Lab 4: Configure Semantic Model for Data Agent

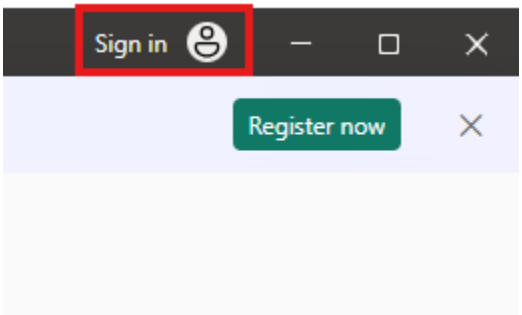
Pre-requisites

1. You have installed PBI Desktop: [Power BI Desktop - Free download and install on Windows | Microsoft Store]

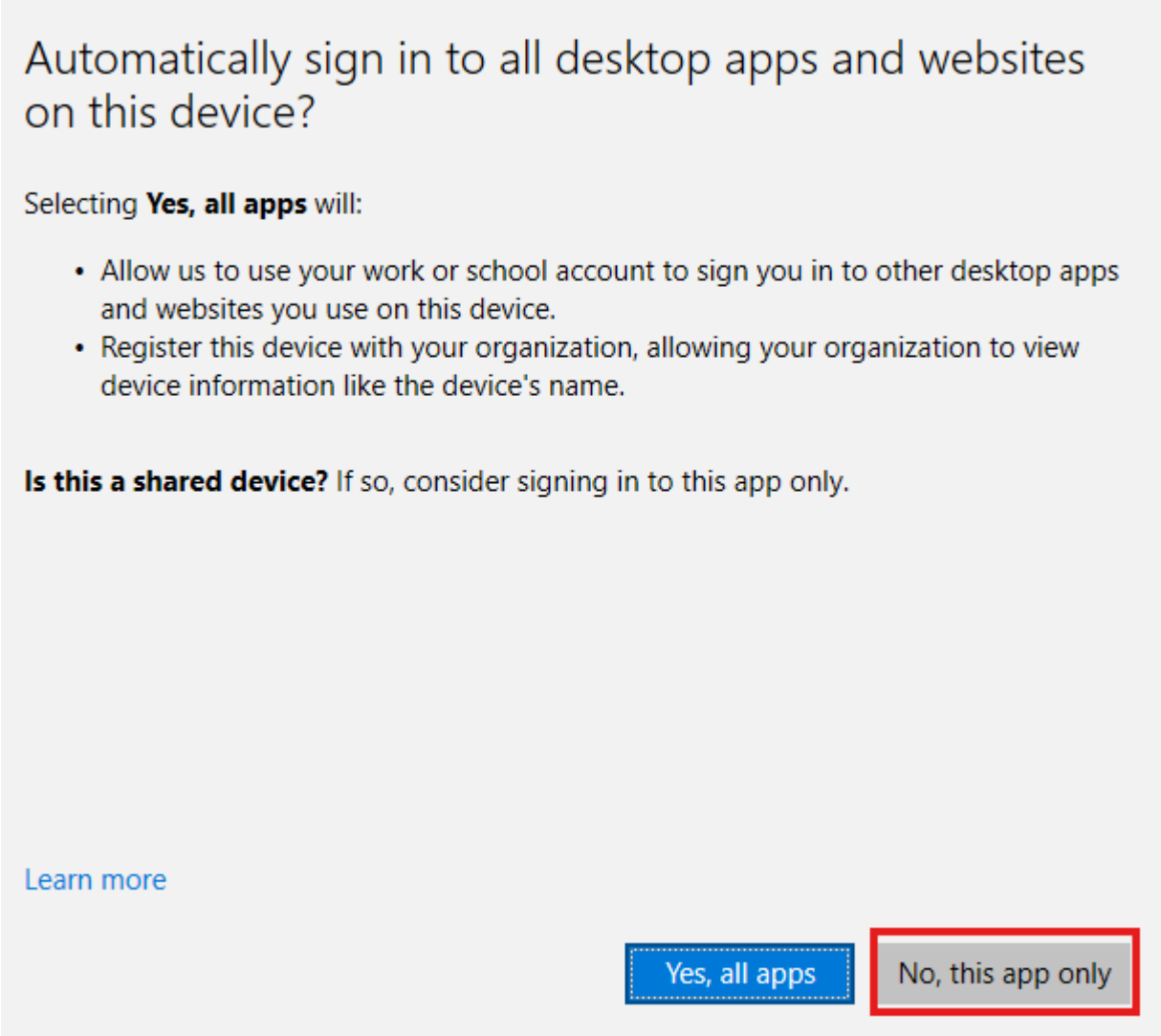
Lab Steps

Step 1: Open PBI Desktop and Log In

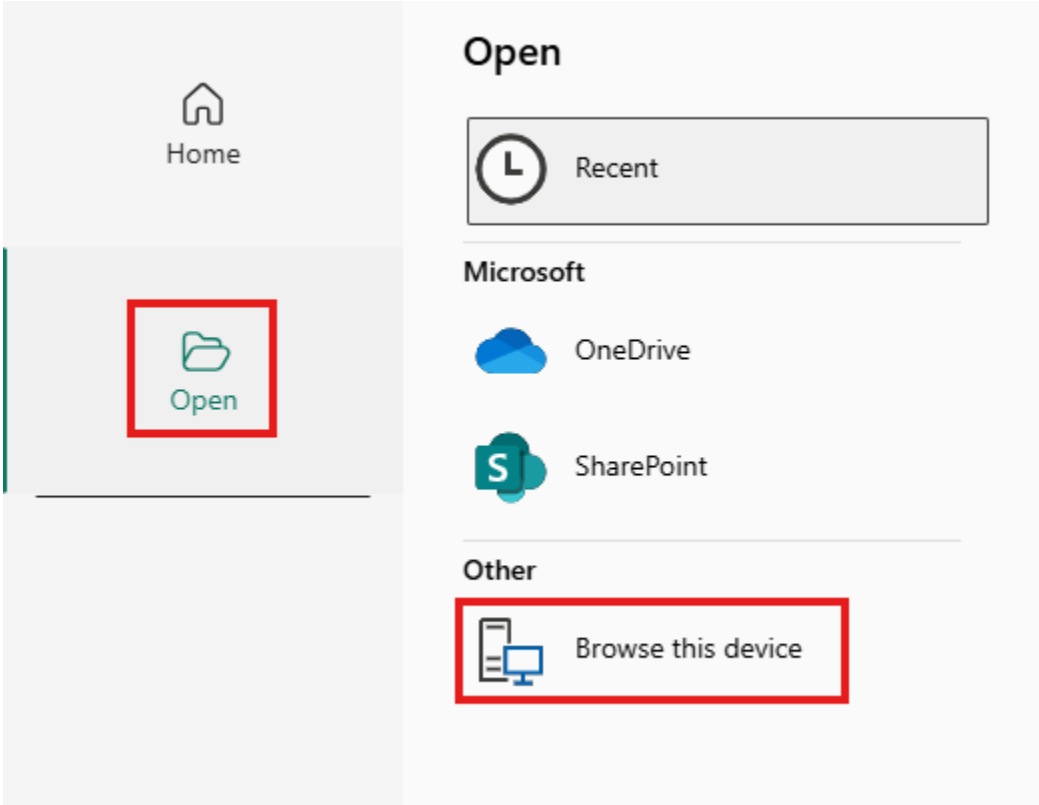
1. Open PBI Desktop, and **Sign in** to your account provided for this tutorial:



