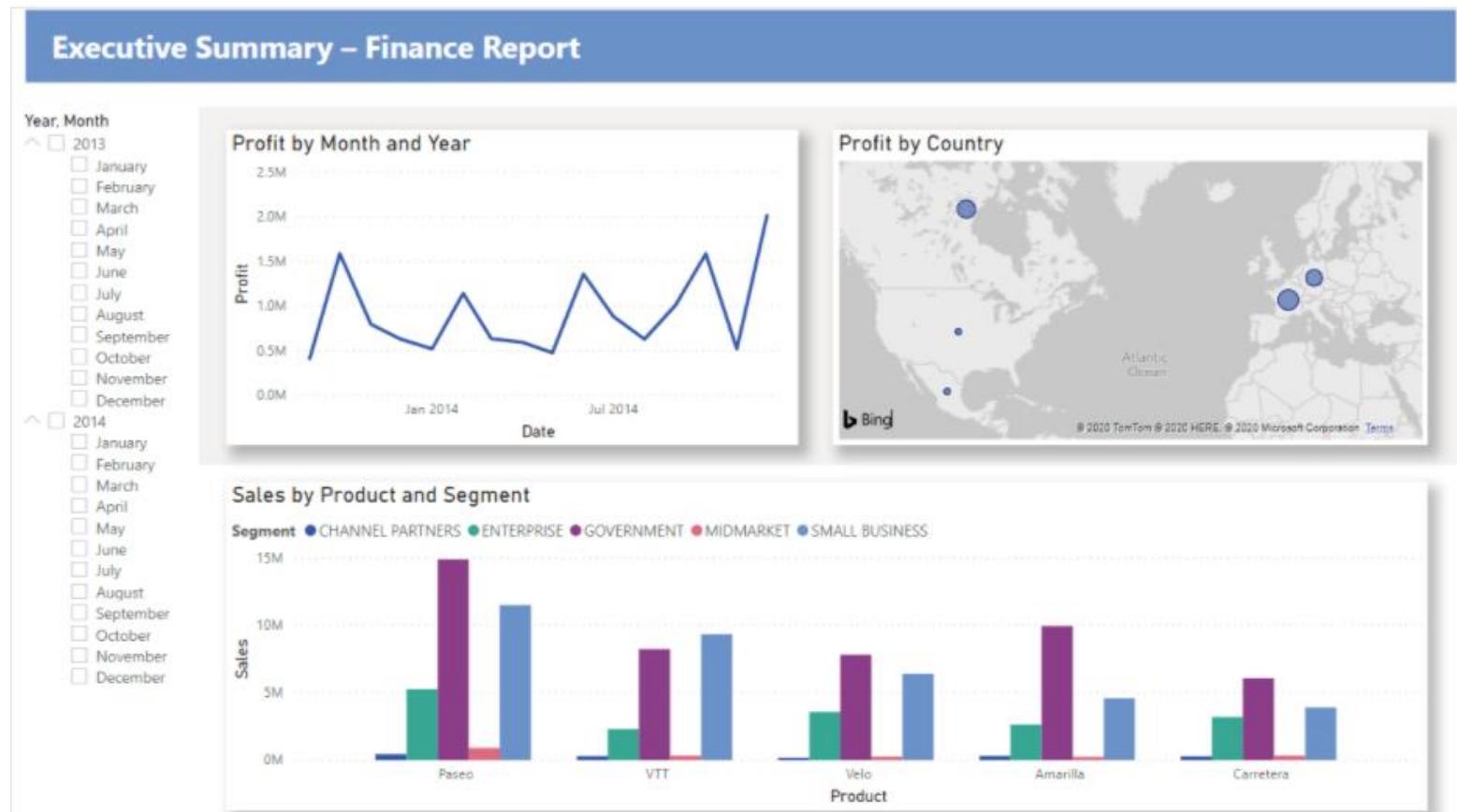
Show this screen on startup

Page 1 +

Page 1 of 1

Lesson 1 - build your first report

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



Publish to www.powerbi.com

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

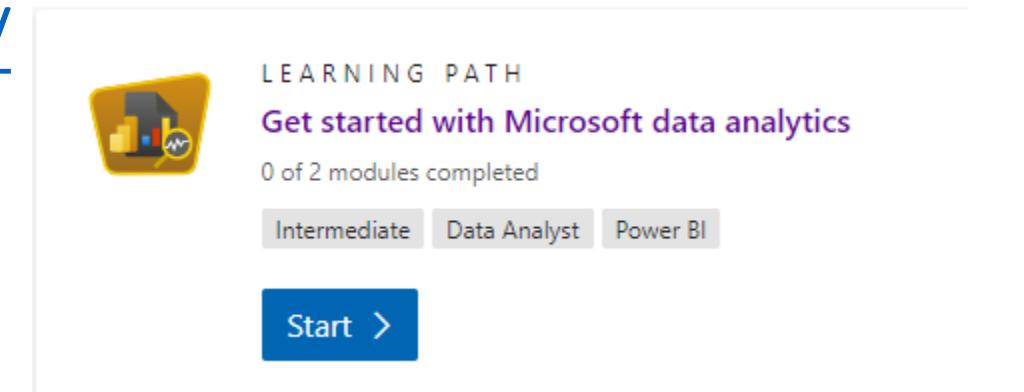
Workshop this eve at 21:00 – 22:00 GMT

- **Q&A Workshop - Power BI Beginner Training Lesson 1**
- <https://www.meetup.com/The-Power-BI-Apprentice/events/275805195/>



Preparation for next week

- Microsoft Learn : <https://docs.microsoft.com/en-us/learn/certifications/exams/da-100>
- Get started with MS data analytics <https://docs.microsoft.com/en-us/learn/patterns/data-analytics-microsoft/>
- Microsoft documentation : <https://docs.microsoft.com/en-us/power-bi/learning-catalog/>



Social Media : Meetup , LinkedIn, YouTube

← → ⌂ meetup.com/The-Power-BI-Apprentice

Meetup [Start a new group](#)

The Power BI Apprentice

London, United Kingdom

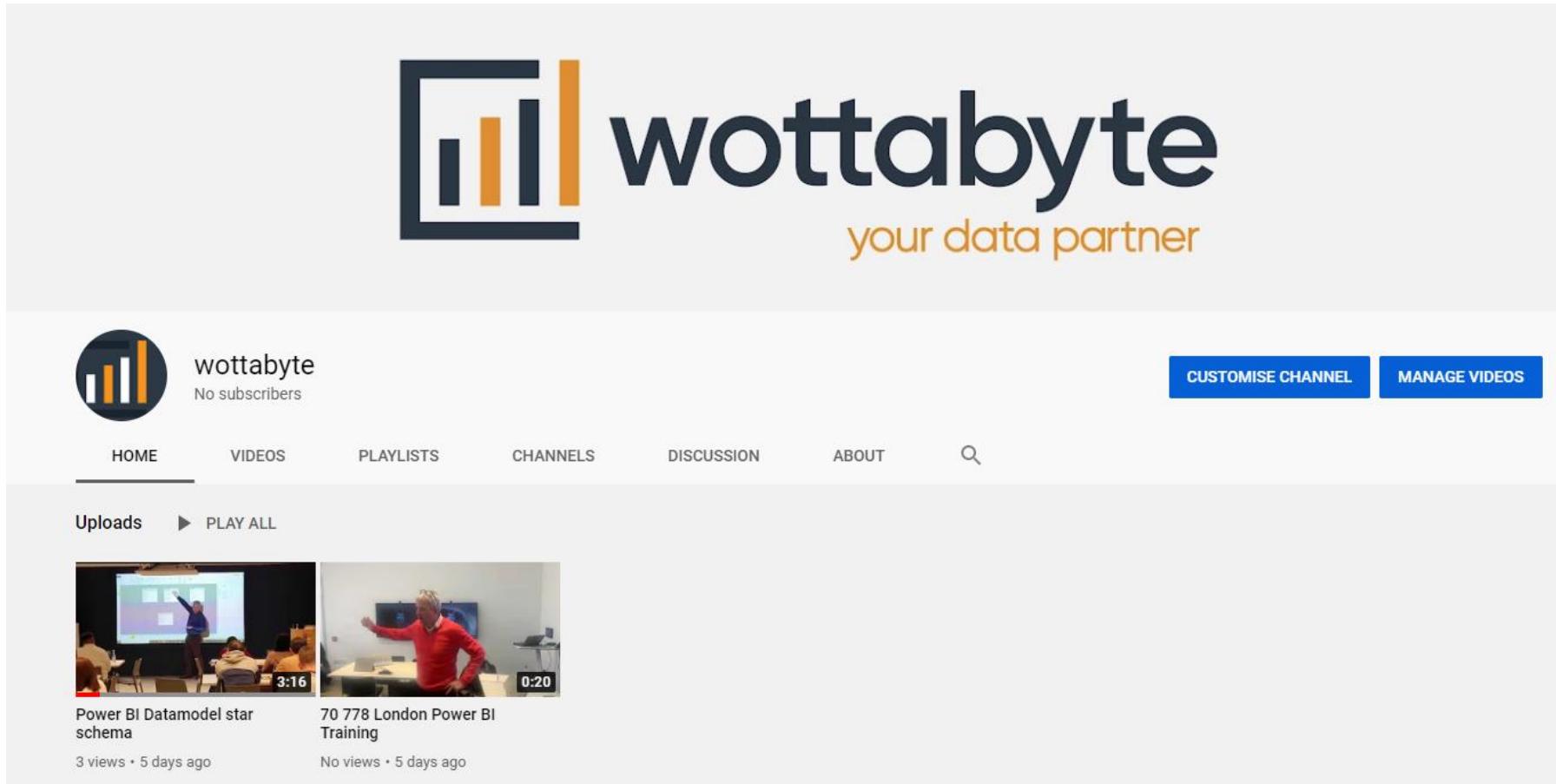
517 members • Public group

Organized by David Moss

Share: [f](#) [t](#) [in](#)

You Tube

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



The image shows a screenshot of a YouTube channel page. At the top, there is a large logo for "wottabyte" with the tagline "your data partner". Below the logo, the channel name "wottabyte" is displayed next to a circular profile picture containing a bar chart icon. It shows "No subscribers". There are two blue buttons: "CUSTOMISE CHANNEL" and "MANAGE VIDEOS". A navigation bar with links for "HOME", "VIDEOS", "PLAYLISTS", "CHANNELS", "DISCUSSION", and "ABOUT" is visible. A search bar is also present. The main content area is titled "Uploads" with a "PLAY ALL" button. Two video thumbnails are shown: one for "Power BI Datamodel star schema" (3:16) and another for "70 778 London Power BI Training" (0:20). Both videos were uploaded 5 days ago.

wottabyte
No subscribers

CUSTOMISE CHANNEL MANAGE VIDEOS

HOME VIDEOS PLAYLISTS CHANNELS DISCUSSION ABOUT

Uploads ► PLAY ALL

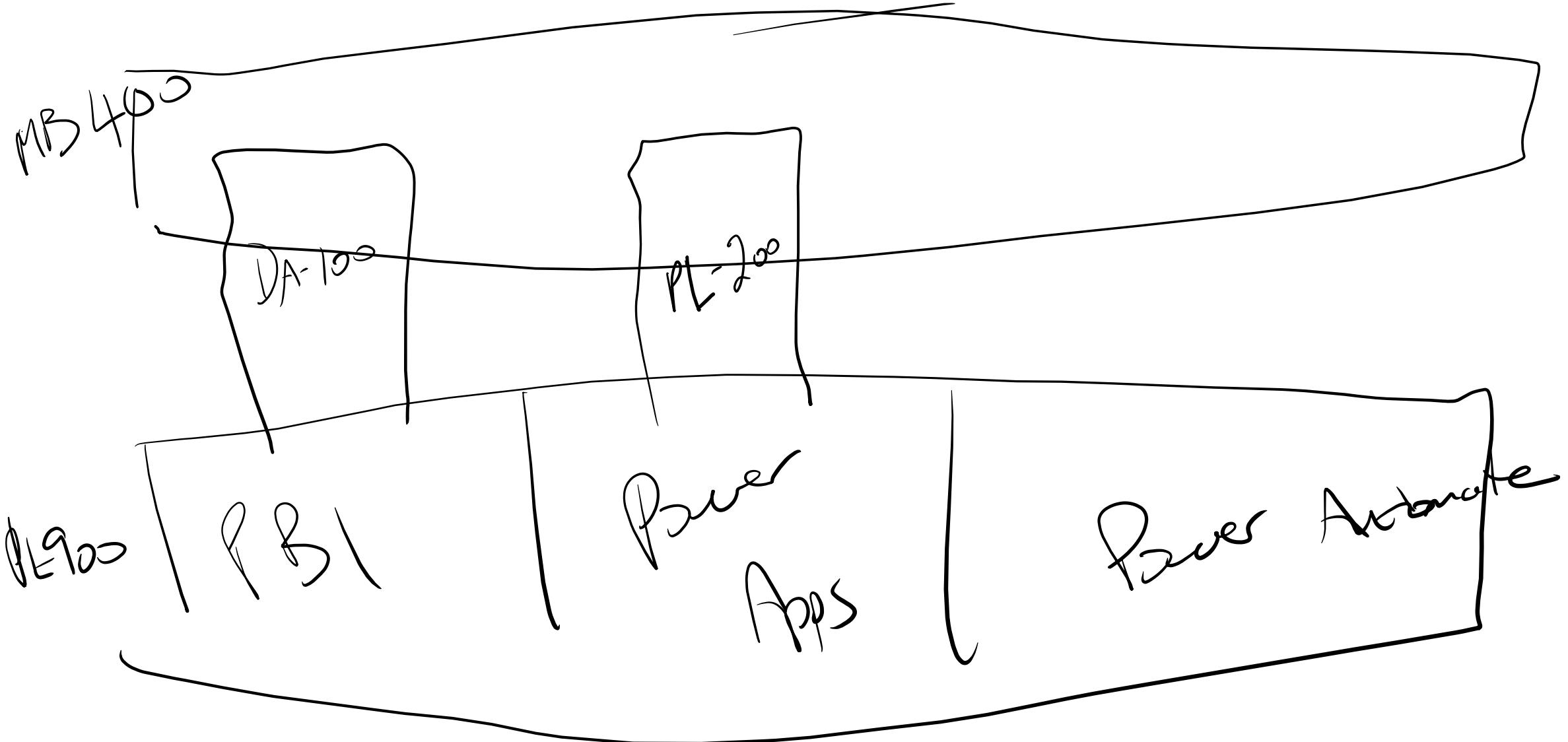
Power BI Datamodel star schema
3:16
3 views • 5 days ago

70 778 London Power BI Training
0:20
No views • 5 days ago

The End



Power Platform



Power BI – LESSON 2 of 10

beginners free 10 weeks online training course



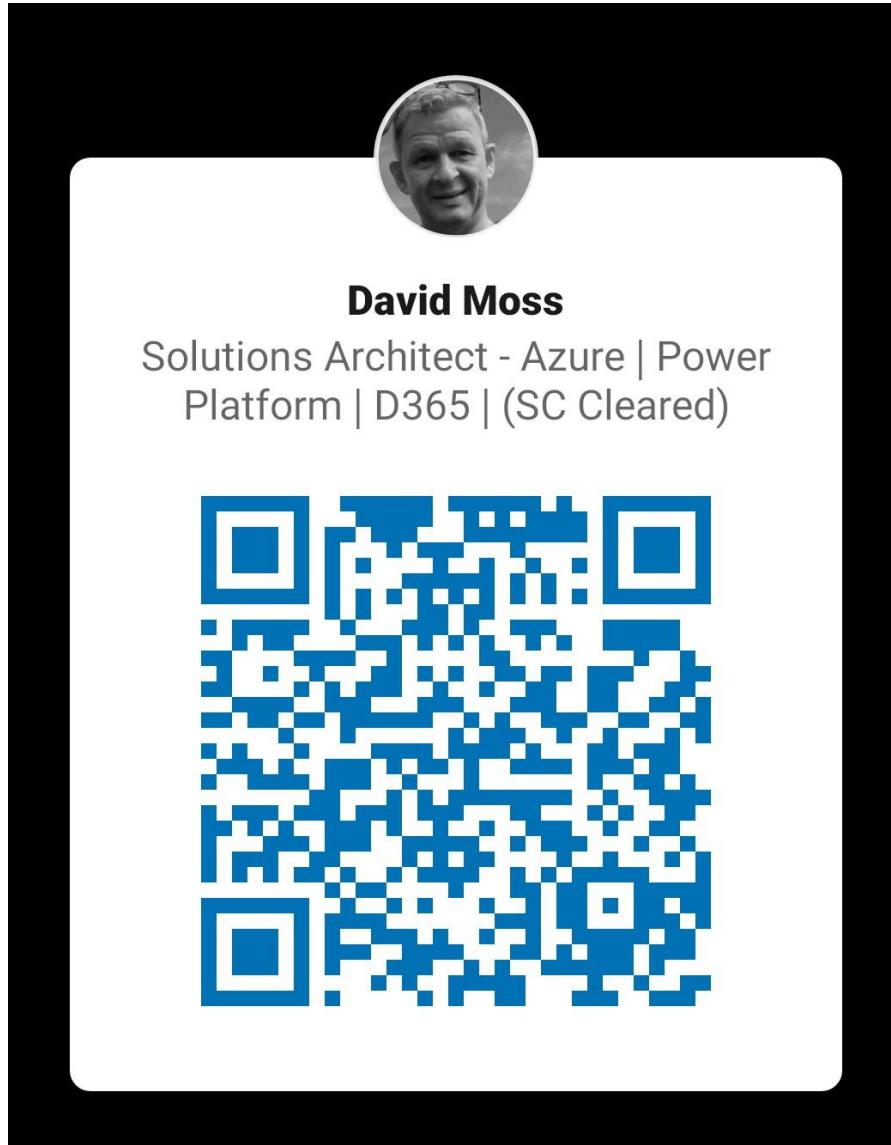
Power BI Week 2

Monday 25th Jan 2021

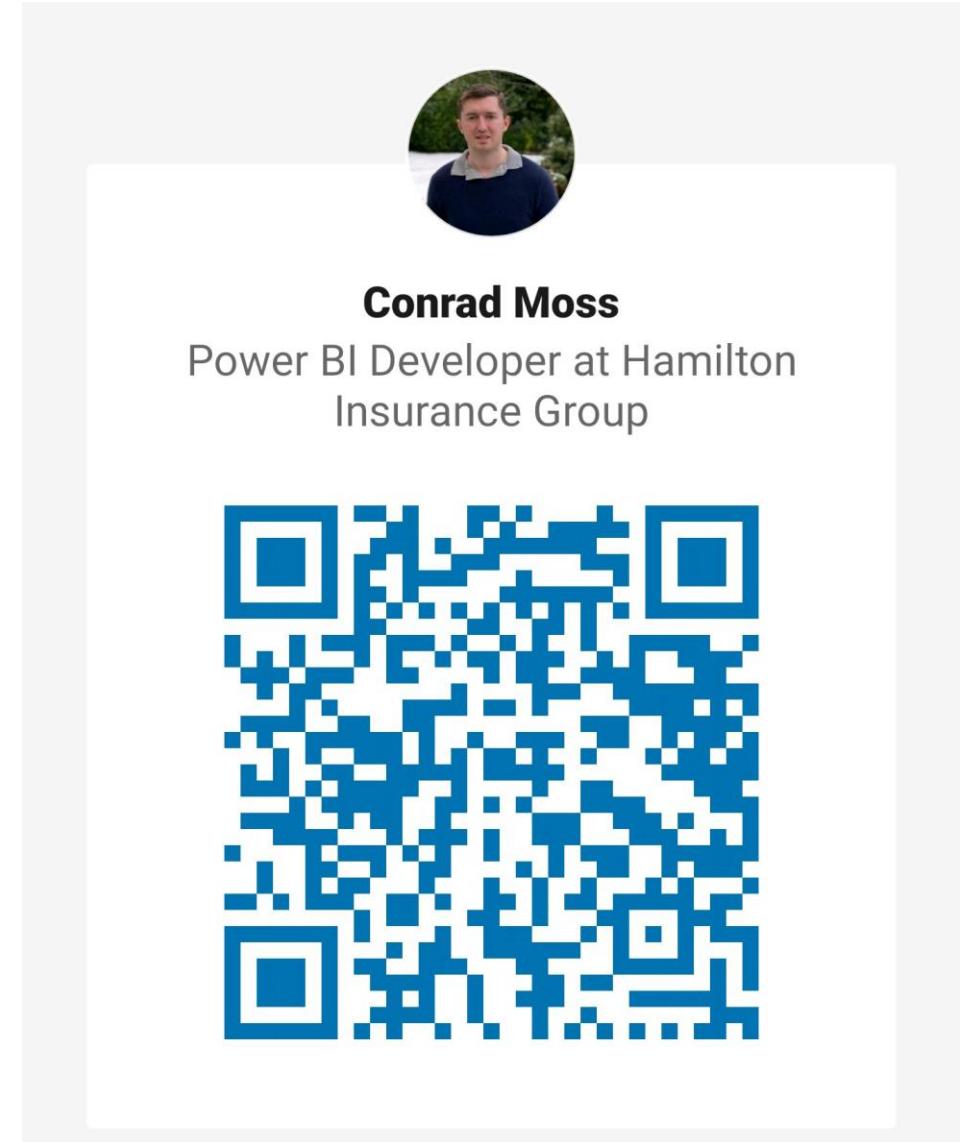
Use Power Query Editor to get data & prepare your data

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- Each week sign up on Meetup.com for the weekly event & Q&A workshop
- Each session will be a new Zoom link
- Questions into the chat or raise your hand
- 2 screens is better than 1.
- Microphones on mute
- Workshop at 21:00 : register now at <https://www.meetup.com/The-Power-BI-Apprentice/events/>

Linkedin : QR Codes



A LinkedIn profile card for David Moss. It features a circular profile picture of a man with short hair, smiling. Below the picture, the name "David Moss" is displayed in bold black font. Underneath the name, the title "Solutions Architect - Azure | Power Platform | D365 | (SC Cleared)" is shown in a smaller gray font. At the bottom of the card is a large blue QR code.



A LinkedIn profile card for Conrad Moss. It features a circular profile picture of a man with short hair, wearing a dark blue sweater over a light-colored collared shirt. Below the picture, the name "Conrad Moss" is displayed in bold black font. Underneath the name, the title "Power BI Developer at Hamilton Insurance Group" is shown in a smaller gray font. At the bottom of the card is a large blue QR code.

