

20 Power Query {M}agic Tips Every User Should Know

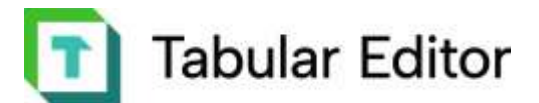
*Power BI Next Step
Sept-2025*

*Presented by
David Kofod Hanna*



twoday

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Raffle prizes from the sponsors



You just have a self-
service solution...

David Kofod Hanna



Senior Advisor, Data Storytelling @ twoday

+200 courses as Academy Trainer and 10 years as consultant
MCT, Certified Tabular Editor 3 Trainer, DP-600, DP-700, PL-300, CPUX-F



Passionate about guiding self-service Power BI

developers for more enterprise manageable concepts in a consumable and practical way



Born on beautiful “Sunshine island”: Bornholm

Lives in Silkeborg with wife and 3 kids
Love football and running half-marathons

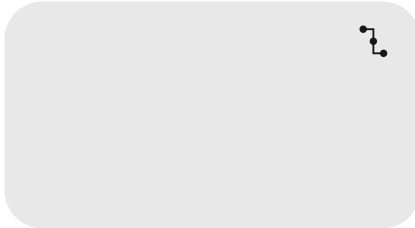
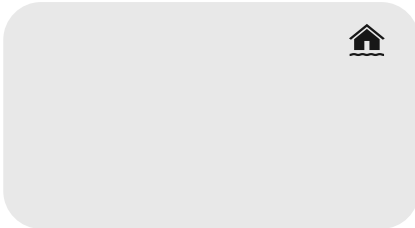
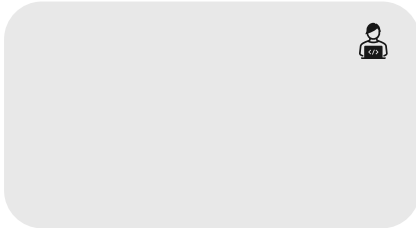
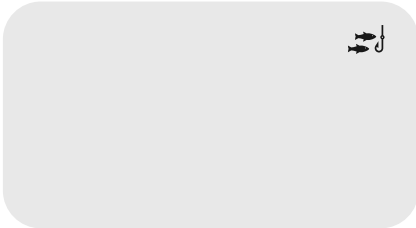
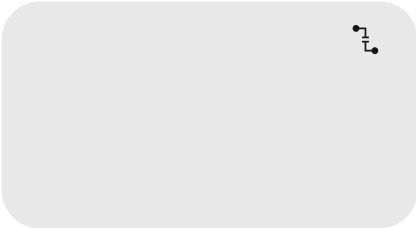
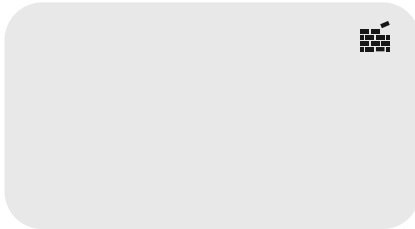
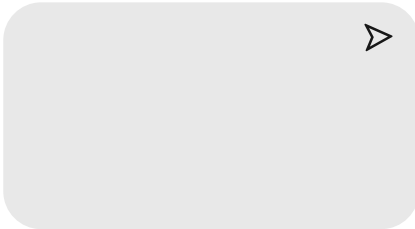
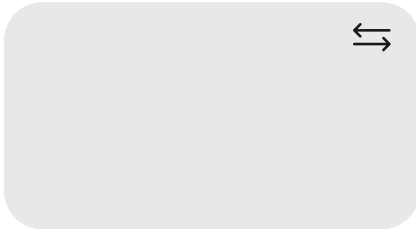
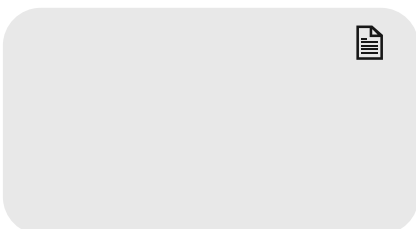
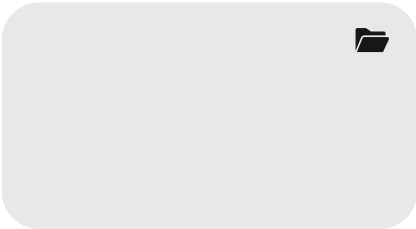
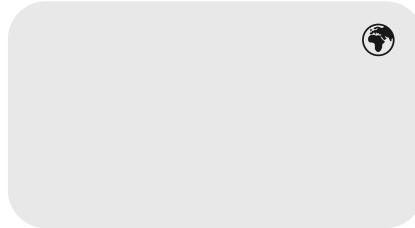
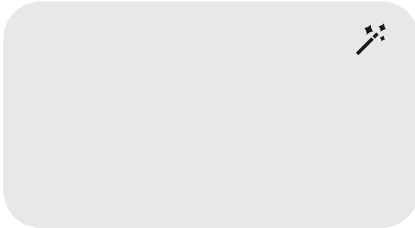
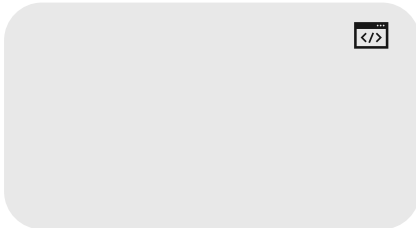
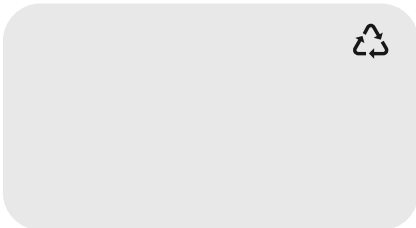
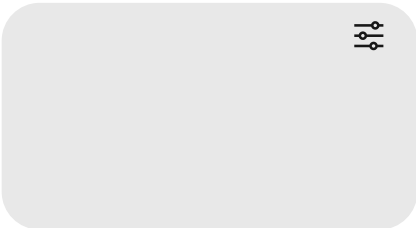
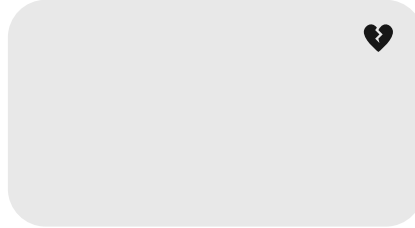
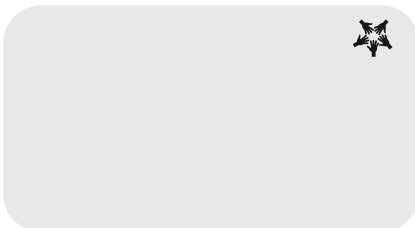
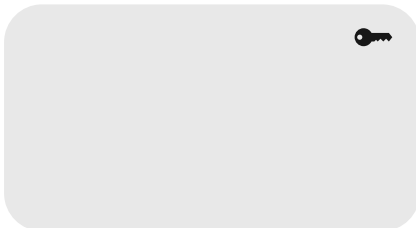
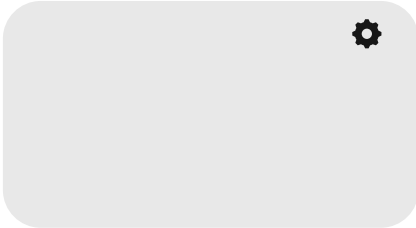
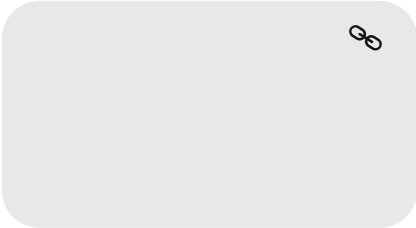


