

**SQL**  
KONFERENZ  
2025



# Changing the way how we interact with Data

In the Era of AI

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FAVORITE STUFF:



Without **data**...

there is no **AI**

# Set a proper foundation for your data platform!

Nobody wants to build a  
house on quicksand, right?





# Microsoft Fabric

The unified data platform for AI transformation



Data  
Factory



Analytics



Databases



Real-Time  
Intelligence



Power BI



Industry  
Solutions



Partner  
workloads



AI



OneLake



Microsoft Purview

# Fabric capabilities.

Data  
Movement

Data Lakes

Data  
Engineering

Data  
Integration

Data  
Science

Real-Time  
Analytics

Business  
Intelligence

Automated  
Actions

Personas

Customer

Financial Advisors

Portfolio Managers

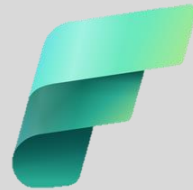
...

Modern Technology

Co-pilot / Chatbot

Predictions

Data Management  
Platform



Fabric

Platforms

Digital Experience

CRM & ERP

Document  
Management

...

But...

What if you could **chat** with your data?



# The Battle!

*Is Copilot the way to go or should we consider alternatives like AI Skills?*

What can you conclude from the orders placed versus the orders shipped?



Q&A





# Demo: Q&A in Power BI

“ IF THE ONLY TOOL YOU HAVE IS A HAMMER,  
IT IS TEMPTING TO TREAT EVERYTHING  
AS IF IT WERE A NAIL ”



**Should we hammer it  
with Copilot?**

*Image from: <https://x.com/Vaccinologist/status/1622620533706588161>*

# What if you could chat with your data?

- Combining the world of Power Platform with Microsoft Fabric – your data management platform
- Experience inside Teams
- Security by design
- Real time updates

The screenshot shows a chat window titled "HR Support" with tabs for "Chat" and "About". The chat history includes the following messages:

- User:** "What is my current vacation day balance?" (Timestamp: Tuesday 1:45 PM)
- HR Support:** "Your current balance is 21.5 days. Do you directly want to request a day off?" (Timestamp: Tuesday 1:45 PM). Below the message is a form with two buttons: "Yes" and "No".
- User:** "Yes" (Timestamp: Tuesday 1:45 PM)
- HR Support:** "Great! For which day?" (Timestamp: Tuesday 1:45 PM)
- User:** "1 november 2023" (Timestamp: Tuesday 1:45 PM)
- HR Support:** "How many hours do you want to take off that day?" (Timestamp: Tuesday 1:45 PM)
- User:** "4" (Timestamp: Tuesday 1:46 PM)
- HR Support:** "Great! Your request for 4 hours of on 11/1/2023 12:00:00 AM has been submitted. You will receive a message when the request has been approved." (Timestamp: Tuesday 1:46 PM)

# AI in Fabric.



Data  
Factory



Analytics



Databases



Real-Time  
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Industry  
Solutions



Partner  
workloads



AI



OneLake



Microsoft Purview

# Copilot in Fabric.



Copilot accelerated  
experiences



AI-driven  
insights



Custom  
generative AI  
for your data

# Copilot in Fabric.

Public Preview



Data Factory

Get intelligent code generation to transform data with ease and code explanations to help you better understand complex tasks.

Public Preview



Data Warehouse

Write and explain T-SQL queries, or even make intelligent suggestions and fixes while you are coding.

Public Preview



Data Engineering & Data Science

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

Public Preview



Databases

Write and explain T-SQL queries, or even make intelligent suggestions and fixes while you are coding.

GA



Real-Time Intelligence

Translate questions into KQL queries that you can execute.

