

Data & Analytics in the Copilot era

 DATA
SATURDAYS



Sponsors



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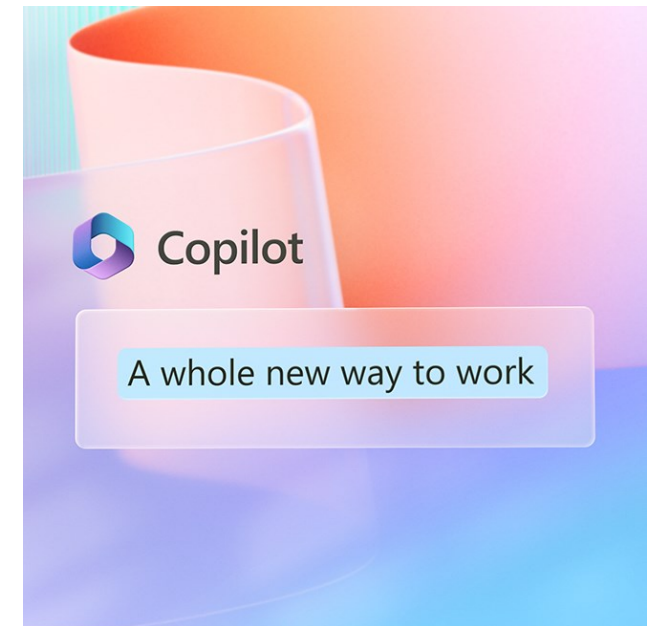
Benvenuti a questa sessione sulle funzionalità Copilot di Power BI. Oggi, vi troverete di fronte a una scelta simile a quella che Morpheus offre a Neo nel film Matrix.

Oggi, vi offro due pillole metaforiche. La “pillola blu” rappresenta il modo tradizionale di lavorare con i dati: un percorso familiare, ma limitato. La “pillola rossa”, invece, rappresenta l’adozione delle funzionalità avanzate di Power BI Copilot: un viaggio verso nuove possibilità, intuizioni più profonde e una maggiore efficienza.



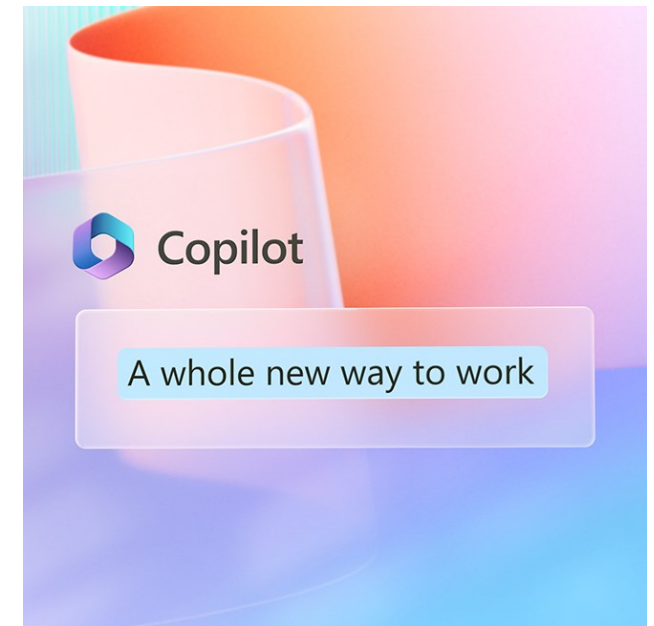



What does Copilot for Power BI do for you?



What does Copilot for Power BI do for you?

In a nutshell, it makes it quicker and easier to find what you need from your data.



Things to consider

- Copilot = intelligent assistant
 - Helps users navigate through complex data, interpret patterns, and generate insights
- Copilot in Power BI is not a
 - replacement for human intelligence or creativity
 - substitute for learning or understanding the concepts and languages behind Power BI

Copilot Accelerated Experiences

Tools

Creative assistant

Product specific

Cross-cutting

Data input

Content generation

Following commands

Provides recommendations,
with human in the loop

Uses specialized languages

Uses natural language

What does Copilot for Power BI do for you?

- Automatically create dashboards, data narratives, and interactive components
- Create a summary of your dataset and an outline of suggested pages for your report
- Write DAX formulas (you don't need to be an expert?)
- Create a complete report (in seconds) using natural language
 - "Show me the sales by region and product category"
 - "Create a chart of customer satisfaction ratings"

Copilot in Microsoft Fabric at Ignite 2023



Copilot in Microsoft Fabric



Power BI

Quickly create report pages, natural language summaries, and generate synonyms.