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How many prefer
Excel, Power Query UI & {M}
over
T-SQL, PySpark, Python, R?

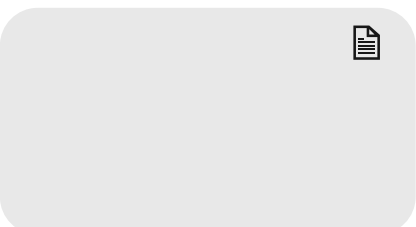
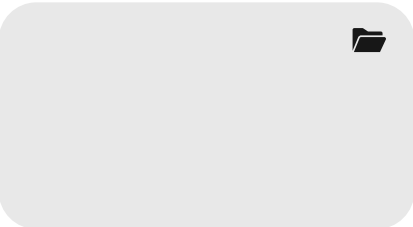
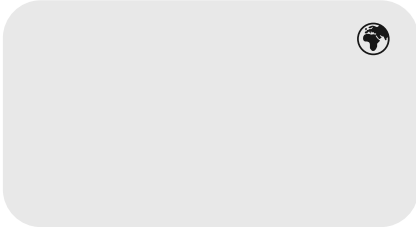
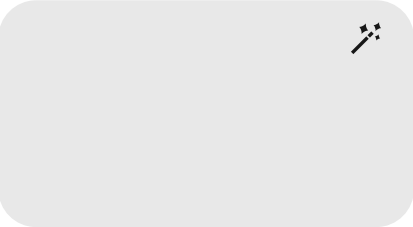
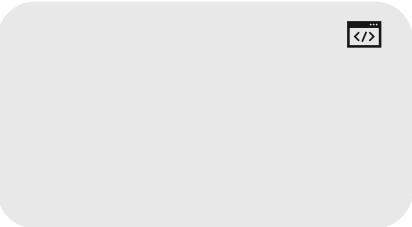
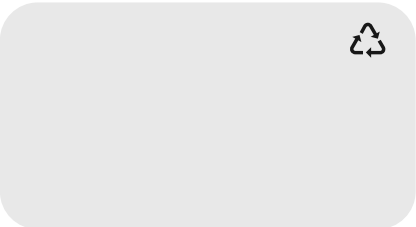
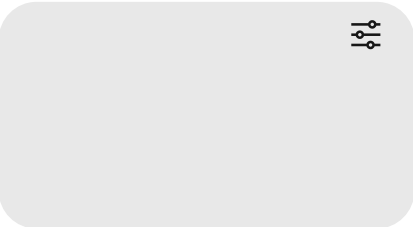
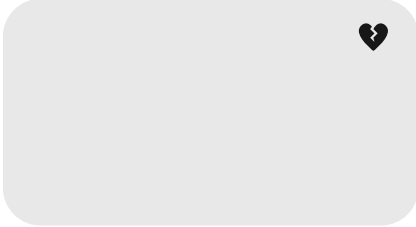
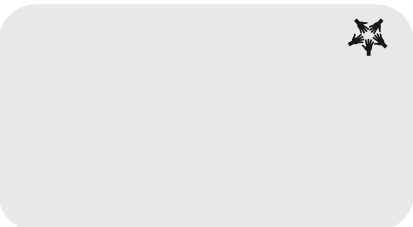
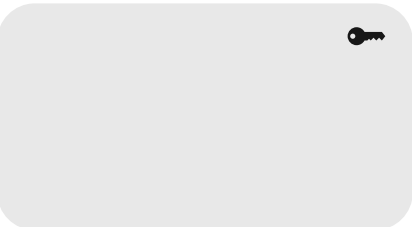
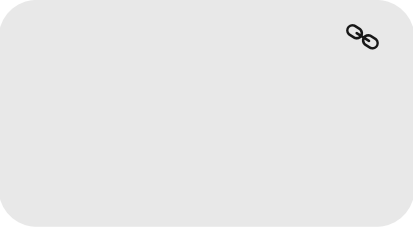


20 Power Query {M}agic Tips & Tricks



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 Power BI Desktop  Fabric only



20 Power Query {M}agic Tips & Tricks

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1.



Reference is preferred –
Medallion Architecture is that you?

2.



Choose Columns wisely –
Get the Gear Icon

3.



Don't create relationships
on attributes – create
surrogate keys

4.



Composite Key Merge
for multiple column join

5.



Red text will break you –
MissingField.Ignore or
UseNull

6.



Change settings with
autodetect column types for
unstructured sources

7.



TMDL Script for **Date** table

8.



**Don't use the Excel
Connector** when connecting
to Excel – use **Web**

9.



Unpivot – It feels like magic

10.



Stop Find and Replace for
regional formats by **Using
Locale...**

11.



Structure your **queries** in
folders

12.



Document **table properties**

13.



From Power Query to
Fabric Dataflows Gen 2 with
copy-paste

14.