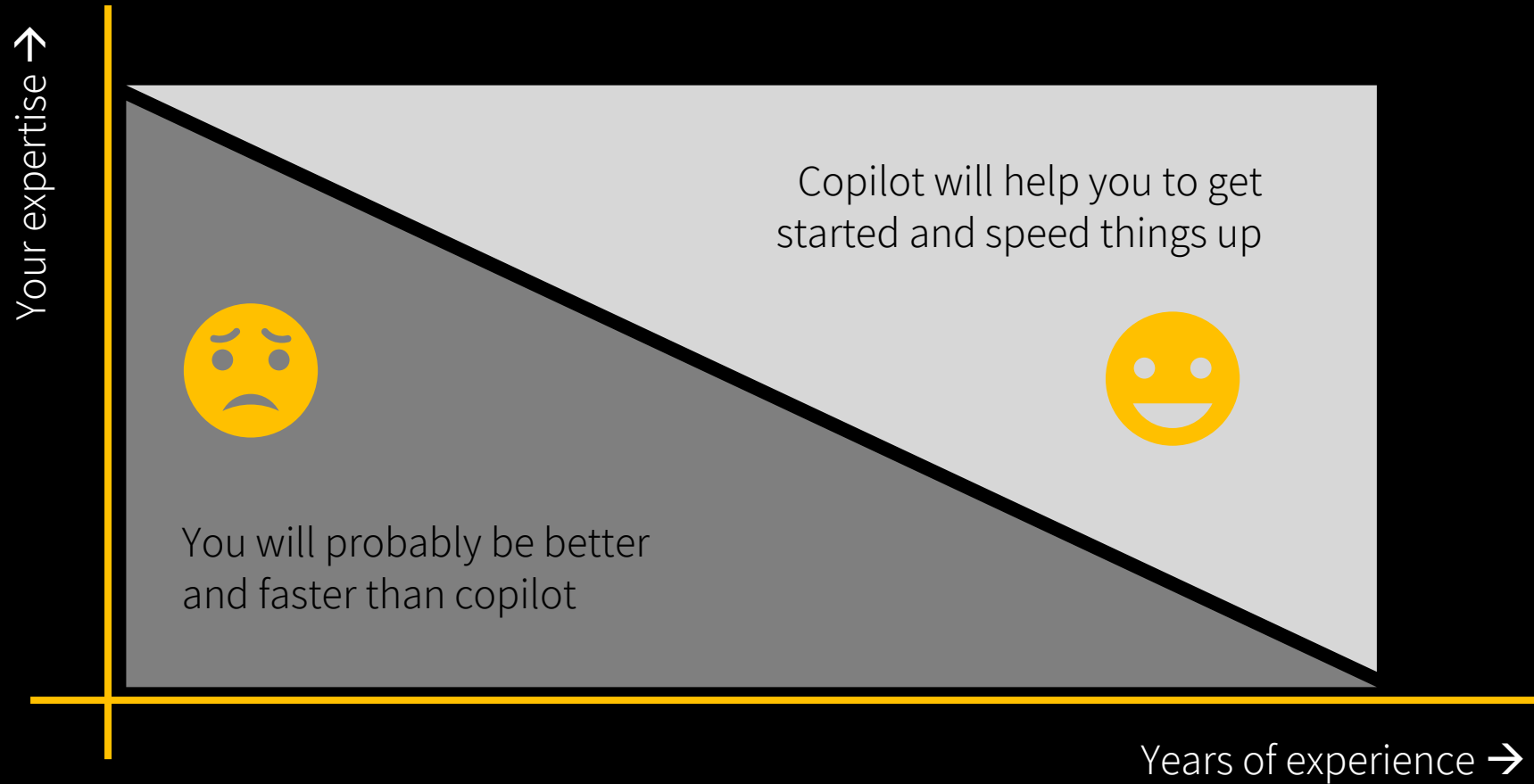
GA



Power BI

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

# Who is copilot for?







# Demo: Copilot in Power BI

Home

Create

Workspaces

CopilotTesting

Copilot-Internet...

apartment\_r

entals

Copilot-AW-

sample

...

