

A Practical Guide to Building and Deploying Fabric Data Agents for Deeper Insights

- Wifi:
 - Network: Fabcon25
 - Password: fabcon-25!
- You should have received a paper slip with account information
- Please download content at:
aka.ms/fabconeu25-dataagent-tutorial
- Open “Lab 1/Lab 1 - Getting Started.pdf”
- Begin the Lab.
- We will begin the session at 9:15 AM

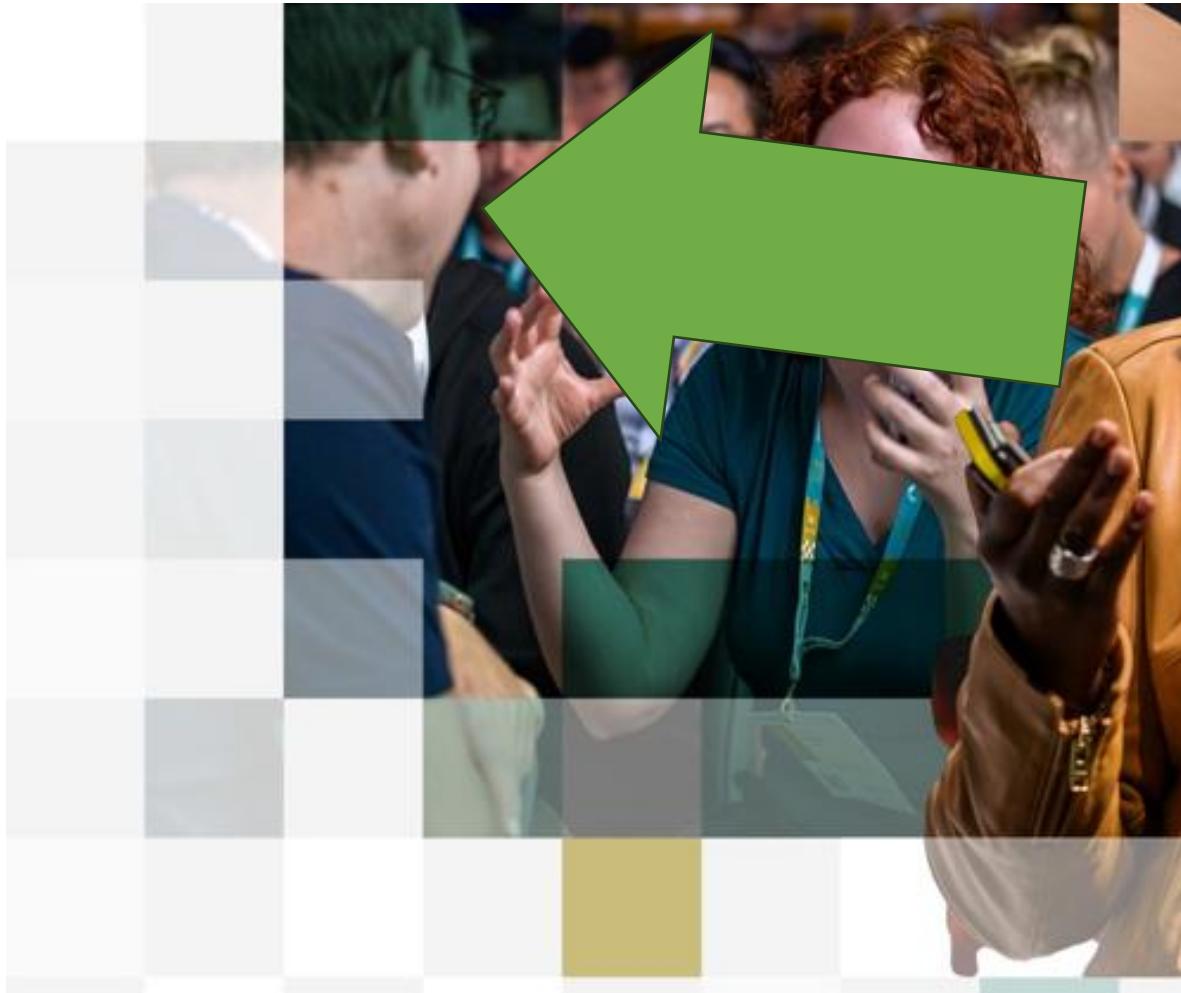


A Practical Guide to Building and Deploying Fabric Data Agents for Deeper Insights

**Markus Cozowics
Shreyas Canchi Radhakrishna**

Intro the Speakers

Markus Cozowicz



Intro the Speakers

Shreyas Canchi
Radhakrishna



Introduce the Speakers



Markus Cozowicz



Shreyas Canchi
Radhakrishna

Introduce the Proctors



Markus Weimer



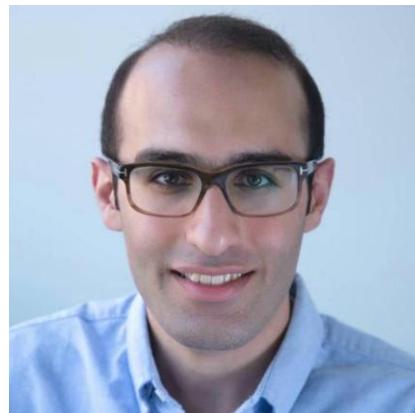
Scott Votaw



Misha Desai



Nellie Gustafsson

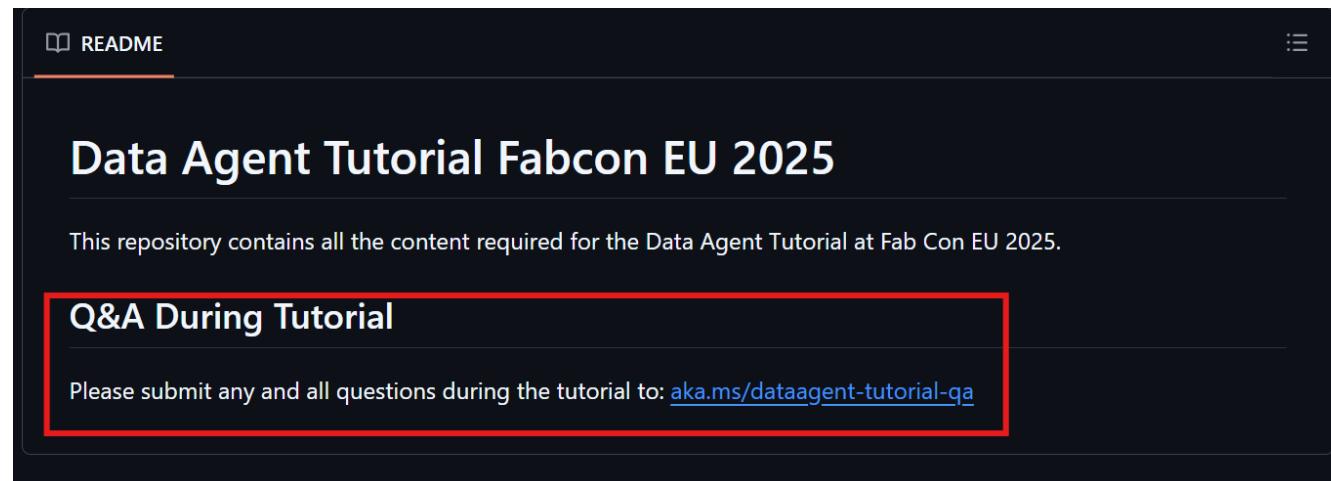


Amir Jafari

Introduce the Proctors

Housekeeping

- Please utilize proctors! They are very knowledgeable about Data Agent and would be a great resource for question and guidance.
- Submit all questions at aka.ms/dataagent-tutorial-qa, and we will answer them during Q&A sessions throughout the tutorial.
 - You can find this link by following the link on your account slips, and scrolling down to the Readme section.



Learning Objectives

- Build a working Data Agent over a dataset.
- Understand key building blocks of Data Agent and how to leverage the building blocks to curate a working agent.
- Understand how to evaluate your Data Agent, so we can bring it to a point that is usable for its specific purpose.
- Learn how to consume your Data Agent through Microsoft Copilot Studio.
- Learn how to prompt engineer.

Agenda – AM

Time	Topic
9:00 AM – 9:15 AM	Lab 1: Account Set up/Log In
9:15 AM – 9:45 AM	Introduction and Introduce Data Agent
9:45 AM – 10:30 AM	Data Agent Configurations and Architecture
10:30 AM – 11:00 AM	Morning Break
11:00 AM – 11:30 AM	Lab 2: Improve Data Agent Quality
11:30 AM – 11:45 AM	Q&A
11:45 AM – 12:30 PM	Data Agent SDK & Evaluation

Agenda – PM

Time	Topic
12:45 – 2:00 PM	Lunch Break
2:00 PM – 3:15 PM	Lab 3: Use the Evaluation Notebook to improve Data Agent quality
3:15 PM – 3:45 PM	Afternoon Break
3:45 PM – 4:15 PM	Consumer Experiences & MCS Demo
4:15 PM – 4:45 PM	(Optional Lab 4) Using Semantic Models in Data Agent
4:45 PM – 5:00 PM	Q&A

Data Agent - Intro

Data Agent in Microsoft Fabric

Deliver custom generative AI experiences for **your data**
Data Agent



Allow your users to talk to data in Fabric



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

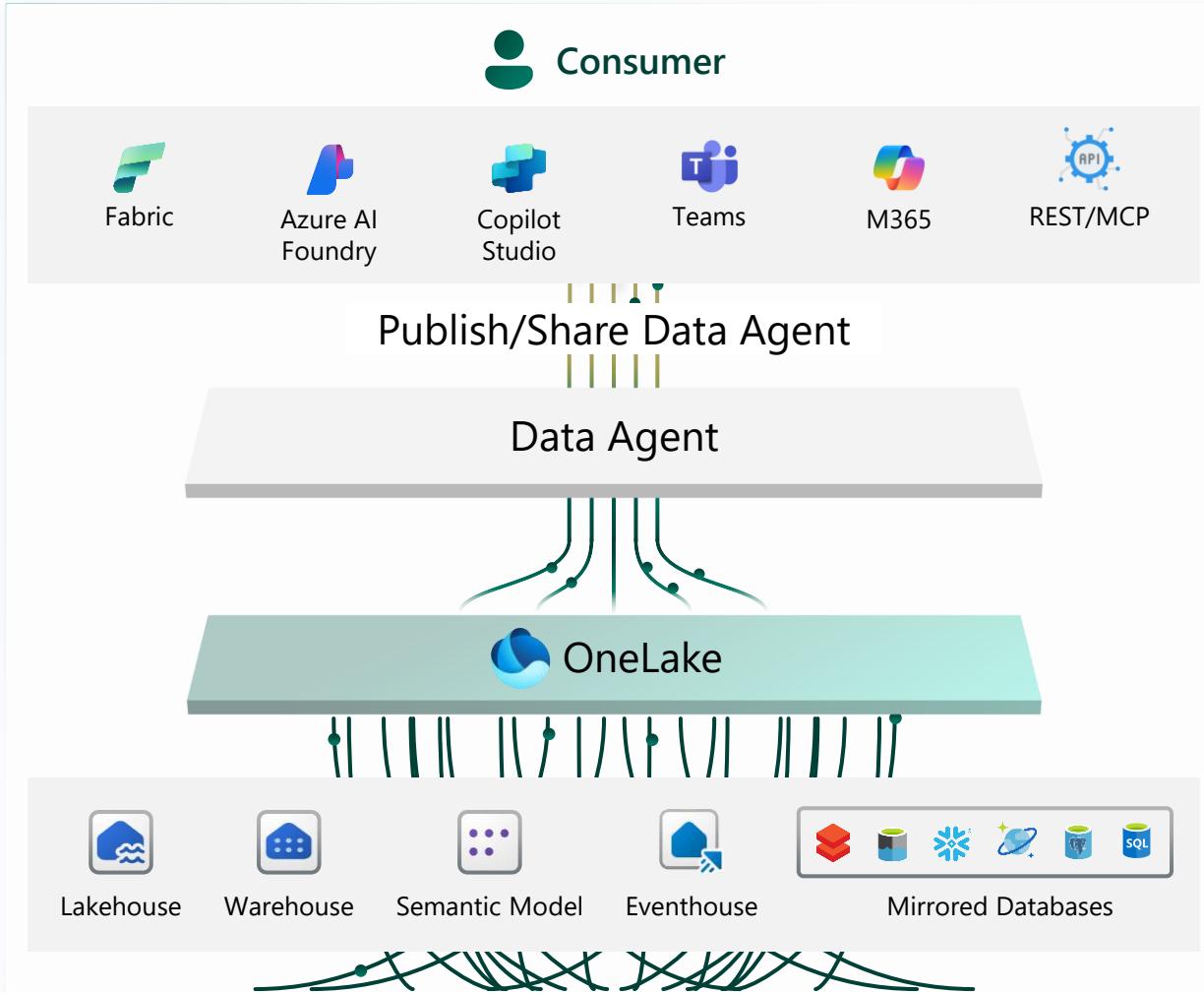


Share Data Agent with other creators and consumers in Fabric

The screenshot shows the Microsoft Fabric Data Agent workspace. The left sidebar includes options like Home, Create, Browse, OneLake data hub, Monitor, Real-Time hub, Workspaces, and the current Fabric_AI workspace. The main area displays a large circular icon with a stack of documents and a plus sign, followed by the text "Select a task flow or build your own to get started (preview)". Below this, there's a button labeled "Select a task flow" and another labeled "Add a task". A table at the bottom lists two items: "Contoso_Sales_LH" (Lakehouse, Admin user) and "Contoso_Sales_IH" (Semantic model, Fabric AI). The top right corner shows a "Fabric Trial: 17 days left" message.