**Dynamically Reference Your
Tables** for Table.Profile

15.



**Snapshots with Append to
Lakehouse**

16.



Don't Break the Fold – but if
you use Excel and .csv you
are!

17.



Look for the **stream** in View
Query Plan for optimization

18.



You can now **write SQL-
Views** with Visual Query
Editor

19.



From **Excel** to **SQL** Analytics
Endpoint in Lakehouse

20.



Orchestration Pipelines with
invoke Dataflow gen2 &
Semantic Model refresh

Relax – we have Microsoft to assist us...

Add data to your report
Once loaded, your data will appear in the **Data** pane.



Use sample data

Two ways to use sample data



Take a tutorial online


Learn how to create a robust report, step-by-step.

[Launch tutorial](#) 



Experiment on your own

To start creating visuals on your own, load sample data.

 **Load sample data**



Welcome to One Big Table – thank you Microsoft...

Table.TransformColumnTypes(financials_table,({ "Segment", type text}, {"Country", type text}, {"Product", type text}, {"Discount Band", type text}, {"Units Sold", type number}, {"Manufacturing Price", type number}, {"Sale Price", type number}, {"Sales Index", type number}, {"Discount", type number}, {"Sales", type number}, {"COGS", type number}, {"Profit", type number}, {"Date", type text}, {"Month Number", type number}, {"Month Name", type text}, {"Year", type number}))															
Segment	Country	Product	Discount Band	Units Sold	Manufacturing Price	Sale Price	Sales Index	Discount	Sales	COGS	Profit	Date	Month Number	Month Name	Year
1 Government	Canada	Cameras	None	2028.5	3	20	12270	0	32170	3835	12285	01/01/2014	1	January	2014
2 Government	Germany	Cameras	None	1522	0	29	29400	0	29400	12219	12219	01/01/2014	1	January	2014
3 Midmarket	France	Cameras	None	2178	0	15	32670	0	32670	10880	10880	01/06/2014	6	June	2014
4 Midmarket	Germany	Cameras	None	888	0	15	18300	0	18300	4440	4440	01/06/2014	6	June	2014
5 Midmarket	Mexico	Cameras	None	2478	0	15	47850	0	47850	12350	12350	01/06/2014	6	June	2014
6 Government	Germany	Cameras	None	1243	0	268	92400	0	92400	38350	12625	01/12/2014	12	December	2014
7 Midmarket	Germany	Monitors	None	301	0	15	18300	0	18300	4440	4440	01/01/2014	1	January	2014
8 Channel Partners	Canada	Monitors	None	2218	0	12	30210	0	30210	7554	7554	01/06/2014	6	June	2014
9 Government	France	Monitors	None	1889	0	20	37800	0	37800	18880	18880	01/06/2014	6	June	2014
10 Channel Partners	Germany	Monitors	None	1545	0	12	30210	0	30210	4855	15800	01/06/2014	6	June	2014
11 Midmarket	Mexico	Monitors	None	2470	0	15	37050	0	37050	12330	12330	01/06/2014	6	June	2014
12 Enterprise	Canada	Monitors	None	2065.5	0	125	55137.5	0	55137.5	13980	13980	01/07/2014	7	July	2014
13 Small Business	Mexico	Monitors	None	958	0	209	28740	0	28740	29930	4790	01/08/2014	8	August	2014
14 Government	Germany	Monitors	None	2148	0	0	24000	0	24000	10780	4260	01/09/2014	9	September	2014
15 Enterprise	Canada	Monitors	None	485	0	145	42150	0	42150	41460	710	01/10/2014	10	October	2014
16 Midmarket	United States of America	Monitors	None	425	0	15	42150	0	42150	42150	0	01/12/2014	12	December	2014
17 Government	Canada	Passes	None	262	10	20	1840	0	1840	2620	2620	01/02/2014	2	February	2014
18 Midmarket	Mexico	Passes	None	374	10	15	24610	0	24610	3740	4870	01/02/2014	2	February	2014
19 Channel Partners	Canada	Passes	None	2518	10	15	30210	0	30210	7554	22656	01/06/2014	6	June	2014
20 Government	Germany	Passes	None	1008	10	15	28150	0	28150	30540	0	01/06/2014	6	June	2014
21 Channel Partners	Germany	Passes	None	597	10	15	1201	0	1201	1201	0	01/07/2014	7	July	2014
22 Government	Mexico	Passes	None	983	10	15	4413	0	4413	1788	2625	01/08/2014	8	August	2014
23 Midmarket	France	Passes	None	549	10	15	42150	0	42150	1480	41670	01/09/2014	9	September	2014
24 Small Business	Mexico	Passes	None	798	10	15	15440	0	15440	19700	3460	01/09/2014	9	September	2014
25 Midmarket	Mexico	Passes	None	2472	10	15	17800	0	17800	24720	12180	01/09/2014	9	September	2014
26 Government	United States of America	Passes	None	1149	10	15	8031	0	8031	5713	2318	01/10/2014	10	October	2014
27 Government	Canada	Passes	None	1725	10	15	48770	0	48770	44030	12530	01/11/2014	11	November	2014
28 Channel Partners	United States of America	Passes	None	412	10	15	2944	0	2944	2758	186	01/11/2014	11	November	2014
29 Midmarket	Canada	Passes	None	2152	10	15	11280	0	11280	21520	0	01/12/2014	12	December	2014
30 Government	Canada	Passes	None	1827	10	15	35940	0	35940	18270	17670	01/12/2014	12	December	2014
31 Government	Germany	Passes	None	2515	10	15	52810	0	52810	28380	24430	01/12/2014	12	December	2014
32 Government	Mexico	Passes	None	1693	120	15	3341	0	3341	7403	2989	01/01/2014	1	January	2014
33 Enterprise	France	Passes	None	1894	120	15	12190	0	12190	21640	9450	01/01/2014	1	January	2014
34 Channel Partners	Germany	Passes	None	2181	120	15	2161	0	2161	4481	2320	01/01/2014	1	January	2014
35 Government	Germany	Passes	None	1088	120	15	15230	0	15230	24180	9950	01/06/2014	6	June	2014
36 Channel Partners	Germany	Passes	None	1145	120	15	18480	0	18480	4630	13850	01/06/2014	6	June	2014
37 Enterprise	United States of America	Passes	None	2621	120	15	35261	0	35261	33620	1640	01/08/2014	8	August	2014
38 Enterprise	Canada	Passes	None	345	120	125	43121	0	43121	41400	1721	01/10/2014	10	October	2014
39 Small Business	Canada	VTT	None	2061	200	200	800300	0	800300	300210	500090	01/02/2014	2	February	2014
40 Channel Partners	Germany	VTT	None	2858	250	12	54058	0	54058	8514	25544	01/04/2014	4	April	2014
41 Midmarket	France	VTT	None	2178	200	15	12670	0	12670	21780	10890	01/06/2014	6	June	2014
42 Midmarket	Germany	VTT	None	988	200	15	18300	0	18300	4440	13860	01/06/2014	6	June	2014
43 Government	France	VTT	None	2527	200	200	914400	0	914400	391070	523330	01/07/2014	7	July	2014
44 Small Business	France	VTT	None	1181	200	200	443300	0	443300	187730	255570	01/09/2014	9	September	2014
45 Government	Canada	VTT	None	1817	200	200	88480	0	88480	38170	50310	01/12/2014	12	December	2014
46 Government	France	Antennas	None	2760	200	200	462400	0	462400	247900	214500	01/10/2014	10	October	2014
47 Channel Partners	United States of America	Antennas	None	1063	200	12	21688	0	21688	5839	15849	01/04/2014	4	April	2014
48 Enterprise	Germany	Antennas	None	4218.5	200	125	527437.5	0	527437.5	306340	221097.5	01/04/2014	4	April	2014
49 Government	France	Antennas	None	1894	200	10	17680	0	17680	18940	0	01/06/2014	6	June	2014
50 Government	Germany	Antennas	None	1680	200	0	11800	0	11800	8430	3370	01/07/2014	7	July	2014
51 Channel Partners	United States of America	Antennas	None	2142	200	12	25831	0	25831	9425	16406	01/08/2014	8	August	2014
52 Government	United States of America	Antennas	None	1145	200	0	8001	0	8001	5713	2288	01/10/2014	10	October	2014
53 Midmarket	United States of America	Antennas	None	825	200	15	8225	0	8225	6250	1975	01/12/2014	12	December	2014
54 Government	France	Passes	None	8945	10	0	27618	0	27618	27618	0	01/01/2014	1	January	2014

