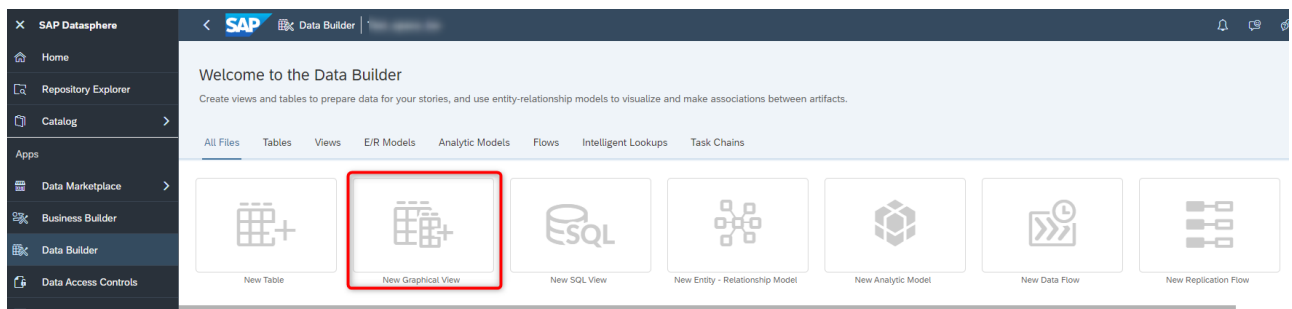


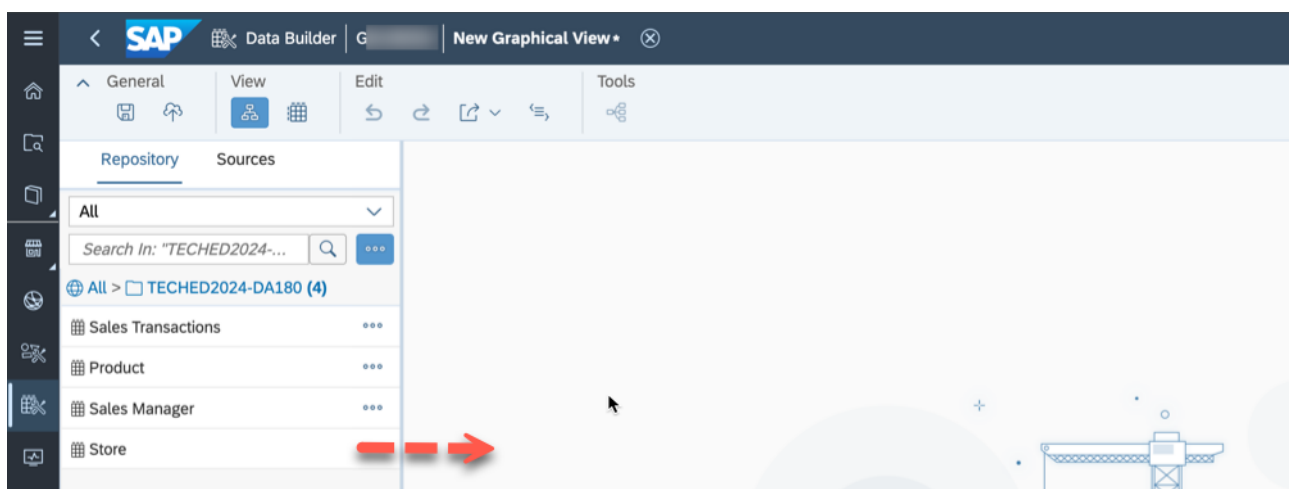
## Exercise 6 - Creating the Dimension

In this exercise, we will create a new view of the semantic type dimension based on our previously created table. We will enhance this data by configuring a geographic enrichment so that we can visualize the store location on a geo map later in SAP Analytics Cloud.