Power BI

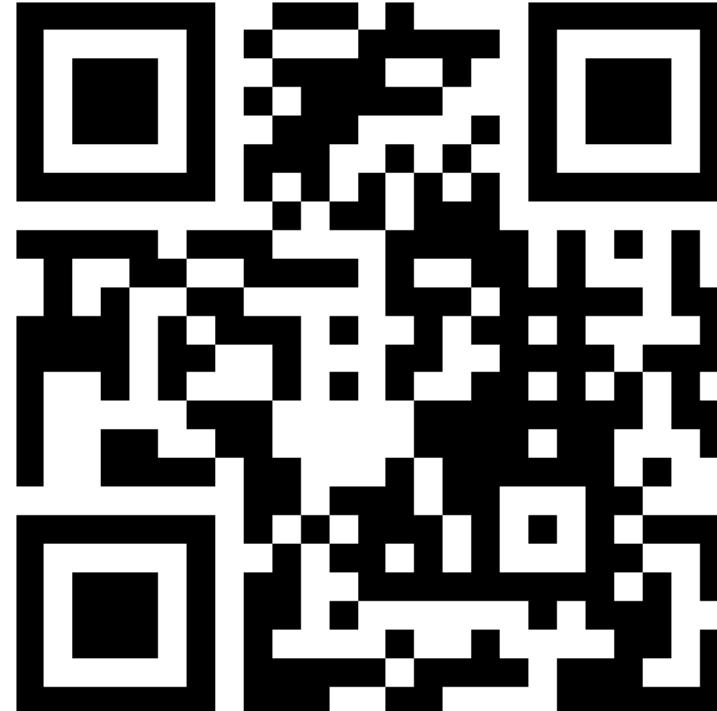
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Power BI Week 2

Monday 25th Jan 2021

- 1st a quick QUIZ !! www.mentimeter.com
- **50 24 12 1**
- <https://www.menti.com/csb5wsjst2>



Power BI Week 2

Monday 25th Jan 2021

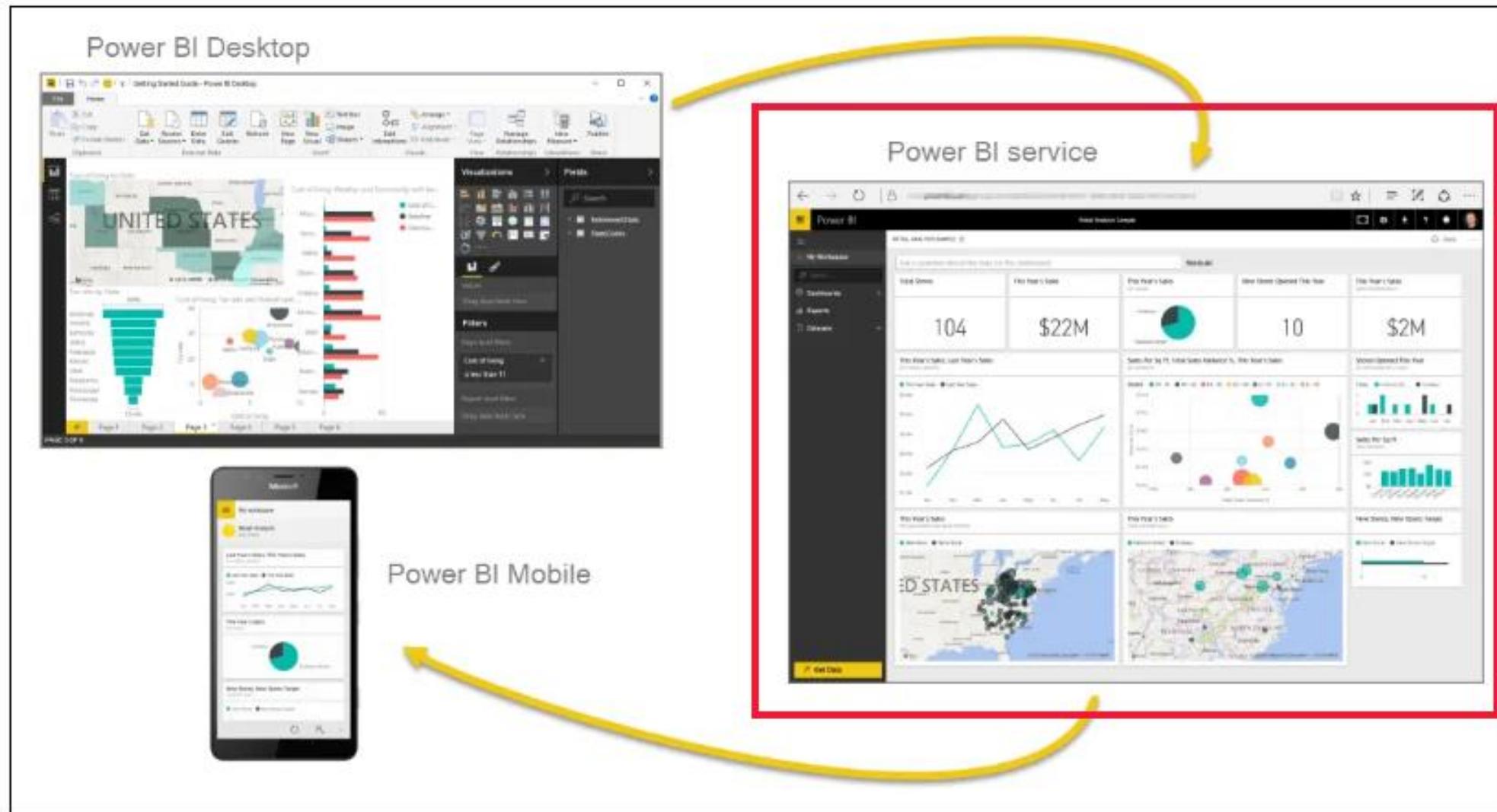
- 1st lets finish of Lesson 1
- Complete Power BI report from Lesson 1
- Sign up & login for Power BI Service account (needs a Microsoft a/c)
- Publish report to the Power BI service
- Explain what is Power BI Service basics
- Navigate report in Power BI Service
- Back to get & prepare data with Power Query Editor

Complete Power BI report from Lesson 1

- Open blog <https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-excel-stunning-report>
- Demo a step
- Show finished report
- Save Power BI desktop report as .pbix locally
- Conrad demo

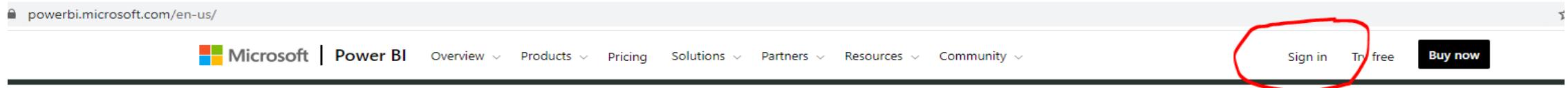


What is Power BI ?



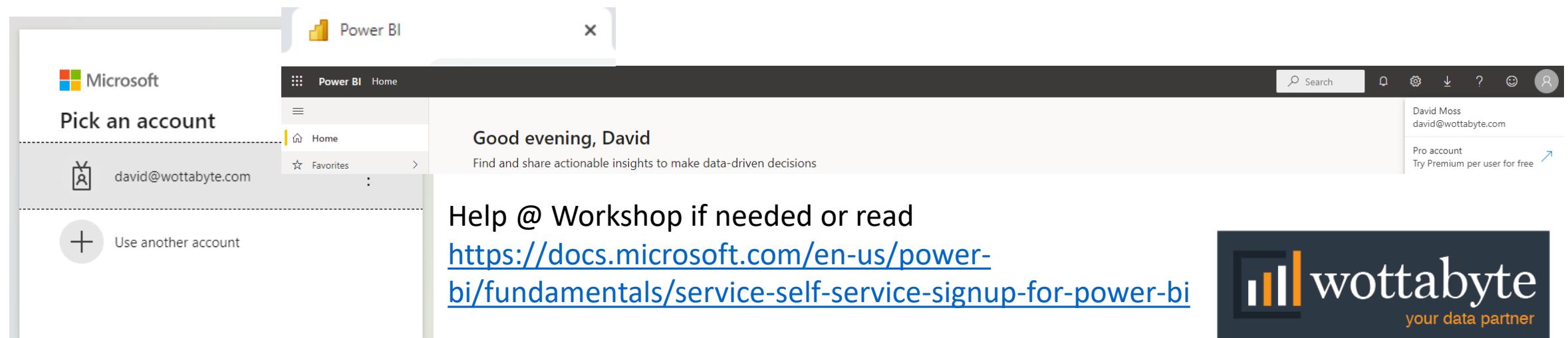
Create a Power BI Service account

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



The screenshot shows the Microsoft Power BI website at powerbi.microsoft.com/en-us/. The navigation bar includes links for Microsoft, Power BI, Overview, Products, Pricing, Solutions, Partners, Resources, Community, Sign in (which is circled in red), Try free, and Buy now.

- 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. <https://docs.microsoft.com/en-us/power-bi/consumer/end-user-sign-in>
- If fails we can help you during the workshop later this eve.
- Show Power BI Service Home page My workspace is blank.



The screenshot shows the Power BI Service Home page. A modal window titled "Pick an account" is open, showing the email "david@wottabyte.com". The main page displays a "Good evening, David" greeting and the message "Find and share actionable insights to make data-driven decisions". Below this, there is a note: "Help @ Workshop if needed or read <https://docs.microsoft.com/en-us/power-bi/fundamentals/service-self-service-signup-for-power-bi>". On the right side, the user profile shows "David Moss" and "david@wottabyte.com" with a "Pro account" status and a "Try Premium per user for free" link. The wottabyte logo is visible in the bottom right corner.

Workshop this eve at 21:00 – 22:00 GMT

Monday 25th Jan 2021

- **Q&A Workshop - Power BI Beginner Training Lesson 2 of 10**
- <https://www.meetup.com/The-Power-BI-Apprentice/events/275871416/>



Quick Survey of audience

<https://forms.office.com/Pages/ResponsePage.aspx?id=WkuituyrDEaGarPmYT9Z1NvMNOjKOFdHsnEJjP6WpoNUREdYRjdPUUQ0SzIQVzYzUEdJSkVKV1U5Ni4u>

Student go to form and submit
Trainer display live online results in Power BI dashboard



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 www.powerbi.com
- Open My Workspace
- See your report
- Navigate report

Publishing to Power BI

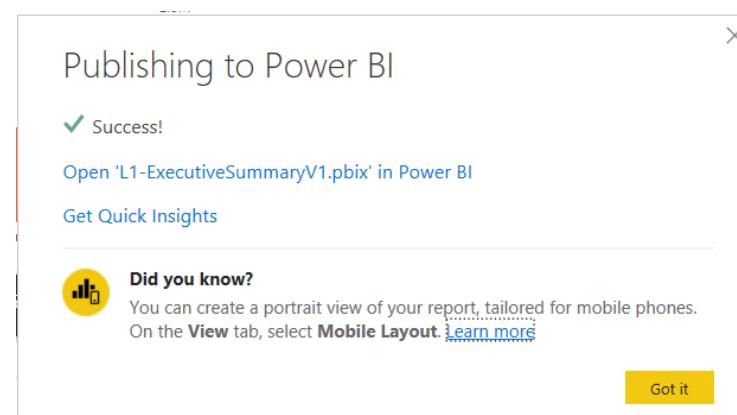
▪ Publishing 'L1-ExecutiveSummaryV1.pbix' to Power BI



Did you know?

You can create a portrait view of your report, tailored for mobile phones.
On the View tab, select Mobile Layout. [Learn more](#)

Cancel

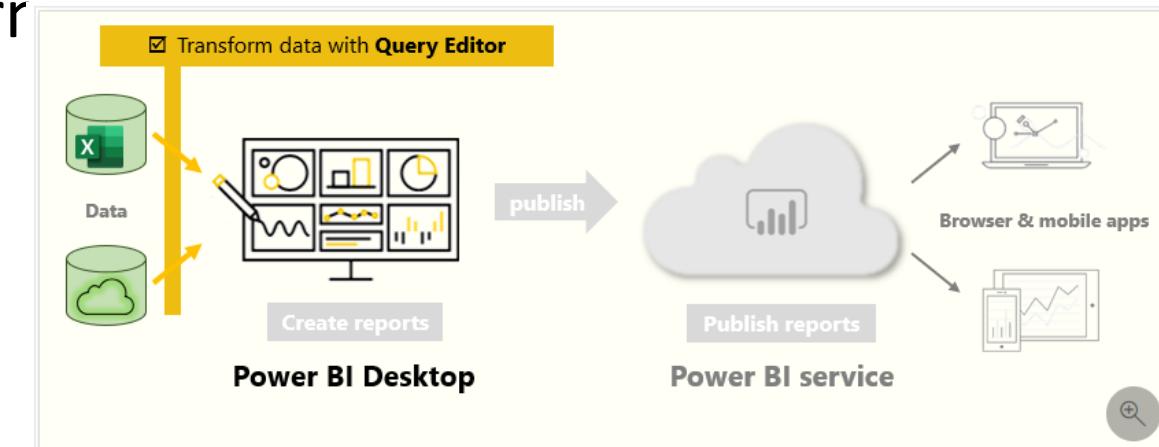
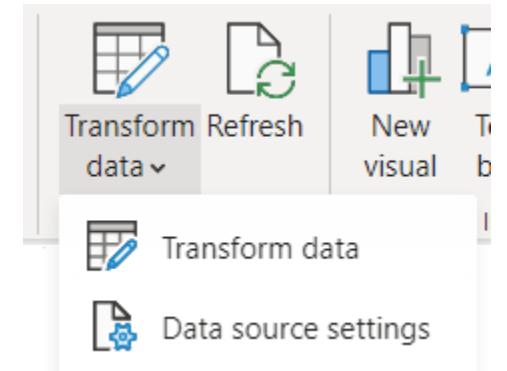


Power BI Week 2

Monday 25th Jan 2021

Use Power Query Editor to get data & prepare your data

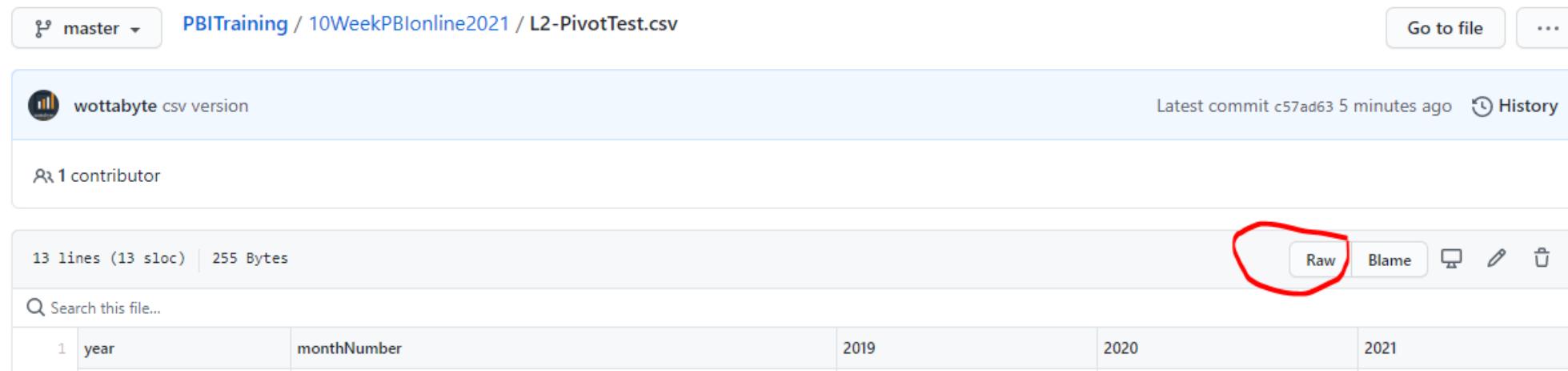
- Back to get & prepare data with Power Query Editor
- From Power BI Desktop open Power Query Editor...how ?
- Show PQE features
- Power Query Language = M
- BTW it's the same in Excel
- Get data & transform as demo in Learr



Power BI Week 2

Power Query Editor: Capitalize & UNpivot data demo

- Csv > raw ? See url :
<https://github.com/wottabyte/PBITraining/tree/master/10WeekPBlonline2021>
- PQE use Web
- Lowercase then capitalize
- Pivot years
- Close & Apply



PBITraining / 10WeekPBlonline2021 / L2-PivotTest.csv

master ▾ Go to file ...

wottabyte csv version Latest commit c57ad63 5 minutes ago History

1 contributor

13 lines (13 sloc) | 255 Bytes

Raw Blame

Search this file...

1	year	monthNumber	2019	2020	2021
---	------	-------------	------	------	------

Power BI Week 2 CourseWork

Monday 25th Jan 2021

- 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

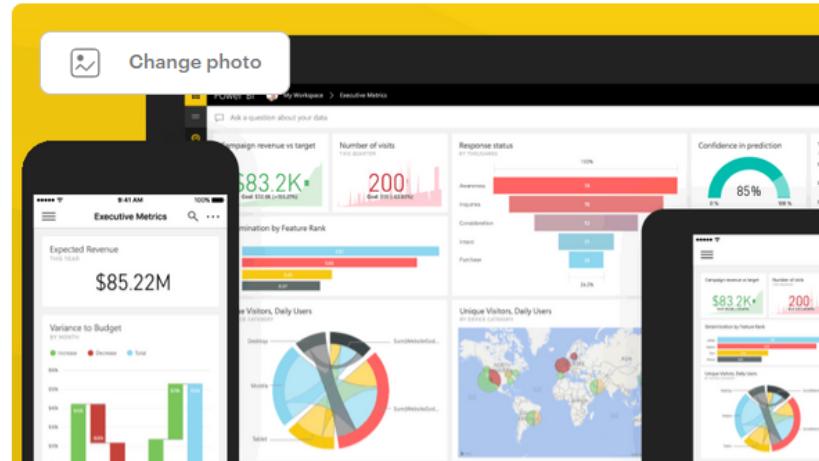
★★★★★ 4.8 (2,754)

<https://docs.microsoft.com/en-us/learn/patterns/prepare-data-power-bi/>

Social Media : Meetup , LinkedIn, YouTube

[meetup.com/The-Power-BI-Apprentice](https://www.meetup.com/The-Power-BI-Apprentice)

Meetup [Start a new group](#)



The Power BI Apprentice

London, United Kingdom · 517 members · Public group

Organized by David Moss

Share: [f](#) [t](#) [in](#)

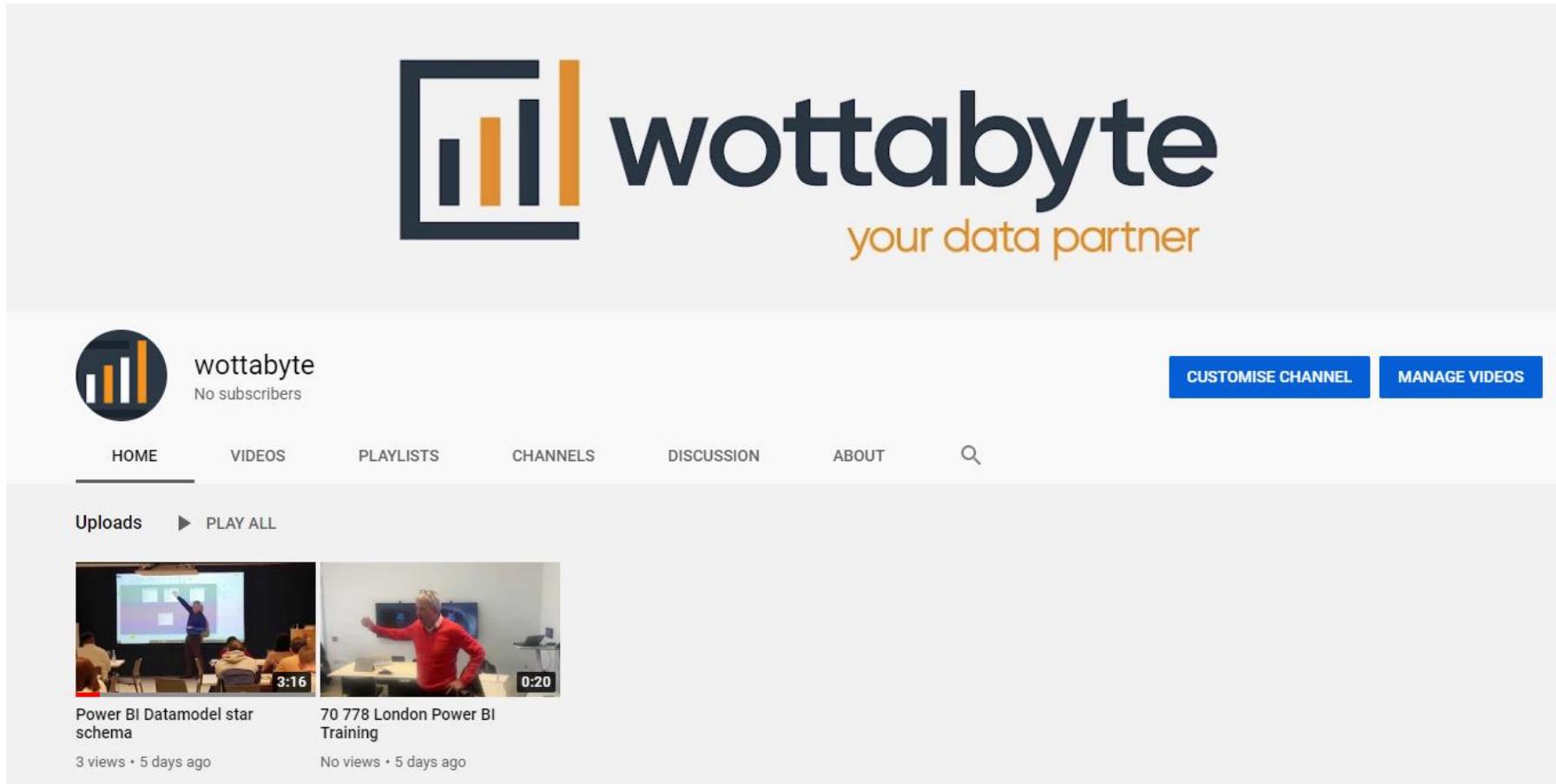
@wottabyte

wottabyte

www.wottabyte.com

You Tube

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



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wottabyte
No subscribers

CUSTOMISE CHANNEL MANAGE VIDEOS

HOME VIDEOS PLAYLISTS CHANNELS DISCUSSION ABOUT

Uploads ► PLAY ALL

Power BI Datamodel star schema
3:16
3 views • 5 days ago

70 778 London Power BI Training
0:20
No views • 5 days ago

Power BI Week 3

1st February

Use Power BI desktop to structure & create datamodels

Watch your email & social media channels for when event goes live for registration.