Let's Star
Schema All the
things!

{1}

Reference is preferred –
*Medallion Architecture is
that you?*



{2}

Choose Columns wisely –
Get the **Gear Icon**



{3}

Don't create relationships on
attributes – **create surrogate
keys**



{4}

Composite Key Merge






{5}


Red text will break you






Red text will break you


= Table.SelectColumns(Source,{"Segment", "Product", "Discount Band"})

 Expression.Error: The column 'Discount Band' of the table wasn't found.
Details:
Discount Band




Option 1: Manual effort


= Table.SelectColumns(Source,{"Segment", "Product"})

	 ^B _C Segment	^B _C Product
1	Government	Carretera
2	Government	Carretera
3	Midmarket	Carretera
4	Midmarket	Carretera
5	Midmarket	Carretera




Red text will break you

= Table.SelectColumns(Source,{"Segment", "Product", "Discount Band"})

 Expression.Error: The column 'Discount Band' of the table wasn't found.
Details:
Discount Band

Option 2: Use MissingField.Ignore


= Table.SelectColumns(Source,{"Segment", "Product", "Discount Band"}, MissingField.Ignore)

	A ^B _C Segment	A ^B _C Product
1	Government	Carretera
2	Government	Carretera
3	Midmarket	Carretera
4	Midmarket	Carretera
5	Midmarket	Carretera
6	Government	Carretera
7	Midmarket	Montana
8	Channel Partners	Montana
9	Government	Montana

Red text will break you

✕ ✓ *fx*

= Table.SelectColumns(Source,{"Segment", "Product", "Discount Band"})

 Expression.Error: The column 'Discount Band' of the table wasn't found.
Details:
Discount Band

Option 3: Use MissingField.UseNull

✕ ✓ *fx*

= Table.SelectColumns(Source,{"Segment", "Product", "Discount Band"}, MissingField.UseNull)

	<small>A^B_C</small> Segment	<small>A^B_C</small> Product	<small>?</small> Discount Band
1	Government	Carretera	null
2	Government	Carretera	null
3	Midmarket	Carretera	null
4	Midmarket	Carretera	null
5	Midmarket	Carretera	null
6	Government	Carretera	null
7	Midmarket	Montana	null
8	Channel Partners	Montana	null
9	Government	Montana	null
10	Channel Partners	Montana	null
11	Midmarket	Montana	null

{6}

Change settings with
autodetect column types
for **unstructured** sources



Change settings with autodetect column types for **unstructured** sources

Settings in Power BI Desktop

GLOBAL

- Data Load
- Power Query Editor
- DirectQuery
- R scripting
- Python scripting
- Security
- Privacy
- Regional Settings
- Updates
- Usage Data
- Diagnostics
- Preview features
- Auto recovery
- Report settings
- Copilot (preview)

Type Detection

- ☐ Always detect column types and headers for unstructured sources
- ☒ Detect column types and headers for unstructured sources according to each file's setting
- ☐ Never detect column types and headers for unstructured sources

Background Data

- ☐ Always allow data previews to download in the background
- ☒ Allow data previews to download in the background according to each file's setting
- ☐ Never allow data previews to download in the background

Time intelligence

- ☐ Auto date/time for new files ⓘ [Learn more](#)

CURRENT FILE

- Data Load
- Regional Settings
- Privacy
- Auto recovery
- Published semantic model settings
- Query reduction
- Report settings

Type Detection

- ☒ Detect column types and headers for unstructured sources

Time intelligence

- ☐ Auto date/time ⓘ [Learn more](#)



APPLIED STEPS

Source	✱
Navigation	✱
Promoted Headers	✱
Changed Type	
Added Conditional Column	✱
Changed Type1	
Added Conditional Column1	✱
Added Conditional Column2	✱
Added Conditional Column3	✱
Changed Type2	
Inserted Sum	✱
Renamed Columns	
Merged Queries	✱
Expanded Accuracy Master	✱
Added Conditional Column4	✱
Changed Type3	
Filtered Rows	✱