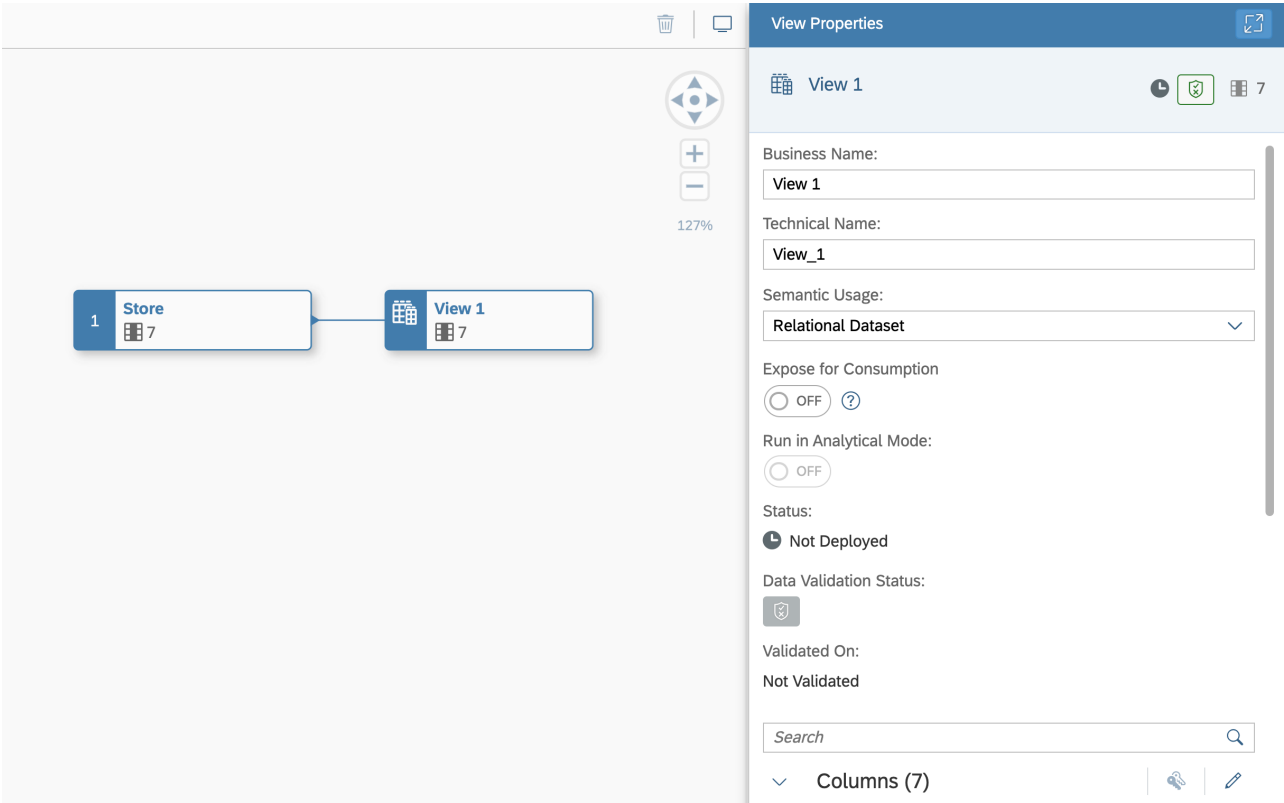
1. Log On to your SAP Datasphere tenant.
2. Select the menu option **Data Builder** on the left-hand side.
3. Click **New Graphical View**.



4. On the left-hand side you can decide between:
  - **Repository**: Here you have access to the local tables (imported data), Views, Intelligent Lookups and Shared Objects.
  - **Sources**: Here you have access to respective objects from your connections.
5. Ensure you select the option **Repository** and open the folder **TECHED2024-DA180**.
6. You are presented with the list of tables, which we created previously. Drag and drop the table **Store** to the canvas.