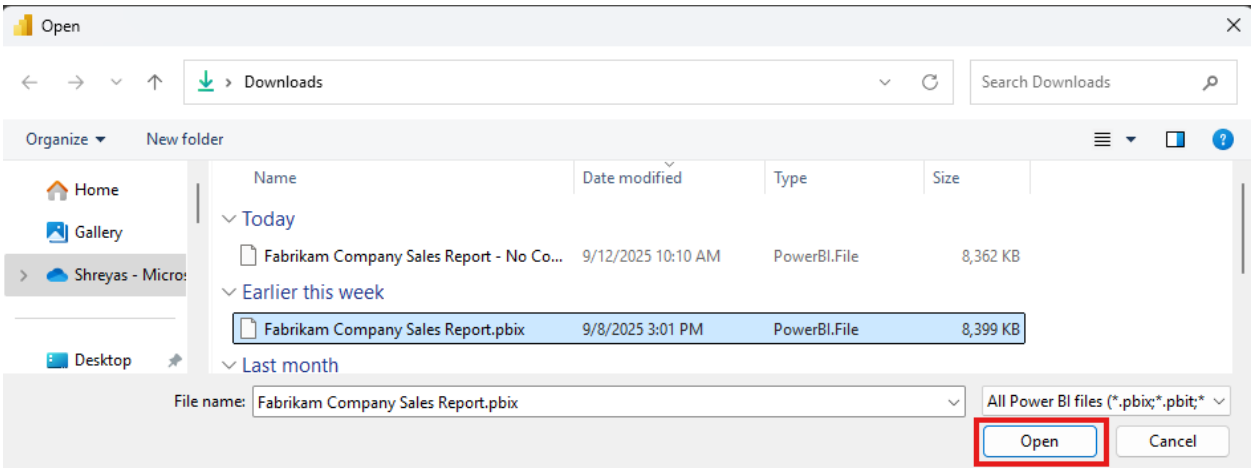
2. When asked if you want to automatically sign into all desktop apps on this device, we highly recommend clicking "**No, this app only**"



3. Select Open -> Browse this device

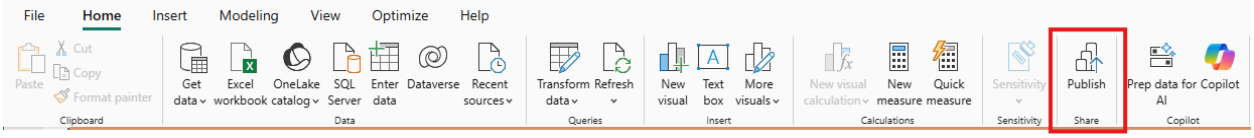


4. Select the pbix file, and hit “Open”

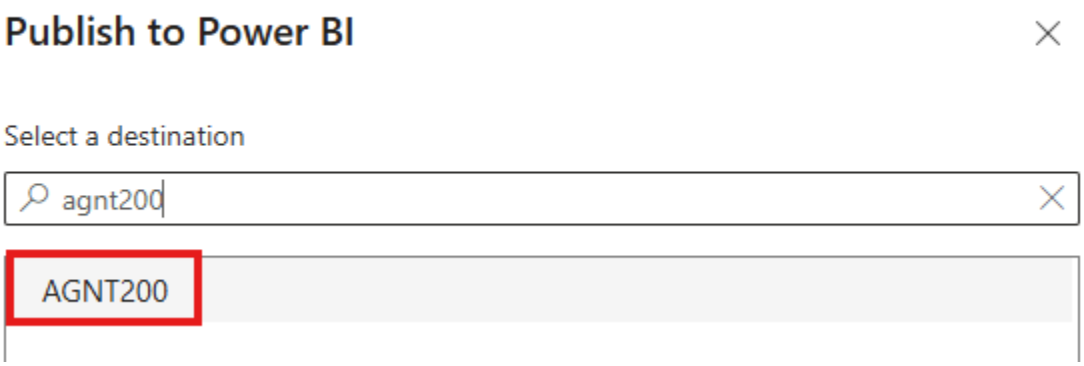


5. At this point, you should see a PBI report loaded onto your PBI Desktop App. Most of the configurations and settings will be done from here, and we will publish this to our Fabric Workspace with each update. Let’s start by publishing this report to our Fabric Workspace.

   Under the Home menu select “**Publish**”



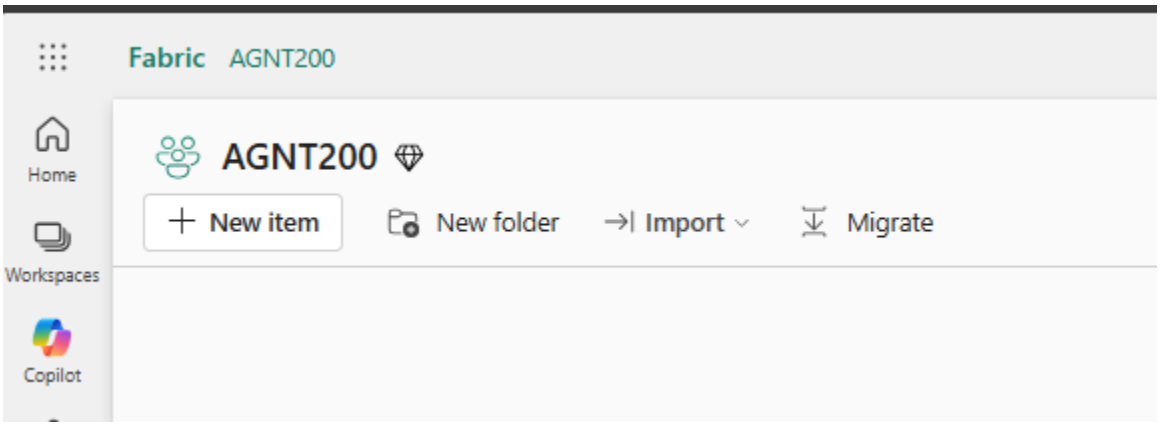
6. Select your Workspace Name (should be on your account slip) as the destination, and hit "**Select**"



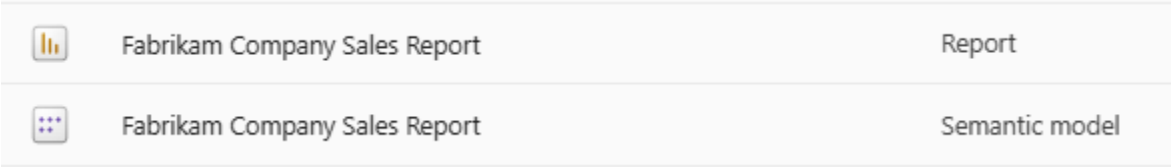
7. You have now Published the PBI Report directly onto your workspace!