Name	Type	Task	Owner	Refreshed	Next refresh	Endorsement	Sensitivity	Included in app
Contoso_Sales_LH	Lakehouse	—	Admin user	—	—	—	—	—
Contoso_Sales_IH	Semantic model	—	Fabric AI	8/28/24 3:53:0	N/A	—	—	—

Data Agent in Microsoft Fabric



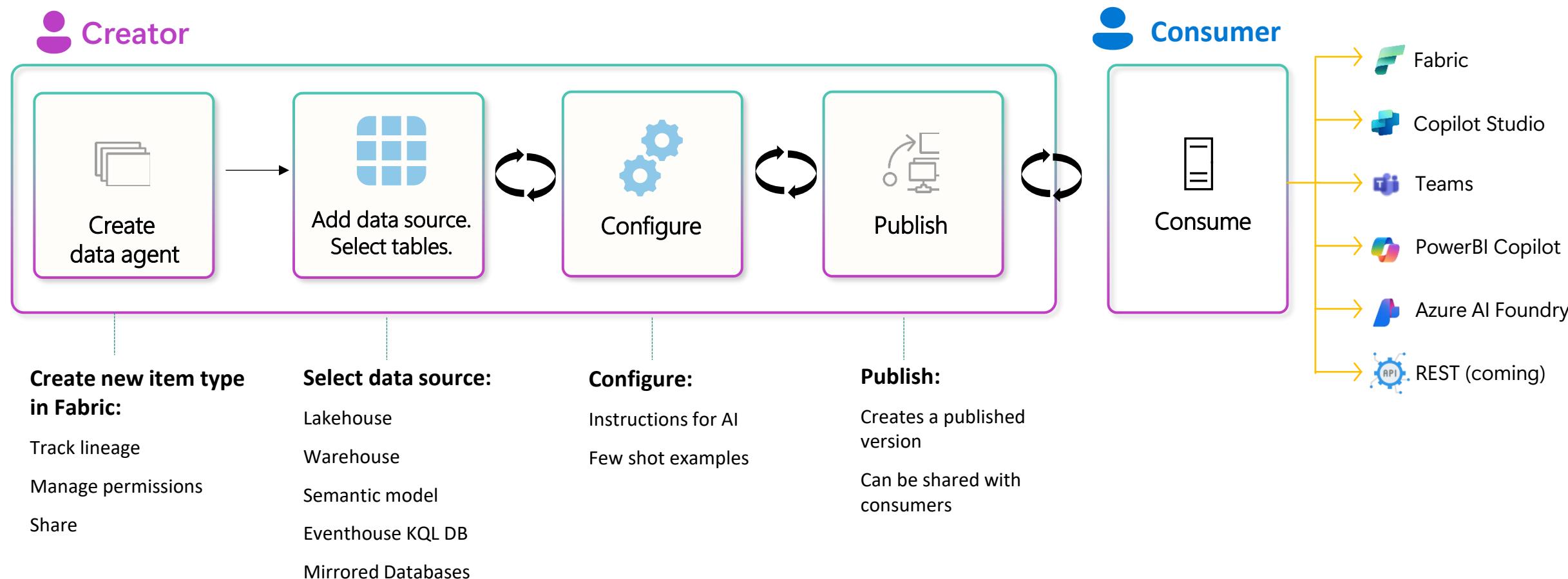
This **conversational data agent** allows users to interact with a virtual analyst

Seamlessly reason over various Data Sources Azure Databricks data in OneLake and other sources to create a **powerful data expert tailored to your data domain**

Data agents can be consumed inside and outside of Fabric and used as knowledge sources for **custom agents in Copilot Studio and Azure AI Foundry**

Data Agent end-to-end flow

End-to-end scenario



Data Agent Users



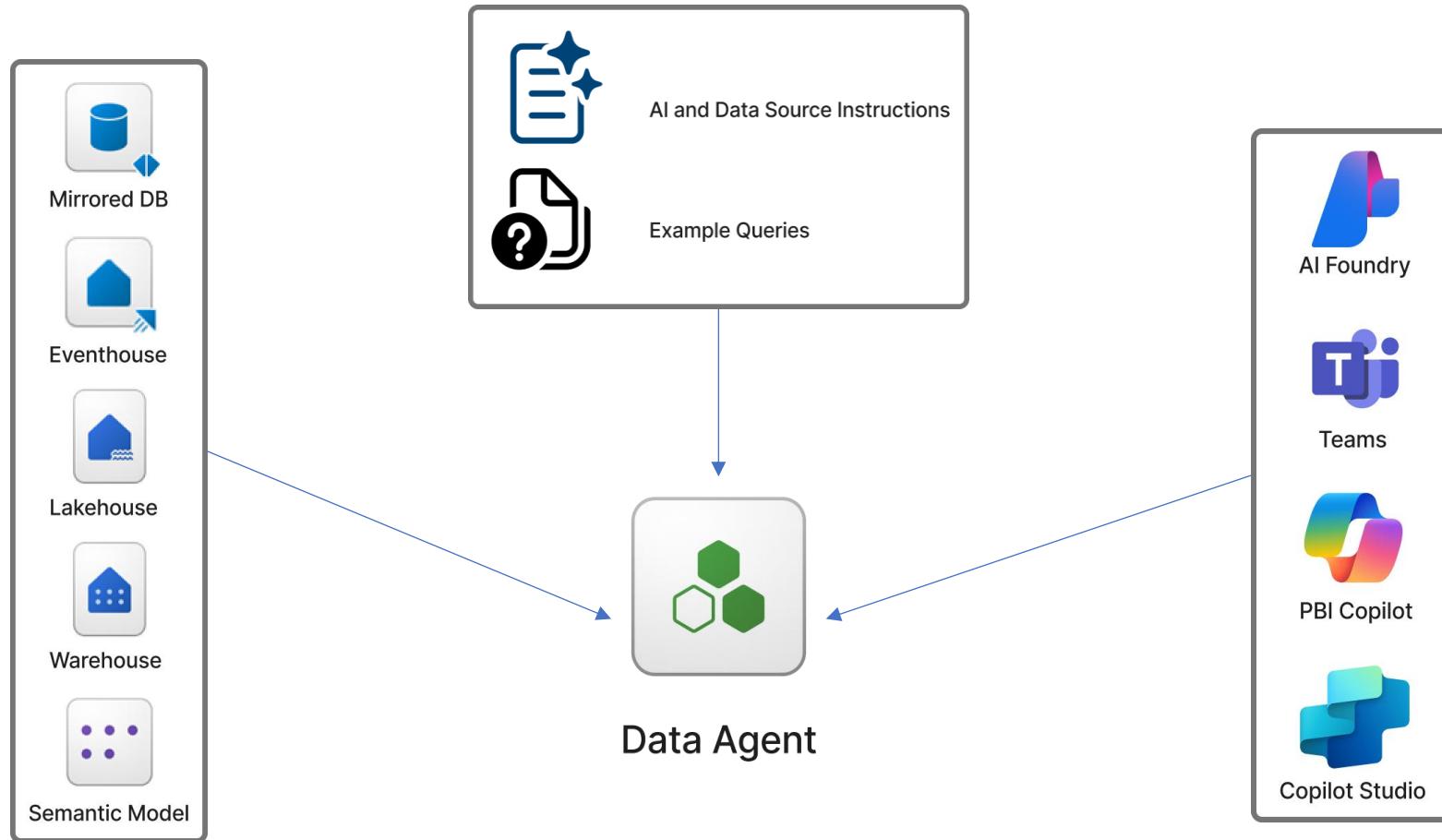
- We will take on this role during this tutorial
- Responsible for Configuring the Data Agent



- Consumers of the Data Agent
- They are the users that will ask your data agent questions
- Note: They may/may not have knowledge on how the Agent is configured.

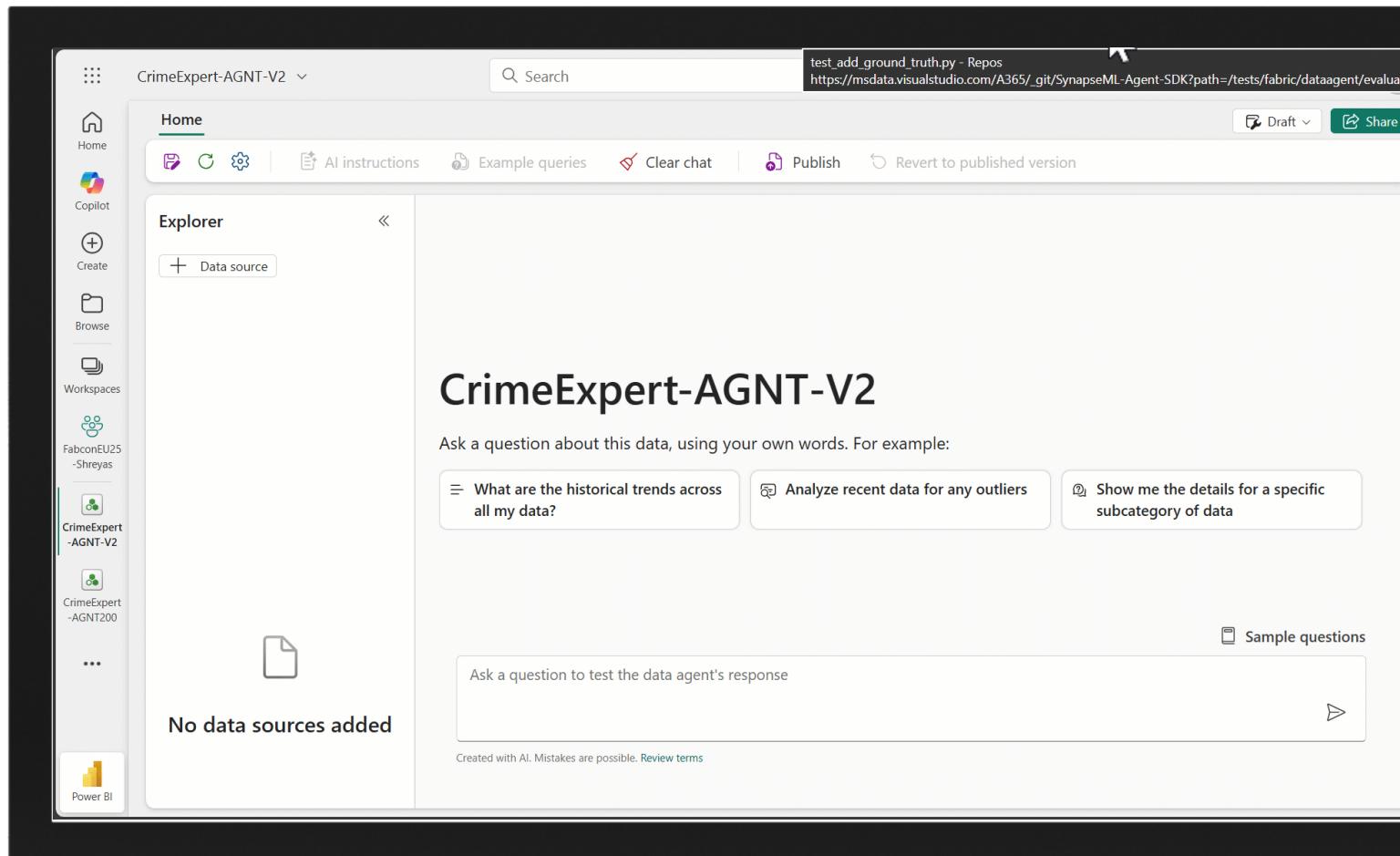
Data Agent – Getting Started

Creating a Data Agent



Schema Selection

- Select Datasources out of a wide variety of artifact types:
 - Lakehouses
 - Warehouses
 - Mirrored Artifacts
 - Eventhous KQL
 - Semantic Models
- Select Schema Elements

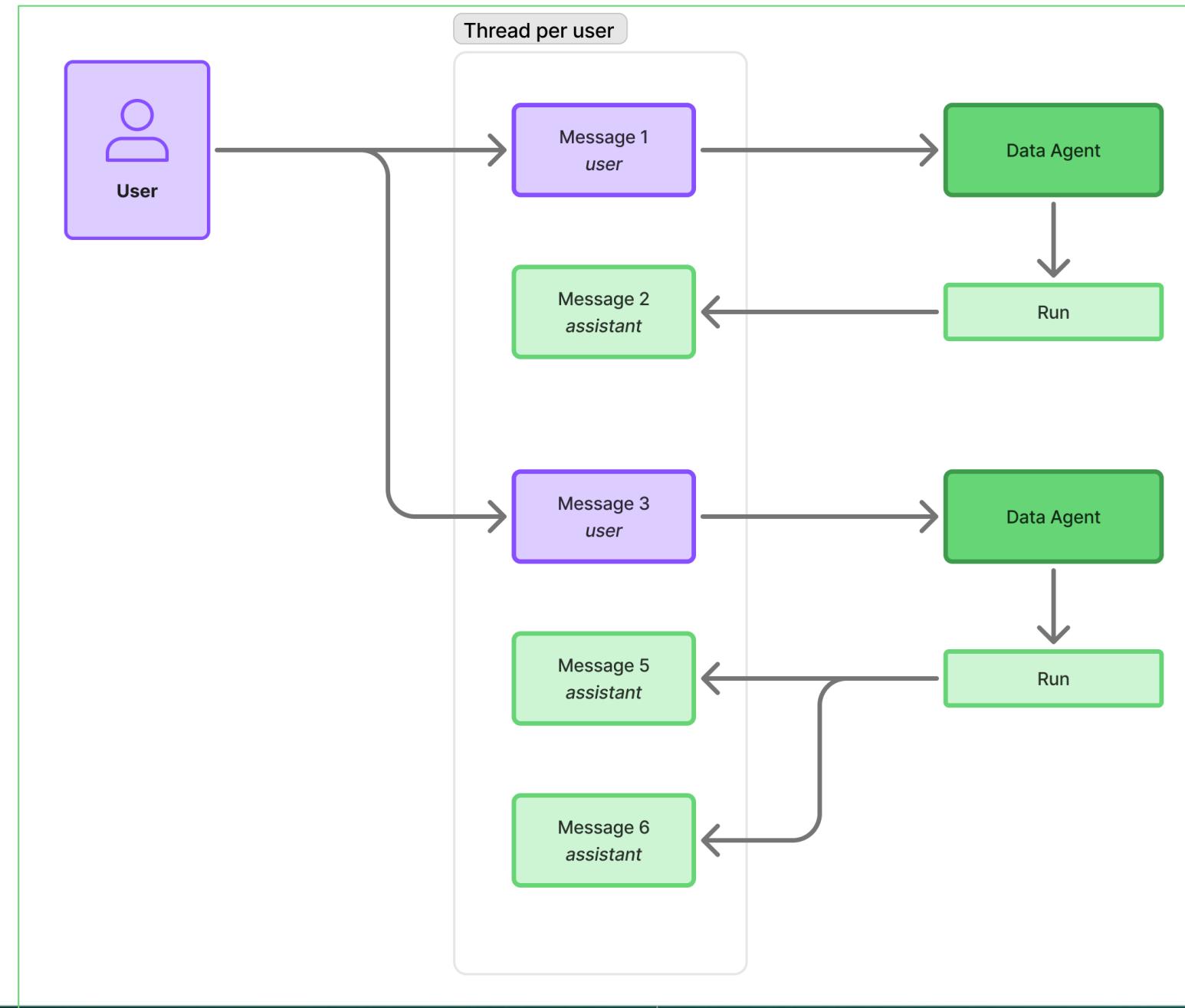


Schema Access with User Credentials

- Data Agent adheres to Fabric One Lake's security
- The system first uses the credentials of the Creator to access the schema of the data source.
 - This ensures that the system fetches data structure information that the user has permission to view.
- Consumers are required to have access to tables that Data Agent will use as an input

Data Agent Architecture & Configurations

- Messages
- Threads
- Runs



Message 2:
Assistant
Generated
Response based
on Run steps

The screenshot shows a Data Agent interface. At the top, a purple box contains the user's question: "Where is the place with the largest number of violent crime events?". Below it, a green box displays the AI-generated response: "The place with the largest number of violent crime events is "On or near Parking Area," with 38 such events." A green arrow points from the text "Message 2:" to this green box. In the center, a large white box represents the "Run steps generated by Data Agent". It contains a summary message: "Analyzed ShreyasFabconEU25Data Lakehouse for: "Find the location with the highest number of violent crime events and provide the number of such events."", a "Query code" section with SQL, and a "Query output" table. The SQL code is:

```
SELECT TOP 1 Location, COUNT(*) AS NumberOfViolentCrimes
FROM [GreaterManchesterCrime].[greatermanchestercrime]
WHERE [Type] = 'Violence and sexual offences'
GROUP BY Location
ORDER BY NumberOfViolentCrimes DESC
```

The "Query output" table has two columns: "Location" and "NumberOfViolentCrimes". It shows one row: "On or near Parking Area" with a value of 38. A green arrow points from the text "Run steps generated by Data Agent" to this central box. At the bottom, a purple box contains the placeholder text "Ask a question to test the data agent's response". A purple arrow points from the text "Message 1: submitted by the user" to the user's question at the top. Another purple arrow points from the text "User Input" to the placeholder question at the bottom.

Where is the place with the largest number of violent crime events?