{7}

TMDL Script for Date table



{8}

**Don't use the Excel
Connector** when connecting
to Excel – use Web



{9}

Unpivot – It feels like magic



{10}

Stop Find and Replace
for regional formats by
Using **Locale...**



{11}

Structure your **queries** in
folders



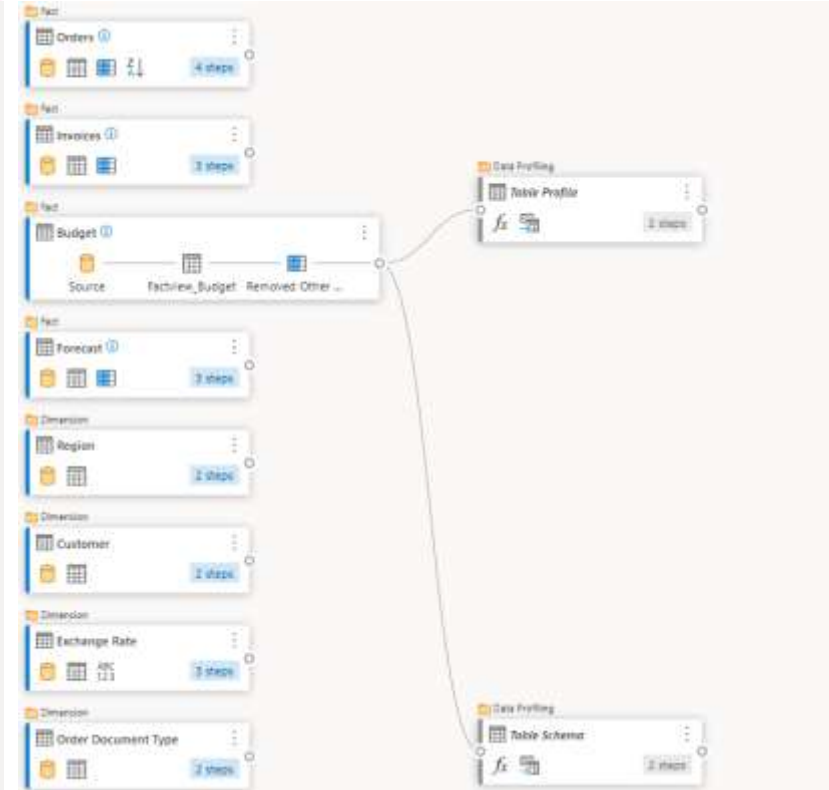
Query folders by type – and Diagram View in Dataflow Gen2



Dimview Brands
Dimview Budget Rate
Dimview Customers
Dimview Employees
Dimview Exchange Rate
Dimview Invoice Document Type
Dimview Order Document Type
Dimview Order Status
Dimview Products
Dimview Regions
Factview Budget
Factview Forecast
Factview Invoices
Factview Orders



Fact [4]
Orders
Invoices
Budget
Forecast
Dimension [8]
Date
Region
Product
Customer
Exchange Rate
Order Document Type
Order Status
Invoice Document Type
Meta Data & Organize [3]
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fx fn Extended Date
Staging [2]
Brands
Products
Data Profiling [2]
Table Profile
Table Schema

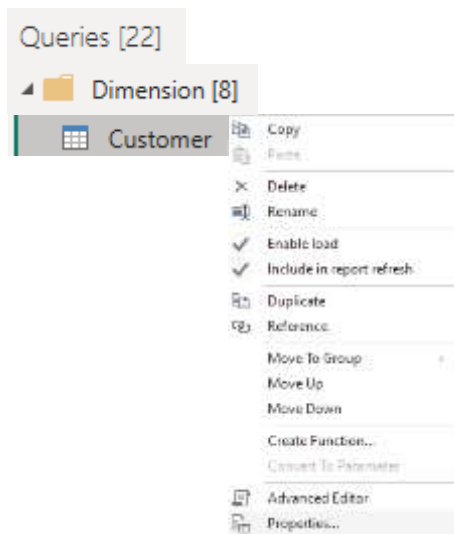


{12}

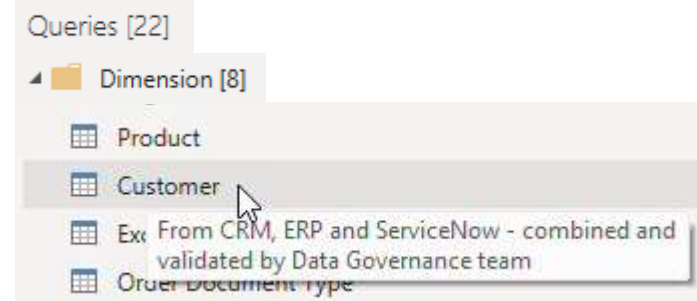
Document **table**
properties



Table properties – add it once and see it everywhere



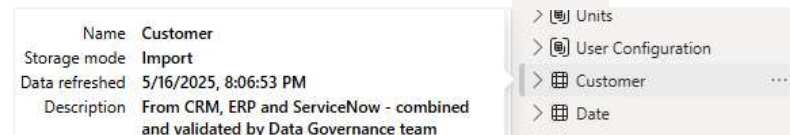
In Power Query Editor



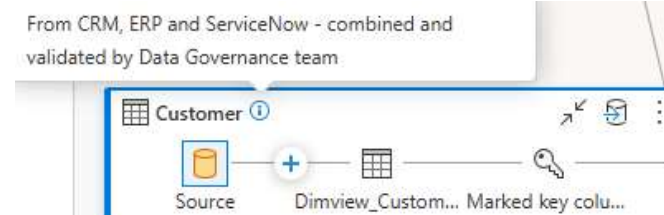
In TMDL



In Power BI Desktop



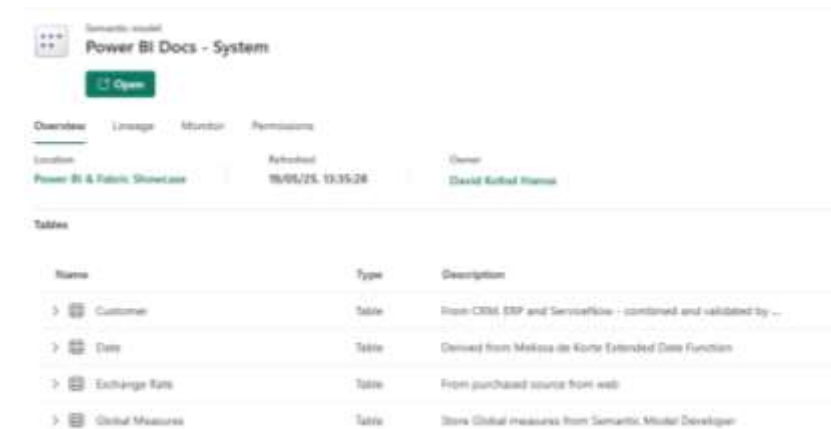
In Dataflows in the service



In INFO.VIEW DAX Functions



In OneLake catalog



Query Properties

Name
Customer

Description
From CRM, ERP and ServiceNow - combined and validated by Data Governance team