The End



Power BI – LESSON 3 of 10

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Power BI Week 3

Monday 1st Feb 2021



Use Power BI desktop to structure & create datamodels

The screenshot shows the Power BI desktop interface with the 'Home' tab selected in the ribbon. The main area displays a data model diagram with four tables: opportunity, lead, account, and contact. The opportunity table has relationships with lead, account, and contact. The lead table has relationships with account and contact. The account table has a relationship with contact. Each table has its schema listed below it. A message bar at the top indicates an upgrade to the new model view is available.

File Home Help External Tools

Paste Cut Copy Get data v Excel Power BI datasets SQL Server Enter data Recent sources v Transform Refresh data Manage relationships Manage roles View as Q&A Language setup A+ A Linguistic schema v Publish Share

Clipboard Data Queries Relationships Security Q&A Share

Upgrade to the new model view for an improved design that makes it easy to identify data sources and manage relationships. Keep in mind, this change is permanent. Learn more Upgrade now X

opportunity

- accountid
- accountidname
- accountidyominame
- actualclosedate
- actualvalue
- actualvalue_base
- budgetamount
- budgetamount_base
- budgetstatus
- budgettypename
- campaignid

lead

- accountid
- accountidname
- accountidyominame
- address1_addressid
- address1_addressstype...
- address1_city
- address1_country
- address1_fax
- address1_latitude

account

- accountcategorycode
- accountcategorycode...
- accountclassificationc...
- accountclassificationc...
- accountid
- accountnumber
- accountratingcode
- accountratingcodena...
- address1_addressid
- address1_addressstype...
- address1_addressstype...

contact

- accountid
- accountidname
- accountidyominame
- accountrolecode
- accountrolecodename
- address1_addressid
- address1_addressstype...
- address1_city
- address1_country
- address1_county

All tables PowerBI Training Online Free 10 weeks Wottabyte David Moss MVP Solutions Architect +

Power BI Week 3

Monday 1st Feb 2021

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David Moss

Solutions Architect - Azure | Power Platform | D365 | (SC Cleared)



Conrad Moss

Power BI Developer at Hamilton Insurance Group



Microsoft Power BI Associate

DA-100 Certification

docs.microsoft.com/en-us/learn/certifications/exams/da-100

 Microsoft | Docs Documentation Learn Q&A Code Samples 

Learn Products Roles Learn TV Certifications Certifications FAQ & Help LE

Docs / Learn / Browse Certifications / Exam DA-100: Analyzing Data with Microsoft Power BI - Learn

 Exam DA-100: Analyzing Data with Microsoft Power BI

<https://docs.microsoft.com/en-us/learn/certifications/exams/da-100>

YOU Tube DA-100 : <https://www.youtube.com/watch?v=CI7hdjq0ZxI>

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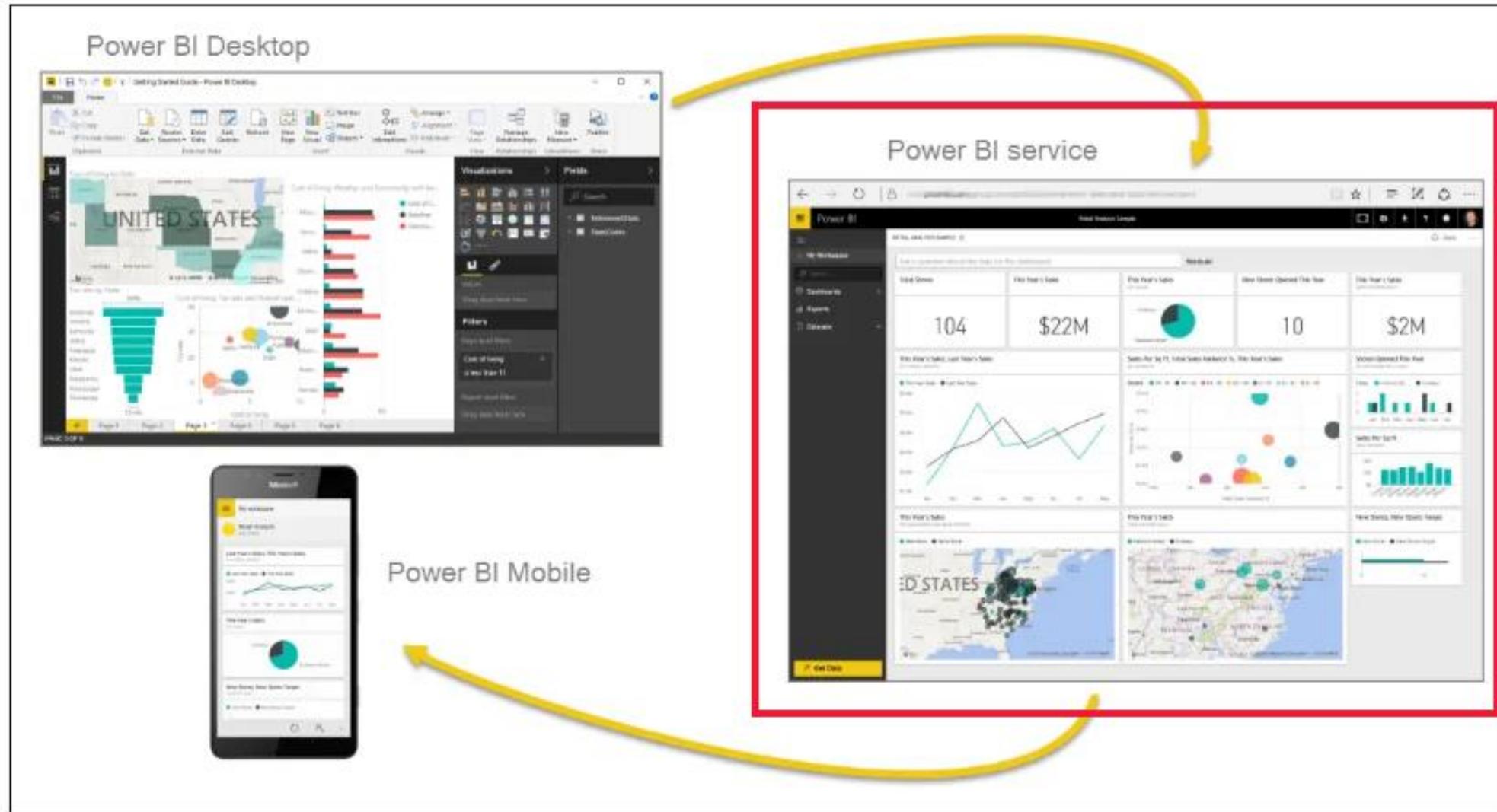


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- Week 3: Monday 1st Feb 2021 : Use Power BI desktop to structure & create datamodels.
- Week 4: Monday 8th Feb 2021 : Design & configure Power BI visuals like charts, maps & KPIs.
- Week 5: Monday 15th Feb 2021 : Add user friendly report navigation features, slicers & tooltips.
- Week 6: Monday 22nd Feb 2021: Publish & share Power BI reports & dashboards.
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- Week 9: Monday 15th March 2021: Data analytics reporting & AI features in Power BI.
- Week 10: Monday 22nd March 2021: Power BI at work with workspaces, datasets & security.

What is Power BI ?



Power BI Week 2 CourseWork

From Monday 25th Jan 2021

- 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

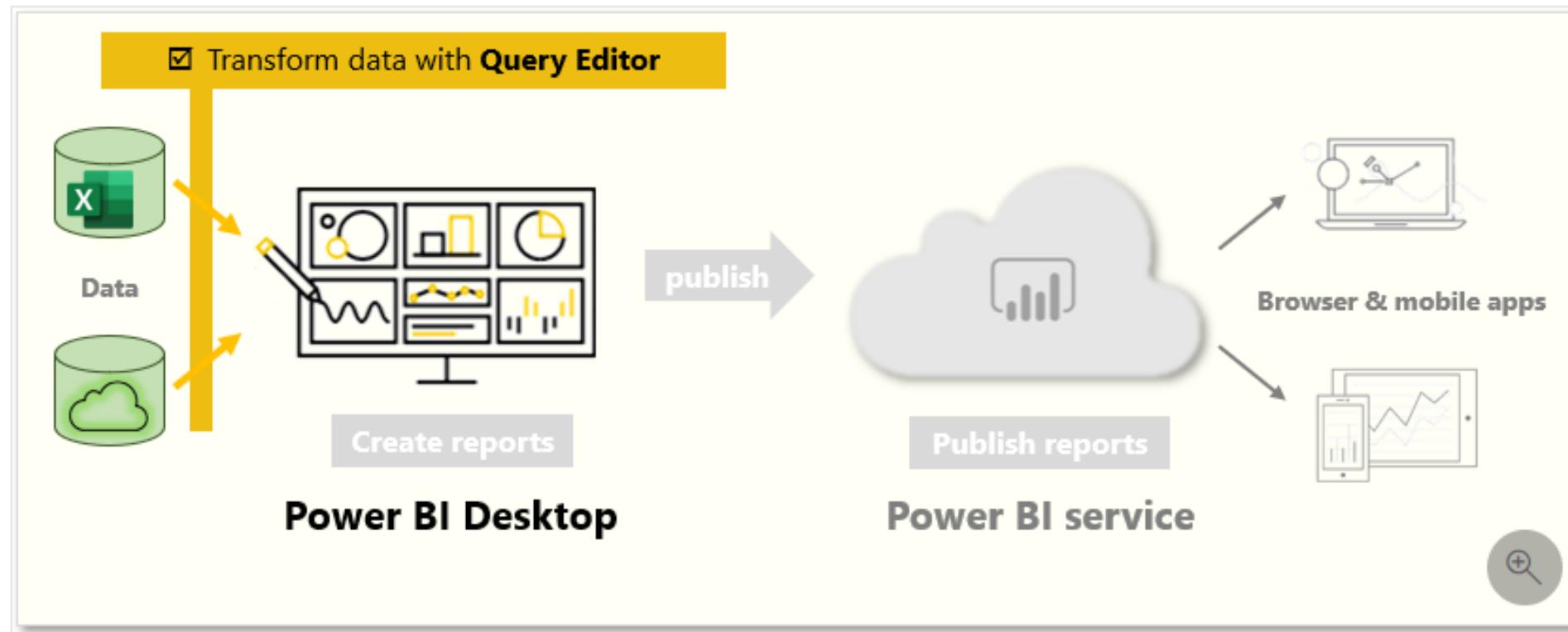
2 hr 1 min • Module • 0 of 10 units completed

★★★★★ 4.8 (2,754)

<https://docs.microsoft.com/en-us/learn/patterns/prepare-data-power-bi/>

Power BI Week 3

Power BI Workflow



Power BI Week 2

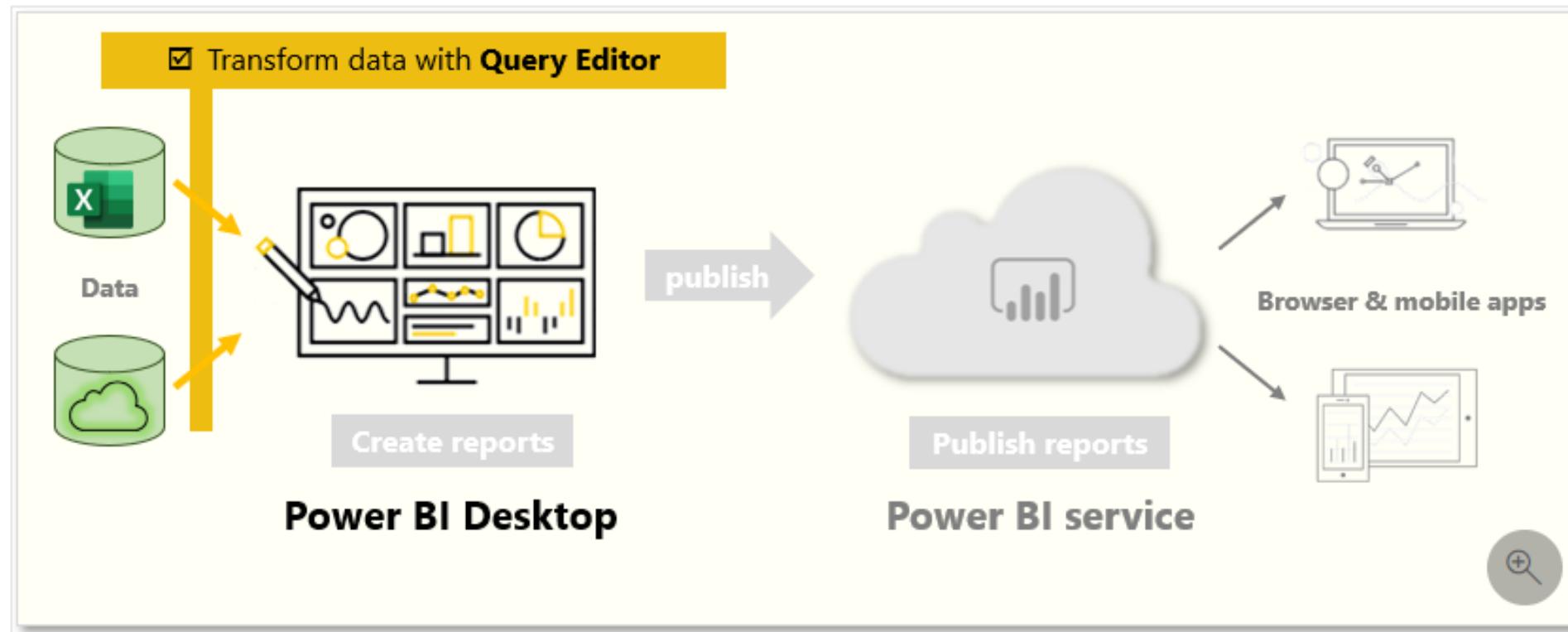
Published to Power BI Service ??

The screenshot shows the Power BI Service interface. At the top, there is a navigation bar with back, forward, and refresh icons, followed by a URL: app.powerbi.com/groups/83187624-88fe-4068-a710-9ebb83c4c148/list/dashboards. Below the URL is a dark header bar with the text "Power BI DA-100 2021 10 week online". On the left side, there is a sidebar with the following menu items: Home, Favorites, Recent, Create, Datasets, Apps, Shared with me, and Deployment pipelines. The main content area is titled "DA-100 2021 10 week online" and features a "Create a pipeline" button. Below this, there are three tabs: All, Content (which is selected), and Datasets + dataflows. A table lists two reports: "L1-ExecutiveSummaryV2" and "L2-PivotedData".

Name	Type
L1-ExecutiveSummaryV2	Report
L2-PivotedData	Report

Power BI Week 3

Power BI Workflow



Quick Survey of audience

<https://forms.office.com/Pages/ResponsePage.aspx?id=WkuituyrDEaGarPmYT9Z1NvMNOjKOFdHsnEJjP6WpoNUREdYRjdPUUQ0SzIQVzYzUEdJSkVKV1U5Ni4u>

Student go to form and submit
Trainer display live online results in Power BI dashboard



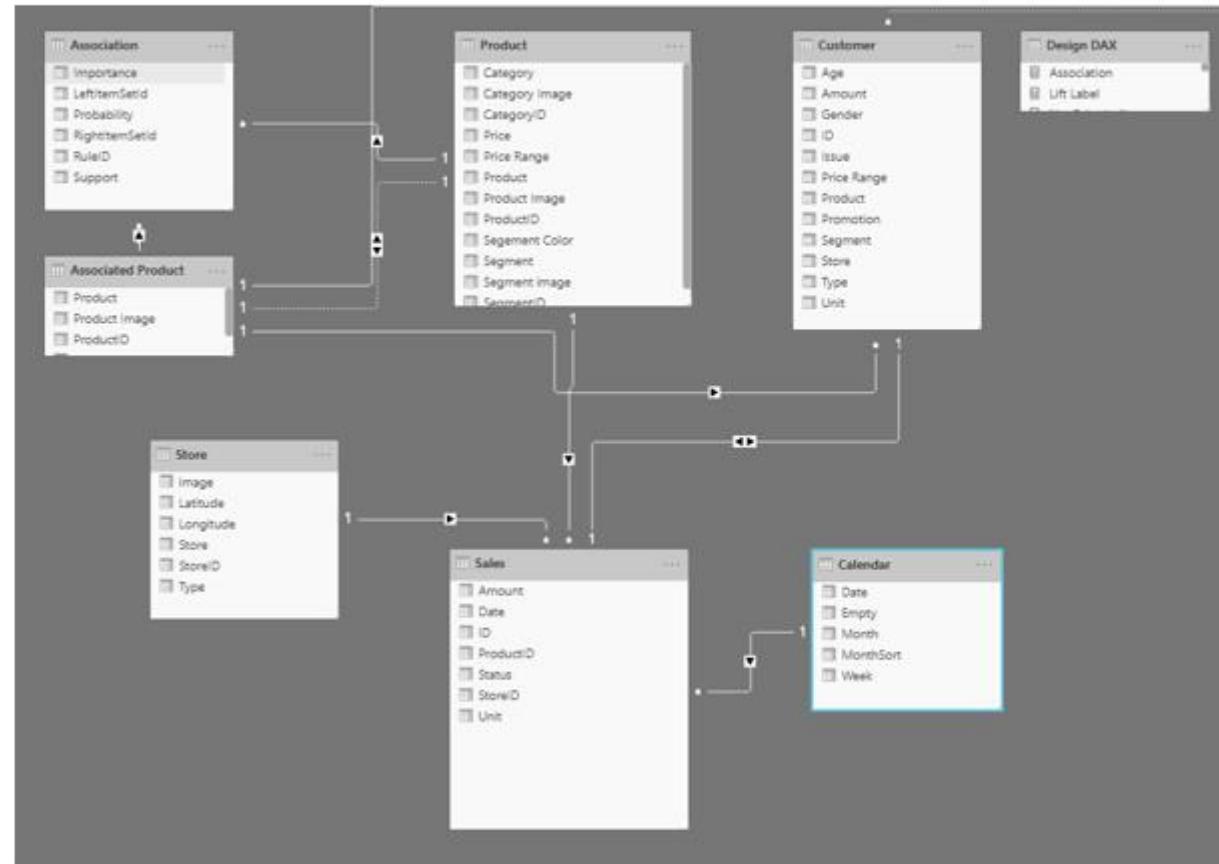
Power BI Week 3

Intro to data modelling



Introduction to Data Modeling

- Benefits of a good data model:
 - Accurate reports.
 - Faster data exploration.
 - Simpler aggregations.
 - Easier to maintain.



Power BI Week 3

Joins & Relationships



Microsoft
Power Platform

Joins and Relationships

The screenshot shows the Power BI Data Model interface. On the left, the 'Employee' table is displayed with columns: Category Name, City, Employee Name, EmployeeID, Product Group, StandardCost, State, and Category Name Hierarchy. On the right, the 'Sales' table is shown with columns: Amount, CountryID, EmployeeID, Freight, Freight_1, ListPrice, Order Date, OrderDate, and OrderQty. A relationship is established between the EmployeeID column in the Employee table and the EmployeeID column in the Sales table, indicated by a line with a 1 and an * symbol. A red arrow points from the Employee table towards the Manage relationships dialog box. The dialog box is titled 'Manage relationships' and contains a table of existing relationships:

Active	From: Table (Column)	To: Table (Column)
<input type="checkbox"/>	Country (Country)	CountryName (Country)
<input checked="" type="checkbox"/>	Country (Country)	Territory (Country)
<input checked="" type="checkbox"/>	Customers (ID)	SalesVals (ID)
<input checked="" type="checkbox"/>	Order (OrderDate)	Sales (OrderDate)
<input checked="" type="checkbox"/>	Product ID (ProductID)	Product (ProductID)
<input checked="" type="checkbox"/>	Sales (CountryID)	CountryName (CountryID)
<input checked="" type="checkbox"/>	Sales (Order Date)	Budget (Date)
<input checked="" type="checkbox"/>	Sales (Order Date)	Calendar (Date)
<input checked="" type="checkbox"/>	Sales (ProductID)	Product (ProductID)
<input checked="" type="checkbox"/>	Territory (Country)	CountryName (Country)

Buttons at the bottom of the dialog box include New..., Autodetect..., Edit..., Delete, Close, and a large yellow 'OK' button.

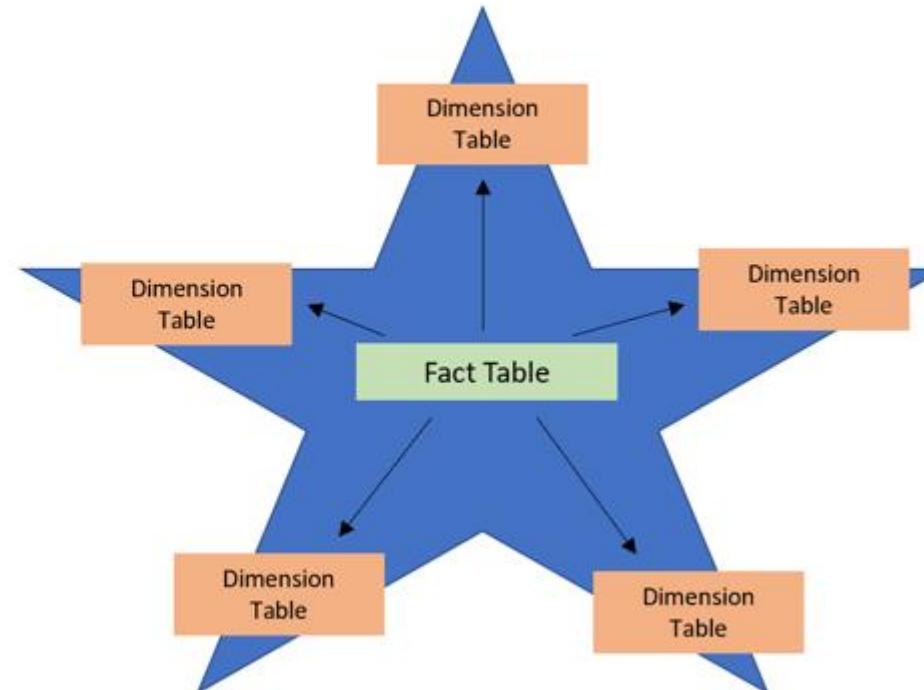
Power BI Week 3

Star Schemas



Star Schemas

- Tables are classified as dimension or fact tables.
 - Dimension: Describes business entities.
 - Fact: Store observations or events.