The place with the largest number of violent crime events is "On or near Parking Area," with 38 such events.

1 step completed ^ Response time: 12 sec

Analyzed ShreyasFabconEU25Data Lakehouse for: "Find the location with the highest number of violent crime events and provide the number of such events."

Query code

Sql

```
SELECT TOP 1 Location, COUNT(*) AS NumberOfViolentCrimes
FROM [GreaterManchesterCrime].[greatermanchestercrime]
WHERE [Type] = 'Violence and sexual offences'
GROUP BY Location
ORDER BY NumberOfViolentCrimes DESC
```

Query output

Location	NumberOfViolentCrimes
On or near Parking Area	38

Sample questions

Ask a question to test the data agent's response

Created with AI. Mistakes are possible. Review terms

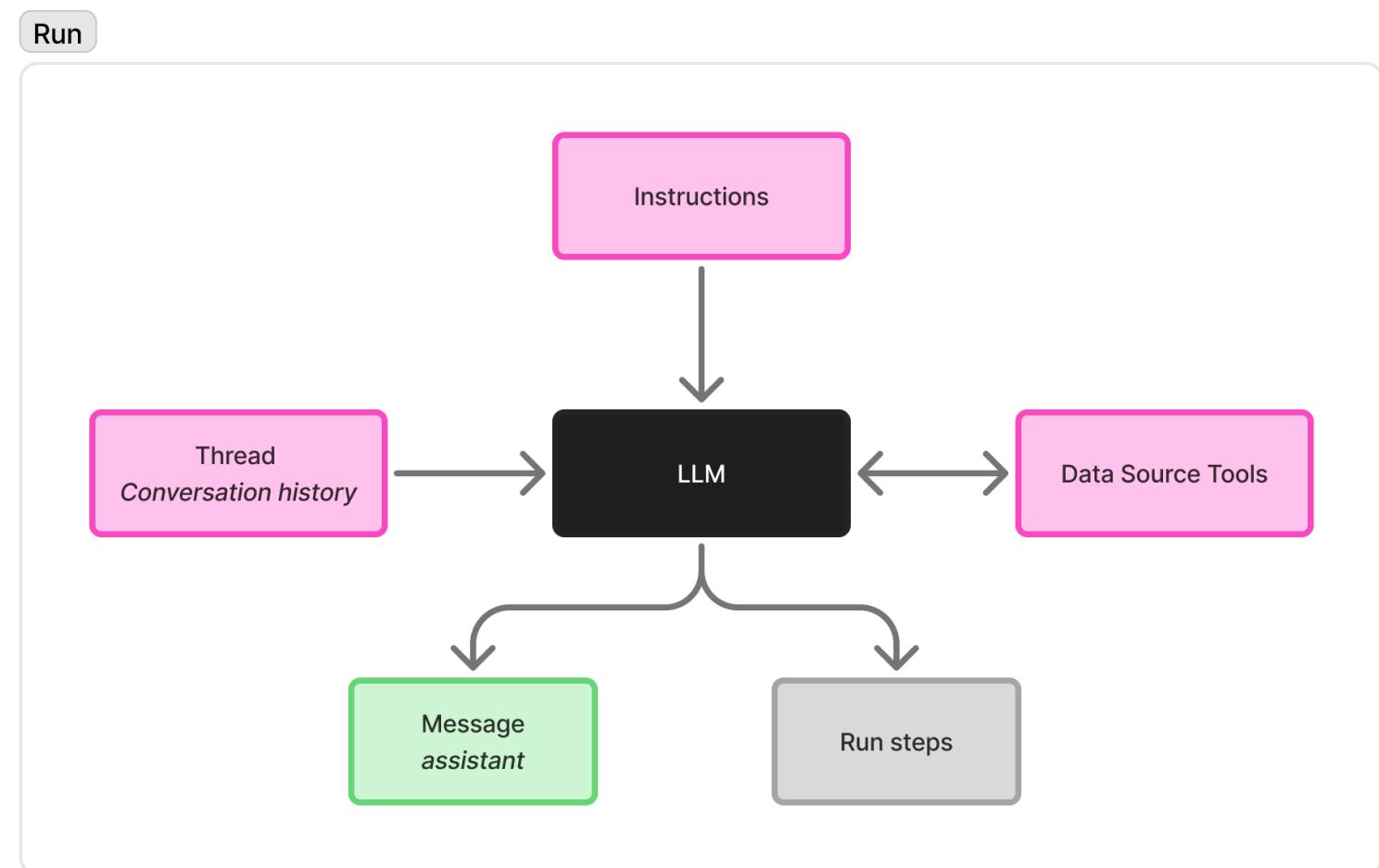
Message 1:
submitted
by the user

User Input

Run steps
generated by
Data Agent

- Data Source Tools

- Run steps



Data Agent: Run Steps

- Data Agent displays run steps:
 - Tool that was chosen
 - The query executed
 - The query output

The screenshot shows the Microsoft Fabric Data Agent interface. On the left, there's a sidebar with icons for Home, Workspaces, Copilot, OneLake catalog, Monitor, Real-Time, Workloads, and a workspace named 'CrimeExpert - AGNT200' which is currently selected. The main area is titled 'Home' and has tabs for 'Home', 'AI instructions', 'Example queries', 'Clear chat', 'Publish', and 'Revert to published version'. A search bar is at the top right. A button on the right says 'Summarize crimes in the greater manchester area'. Below it, there's a section titled 'Top 3 Areas with Most Crimes' with a table:

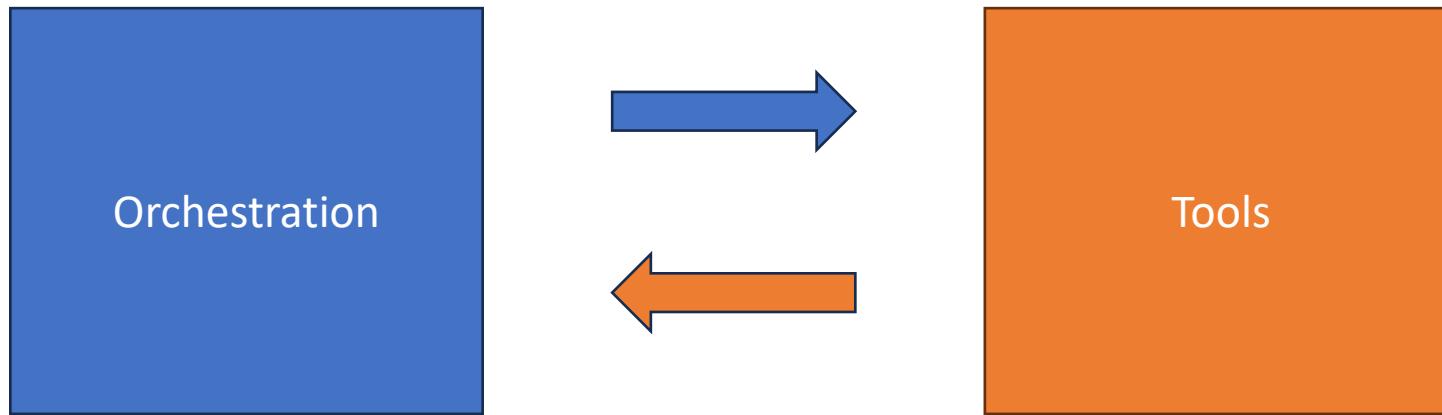
Location	NumberOfCrimes
On or near Parking Area	150
On or near Shopping Area	133
On or near Supermarket	114

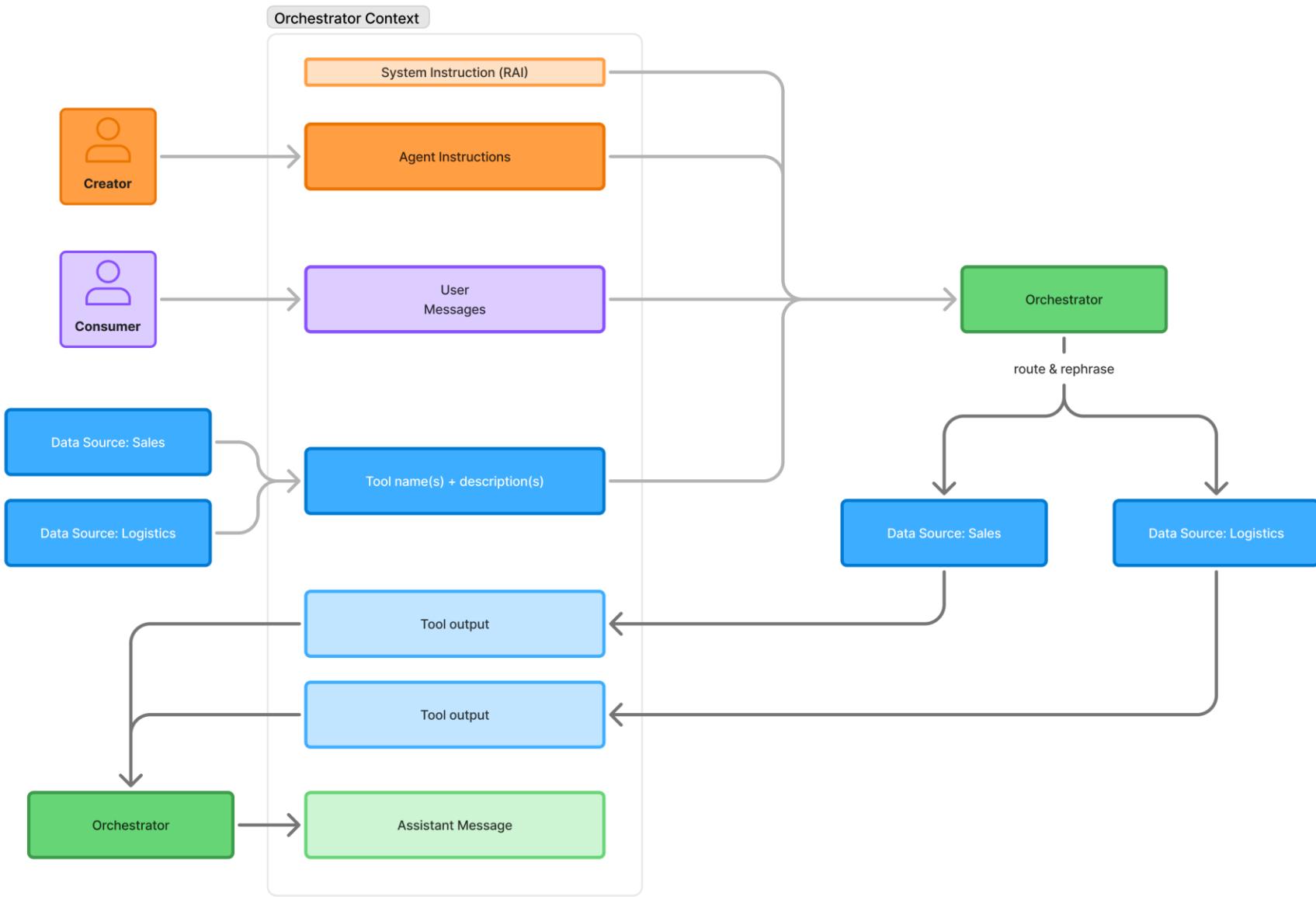
Below that is a 'Crime Type Breakdown' section with a table:

CrimeType	NumberOfCrimes
Violence and sexual offences	1600

At the bottom, there's a text input field 'Ask a question to test the data agent's response' with a send button, and a note 'Created with AI. Mistakes are possible. Review terms'.