Synapse Data
Science

Quickly generate code in Notebooks to help work with Lakehouse data and get insights.



Data
Factory

Quickly clean and move data using Dataflows and Data Pipelines.

Copilot in Microsoft Fabric



Data
Factory



Synapse Data
Engineering



Synapse Data
Science



Synapse Data
Warehousing



Synapse Real
Time Analytics



Power BI



Data
Activator



Copilot in Microsoft Fabric



OneLake



Purview

Unified
architecture

Unified
experience

Unified
governance

Unified
business model



Demo

November 2023: Get started creating report pages with Copilot for Power BI

1. Understand your dataset quickly
2. Get suggested topics for report pages
3. Create pages for high-level topics
4. Use our editing tools to customize your report

The screenshot displays the Power BI Copilot Demos interface. The top navigation bar includes the 'Work' profile, a search bar, and various utility icons. The main content area is titled 'Copilot Demos' and features a table listing various reports and semantic models. The table columns are: Name, Type, Owner, Refreshed, Next refresh, Endorsement, Sensitivity, and Included in app. The table lists 15 items, including reports like 'Hotel Customer Retention', 'Hotel Demo Clean Model 2', 'King County Food Safety', 'Marketing Impact', 'Taylor Swift Analysis by Copilot', and 'Taylor Swift Data'. Semantic models include 'Hotel Customer Retention', 'Hotel Demo Clean Model', and 'Taylor Swift Data'. Dashboards include 'Hotel Demo Clean Model 2.pbix' and 'Taylor Swift Data.pbix'. The interface also includes a left sidebar with navigation options like Home, Create, Browse, Data hub, Apps, Metrics, Monitoring hub, Workspaces, Copilot Demos, Demo for Hotel Visits, Hotel Demo Clean Model, and Power BI. The bottom status bar shows the weather as '4°C Mostly sunny' and the Windows taskbar with various application icons.