Components of a data model – Fact Table



Fact Table

- Contains **Measures** (or items to be aggregated) of a business process

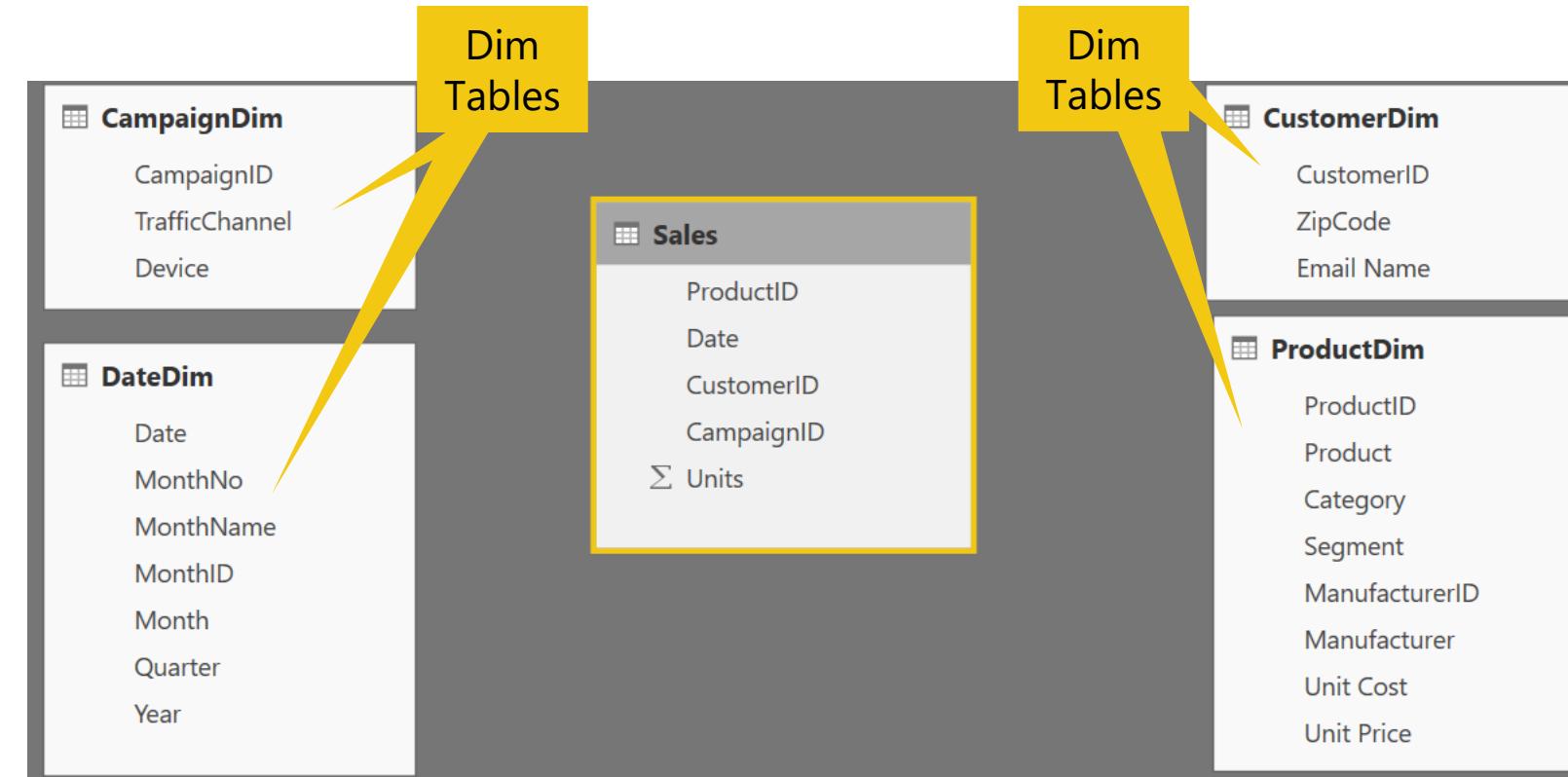
Examples:

- Transactions
 - Sales Revenue
 - Units
 - Cost
-
- Measures are usually sliceable.

Examples: By Month,
By Customer



Components of a data model – Dim Table



Dim Table

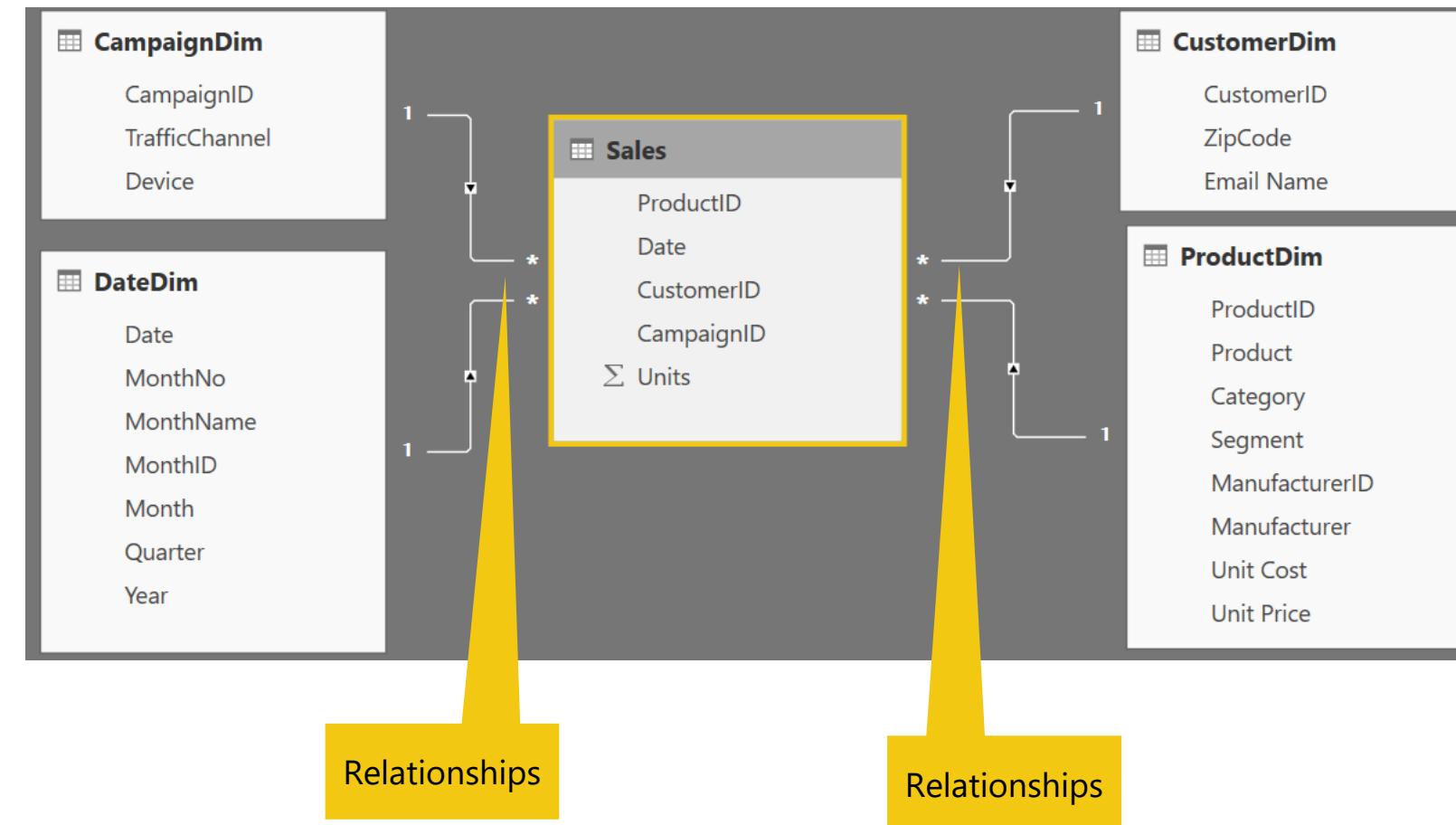
A Dim (or Dimension) table contains descriptive attributes that define how a fact should roll up.

Examples:

By month, By Customer, By Geo



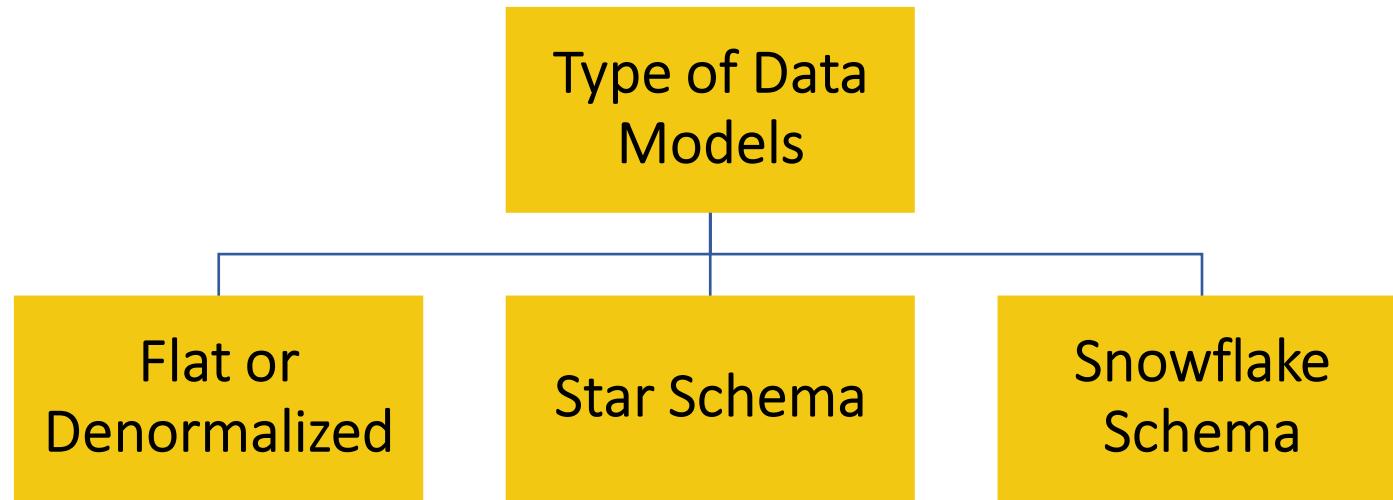
Components of a data model - Relationships



Relationships

- Connection between 2 tables (usually fact & Dim tables) using columns from each
- 3 kinds of Relationships
 - 1 to Many
 - 1 to 1
 - Many to Many
(with a bridge table)

Data Model Brings Facts and Dimensions Together



Note: This is not an exhaustive list, but are the most common model types used by Power BI.



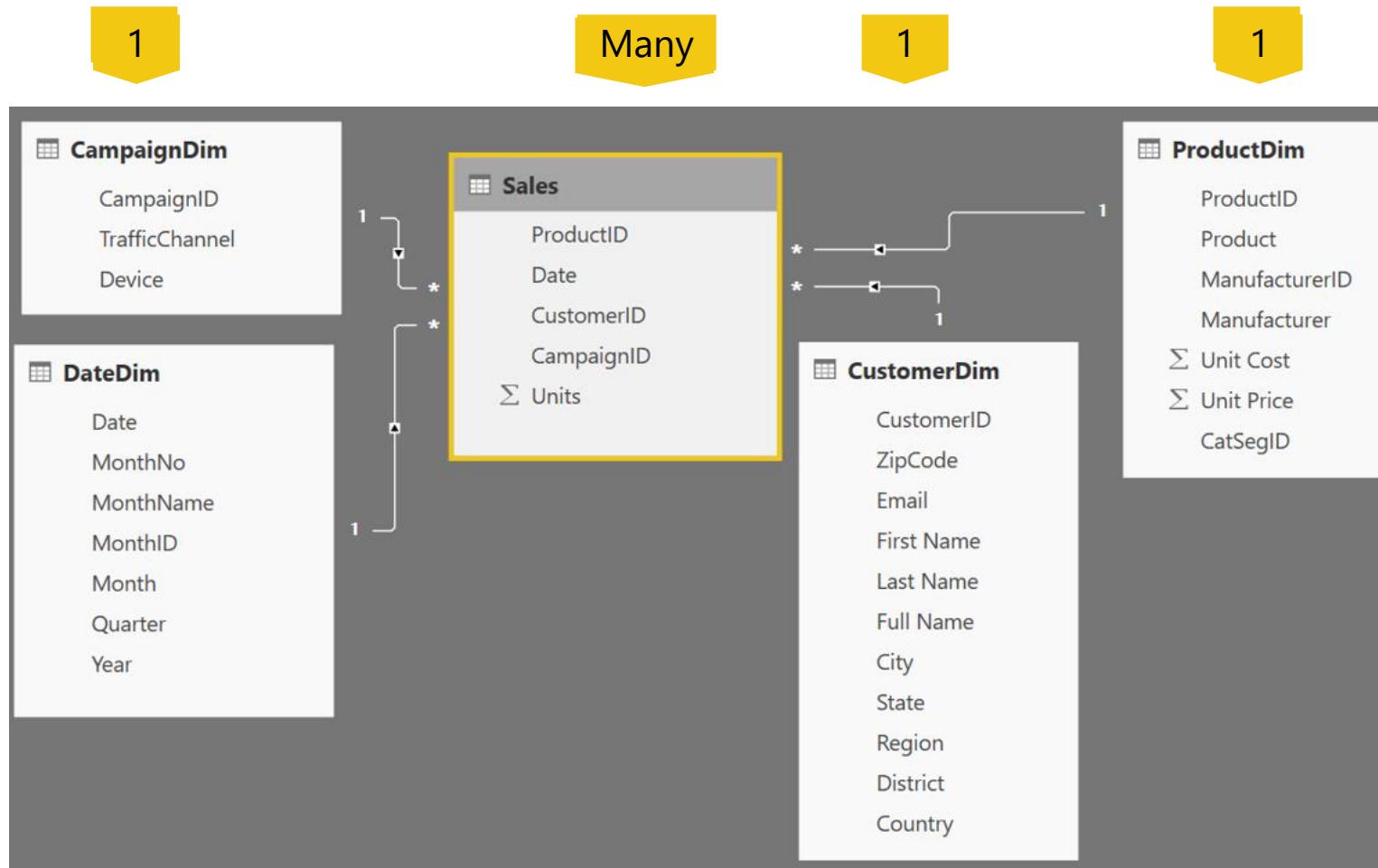
Flat or Denormalized Schema

	1 ² ₃ ProductID	A ^B _C Product	Date	1 ² ₃ CustomerID	A ^B _C Email	A ^B _C Last Name	A ^B _C First Name	A ^B _C Full Name	1 ² ₃ CampaignID	1 ² ₃ Units	1.2 CatSegID	
1	676	Maximus UC-41	9/25/2011	70283	Farrah.Kent@xyz...com	Kent	Farrah	Farrah Kent		22	1	10
2	585	Maximus UC-50	3/24/2014	70283	Farrah.Kent@xyz...com	Kent	Farrah	Farrah Kent		15	1	10
3	585	Maximus UC-50	11/30/2014	138334	Martha.Mcclain@xyz...com	Mcclain	Martha	Martha Mcclain		8	1	10
4	585	Maximus UC-50	6/21/2015	27193	Hedda.Mcintosh@xyz...com	Mcintosh	Hedda	Hedda McIntosh		22	1	10
5	585	Maximus UC-50	1/6/2013	238970	Lunea.Walker@xyz...com	Walker	Lunea	Lunea Walker		21	1	10
6	585	Maximus UC-50	3/22/2013	182241	Upton.Page@xyz...com	Page	Upton	Upton Page		17	1	10
7	449	Maximus UM-54	9/25/2011	195385	Drake.Wells@xyz...com	Wells	Drake	Drake Wells		22	1	4
8	449	Maximus UM-54	9/30/2014	168009	Wallace.Bender@xyz...com	Bender	Wallace	Wallace Bender		17	1	4
9	449	Maximus UM-54	8/12/2014	110391	Astra.Erickson@xyz...com	Erickson	Astra	Astra Erickson		20	1	4
10	449	Maximus UM-54	4/16/2014	49327	Echo.Bradley@xyz...com	Bradley	Echo	Echo Bradley		7	1	4
11	449	Maximus UM-54	2/28/2013	65952	Yoko.Gross@xyz...com	Gross	Yoko	Yoko Gross		17	1	4
12	449	Maximus UM-54	6/6/2013	97	Yoshi.Grant@xyz...com	Grant	Yoshi	Yoshi Grant		10	1	4
13	449	Maximus UM-54	5/14/2013	56757	Brian.Carrillo@xyz...com	Carrillo	Brian	Brian Carrillo		10	1	4
14	449	Maximus UM-54	4/9/2015	248715	Mark.Hewitt@xyz...com	Hewitt	Mark	Mark Hewitt		19	1	4
15	449	Maximus UM-54	4/28/2013	248715	Mark.Hewitt@xyz...com	Hewitt	Mark	Mark Hewitt		8	1	4
16	449	Maximus UM-54	3/28/2014	240831	Oscar.Avila@xyz...com	Avila	Oscar	Oscar Avila		18	1	4
17	449	Maximus UM-54	2/26/2014	201004	Duncan.Mcintosh@xyz...com	Mcintosh	Duncan	Duncan McIntosh		19	1	4
18	615	Maximus UC-80	5/14/2012	212645	Jacob.Santiago@xyz...com	Santiago	Jacob	Jacob Santiago		22	1	10
19	615	Maximus UC-80	5/14/2012	70666	Hilary.Coller@xyz...com	Collier	Hilary	Hilary Collier		22	1	10
20	615	Maximus UC-80	5/14/2012	114459	Chester.Mitchell@xyz...com	Mitchell	Chester	Chester Mitchell		22	1	10
21	615	Maximus UC-80	5/14/2012	221670	Sage.Yang@xyz...com	Yang	Sage	Sage Yang		22	1	10
22	615	Maximus UC-80	6/3/2012	168009	Wallace.Bender@xyz...com	Bender	Wallace	Wallace Bender		22	1	10
23	615	Maximus UC-80	6/3/2012	154439	Iliana.Dunlap@xyz...com	Dunlap	Iliana	Iliana Dunlap		22	1	10
24	615	Maximus UC-80	6/4/2012	191391	Joelle.Lee@xyz...com	Lee	Joelle	Joelle Lee		22	1	10

- All attributes for model exist in a single table
- Highly inefficient
- Model has extra copies of data > slow performance
- Size of a flat table can blow up really quickly as data model becomes complex



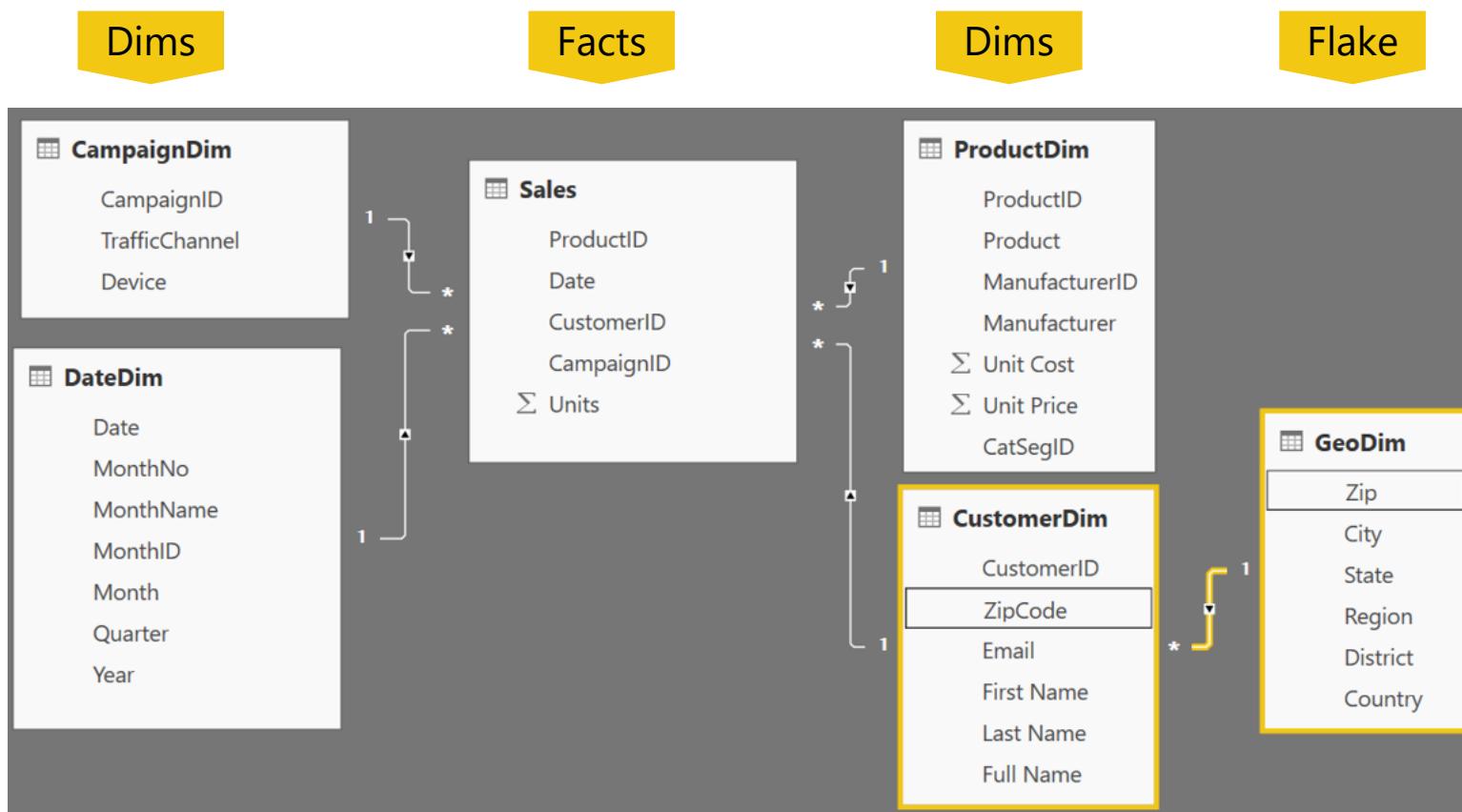
Star Schema



- Fact table in the middle
- Surrounded by Dims
- Looks like a ‘Star’
- Fact table is the “Many” side of the (one to many) relationship