Power BI

Copilot-Internet-Sales-AW

Confidential\Microsoft Extended

Search

FileViewReading viewMobile layoutOpen data model

Internet Sales Analysis by Product Category and Geography

EnglishCountryRegionNameAllCategoryAll

Count of Category4

Count of EnglishCountryRegionName6

Sum of SalesAmount29.36M

Revenue % of Sales41%

Sum of SalesAmount by EnglishCountryRegionName

Sum of SalesAmount by Category, Sub-Category and EnglishProduct Name

Sum of SalesAmount by EnglishCountryRegionName

Sum of SalesAmount by EnglishPromotionType

Sum of SalesAmount

VisualizationsDataFilters

CopilotPreview

Suggest content for this report

OK, here's a suggested outline for your report. Select any page topic to view details and start creating pages.

SeasonAllIsland NameAll

Spending per Trip per Person

Spending per trip (PP)\$1.45K

Arrivals per month947.84K

Spending per trip (PP) by Month

Spending per trip (PP) by Island Name

Ask a question about your data

Try one of these to get started

what is the average trip length by month season

top trip purposes by number of months

Show all suggestions

Spending per trip per person (PP) refers to the average amount of money that a single individual spends during their trip. Data shows Maui as the island with the highest spending per trip at \$1.75K, which is 206.98% higher than Moloka'i, the island with the lowest spending per trip at \$570.22.

An analysis of the spending per trip trend from January 1, 2016, to May 1, 2018, shows an overall decrease of 11.95%. However, there's an upward trend starting on October 1, 2017, which saw spending per trip rise by 1.34% in 7 months.

Looking at the monthly breakdown, the highest spending per trip was in January 2018, standing at \$1.74K. This suggests that visitor spending can vary depending on the period of the year.

Created with AI. Inaccuracies are possible. [Read terms](#)

CopilotPreview

break down tourism spending by place of origin

Showing region and expenditures.

Expenditures by Region

US WestUS EastOtherJapan

how much are people from Japan spending in just Maui?

Showing expenditures where region is Japan and island name is Maui.

\$1.51bnExpenditures

Describe the report you want to create or ask a question

# AI Skills.

1. Using LLMs to interact with your data
2. Query your data using natural language
  - NL2SQL
  - NL2KQL
  - NL2DAX
3. Have a conversational experience
4. Connect up to 5 data sources

