

HANDS-ON AIN367: INTEGRATE CLOUD SOLUTIONS WITH SAP DATA WAREHOUSE CLOUD

SAP TechEd 2020

Exercises / Solutions

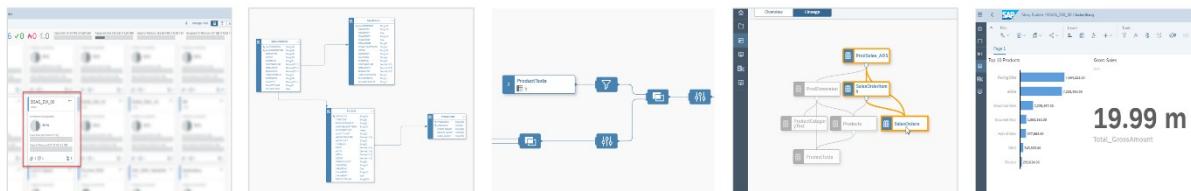
Gordon Witzel, Daniel Felsmann / SAP SE

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Integrate Cloud Solution with SAP Data Warehouse Cloud

In this hands-on session we will realize a simple end-to-end scenario with the main objective to introduce the different functions and options. The main focus of the session is the Data Integration of Cloud Sources and Data Modelling in SAP Data Warehouse Cloud along with visualizing the data models in a SAP Analytics Cloud Story.



Different use cases and different business strategies require tailored business needs. Spaces allow you to create an environment that meets your particular requirements. You can assign users and connections to a specific space and adjust the storage capacity.

Define relations between entities and add metadata to enable the creation of graphical views with the Entity-Relationship Modeler.

In the Data Builder an connect tables and views via joins and unions in a graphical environment.

The business catalog gives you an overview of all the models you can use, across all the Spaces such as Data Sets, Dimensions and Facts you are authorized for.

Stories let you explore data interactively to find insights, visualize information with charts and tables, and share, present, and comment on your findings with colleagues.

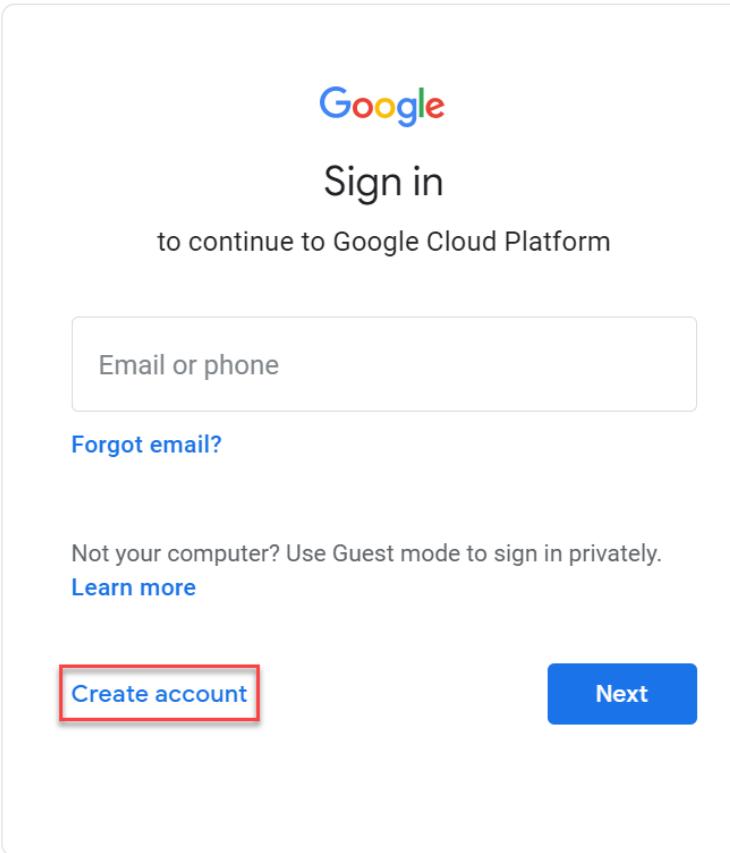
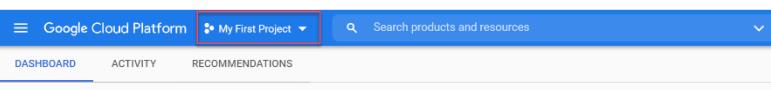
You will learn:

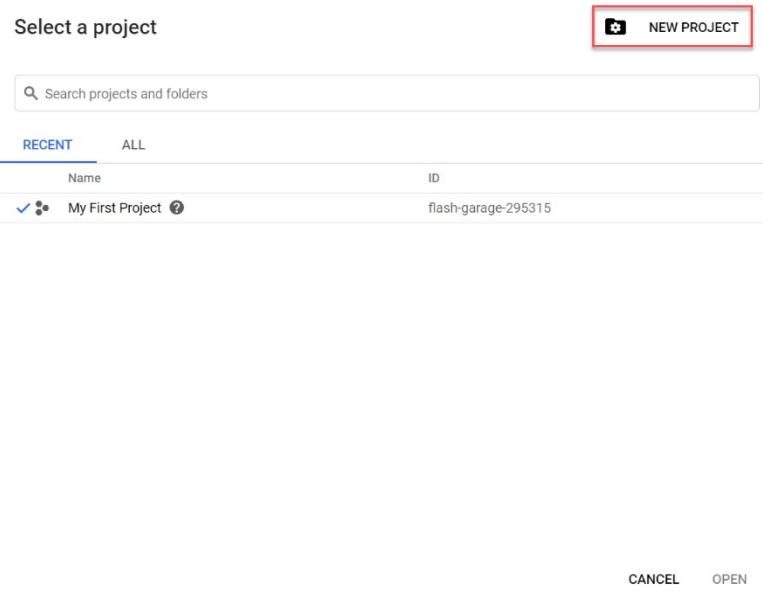
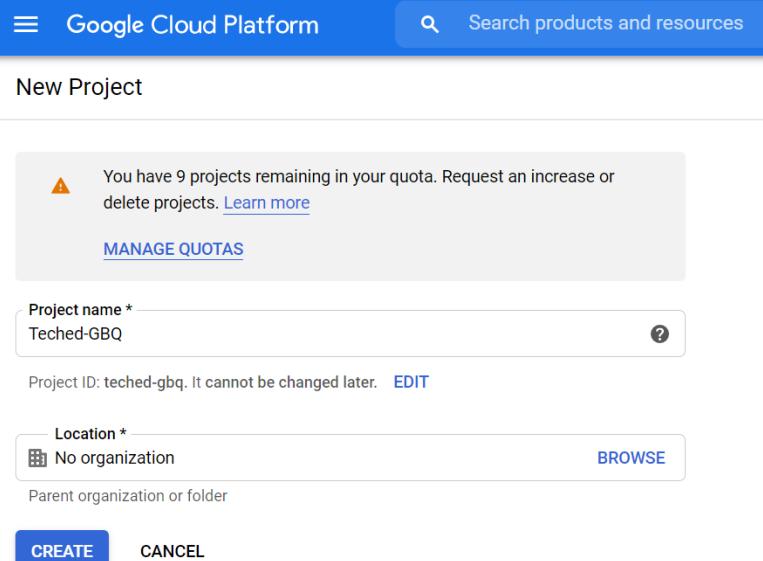
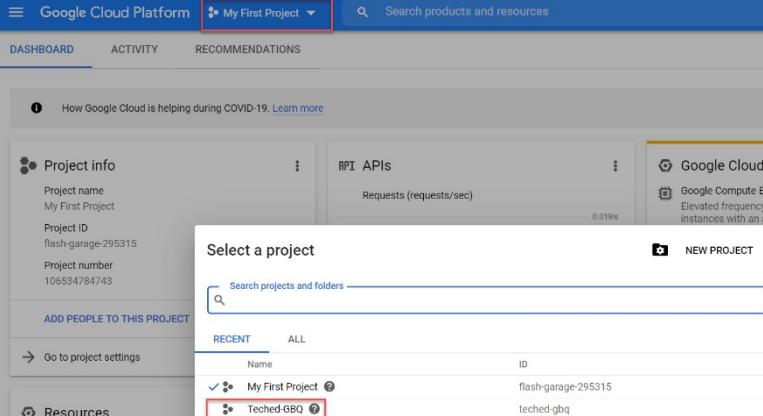
- how to manage user and connections within your own space.
- How to intergrate Cloud solutions into SAP Data Warehosue Cloud
- We will create multiple new graphical models. Within this view we will transfer the knowledge of how to use the Filter, Projection, Join and Data Preview option.
- We introduce the usage data flow and data flow monitoring and build-in assistance and feedback options.
- Based on the created models a stunning SAP Analytic Cloud story will be created and updated with data coming from different cloud sources.

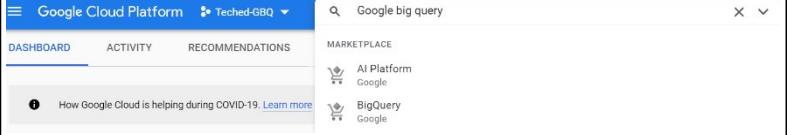
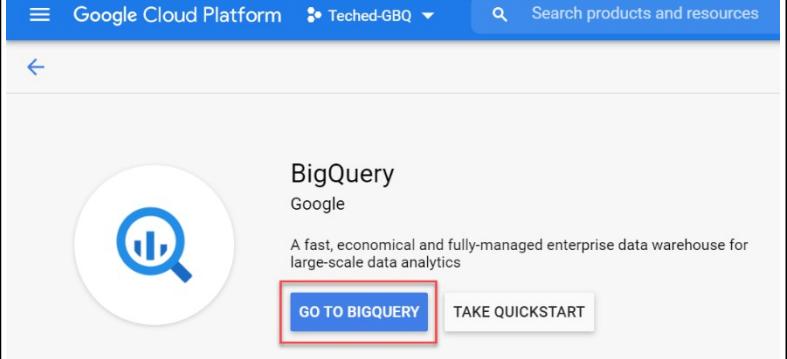
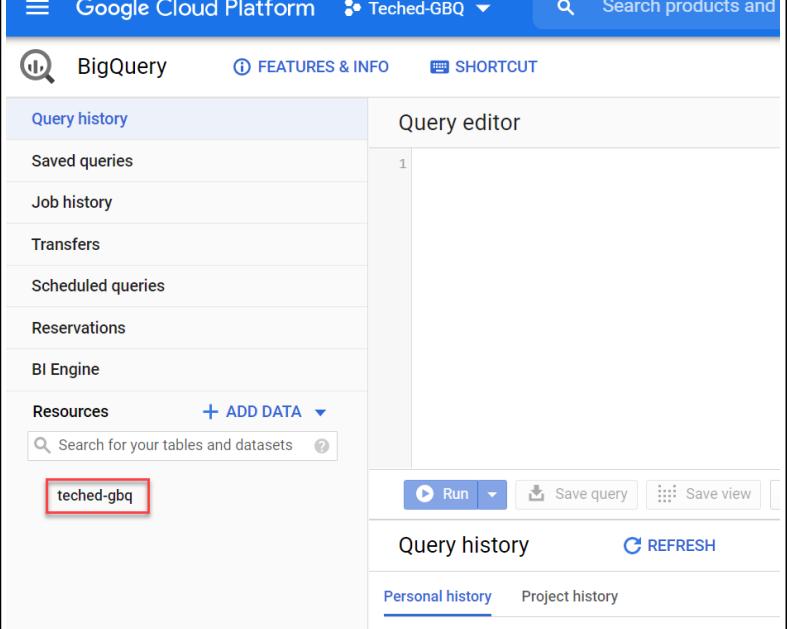
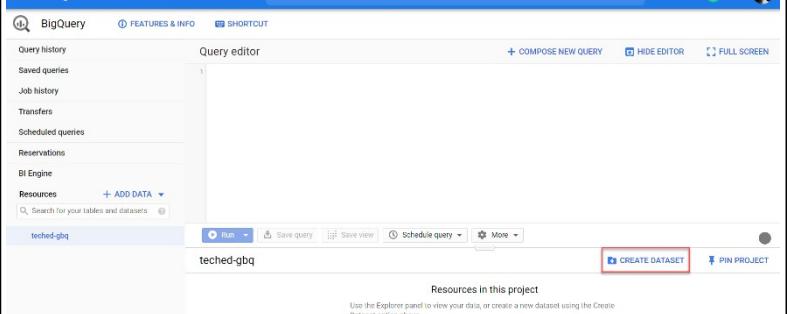
Reading Guidelines

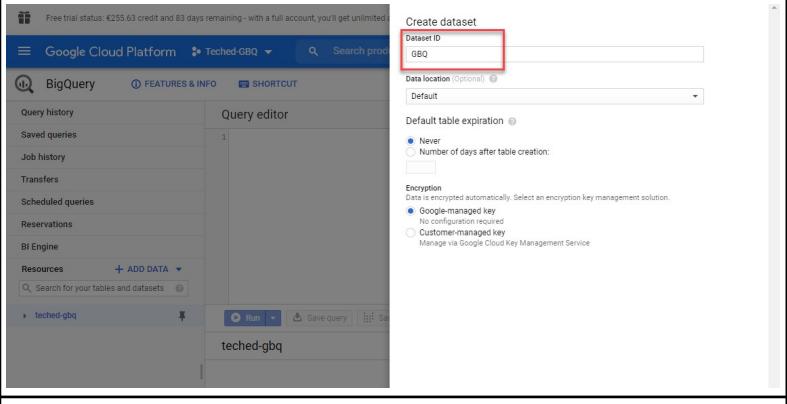
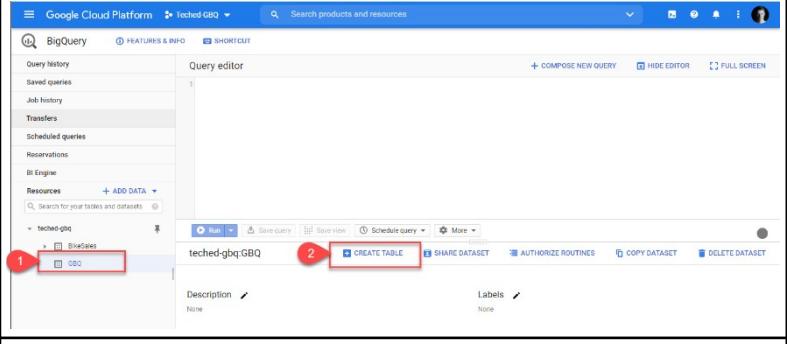
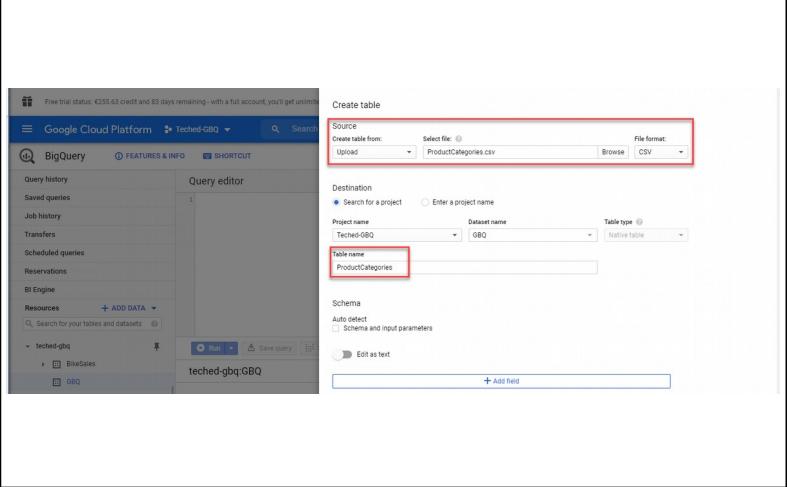
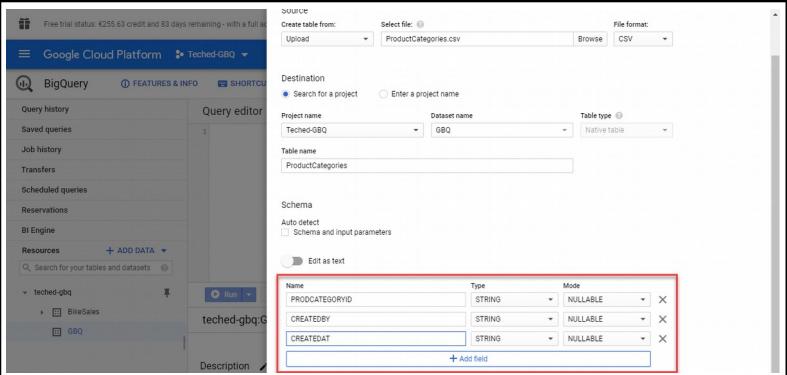
| | Explanation |
|-------------|--|
| Bold | In bold we mark actions and titles which you need to follow during the script |
| | Red arrows and markings will help you to locate the button within the SAP Data Warehouse Cloud |
| | The information icon will should you an important hint |