☒ Enable load to report

☒ Include in report refresh ⓘ

OK Cancel

20 Power Query {M}agic Tips & Tricks

 Power BI Desktop  Fabric only

1.



Reference is preferred –
Medallion Architecture is that you?

2.



Choose Columns wisely –
Get the Gear Icon

3.



Don't create relationships
on attributes – create
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Composite Key Merge
for multiple column join

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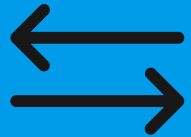
20.



Orchestration Pipelines with
invoke Dataflow gen2 &
Semantic Model refresh

{13}

From **Power Query** to
to **Fabric Dataflows Gen 2**
with **copy-paste**





{14}

**Dynamically Reference Your
Tables** for Table.Profile



There should be **one** {M}

 **Marco Russo** 
@marcorus


Voted!

There should be one “M”

We need more votes!

[#powerbi](#) [#dataflow](#)

[Oversæt post](#)

 **Ben Gribaudo** @bgribaudo · 22. sep. 2023


Asking for #sections to be fixed in Power BI's #dataflows - #PowerQuery
#Fabric #PowerBI


ideas.fabric.microsoft.com/ideas/idea/?id...

Fix #sections in Power Query in Dataflows

Idea Options ▾

10

 Fix #sections in Power Query in Dataflows
thideas_miguir on 09-22-2023 05:41 PM ·

 Voted

Per the M language specification, #sections[Section1] should return a record containing one field per query in the project, with that field's value set to the results of the given query.

Power BI Desktop and Excel work this way. However, Power Query in dataflows **does not**. This limits the ability to write M code that dynamically adapts based on the queries present in a project.

Can PQ in dataflows be fixed so that #sections[Section1] works according to the specification?

Thank you for your consideration!

To Reproduce

In both Power BI Desktop and in dataflows, create the following two queries:

- A—defined as "123"
- B—defend as "#sections[Section1]"

In both Power BI Desktop and dataflows, the output of B will be a record that includes a field named "A". In Desktop, this field's value will be 123 (expected behavior, per the M spec); however, in dataflows, this field's value will be null (incorrect behavior).

