Instructions for Optional Hands-on Exercises

We have created solution videos for the units available on a playlist. See below:

- Week 1, Unit 1 Solution Walk-through
- Week 1, Unit 2 Solution Walk-through
- Week 1, Unit 3 Solution Walk-through
- Week 1, Unit 4 Solution Walk-through
- Week 1, Unit 5 Solution Walk-through
- Week 1, Unit 6 Solution Walk-through

The videos help you in case your stuck with an exercise and want to check if you did all the steps correctly.

Unit 1:

Get your guided experience trial access

1. Navigate to sap.com/datasphere
2. Click on the Experience SAP Datasphere button
3. Enter the mandatory details in the registration form and proceed using the Submit button
4. You then get an email to activate your account by clicking the button Click to activate your account
5. After successful registration your login details (user ID and password) will be emailed to you
6. Logon to your tenant
7. Get to know your tenant and space
8. Browse through the different areas
   OPTIONAL: If you are looking for a more detailed step-by-step guide to get access to a guided experience trial system: https://github.com/SAP-samples/teched2022-DA160/blob/main/exercises/ex00/README_GuidedTrial.md

Unit 2:

Import Sales Order CSV file

1. Go to **Data Builder**

2. Import csv-file *SalesOrders.csv*.
   You can download the file from GitHub: https://github.com/SAP-samples/datasphere-content/releases/download/v1.6/sample_data_dsp1.zip
3. Save as *SalesOrders CSV*
4. Open file in **Table Editor**
5. Set **Primary Key** with column *SALESORDERID*
6. **Save** and **deploy**
7. Show data with **Data Preview**
8. Go back to **Data Builder**

Create your first graphical view

1. Open **Graphical View Builder**
2. Add table *SalesOrders CSV* to canvas
3. Set **Semantic Usage** of the output node (view) to **Analytic Data Set**
   Please Note: Though the Semantic Usage Type Analytical Dataset is deprecated, **please continue to use the Analytical Dataset for the purposes of this course.** Please ignore the notification you may receive within Datasphere regarding this. To learn more about the deprecation of the Analytical Dataset, please read this discussion post!
4. Enable for consumption
5. Define **measures**: *grossamount*, *netamount*, *taxamount*
6. **Save** and **deploy** as *Sales Order View*
7. Go back to **Data Builder**

Create your first story in SAP Analytics Cloud

1. Use the app switcher to go to **SAP Analytics Cloud**
2. Create a **new story**
3. Use connection **DATASPHERE**
4. Use a bar chart *5. Use* net amount as a **measure**
5. *Use sales organization* as a **dimension**
6. **Save** your **Story**

Unit 3:

Replace your local table with a remote table

1. Go to your **Space** in the **Space management**
2. Click on **Connections** and have a look at the pre-configured *SAP HANA* connection
3. Go to the **Data Builder** and your *Sales Order View*

4. Select your *SAP HANA* connection in the **Sources** tab on the left from the schema "DSP1_OPENSAP"
5. Replace the local table based on the CSV-file with the remote table *Sales Orders*
6. **Import and deploy** the new remote table, keep the mappings 1:1
7. **Deploy** the change
8. Refresh and check if your SAC story still works
9. It now shows the full data set

How to create a time dimension and use it in your story

1. Go back to your **Space** in the **Space management**
2. Scroll down to the **Time Data**
3. Create the time tables and dimensions from *2000* to *2050*
4. **Associate** the *Time-Dimension Day* (View) to the *Created at Date in your Sales Order View*
5. **Save** and **Deploy**
6. In your Story add *Created at Date* as a **dimension** and select *Level 2*
7. Adjust the order of your dimensions with *Created at Date* and then *Sales Organization*
8. **Save** your story

Unit 4:

Enhance your story with the top five sales partners per region and year

1. Create remote table for the *Business Partners* from **Data Builder Overview**
2. Set Semantic Usage to **Dimension**
3. Add semantic type **Text** for the *Company Name* and assign it to the *Partner ID* (**Label Column**) and **deploy it**
4. **Load new snapshot** of the BP data set (no scheduling required)
5. **Associate** the *Business Partner* dimension to your *Sales Order View* and **deploy** it 6.Refresh your **story** and select Top 5 partners per year and Sales Organization
6. Replace ID with Description, in case the ID's are shown

What are the best-selling products?

1. Go to *Sales Order View*
2. Import remote table *Sales Order Items* to Canvas and join with *Sales Orders* (Join column = *Sales Order ID*)
3. Change the attribute *Quantity* in your *Sales Order View* to a **measure**
4. **Deploy** the change
5. Go to your **Story**

6. Add graphic about best-selling products
7. Save your **Story**

Unit 5:

1. Go to your space in the **Data Builder**
2. Create a **Data Flow** "*DataFlow_EmployeesWithAddresses*" with Employee as one of the source tables
3. Join the remote table *Addresses* with the *Employee* table in the data flow
4. Apply **Projection** node to remove unwanted columns (like postal code, address type, etc)

```
            *  PHONENUMBER
            *  EMAILADDRESS
            *  STREET
            *  POSTALCODE
            *  BUILDING
            *  ADDRESSTYPE
```

5. Apply a simple **masking function** to show only last 4 digits of the phone number and first + last 4 characters of the email address. Therefore add a **Calculation** node and create two calculated columns.

```
            *  PHONENUMBER
            *  Datatype: *String 14*
            *  Expression: *CONCAT('XXXX-XXXX-',RIGHT("PHONENUMBER",4))*
            *  EMAILADDRESS
            *  Datatype: *String 12*
            *  Expression:  *CONCAT(CONCAT(LEFT("EMAILADDRESS",4),'XXXX'),RIGHT("EMAILADDR
ESS",4))*
```

6. Create a local table "*EmployeesWithAddresses*" which will store the final results
7. Save and deploy the data flow
8. Create a new task chain "*TaskChain*"
9. Add the **business partners table replication** as the first task followed by the **Employee load data flow**
10. **Save** and **deplo**y the task chain
11. **Execute** the task chain
12. Create a new graphical view "*Employees*"
13. Add *EmployeeWithAddress* local table to the canvas and set the Semantic Usage to *Dimension*
14. Set the "EMPLOYEEID" as **key**
15. Deploy the *Employee view*
16. Open the Sales Order view and **associate** the Employee dimension to the *Sales order view Created by*" (Sales Order) needs to be associated with "*EMPLOYEEID*" (Employee)
17. **Deploy** the change
18. **Go** to your story
19. Add **graphic** about the sales per person aggregation and **sort** it to show top N rows

Unit 6:

1. Create a **dimension** (graphical view with semantic type dimension) based on the *shared V_Products view*
2. Create **hierarchy** in the V_Products view Level Based Hierarchy – Default Name Level 1 is Product Category, Level 2 is Product ID
3. Open the Sales Order View and associate the new dimension to the **Sales Order View**
4. **Deploy** the change
5. **Go** to your story and change the Top selling products graphic to now use the Product name instead of ID. Also check that your user gets data for all the regions
6. Create a **local table** "*DACDefinition*" with the columns *Username* and **AllowedValues.** Fill this table with your own user name and a selected region name
7. Create a **DAC** (Data Access Control) "*Region_DAC*" based on the local table which grants your user the privileges to view only a subset of the data Identifier: Username Criteria: AllowedValues
8. **Apply** the DAC on the Sales Order View
9. **Deploy** the change
10. **Go** to your story and see if you only see region-specific data based on the DAC defintion
11. **Share** the Sales Order view with the MARKETING Space

Unit 7:

– no exercise here