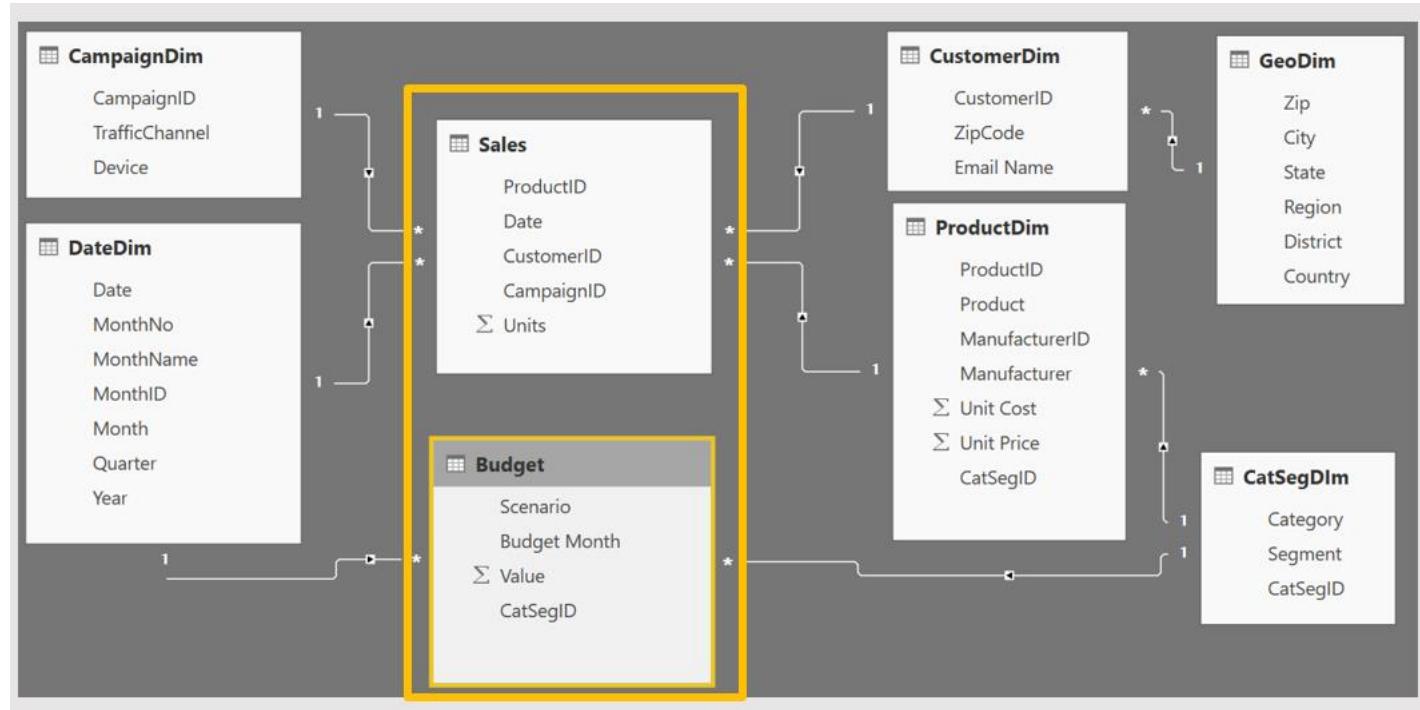
Snowflake Schema



- Center is a Star schema
- Fact table in middle
- Surrounded by Dims
- Dims “snowflake” off of other Dims
- If you have many, it looks like a ‘Snowflake’
- Dim or Fact tables can be the “Many” side of the relationship



Granularity & Multiple Fact Tables



Sales (Daily by Product)

Budget (Monthly by Product Category & Product Segment)

- Grain (**granularity**) measures the level of detail in a table

Example:

One row per order or per Item
Daily or Monthly date grain

- If your facts have **very different granularities**, split them into **Multiple Fact** tables & connect them to shared dimensions at the lowest common granularity.

Power BI Week 3

Use Datamodel from Lesson 1

DEMO

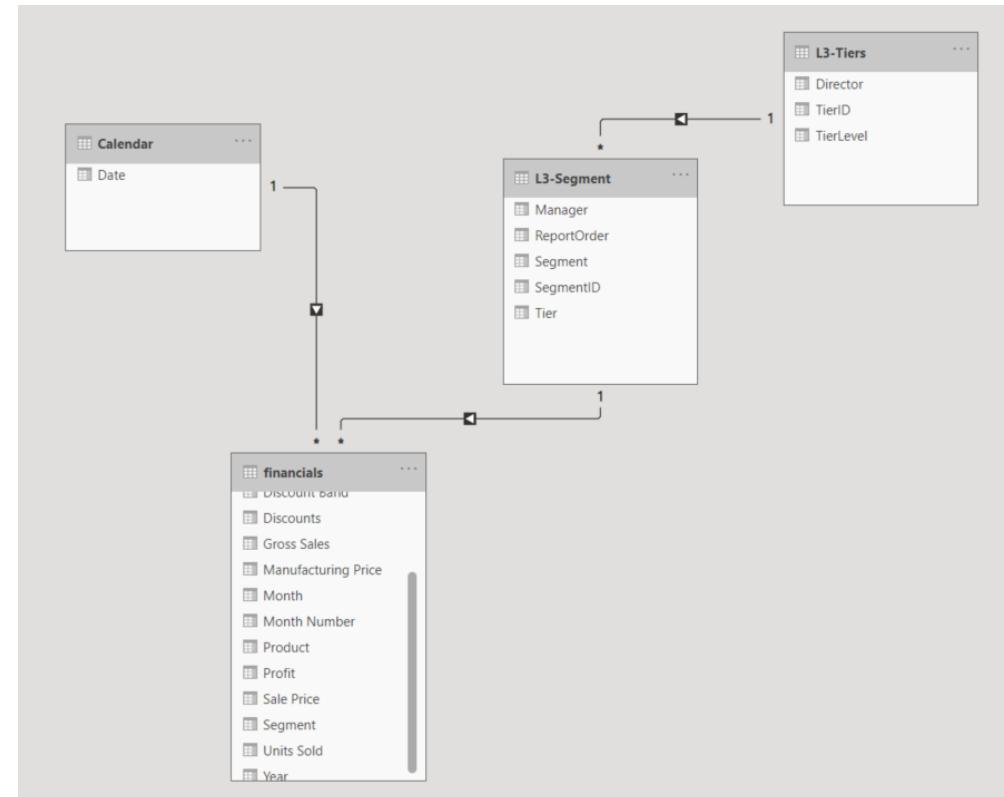
Add Segment & Tiers dimensions

Use web connector with Raw csv url from GitHub

Create Star Schema

Create a report with Dimensional data

Hide related fields in fact [financials](Segment)
& in L3-Segment[Tier]



Segments: <https://raw.githubusercontent.com/wottabyte/PBITraining/master/10WeekPBIonline2021/L3-Segment.csv>

Tiers: <https://raw.githubusercontent.com/wottabyte/PBITraining/master/10WeekPBIonline2021/L3-Tiers.csv>

Power BI Week 3

Intro to DAX – Data Analysis Expressions

DAX is a library of functions & operators

Used to Calculated Columns, Measures & Calculated Tables.

Demo CC : Add to date table from lesson 1

DAX: Year

DAX: Month Number

DAX: FY = "FY" & YEAR('Calendar'[Date])

DAX: mmyyyy = FORMAT('Calendar'[Date], "mmm") & " " &
RIGHT(YEAR('Calendar'[Date]), 2)

Datamodel fix month order by adding month number

Fix mmmmyy order by adding

yyyymm = 'Calendar'[year]*100 + 'Calendar'[month number]

Power BI Week 3

Measures

Measures:

Demo Default summarization then

Demo Measure : Total Revenue = sum of Sales

Demo Calculate : Sales by a fixed Country = “France”

Demo Sales by Country

If time go onto Time Intelligence

Time Intelligence

Demo Sales Previous Year & TOTALYTD & %

More DAX: Userelationships, semi additive,

Power BI Week 3

Template

Power BI Week 3 CourseWork

Monday 1st Feb 2021

- Microsoft Learn – ‘Model Data in Power BI’
- Module – ‘Design a data model in Power BI’
- Module – ‘Clean, transform and load data in Power BI’



Model data in Power BI

4 hr 12 min remaining • Learning Path • 0 of 3 modules completed

Intermediate Data Analyst Power BI



Design a data model in Power BI

49 min remaining • Module • 8 of 11 units completed

★★★★★ 4.8 (1,696)



Introduction to creating measures using DAX in Power BI

2 hr 40 min remaining • Module • 0 of 10 units completed

★★★★★ 4.7 (1,296)



Optimize a model for performance in Power BI

43 min remaining • Module • 0 of 8 units completed

★★★★★ 4.7 (1,535)

<https://docs.microsoft.com/en-us/learn/patterns/model-power-bi/>

Lesson 3 of 10 Power BI free online training

POWER BI BEGINNER DATAMODELLING TECHNIQUES

MONDAY 1st FEB
17:00 GMT



Q&A Workshop 3

POWER BI BEGINNER DATAMODELLING TECHNIQUES

MONDAY 1st FEB
17:00 GMT



Power BI Week 3

Template



Lesson 4 of 10 Power BI Beginner

Power BI Reports & configure charts

MONDAY 8th FEB
17:00 GMT



Lesson 4 of 10 Power BI Beginner

Power BI Reports & charts

MONDAY 8th FEB 17:00 GMT

Power BI – LESSON 4 of 10

beginners free 10 weeks online training course



Power BI Week 4

Monday 8th Feb 2021

Design & configure Power BI visuals like charts, maps & KPIs

- Hi & Intros: David, Conrad (get ready to scan Linkedin QR code)
- Logistics: Classroom course
- Recording on Youtube. Leave if not happy to be recorded
- Each week sign up on Meetup.com for the weekly event & Q&A workshop
- Each session will be a new Zoom link
- Questions into the chat or raise your hand
- 2 screens is better than 1.
- Microphones on mute

Linkedin : QR Codes



David Moss

Solutions Architect - Azure | Power Platform | D365 | (SC Cleared)



Conrad Moss

Power BI Developer at Hamilton Insurance Group



Microsoft Power BI Associate

DA-100 Certification

docs.microsoft.com/en-us/learn/certifications/exams/da-100

 Microsoft | Docs Documentation Learn Q&A Code Samples 

Learn Products Roles Learn TV Certifications Certifications FAQ & Help LE

Docs / Learn / Browse Certifications / Exam DA-100: Analyzing Data with Microsoft Power BI - Learn

 Exam DA-100: Analyzing Data with Microsoft Power BI

<https://docs.microsoft.com/en-us/learn/certifications/exams/da-100>

YOU Tube DA-100 : <https://www.youtube.com/watch?v=CI7hdjq0ZxI>

Workshop this eve at 21:00 – 22:00 GMT

Monday 8th Feb 2021

- **Q&A Workshop 4 - Power BI Beginner Training**
- <https://www.meetup.com/The-Power-BI-Apprentice/events/276167984/>

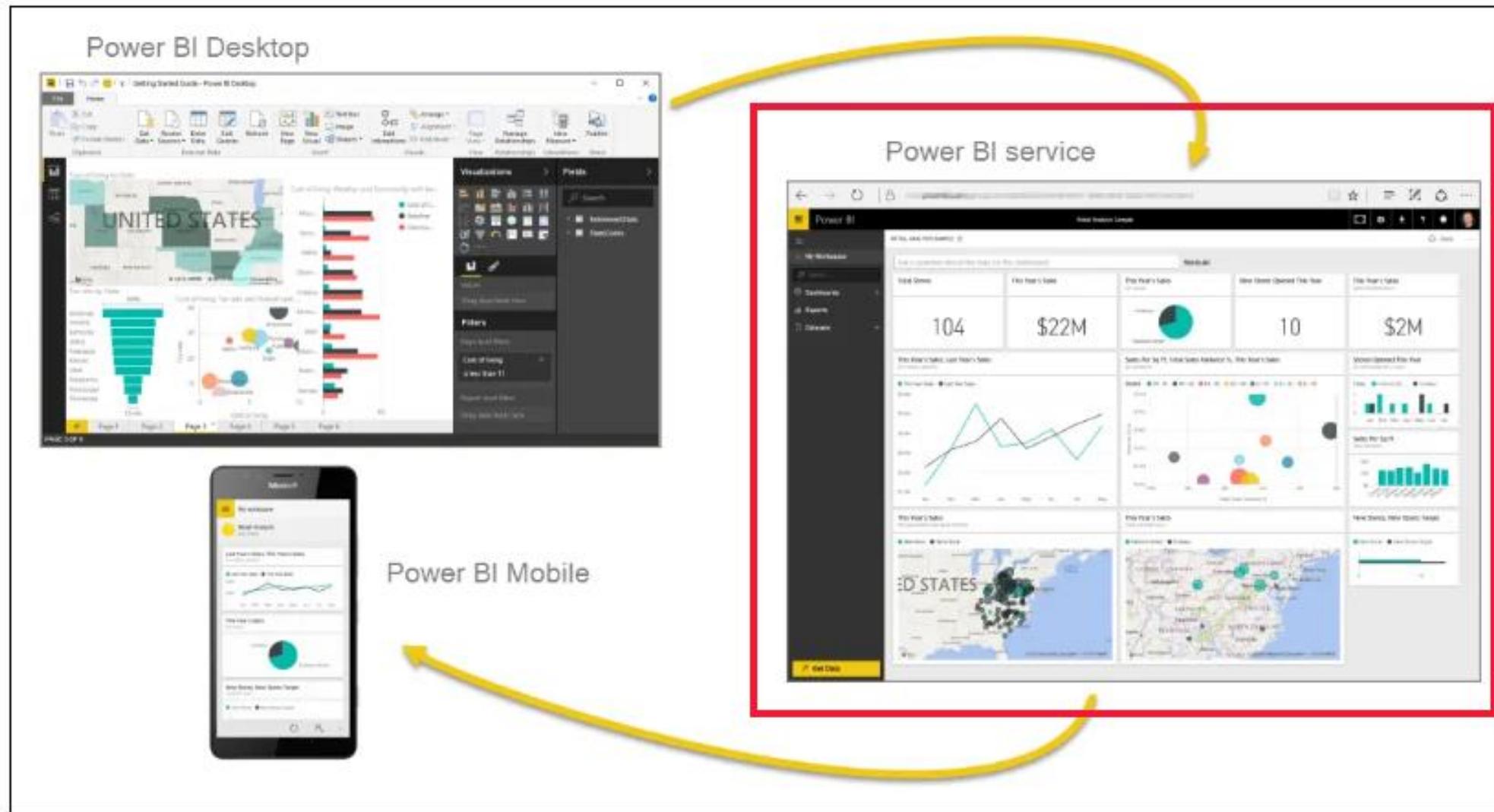


Power BI

beginners free 10 weeks online training course

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What is Power BI ?



Power BI Last Week

Did you do the CourseWork ?

- Microsoft Learn – ‘Model Data in Power BI’
- Module – ‘Design a data model in Power BI’
- Module – ‘Clean, transform and load data in Power BI’



Model data in Power BI

4 hr 12 min remaining • Learning Path • 0 of 3 modules completed

Intermediate Data Analyst Power BI



Design a data model in Power BI

49 min remaining • Module • 8 of 11 units completed

★★★★★ 4.8 (1,696)



Introduction to creating measures using DAX in Power BI

2 hr 40 min remaining • Module • 0 of 10 units completed

★★★★★ 4.7 (1,296)



Optimize a model for performance in Power BI

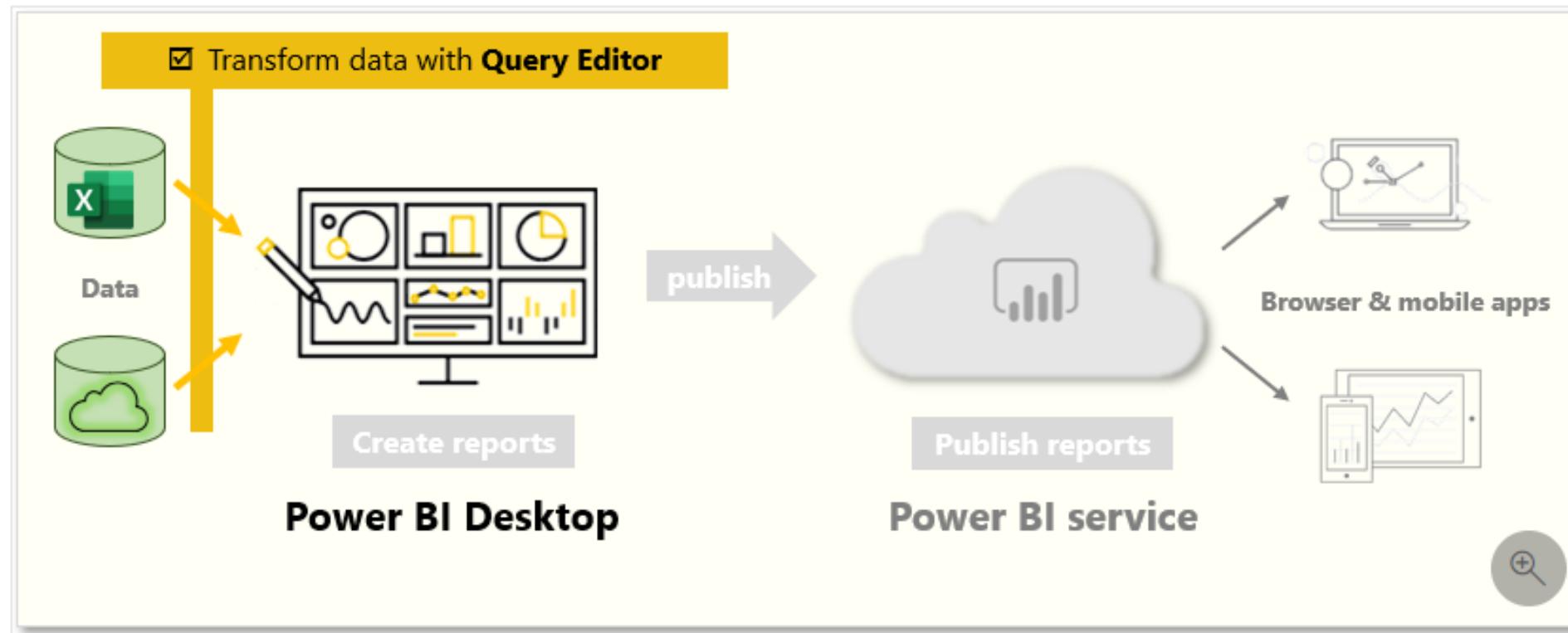
43 min remaining • Module • 0 of 8 units completed

★★★★★ 4.7 (1,535)

<https://docs.microsoft.com/en-us/learn/patterns/model-power-bi/>

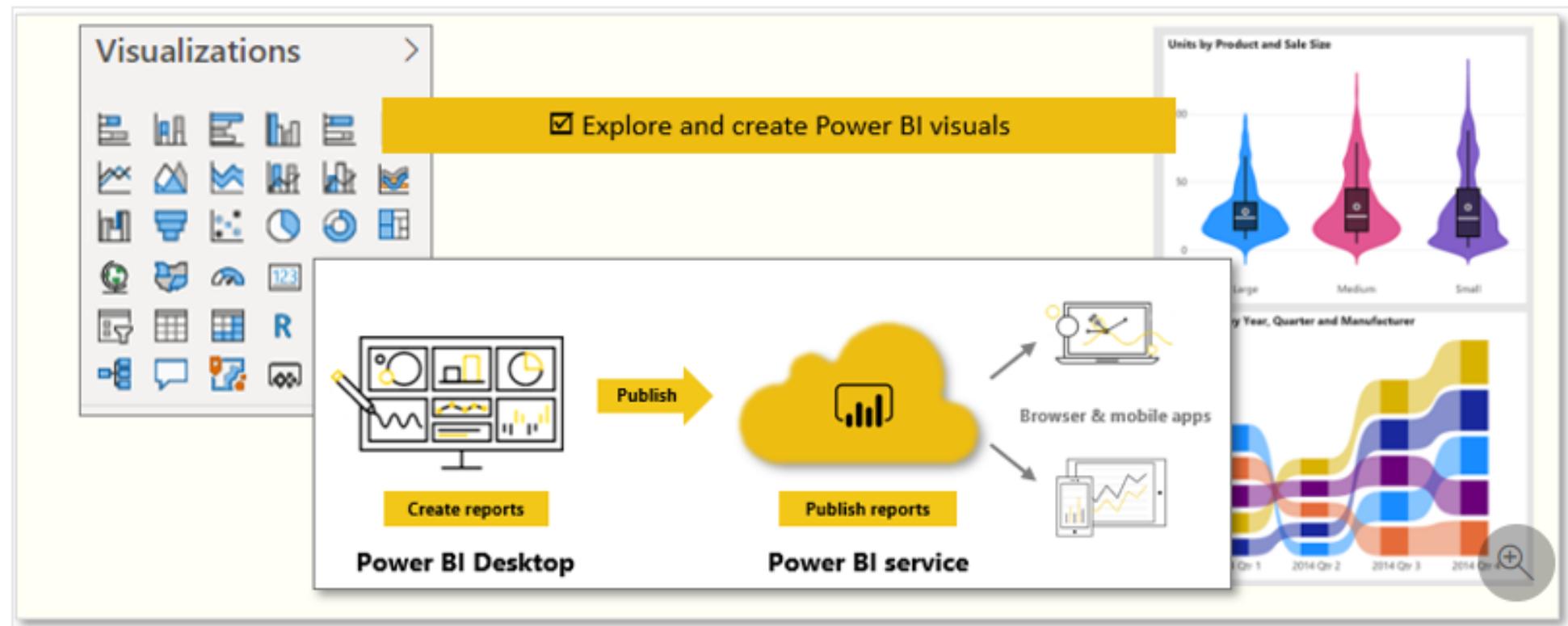
Power BI Week 4

Power BI Workflow



Power BI Week 4

Power BI Reports



Quick Survey of audience

<https://forms.office.com/Pages/ResponsePage.aspx?id=WkuituyrDEaGarPmYT9Z1NvMNOjKOFdHsnEJjP6WpoNUREdYRjdPUUQ0SzIQVzYzUEdJSkVKV1U5Ni4u>

