

Track1

# DataCon 2025

Workshop - Maximize efficiency in your data-driven projects by leveraging AI and Copilot technologies

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DATA CON Microsoft Data Conference		June 24, 2025 1:30 – 5:00 PM		TECHCON365.COM/SEATTLE <b>SEATTLE25</b> JUNE 23 - 27
	Fabric Copilots, AI Track1	Fabric Data Agents, Fabric RTI + Agentic AI	Agentic AI Low code, No code, Pro code	Agentic AI – Multi Agent Pro Code
Timing	3 hrs	3 hrs	4 hrs	5 hrs
What will you learn?	<ul style="list-style-type: none"><li>• Copilot maturity framework</li><li>• Practical Considerations</li><li>• Adoption best practices</li><li>• Maximize the benefits of Copilots</li></ul>	<ul style="list-style-type: none"><li>• Automate tasks and processes</li><li>• Grounding knowledge with Fabric data platform</li><li>• Optimizing response</li></ul>	<ul style="list-style-type: none"><li>• Automate tasks and processes</li><li>• Grounding knowledge with unstructured + structure data</li><li>• Optimizing response</li></ul>	<ul style="list-style-type: none"><li>• Automate tasks and processes</li><li>• Grounding knowledge with CosmosDB</li><li>• Optimizing response</li><li>• Multi-agent scenario</li></ul>
Persona	<ul style="list-style-type: none"><li>• Power user</li><li>• Data Engineer</li><li>• Business Analyst</li><li>• Data Scientists</li><li>• Data Citizens</li></ul>	<ul style="list-style-type: none"><li>• Domain or Data Expert</li><li>• Power user</li><li>• Business Analyst</li><li>• Line-of-Business Owner</li></ul>	<ul style="list-style-type: none"><li>• Line-of-Business Owner</li><li>• Knowledge worker</li><li>• Power user</li><li>• Developer</li></ul>	<ul style="list-style-type: none"><li>• Developer</li></ul>
Content Level	300 - 400	300 - 400	300 - 400	400 – 500
Tools	Fabric, Azure AI services	Fabric, Copilot Studio, AI Search	Azure Sub, AI Foundry, Copilot Studio, Python	Azure Sub, AI Foundry, CosmosDB, Python

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## ABOUT THE AUTHORS



**Prashant Atri**  
Microsoft



As Microsoft's Strategic Advisor – Data & AI, Prashant focuses on driving customer transformation by leveraging cutting-edge technologies, including AI and data analytics, to help businesses modernize their enterprise systems. He has successfully led numerous cloud migration and transformation projects across multi-cloud environments, working with large global pharmaceutical clients in highly regulated settings.

His extensive experience spans various industries and global SI/ISV partners. Prashant has a strong passion for leading ideation initiatives, building innovative frameworks, and fostering community engagement through knowledge-sharing and impactful content.

- **Maximize efficiency in your data-driven projects by leveraging AI and Copilot technologies.**
- **Generate self-service governance dashboard using Microsoft Fabric and Purview**
- **Oracle/SQL to Fabric Migration accelerator**
- **Ask the Experts**
- **Roundtable Discussion - Accelerate building ISV solutions using Microsoft Fabric and AI**
- **Roundtable Discussion - Agentic AI - No code, low code and Pro code - Microsoft Fabric + AI better t**
- **Realtime product review data analysis for Retail using Fabric RTI, Purview and Azure Open AI**



**Prabhjot Kaur**  
Microsoft

With an in-depth understanding of industry trends and best practices, she aims to align business goals with IT capabilities by delivering scalable and sustainable solutions that encourage innovation and support long-term organizational success. Her role entails collaborating with partners and customers to comprehend their challenges and devising customized cloud strategies and solutions to enhance performance, security, and cost-efficiency. She is passionate about writing technical blogs and whitepapers, having co-authored white paper and several blogs based on real-world partner engagements. In her free time, she enjoys discussing emerging technologies. Outside of work, she enjoys cooking, kayaking, and hiking.