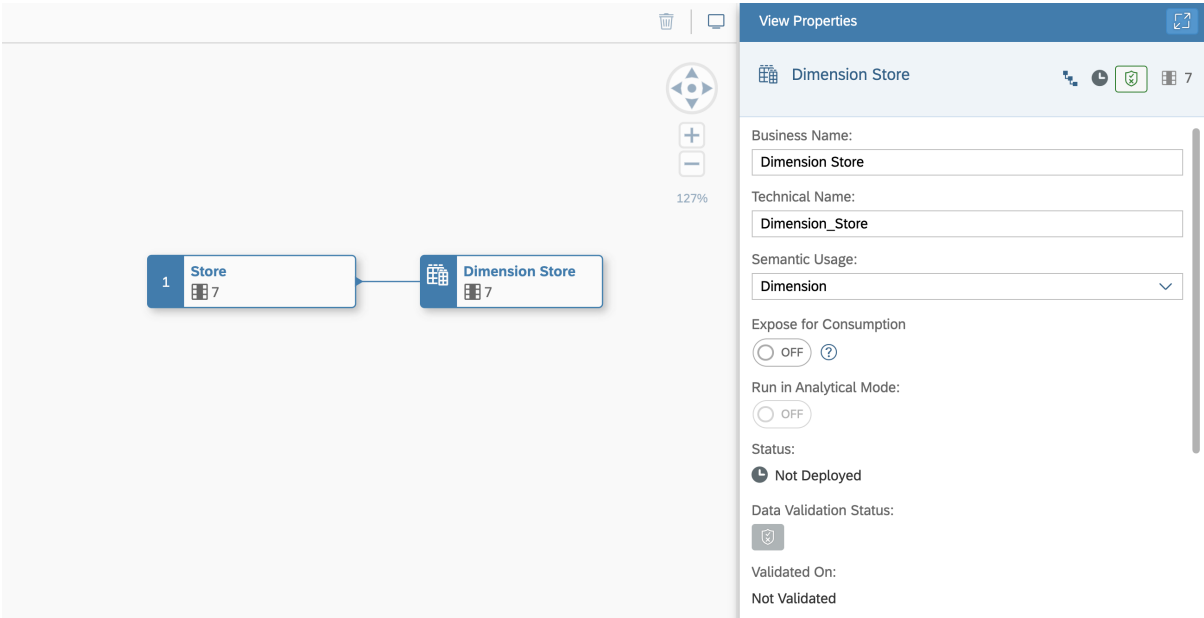


7. You automatically will – in addition to the table you dragged to the canvas – receive the output view, in the screenshot called **View 1**:
8. Navigate to the **View Properties** window by clicking on the **View 1** in the canvas.



9. Here you can configure properties for the view:

- **Business Name:** Dimension Store
- **Technical Name:** Dimension\_Store
- **Semantic Usage:** Dimension



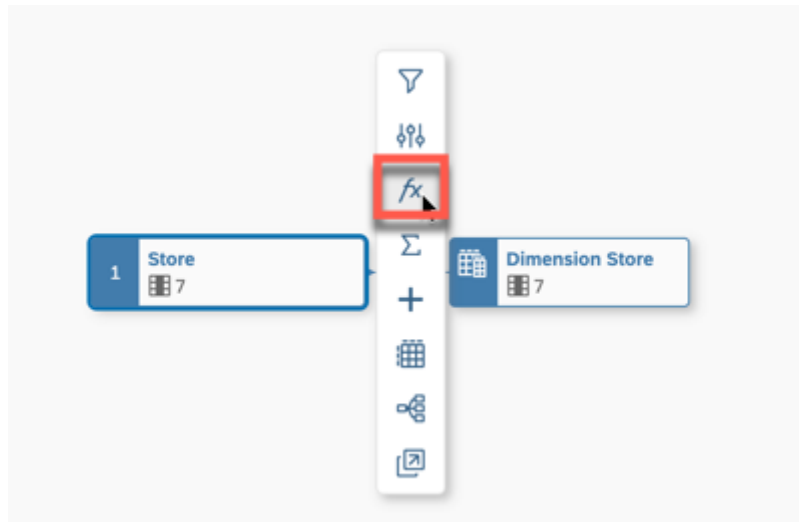
10. Now click on the table **Store** on the canvas.