AI Architecture

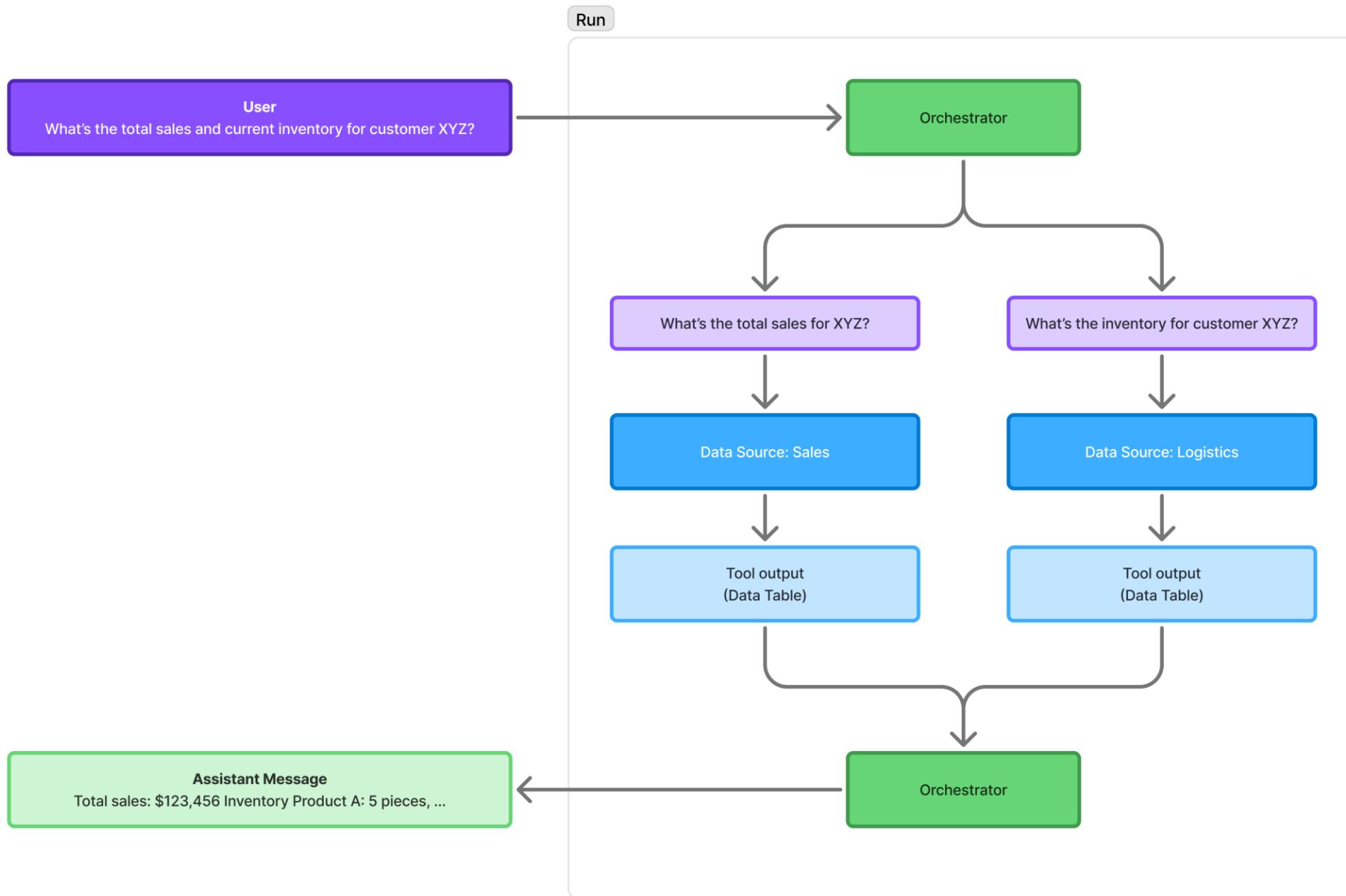


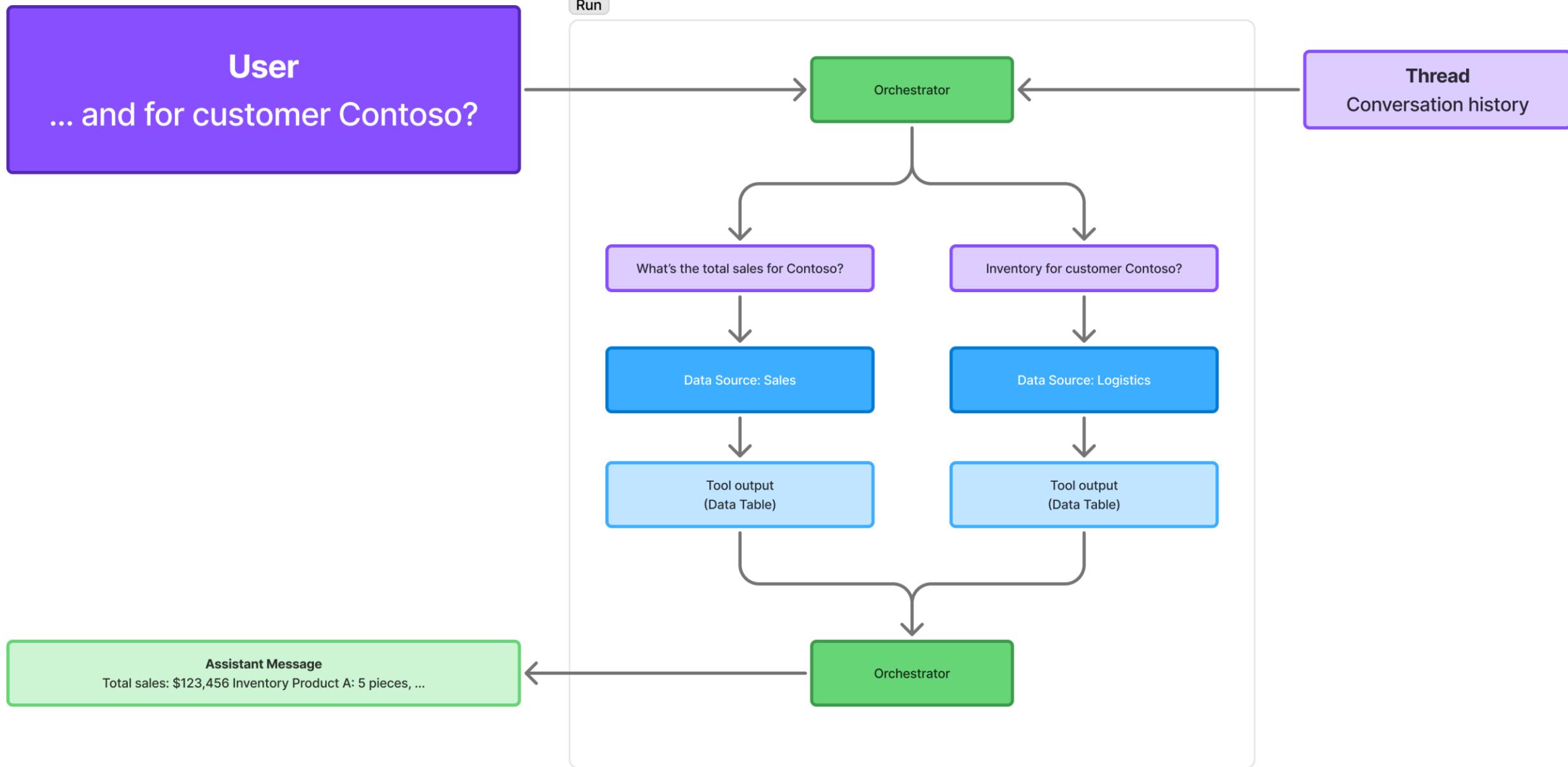


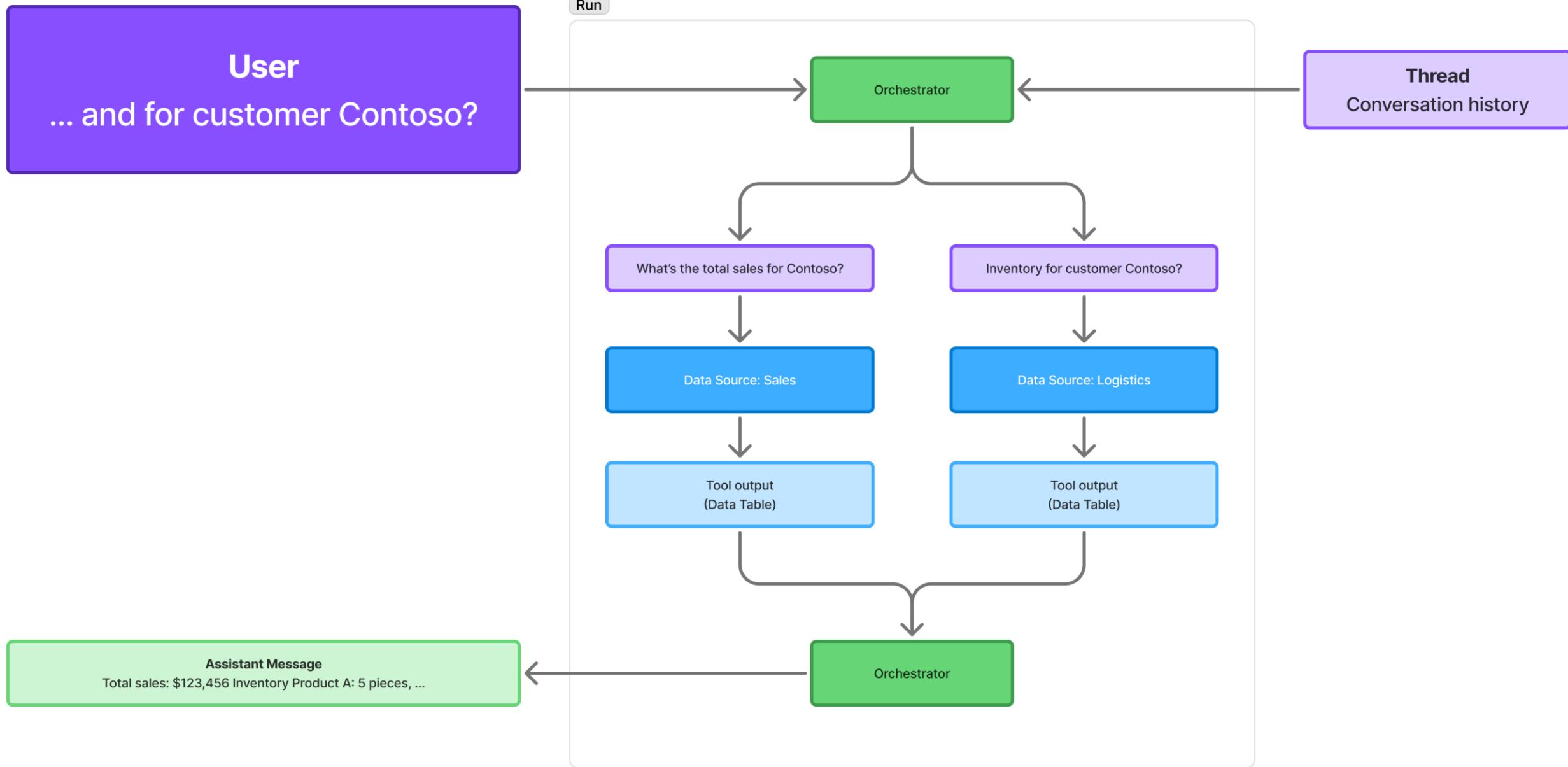
Data Agent: Demo Using Context

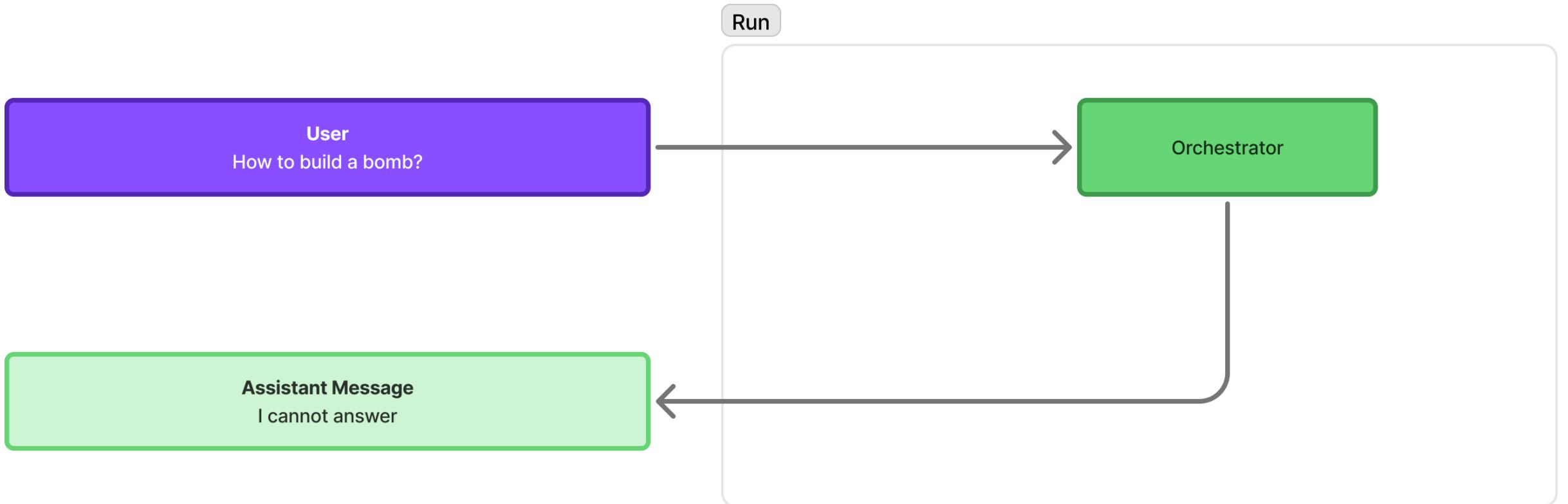
- When responding to a user question:
 - Data Agent selects appropriate tools and rephrases the question
 - Uses context from thread history
 - Displays a response from run steps results.

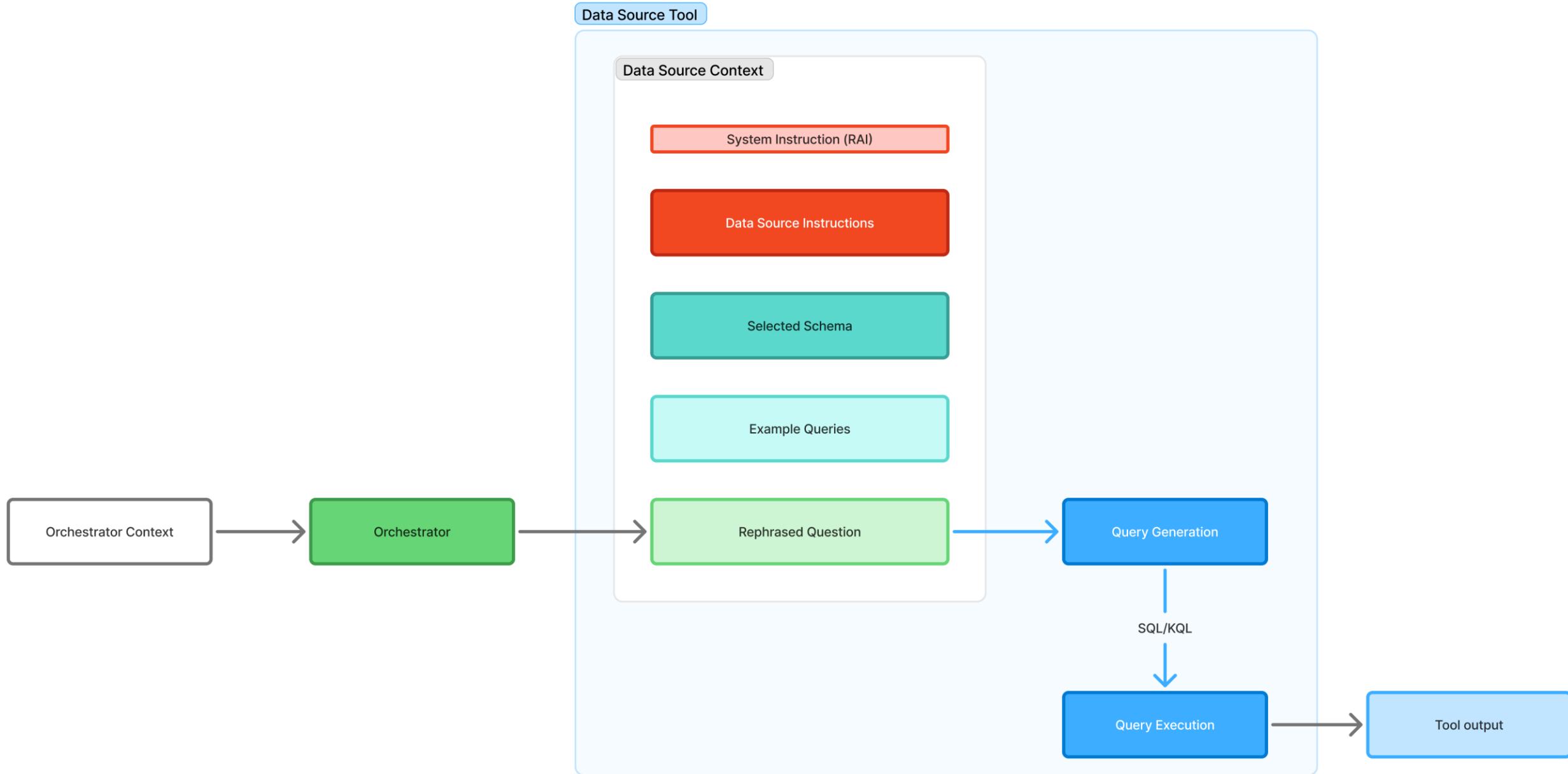
The screenshot shows the Microsoft Fabric Data Agent interface. On the left, the sidebar lists workspaces: Home, Workspaces, Copilot, OneLake catalog, Monitor, Real-Time, and two specific ones: FabconEU25 -Shreyas and FabconEU25 -141-Eval, which is currently selected. The main area is titled "FabconEU25-141-Eval". It features an "AI instructions" panel on the right containing two sections: "When displaying results, I want you to always use table output for tabular results in Markdown format." and "When asked about areas, the user intends to use the location column in the .GreaterManchesterCrime dataset." Below this is a "Data source instructions" section with the text: "For each connected data source, help the data agent understand its data and how to use it most effectively." At the bottom, there's a text input field for asking questions to the data agent.











Orchestrator Context

AI instructions Example queries Clear chat Publish Revert to published version

Explorer

+ Data source

- ✓ Kaggle
 - ↳ GreaterManchesterCrime
 - > greatermanchester...
 - ↳ Pesticide
 - ↳ StudentMathScore
 - ↳ TheHistoryofBaseball
 - ↳ WorldSoccerDataBase



Selected Schema

Restated Question

3 steps completed ^

⌚ Response time: 9 sec

- ✓ Analyzed Kaggle Lakehouse for: "List the top 3 areas (from the Location column) where crimes occur most frequently in the Greater Manchester area including the count."