- **Maximize efficiency in your data-driven projects by leveraging AI and Copilot technologies.**
- **Roundtable Discussion - Accelerate building ISV solutions using Microsoft Fabric and AI**

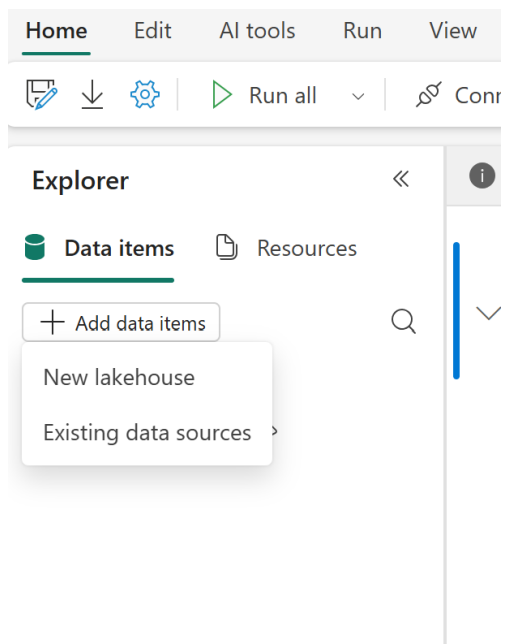
# Scenario 1- Hotel Reviews

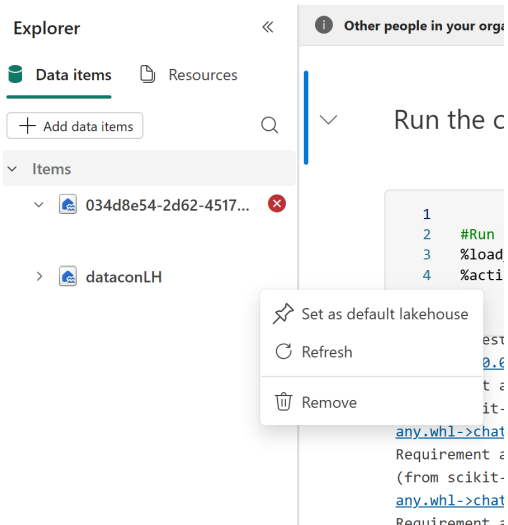
## Github resources

- Resources/Notebook
- Resources/CSV file
- Docs/Step by step guide

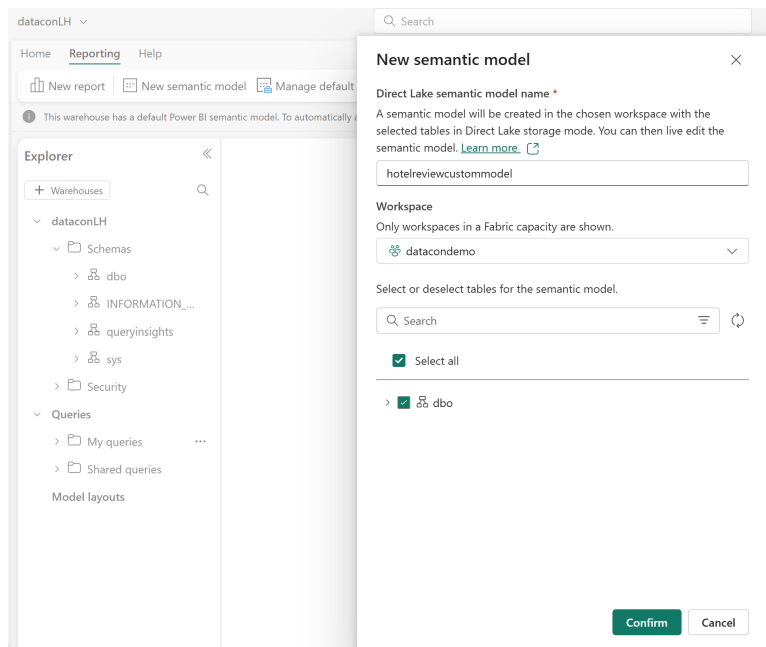
## Step by Step instructions

- Create Lakehouse
- Import notebook
- Pin the lakehouse



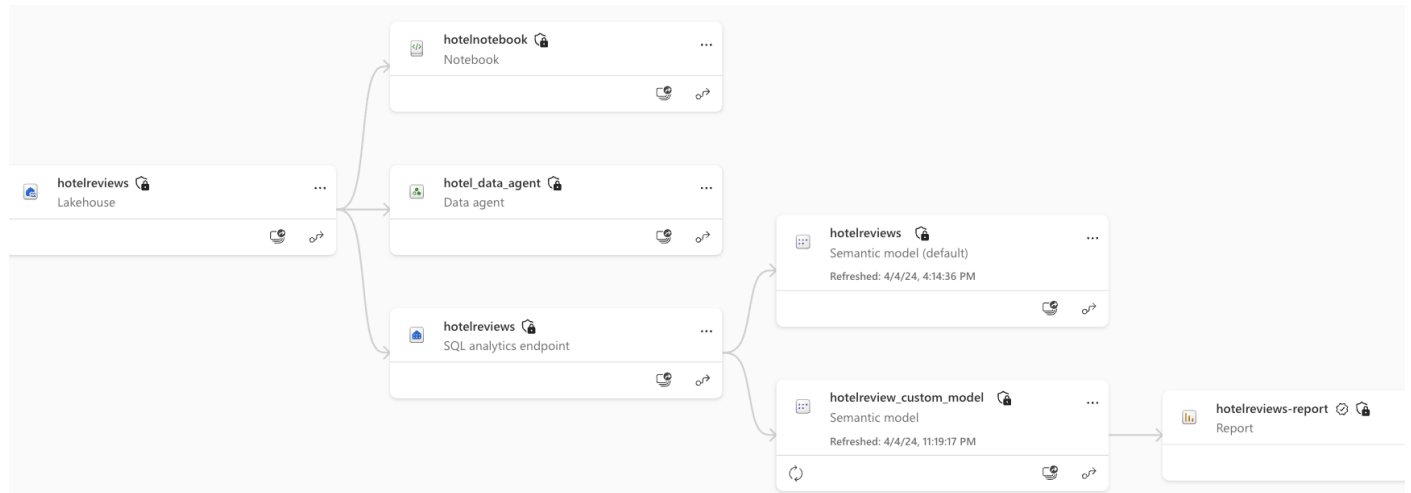


- Create custom semantic model from Reporting tab and report on top of it.



- Create Data Agent and publish it
- Test using Standalone copilot in MS Teams

## Scenario lineage



## Sample Questions

- list a hotel in Tucson with top 3 ratings
- list a hotel in Tucson with 5 rating
- how many reviews it got?
- list a hotel in Newburgh with highest reviews
- what's the overall rating of this hotel?

## Standalone Copilot

It appears that the data agent needs to be published before it can be used, and Power BI Q&A is currently disabled for the dataset "hotelreview\_custom\_model." You will need to enable Power BI Q&A for the dataset to proceed.

dallas\_workshop\_lh

DataflowsStagingLakehouse

DataflowsStagingWarehouse

demolh

hotelreview\_custom\_model

hotelreviews

isvgraph

labworkempexp

lhtutorial

ltdemodw

nycdemo

nvcaold

Apply

Discard

▸ Gateway and cloud connections

▸ Data source credentials

▸ Sensitivity label

▸ Parameters

▸ Query Caching

▸ Refresh

▸ Server settings

▸ Data connections

▾ Q&A

ⓘ If Q&A is turned on, we'll create an index of your data in the service. [Learn more](#)