11. When you select the table on the canvas, you have the following options (top to bottom)

- You can add filter on top of the source entity.

- You can rename or hide columns as part of a projection.
- You can add Calculated Columns.
- You can add an Aggregation View.
- You can add additional tables / views based on suggested joins, which are based on your Entity Relationship model.
- You can preview the data.
- You can open the Impact & Lineage Analysis.
- You can open the table in the editor in another browser tab.

12. Use the option to add a new calculated column. This option also includes the ability to configure the



geographic enrichment.

13. Now click on the new node **fx** on the canvas.



14. Navigate to the properties on the right-hand side.

15. Click on the + sign and select the option **Geo-Coordinates Column**.

The screenshot shows the SAP Data Builder interface. The main canvas displays the data flow from 'Store' to 'fx' to 'Dimension Store'. On the right, the 'CalculatedElements Properties' panel is open for 'Calculated Columns 1'. It shows a list of columns with a '+' sign at the top. A red box highlights the 'Geo-Coordinates Column' option in the list. The list includes: 'Calculated Column', 'Geo-Coordinates Column', and 'Currency Conversion Column'. Below this, a list of columns is shown: 'AA Store ID', 'AA Store Name', 'AA Store City', 'AA State ID', 'AA Country', '133 Latitude', and '133 Longitude'.

16. You are presented with the properties for the new column. Configure the following details:

- **Business Name:** Store Location
- **Technical Name:** Store\_Location
- **Latitude:** Latitude
- **Longitude:** Longitude

The screenshot shows the SAP BW Semantic Designer interface. On the left, a diagram shows a 'Store' node (ID 7) connected to a function node 'fx', which is then connected to a 'Dimension Store' node (ID 8). A vertical toolbar with various icons is positioned between the diagram and the properties panel. On the right, the 'Element Properties' panel is open for the 'Store Location' column. The 'Business Name' is set to 'Store Location' and the 'Technical Name' is set to 'Store\_Location'. The 'Data Type' is set to 'hana.ST\_GEOMETRY'. The 'Spatial Reference Identifier' is set to '4326'. The 'Latitude' is set to 'Latitude' and the 'Longitude' is set to 'Longitude'. The checkbox 'Set Invalid Geo Coordinate Values to "NULL"' is checked.

17. After you configured the details, click on the **<Columns** option in the properties window to go back.

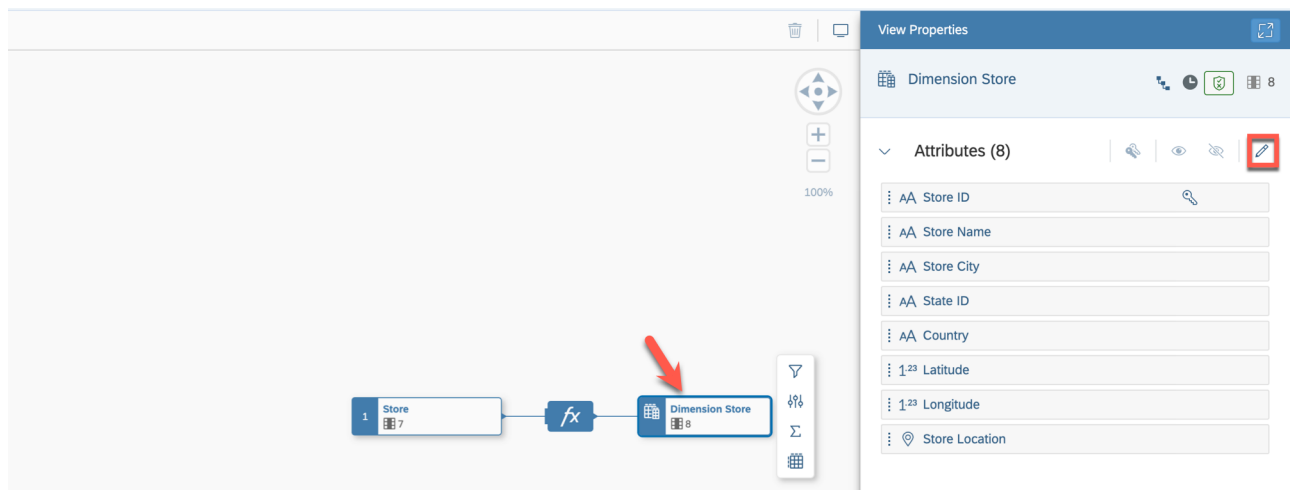
This screenshot is identical to the previous one, showing the 'Element Properties' panel for 'Store Location'. The difference is that the '<Columns / Store Location' link at the top of the panel is highlighted with a red rectangle, indicating the next step in the process.