# AI Skills.

Deliver custom generative AI experiences for **your data** with **AI Skill**



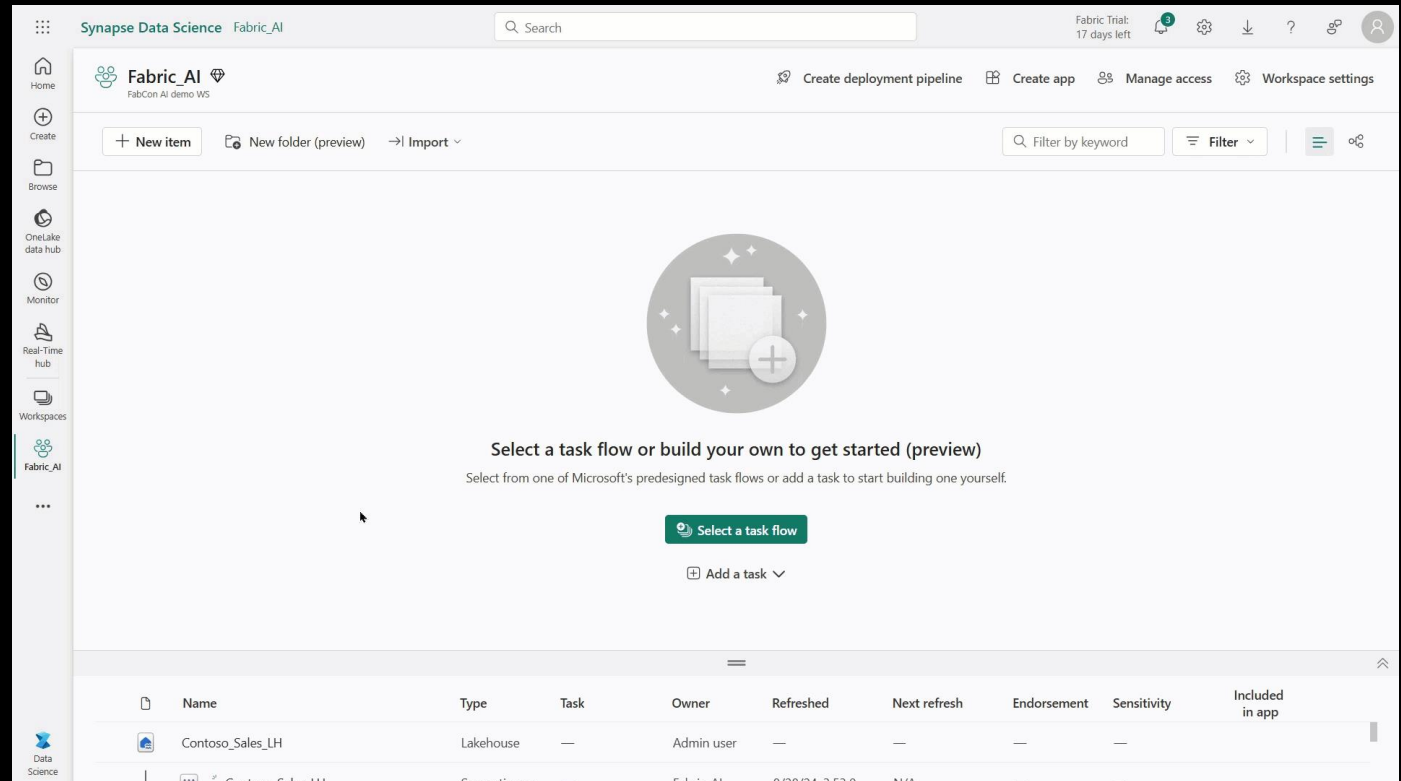
Allow your users to talk to data in Fabric