☒ Turn on Q&A to ask natural language questions about your data

☐ Share your synonyms with everyone in your org

Apply

Discard

Power BI

Home

Copilot in Power BI

Browse

Recent

Favorites

Shared

In Teams

OneLake

Apps in Power BI

Metrics

Copilot Preview

hotelreviews-report hotelreview\_custom\_model - list a hotel in Tucson with top 3 ratings

Copilot

AI-generated content may be incorrect

This answer was generated from data that may not be fully prepped for AI use. Review carefully, as accuracy may vary. [Learn more](#)

Showing name for top 3 Tucson hotel reviews by reviews rating 1

name	reviews_rating
Hampton Inn Tucson-airport	3.0
Hampton Inn Tucson-airport	2.0

list a hotel in Tucson with top 3 ratings



^ How Copilot arrived at this


You asked: "list a hotel in Tucson with top 3 ratings."

**Data used**

 [name](#)  
 [reviews\\_rating](#)

**Filters applied**

 [city](#) is Tucson  
 Top 3 hotel reviews by reviews rating

1  hotelreview\_custom\_model

 [Explore the data](#)





## Scenario 2- Employee Expenses

### Github resources

- CSV file
- Step by step guide

### Step by Step instructions

- Create Lakehouse
- Create dataflow gen2, upload CSV file
- Preview the data and identify data issues in “**ApprovedAmount**” column

Data destination  
Choose destination settings

☒ Use automatic settings

Source	Source type	Destination	Destination type
VendorName	Text	VendorName	Text
Currency	Text	Currency	Text
Billable	True/False	Billable	True/False
ApprovedDate	Date	ApprovedDate	Date
Approver	Whole number	Approver	Whole number
Purpose	Text	Purpose	Text
ExchangeRate	1.2 Decimal number	ExchangeRate	Decimal number
ApprovedAmount	Text	_ ApprovedAmount _	Text
AssignedManager	Text	AssignedManager	Text