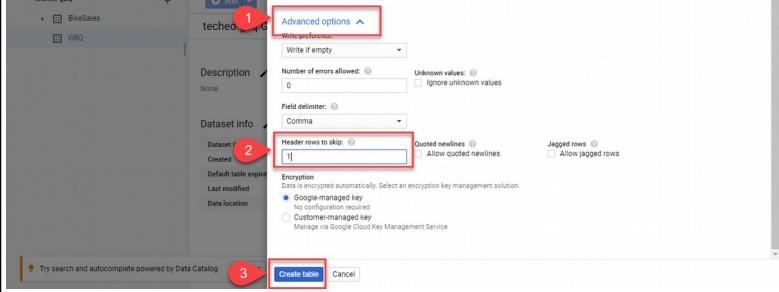
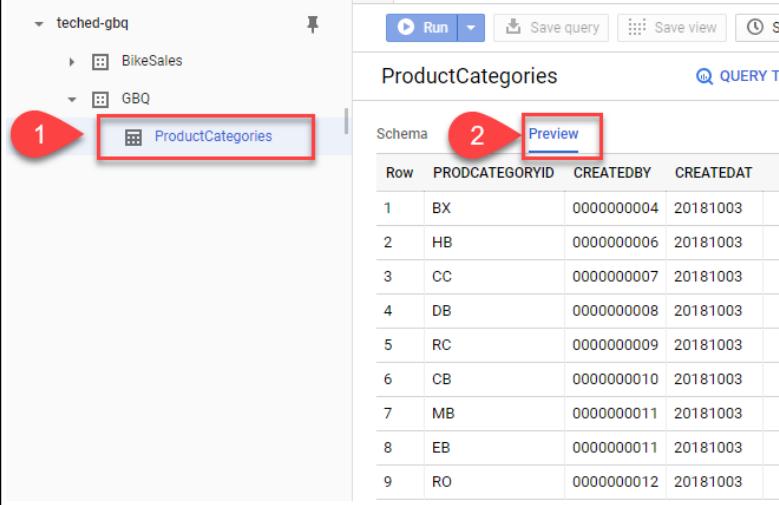
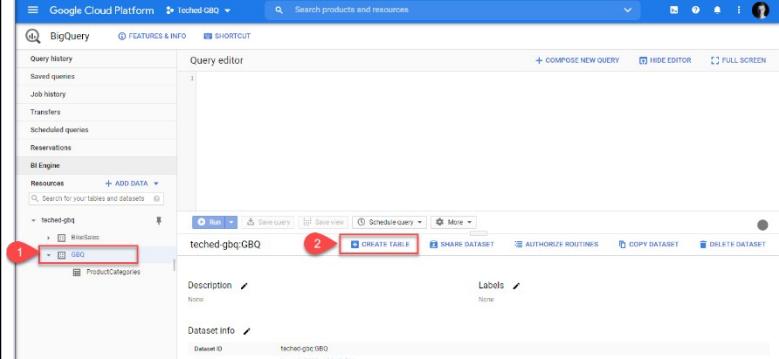
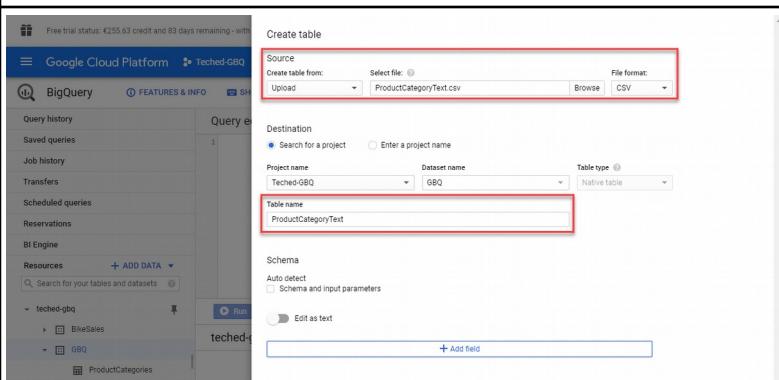
Connection to Google Big Query

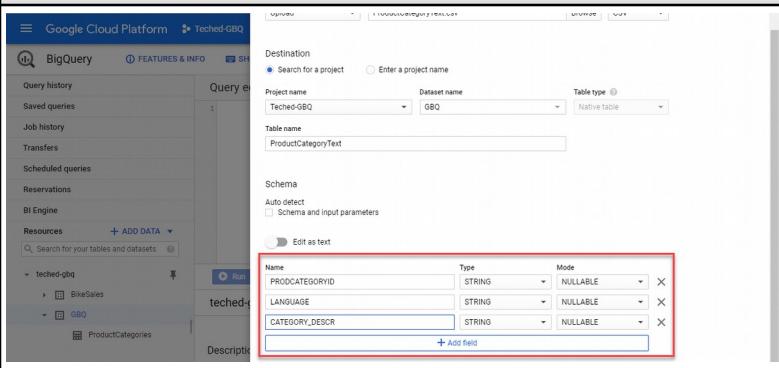
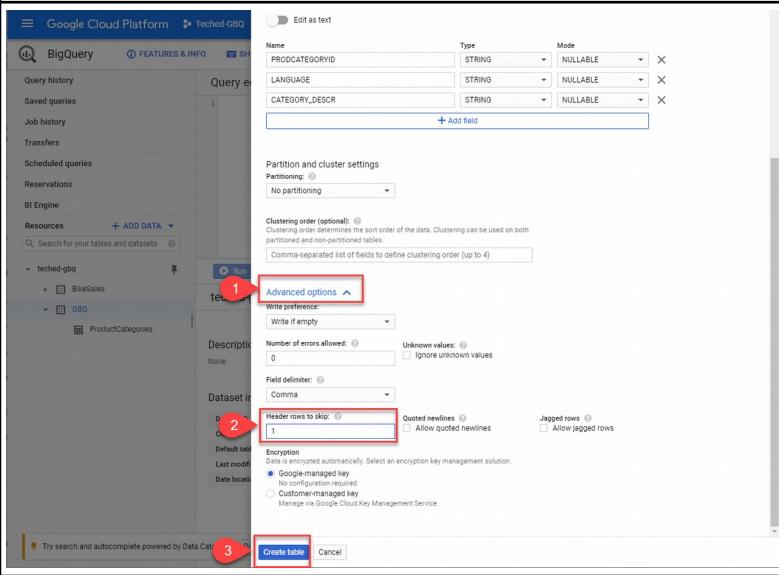
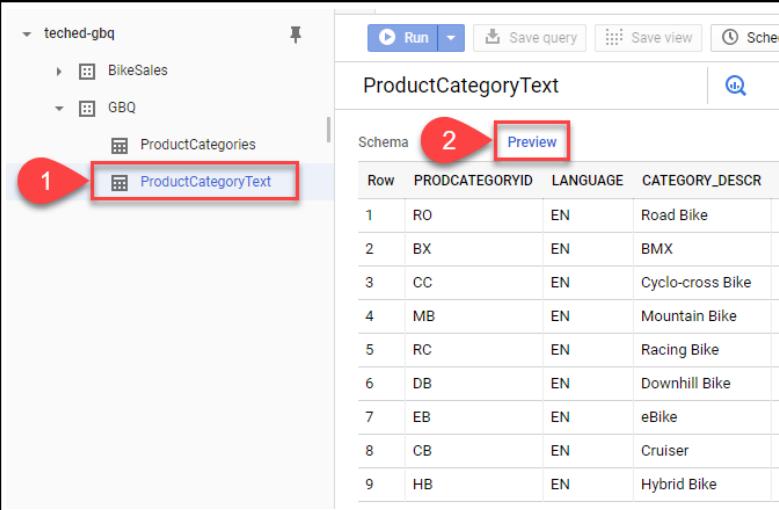
| Explanation | Screenshot |
|---|---|
| <p> Before we start can start to connect Cloud Solutions with SAP Data Warehouse Cloud, we need to create the Trial Account for Google Big Query.</p> <p>Therefore please navigate to the Google Cloud Console following this link: https://tinyurl.com/y595n5bu</p> <p>Either you connect to your existing account or you simply create a new account by clicking on "Create account"</p> <p>Activate the Google Cloud Platform free trial and receive a credit of 300 \$ for the next 90 days</p> |  <p>The screenshot shows the Google Sign-in page. At the top, it says "Sign in to continue to Google Cloud Platform". Below is a text input field labeled "Email or phone". Underneath the input field is a blue "Forgot email?" link. Further down, there's a note: "Not your computer? Use Guest mode to sign in privately." followed by a "Learn more" link. At the bottom of the form are two buttons: a blue "Create account" button with a red rectangular highlight around it, and a blue "Next" button. Below the form, there are links for "English (United States) ▾", "Help", "Privacy", and "Terms".</p> |
| <p>As soon as your Google Cloud Platform Account is running, please create a new project by clicking on the "My First Project" button</p> |  <p>The screenshot shows the Google Cloud Platform Dashboard. At the top, there's a navigation bar with "Google Cloud Platform" and "My First Project" selected. A search bar is also present. Below the navigation is a menu bar with "DASHBOARD", "ACTIVITY", and "RECOMMENDATIONS".</p> |

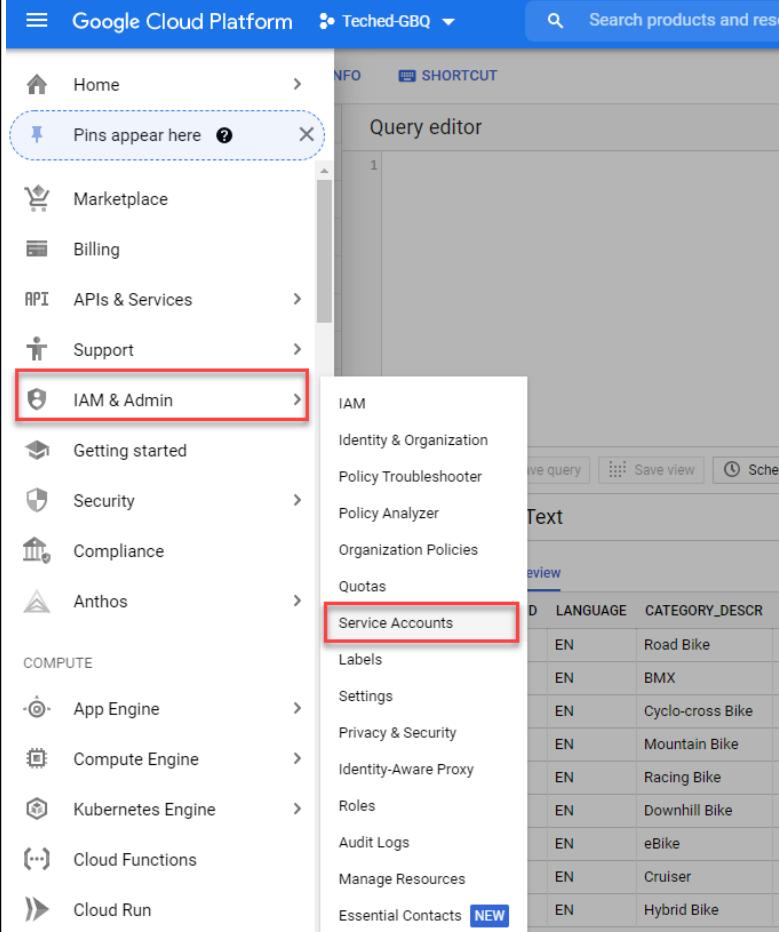
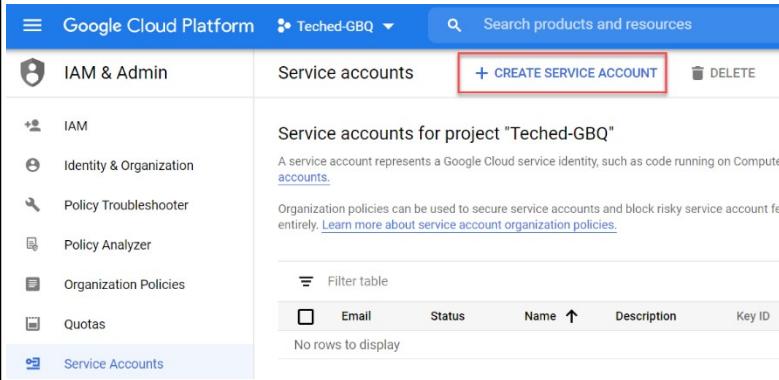
| Explanation | Screenshot | | | | | | |
|---|--|------|----|--------------------|---------------------|------------|------------|
| Create a “New Project” |  <p>Select a project</p> <p>RECENT ALL</p> <table border="1"> <thead> <tr> <th>Name</th> <th>ID</th> </tr> </thead> <tbody> <tr> <td>✓ My First Project</td> <td>flash-garage-295315</td> </tr> </tbody> </table> <p>CANCEL OPEN</p> | Name | ID | ✓ My First Project | flash-garage-295315 | | |
| Name | ID | | | | | | |
| ✓ My First Project | flash-garage-295315 | | | | | | |
| <p>In the new project creation screen, please enter the project TechEd-GBQ</p> <p>Info: Please keep in mind that the project ID cannot be changed later.</p> <p>Click on the “Create” button</p> |  <p>New Project</p> <p>You have 9 projects remaining in your quota. Request an increase or delete projects. Learn more</p> <p>MANAGE QUOTAS</p> <p>Project name * Teched-GBQ</p> <p>Project ID: teched-gbq. It cannot be changed later. EDIT</p> <p>Location * No organization BROWSE</p> <p>Parent organization or folder</p> <p>CREATE CANCEL</p> | | | | | | |
| <p>Please switch from the default project to the newly created project while clicking on the “my First Project” button in the top navigation bar.</p> <p>Secondly please select the newly created project by clicking on the lineitem.</p> <p>Info: With this, all ongoing activities will be performed in context of this project</p> |  <p>DASHBOARD ACTIVITY RECOMMENDATIONS</p> <p>How Google Cloud is helping during COVID-19. Learn more</p> <p>Project info</p> <ul style="list-style-type: none"> Project name: My First Project Project ID: flash-garage-295315 Project number: 106534784743 <p>ADD PEOPLE TO THIS PROJECT → Go to project settings</p> <p>Resources</p> <p>Select a project</p> <p>Search projects and folders</p> <p>RECENT ALL</p> <table border="1"> <thead> <tr> <th>Name</th> <th>ID</th> </tr> </thead> <tbody> <tr> <td>✓ My First Project</td> <td>flash-garage-295315</td> </tr> <tr> <td>Teched-GBQ</td> <td>teched-gbq</td> </tr> </tbody> </table> <p>NEW PROJECT</p> | Name | ID | ✓ My First Project | flash-garage-295315 | Teched-GBQ | teched-gbq |
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| Teched-GBQ | teched-gbq | | | | | | |