Step 2: Connect Your Data Agent to the Semantic Model

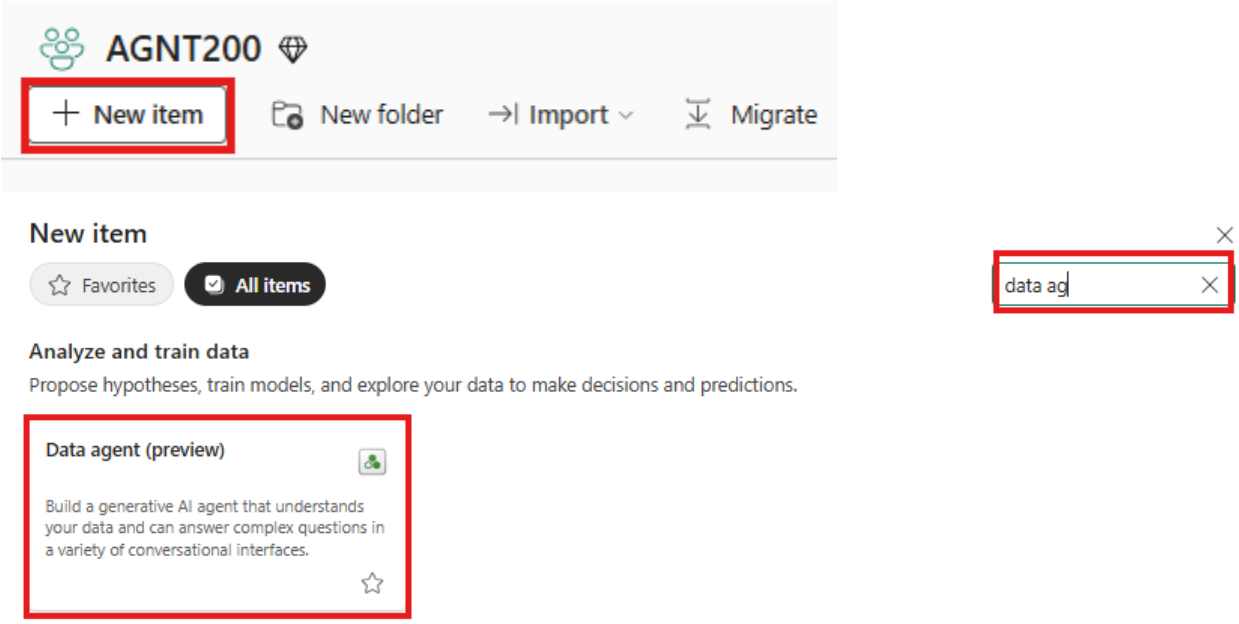
1. Let's start by going back to our workspace in Fabric:



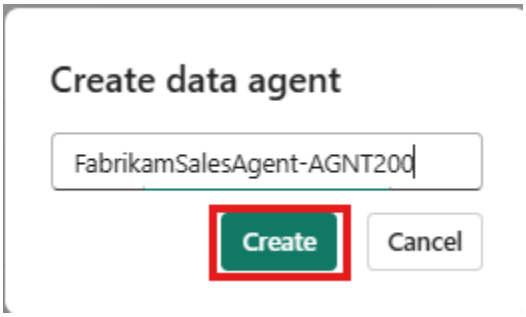
2. Confirm that you see the Semantic Model and PBI Report in your workspace:



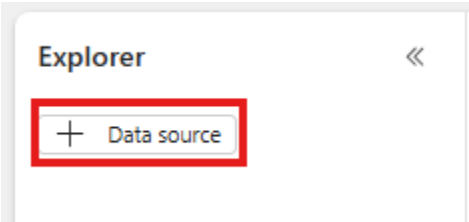
3. Let's Create a NEW Data Agent:



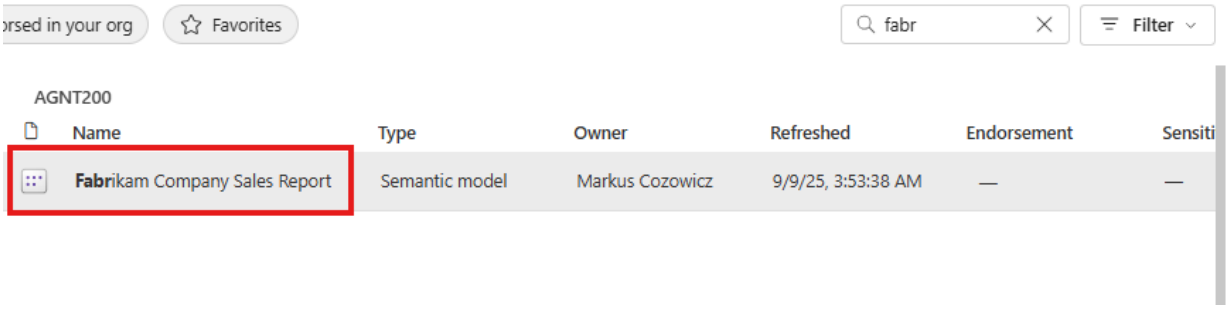
4. Name the Agent "FabrikamSalesAgent-{Workspace Name}"



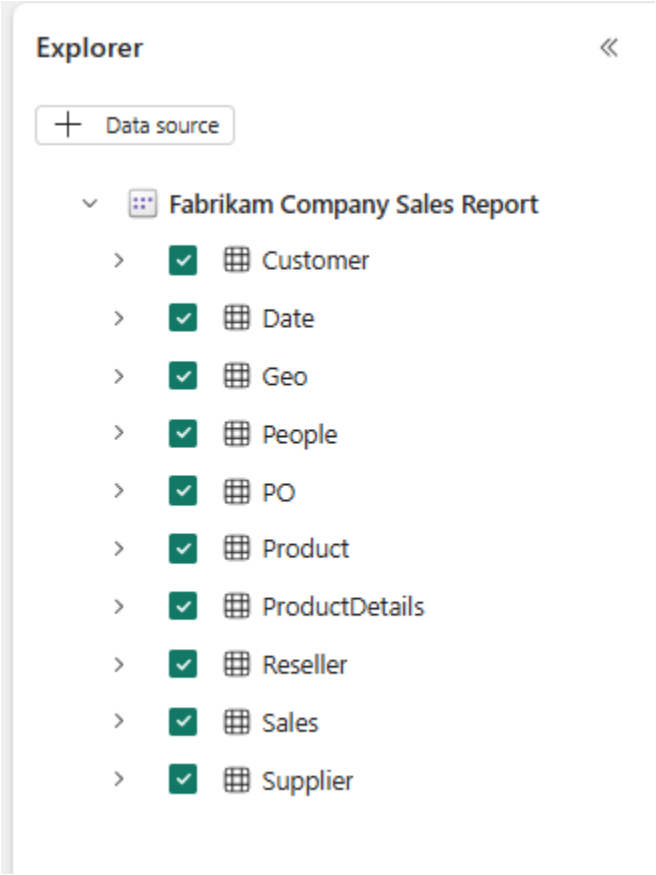
5. Add a Data source:



6. Select the Semantic Model we just added to our Workspace

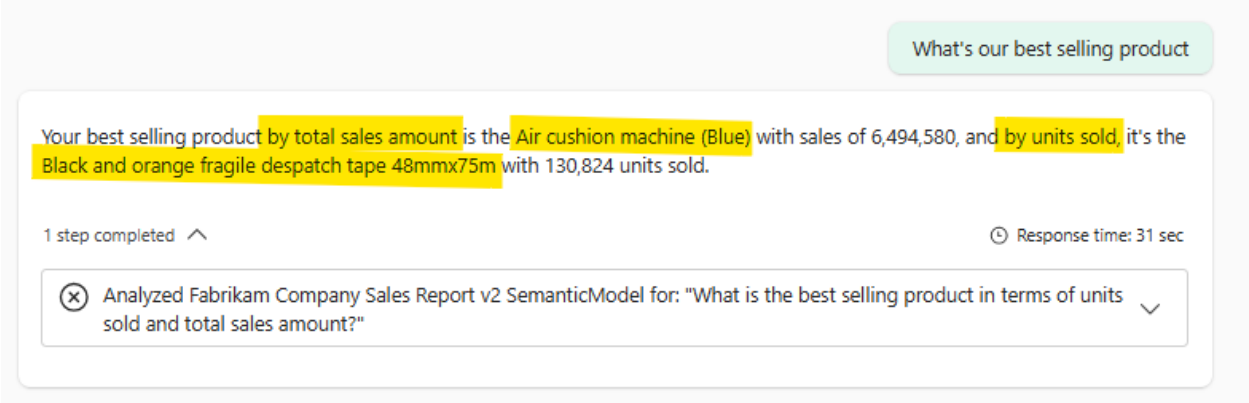


7. Select ALL Tables in the Schema:



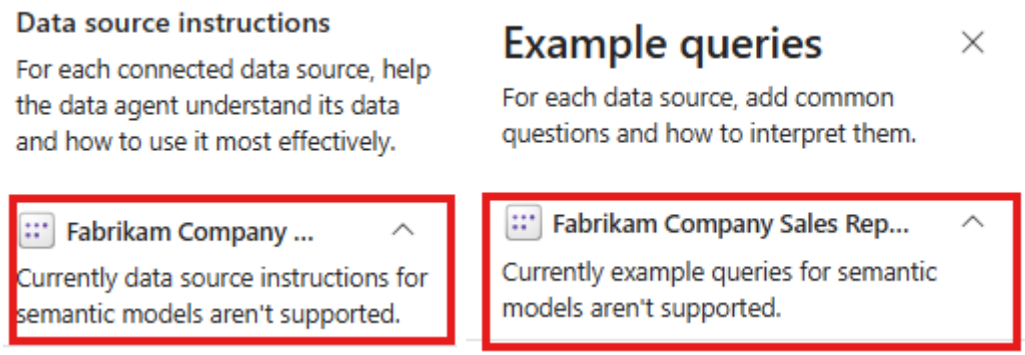
Step 4: Use AI Instructions from Prep for AI to Improve Data Agent Results

8. Ask the question: “What’s our best selling product”
   You may receive a response like the following:

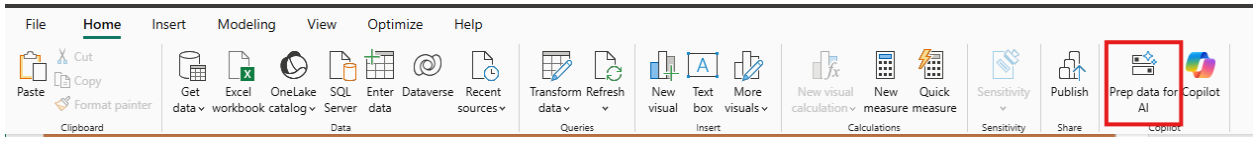


   While not incorrect, Data Agent gives you 2 different responses. Let’s add an instruction to specify what we mean by “best selling.”

You may notice that Some configurations are blocked for Semantic Models:

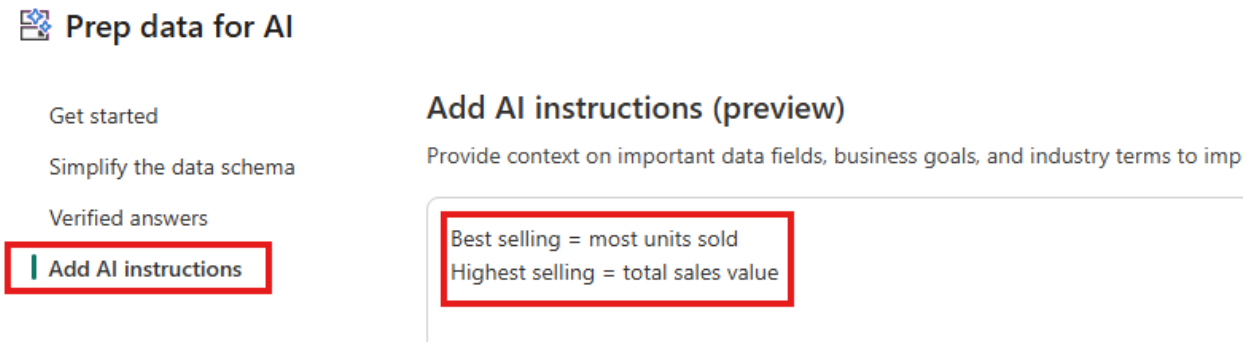


9. Let's navigate to the PBI Desktop App with this Semantic Model , and select "**Prep for AI**"

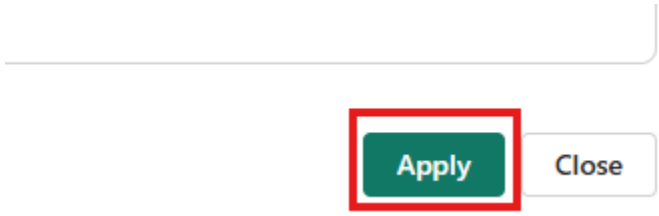


10. Select "Add AI Instructions" then input the following instruction:

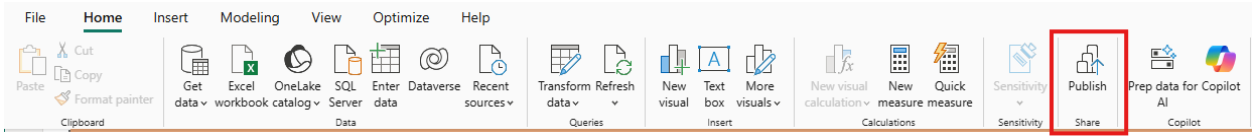
> When asked about ****Best**** selling, the user ALWAYS expects to get this based the best selling units sold measure. When asked about ****Highest**** selling, the user ALWAYS expects to get this based on total sales best selling measure.