Back Cancel Save settings

- Use Copilot for all transformations
  - **Dataflow gen2 transformations prompts**
  - remove the blank chars from ApprovedAmount column name
  - Remove the \$ symbol from all records in ApprovedAmount column
  - **Show them null value before running this**
  - Replace “ - ” with Zero in ApprovedAmount column
  - **Optional - Replace null or blank values with Zero in ApprovedAmount column**
  - Change data type of ApprovedAmount to decimal number
- After transformation – check the data type for ApprovedAmount column.

Data destination

Choose destination settings

☒ Use automatic settings

Column mapping

Source	Source type	Destination	Destination type
VendorName	Text	VendorName	Text
Currency	Text	Currency	Text
Billable	True/False	Billable	True/False
ApprovedDate	Date	ApprovedDate	Date
Approver	Whole number	Approver	Whole number
Purpose	Text	Purpose	Text
ExchangeRate	1.2 Decimal number	ExchangeRate	Decimal number
ApprovedAmount	1.2 Decimal number	ApprovedAmount	Decimal number
AssignedManager	Text	AssignedManager	Text

Back Cancel Save settings

- Run the dataflow gen2, check the refresh history

Details

EmpExpenseDataflow > 5/29/2025, 11:01:59 PM > csvexpdemo2\_1\_WriteToDataDestination

Name: csvexpdemo2\_1\_WriteToDataDestination

Status: Succeeded

Start time: 5/29/2025, 11:02:04 PM

End time: 5/29/2025, 11:02:16 PM

Duration: 00:00:11

Engine: -

Activity statistics

Endpoint	Bytes read	Rows read	Bytes written	Rows written
Lakehouse	150,855 bytes	0 rows	74,587 bytes	0 rows
Web	268,363 bytes	0 rows	0 bytes	0 rows

Errors

Warning: Fast Copy is not supported for any of the data sources in the expression: (RequestId: dda3101e-f53d-42c5-bc6e-2365553d6a38)

[Search online](#)

Edit dataflow

## Also check the Suggested Transforms

Power Query Dataflow saved

Search (Alt + Q)

Home Transform Add column View Help

Get data Recent sources Enter data Manage connections Default data destination Options Manage parameters Refresh Advanced editor Add data destination Choose columns Remove columns Keep rows Remove rows Filter rows Suggested transforms co Group by Data type: Date Use first row as headers Replace values Combine Copilot

Table: ReplaceValue(#"Transform columns 1", null, 0, Replacer.ReplaceValue, {"ApprovedAmount"})

	TransactionDate	FirstName	Employee	LastName	Email	EmployeeID	ReportName	ExpenseType	DeptCode	Department	Location
1	7/13/2022	Aaron	Aaron Carter	Carter	Aaron.Carter@email.com	2098	729	Communications - Cellular Service	710149	Accounting	406 (406-Huستراليا)
2	7/13/2022	Aaron	Aaron Jones	Jones	Aaron.Jones@email.com	2420	769	Communications - Interget & Data Services	710149	Accounting	406 (406-Huستراليا)
3	7/15/2022	Aaron	Aaron Lopez	Lopez	Aaron.Lopez@email.com	2638	848	Communications - Cellular Service	710149	Accounting	915 (915-Another Zeala)
4	7/17/2022	Aaron	Aaron Moore	Moore	Aaron.Moore@email.com	2943	776	Communications - Interget & Data Services	710149	Accounting	915 (915-Another Zeala)
5	7/20/2022	Aaron	Aaron Rivera	Rivera	Aaron.Rivera@email.com	2212	876	Other - Office Supplies	505931	Accounting	813 (813-Korlis)
6	7/15/2022	Aaron	Aaron Washington	Washington	Aaron.Washington@email.com	2260	831	Communications - Cellular Service	505931	Accounting	813 (813-Korlis)
7	7/11/2022	Adam	Adam Barnes	Barnes	Adam.Barnes@email.com	2526	581	Automobile - Mileage - Korlis (Petroli)	505931	Accounting	813 (813-Korlis)
8	7/19/2022	Adam	Adam Campbell	Campbell	Adam.Campbell@email.com	2985	846	Automobile - Mileage - Korlis (Petroli)	505931	Accounting	813 (813-Korlis)
9	7/25/2022	Adam	Adam Evans	Evans	Adam.Evans@email.com	2560	632	Automobile - Mileage - Korlis (Petroli)	505931	Accounting	813 (813-Korlis)
10	7/25/2022	Adam	Adam Evans	Evans	Adam.Evans@email.com	2560	632	Automobile - Mileage - Korlis (Petroli)	505931	Accounting	813 (813-Korlis)
11	7/25/2022	Adam	Adam Evans	Evans	Adam.Evans@email.com	2560	632	Automobile - Mileage - Korlis (Petroli)	505931	Accounting	813 (813-Korlis)
12	7/25/2022	Adam	Adam Evans	Evans	Adam.Evans@email.com	2560	632	Automobile - Mileage - Korlis (Petroli)	505931	Accounting	813 (813-Korlis)
13	7/7/2022	Adam	Adam Parker	Parker	Adam.Parker@email.com	2440	529	Automobile - Mileage - Korlis (Petroli)	505931	Accounting	813 (813-Korlis)
14	7/12/2022	Adam	Adam Perez	Perez	Adam.Perez@email.com	2971	819	Automobile - Mileage - Korlis (Petroli)	505931	Accounting	813 (813-Korlis)
15	7/6/2022	Adam	Adam Ramirez	Ramirez	Adam.Ramirez@email.com	2198	859	Automobile - Mileage - Korlis (Petroli)	505931	Accounting	813 (813-Korlis)
16	7/27/2022	Alan	Alan Barnes	Barnes	Alan.Barnes@email.com	2616	647	Automobile - Mileage - Korlis (Petroli)	505931	Accounting	813 (813-Korlis)