Create, curate and configure a **data expert** on your data domain

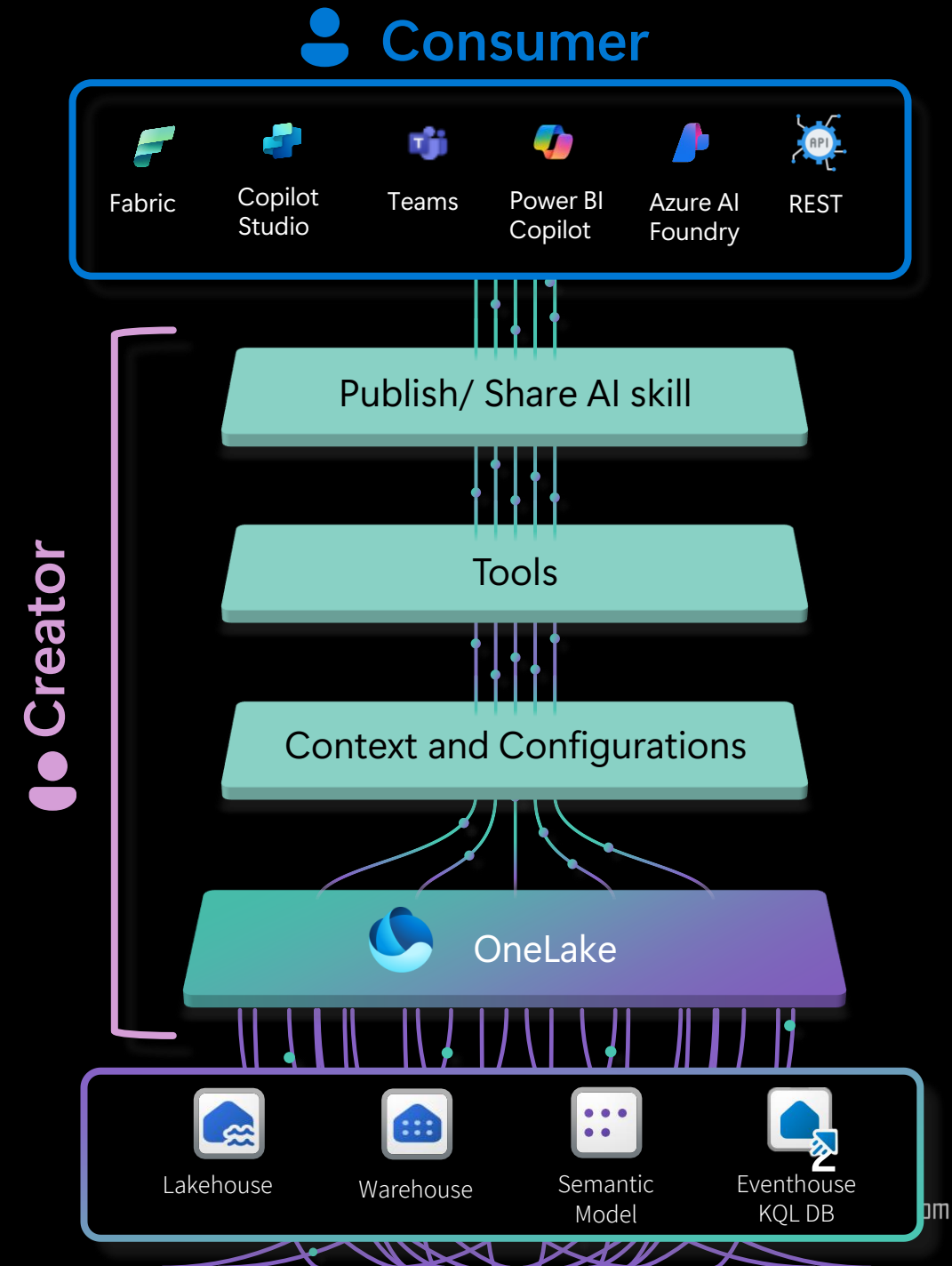


Share AI skills with other creators and consumers in Fabric



# AI Skills.

-  The **conversational AI skill** allows users to interact with data naturally, enhancing accessibility and usability.
-  Improved chat canvas for creators with **new debugging capabilities**, making it easier to understand and refine responses.
-  Seamlessly reason over multiple data sources, including **semantic models and Eventhouse KQL databases**, to create a powerful Data Expert tailored to your data domain.
-  Your Data Agent can be consumed inside and outside of Fabric. Stay tuned for **upcoming integrations** with Copilot Studio, Teams, Azure AI Foundry and your own custom applications.



# Understanding the **interface** of AI Skills.

The screenshot shows the ChatWithYourData interface. On the left, the Explorer pane lists data sources and tables. The main area displays a chat conversation with an AI skill, showing a restated question, a query code output, and a table of results. On the right, the AI instructions pane provides guidance on how to use the skill. The bottom of the interface features a chat input field and sample questions.

**Connected lakehouse tables**

**Notes to enrich model**

**Executed SQL expression**

**Chat window**

**Example queries you can enter**

OrderDate	SalesAmount	Country
2020-09-29 00:00:00	8.99	Germany
2020-10-29 00:00:00	65.94	Germany
2020-11-06 00:00:00	29.99	Germany
2021-10-09 00:00:00	8.99	United States
2021-10-11 00:00:00	34.99	Germany
2022-10-11 00:00:00	4.99	Germany
2020-11-06 00:00:00	9.99	Germany
2021-11-06 00:00:00	4.99	Germany
2022-11-20 00:00:00	19.96	United States
2022-11-21 00:00:00	9.98	Germany

```
SELECT s.OrderDate, s.SalesAmount, c.Country
FROM [dbo].[sales] s
JOIN [dbo].[customer] c ON s.Customer = c.CustomerID;
```