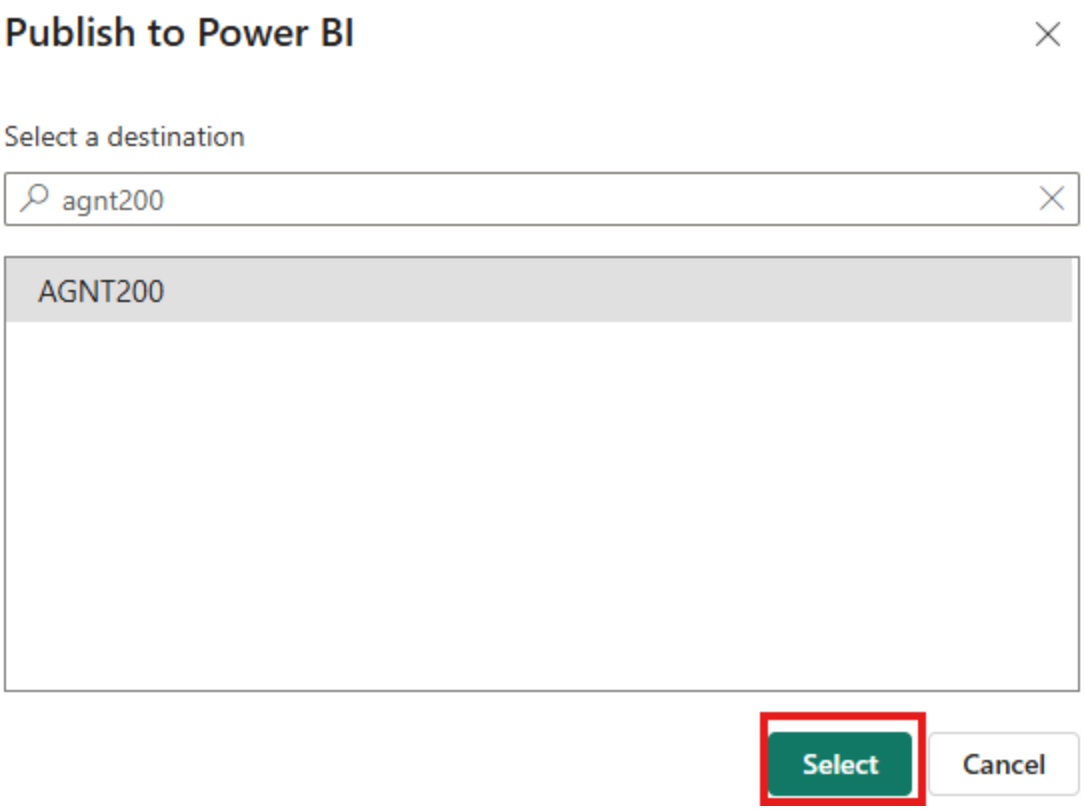


11. Hit **Apply**, then **Close**

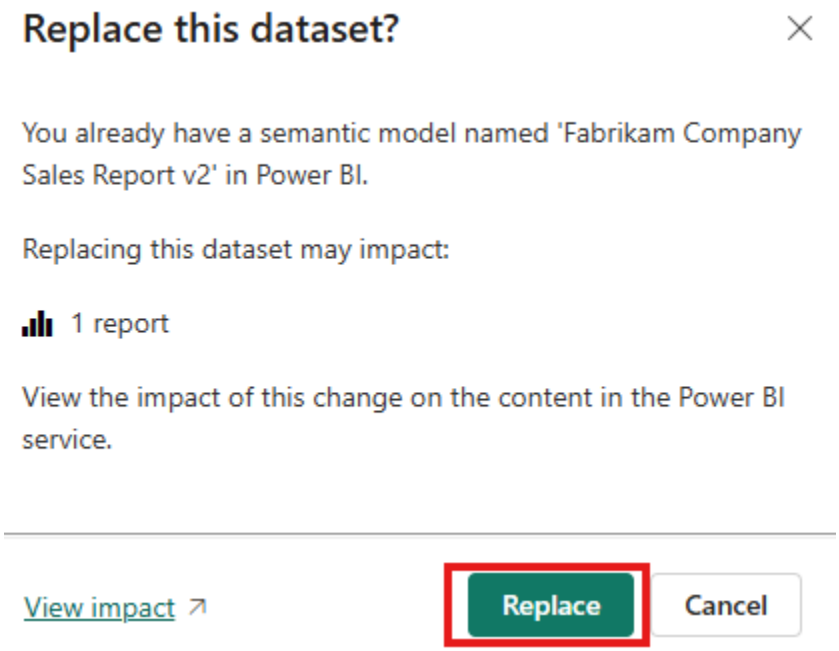


12. Hit "Publish" -> Select your Workspace -> Click "Select" -> "Replace"

a. 

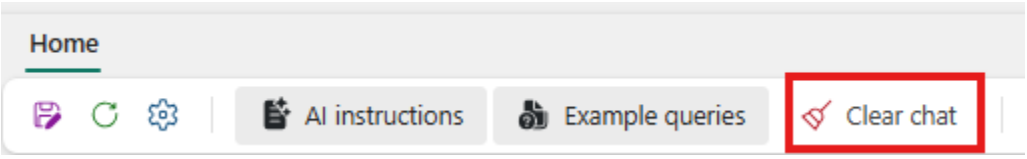


b.

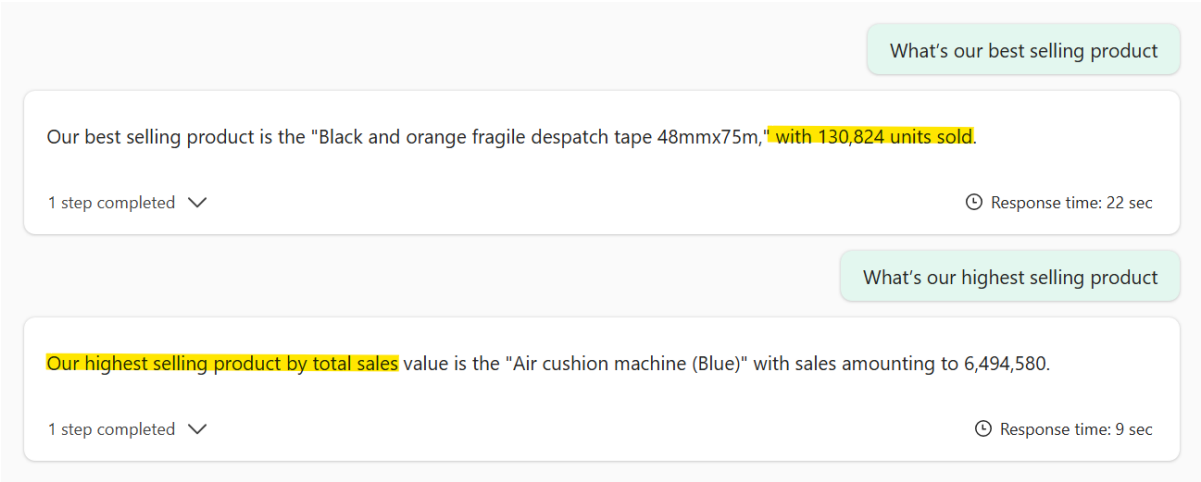


c.