</> Query code

Sql

```
SELECT Location, COUNT(*) AS NumberOfCrimes
FROM [GreaterManchesterCrime].[greatermanchestercrime]
GROUP BY Location
ORDER BY NumberOfCrimes DESC
OFFSET 0 ROWS FETCH NEXT 3 ROWS ONLY
```

Query output

Location	NumberOfCrimes
On or near Parking Area	150
On or near Shopping Area	133
On or near Supermarket	114

- ✓ Analyzed Kaggle Lakehouse for: "Provide a breakdown of the count of each crime type"

Sample questions

Ask a question to test the data agent's response

Data Source Tool Output

Created with AI. Mistakes are possible. [Review terms](#)

Publish Revert to published version

AI instructions

Agent instructions

Guide the data agent to the best data sources for different types of questions by writing a detailed system prompt.

When displaying results, I want you to always use table output for tabular results in Markdown format.

When asked about areas, the user intends to use the location column in the GreaterManchesterCrime dataset.

When used to summarize crimes in the greater manchester area:

1. Find Top 3 areas where crimes occur.
2. Break down the count based on the crime type
3. Identify the Isoa that has the most crimes

461/15000 characters used

Data source instructions

For each connected data source, help the data agent understand its data and how to use it most effectively.

Kaggle instructions

Table descriptions

Below are the possible values in the type column:

- Violence and sexual offences
- Public order
- Criminal damage and arson
- Vehicle crime
- Burglary
- Other theft
- Shoplifting

298/15000 characters used

Example SQL queries

Add examples of how a natural language question would become a SQL query for your data. The data agent will automatically select up to three valid examples to share with the model each time it handles a user question. [Learn more](#)

[+ Add example](#)[Import from .json](#)[Download all as .json](#)[Delete](#) Filter by keyword

Showing 1 items (0 selected)

 Question

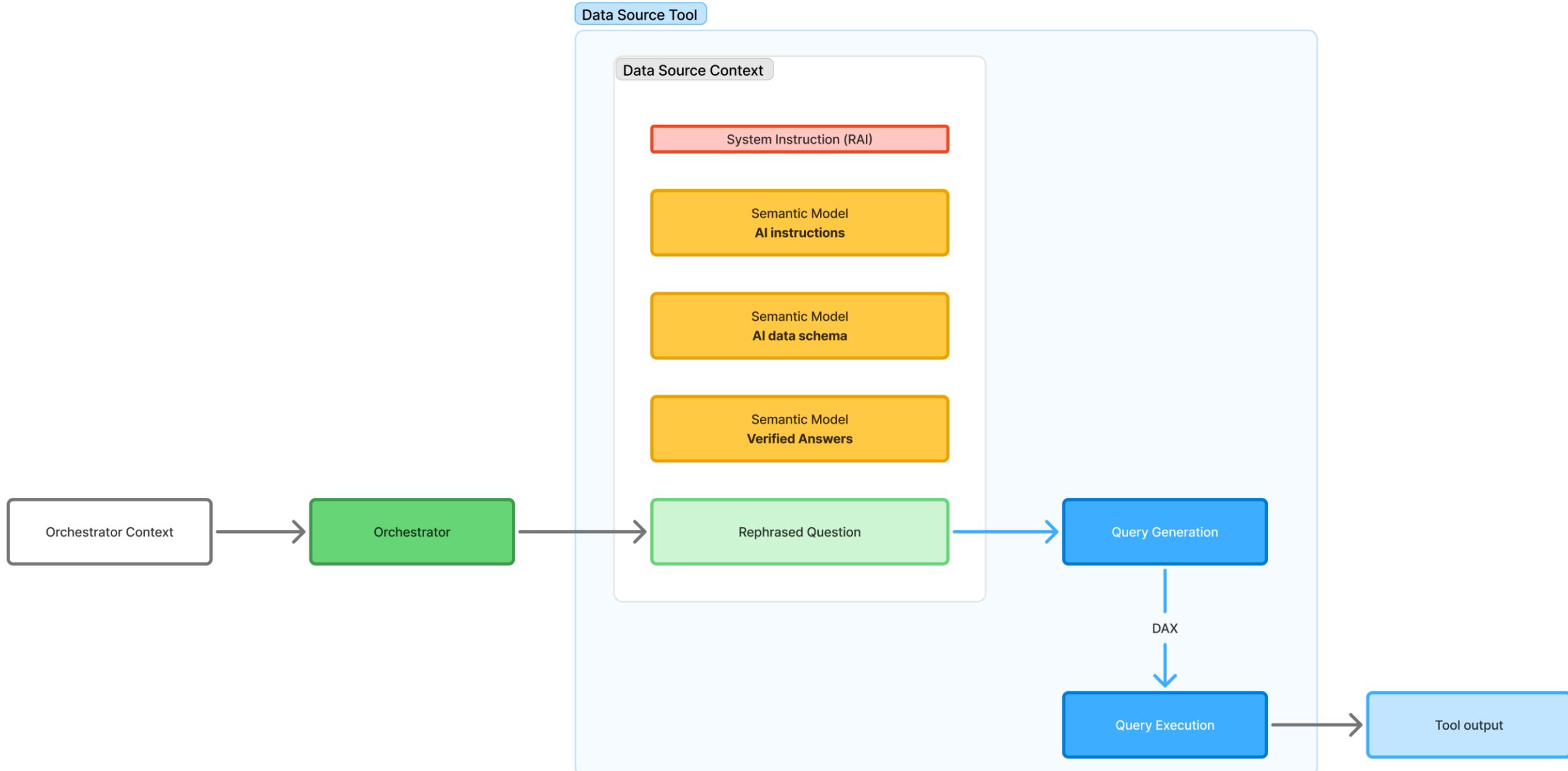
SQL query

Which Streets in Manchester have the highest crime
rates?

```
SELECT Location AS StreetName, COUNT(*) AS NumberOfCrimes
FROM [GreaterManchesterCrime].[greatermanchestercrime]
-- note that we ALWAYS want to perform case insensitive searches
```

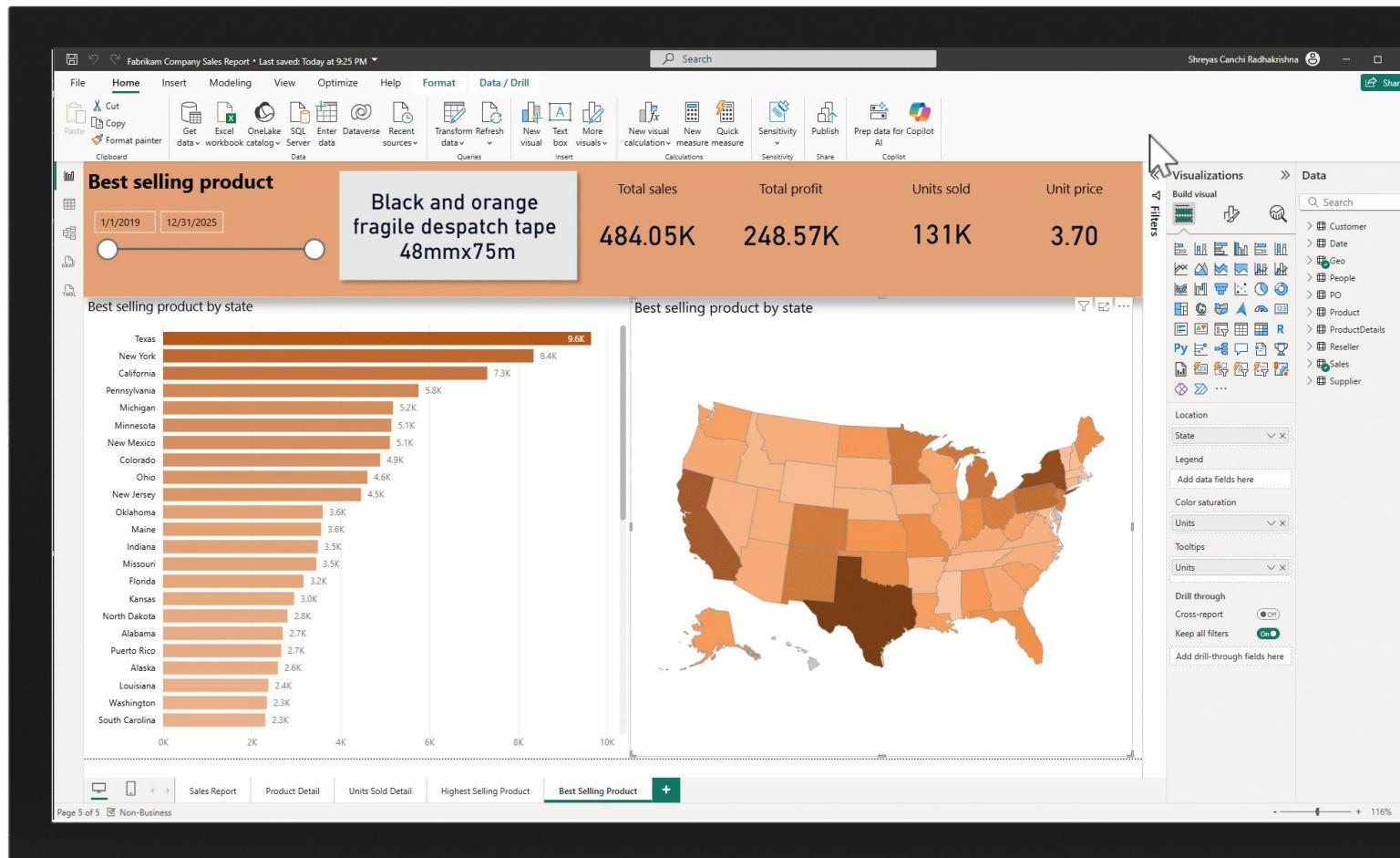
59/500 characters used

368/1000 characters used



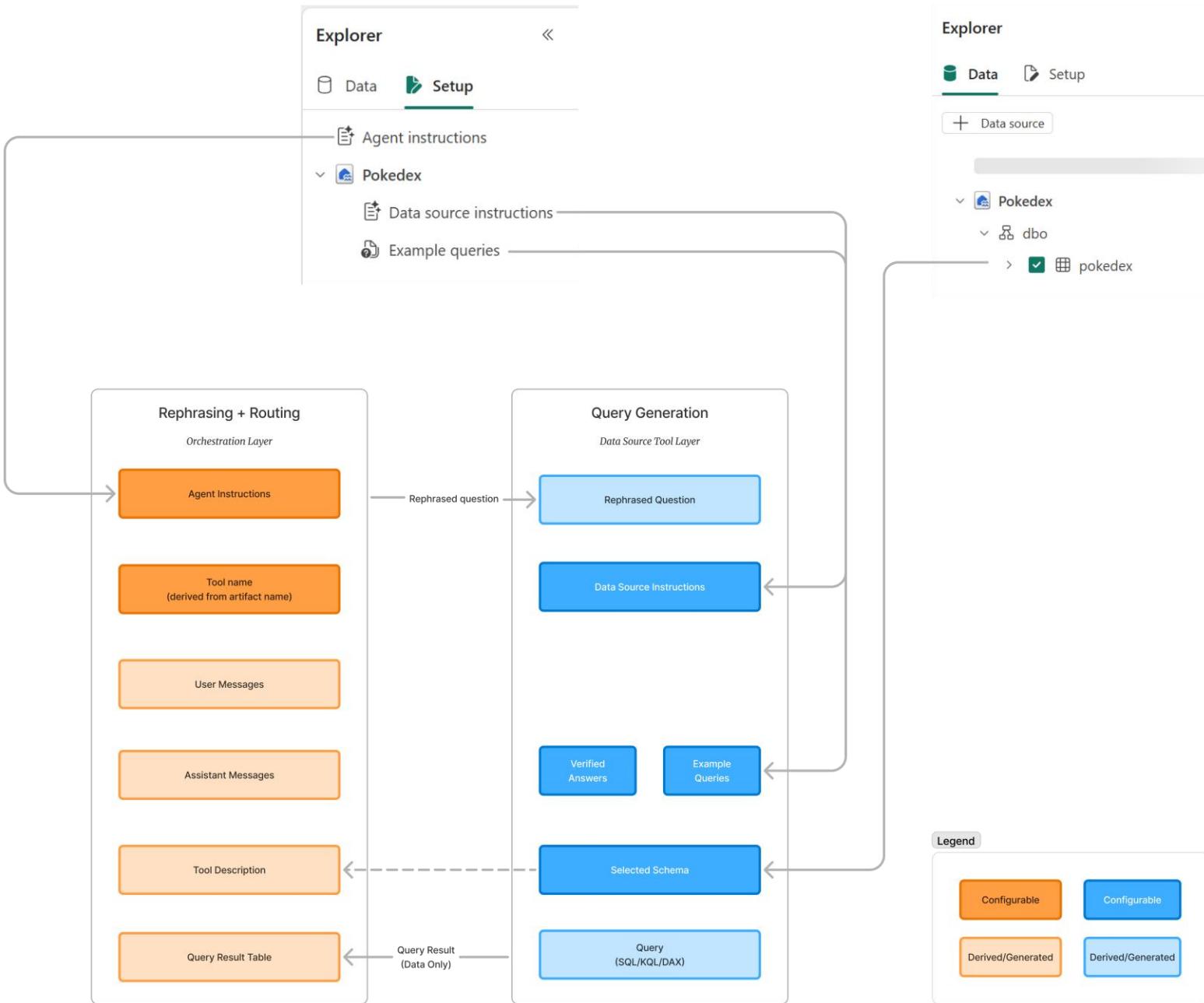
Configure Semantic Models for AI

- Configure your Semantic Model in PBI Desktop
- Update Instructions, Verified Answers, and Schema Selection



Creator Configuration

Agent Instructions	Data Source Instructions	Example Queries
<p>Intended Use Cases:</p> <ul style="list-style-type: none">Specify which data sources to route for specific questionsGuide how the agent interprets user intent <p>What to include:</p> <ul style="list-style-type: none">Map terminology to user intentDefine steps for handling key questionsSet response style and tone	<p>Intended Use Cases:</p> <ul style="list-style-type: none">Provide clarity on how to use each sourceGuide table selection for topicsEnsure correct query logic <p>What to include:</p> <ul style="list-style-type: none">Descriptions of key tables & columnsRecommended table usage for certain topicsExample column values and filter patterns	<p>Intended Use Cases:</p> <ul style="list-style-type: none">Data source instruction overflow (RAG)Reflect advanced logicExamples should highlight join patterns or expected values <p>What to include:</p> <ul style="list-style-type: none">Representative set of questions a consumer may ask