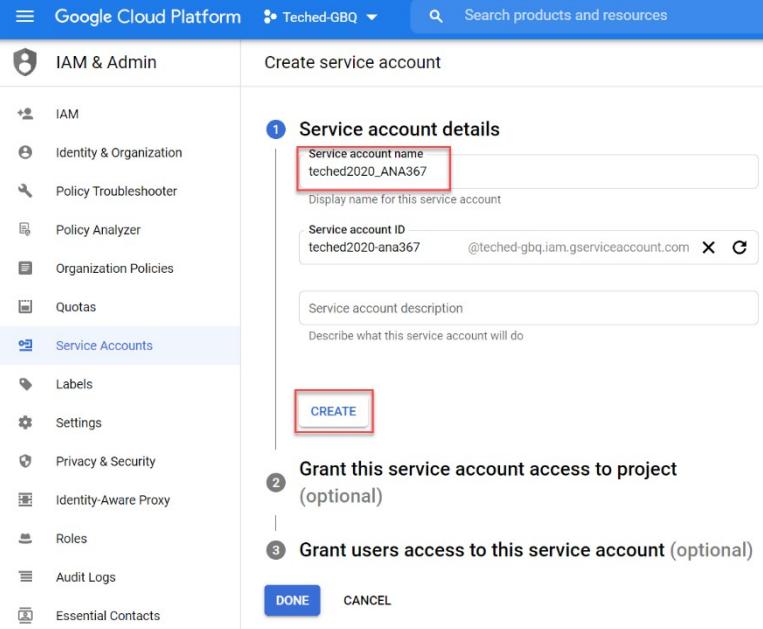
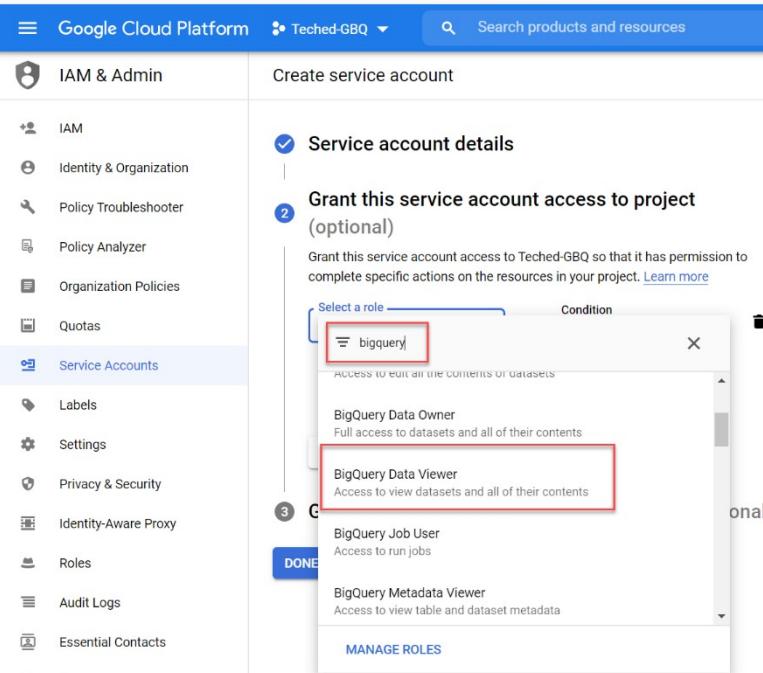
| Explanation | Screenshot |
|--|--|
| <p>Search and select Google BigQuery in the Google Marketplace.</p> <p>Here you can simply use the search bar beside to your project,</p> |  |
| <p>In the overview page, navigate to Google Big Query by pressing on the button “Go to BigQuery”</p> |  |
| <p>Open your project in the left navigation bar by clicking on it</p> |  |
| <p>Create new data sets within the project while clicking on the “Create dataset” button</p> |  |

| Explanation | Screenshot | | | | | | | | | | | | |
|---|--|----------|------|------|----------------|--------|----------|-----------|--------|----------|-----------|--------|----------|
| <p>Enter the Dataset ID GBQ and click on the create dataset button on the bottom of the screen</p> |  | | | | | | | | | | | | |
| <p>1) Navigate to the newly created data set and 2) click on the create table</p> |  | | | | | | | | | | | | |
| <p>i Download both files ProductCategories and ProductCategoryTexts from the TechEd GitHub repository for this Hands-On Session to your local machine.</p> <p>Create a table from Upload. Select the file ProductCategories on your local machine and change the file format to CSV</p> <p>Enter the table name: ProductCategories</p> |  | | | | | | | | | | | | |
| <p>Click 3 times on + Add Field.</p> <p>Enter 3 new fields with type String, mode Nullable:</p> <ul style="list-style-type: none"> - PRODCATEGORYID - CREATEDBY - CREATEDAT |  <table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Mode</th> </tr> </thead> <tbody> <tr> <td>PRODCATEGORYID</td> <td>STRING</td> <td>NULLABLE</td> </tr> <tr> <td>CREATEDBY</td> <td>STRING</td> <td>NULLABLE</td> </tr> <tr> <td>CREATEDAT</td> <td>STRING</td> <td>NULLABLE</td> </tr> </tbody> </table> | Name | Type | Mode | PRODCATEGORYID | STRING | NULLABLE | CREATEDBY | STRING | NULLABLE | CREATEDAT | STRING | NULLABLE |
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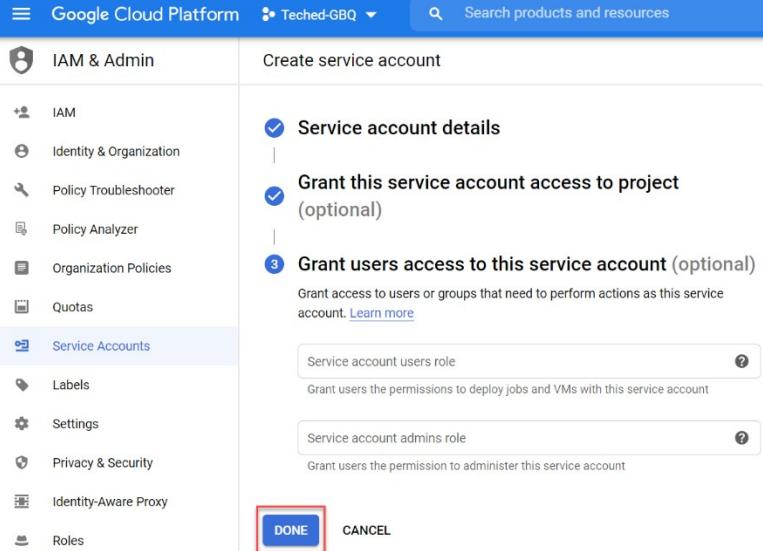
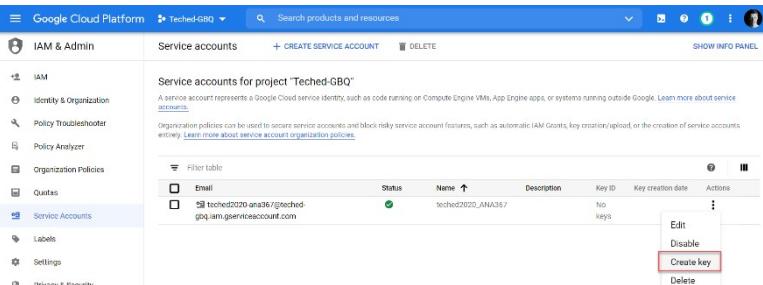
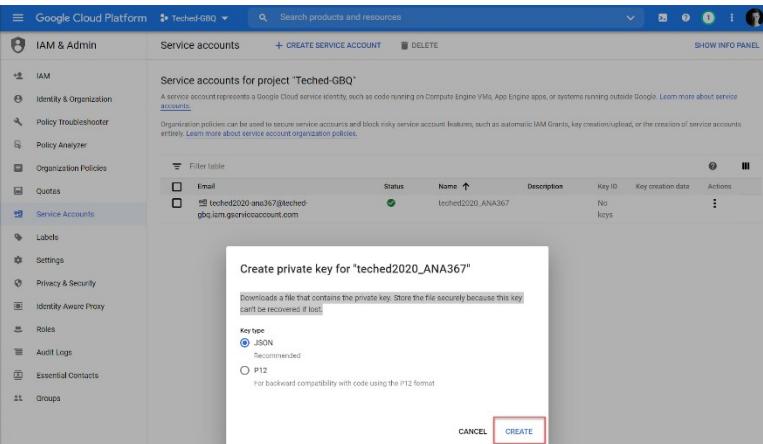
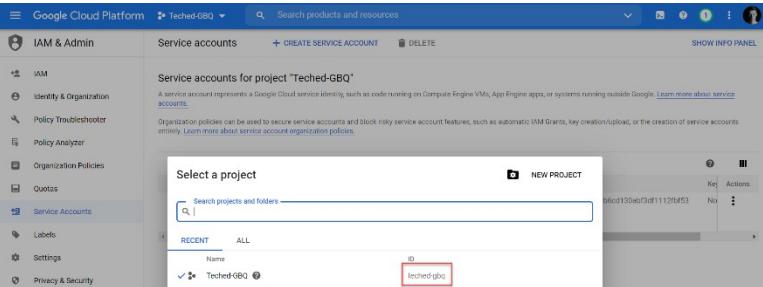
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|--|--|------------|----------------|-----------|-----------|---|----|------------|----------|---|----|------------|----------|---|----|------------|----------|---|----|------------|----------|---|----|------------|----------|---|----|------------|----------|---|----|------------|----------|---|----|------------|----------|---|----|------------|----------|
| <p>1) Open the advanced options.</p> <p> Enter the number of rows to skip from the top of the CSV file.</p> <p>2) Enter a 1 in the field Header rows to skip</p> <p>3) Please leave the other default values untouched and trigger the table creation by clicking on create table button on bottom of the screen</p> |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Check the table ProductCategories content while you navigate to the table in the navigation pane</p> <p>Please select "Preview"</p> |  <table border="1"> <thead> <tr> <th>Row</th> <th>PRODCATEGORYID</th> <th>CREATEDBY</th> <th>CREATEDAT</th> </tr> </thead> <tbody> <tr><td>1</td><td>BX</td><td>0000000004</td><td>20181003</td></tr> <tr><td>2</td><td>HB</td><td>0000000006</td><td>20181003</td></tr> <tr><td>3</td><td>CC</td><td>0000000007</td><td>20181003</td></tr> <tr><td>4</td><td>DB</td><td>0000000008</td><td>20181003</td></tr> <tr><td>5</td><td>RC</td><td>0000000009</td><td>20181003</td></tr> <tr><td>6</td><td>CB</td><td>0000000010</td><td>20181003</td></tr> <tr><td>7</td><td>MB</td><td>0000000011</td><td>20181003</td></tr> <tr><td>8</td><td>EB</td><td>0000000011</td><td>20181003</td></tr> <tr><td>9</td><td>RO</td><td>0000000012</td><td>20181003</td></tr> </tbody> </table> | Row | PRODCATEGORYID | CREATEDBY | CREATEDAT | 1 | BX | 0000000004 | 20181003 | 2 | HB | 0000000006 | 20181003 | 3 | CC | 0000000007 | 20181003 | 4 | DB | 0000000008 | 20181003 | 5 | RC | 0000000009 | 20181003 | 6 | CB | 0000000010 | 20181003 | 7 | MB | 0000000011 | 20181003 | 8 | EB | 0000000011 | 20181003 | 9 | RO | 0000000012 | 20181003 |
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| <p>Select the Data Set GBQ and create a second table by clicking on Create table</p> |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Upload the csv file ProductCategoryText. Select the file on your local machine and change the file format to CSV</p> <p>Enter the table name: ProductCategoryText</p> |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Explanation | Screenshot | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----------|------------------|----------|----------------|---|----|----|-----------|---|----|----|-----|---|----|----|------------------|---|----|----|---------------|---|----|----|-------------|---|----|----|---------------|---|----|----|-------|---|----|----|---------|---|----|----|-------------|
| <p>Click 3 times on + Add Field.</p> <p>Enter 3 new fields with type String, mode Nullable:</p> <ul style="list-style-type: none"> - PRODCATEGORYID - LANGUAGE - CATEGORY_DESCR |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p>Check the table ProductCategoryText content while you navigate to the table in the navigation pane</p> <p>Please select "Preview"</p> |  <table border="1" data-bbox="965 1343 1395 1680"> <thead> <tr> <th>Row</th> <th>PRODCATEGORYID</th> <th>LANGUAGE</th> <th>CATEGORY_DESCR</th> </tr> </thead> <tbody> <tr><td>1</td><td>RO</td><td>EN</td><td>Road Bike</td></tr> <tr><td>2</td><td>BX</td><td>EN</td><td>BMX</td></tr> <tr><td>3</td><td>CC</td><td>EN</td><td>Cyclo-cross Bike</td></tr> <tr><td>4</td><td>MB</td><td>EN</td><td>Mountain Bike</td></tr> <tr><td>5</td><td>RC</td><td>EN</td><td>Racing Bike</td></tr> <tr><td>6</td><td>DB</td><td>EN</td><td>Downhill Bike</td></tr> <tr><td>7</td><td>EB</td><td>EN</td><td>eBike</td></tr> <tr><td>8</td><td>CB</td><td>EN</td><td>Cruiser</td></tr> <tr><td>9</td><td>HB</td><td>EN</td><td>Hybrid Bike</td></tr> </tbody> </table> | Row | PRODCATEGORYID | LANGUAGE | CATEGORY_DESCR | 1 | RO | EN | Road Bike | 2 | BX | EN | BMX | 3 | CC | EN | Cyclo-cross Bike | 4 | MB | EN | Mountain Bike | 5 | RC | EN | Racing Bike | 6 | DB | EN | Downhill Bike | 7 | EB | EN | eBike | 8 | CB | EN | Cruiser | 9 | HB | EN | Hybrid Bike |
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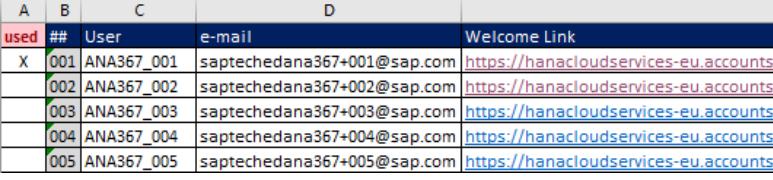
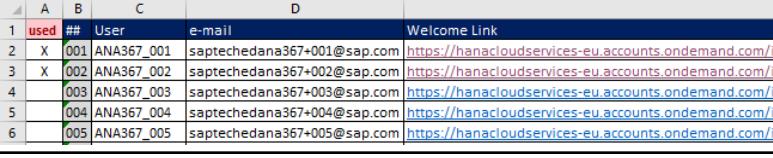
| Explanation | Screenshot |
|--|--|
| <p>Next we require service accounts so that you can access your GBQ data from SAP Data Warehouse Cloud</p> <p>Navigate to IAM & Admin in the navigation pane, and select Service Accounts</p> <p> A service account represents a Google Cloud service identity, such as code running on Compute Engine VMs, App Engine apps, or systems running outside Google.</p> |  <p>The screenshot shows the Google Cloud Platform navigation pane with 'IAM & Admin' selected. In the main content area, the 'Service Accounts' tab is selected under the 'IAM' section. A red box highlights the 'Service Accounts' link.</p> |
| <p>Create a new service account by clicking on the Create Service Account button</p> |  <p>The screenshot shows the 'Service accounts' page in the IAM & Admin section. A red box highlights the '+ CREATE SERVICE ACCOUNT' button.</p> |