## Suggested transforms

Remove column

Remove column "Billable" because it contains constant values

Fill column

Fill missing values in column "Vendor" with the mode of the available data

Split column

Split column "FirstName"

Remove column

Remove column "ApprovedDate" because it contains constant values

Split column

Split column "Location"

Split column

Split column "ExpenseType"

## Selected step preview result

TransactionDate	First Name	Employee	Last Name	Email	EmployeeID	ReportName	ExpenseType	DeptCode	D
7/13/2022	Aaron	Aaron Carter	Carter	Aaron.Carter@email.com	2098	729	Communications - Cellular Service	710149	Ac
7/13/2022	Aaron	Aaron Jones	Jones	Aaron.Jones@email.com	2420	769	Communications - Interget & Data Serv...	710149	Ac
7/15/2022	Aaron	Aaron Lopez	Lopez	Aaron.Lopez@email.com	2638	848	Communications - Cellular Service	710149	Ac
7/17/2022	Aaron	Aaron Moore	Moore	Aaron.Moore@email.com	2943	776	Communications - Interget & Data Serv...	710149	Ac
7/20/2022	Aaron	Aaron Rivera	Rivera	Aaron.Rivera@email.com	2212	876	Other - Office Supplies	505931	Ac
7/15/2022	Aaron	Aaron Washing...	Washington	Aaron.Washington@email...	2260	831	Communications - Cellular Service	505931	Ac
7/11/2022	Adam	Adam Barnes	Barnes	Adam.Barnes@email.com	2526	581	Automobile - Mileage - Korlis (Petro)	505931	Ac
7/19/2022	Adam	Adam Campbell	Campbell	Adam.Campbell@email.c...	2985	846	Automobile - Mileage - Korlis (Petro)	505931	Ac
7/25/2022	Adam	Adam Evans	Evans	Adam.Evans@email.com	2560	632	Automobile - Mileage - Korlis (Petro)	505931	Ac
7/25/2022	Adam	Adam Evans	Evans	Adam.Evans@email.com	2560	632	Automobile - Mileage - Korlis (Petro)	505931	Ac