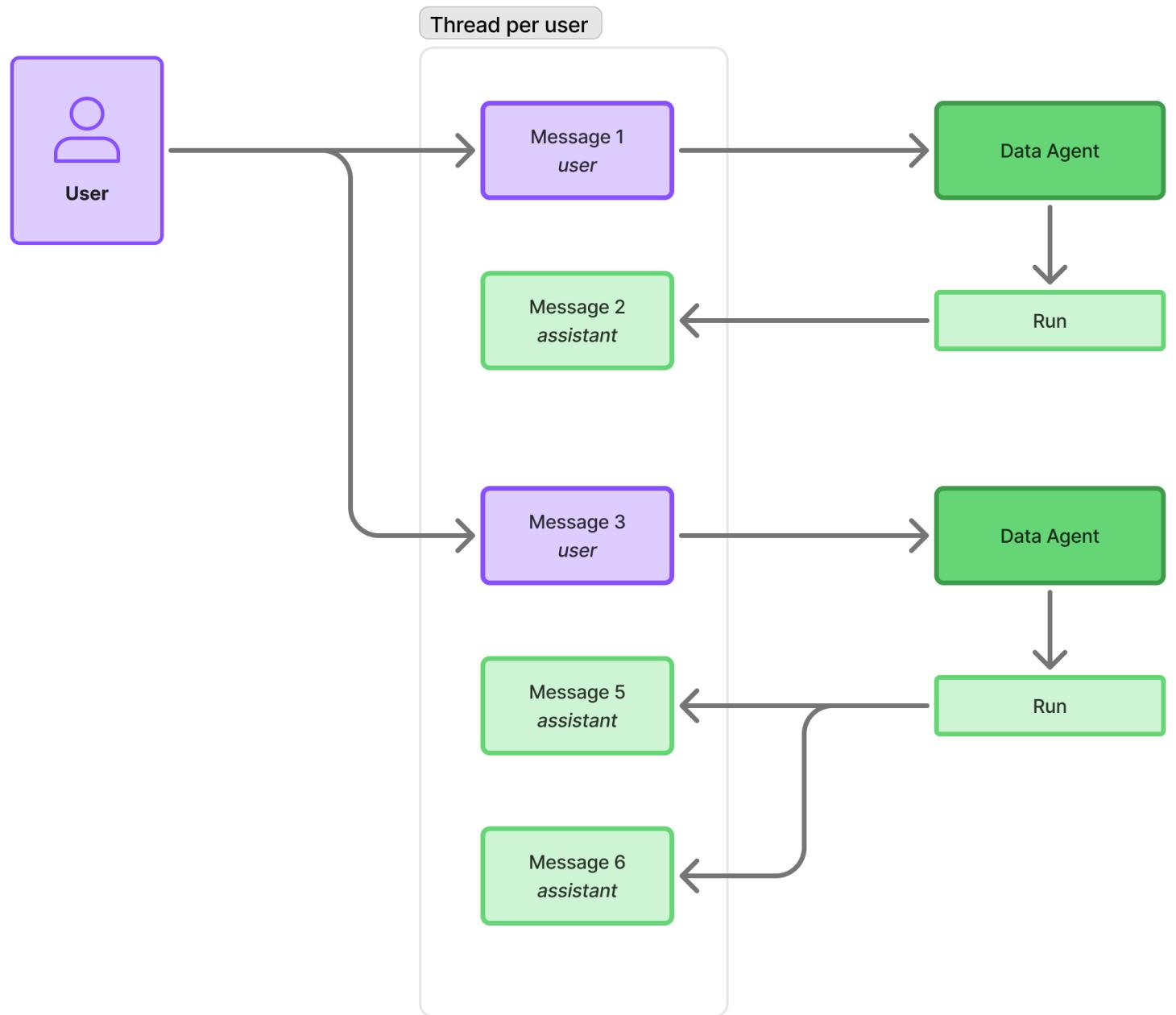
Q&A

Please submit questions at: aka.ms/dataagent-tutorial-qa

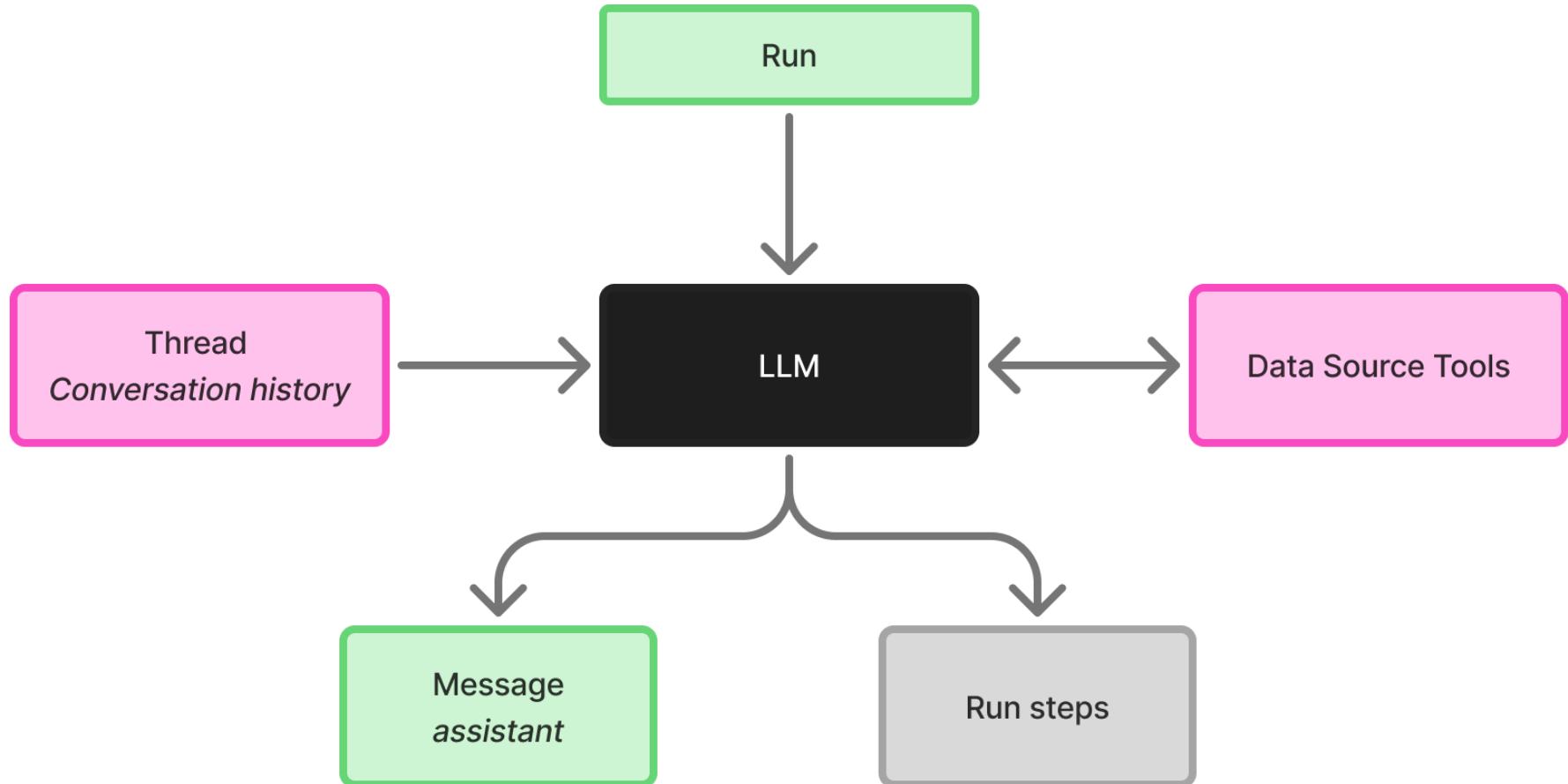


Lab 2: Learn to Configure a Data Agent

- Messages
- Threads
- Runs

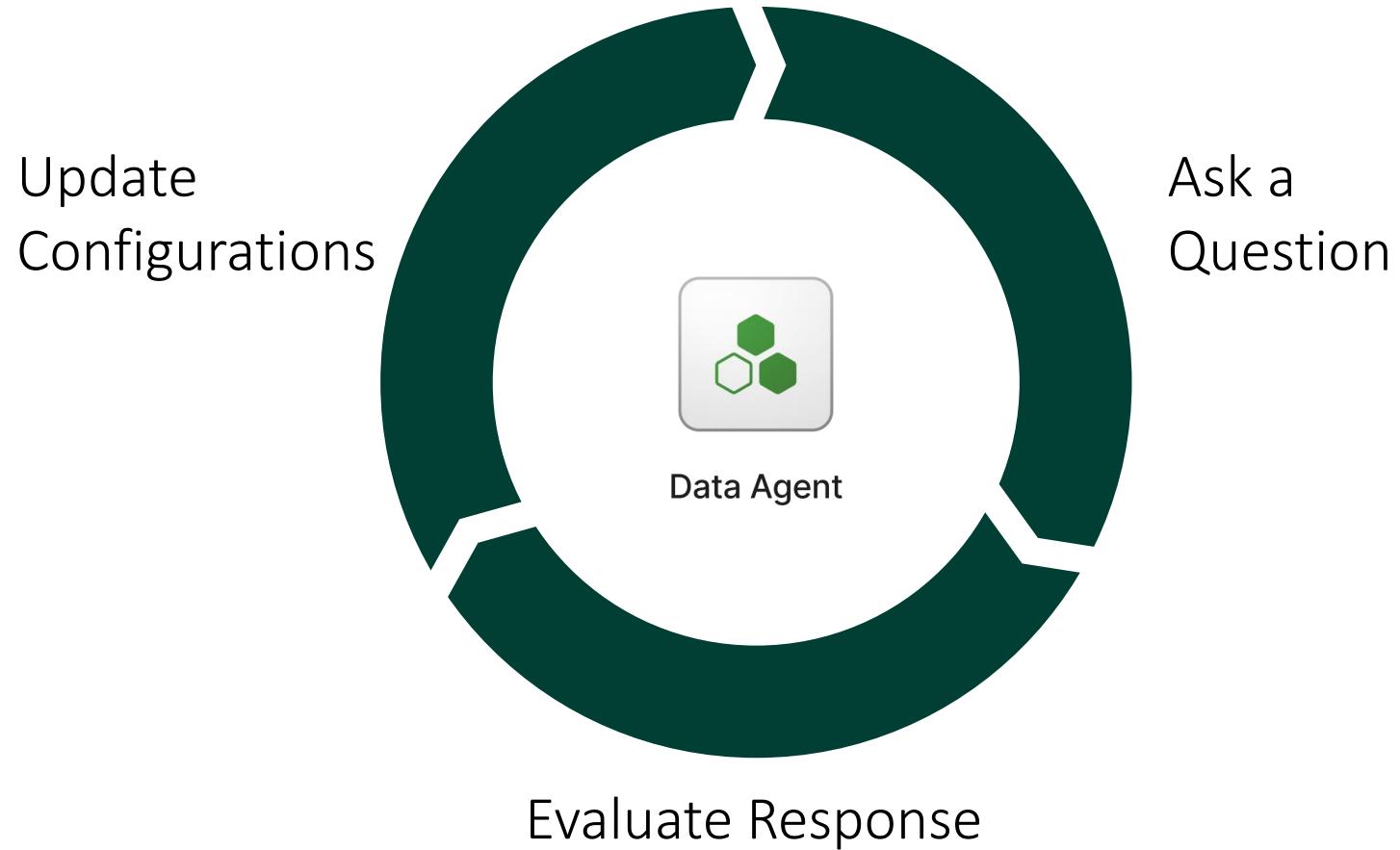


- Data Source Tools
- Run steps



Data Agent SDK and Evaluation

Building a Data Agent is Iterative



Fabric data agent SDK

Leverage the **Data Agent SDK** to invoke Fabric data agents from Fabric Notebooks

Create and configure data agents for automation and testing

Test and evaluate data agents against your ground truth datasets

The screenshot shows a Microsoft Fabric Notebook interface with the following details:

- Header:** Data_Agent_automation_library_NG | Confidential Microsoft Extended · Saved · Trial: 11 days left
- Toolbar:** Home, Edit, AI tools, Run, View, PySpark (Python), Environment, Workspace default, Data Wrangler, Copilot.
- Left Sidebar (Explorer):** OneLake, Monitor, Real-Time, Workloads, DataAgent-SDK, Data_Agent_automati..., Data_Agent_automati...
- Content Area:**
 - Introduction:** This notebook demonstrates how to automate Fabric data agent functionalities such as creating a data agent; adding a datasource (e.g. Lakehouse) or adding instructions to a data agent programmatically using our library. More information on data agent can be found [here](#).
 - Code Cells:**
 - [1] %pip install fabric-data-agent-sdk
27 sec - Session ready in 10 sec 180 ms. Command executed in 16 sec 850 ms by Nellie Gustafsson on 5:32:10 PM, 3/26/25
 - [2] from fabric.dataagent.client import (FabricDataAgentManagement, create_data_agent, delete_data_agent,)
6 sec - Command executed in 2 sec 295 ms by Nellie Gustafsson on 5:36:41 PM, 3/26/25
 - Output:** Log, Output is hidden
 - Warning:** Warning: This package is only supported in Fabric Python notebook.
- Bottom Right:** A screenshot of the "fabric-data-agent-sdk 0.0.2a0" package page on the Microsoft Fabric Library, showing the project description, navigation, and getting started section.

Evaluate data agents

Native support for **data agent evaluation** through the Fabric data agent SDK

Run structured evaluations using Python from notebooks

Validate accuracy before production deployment

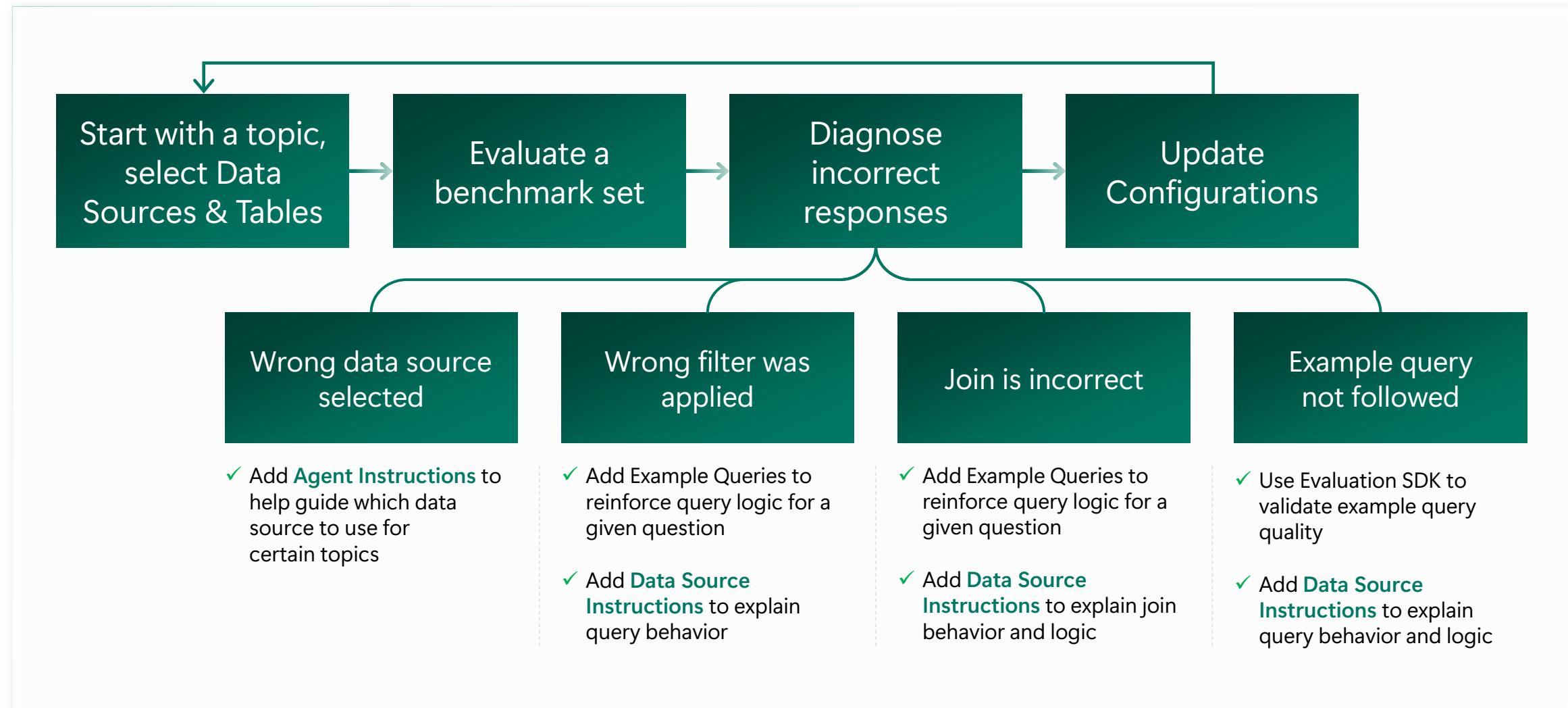
Tune prompts for better performance

Benchmark improvements over time

The screenshot shows a Jupyter Notebook interface with the title "Evaluation Notebook Sample". The notebook content includes:

- A section titled "Evaluate a Fabric Data Agent" with a bulleted list of steps:
 - Creating a new Data Agent from the SDK
 - Adding data sources and selecting relevant tables
 - Defining a ground truth dataset with questions and expected answers
 - Running an automated evaluation to compare actual vs. expected responses
 - Reviewing evaluation summaries and detailed results
- A note: "This end-to-end example is designed to help you validate the accuracy of your Data Agent and iterate on improvements with structured feedback."
- A "Let's get started!" section.
- A "Prerequisite: Load Sample Data into the Lakehouse" section with instructions to create a Lakehouse and load the AdventureWorks dataset.
- A "Install Fabric Data Agent SDK" section with instructions to install the latest version of the `fabric-data-agent-sdk`.
- A code cell at the bottom containing the command: `%pip install -U fabric-data-agent-sdk`. The cell status indicates "3 sec - Command executed in 3 sec 299 ms by Misha Desai on 12:57:54 PM, 5/12/25".