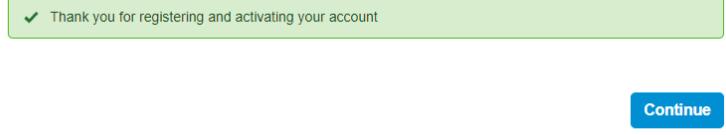
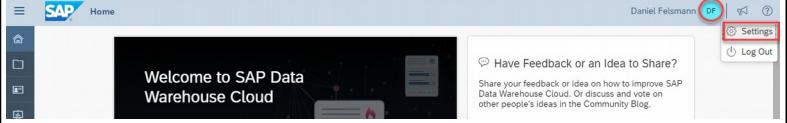
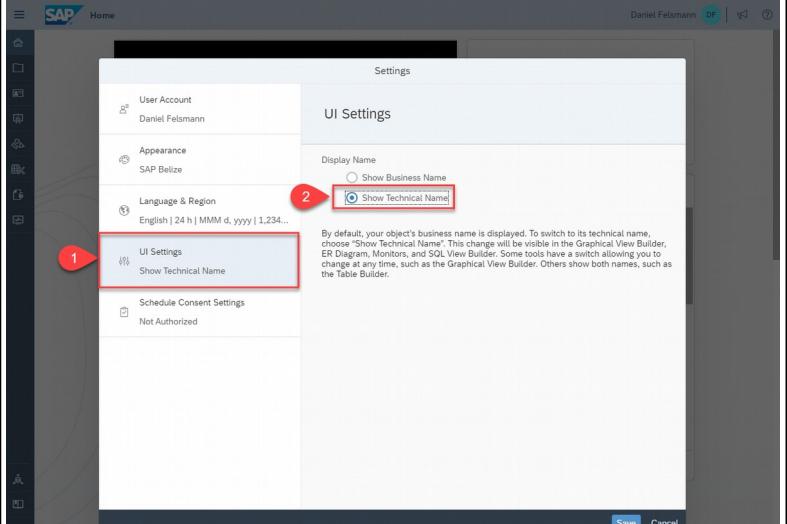
| Explanation | Screenshot |
|---|---|
| <p>Enter the service account name: teched2020_ANA367</p> <p>Click on the CREATE button to move on to the second step</p> |  |
| <p>In the second step you grant this service account access to Teched-GBQ so that it has permission to complete specific actions on the resources in your project.</p> <p>Please select and assign the role: BigQuery Data Viewer</p> |  |
| <p>Add another role and select the BigQuery User</p> <p>Continue with the next step</p> | |

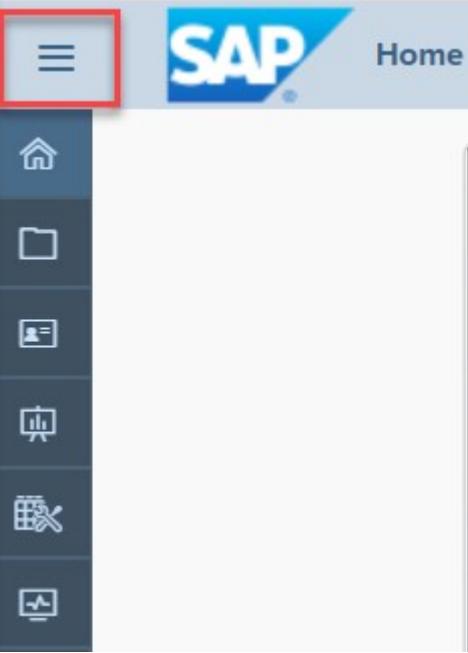
AIN367 - Integration Cloud Solution with SAP Data Warehouse Cloud

| Explanation | Screenshot |
|--|--|
| <p>Skip the 3rd step and click directly on Done.</p> <p>With that the service account is generated in the background</p> |  |
| <p>i Now we need to generate the key for that is used in SAP Data Warehouse Cloud when you create the connection</p> <p>Simply select dots in the action column and select the option Create key</p> |  |
| <p>Download the key by clicking Create</p> <p>i Downloads a file that contains the private key. Store the file securely because this key can't be recovered if lost.</p> <p>Close the window as soon as the download is finished.</p> <p>That is basically all what we need to do on the Google Cloud side.</p> |  |
| <p>As a last step, please notice the project ID by clicking on the project</p> |  |

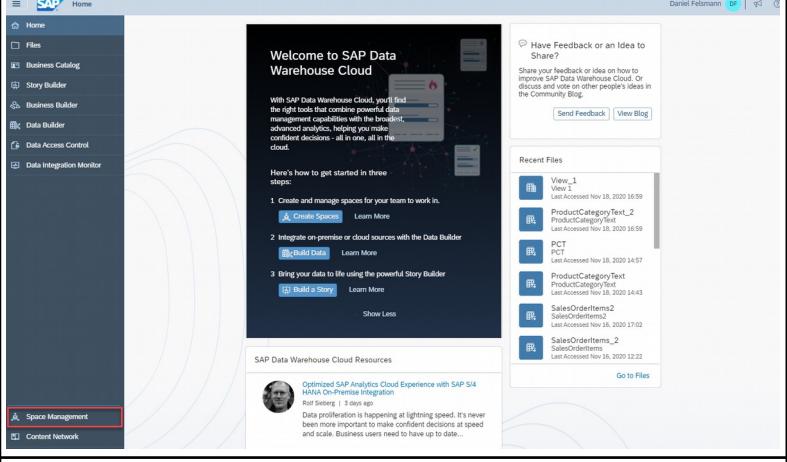
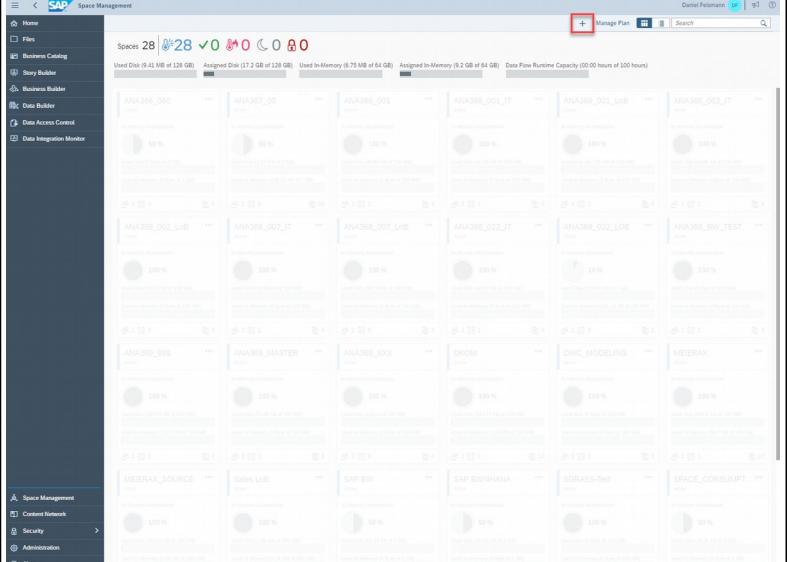
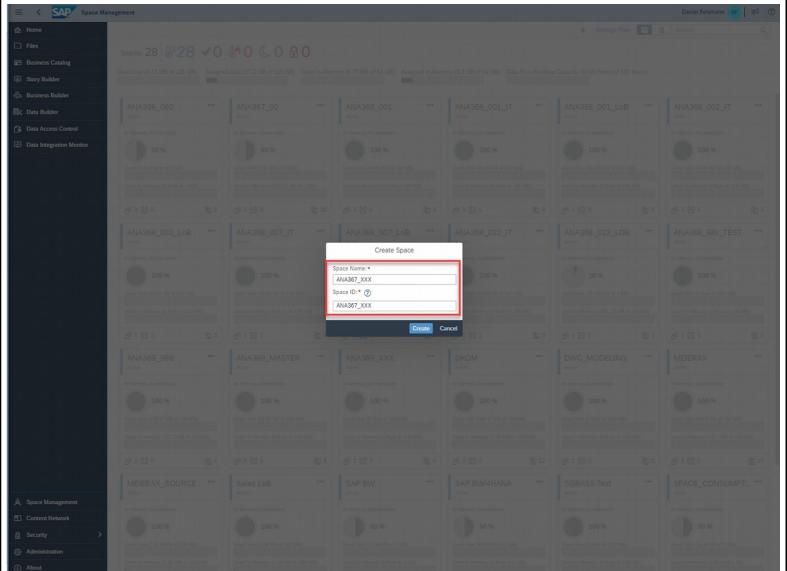
Getting a User & Access to SAP Data Warehouse Cloud

| Explanation | Screenshot | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--------------|-----------------------------|---|---|----------|-----------------------------|------------|--------------------------|---------------------|--------------------------|--------------|-----|------------|-----------------------------|---|-----------------------------|---|------------|-----------------------------|---|------------|-----------------------------|---|-----------------------------|---|-----|------------|-----------------------------|---|---|---|-----|------------|-----------------------------|---|---|---|-----|------------|-----------------------------|---|
| <p> For this session, you need to activate your user account yourself.</p> <p>Please navigate to the google sheets https://tinyurl.com/y6yqneyh to receive your user.</p> <p>Pick a unused user of your choice and select the according activation link</p> <p> Please note the ## number as this will be required in the upcoming steps of this exercise</p> |  <table border="1"> <thead> <tr> <th>A</th><th>B</th><th>C</th><th>D</th><th>E</th></tr> <tr> <th>used</th><th>##</th><th>User</th><th>e-mail</th><th>Welcome Link</th></tr> </thead> <tbody> <tr> <td>X</td><td>001</td><td>ANA367_001</td><td>saptechedana367+001@sap.com</td><td>https://hanacloudservices-eu.accounts</td></tr> <tr> <td>✓</td><td>002</td><td>ANA367_002</td><td>saptechedana367+002@sap.com</td><td>https://hanacloudservices-eu.accounts</td></tr> <tr> <td>✓</td><td>003</td><td>ANA367_003</td><td>saptechedana367+003@sap.com</td><td>https://hanacloudservices-eu.accounts</td></tr> <tr> <td>✓</td><td>004</td><td>ANA367_004</td><td>saptechedana367+004@sap.com</td><td>https://hanacloudservices-eu.accounts</td></tr> <tr> <td>✓</td><td>005</td><td>ANA367_005</td><td>saptechedana367+005@sap.com</td><td>https://hanacloudservices-eu.accounts</td></tr> </tbody> </table> | A | B | C | D | E | used | ## | User | e-mail | Welcome Link | X | 001 | ANA367_001 | saptechedana367+001@sap.com | https://hanacloudservices-eu.accounts | ✓ | 002 | ANA367_002 | saptechedana367+002@sap.com | https://hanacloudservices-eu.accounts | ✓ | 003 | ANA367_003 | saptechedana367+003@sap.com | https://hanacloudservices-eu.accounts | ✓ | 004 | ANA367_004 | saptechedana367+004@sap.com | https://hanacloudservices-eu.accounts | ✓ | 005 | ANA367_005 | saptechedana367+005@sap.com | https://hanacloudservices-eu.accounts | | | | | | |
| A | B | C | D | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| used | ## | User | e-mail | Welcome Link | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| X | 001 | ANA367_001 | saptechedana367+001@sap.com | https://hanacloudservices-eu.accounts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ✓ | 002 | ANA367_002 | saptechedana367+002@sap.com | https://hanacloudservices-eu.accounts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| ✓ | 005 | ANA367_005 | saptechedana367+005@sap.com | https://hanacloudservices-eu.accounts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Afterwards please mark your selected user in column A used with X</p> |  <table border="1"> <thead> <tr> <th>A</th><th>B</th><th>C</th><th>D</th><th>E</th></tr> <tr> <th>1</th><th>used</th><th>##</th><th>User</th><th>e-mail</th><th>Welcome Link</th></tr> <tr> <td>2</td><td>X</td><td>001</td><td>ANA367_001</td><td>saptechedana367+001@sap.com</td><td>https://hanacloudservices-eu.accounts.ondemand.com/</td></tr> <tr> <td>3</td><td>X</td><td>002</td><td>ANA367_002</td><td>saptechedana367+002@sap.com</td><td>https://hanacloudservices-eu.accounts.ondemand.com/</td></tr> <tr> <td>4</td><td>✓</td><td>003</td><td>ANA367_003</td><td>saptechedana367+003@sap.com</td><td>https://hanacloudservices-eu.accounts.ondemand.com/</td></tr> <tr> <td>5</td><td>✓</td><td>004</td><td>ANA367_004</td><td>saptechedana367+004@sap.com</td><td>https://hanacloudservices-eu.accounts.ondemand.com/</td></tr> <tr> <td>6</td><td>✓</td><td>005</td><td>ANA367_005</td><td>saptechedana367+005@sap.com</td><td>https://hanacloudservices-eu.accounts.ondemand.com/</td></tr> </thead> <tbody> </tbody> </table> | A | B | C | D | E | 1 | used | ## | User | e-mail | Welcome Link | 2 | X | 001 | ANA367_001 | saptechedana367+001@sap.com | https://hanacloudservices-eu.accounts.ondemand.com/ | 3 | X | 002 | ANA367_002 | saptechedana367+002@sap.com | https://hanacloudservices-eu.accounts.ondemand.com/ | 4 | ✓ | 003 | ANA367_003 | saptechedana367+003@sap.com | https://hanacloudservices-eu.accounts.ondemand.com/ | 5 | ✓ | 004 | ANA367_004 | saptechedana367+004@sap.com | https://hanacloudservices-eu.accounts.ondemand.com/ | 6 | ✓ | 005 | ANA367_005 | saptechedana367+005@sap.com | https://hanacloudservices-eu.accounts.ondemand.com/ |
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| 2 | X | 001 | ANA367_001 | saptechedana367+001@sap.com | https://hanacloudservices-eu.accounts.ondemand.com/ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p>Activate your account by setting a password of your choice.</p> <p>Save your changes</p> <p> If you have problems activating your account, please reach out to saptechedana367@sap.com</p> | <h3>Activate Your Account</h3> <p>An account has been created for you with SAP Cloud Platform Identity Authentication for use with dwc-teched2020. The account information we already have for you is below.</p> <p>To begin using your account for dwc-teched2020, set a password below.</p> <p>Tell Us About Yourself</p> <table border="1"> <tr> <td>First Name *</td> <td>SAPTechED</td> </tr> <tr> <td>Last Name *</td> <td>ANA367_002</td> </tr> <tr> <td>E-Mail *</td> <td>saptechedana367+002@sap.com</td> </tr> </table> <p>Set Password</p> <table border="1"> <tr> <td>Password *</td> <td><input type="password"/></td> </tr> <tr> <td>Re-Enter Password *</td> <td><input type="password"/></td> </tr> </table> <p>SAP HANA Cloud Services</p> | First Name * | SAPTechED | Last Name * | ANA367_002 | E-Mail * | saptechedana367+002@sap.com | Password * | <input type="password"/> | Re-Enter Password * | <input type="password"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| First Name * | SAPTechED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Last Name * | ANA367_002 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E-Mail * | saptechedana367+002@sap.com | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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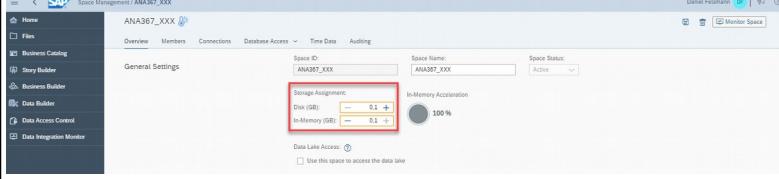
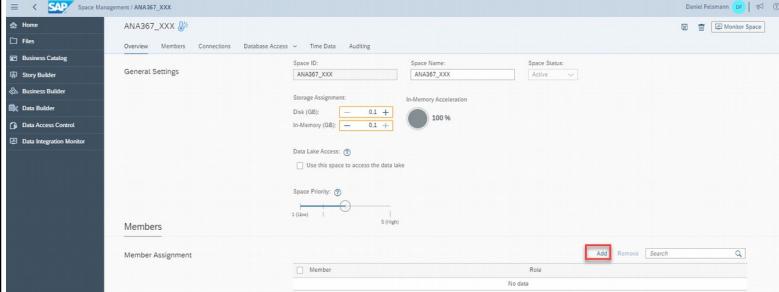
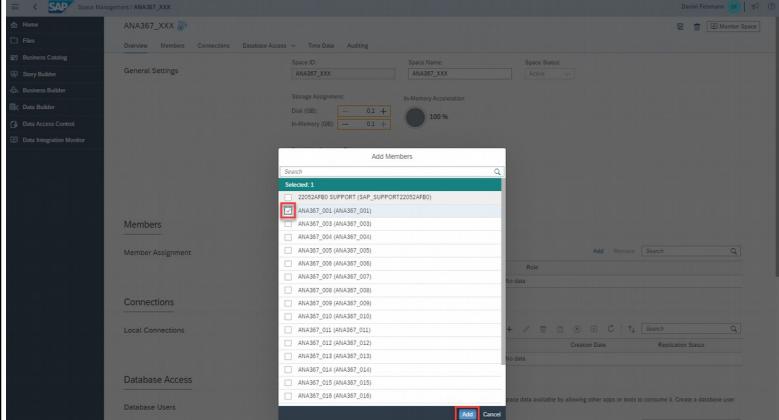
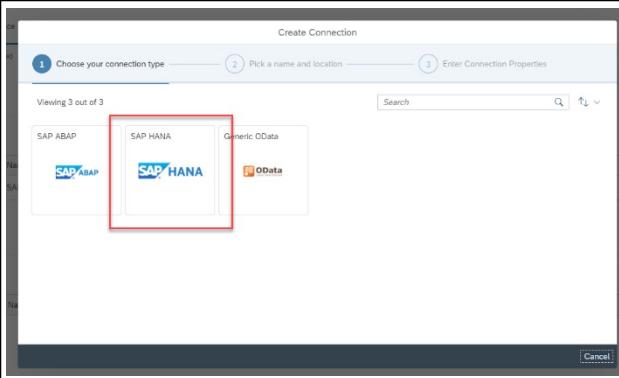
| Explanation | Screenshot |
|--|---|
| <p>Click on Continue</p> <p>Automatically you will be logon to the SAP Data Warehouse Cloud</p> | <p>Account Successfully Activated</p>  <p>SAP HANA Cloud Services</p> |
| <p>After the logon, if you are forwarded to the Home Screen of SAP Analytics Cloud, Open the App Switcher and click on Data Warehouse to open SAP Data Warehouse Cloud.</p> <p>If by default, Data Warehouse Cloud Home Screen opens, you can skip this step.</p> <p>Info: SAP Analytics Cloud is embedded in SAP Data Warehouse Cloud and consumes SAP Data Warehouse Cloud content. Nevertheless it is recommended in the SAP Help Portal to use the Live Connection for productive usage.</p> |  |
| <p>Navigate to your profile settings</p> |  |
| <p>Next, navigate to the UI Settings and switch the settings to Show Technical Name</p> <p>Please Save your changes.</p> |  <p>By default, your object's business name is displayed. To switch to its technical name, choose "Show Technical Name". This change will be visible in the Graphical View Builder, ER Diagram, Monitors, and SQL View Builder. Some tools have a switch allowing you to change at any time, such as the Graphical View Builder. Others show both names, such as the Table Builder.</p> |