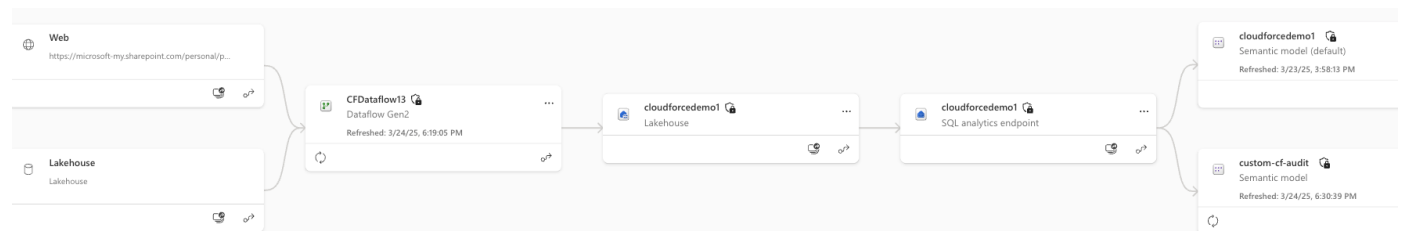
## Suggested transform preview result

View as script

Please select a suggested transform to see its preview result

- Create semantic model and report
- Create data agent

## Scenario Lineage



## Data Agent

show me the total claims for Travel ?  
 which month we got maximum claims ?  
 show me the expenses >\$100  
 list out the different categories of expenses submitted ?  
 which one from above category got max number of claims ?  
 what's the average approval time for a single claim?  
 who is taking more time for approval ?  
 show me the expenses >\$500

## System prompt

Travel = Travel - Airfare - Change/Cancellation Fees and Other  
 when user ask about Travel, consider Travel - Airfare - Change/Cancellation Fees and Other

## Scenario 3- Wide World Importers Sales Data

- Follow the Lakehouse tutorial to setup the environment - <https://learn.microsoft.com/en-us/fabric/data-engineering/tutorial-lakehouse-data-ingestion>
- Create the data agent

A SQL analytics endpoint for SQL querying was created with this item.

aggregate_sale_by_date_city					
	Date	ABC CalendarMo...	ABC Day	ABC ShortMonth	123 Calenda
1	6:00:00 PM	CY2000-Jan	1	Jan	2000
2	6:00:00 PM	CY2000-Jan	1	Jan	2000
3	6:00:00 PM	CY2000-Jan	1	Jan	2000
4	6:00:00 PM	CY2000-Jan	1	Jan	2000
5	6:00:00 PM	CY2000-Jan	1	Jan	2000
6	6:00:00 PM	CY2000-Jan	1	Jan	2000
7	6:00:00 PM	CY2000-Jan	1	Jan	2000
8	6:00:00 PM	CY2000-Jan	1	Jan	2000
9	6:00:00 PM	CY2000-Jan	1	Jan	2000
10	6:00:00 PM	CY2000-Jan	1	Jan	2000
11	6:00:00 PM	CY2000-Jan	1	Jan	2000
12	6:00:00 PM	CY2000-Jan	1	Jan	2000
13	6:00:00 PM	CY2000-Jan	1	Jan	2000
14	6:00:00 PM	CY2000-Jan	1	Jan	2000
15	6:00:00 PM	CY2000-Jan	1	Jan	2000
16	6:00:00 PM	CY2000-Jan	1	Jan	2000
17	6:00:00 PM	CY2000-Jan	1	Jan	2000
18	6:00:00 PM	CY2000-Jan	1	Jan	2000
19	6:00:00 PM	CY2000-Jan	1	Jan	2000
20	6:00:00 PM	CY2000-Jan	1	Jan	2000
21	6:00:00 PM	CY2000-Jan	1	Jan	2000
22	6:00:00 PM	CY2000-Jan	1	Jan	2000
23	6:00:00 PM	CY2000-Jan	1	Jan	2000
24	6:00:00 PM	CY2000-Jan	1	Jan	2000
25	6:00:00 PM	CY2000-Jan	1	Jan	2000
26	6:00:00 PM	CY2000-Jan	1	Jan	2000

### Prompt tuning exercise

#### Sample questions

show me the most selling items  
show me the top customers buying products  
show me the expired items  
show me the most demanding items  
show me the most profitable month of the year  
show me the city with highest sales and profit  
show me the different categories of customers

#### Show me the stock for Superhero action jacket (Blue) XS

<< Try running this and identify, why its not returning accurate data >>

<< check dimension\_stock\_item table – StockItem column and apply required instructions in Data Agent to optimize the response >>

It shouldn't build query like this << Check the table structure and actual data >>

```
Sql

SELECT
    StockItemKey,
    WWISStockItemID,
    StockItem,
    Color,
    Size,
    QuantityPerOuter
FROM
    [dbo].[dimension_stock_item]
WHERE
    StockItem = 'Superhero action jacket'
    AND Color = 'Blue'
    AND Size = 'XS';
```

### Prompt Instructions

Use StockItem column for full item name

Consider QuantityPerOuter to determine available stock.

Do not truncate the stock item name.