13. Let's reopen the Data Agent, and clear the chat:



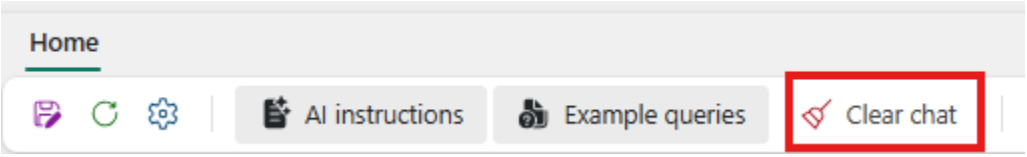
14. Ask the question again: “What’s our best selling product” and then ask “What’s our highest selling product”



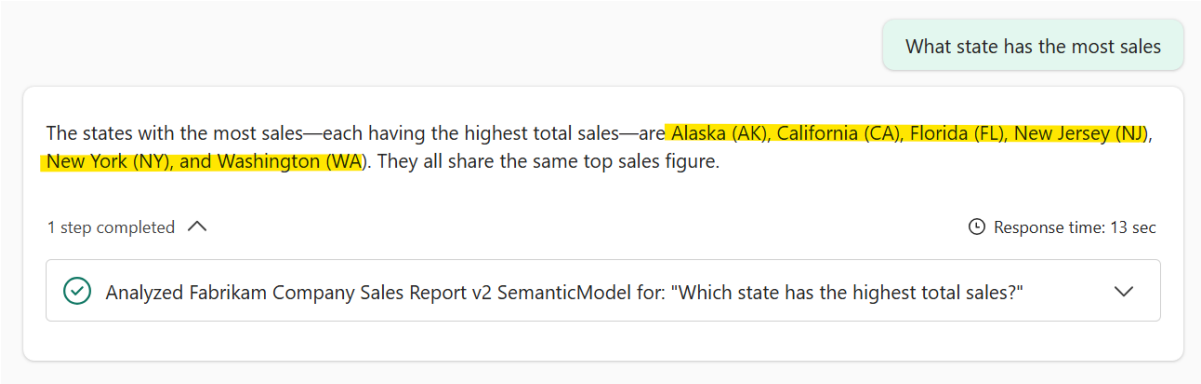
Notice the Data Agent used the instructions we provided from the PBI Desktop’s Prep for AI!

Step 5: Use Verified Answers

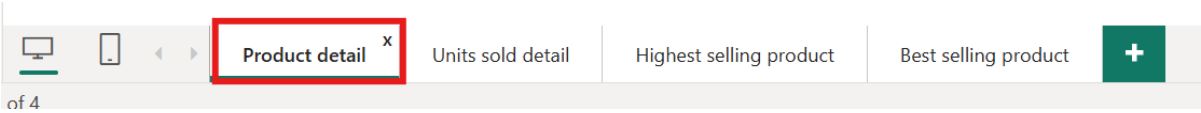
1. Clear the chat in Data Agent:



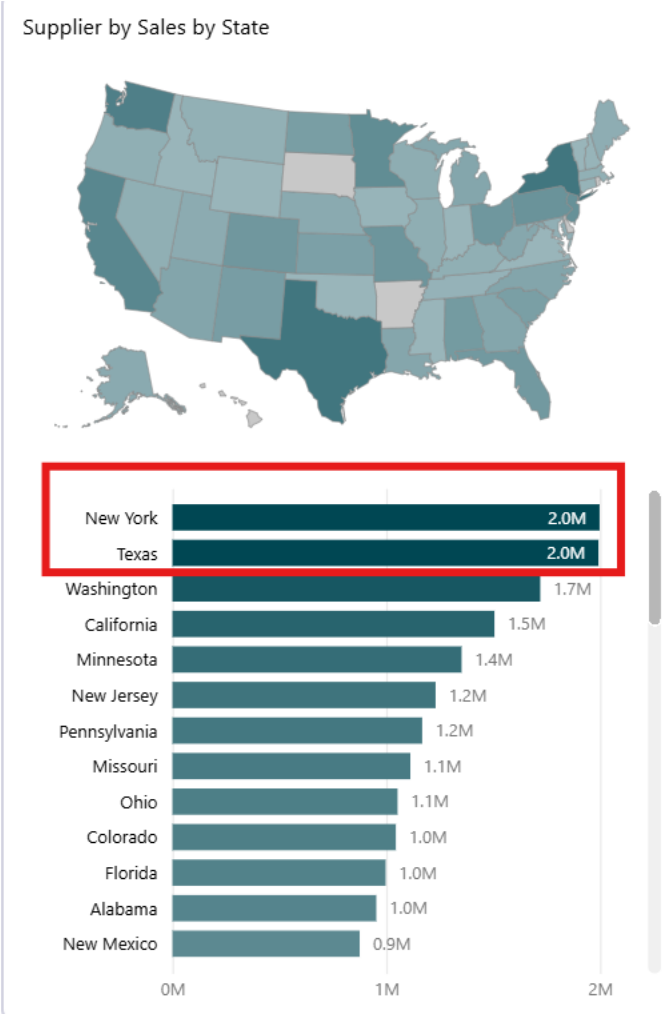
2. Ask the question “What state has the most sales"