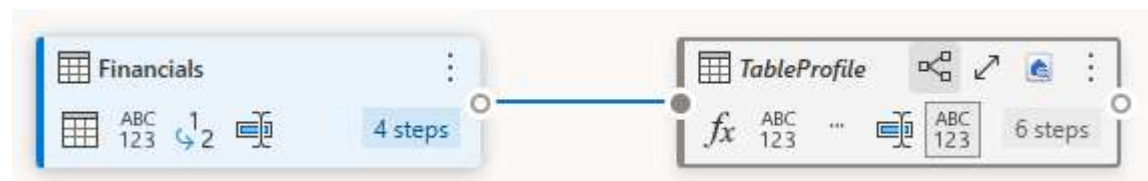
NEEDS VOTES

{15}

Snapshots with Append to Lakehouse



Data Destination & Snapshots with Append

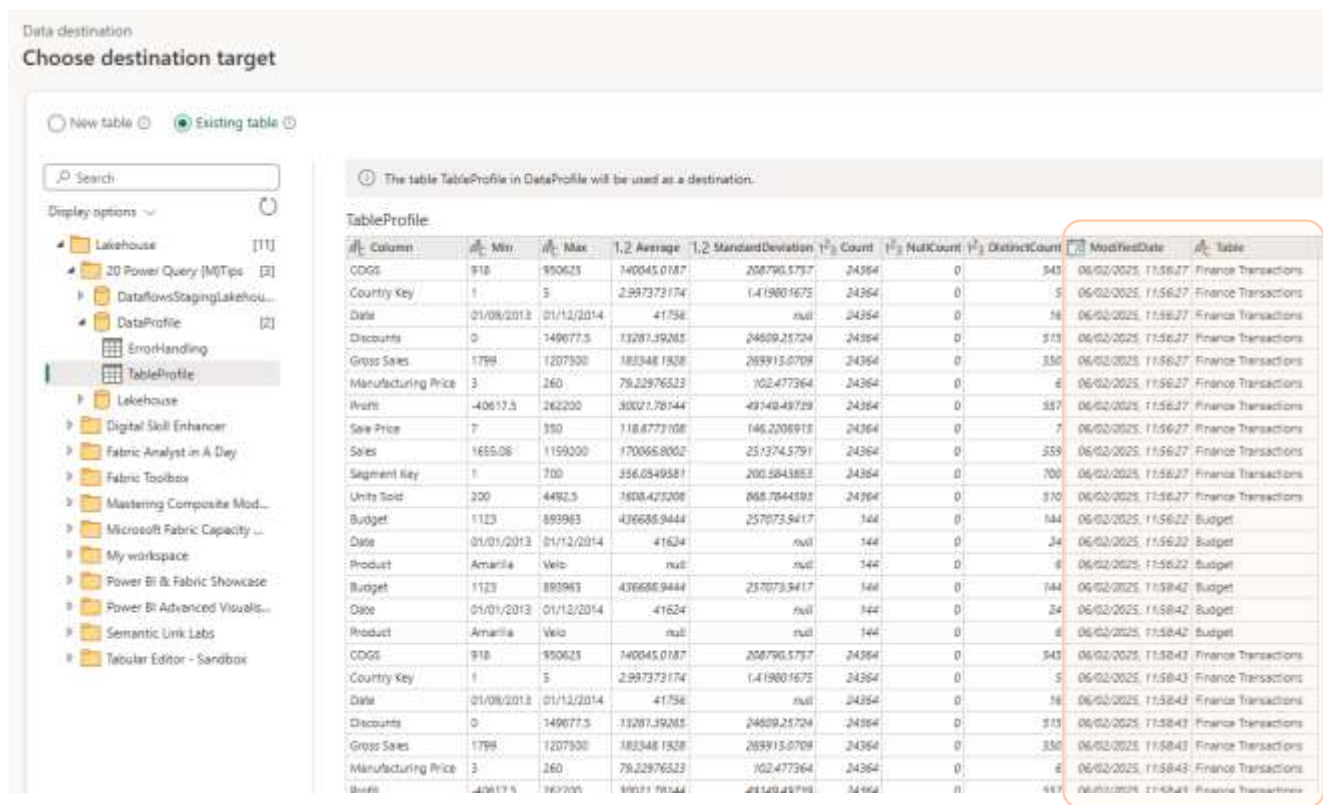
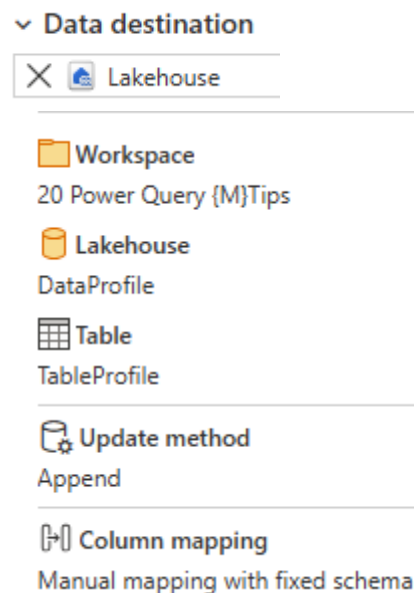
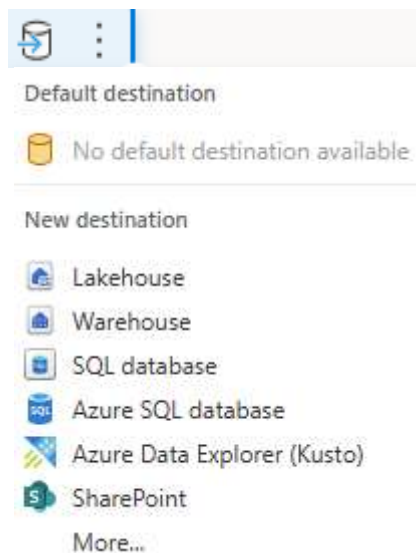


```
1 let
2   Source = Table.Profile(Financials),
3   #"Changed column type" = Table.TransformColumnTypes(Source, {{"Count", type number}, {"NullCount", type text}, {"DistinctCount", type text}, {"Average", type text}, {"Max", type text}, {"Min", type text}}),
4   #"Added custom" = Table.AddColumn(#"Changed column type", "Table", each "Financials"),
5   #"Added custom 1" = Table.AddColumn(#"Added custom", "Custom", each DateTime.LocalNow()),
6   #"Renamed columns" = Table.RenameColumns(#"Added custom 1", {{"Custom", "DateTime"}}),
7   #"Changed column type 1" = Table.TransformColumnTypes(#"Renamed columns", {{"DateTime", type datetime}, {"Table", type text}})
8 in
9   #"Changed column type 1"
```

Tab moves focus.

	Column	Min	Max	Average	1.2 StandardDeviation	1.2 Count	NullCount	DistinctCount	Table	DateTime
1	COGS	\$1.900,00	\$90.740,00	null	null	35 0		35	Financials	21/08/2025, 12:32:49
2	Country	Canada	United States of America	null	null	35 0		5	Financials	21/08/2025, 12:32:49
3	Date	01/01/2015	01/01/2015	01/01/2015	null	35 0		1	Financials	21/08/2025, 12:32:49
4	Discount Band	High	None	null	null	35 0		4	Financials	21/08/2025, 12:32:49
5	Discounts	\$-	\$822,15	null	null	35 0		34	Financials	21/08/2025, 12:32:49
6	Gross Sales	\$118.375,00	\$96.600,00	null	null	35 0		35	Financials	21/08/2025, 12:32:49
7	Manufacturing Price	\$10,00	\$5,00	null	null	35 0		6	Financials	21/08/2025, 12:32:49
8	Month Name	January	January	null	null	35 0		1	Financials	21/08/2025, 12:32:49
9	Month Number	1	1	1	0	35 0		1	Financials	21/08/2025, 12:32:49
10	Product	Amarilla	Velo	null	null	35 0		6	Financials	21/08/2025, 12:32:49
11	Profit	\$(12.787,50)	\$7.718,40	null	null	35 0		35	Financials	21/08/2025, 12:32:49
12	Sale Price	\$12,00	\$7,00	null	null	35 0		7	Financials	21/08/2025, 12:32:49
13	Sales	\$10.733,40	\$87.906,00	null	null	35 0		31	Financials	21/08/2025, 12:32:49
14	Segment	Channel Partners	Small Business	null	null	35 0		5	Financials	21/08/2025, 12:32:49
15	Units Sold	322	2931	1445.74285714285...	859.5886274	35 0		35	Financials	21/08/2025, 12:32:49
16	Year	2015	2015	2015	0	35 0		1	Financials	21/08/2025, 12:32:49

Data Destination & Snapshots with Append



Have multiple tables/files
Make use of the function
Table.FromPartitions()

<https://powerquery.how/table-frompartitions/>

Data Destination & Snapshots with Append

Data destination

Choose destination settings

Use automatic settings

Update method

Existing data

New data

→

Append

Replace

Schema options on publish

Existing schema

Dynamic schema

Fixed schema

Column mapping

⚠ Schema changed since you last set the output settings. Column mappings have been updated to match the source schema.