| Explanation | Screenshot |
|--|---|
| <p>In order to see descriptions for the navigation menu please click</p>  |  A screenshot of the SAP Home screen. At the top right, the SAP logo and the word "Home" are visible. On the far left, there is a vertical navigation menu with a red box highlighting the first item, which is a three-line icon. Below this are six other icons: a house, a folder, a person, a chart, a bar chart, and a line graph. |

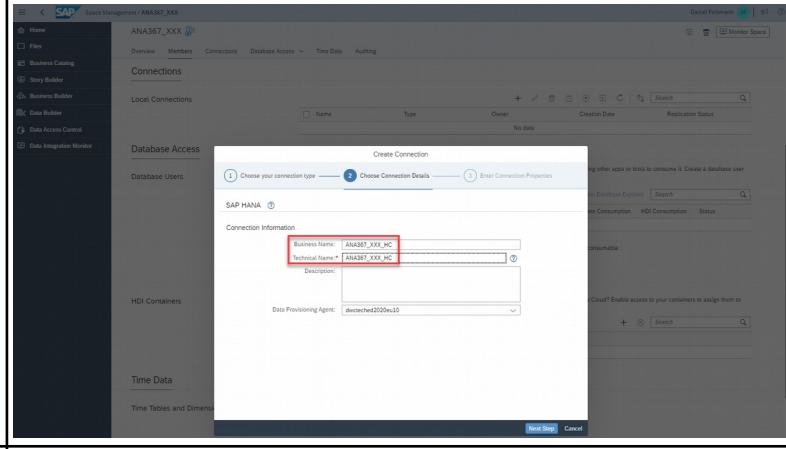
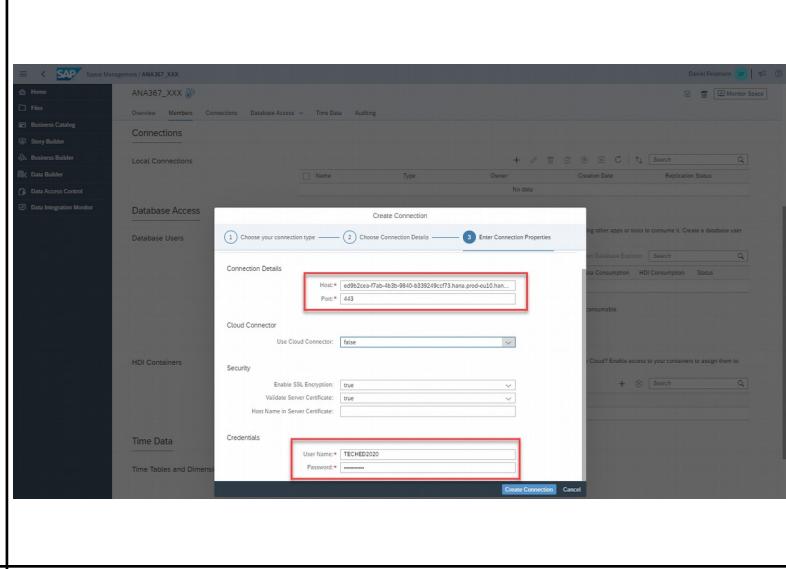
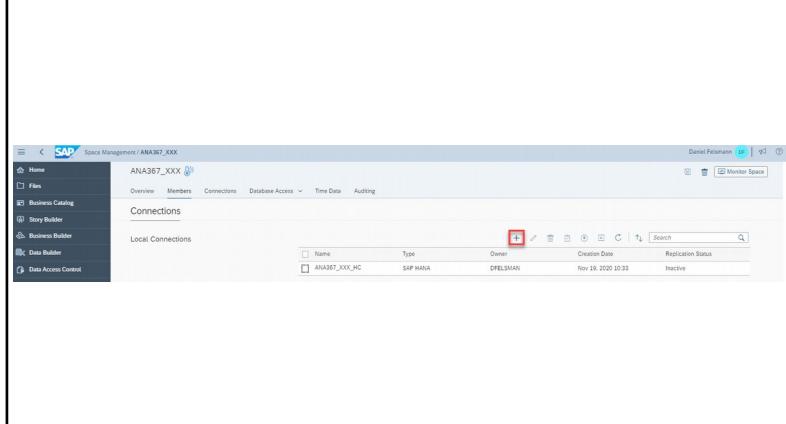
Space Management

| Explanation | Screenshot |
|--|--|
| <p> Connect to different sources is a typical activity in the so-called space management. With Spaces, you can bring data models and connections into a secured and governed place</p> <p> On the bottom of the navigation pane, the administration tasks are located.</p> <p>From the left pane, click on the Space Management icon to open the space administration.</p> |  |
| <p> Different use cases and different business strategies require tailored business needs. Spaces allow you to create an environment that meets your particular requirements. You can assign users and connections to a specific space and adjust the storage capacity.</p> <p> Click  to create a new Space either in the space overview section or in the sub-menu bar.</p> |  |
| <p>Create the new space with the name ANA367_XXX and click on Create.</p> <p> Please replace the xx with your unique number</p> <p>The Space ID cannot be changed after creation.</p> |  |

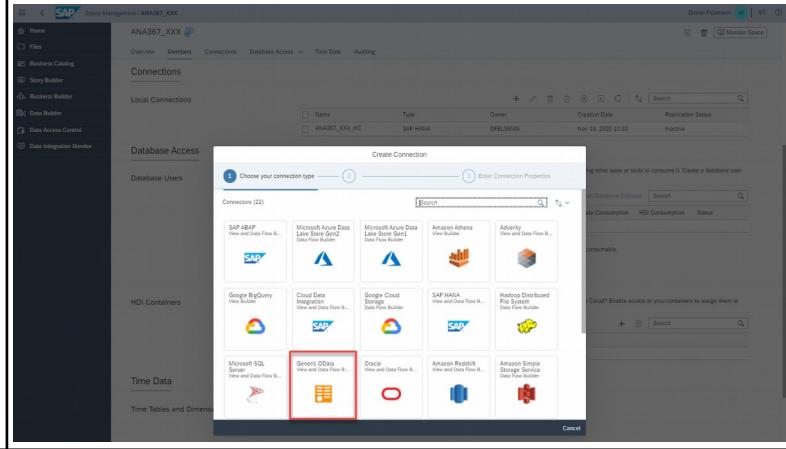
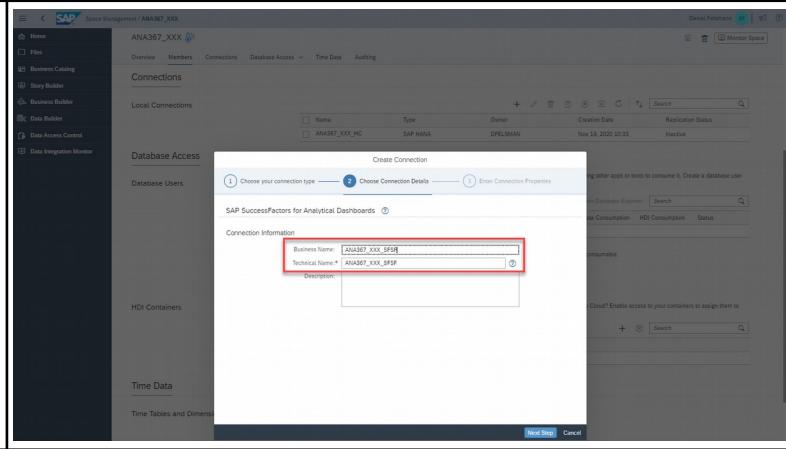
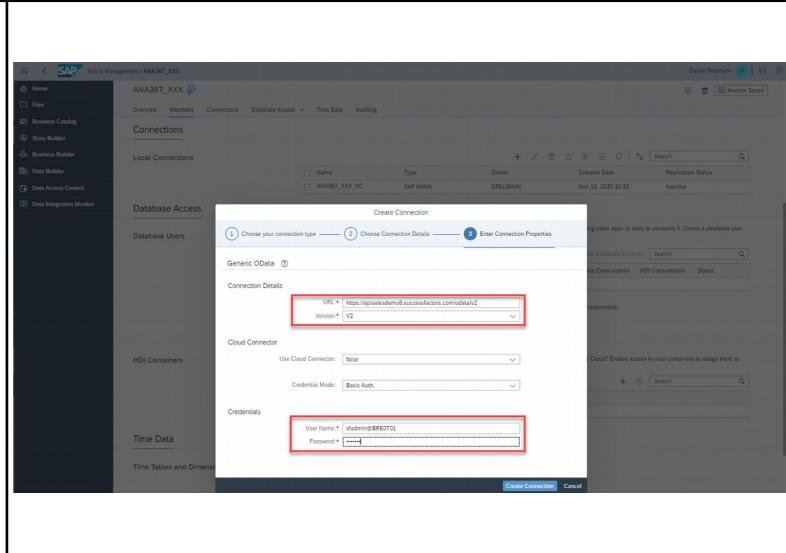
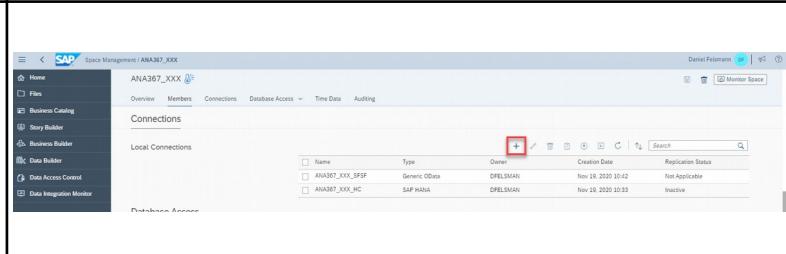
AIN367 - Integration Cloud Solution with SAP Data Warehouse Cloud

| Explanation | Screenshot |
|---|--|
| <p> In Space Management, you can add users to your space. If you are assigned to a space, you can create objects such as tables and views inside the space.</p> <p>Please reduce the Disk (GB) size to 0,1 GB</p> |  |
| <p>In the Members section, click on the + button to add your user to the newly created space.</p> |  |
| <p>Select your user from the available list which would be in the format ANA367_XXX where XXX stands for your unique number.</p> |  |
| <p> Connections provide access to data from a remote source, such as an SAP HANA Cloud or a SAP S/4HANA Cloud system.</p> <p>Under the Connections section, click on the + sign to add new connection to the space.</p> |  |
| <p>On the new connection screen, click on SAP HANA tile. We will now create a connection to a SAP HANA Cloud system provided by SAP.</p> |  |