Student go to form and submit
Trainer display live online results in Power BI dashboard



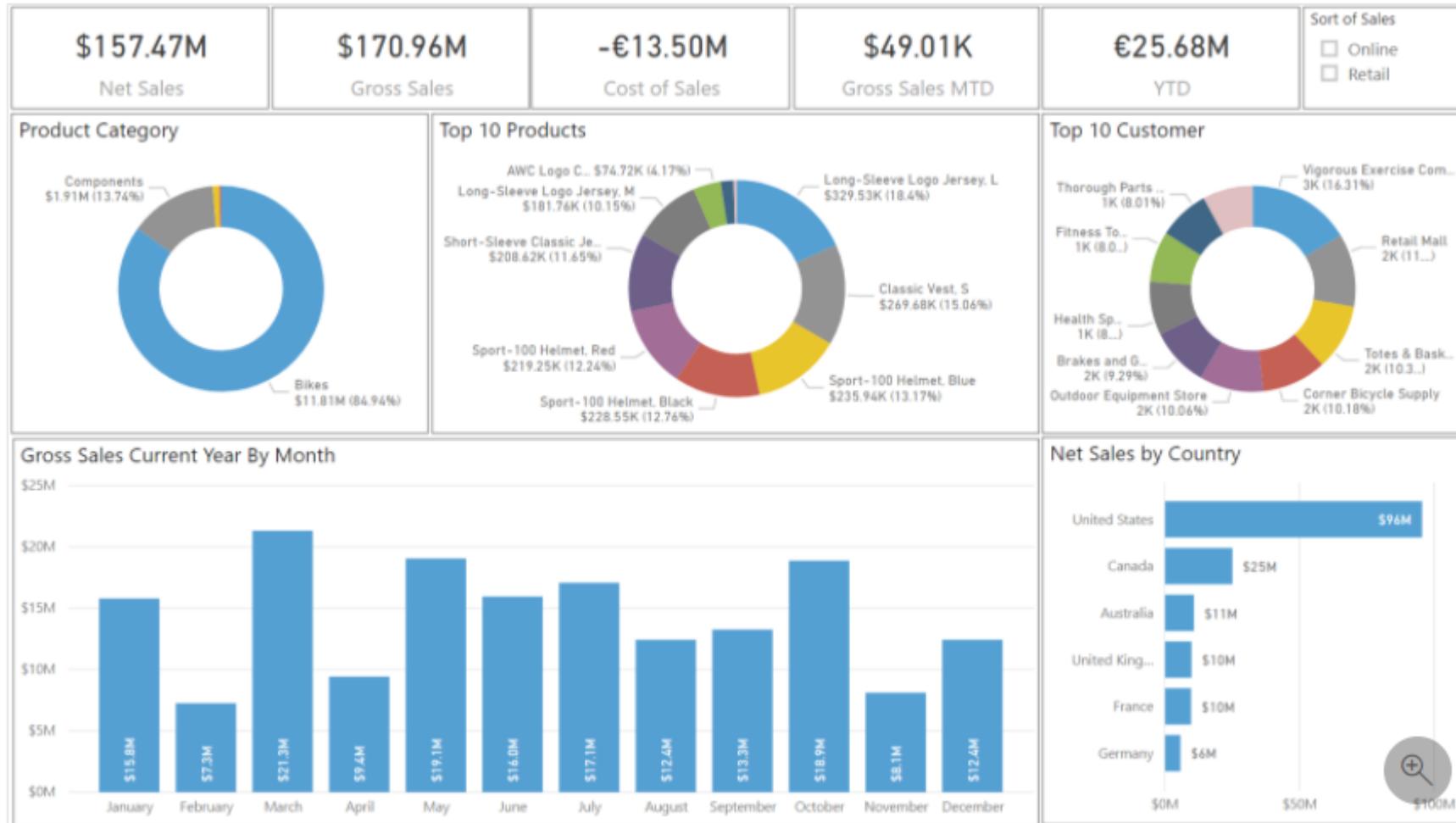
Power BI Week 4

Before



Power BI Week 4

After



Power BI Week 4

Visual types & formatting

Table & matrix visuals
Bar & Column charts
Line & Area
Pie, Donut & Treemaps
Combo charts
Cards, multi-row card
Funnel
Gauge chart
Waterfall
Scatter chart
Maps – (Arc GIS)
Slicers
Q&A



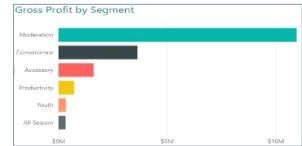
DEMO FILE with all visuals configured
Format & configure visualizations: paintbrush



Choose the Right Charts for the Right Purpose



Comparison



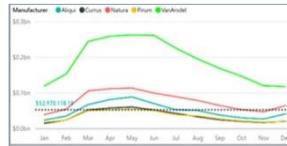
Stacked Bar

Composition



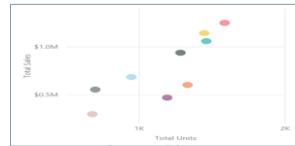
Tree

Trend



Line

Distribution



Scatter Plot

Status



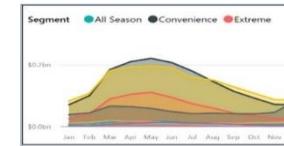
KPI

Geographic



Map

Relationships



Area

Slicing/Filtering



Date

Region:
Central
East
West

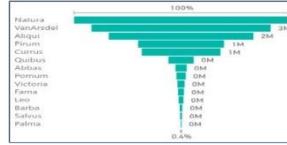
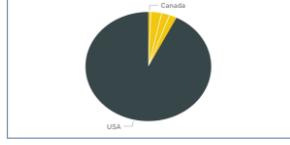
Segment:
All

Product:
Maximus RP-01
Maximus RP-02
Maximus RS-01
Maximus UC-00
Maximus UC-01
Maximus UC-02
Maximus UC-03
Maximus UC-04
Maximus UC-05
Maximus UC-06
Maximus UC-07
Maximus UC-08

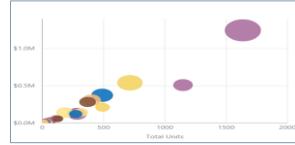
Clustered Bar



Pie



Funnel



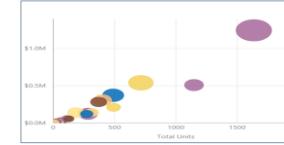
Bubble



Gauge

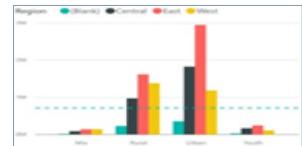


Filled Map

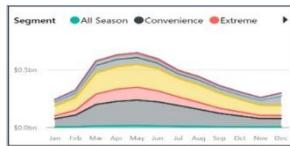


Bubble

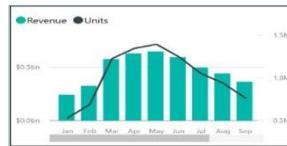
Clustered Column



Stacked Area



Line and Stacked Column



Map

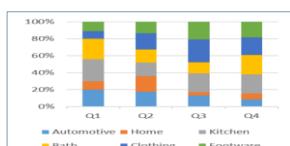


Multi-row Card

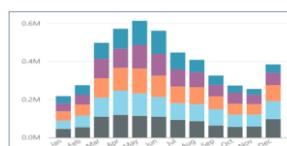
Table

Segment	Region	Units	Gross Profit
Moderation	Central	137,999	
Convenience	Central	67,391	
Accessory	Central	15,028	
Productivity	Central	12,443	
All Season	Central	6,155	
Youth	Central	5,849	
Total	Central	244,865	\$6,525,172

100% Stacked Column



Stacked Column



Units Sold In Period

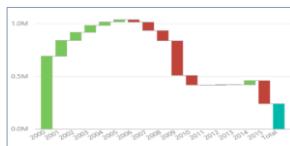
247K

Card

Matrix

Category	Region	Product A	Product B	Product C	Product D	Product E	Product F	Product G	Product H	Product I	Product J	Product K	Product L	Product M	Product N	Product O	Product P	Product Q	Product R	Product S	Product T	Product U	Product V	Product W	Product X	Product Y	Product Z
Category 1	Region 1	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000	23000	24000	25000	
Category 2	Region 2	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000	23000	24000	25000	
Category 3	Region 3	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000	23000	24000	25000	
Category 4	Region 4	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000	23000	24000	25000	
Category 5	Region 5	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000	23000	24000	25000	

Water Fall



Power BI Week 4

More Visuals

Custom Visuals : Bullet Chart : view Appsource

Power BI Visuals

AppSource | My organization

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Sort by: Recommended ▾

Search

Category

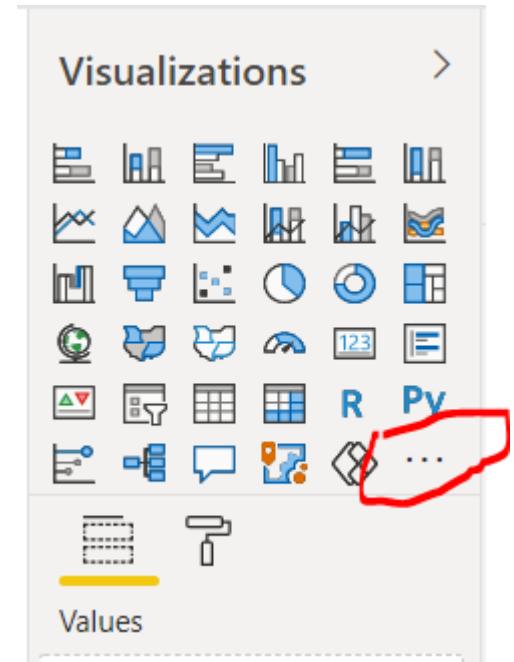
Editor's Picks

All

Bullet Chart A bar chart with extra visual elements to provide additional context. Useful for tracking goals

★★★★★

Add



Next week: Add user friendly report navigation features, slicers & tooltips

Power BI Week 4

Page Design Layout & Themes



Design with sketch (blank visuals) : layout

Configure report page : page info, size, wallpaper, background

Number of visuals

Position , align & Size

Titles

Data Labels

Markers (eg on lines)

Original Report



MAIN KPIs

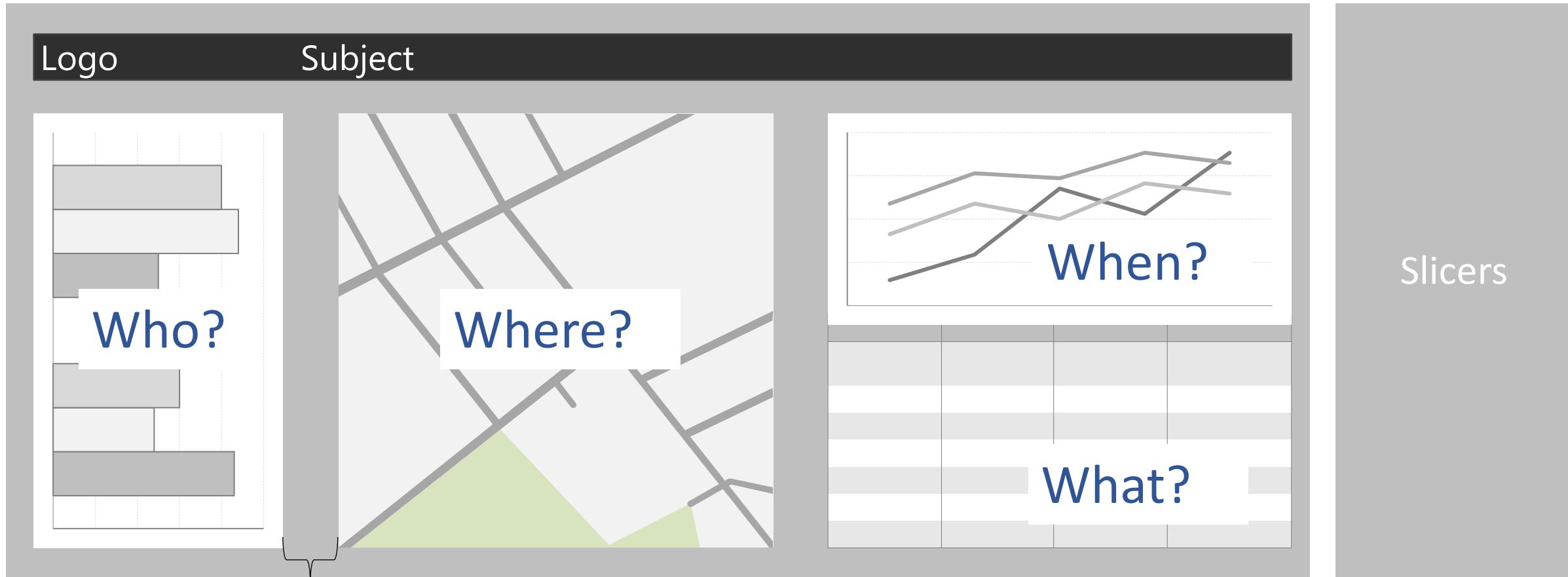
KPIs DETAILS

INDICATORS

PROPORTIONS

TIER 2

Use Storyboarding to Design Report Layout



Control this space. If all objects tell the same story, use the same gap space. If some objects tell a different story, make the gap bigger

Storyboarding Tools

The screenshot shows a Microsoft PowerPoint slide with a storyboard template. The slide has four main sections: 'Logo' (containing a bar chart with 'Who?' text), 'Subject' (containing a map with 'Where?' text), 'When?' (containing a line chart), and 'What?' (containing a green shaded area). A 'Slicers' placeholder is also present. The ribbon at the top has the 'Storyboarding' tab selected. A yellow arrow points from the 'Storyboard Shapes' button in the ribbon to the 'Storyboard Shapes' ribbon gallery window, which is displayed on the right. This gallery lists various storyboard shapes under categories like 'My Shapes', 'Annotation', 'Backgrounds', 'Common', and 'Icons'. Below the icons, there are sections for 'Windows App Icons', 'Windows Apps', 'Windows Desktop', 'Windows Phone Icons', and 'Windows Phone'.

Storyboard Shapes

Find more Storyboard Shapes online

My Shapes
Annotation
Backgrounds
Common
Icons
Media

Bar Chart (horizontal)
Bar Chart (vertical)
Image
Line Chart
Map Marker
Pie Chart
Play Controls
Position Control
Street Map

Windows App Icons
Windows Apps
Windows Desktop
Windows Phone Icons
Windows Phone

Install the Storyboarding Toolbar: <https://docs.microsoft.com/en-us/vsts/work/backlogs/office/storyboard-your-ideas-using-powerpoint>