Configuration Flow – Evaluation SDK



Generating a Benchmark

- Understand the Consumer – what questions will they likely ask?
- Clear and concise question + ground_truth pairs
- Use aggregates rather than large outputs
 - “List all locations by amount of crime” -> “Top 3 locations for crime”

questions	ground_truth
Which Type of crime happens the most in Salford?	The type of crime that happens the most in Salford is violence and sexual offences .
What are the top 3 streets in Manchester with the highest crime rates?	The top three streets in Manchester with the highest crime rates are Market Street, High Street , and Victoria Street .
Which area has the largest number of violent crime events?	The area with the largest number of violent crime events is " On or near Parking Area ".

Evaluation Framework

Benchmark

Question	Ground_truth
What type of...	The type of cri...
...	..
...	...
...	...

Evaluation
Framework

Evaluation Result

Result	Failed Thread	Question
Pass	N/A	What type of...
Fail	url	...
...
...



🔗 Failed Thread(s):

- [thread PV1mM92u6kYtpNQHOoUmqTZh](#)

100% |██████████| 3/3 [00:33<00:00, 11.15s/it]

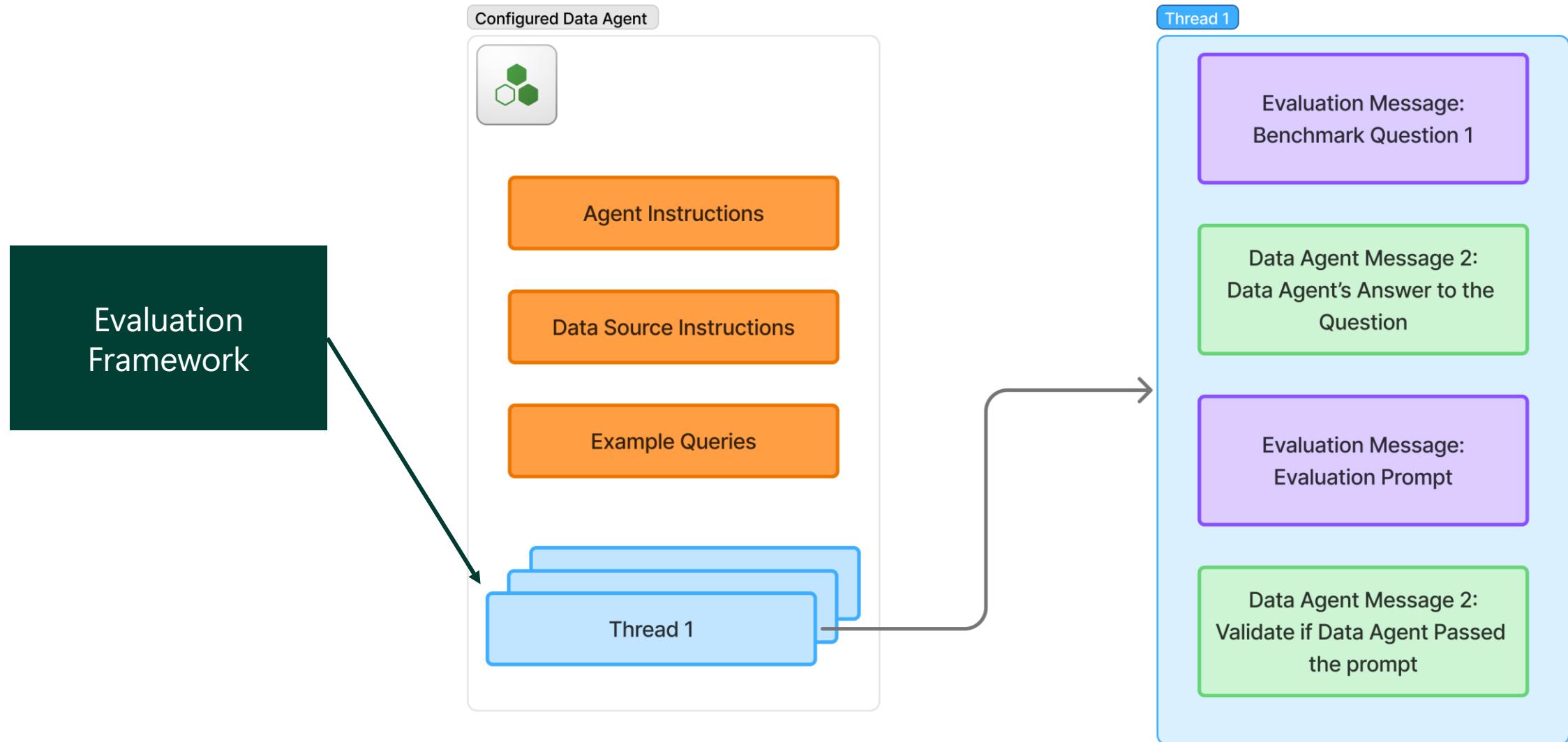
Evaluation summary per question:

If a Thread has failed, you can find the link to the failed thread here.

Result Summary

index	T	F	?	%	failed_threads	question
0	1	0	0	100.0	No failed records	What are the top 3 streets in Manchester with the highest crime rates?
1	0	1	0	0.0	1	Which Type of crime happens the most in Salford?
2	1	0	0	100.0	No failed records	Which area has the largest number of violent crime events?

Evaluation Framework



Evaluation Prompt – LLM as a Judge

Given the following query and ground truth, please determine if the most recent answer is equivalent or satisfies the ground truth. If they are numerically and semantically equivalent or satisfy (even with reasonable rounding), respond with "Yes". If they clearly differ, respond with "No". If it is ambiguous or unclear, respond with "Unclear". Return only one word: Yes, No, or Unclear.

Query: {query}

Ground Truth: {ground_truth}

Evaluation Prompt – LLM as a Judge

Which Type of crime happens the most in Salford?

The most common type of crime in Salford is vehicle crime, with 2 reported cases. This is followed by violence and sexual offences, public order, and burglary, each with 1 reported case.

1 step completed 

⌚ Response time: 13 sec

Given the following query and ground truth, please determine if the most recent answer is equivalent or satisfies the ground truth. If they are numerically and semantically equivalent or satisfy (even with reasonable rounding), respond with "Yes". If they clearly differ, respond with "No". If it is ambiguous or unclear, respond with "Unclear". Return only one word: Yes, No, or Unclear.. Query: Which Type of crime happens the most in Salford? Ground Truth: The type of crime that happens the most in Salford is violence and sexual offences.

No

⌚ Response time: 2 sec

Incorrect Filter

1 step completed ^

>Analyzed Kaggle Lakehouse for: "Which type of crime happens the most in Salford?"

Query code

Sql

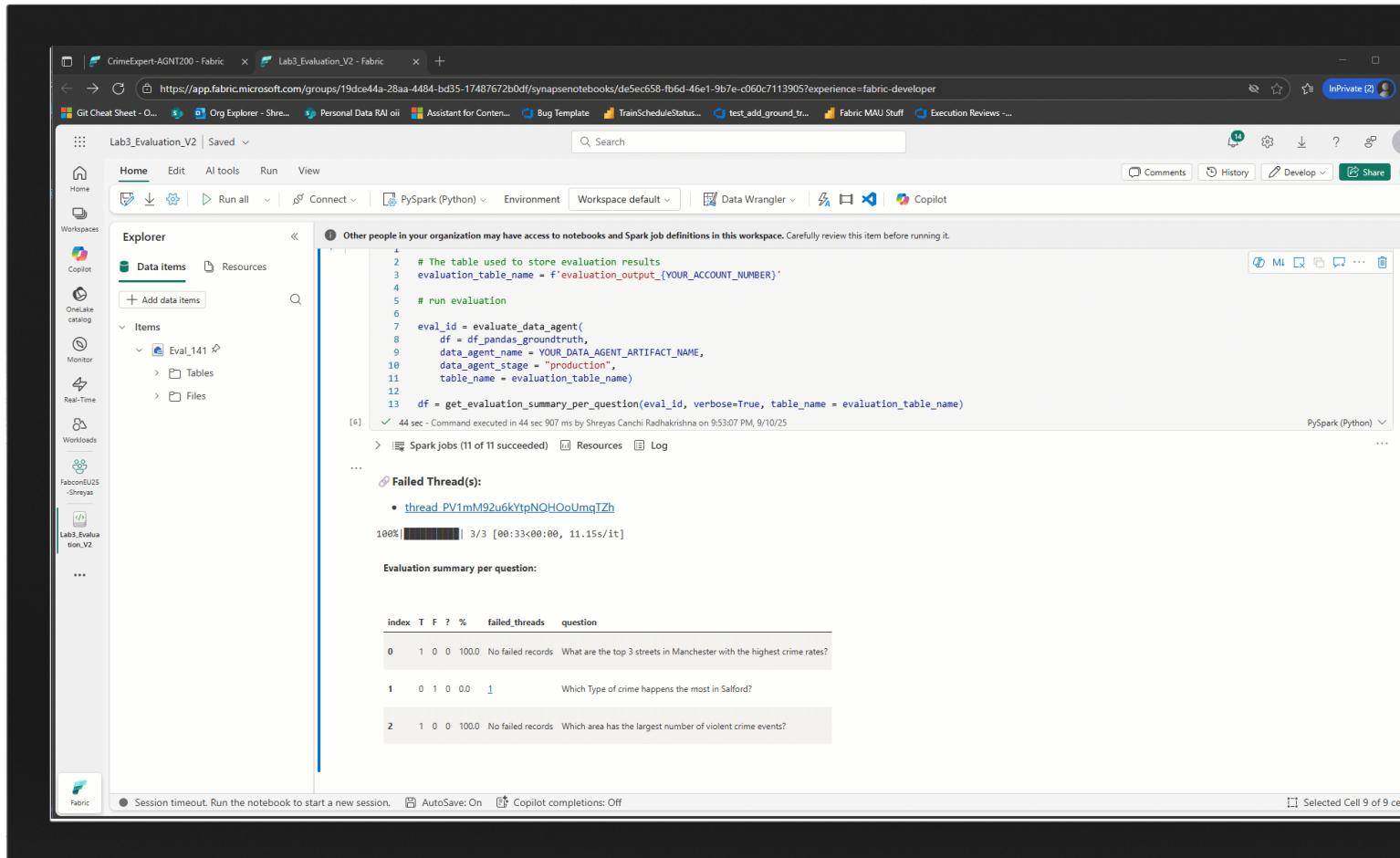
```
SELECT Type, COUNT(*) AS NumberOfCrimes
FROM [GreaterManchesterCrime].[greatermanchestercrime]
WHERE LOWER(Location) LIKE '%salford%'
GROUP BY Type
ORDER BY NumberOfCrimes DESC
```

Query output

Type	NumberOfCrimes
Vehicle crime	2
Violence and sexual offences	1
Public order	1
Burglary	1

Diagnosing Incorrect Responses

- Evaluation failures can be caused by multiple reasons
 - Configs could improve
 - Incorrect groundtruth
 - Evaluator made a mistake
 - Confusing Column names



The screenshot shows the Microsoft Fabric Data Wrangler interface. The left sidebar displays 'Workspaces' with 'Copilot' selected. The main area shows a PySpark (Python) notebook titled 'Lab3_Evaluation_V2'. The code in the notebook is:

```
# The table used to store evaluation results
evaluation_table_name = f'evaluation_output_{YOUR_ACCOUNT_NUMBER}'

# run evaluation

eval_id = evaluate_data_agent(
    df = df_pandas_groundtruth,
    data_agent_name = YOUR_DATA_AGENT_ARTIFACT_NAME,
    data_agent_stage = "production",
    table_name = evaluation_table_name)

df = get_evaluation_summary_per_question(eval_id, verbose=True, table_name = evaluation_table_name)
```

The notebook output indicates a successful execution: "44 sec - Command executed in 44 sec 907 ms by Shreyas Canchi Radhakrishna on 9/5/2023, 9/10/25". Below the code, it says "Failed Thread(s):" with one entry: "thread_PV1mM92u6kYtpNQHOoUmqTZh". The "Evaluation summary per question:" section shows three rows of data:| index | T | F | ? | % | failed_threads | question |
| --- | --- | --- | --- | --- | --- | --- |
| 0 | 1 | 0 | 0 | 100.0 | No failed records | What are the top 3 streets in Manchester with the highest crime rates? |
| 1 | 0 | 1 | 0 | 0.0 | 1 | Which Type of crime happens the most in Salford? |
| 2 | 1 | 0 | 0 | 100.0 | No failed records | Which area has the largest number of violent crime events? |

Diagnosing the Issue

The most common type of crime in Salford is vehicle crime, with 2 reported cases. This is followed by violence and sexual offences, public order, and burglary, each with 1 reported case.

1 step completed 

⌚ Response time: 13 sec

Given the following query and ground truth, please determine if the most recent answer is equivalent or satisfies the ground truth. If they are numerically and semantically equivalent or satisfy (even with reasonable rounding), respond with "Yes". If they clearly differ, respond with "No". If it is ambiguous or unclear, respond with "Unclear". Return only one word: Yes, No, or Unclear.. Query: Which Type of crime happens the most in Salford? Ground Truth: The type of crime that happens the most in Salford is violence and sexual offences.

No

⌚ Response time: 2 sec

Incorrect Filter

1 step completed ^

✓ Analyzed Kaggle Lakehouse for: "Which type of crime happens the most in Salford?"