3. Open the PBI Report and go to the “Product detail” tab:

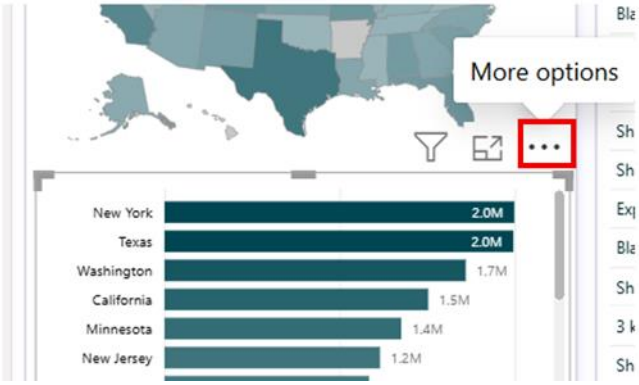


4. In this tab, you may notice that we have an overview of Supplier by Sales by State:

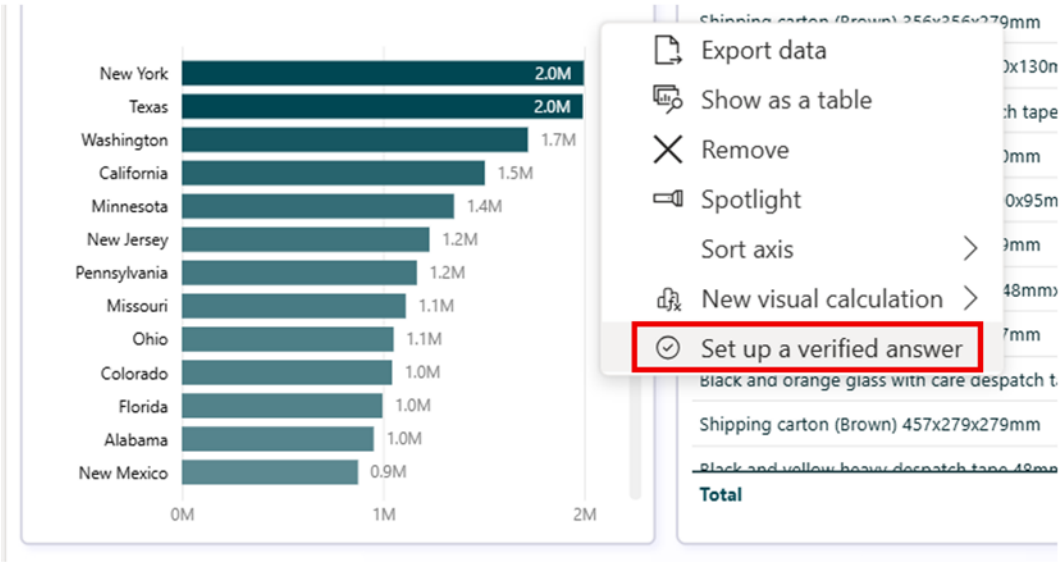


Based on this result, we can expect that the correct answer *should* be New York or Texas. Since we already have this result saved in PBI, we can use Verified answers to improve the result.

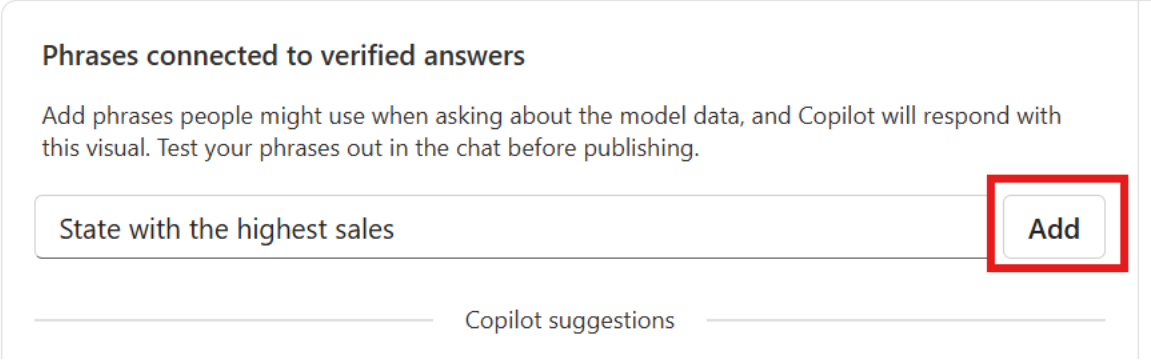
5. Click into the Visual, and select the 3 dot menu



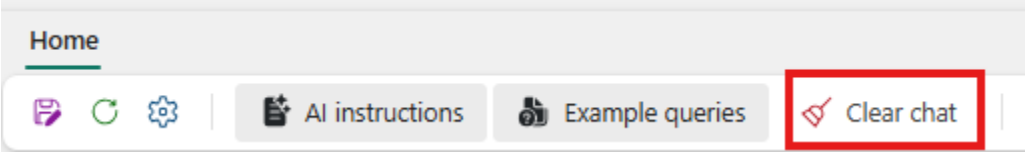
6. Choose the option to **Set up a verified answer**



7. Set a trigger phase by either selecting the copilot suggestion or by typing in your own custom trigger phase:



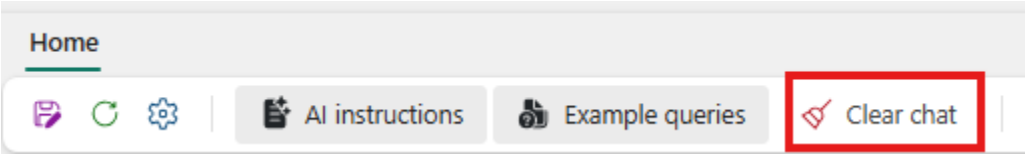
8. Click “Apply” then “Close”
9. Publish this report to your workspace using “Publish”
10. Open your Data Agent, and Clear Chat



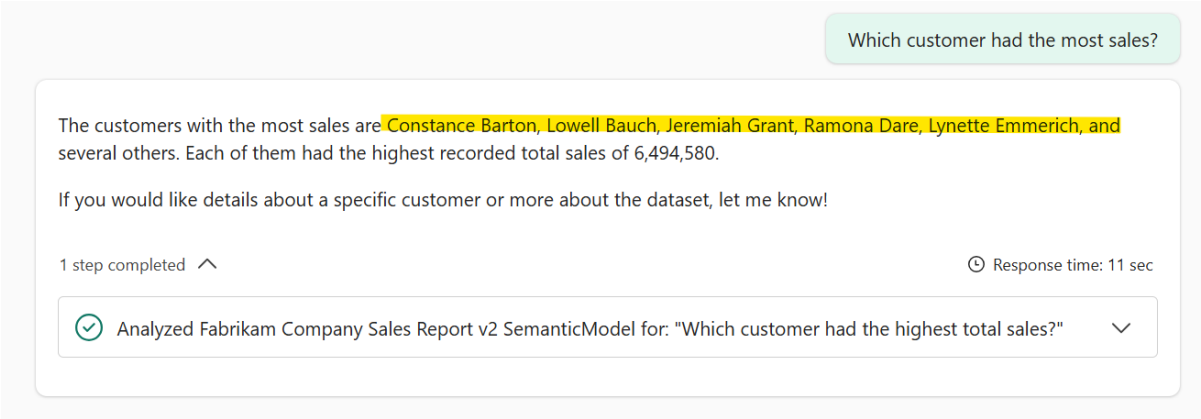
11. Try asking the question again:
    “What state has the most sales"