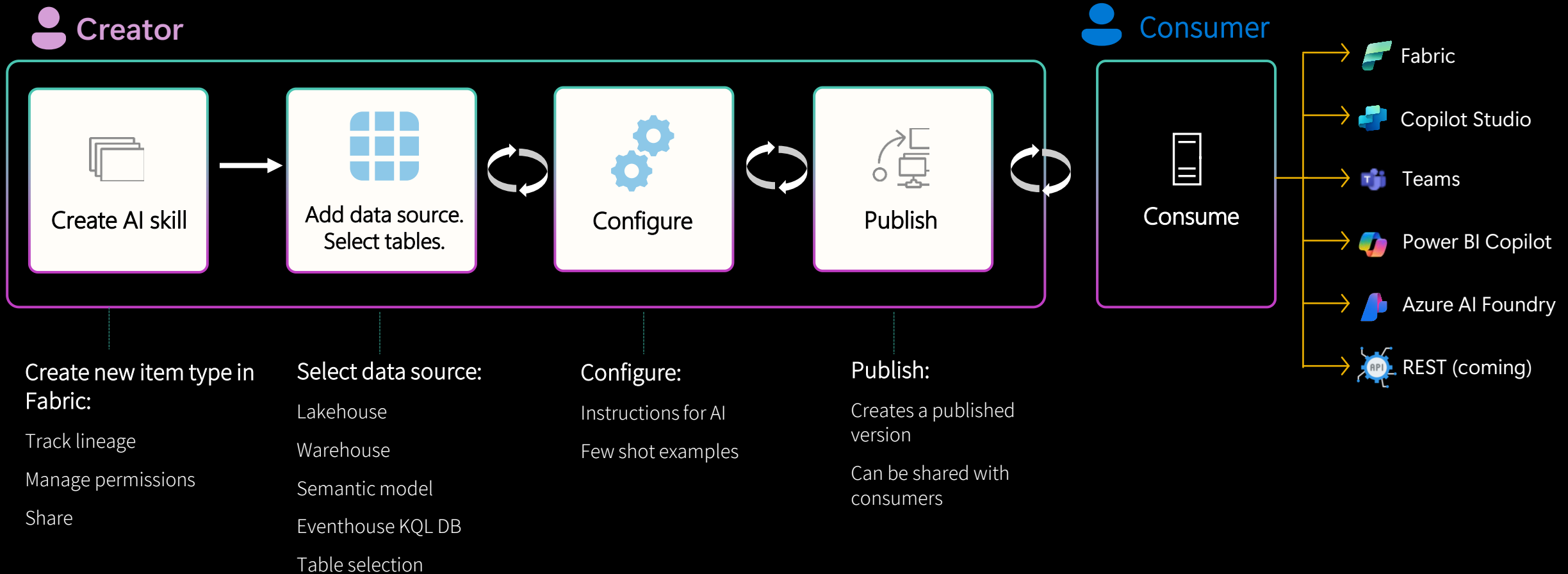
Ask a question to test the AI skill's response