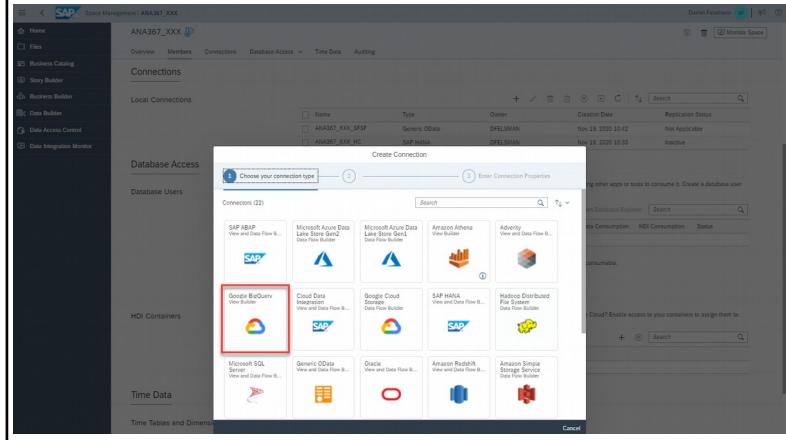
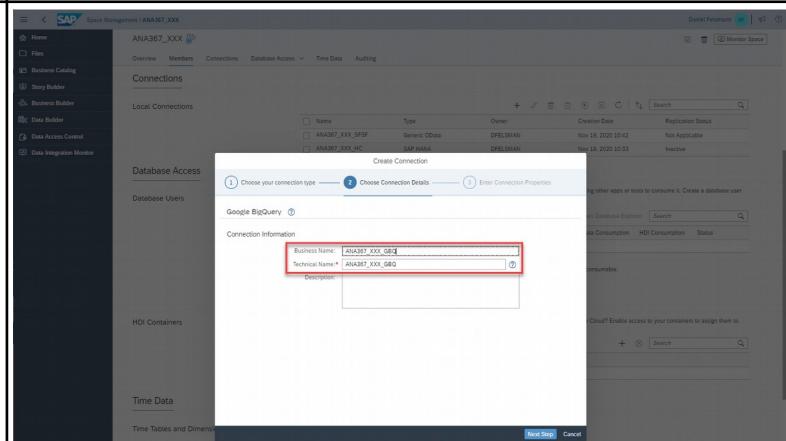
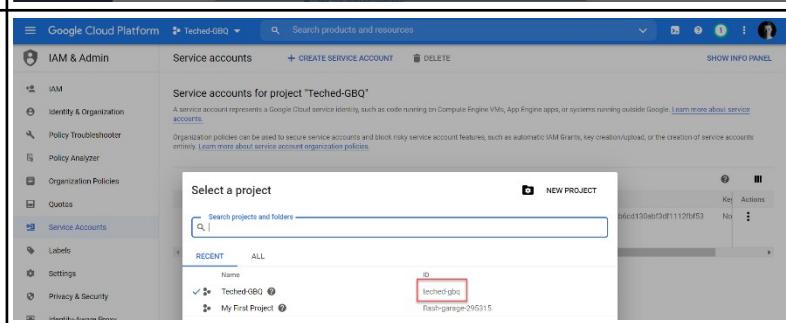
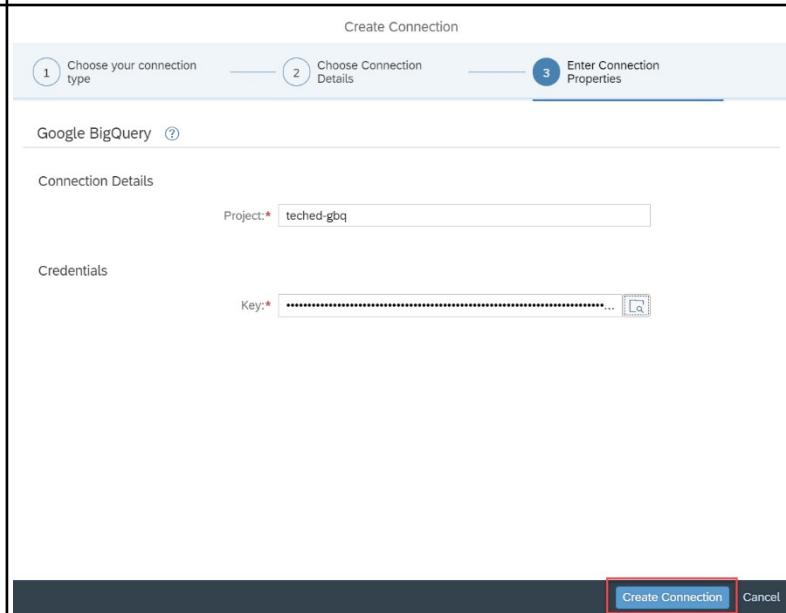
AIN367 - Integration Cloud Solution with SAP Data Warehouse Cloud

| Explanation | Screenshot |
|--|--|
| <p>Set the Technical Name as ANA367_XX_HC where XX stands for your number.</p> <p>Then click the Next Step button to go to the next step.</p> <p> The field Technical Name doesn't accept any spaces, so please ensure that you follow the naming convention in the above example.</p> |  |
| <p>Enter the host name: ed9b2cea-f7ab-4b3b-9840-b339249ccf73.hana.prod-eu10.hanacloud.ondemand.com</p> <p>Port number: 443</p> <p>User: TECHED2020</p> <p>Password: TechEd2020</p> <p>Click on Create Connection to finalize the creation of the connection.</p> |  |
| <p>As we would like to join Data from two cloud sources, we need to add another connection.</p> <p> In the SAP Data Warehouse Cloud Administration the SSL certificate has been already successfully uploaded. There is nothing to do from your side.</p> <p>Under the Connections section, click on the + sign to add new connection to the space.</p> |  |

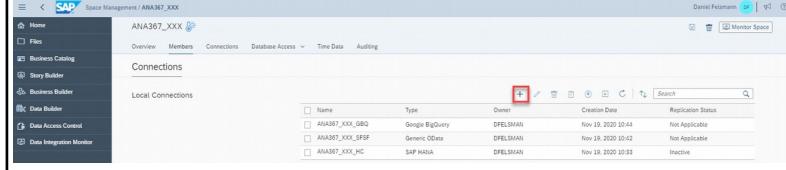
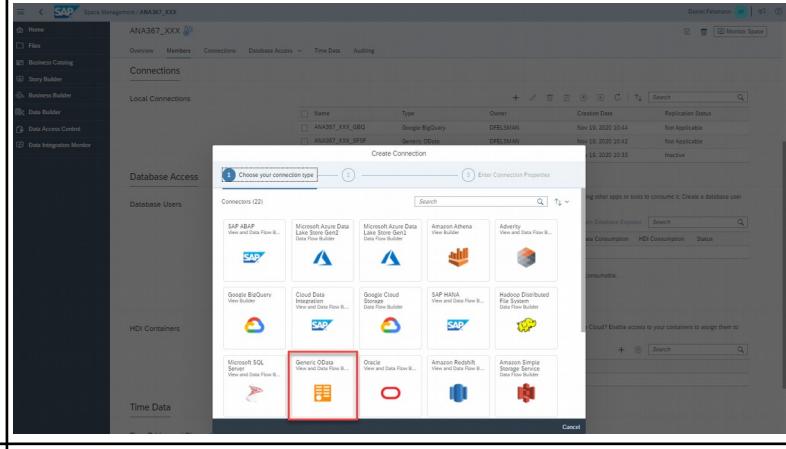
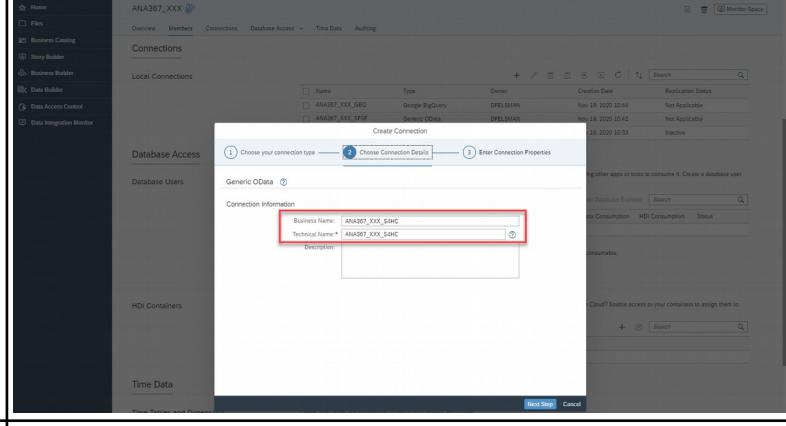
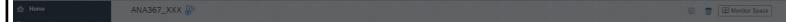
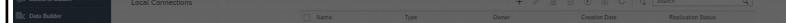
AIN367 - Integration Cloud Solution with SAP Data Warehouse Cloud

| Explanation | Screenshot |
|---|--|
| <p>On the new connection screen, click on ODATA tile</p> |  |
| <p>Set the Technical Name as ANA367_XX_SFSF where XX stands for your number.</p> <p>Then click the Next Step button to go to the next step.</p> <p> The field Technical Name doesn't accept any spaces, so please ensure that you follow the naming convention in the above example.</p> |  |
| <p>Enter the URL name as-</p> <p><u>https://apisalesdemo8.successfactors.comodata/v2</u></p> <p>Version: V2</p> <p>User: sfadmin@BRE0T01</p> <p>Password: rio2020</p> <p>Click on Create Connection to finalize the connection creation.</p> |  |
| <p>As we would like to connect Google BigQuery as well, let us also connect our newly created cloud system as a source.</p> <p>Under the Connections section, click on the + sign to add new connection to the space.</p> |  |

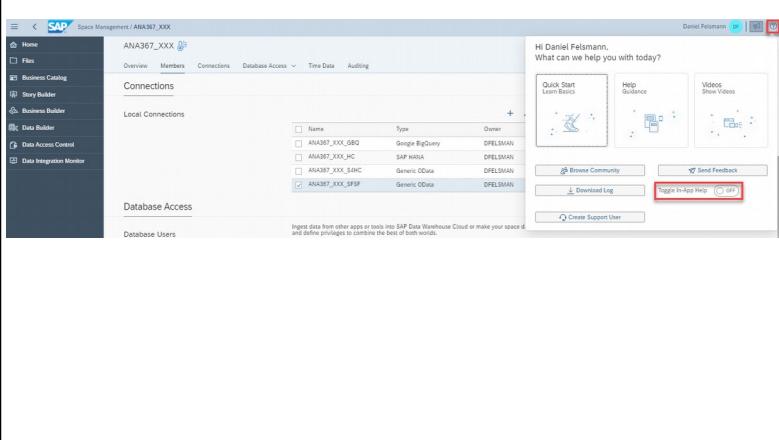
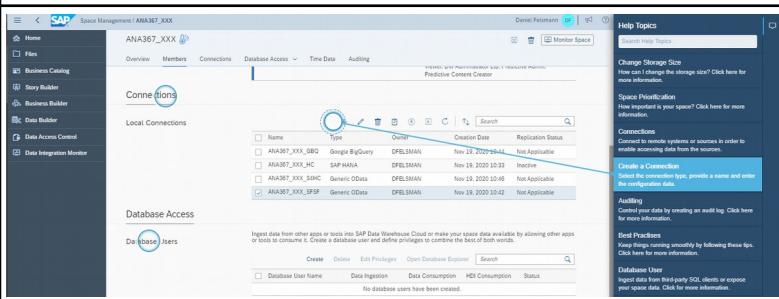
AIN367 - Integration Cloud Solution with SAP Data Warehouse Cloud

| Explanation | Screenshot |
|--|--|
| <p>Select the tile for Google BigQuery</p> |  |
| <p>Enter the Business Name ANA367_XXX_GBQ</p> <p>Enter the Technical Name: ANA367_XXX_GBQ</p> <p>XX is your unique number</p> |  |
| <p>Side Remark: Important for the next step you require the technical ID from your GBQ project</p> |  |
| <p>Enter the technical ID from your GBQ project in the project name from SAP Data Warehouse Cloud</p> <p>teched-gbq</p> <p>Select the key, which you have downloaded from Google BigQuery</p> <p>Finalize the step by pressing create connection</p> |  |

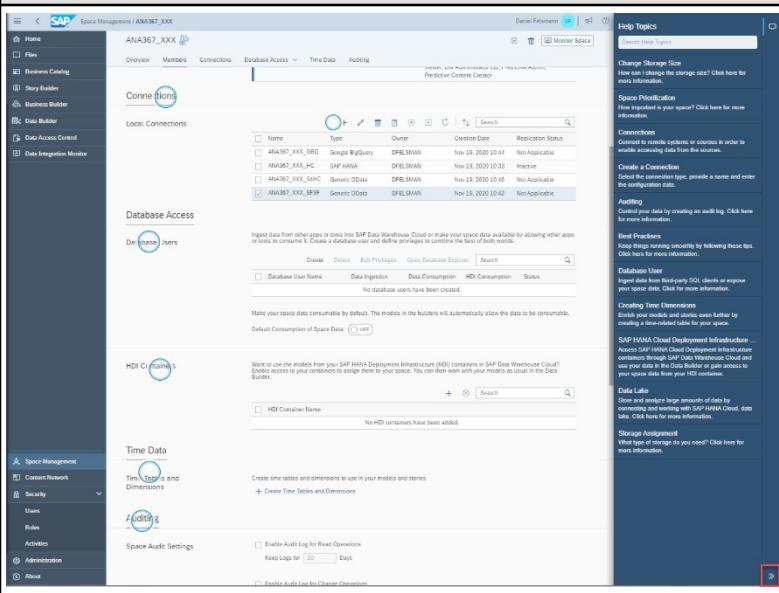
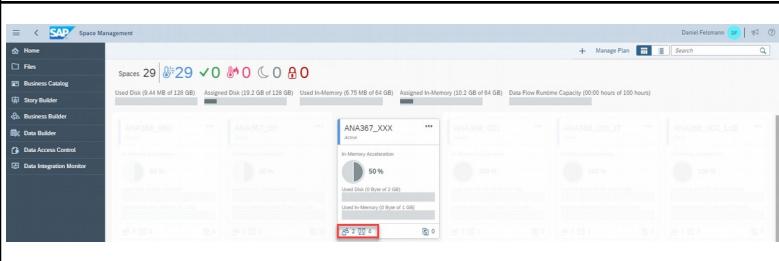
AIN367 - Integration Cloud Solution with SAP Data Warehouse Cloud

| Explanation | Screenshot |
|--|--|
| <p>Next create the SAP S/4 HANA Cloud Connection</p> |  |
| <p>Under the Connections section, click on the + sign to add new connection to the space.</p> |  |
| <p>Select the Generic OData tile</p> |  |
| <p>Enter the Business Name, same as the Technical Name: ANA367_XXX_S4HC and navigate to the next step</p> |  |
| <p>Enter the following URL</p> |  |
| <p><u>https://my300054-api.s4hana.ondemand.com/sap/opu/odata/sap/API_BUSINESS_PARTNER</u></p> |  |
| <p>Version: V2</p> |  |
| <p>User: TECHED</p> |  |
| <p>Password: WKYoPwGQzBkLAPKytnau2] mcwaEJKqMTEJYsBVj</p> |  |
| <p>Click on Create Connection to finalize the connection creation.</p> |  |

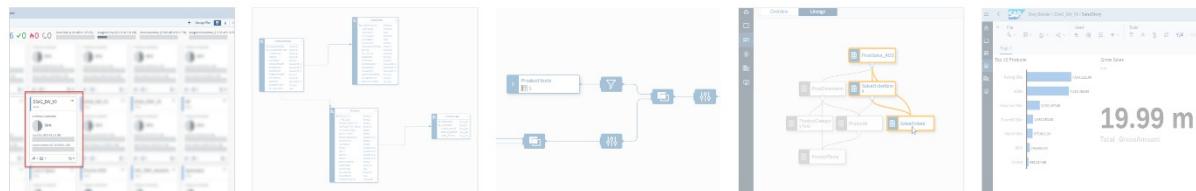
AIN367 - Integration Cloud Solution with SAP Data Warehouse Cloud

| Explanation | Screenshot |
|---|--|
| <p>Once the connections are successfully added, select the newly added Connections and then click on the Validate Connection icon. Repeat this step for all connections.</p> |  |
| <p>If the connections are valid, you are good to continue.</p> | |
| <p>If the connection is not yet valid, you should verify the credentials that you have used for creating the connection. It might help if you type in the USERNAME and PASSWORD instead of copying it.</p> | |
| <p> SAP Data Warehouse Cloud has integrated in-app help. The in-app help is context sensitive.</p> |  |
| <p>When you click on the  on the upper right hand corner, the help center opens. When you switch Toggle In-App Help on, you get help for the specific screen.</p> <p>You can also access the in-app help directly without opening the help center by choosing F1 and closing it by choosing F1 again.</p> |  |
| <p>A short description gives you a general idea what can be done on this screen. When you click on this short description, you get a longer text with conceptual information or a step by step procedure. There can also be guided tours for more complex tasks.</p> |  |

AIN367 - Integration Cloud Solution with SAP Data Warehouse Cloud

| Explanation | Screenshot |
|---|---|
| <p>Deactivate the built-in assistance by clicking on the  on the upper right hand corner, the help center opens. Switch the Toggle In-App Help from ON to OFF</p> <p>Once done, click on the arrow in the bottom-right corner of the screen to hide the panel.</p> |  |
| <p>Click on the Space Management icon from the left pane and check the space that we have just created.</p> <p>Once the user and connection are added, both of them are visible in the space administration screen</p> |  |

Now you have create your space, assigned users and connection and can start modeling.



Different use cases and different business strategies require tailored business needs. Spaces allow you to create an environment that meets your particular requirements. You can assign users and connections to a specific space and adjust the storage capacity.