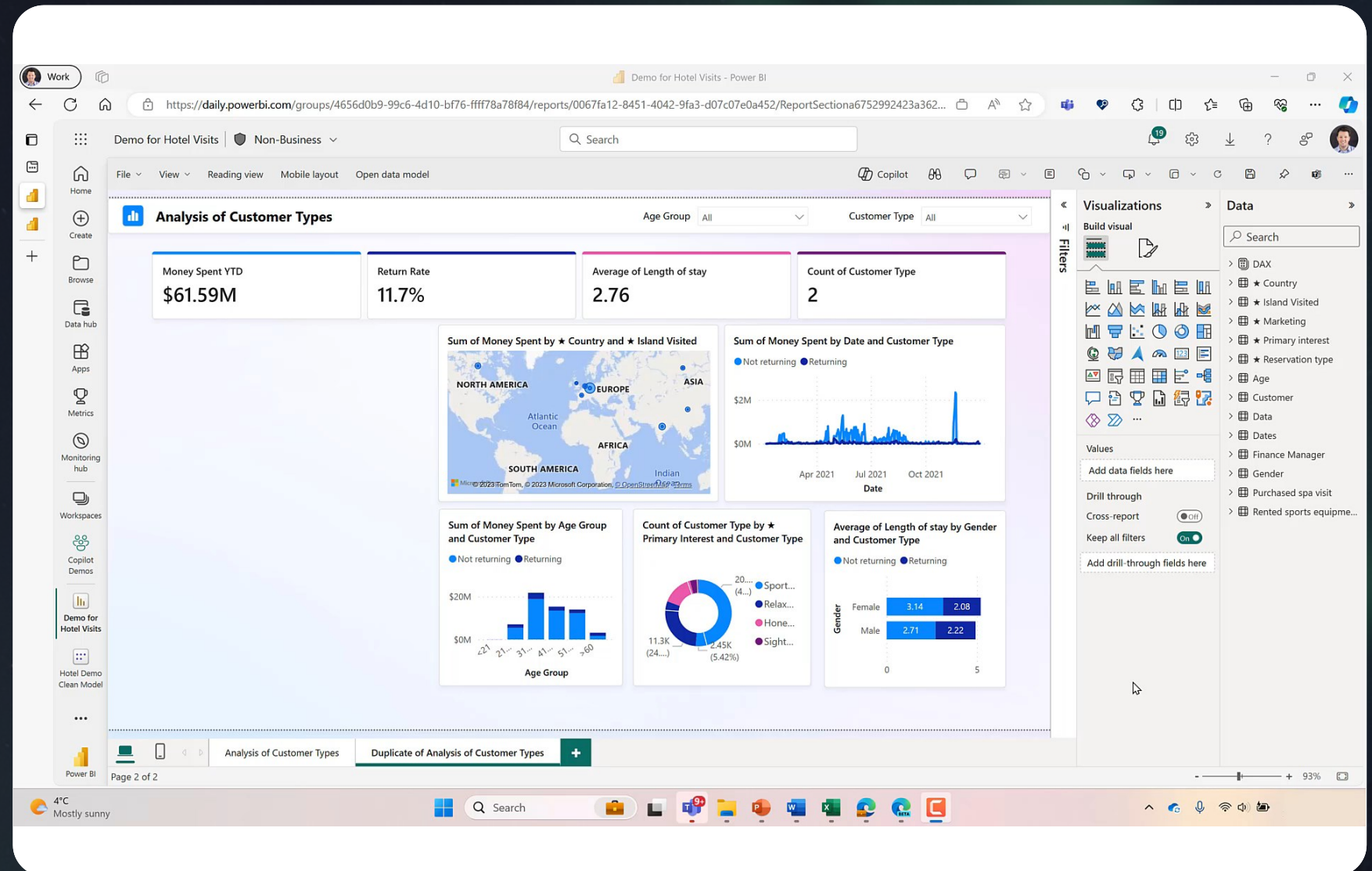
Name	Type	Owner	Refreshed	Next refresh	Endorsement	Sensitivity	Included in app
Hotel Customer Retention	Report	Copilot Demos	5/10/23, 5:54:33 PM	—	—	Non-Business	<input type="checkbox"/> No
Hotel Customer Retention	Semantic model	Copilot Demos	5/10/23, 5:54:33 PM	N/A	—	Non-Business	<input type="checkbox"/>
Hotel Demo Clean Model	Semantic model	Copilot Demos	7/17/23, 10:14:52 AM	N/A	—	Non-Business	<input type="checkbox"/>
Hotel Demo Clean Model 2	Report	Copilot Demos	10/31/23, 12:40:28 AM	—	—	Non-Business	<input type="checkbox"/> No
Hotel Demo Clean Model 2	Semantic model	Copilot Demos	10/31/23, 12:40:28 AM	N/A	—	Non-Business	<input type="checkbox"/>
Hotel Demo Clean Model 2.pbix	Dashboard	Copilot Demos	—	—	—	—	<input type="checkbox"/> No
Hotel Demo Created 10.18	Report	Copilot Demos	7/17/23, 10:14:52 AM	—	—	Non-Business	<input type="checkbox"/> No
King County Food Safety	Report	Copilot Demos	6/9/23, 8:55:25 AM	—	—	Confidential\Micro...	<input type="checkbox"/> No
Marketing Impact	Report	Copilot Demos	7/17/23, 10:14:52 AM	—	—	Non-Business	<input type="checkbox"/> No
Table	Semantic model	Copilot Demos	5/19/23, 11:50:07 AM	N/A	—	Confidential\Micro...	<input type="checkbox"/>
Taylor Swift Analysis by Copilot	Report	Copilot Demos	10/23/23, 9:31:54 AM	—	—	Confidential\Micro...	<input type="checkbox"/> No
Taylor Swift Data	Report	Copilot Demos	10/20/23, 6:05:23 PM	—	—	Confidential\Micro...	<input type="checkbox"/> No
Taylor Swift Data	Semantic model	Copilot Demos	10/20/23, 6:05:23 PM	N/A	—	Confidential\Micro...	<input type="checkbox"/>
Taylor Swift Data.pbix	Dashboard	Copilot Demos	—	—	—	—	<input type="checkbox"/> No



Demo

November 2023: AI Narrative Visual for summarizing data

1. Add a summary of the data in the report to your page
2. Customize the summary using a prompt
3. Summaries respect filters and slicer to reveal new insights.