Sample questions

271/15000 characters used

Created with AI. Mistakes are possible. Review terms

# AI Skills end-to-end flow.







## Demo: AI Skills in Fabric



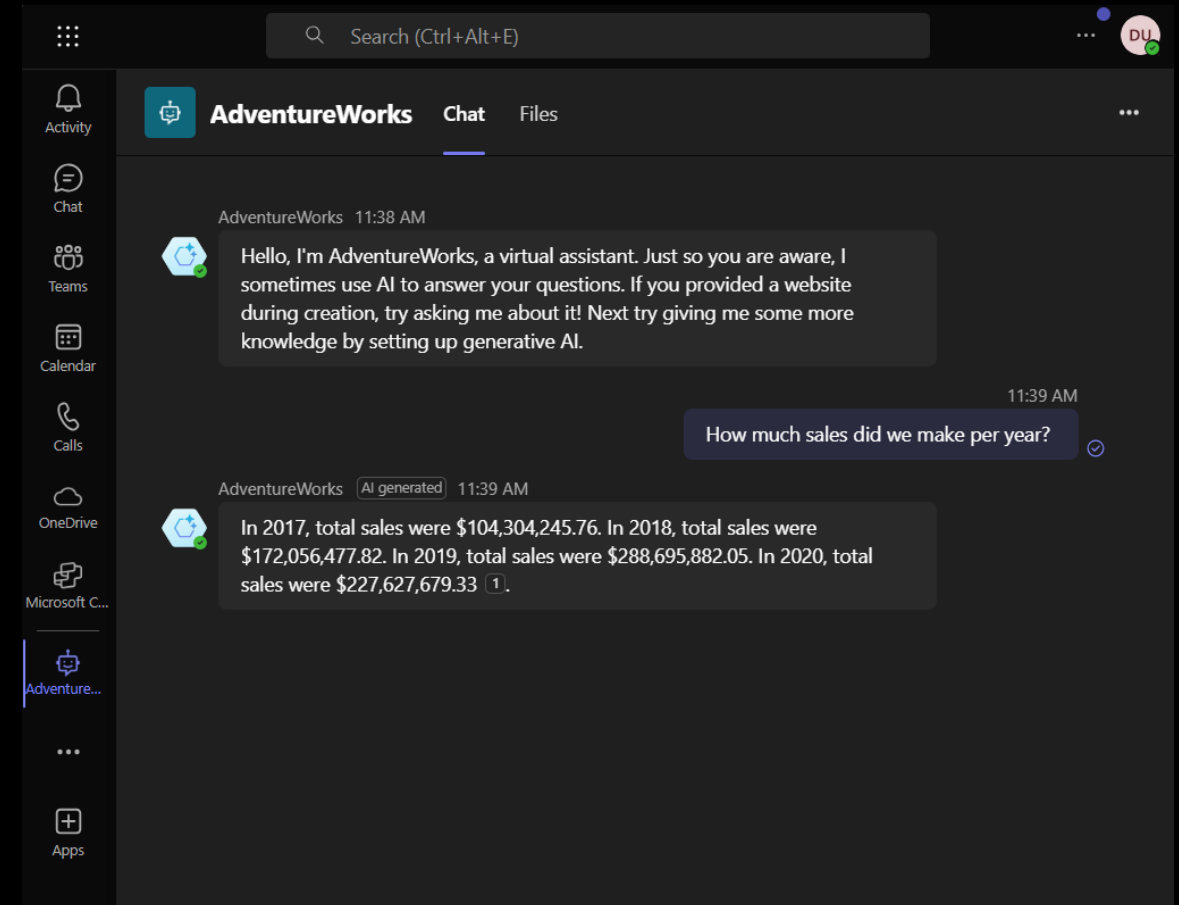
How do users access the **chatbot**?

# Cluttering of tools.



# How do users access the **chatbot**?

- Integration with CoPilot Studio
- Bring it to the tool we all love to hate (MS Teams)
- Add is as an app to Teams



# Recap & gotcha!

AI Skills...

- ...are currently in public preview
- ...require Fabric capacity F64+
- ...only work on structured data
- ...generate NL2SQL and NL2DAX
- ...loses accuracy if you use large schemas with dozens of tables

Copilot Studio...

- ...has its own licensing structure
- ...results may differ from AI Skills – although connected

*Most up to date list of limitations:*

*<https://learn.microsoft.com/en-us/fabric/data-science/concept-ai-skill>*



**LET ME KNOW  
WHAT YOU THINK!**



# The future is bright!



Ready to start your journey?

Marc Lelijveld



Data-Marc.com