18. Select the final output node for the graphical view of semantic type dimension.

19. Navigate to the properties on the right-hand side.

20. Navigate to the **Attributes** area.

21. Use the pencil icon (top right area) to open the details for the Attributes.



22. Ensure that the semantic type for the attribute **Store Name** is set to **Text**.

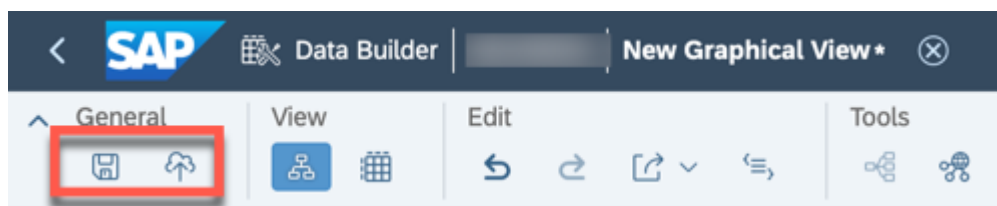
23. Set the **Label (Text / Association)** column for the line item **Store ID** to **Store Name**.

Dimension Store					
Attributes (9)					
Business Name	Technical Name	Data Type	Semantic Type	Label Column	
<input checked="" type="checkbox"/> Store ID	Store_ID	String(6)	None	Store Name	<input checked="" type="checkbox"/>
<input type="checkbox"/> Store Name	Store_Name	String(30)	Text		<input checked="" type="checkbox"/>
<input type="checkbox"/> Store City	Store_City	String(20)	None		<input checked="" type="checkbox"/>
<input type="checkbox"/> State ID	State_ID	String(2)	None		<input checked="" type="checkbox"/>
<input type="checkbox"/> State Name	State_Name	String(30)	None		<input checked="" type="checkbox"/>
<input type="checkbox"/> Country	Country	String(30)	None		<input checked="" type="checkbox"/>
<input type="checkbox"/> Latitude	Latitude	Decimal(15, 8)	None		<input checked="" type="checkbox"/>
<input type="checkbox"/> Longitude	Longitude	Decimal(15, 8)	None		<input checked="" type="checkbox"/>
<input type="checkbox"/> Store Location	Store_Location	hana.ST_GEOMETRY(4326)	None		<input checked="" type="checkbox"/>

24. Click **Close**.

25. In the toolbar in the **General** menu, use the option to save your view in the folder **TECHED2024-DA180**.

26. After saving your dimension view, ensure you deploy the view.



## Summary

You've now created your dimension view **Dimension Store**, including the added geo-coordinates column **Store Location**, which is required for using visualizations on geo maps within SAP Analytics Cloud.

Continue to - [Exercise 07: Creating the View](#)