Step 6: Simplify the Data Schema

1. Open the Data Agent, and clear Chat History



2. Ask the question “Which customer had the most sales?”

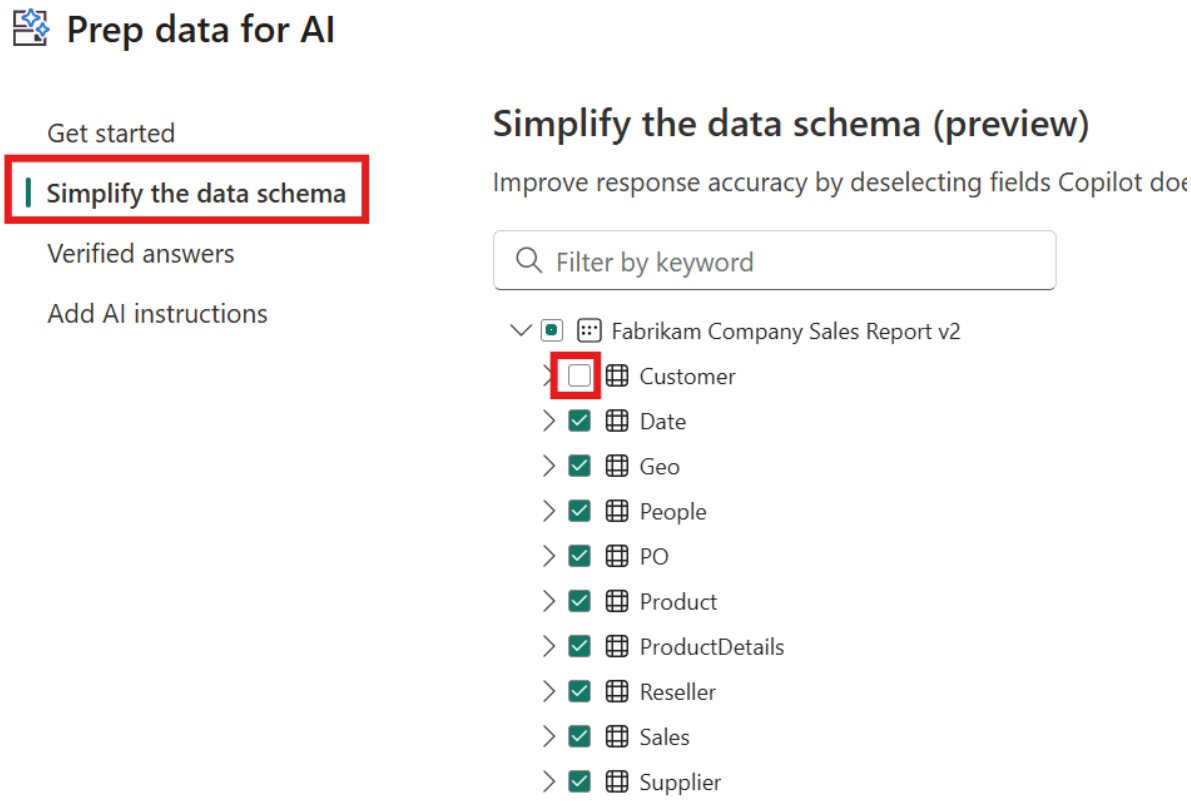


You will notice that answer to this question lists out individual names. For this organization, the customer is defined as the resellers who sell our products. The people at their stores who buy the products are not considered *our* customers. However, in the data this is not clear today

Our customers are the resellers who buy & then sell our products. But today, when we ask Copilot about customer sales it defaults to individuals buying products instead of the resellers who buy & then sell our products for us.

Let’s use Prep for AI to resolve this!

3. Navigate back to your PBI Desktop App, and Open up **Prep for AI**, and Select the "**Simplify the data schema**" tab, and deselect Customer.

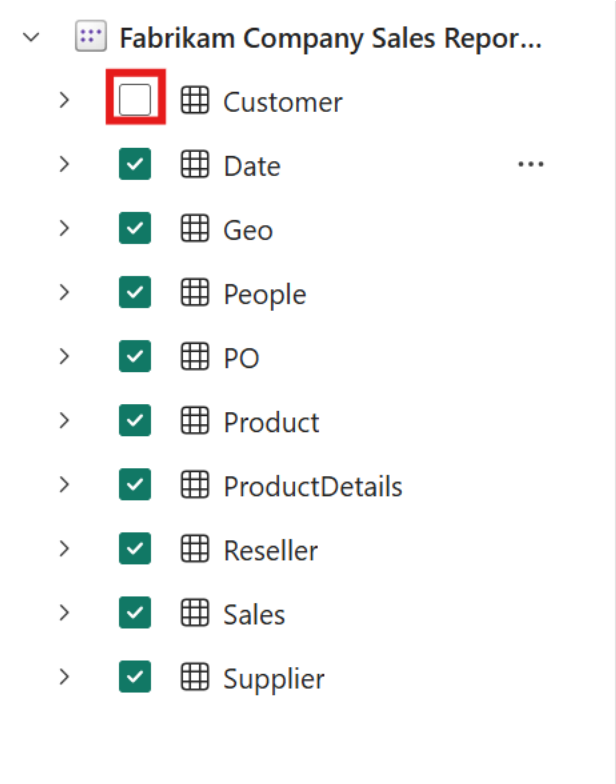


4. Click **Apply**
5. Navigate to the **AI Instructions** Tab, and add the following instruction:

When a user asks questions related to **customers**, they are referring to **resellers**

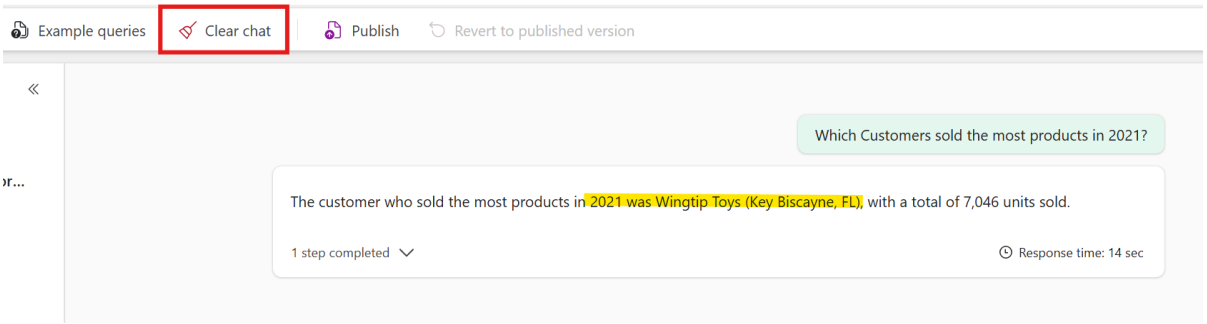
6. Click **Apply** and **Close**

7. Open the Data Agent, and ensure you deselect the “Customer” Table



When working with Semantic Models and Prep for AI, it’s crucial that we match the Table selection in both Prep for AI and Data Agent. This ensures that there is no unintended context passed to the LLM. In this case, we don’t want unintended data on Customers to be passed to the LLM which may cause some confusion with the instruction we have provided.

8. **Clear Chat**, and ask the Question Again.



Notice that the Data Agent was able to use the Table Selection and Context we set up in Prep for AI to answer this question!

Conclusion

And that concludes this lab!