<input checked="" type="checkbox"/>	Source	Source type	Destination	Destination type
<input checked="" type="checkbox"/>	Customer Key	1 ² Whole number	Customer Key	Whole number
<input checked="" type="checkbox"/>	Name	Text	Name	Text
<input type="checkbox"/>	HasError	Any	HasError	Any
<input type="checkbox"/>	Reason	Any	Reason	Any
<input type="checkbox"/>	Message	Any	Message	Any
<input type="checkbox"/>	Detail	Any	Detail	Any
<input type="checkbox"/>	Message.Format	Any	Message.Format	Any
<input type="checkbox"/>	Message.Parameters	Any	Message.Parameters	Any
<input type="checkbox"/>	ErrorCode	Any	ErrorCode	Any

Data Destination & Snapshots with Append

Home

Get data

New semantic model

Open notebook

Manage OneLake data access (preview)

A SQL analytics endpoint for SQL querying and a default Power BI semantic model for reporting were created with this item.

Explorer

Search tables

DataProfile

Tables

TableProfile

Files

TableProfile

	AKO Column	AKO Min	AKO Max	12 Average	12 StandardDeviation	12 Count	12 NullCount	12 DistinctCount	ModifiedDate	AKO Table
1	COGS	918	950625	140045.018716139	208790.575671081	24364	0	545	2/6/2025 11:56:27 AM	Finance Transactions
2	Country Key	1	5	2.99737317353472	1.41980167520308	24364	0	5	2/6/2025 11:56:27 AM	Finance Transactions
3	Date	01/09/2013	01/12/2014	41758		24364	0	16	2/6/2025 11:56:27 AM	Finance Transactions
4	Discounts	0	149677.5	13281.3926537108	24609.2572369132	24364	0	515	2/6/2025 11:56:27 AM	Finance Transactions
5	Gross Sales	1799	1207500	183348.192804958	269915.070870866	24364	0	550	2/6/2025 11:56:27 AM	Finance Transactions
6	Manufacturing Price	3	260	79.2297652273847	102.477364023807	24364	0	6	2/6/2025 11:56:27 AM	Finance Transactions
7	Profit	-40617.5	262200	30021.7814351092	49149.4973932004	24364	0	557	2/6/2025 11:56:27 AM	Finance Transactions
8	Sale Price	7	350	118.677310786406	146.22669149658	24364	0	7	2/6/2025 11:56:27 AM	Finance Transactions
9	Sales	1655.88	1158200	170086.800151245	251374.579127228	24364	0	559	2/6/2025 11:56:27 AM	Finance Transactions
10	Segment Key	1	700	356.054958134953	200.584385266284	24364	0	700	2/6/2025 11:56:27 AM	Finance Transactions
11	Units Sold	200	4492.5	1608.42320637005	868.784459334978	24364	0	510	2/6/2025 11:56:27 AM	Finance Transactions
12	Budget	1123	893965	436688.944444444	257073.941746999	144	0	144	2/6/2025 11:58:42 AM	Budget
13	Date	01/01/2013	01/12/2014	41624		144	0	24	2/6/2025 11:58:42 AM	Budget
14	Product	Amarillo	Velo			144	0	6	2/6/2025 11:58:42 AM	Budget
15	Budget	1123	893965	436688.944444444	257073.941746999	144	0	144	2/6/2025 11:56:22 AM	Budget
16	Date	01/01/2013	01/12/2014	41624		144	0	24	2/6/2025 11:56:22 AM	Budget
17	Product	Amarillo	Velo			144	0	6	2/6/2025 11:56:22 AM	Budget
18	COGS	918	950625	140045.018716139	208790.575671081	24364	0	545	2/6/2025 11:58:43 AM	Finance Transactions
19	Country Key	1	5	2.99737317353472	1.41980167520309	24364	0	5	2/6/2025 11:58:43 AM	Finance Transactions
20	Date	01/09/2013	01/12/2014	41758		24364	0	16	2/6/2025 11:58:43 AM	Finance Transactions
21	Discounts	0	149677.5	13281.3926537105	24609.2572369131	24364	0	515	2/6/2025 11:58:43 AM	Finance Transactions
22	Gross Sales	1799	1207500	183348.192804958	269915.070870867	24364	0	550	2/6/2025 11:58:43 AM	Finance Transactions
23	Manufacturing Price	3	260	79.2297652273847	102.477364023807	24364	0	6	2/6/2025 11:58:43 AM	Finance Transactions
24	Profit	-40617.5	262200	30021.7814351091	49149.4973932007	24364	0	557	2/6/2025 11:58:43 AM	Finance Transactions
25	Sale Price	7	350	118.677310786406	146.22669149658	24364	0	7	2/6/2025 11:58:43 AM	Finance Transactions
26	Sales	1655.88	1158200	170086.800151245	251374.579127223	24364	0	559	2/6/2025 11:58:43 AM	Finance Transactions
27	Segment Key	1	700	356.054958134953	200.584385266283	24364	0	700	2/6/2025 11:58:43 AM	Finance Transactions
28	Units Sold	200	4492.5	1608.42320637005	868.784459334981	24364	0	510	2/6/2025 11:58:43 AM	Finance Transactions

Only need new rows?

Make use of the function

Table.RemoveMatchingRows()

<https://powerquery.how/table-removematchingrows/>

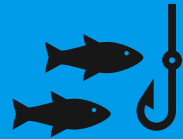
{16}

Don't Break the Fold –
but if you use Excel and
.csv you are!



{17}

Look for the **stream**



{18}

You can now **write SQL-Views**
with Visual Query Editor



{19}

From Excel to **SQL Analytics**
Endpoint in Lakehouse



{20}

Orchestration Pipelines

with invoke Dataflow Gen2
& Semantic Model refresh



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Orchestration Pipelines with
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You just have a self-
service solution...

Really?

Star schema

Query Folding

Surrogate Key,
Primary Key
and Foreign
Key

Orchestration
pipeline

Split model
and report

Write SQL
Views

Snapshot

“Medallion
Architecture”

Error handling

Delta Tables
Lakehouse

Composite Key
Merge

Documentation

What about **user adoption** and **solving business problems**?

Documentation

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Orchestration
pipeline

Error handling

Snapshot

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Views

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Delta Tables
Lakehouse

It's not about the **tech**
and new features

It's about **people** and
solving needs for the
business and **customers**

Thank you and {M}joy



Open GitHub




David Kofod Hanna
Senior Advisor @ twoday Data & AI



 Connect on LinkedIn



 Open Free Learning
Resource Power BI Report

Any **feedback** is highly appreciated