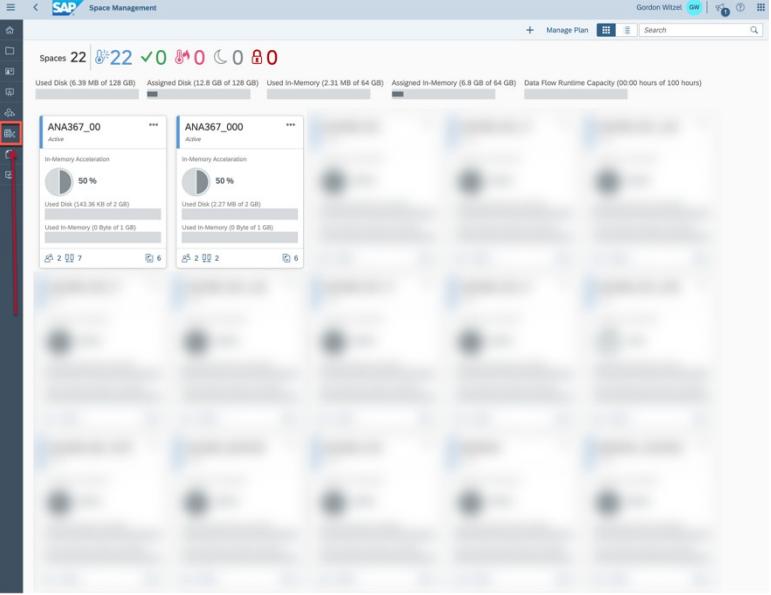
Define relations between entities and add metadata to enable the creation of graphical views with the Entity-Relationship Modeler.

In the Data Builder an connect tables and views via joins and unions in a graphical environment.

The business catalog gives you an overview of all the models you can use, across all the Spaces such as Data Sets, Dimensions and Facts you are authorized for.

Stories let you explore data interactively to find insights, visualize information with charts and tables, and share, present, and comment on your findings with colleagues.

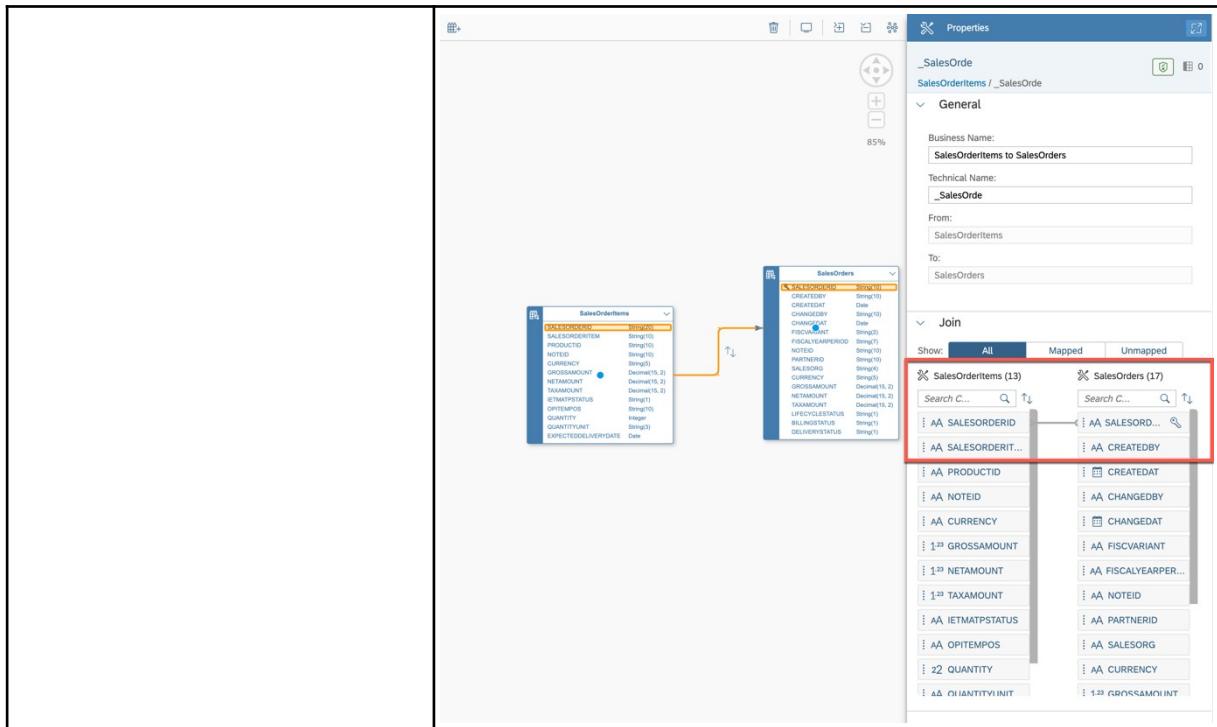
Create a Entity-Relationship Model

| | |
|---|---|
| <p> In the Data Builder, you can create data models that you can use for stories.</p> <p>Click on the Data Builder in the navigation bar</p> |  |
| <p> Define relations between entities and add metadata to enable the creation of graphical views with the Entity-Relationship Modeler.</p> <p>Create a Entity-Relationship Model by clicking on the tile with the name New Entity – Relationship Model</p> | <p>Welcome to the Data Builder</p> <p>Create views and tables to prepare data for your stories, and use entity-relationship models to visualize and make associations between artifacts.</p> <p>All Files Tables Views E/R Models Data Flows</p>  |
| <p> The repository gives you an overview of all objects that have already been created in the system.</p> <p>Click Sources (1) and under the Connections, expand the connection that you have created for SAP Hana Cloud (2). Expand the schema TECHED2020 (3). Drag the object SalesOrderItems table (4) and drop it on the canvas.</p> | |

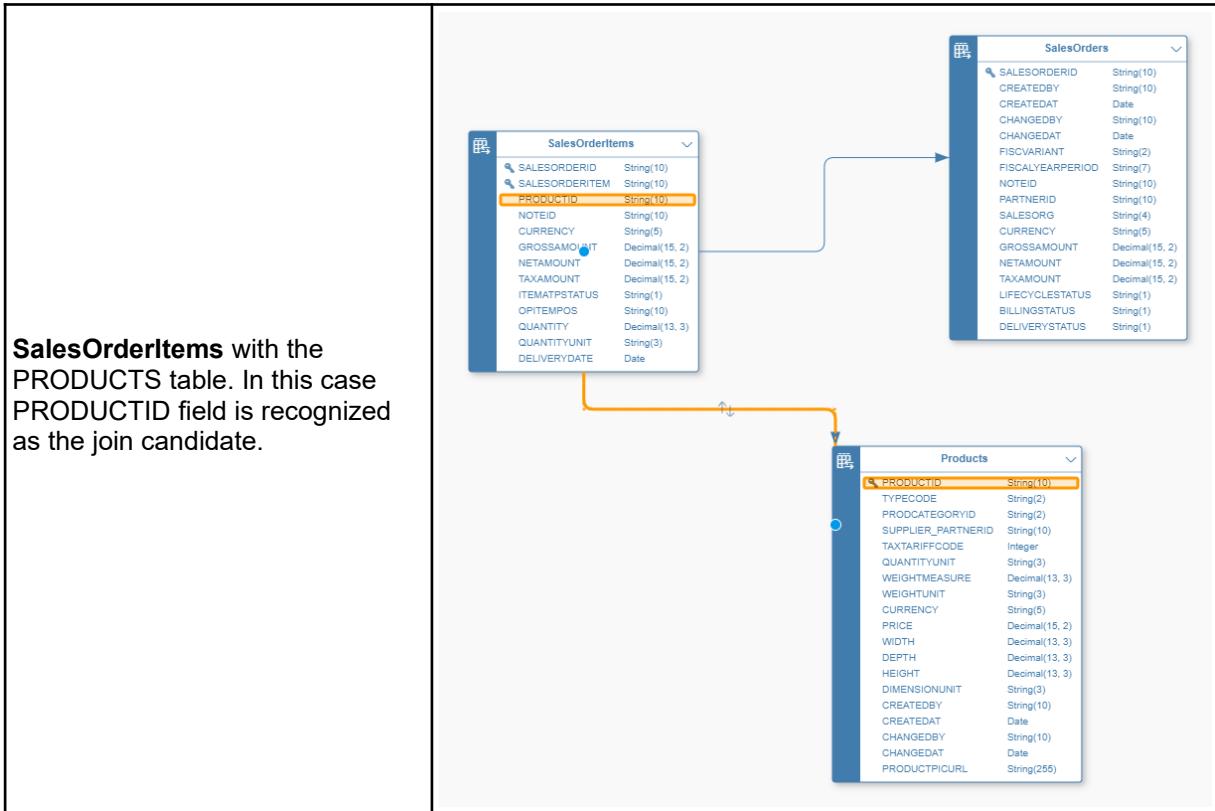
| | |
|---|--|
| | <p>The screenshot shows the SAP Data Builder interface with the following steps highlighted:</p> <ol style="list-style-type: none"> Step 1: Sources tab is selected. Step 2: Connections folder is expanded. Step 3: TECHED2020 connection is selected. Step 4: SalesOrderItems table is selected. |
| <p>Import and Deploy the dragged object with the name SalesOrderItems</p> <p>REPEAT Import and Deploy for each table if this required later.</p> | <p>The screenshot shows the SAP Data Builder canvas with the following steps highlighted:</p> <ol style="list-style-type: none"> Step 1: SalesOrderItems table is imported and deployed. |
| <p>Similarly drag and drop the object SalesOrders onto the canvas besides the SalesOrderItems table.</p> | |

| | | |
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| | <p>TECHED2020</p> <ul style="list-style-type: none"> Tables <ul style="list-style-type: none"> Addresses BusinessPartners CostCenter CostCenterHierarchy Countries CountryRegion Delivery Employees InternalOrders ProductCategories ProductCategoryTexts Products ProductTexts Regions SalesOrderItems SalesOrders SalesQuota | <p>The screenshot shows the SAP Data Warehouse Cloud interface. On the left, there's a tree view of tables under the 'TECHED2020' schema. The 'SalesOrderItems' table is selected and highlighted with a blue border. On the right, the detailed structure of the 'SalesOrderItems' table is shown, including columns like SALESORDERID, SALESORDERITEM, PRODUCTID, NOTEID, CURRENCY, GROSSAMOUNT, NETAMOUNT, TAXAMOUNT, IETMATPSTATUS, OPITEMPOS, QUANTITY, QUANTITYUNIT, and EXPECTEDDELIVERYDATE, each with its data type (String, Decimal, Integer, Date, etc.).</p> |
| | <p>Click on the SalesOrderItems table. Drag the arrow from the SalesOrdersItems table and drop it on the table SalesOrders.</p> | <p>The screenshot shows the SAP Data Warehouse Cloud interface. The 'SalesOrderItems' table is selected and highlighted with a blue border. An arrow points from the 'SalesOrderItems' table towards the 'SalesOrders' table, which is also visible on the right side of the screen.</p> |
| | <p>The process of connecting the two tables has been shown in the screenshot</p> | <p>The screenshot shows the SAP Data Warehouse Cloud interface. The 'SalesOrderItems' table is selected and highlighted with a blue border. A line connects the 'SALESORDERID' column in the 'SalesOrderItems' table to the 'SALESORDERID' column in the 'SalesOrders' table, indicating a connection or join between the two tables.</p> |
| | <p>Once connected, the diagram would look similar to this.</p> <p>The field SALESORDERID from both the tables is automatically recognized as a join candidate</p> | |

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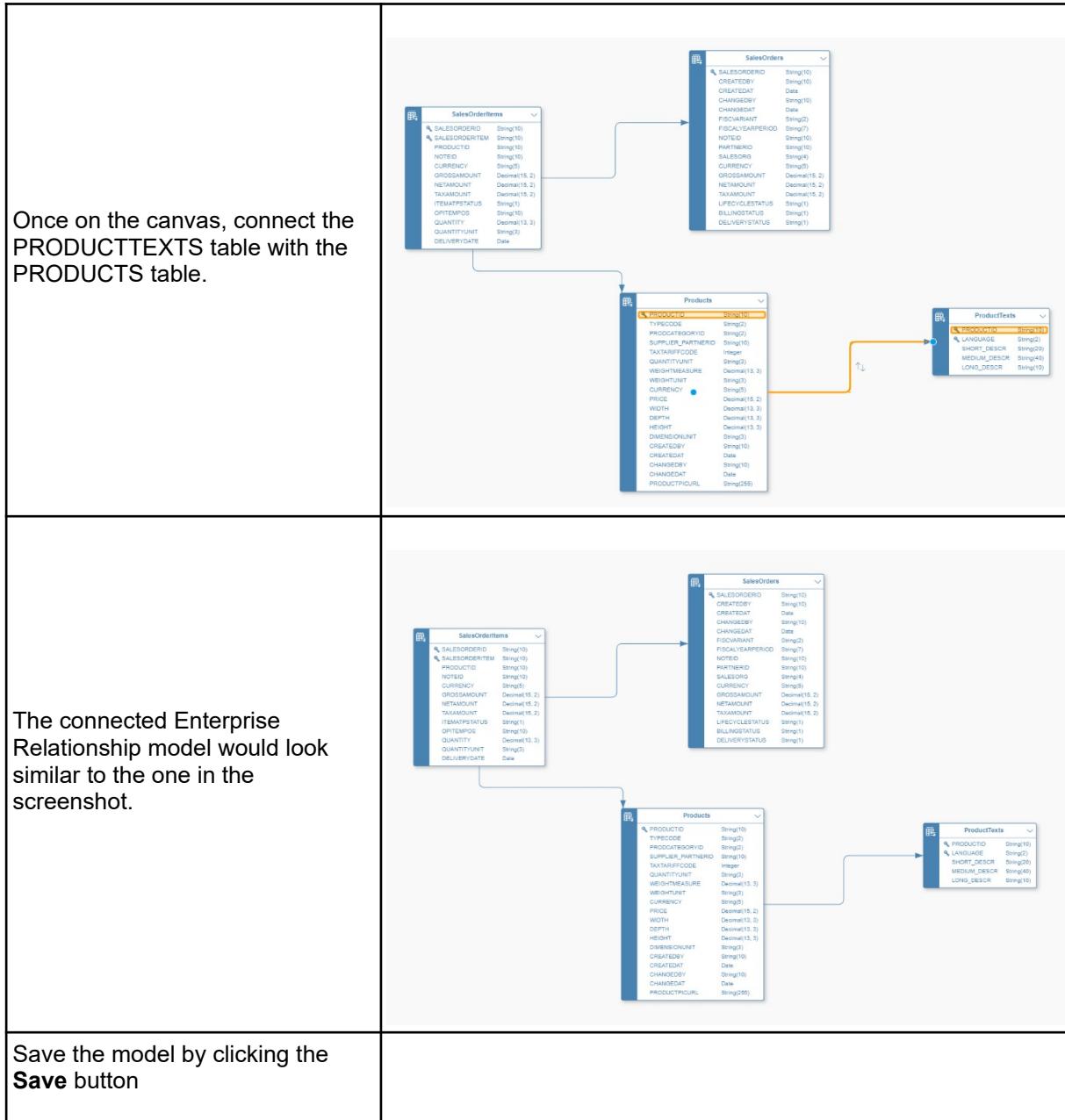


| | |
|--|---|
| | <p>HC</p> <p>> _SYS_BI</p> <p>> _SYS_DI</p> <p>> _SYS_SQL_ANALYZER</p> <p>> _SYS_TASK</p> <p>> SYS</p> <p>> TECHED2020</p> <p>> Tables</p> <ul style="list-style-type: none"> Addresses BusinessPartners CostCenter CostCenterHierarchy Countries CountryRegion Delivery Employees InternalOrders ProductCategories ProductCategoryTexts Products ProductTexts |
| Similarly drag and drop the Products table on the canvas. | Connect the arrow from |