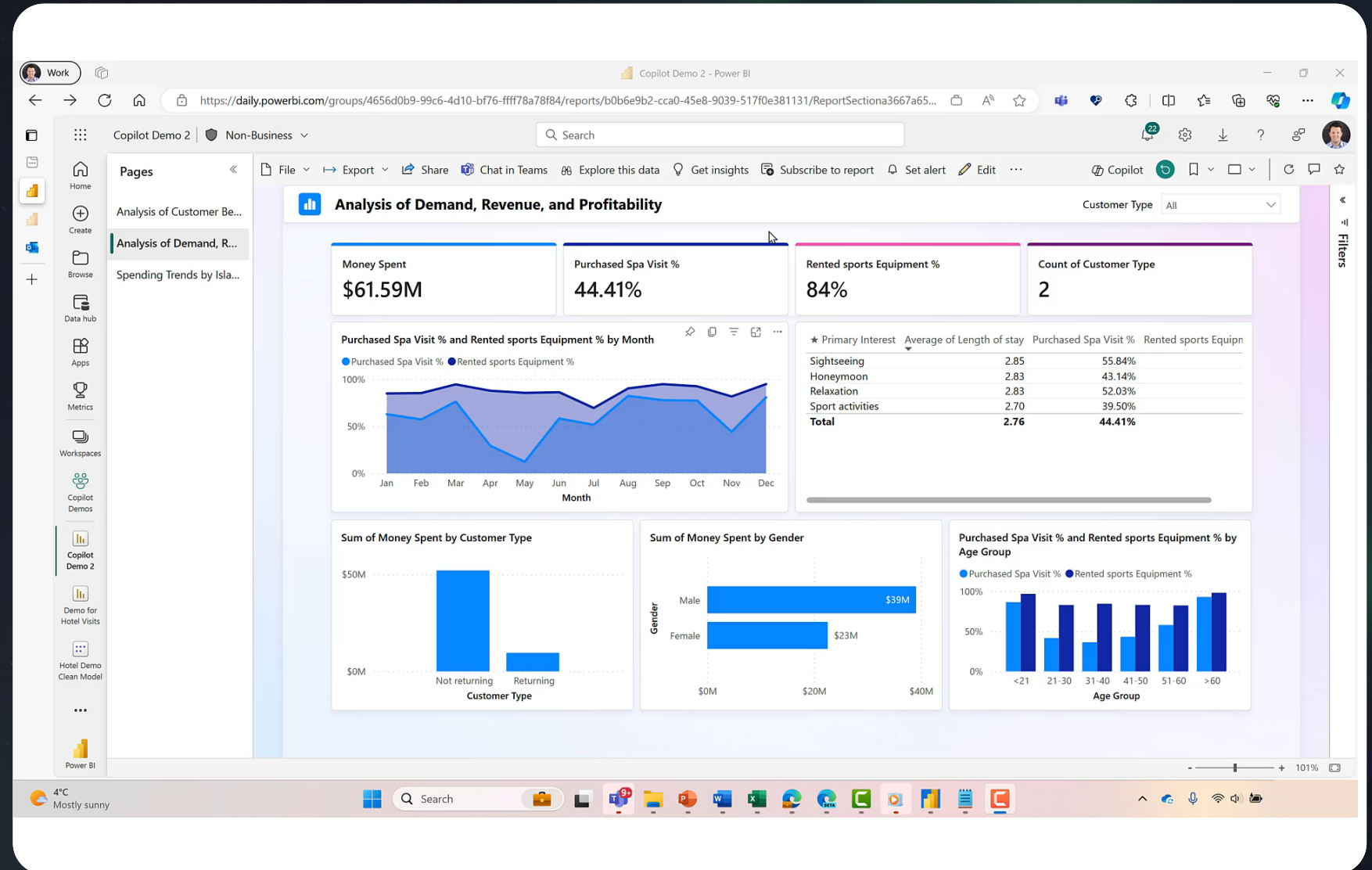




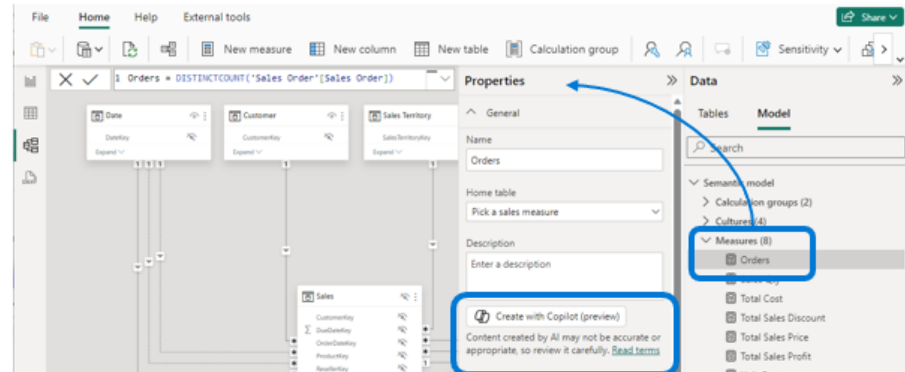
Demo

February 2023: Summary Skill for Consumers

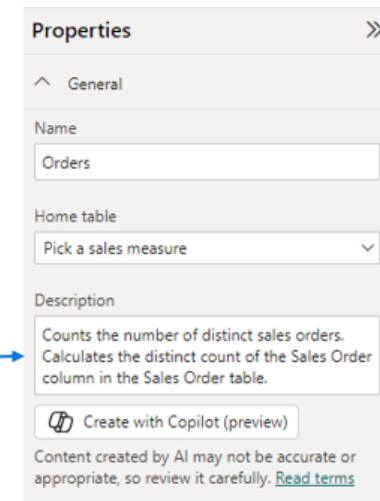
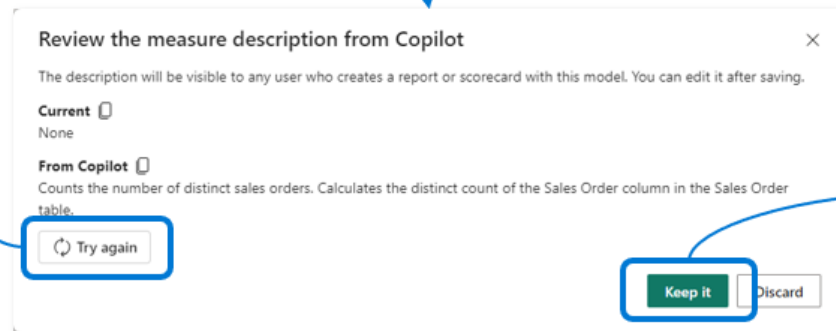
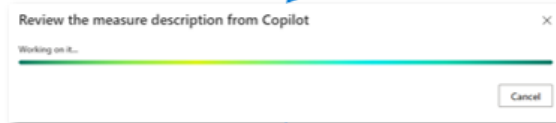
1. Copilot helps consumers understand the data in their reports
2. Copilot compares data already in the report to reveal insights