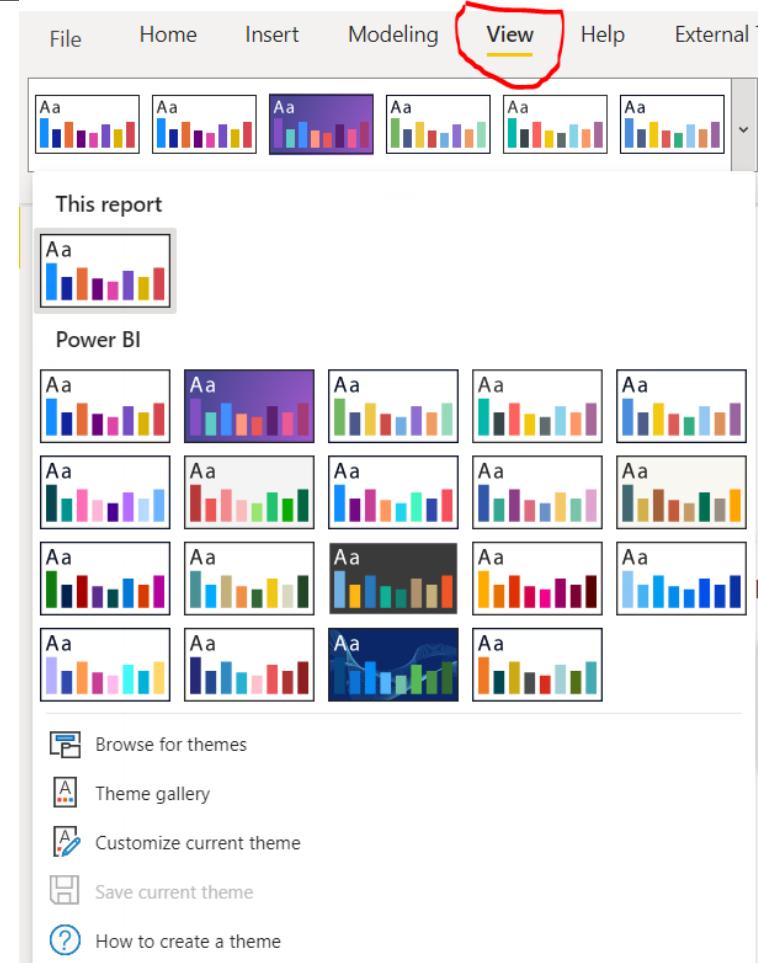
Power BI Week 4

Page Design Layout & Themes

Themes

Edit current theme

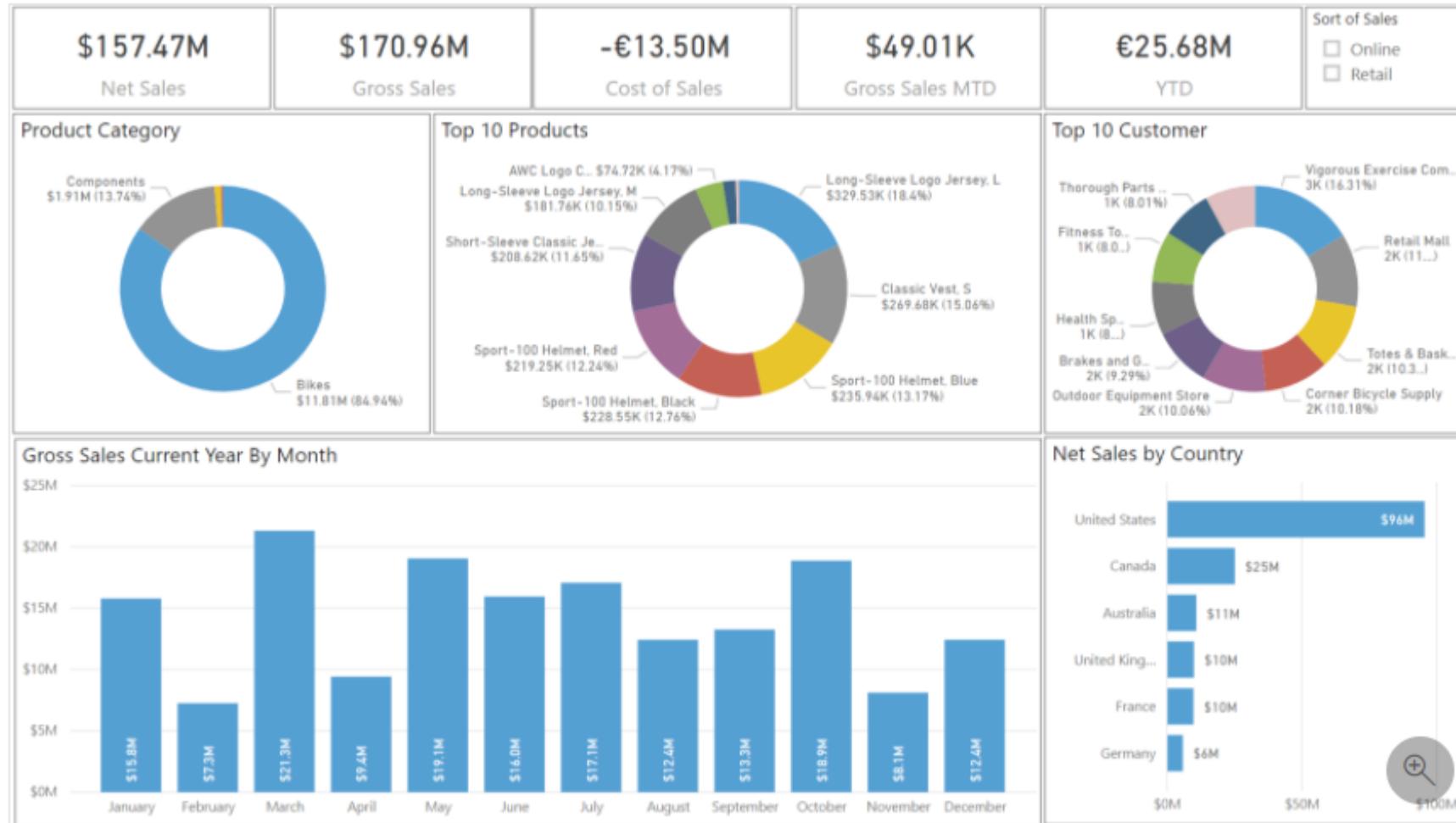
Import a theme .pbbit



<https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-report-themes>

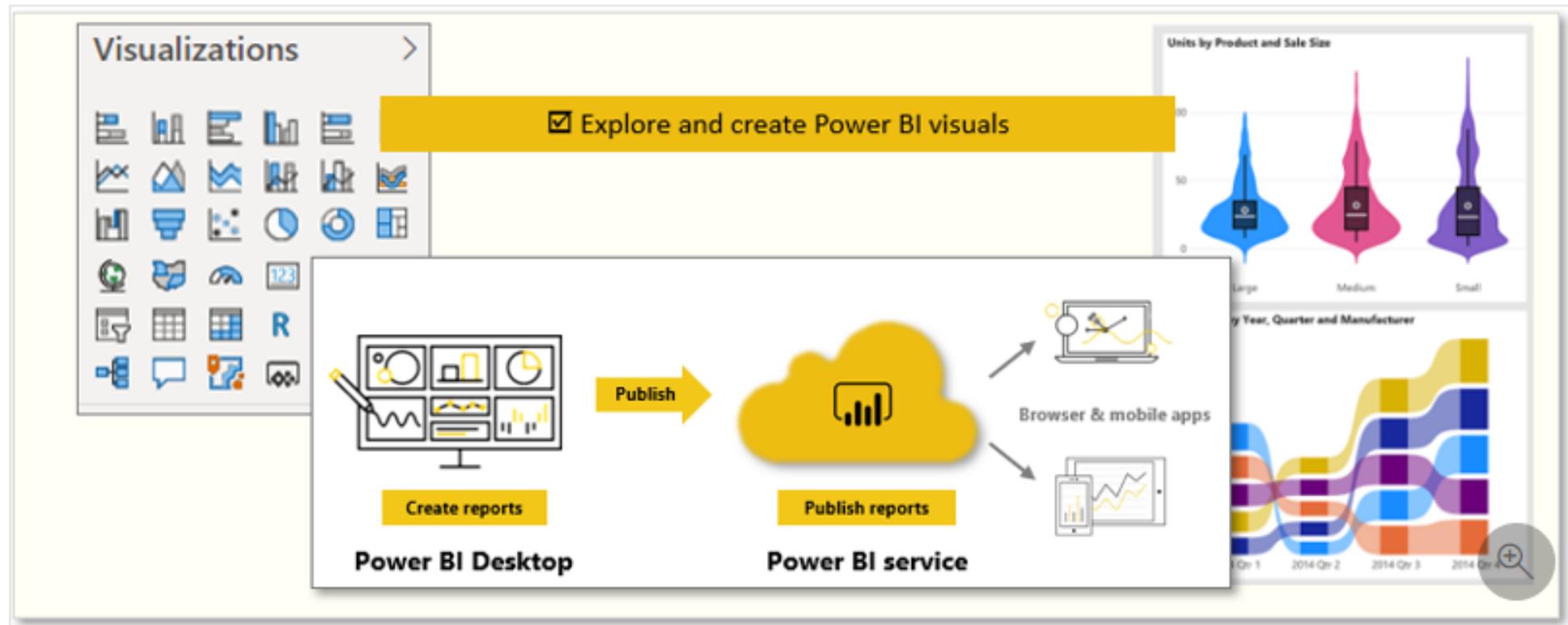
Power BI Week 4

Nearly finished your report



Power BI Week 4

Publish reports to the Power BI Service

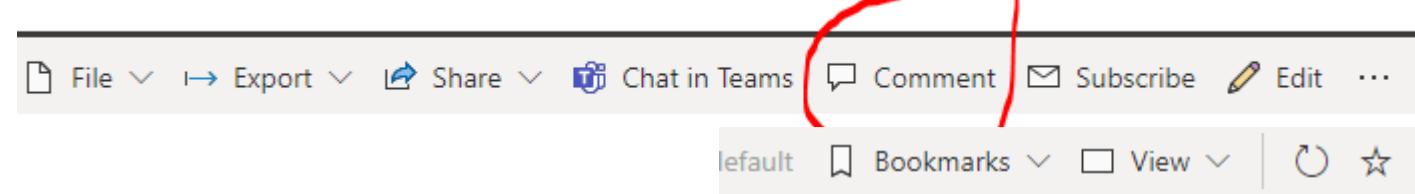


Power BI Week 4

Report in Service



Power BI DA-100 2021 10 week online



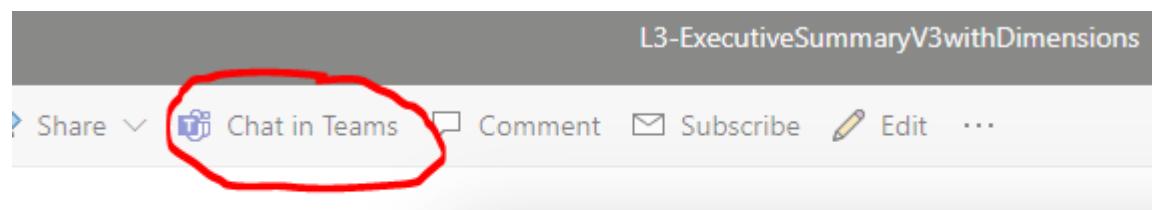
View report in Service

Comment on reports

Interact with visual in the PBI service

...

Chat in teams, add a comment.



L3-ExecutiveSummaryV3withDimensions |

Share ▾ Chat in Teams Comment Subscribe Edit ...

Share to Microsoft Teams

Share to

Wottabyte Limited > General

Sales SPLY	Sales TotalYTD
53	2,450,598.53
28	11,440,034.91

Comments

L3-EXECUTIVESUMMARYV3WITHDIMENSIONS

Previous Next

Enter your comments here, and @mention people to grab their attention.

Post

David Moss now
Did you understand this DAX ?

Reply

Power BI Week 4 CourseWork

Monday 8th Feb 2021

- Microsoft Learn – ‘Visualize data in Power BI’
- Module – ‘Work with Power BI visuals’
- Keen ? Module – ‘Create a data driven story with Power Bi reports. Try it in prep for Week 5



Visualize data in Power BI

5 hr 4 min remaining • Learning Path • 0 of 4 modules completed

Intermediate Data Analyst Power BI



Work with Power BI visuals

1 hr 12 min remaining • Module • 1 of 10 units completed

★★★★★ 4.6 (1,111)



Create a data-driven story with Power BI reports

1 hr 44 min remaining • Module • 0 of 15 units completed

★★★★★ 4.6 (946)

<https://docs.microsoft.com/en-us/learn/patterns/visualize-data-power-bi/>

Microsoft Power BI Associate

DA-100 Certification

docs.microsoft.com/en-us/learn/certifications/exams/da-100

 Microsoft | Docs Documentation Learn Q&A Code Samples 

Learn Products Roles Learn TV Certifications Certifications FAQ & Help LE

Docs / Learn / Browse Certifications / Exam DA-100: Analyzing Data with Microsoft Power BI - Learn

 Exam DA-100: Analyzing Data with Microsoft Power BI

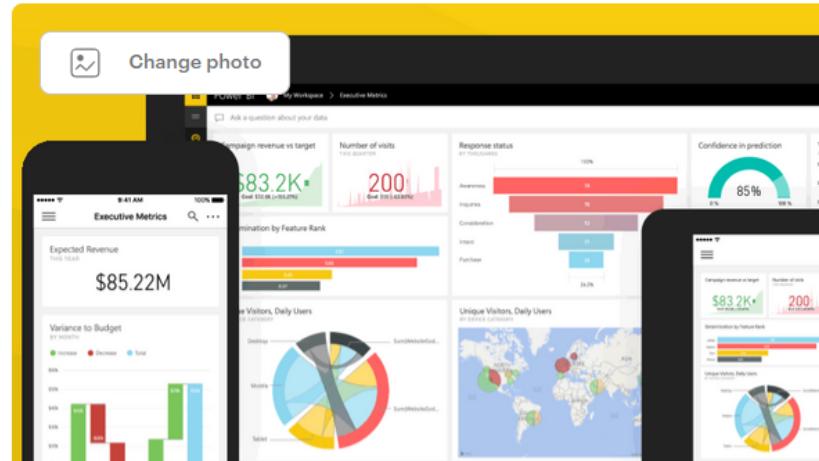
<https://docs.microsoft.com/en-us/learn/certifications/exams/da-100>

YOU Tube DA-100 : <https://www.youtube.com/watch?v=CI7hdjq0ZxI>

Social Media : Meetup , LinkedIn, YouTube

[meetup.com/The-Power-BI-Apprentice](https://www.meetup.com/The-Power-BI-Apprentice)

Meetup [Start a new group](#)



The Power BI Apprentice

London, United Kingdom · 517 members · Public group

Organized by David Moss

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@wottabyte

wottabyte

www.wottabyte.com

You Tube

<https://www.youtube.com/channel/UCDtmmwK3YxWqzDNZ5L3pdMw>
<https://youtu.be/dW08MYqbJ7k>



A screenshot of a YouTube channel page for 'wottabyte'. The channel has no subscribers. The main banner features the 'wottabyte' logo (three vertical bars in dark blue and orange) and the tagline 'your data partner'. Below the banner, the channel name 'wottabyte' and 'No subscribers' are displayed. A navigation bar includes links for HOME (underlined), VIDEOS, PLAYLISTS, CHANNELS, DISCUSSION, ABOUT, and a search icon. Two video thumbnails are shown: 'Power BI Datamodel star schema' (3:16, 3 views, 5 days ago) and '70 778 London Power BI Training' (0:20, No views, 5 days ago). Blue buttons for 'CUSTOMISE CHANNEL' and 'MANAGE VIDEOS' are located in the top right corner of the channel area.

Workshop this eve at 21:00 – 22:00 GMT

Monday 8th Feb 2021

- **Q&A Workshop 4 - Power BI Beginner Training**
- <https://www.meetup.com/The-Power-BI-Apprentice/events/276167984/>



Power BI

beginners free 10 weeks online training course

- Week 1: Monday 18th Jan 2021 : Introduction to Power BI and your first Power BI report.
- Week 2: Monday 25th Jan 2021 : Use Power Query Editor to get data & prepare your data.
- Week 3: Monday 1st Feb 2021 : Use Power BI desktop to structure & create datamodels.
- Week 4: Monday 8th Feb 2021 : Design & configure Power BI visuals like charts, maps & KPIs.
- Week 5: Monday 15th Feb 2021 : Add user friendly report navigation features, slicers & tooltips.
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- Week 7: Monday 1st March 2021: Get to grips with Power BI cloud service & mobile features.
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- Week 9: Monday 15th March 2021: Data analytics reporting & AI features in Power BI.
- Week 10: Monday 22nd March 2021: Power BI at work with workspaces, datasets & security.

NEXT WEEK : Power BI Week 5

15th February

Add user friendly report navigation features, slicers & tooltips.

Watch email & social media channels when event goes live 2 register.

Lesson 5 of 10 Power BI Beginner

Power BI user friendly reports

MONDAY 15th FEB 17:00 GMT

Coursework Lesson 4 of 10 Power BI Beginner

Power BI Reports & configure charts

Coursework
explained



NEXT WEEK : Power BI Week 5

15th February

Add user friendly report navigation features, slicers & tooltips.

Watch email & social media channels when event goes live 2 register.

Lesson 5 of 10 Power BI Beginner

Power BI user friendly reports

MONDAY 15th FEB 17:00 GMT

Lesson 5 of 10 Power BI Beginner

Power BI user friendly reports

MONDAY 15th FEB 17:00 GMT

Use for LinkedIn Events publicity

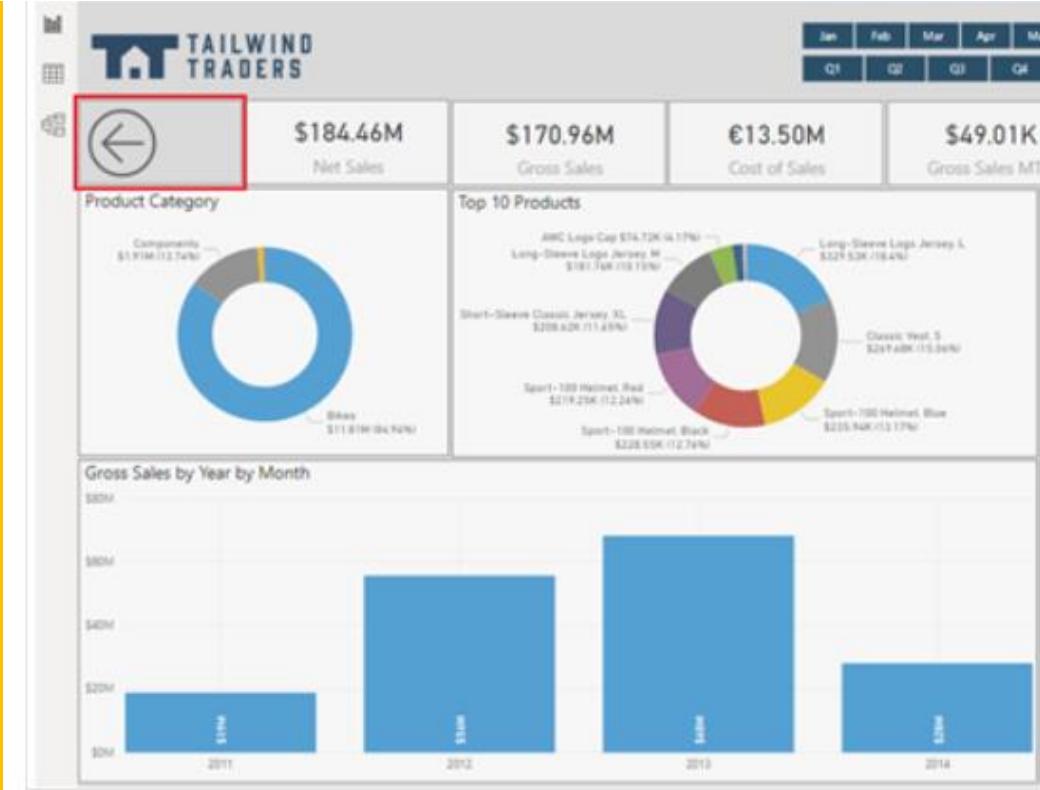
Power BI Beginner - NOW

Power BI Q&A Workshop

MONDAY 15th FEB 21:00 GMT

Lesson 5 of 10 Power BI Beginner

Power BI navigation, buttons, drillthrough



MONDAY 15th FEB 17:00 GMT

Power BI – LESSON 5 of 10

beginners free 10 weeks online training course



Power BI Week 5

Monday 15th Feb 2021

Add user friendly report navigation features, slicers & tooltips.

- Hi & Intros: David, Conrad (get ready to scan Linkedin QR code)
- Logistics: Classroom course
- Recording on Youtube. Leave if not happy to be recorded
- Each week sign up on Meetup.com for the weekly event & Q&A workshop
- Each session will be a new Zoom link
- Questions into the chat or raise your hand
- 2 screens is better than 1.
- Microphones on mute

Linkedin : QR Codes



David Moss

Solutions Architect - Azure | Power Platform | D365 | (SC Cleared)



Conrad Moss

Power BI Developer at Hamilton Insurance Group



Microsoft Power BI Associate

DA-100 Certification

docs.microsoft.com/en-us/learn/certifications/exams/da-100

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Learn Products Roles Learn TV Certifications Certifications FAQ & Help LE

Docs / Learn / Browse Certifications / Exam DA-100: Analyzing Data with Microsoft Power BI - Learn

 Exam DA-100: Analyzing Data with Microsoft Power BI

<https://docs.microsoft.com/en-us/learn/certifications/exams/da-100>

YOU Tube DA-100 : <https://www.youtube.com/watch?v=CI7hdjq0ZxI>

Workshop this eve at 21:00 – 22:00 GMT

Monday 15th Feb 2021

- **Q&A Workshop 5 - Power BI Beginner Training**
- <https://www.meetup.com/The-Power-BI-Apprentice/events/276303046/>

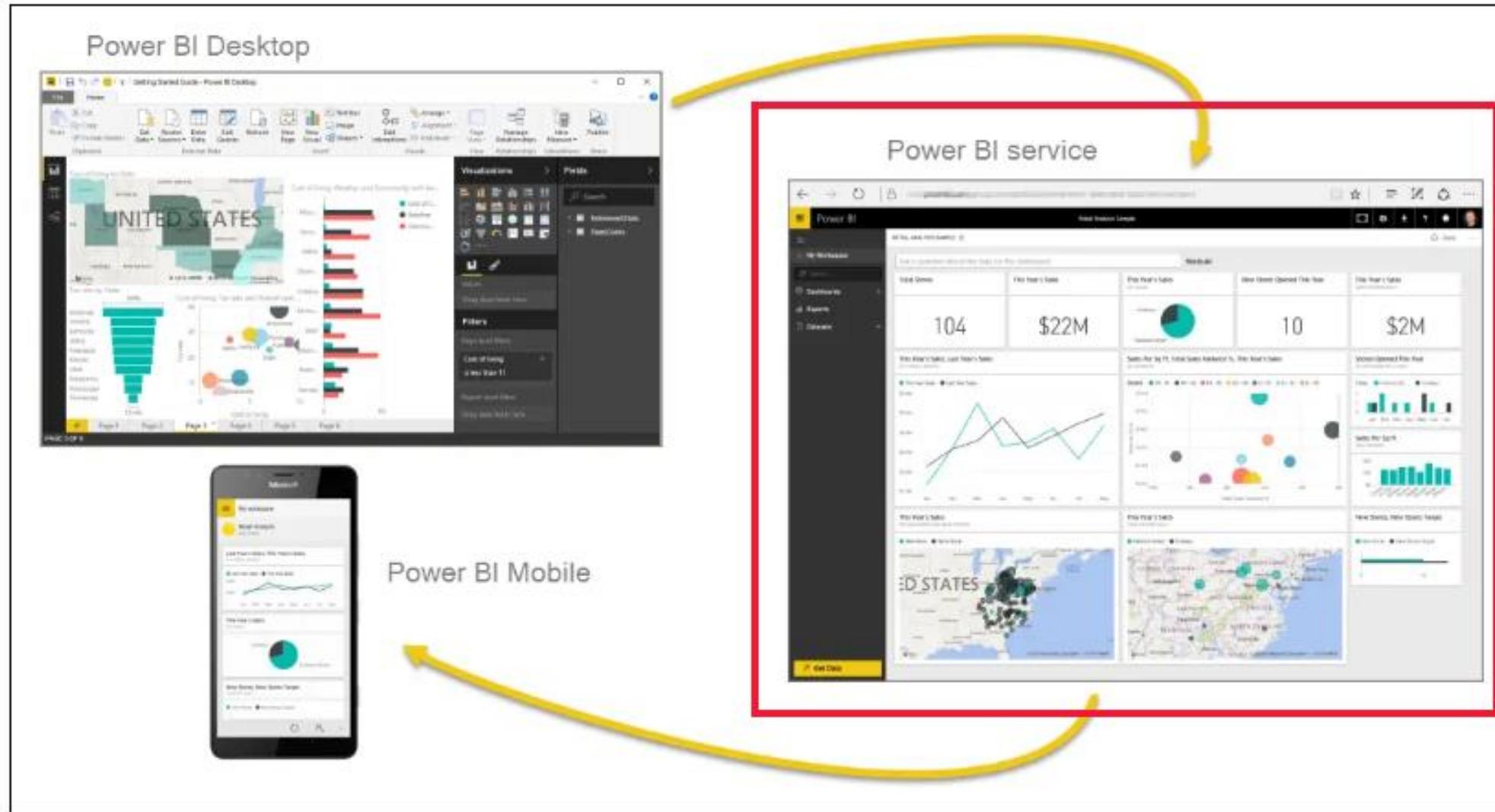


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What is Power BI ?



Power BI Week 5

Add user friendly report navigation features, slicers & tooltips.

Use Power BI features to tell a Story:
So much will split it over 2 weeks

Conditional formatting
Report Navigation with buttons
Drillthrough

Edit interactions
Slicer, filter & sorting

Sync slicers
Bookmark and Selection panel
Custom tooltips

Power BI Week 5

Conditional Formatting

Conditional Formatting – show where and then see other slides for formatting techniques.
Demo on CY-SPLY

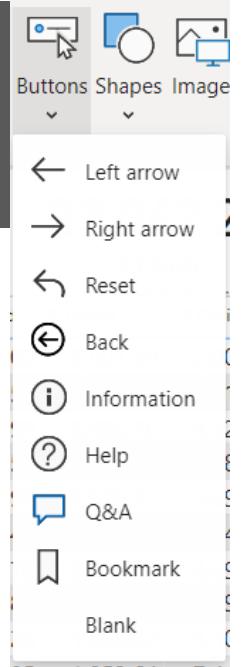
Configure Conditional Formatting

The screenshot shows the 'Background color - SalesAmount' dialog box in Power BI desktop. The dialog includes fields for 'Format by' (Color scale), 'Apply to' (Values only), 'Based on field' (Sum of SalesAmount), 'Summarization' (Sum), 'Default formatting' (As zero), 'Minimum' (Lowest value), 'Maximum' (Highest value), and a color gradient bar. A red arrow points from the 'Advanced controls' section of the dialog to a red box highlighting the 'Background color' option in the table's conditional formatting pane. The table visualization shows data for France, Germany, USA, and Total, with background colors applied based on the SalesAmount values.

Region	SalesAmount
France	\$1,693,909.04
Germany	\$485,155.88
USA	\$1,250,085.09
Total	\$3,429,150.01

Power BI Week 5

Report Navigation with Buttons



Buttons : feels more like an app

Navigation : story telling good for App like navigation

Selections : hide & view & layer visuals

Demo:

Add a button, change action to 'Navigation' (back, bookmark, drillthrough, navigation, Q&A, weburl)

Advanced bonus : Create a button with measure to drive different page destinations (based on table column & slicer)

<https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-buttons>

Power BI Week 5

Drillthrough



Drillthrough : high level drillthrough of an entity to a detailed report.

Advanced

Cross-report drillthrough (source & target) - configure your report to be the source.

File>Options&Settings>Options>ReportSettings set to 'Allow' visuals in this.....

Next in target report set page report settings to Cross Report is On and populate fields value.