</> Query code

Sql

```
SELECT Type, COUNT(*) AS NumberOfCrimes
FROM [GreaterManchesterCrime].[greatermanchestercrime]
WHERE LOWER(Location) LIKE '%salford%'
GROUP BY type
ORDER BY NumberOfCrimes DESC
```

Query output

Type	NumberOfCrimes
Vehicle crime	2
Violence and sexual offences	1
Public order	1
Burglary	1

Diagnosing the Issue

greatermanchestercrime

Table view

	ABC CrimeID	CrimeTS	ABC Location	ABC LSOA	ABC Type
1	0F:67:BA:85:59:6E	2018-08-24T22:22:01.000Z	On or near Holland Street	Tameside 025A	Violence and sexual offend...
2	E1:68:4D:92:FB:10	2018-08-23T15:57:24.000Z	On or near Back Burnaby S...	Bolton 021E	Violence and sexual offend...
3	F3:AF:79:03:F9:55	2018-08-29T07:47:27.000Z	On or near Aldworth Grove	Trafford 019D	Burglary
4	33:F2:BA:C7:2D:88	2018-08-06T19:33:11.000Z	On or near Shrewsbury Clo...	Wigan 016A	Burglary
5	D2:70:22:5F:62:15	2018-08-13T16:44:27.000Z	On or near Pym Street	Manchester 007B	Violence and sexual offend...

The Column
Data Agent Used

The Column I
wanted data agent
to use

Evaluation is One-Shot

The Greater Manchester Area contains Boroughs captured in the LSOA Column

Agent instructions

Guide the data agent to the best data sources for different types of questions by writing a detailed system prompt.

crime type

3. Identify the lsoa that has the most crimes

Add a 2 sentence summary to summarize this result.

When a user asks about data related to "Manchester" please clarify if they mean: "Greater Manchester" or the "Manchester" Borough.

596/15000 maximum characters

Run | Save as view | Explain query | Fix query errors

```
1 SELECT DISTINCT
2 | SUBSTRING([GMC].[lsoa], 1, LEN([GMC].[lsoa]) - 5) AS Boroughs
3 FROM
4 [Kaggle].[GreaterManchesterCrime].[greatermanchestercrime] AS GMC;
```

Messages Results 88 ▾

	ABC Boroughs
1	Tameside
2	Rochdale
3	Wigan
4	Bolton
5	Salford
6	Oldham
7	Rossendale
8	Trafford
9	Stockport
10	Bury
11	Manchester
12	St. Helens

Evaluation is One-Shot

Data Agent uses chat history as one of its context, this is not reflected in the Evaluation result.

What is the most popular crime in Manchester?

Just to clarify your question: Are you referring to "Manchester" the city/borough, or the wider area of "Greater Manchester"? The crime data covers all of Greater Manchester, which includes multiple boroughs such as Manchester, Salford, Stockport, Oldham, and others.

Could you please specify which one you are interested in?

⌚ Response time: 2 sec

Greater Manchester

The most popular crime in Greater Manchester is "Violence and sexual offences," with a total count of 1,600 recorded instances. This category is the most frequently occurring type of crime in the region.

1 step completed ^

⌚ Response time: 7 sec

>Analyzed Kaggle Lakehouse for: "Identify the most common crime type in Greater Manchester by analyzing the total number of crimes, and provide th..." ▾

What is the most popular crime in Manchester?

Just to clarify, when you mention "Manchester," are you referring to the Manchester Borough specifically, or the entire Greater Manchester area? This will help me give you the most accurate answer.

⌚ Response time: 1 sec

The Manchester Borough

The most popular (most commonly reported) crime type in the Manchester Borough is "Violence and sexual offences," with 425 recorded incidents. This category is followed by "Public order" (177 cases) and "Other theft" (156 cases).

Violence and sexual offences stand out as the most prevalent crime in the Manchester Borough, making up a significant portion compared to other types. This could indicate a priority area for local law enforcement and community initiatives.

1 step completed ▾

⌚ Response time: 5 sec

Evaluation is One-Shot

Based on what we learned,
is the question:

“What are the top 3 streets
in Manchester with the
highest crime rates a good
evaluation question?

🔗 Failed Thread(s):

- [thread PV1mM92u6kYtpNQHOoUmqTZh](#)

100% |██████████| 3/3 [00:33<00:00, 11.15s/it]

Evaluation summary per question:

index	T	F	?	%	failed_threads	question
0	1	0	0	100.0	No failed records	What are the top 3 streets in Manchester with the highest crime rates?
1	0	1	0	0.0	1	Which Type of crime happens the most in Salford?
2	1	0	0	100.0	No failed records	Which area has the largest number of violent crime events?

Update Configurations

Wrong data source selected

- ✓ Add **Agent Instructions** to help guide which data source to use for certain topics

Wrong filter was applied

- ✓ Add Example Queries to reinforce query logic for a given question
- ✓ Add **Data Source Instructions** to explain query behavior

Join is incorrect

- ✓ Add Example Queries to reinforce query logic for a given question
- ✓ Add **Data Source Instructions** to explain join behavior and logic

Example query not followed

- ✓ Use Evaluation SDK to validate example query quality
- ✓ Add **Data Source Instructions** to explain query behavior and logic

Q&A

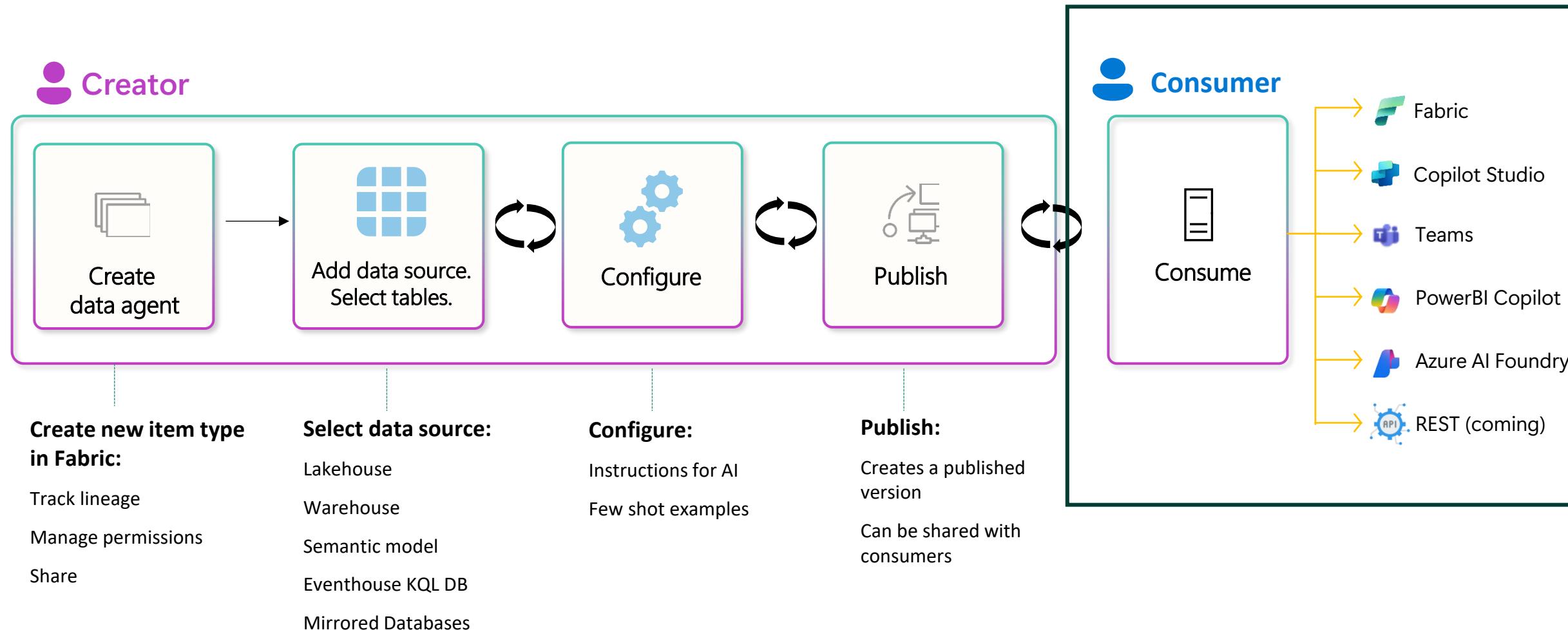
aka.ms/dataagent-tutorial-qa

Lab 3: Evaluation

Microsoft Copilot Studio + Data Agent

Data Agent end-to-end flow

End-to-end scenario

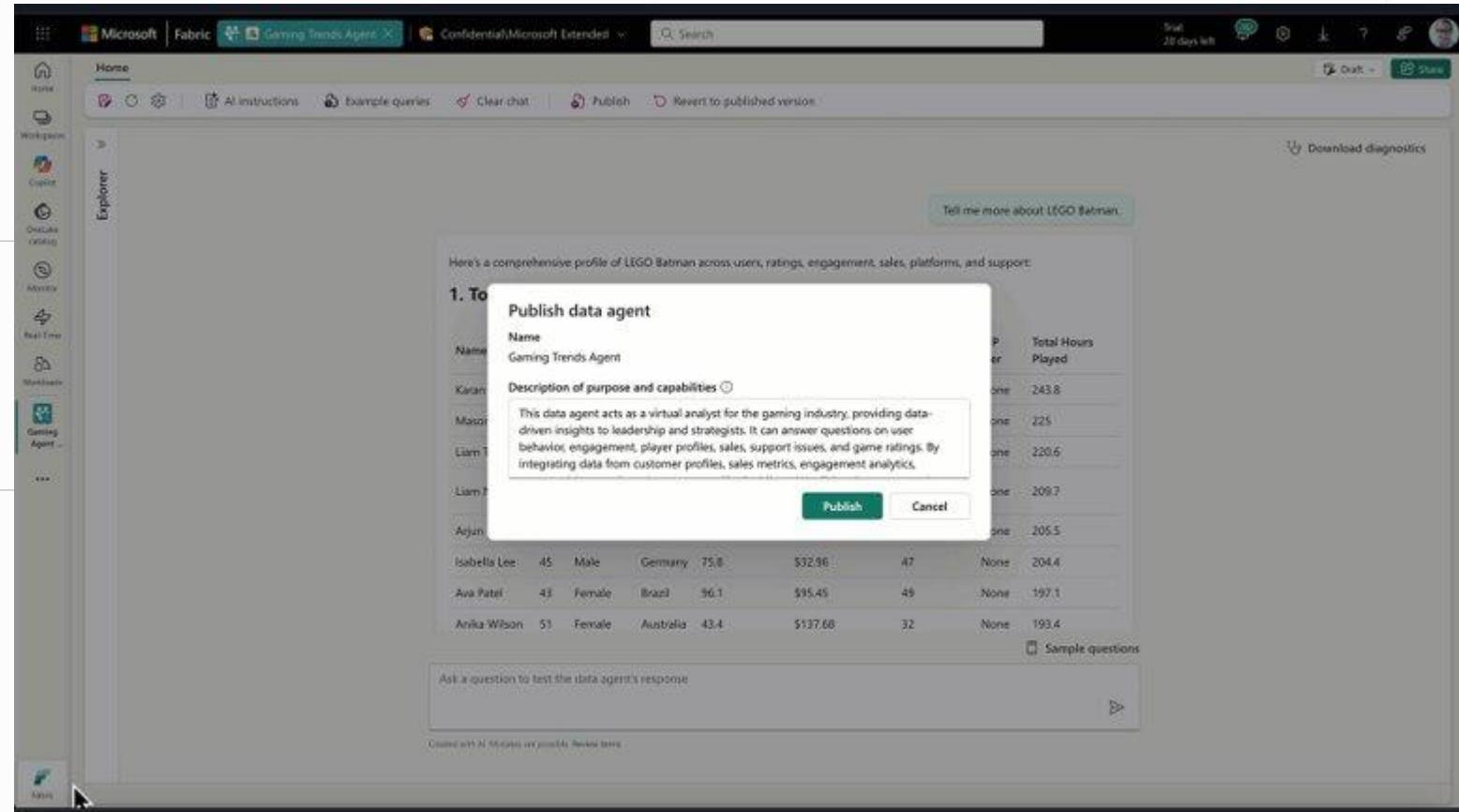


Fabric data agent integration with Copilot Studio

Fabric data agents can reason over and synthesize data in OneLake for insights

MCS makers can enrich custom agents in Copilot Studio with Fabric data agents' expertise

Security permissions, including RLS and CLS, are respected



MCS – Data Agent Demo

Step by step guide: <https://aka.ms/data-agent-mcs>

Data Agent + Semantic Models

Lab 4: Configure a Semantic Models

Q&A

Please submit questions at: aka.ms/dataagent-tutorial-qa

Please provide feedback on the tutorial: aka.ms/dataagent-tutorial-feedback



Don't miss out on our other sessions!

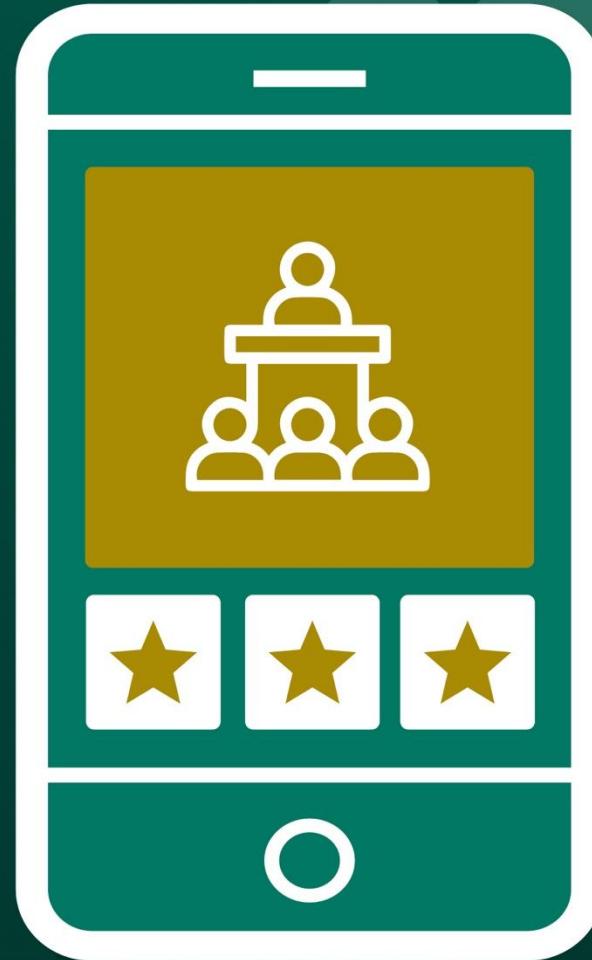
Date	Time	Session Title	Speaker(s)
Tuesday, Sept 16	2:15 PM – 3:15 PM	CORENOTE: The Road Ahead for AI in Fabric: Data agents and intelligent solutions	Nellie Gustafsson, Markus Weimer
Tuesday, Sept 16	2:15 PM – 3:15 PM	Sharing Experiences with Copilot and Data Agents in Fabric	Prasanna Pandian, Genis Campa
Tuesday, Sept 16	5:00 PM – 6:00 PM	Fabric Data Agents in Action: From Fabric to AI Foundry and Copilot Studio	Amir Jafari, Misha Desai
Thursday, Sept 18	9:15 AM – 10:15 AM	Analytics & AI: Ask Engineering Anything	Tino Tereshko, Justyna Lucznik, Bogdan Crivat, Nellie Gustafsson
Thursday, Sept 18	2:15 PM – 3:15 PM	Modern Data Engineering with Multimodal and Generative AI in Fabric	Mark Hamilton, Avrilia Floratou
Thursday, Sept 18	12:00 PM – 1:00 PM	Talk to Your Data – Unlocking the Power of Azure AI Foundry and Fabric Data Agents	Lars Becker

End of Tutorial

Questions?



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