Measure descriptions with Copilot



→ Applying to all measures at once is on the roadmap

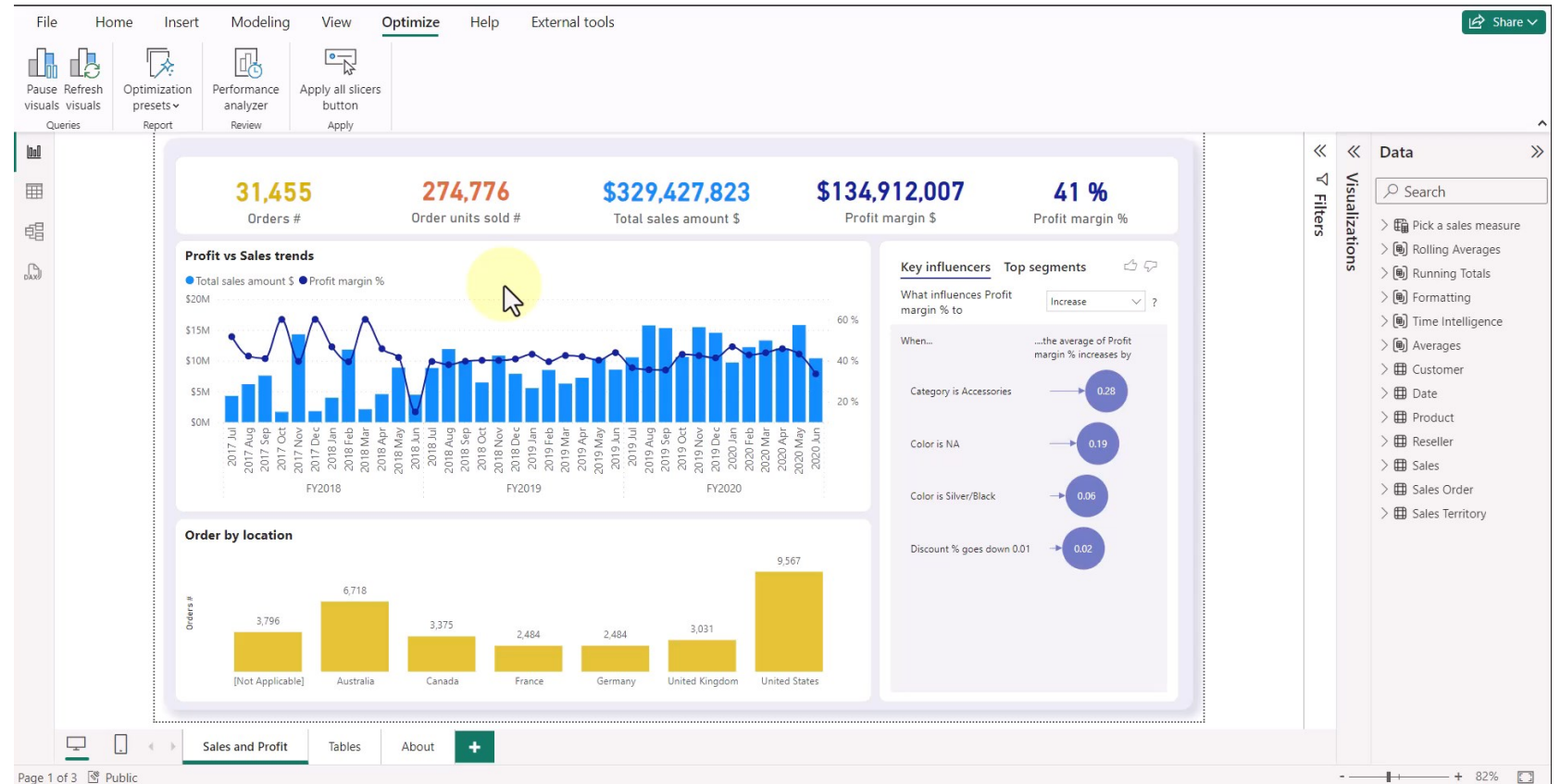




Demo

January 2024: Copilot for Power BI to **create measure descriptions** in Power BI Desktop.

1. Copilot helps make better models by helping you describe your measures for others.
2. Quickly annotate your models so all your report authors can be more productive.





Demo

March 2024: Copilot for Power BI to **assist with DAX queries** in DAX query view (Nov 2023 release) in Power BI Desktop

1. Copilot helps authors write or edit DAX queries
2. Copilot helps explain existing DAX queries and DAX topics
3. Just click on Copilot ribbon button or CTRL+I, Copilot is there to help

The screenshot displays the Power BI Desktop interface with the DAX query editor open. The ribbon includes 'File', 'Home', 'Help', and 'External tools'. The 'Home' tab is active, showing options like 'Clipboard', 'Editing', and 'Copilot'. The DAX query editor contains the following code:

```
1 // Learn more about DAX queries at https://aka.ms/dax-queries
2 // Here is a sample DAX query from your model, click 'Run'
3 // Try other DAX queries by right clicking a table, column, or measure in the data pane and choosing one from 'Quick queries'
4 EVALUATE
5     TOPN(
6         100,
7         'Fact'
8     )
```

The 'Results' pane shows the output of the query, displaying a table with 16 columns and 100 rows. The columns are: Fact[Segment], Fact[Country], Fact[Product], Fact[Discount Band], Fact[Units Sold], Fact[Manufacturing Price], Fact[Sales Price], and Fact[Gross S]. The data is sorted by Fact[Units Sold] in descending order.

	Fact[Segment]	Fact[Country]	Fact[Product]	Fact[Discount Band]	Fact[Units Sold]	Fact[Manufacturing Price]	Fact[Sales Price]	Fact[Gross S]
0	Government	Germany	Carretera	None	1513	3	350	
1	Government	Germany	Paseo	None	1006	10	350	
2	Government	Canada	Paseo	None	1725	10	350	
3	Government	Germany	Paseo	None	1513	10	350	
4	Government	Germany	Velo	None	1006	120	350	
5	Government	France	VTT	None	1527	250	350	
6	Government	France	Amarilla	None	2750	260	350	
7	Government	Mexico	Carretera	Low	1210	3	350	
8	Government	Mexico	Carretera	Low	1210	3	350	

The bottom status bar indicates 'Success (35.2 ms) 16 columns, 100 rows'.