User can select Drillthrough : Page Name [Report Name]



Power BI Week 5

If time



If reach here in Lesson 5 then jump to
Edit Interactions from Week 6

Do a resume of the course so far

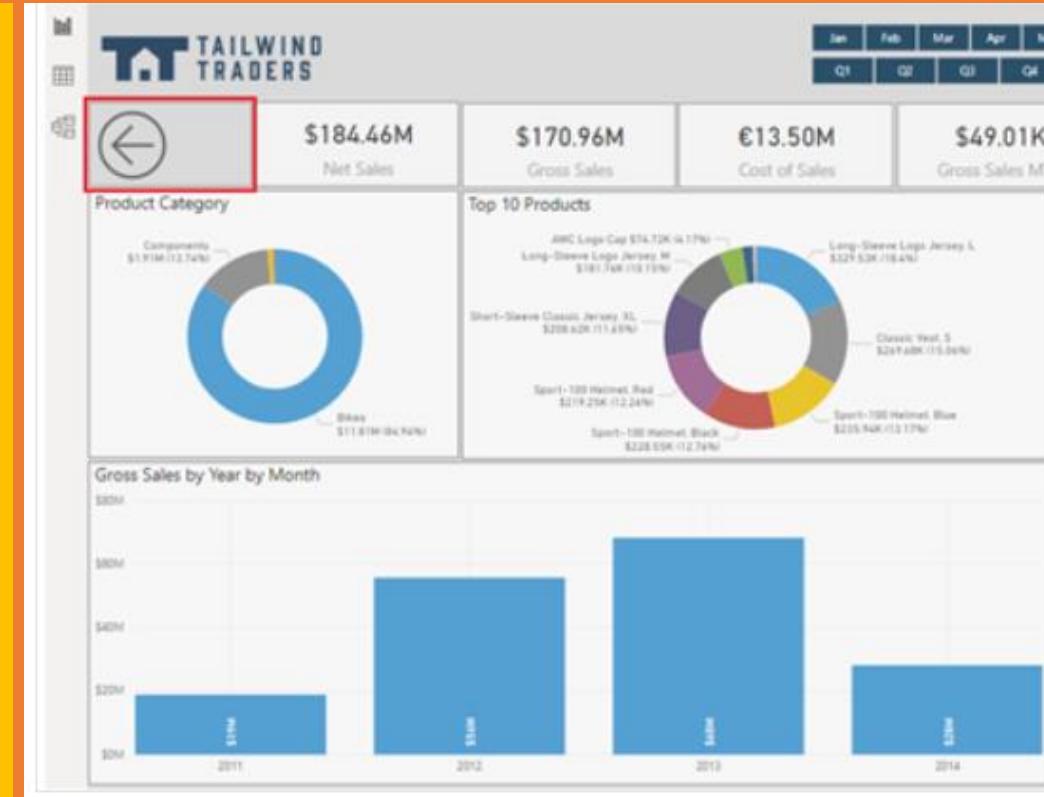
Power BI Week 5

Template



Lesson 5 of 10 Power BI Beginner

Power BI report navigation slicers & tooltips



CourseWork Explained

Power BI Week 5 CourseWork

Monday 15th Feb 2021

- Microsoft Learn – ‘Visualize data in Power BI’
- Module – ‘Create a data driven story with Power Bi reports



Visualize data in Power BI

5 hr 4 min remaining • Learning Path • 0 of 4 modules completed

Intermediate Data Analyst Power BI



Create a data-driven story with Power BI reports

1 hr 44 min remaining • Module • 0 of 15 units completed

★★★★★ 4.6 (946)

[https://docs.microsoft.com/en-us/learn\(paths/visualize-data-power-bi/](https://docs.microsoft.com/en-us/learn(paths/visualize-data-power-bi/)

Microsoft Power BI Associate

DA-100 Certification

docs.microsoft.com/en-us/learn/certifications/exams/da-100

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Docs / Learn / Browse Certifications / Exam DA-100: Analyzing Data with Microsoft Power BI - Learn

 Exam DA-100: Analyzing Data with Microsoft Power BI

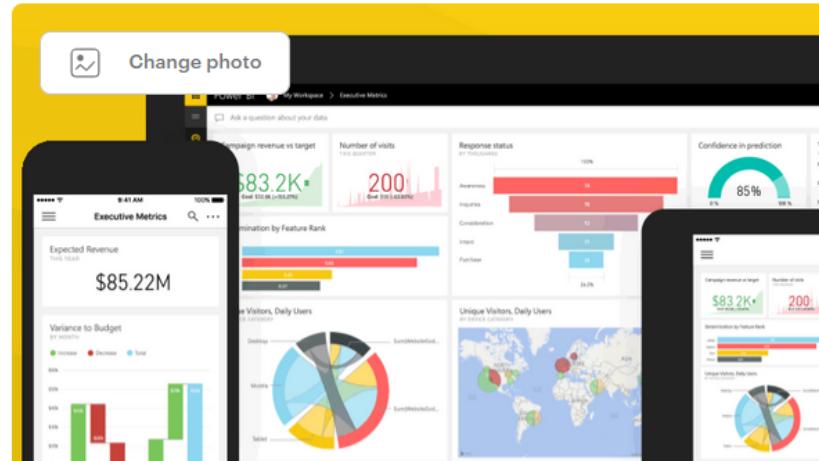
<https://docs.microsoft.com/en-us/learn/certifications/exams/da-100>

YOU Tube DA-100 : <https://www.youtube.com/watch?v=CI7hdjq0ZxI>

Social Media : Meetup , LinkedIn, YouTube

[meetup.com/The-Power-BI-Apprentice](https://www.meetup.com/The-Power-BI-Apprentice)

Meetup [Start a new group](#)



The Power BI Apprentice

London, United Kingdom · 517 members · Public group

Organized by David Moss

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@wottabyte

wottabyte

www.wottabyte.com

You Tube

<https://www.youtube.com/channel/UCDtmmwK3YxWqzDNZ5L3pdMw>
<https://youtu.be/dW08MYqbJ7k>



The screenshot shows the YouTube channel page for 'wottabyte'. The channel logo features a stylized bar chart icon. The channel name 'wottabyte' is displayed in large, bold, dark blue letters, with the tagline 'your data partner' in orange below it. The subscriber count is listed as 64. Navigation links include HOME, VIDEOS, PLAYLISTS, CHANNELS, DISCUSSION, ABOUT, and a search icon. Below these are buttons for CUSTOMISE CHANNEL and MANAGE VIDEOS. The 'VIDEOS' tab is selected, showing a grid of six video thumbnails. The first video is titled '4/10 Power BI Beginners Coursework Lesson 4' and has 18 views. The second video is 'Lesson 4 - Power BI Beginners Online Training...' with 24 views. The third is '3/10 Power BI Beginners Coursework Lesson 3' with 27 views. The fourth is 'Lesson 3 - Power BI Beginners Online Training...' with 52 views. The fifth is 'PL-900 Power Platform Fundamentals' with 24 views. The sixth is 'DA-100 ANALYZING DATA MICROSOFT POWER BI Learning Materials' with 44 views. Each thumbnail includes the video title, duration, and view count.

Power BI Beginners Training 2021 Lesson 1 - 10
wottabyte - 1/9

This screenshot shows a video player interface for a specific lesson. The title is 'Power BI Beginners Training 2021 Lesson 1 - 10'. The video thumbnail shows a Microsoft Power BI interface with several charts. The play button is visible, along with a timestamp of '1:04:05'. Below the video are several other video thumbnails from the same series, each with a number (1 through 10) and a brief description. The descriptions include 'Power BI Beginners Online Training 2021 Lesson 1 of 10', 'Power BI Beginners Course Lesson 1 of 10 Coursework', 'Power BI Beginners Course Lesson 2/10 Coursework', 'Lesson 2 - Power BI Beginners Online Training 2021', 'DA-100 Power BI learning material', and 'Lesson 3 - Power BI Beginners Online Training 2021'. Each thumbnail includes a timestamp and the 'wottabyte' channel name.

Workshop this eve at 21:00 – 22:00 GMT

Monday 15th Feb 2021

- **Q&A Workshop 5 - Power BI Beginner Training**
- <https://www.meetup.com/The-Power-BI-Apprentice/events/276303046/>



Power BI

beginners free 10 weeks online training course

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NEXT WEEK : Power BI Week 6

22nd February

Power BI report slicers & custom tooltips

Watch email & social media channels when event goes live 2 register.

Lesson 6 of 10 Power BI Beginner

Power BI slicers & custom tooltips

MONDAY 22nd FEB 17:00 GMT

Lesson 6 of 10 Power BI Beginner

Power BI slicers, bookmarks & custom tooltips



MONDAY 22nd FEB 17:00 GMT

Links

- Youtube Lesson 5: <https://www.youtube.com/watch?v=82E4IPdLSNE>
- Youtube courseworks Lesson 5:
<https://www.youtube.com/watch?v=e0xDgpeIm1M>
- Register Lesson 6: <https://www.meetup.com/The-Power-BI-Apprentice/events/276348244/>
- Register Workshop 6: <https://www.meetup.com/The-Power-BI-Apprentice/events/276348292/>

LAST PAGE

Please ignore the remaining
pages as they are part
preparation for next sessions

Lesson 6 of 10 Power BI Beginner

Power BI slicers, bookmarks & custom tooltips



MONDAY 22nd FEB 17:00 GMT

Lesson 6 of 10 Power BI Beginner

Power BI slicers & custom tooltips

MONDAY 22nd FEB 17:00 GMT

<https://okviz.com/blog/design-guide-for-power-bi-slicers-and-filters/>

Power BI Beginner - NOW

Power BI Q&A Workshop 6

MONDAY 22nd FEB 21:00 GMT

Workshop this eve at 21:00 – 22:00 GMT

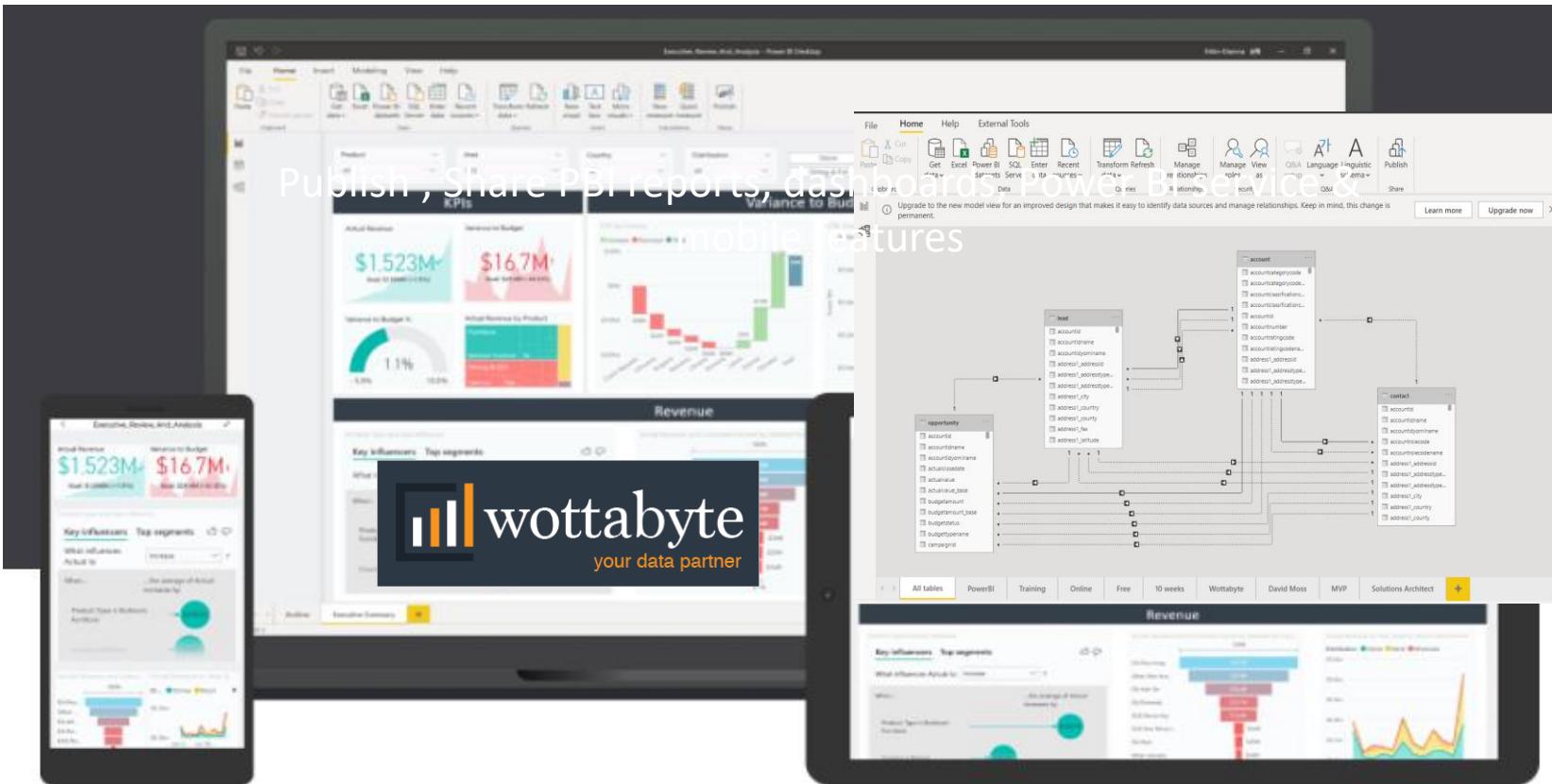
Monday 22nd Feb 2021

- **Q&A Workshop 6 - Power BI Beginner Training**
- <https://www.meetup.com/The-Power-BI-Apprentice/events/276303046/>



Power BI – LESSON 6 of 10

beginners free 10 weeks online training course



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Power BI Week 6

Power BI report slicers & custom tooltips

Use Power BI features to tell a Story:
So much will split it over 2 weeks

LAST WEEK 5

Conditional formatting

Report Navigation with buttons

Drillthrough

THIS WEEK 6

Slicer, filter & sorting

Edit interactions

Sync slicers

Bookmark and Selection panel

Custom tooltips

Power BI Week 6

Slicer, Filter & Sorting



Slicing Filtering & Sorting

Filtering : remove data in pane

Slicer : slice data on canvas

Sorting : highlight values by like Top5

Demo

Slicer formatting for text or values slicers; dropdown, search , slider. Format single, multi all select.

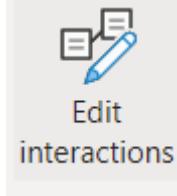
Filters Pane: show hide, lock preselect, basic, advanced.

Filters on this visual, on this page, all pages. : Filters Drillthrough

Sort : ascending descending, field from Top right of a visual

Power BI Week 6

Edit Interactions



Edit Interactions

Configure a report with some slicers slicing right of page (detail) but not left of page (summary)

Use hierarchies to drive detail interactions

Power BI Week 6

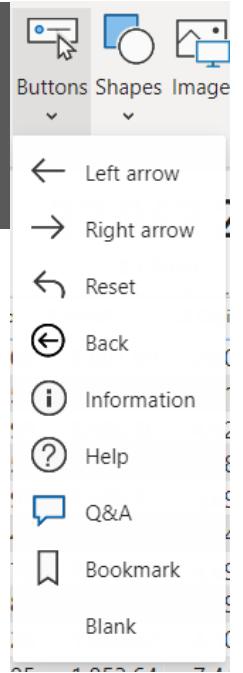
Sync Slicers



Sync Slicers across pages

Power BI Week 6

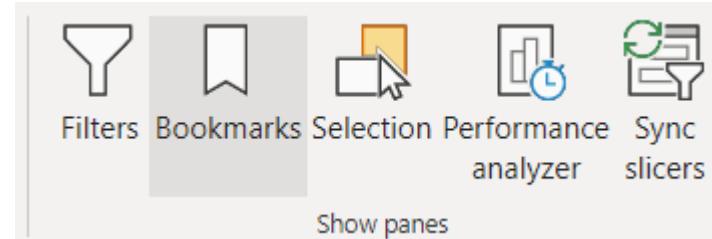
Bookmarks & Selection panel



Bookmark like navigation but good for on same page changes

Bookmark panel : story telling good for PPT also for App like navigation

Selection panel : hide & view visuals



Demo:

Take a bookmark

Add a button, change action to 'Bookmark' (back, bookmark, drillthrough, navigation, Q&A, weburl)

Do bookmark to switch between donut and table on same page.

Power BI Week 6

Custom Tooltips



Custom Tooltips

Power BI Week 6 CourseWork

Monday 22nd Feb 2021

- Microsoft Learn – ‘Visualize data in Power BI’
- Same module as week 5 but do it all.
- Module – ‘Create a data driven story with Power Bi reports



Visualize data in Power BI

5 hr 4 min remaining • Learning Path • 0 of 4 modules completed

Intermediate Data Analyst Power BI



Create a data-driven story with Power BI reports

1 hr 44 min remaining • Module • 0 of 15 units completed

★★★★★ 4.6 (946)

[https://docs.microsoft.com/en-us/learn\(paths/visualize-data-power-bi/](https://docs.microsoft.com/en-us/learn(paths/visualize-data-power-bi/)

NEXT WEEK : Power BI Week 7

1st March

Publish , Share PBI reports, dashboards, Power BI service & mobile features

Watch email & social media channels when event goes live 2 register.

Lesson 7 of 10 Power BI Beginner

Publish & share Power BI reports

MONDAY 1st MAR 17:00 GMT

Lesson 7 of 10 Power BI Beginner

Publish & share Power BI reports

MONDAY 1st March 17:00 GMT

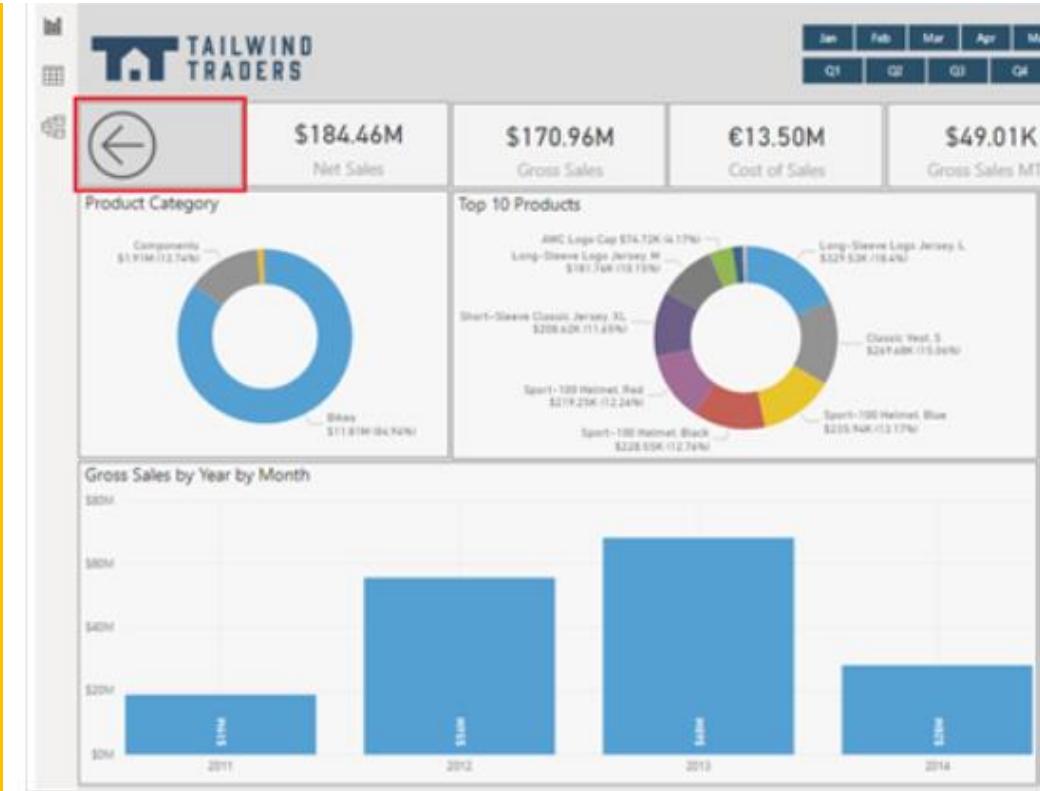
Power BI Beginner - NOW

Power BI Q&A Workshop 7

MONDAY 1st March 21:00 GMT

Lesson 7 of 10 Power BI Beginner

Publish & share Power BI reports & dashboards



MONDAY 1st MARCH 17:00 GMT

Power BI Week 7

Publish , Share PBI reports, dashboards, Power BI service & mobile features

Combined here in week 7 the original week 6 & Week7.

Remember we split the original week 5 user friendly reports over both week 5 & week 6 and moved the original week 6 content into week 7 as makes an easier balance of content.

Power BI Week 7

Mobile Report



Mobile report

PBI desktop : View>Mobile Layout

Slicers : format>general>responsive for mobile

Power BI – LESSON 7 of 10

beginners free 10 weeks online training course



Power BI Week 7 CourseWork

Monday 1st March 2021

- Microsoft Learn – ‘Visualize data in Power BI’
- Module – Create dashboards in Power BI
- Extra Module – Create paginated Reports



Visualize data in Power BI

5 hr 4 min remaining • Learning Path • 0 of 4 modules completed

Intermediate Data Analyst Power BI



Create dashboards in Power BI

1 hr 8 min remaining • Module • 0 of 11 units completed

★★★★★ 4.7 (810)



Create paginated reports

1 hr remaining • Module • 0 of 8 units completed

★★★★★ 4.7 (893)

<https://docs.microsoft.com/en-us/learn/paths/visualize-data-power-bi/>

Power BI – LESSON 8 of 10

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Power BI Week 8

Template



Power BI – LESSON 9 of 10

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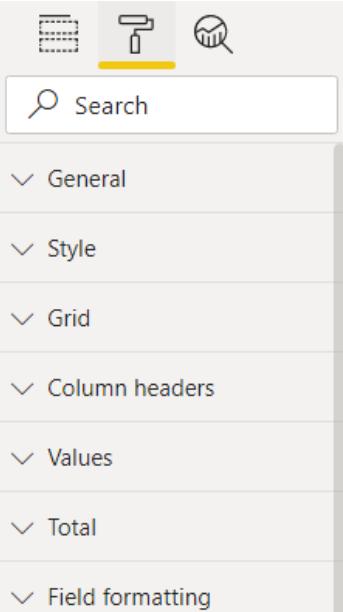
Power BI Week 9

Template



Power BI Week 9

Advanced Visuals



Custom Visuals : Bullet Chart : view Appsource

Create your own custom visual with Custom Visual SDK NodeJS .pbviz

R or Python visuals

R CRAN IDE Rstudio r dataset

Python Anaconda pandas dataframe

Show off here an R Visual Hawaii

Also import R & Python custom visuals

Power BI Visuals

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[Manage Cookies](#)

Sort by: Recommended ▾

Category	Visual Name	Description	Rating	Action
Editor's Picks	Bullet Chart	A bar chart with extra visual elements to provide additional context. Useful for tracking goals	★★★★★	Add

Next week: Add user friendly report navigation features, slicers & tooltips

Power BI – LESSON 10 of 10

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Power BI Week 10

Template



Power BI Week ?

Report Performance



Not for Beginners

Performance Analyzer
Tune Performance

Power BI Training

Links



YouTube Channel: <https://www.youtube.com/channel/UCDtmmwK3YxWqzDNZ5L3pdMw>

Meetup events: <https://www.meetup.com/The-Power-BI-Apprentice/events/>

GitHub files: <https://github.com/wottabyte/PBITraining/tree/master/10WeekPBlonline2021>

DA-100: <https://docs.microsoft.com/en-us/learn/certifications/exams/da-100>

WOTTA

BYTE