- Use meaningful names for measures, tables, and columns
- Copilot can extrapolate the "meaning" of
 - (and - for measures - not just an English translation of the DAX code)
- When names are not so clear and/or you use acronyms, it is less good
- "Previous Month" is easier to understand than "PM"
- However, it understands something like MOM (Month Over Month) and YOY (Year Over Year), YTD, ...

Update your data model to work well with Copilot for Power BI

Considerations for datasets for Copilot use

The following table lists the criteria to help you create accurate reports with Copilot. These items are recommendations that can help in generating accurate Power BI reports.

 Expand table

Element	Consideration	Description	Example
Table Linking	Define Clear Relationships	Ensure that all relationships between tables are clearly defined and logical, indicating which are one-to-many, many-to-one, or many-to-many.	"Sales" table connected to "Date" table by "DateID" field.
Measures	Standardized Calculation Logic	Measures should have standardized, clear calculation	"Total Sales" calculated as the sum of "SaleAmount" from the "Sales" table

- <https://learn.microsoft.com/en-us/power-bi/create-reports/copilot-evaluate-data>

Microsoft Cloud Runs on trust

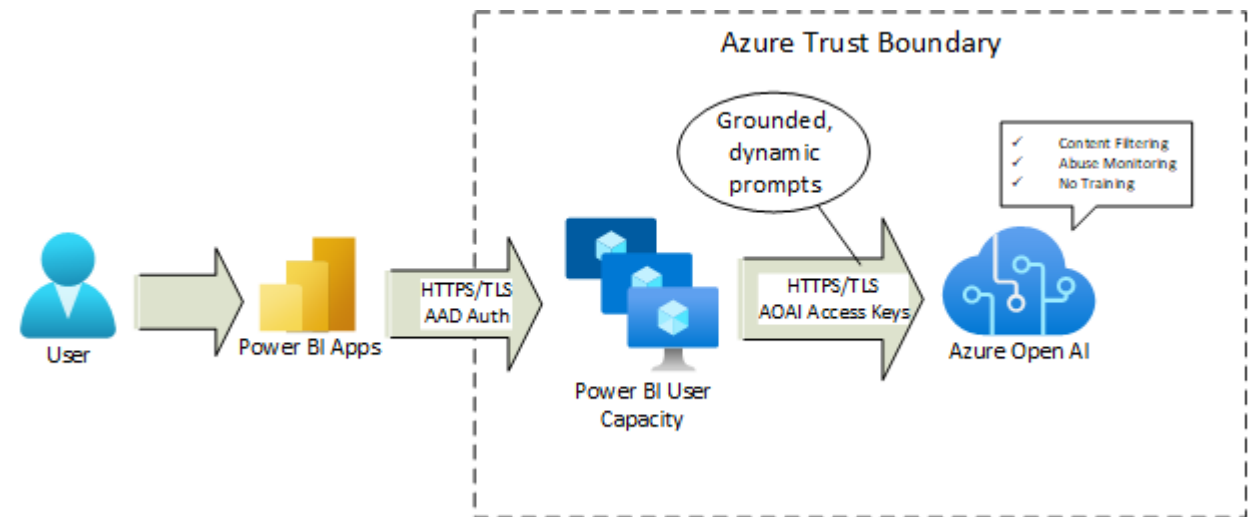
Your data is your **data**

Your data from any fine-tuning is **not** used to train the foundation AI models

Your data is **protected** by the most comprehensive enterprise compliance and security controls

What data is being sent to Azure Open AI?

- Power BI Copilot uses dataset schema and data to generate reports and summaries, sending data to Azure OAI for responses from LLM.
- Only current user's data is sent; only they can see Copilot's responses.
- When you are working with a specific dataset, your Copilot interactions are "private".
- Data security: Prompts, retrieved data, and responses stay within Power BI's compliance boundary.



Copilot requires Dedicated Capacity (F64 and above or P1 and above)

Microsoft Fabric Trial Capacity is not eligible for Copilot

Power BI per user licenses don't include Copilot

Organization must enable Microsoft Fabric

Billing for Copilot will start between January and end February 2024

Q&A

Grazie!