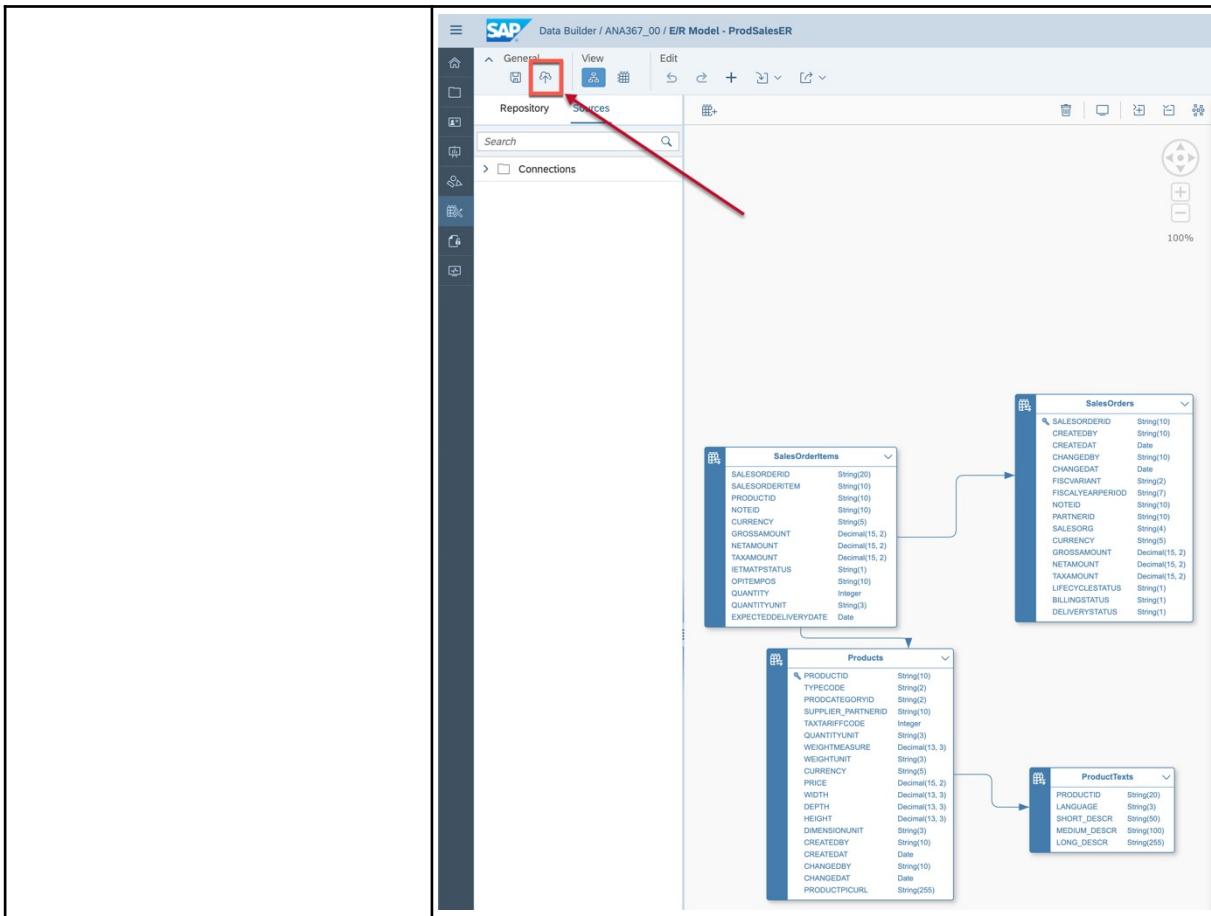
SalesOrderItems with the **PRODUCTS** table. In this case **PRODUCTID** field is recognized as the join candidate.

| | |
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| Repeat the drag and drop process for the ProductTexts table | <ul style="list-style-type: none">▼ 🔎 HC<ul style="list-style-type: none">> 📁 _SYS_BI> 📁 _SYS_DI> 📁 _SYS_SQL_ANALYZER> 📁 _SYS_TASK> 📁 SYS▼ 📁 TECHED2020<ul style="list-style-type: none">▼ 📁 Tables<ul style="list-style-type: none">grid Addressesgrid BusinessPartnersgrid CostCentergrid CostCenterHierarchygrid Countriesgrid CountryRegiongrid Deliverygrid Employeesgrid InternalOrdersgrid ProductCategoriesgrid ProductCategoryTextsgrid Productsgrid ProductTextsgrid Regionsgrid SalesOrderItems |
|--|--|

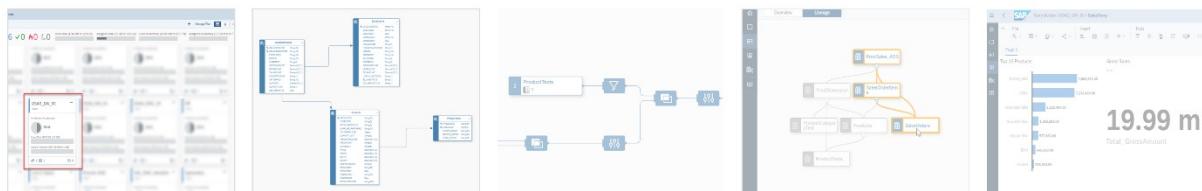


| | |
|---|--|
| | <p>The screenshot shows the SAP Data Builder interface with an E/R Model. The left sidebar lists various connections and tables. In the center, there's a diagram of three tables: SalesOrders, Products, and ProductTexts. A red arrow points from the 'Save' icon in the top-left corner of the interface towards the SalesOrders table.</p> |
| <p>Save the model with the name ProdSalesER_XX (your unique number for this Hands-On session)</p> <p>Click on Save</p> | <p>Business Name: ProdSalesER</p> <p>Technical Name: ProdSalesER</p> <p>Save Cancel</p> |
| <p>Once saved, click the Deploy icon to deploy the created model.</p> <p> If you depoy it will automatically save your changes too</p> | |

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Now you have create your entity-relationship model.



Different use cases and different business strategies require tailored business needs. Spaces allow you to create an environment that meets your particular requirements. You can assign users and connections to a specific space and adjust the storage capacity.

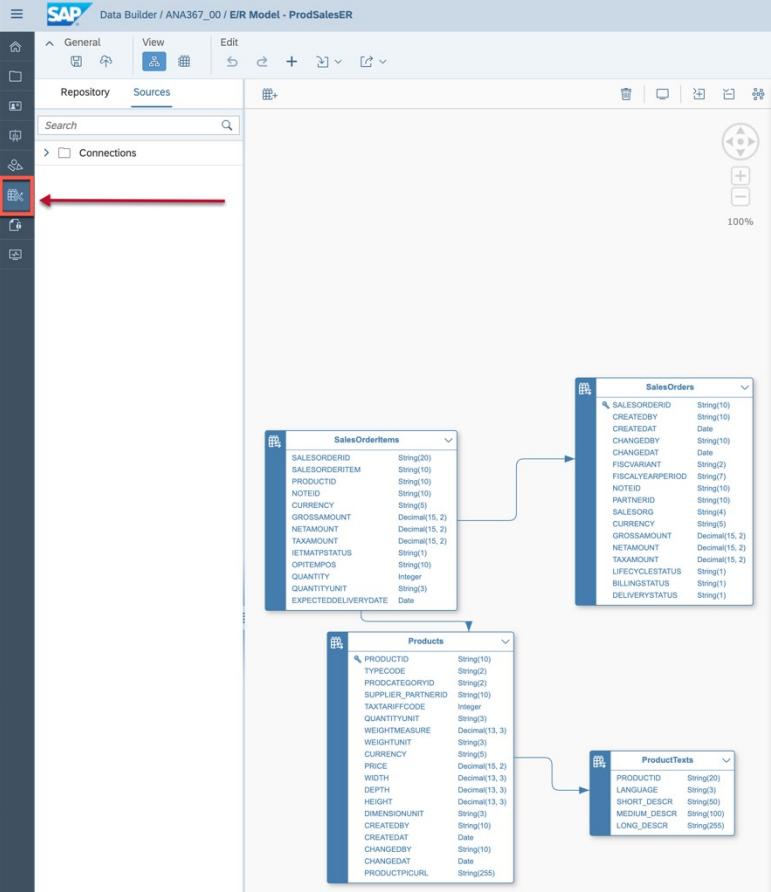
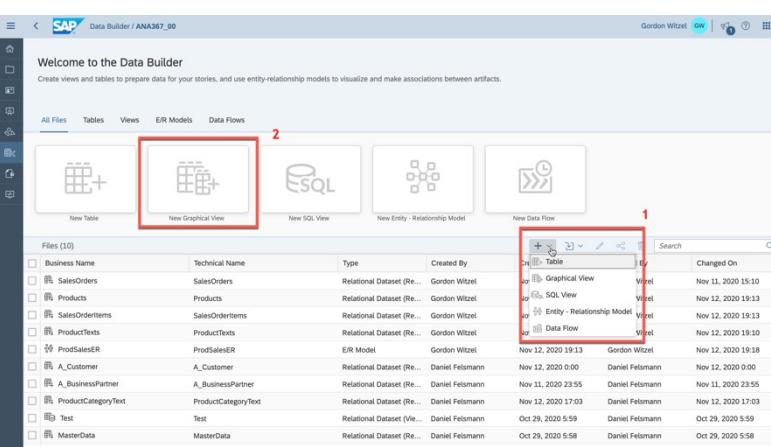
Define relations between entities and add metadata to enable the creation of graphical views with the Entity-Relationship Modeler.

In the Data Builder you can connect tables and views via joins and unions in a graphical environment.

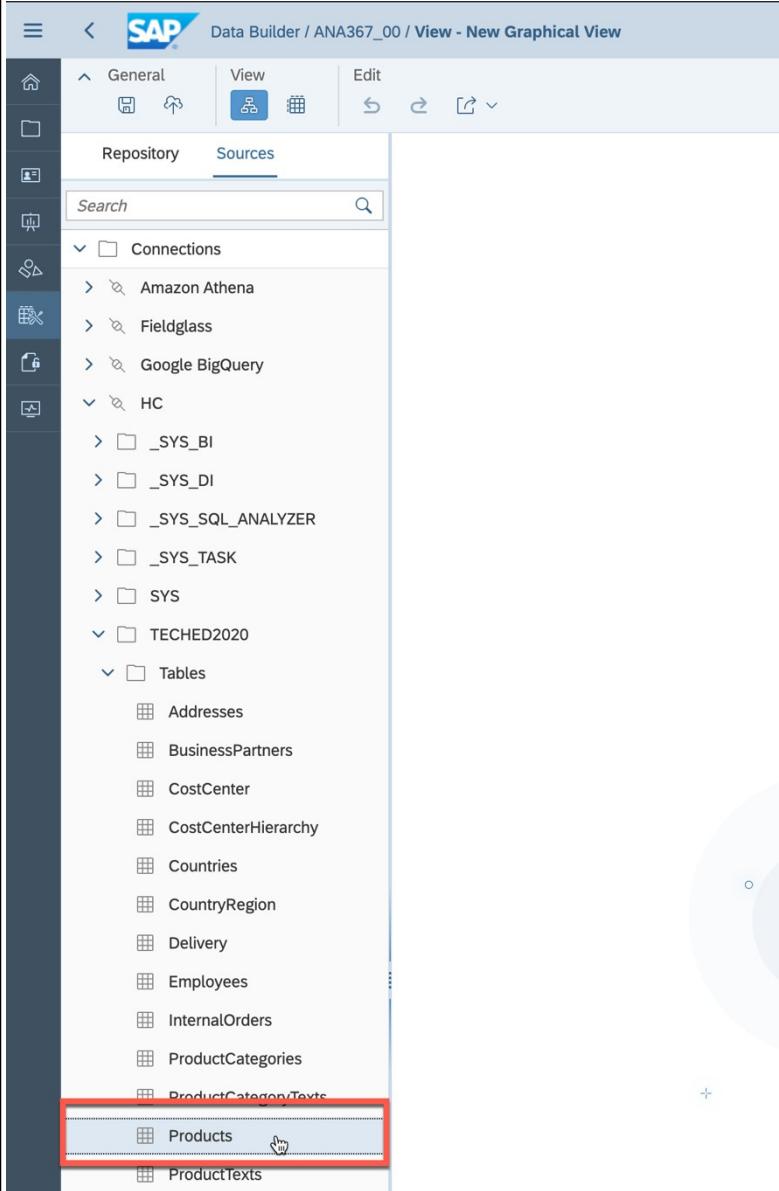
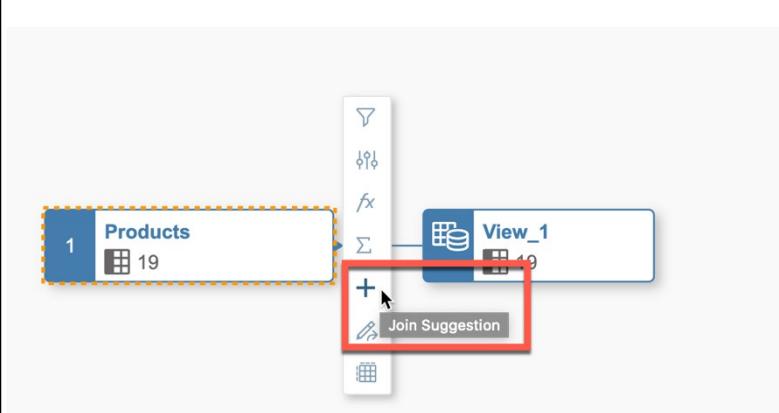
The business catalog gives you an overview of all the models you can use, across all the Spaces such as Data Sets, Dimensions and Facts you are authorized for.

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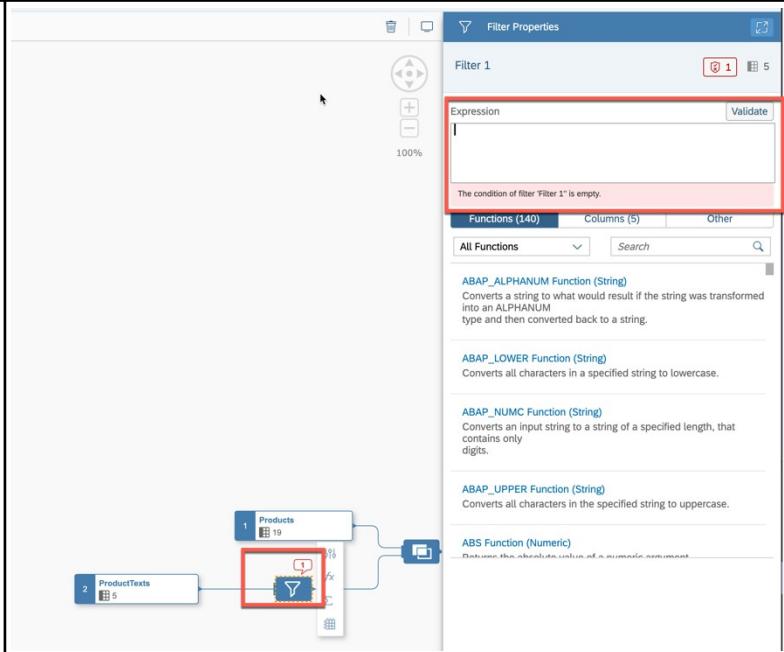
Build a new Graphical View based on the SAP HANA Cloud tables

| | |
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| <p>Navigate to Data Builder overview by clicking the icon</p> |  |
| <p>In the Data Builder you can connect tables and views via joins and unions in a graphical environment.</p> <p>On the Data Builder overview screen, you can click on the + sign and choose the New Graphical View option (1) from the list</p> <p>Alternatively you can click the tile to create the new Graphical View (2)</p> |  |
| <p>Under Sources and under the Connections, expand the connection to SAP Hana Cloud you created in your space. Expand the schema TECHED2020 in the connected SAP Hana Cloud (HC).</p> <p>Drag and drop Products table on the canvas</p> |  |

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| |  <p>The screenshot shows the SAP Data Builder interface with the title "Data Builder / ANA367_00 / View - New Graphical View". The left sidebar has a tree view under "Sources" with categories like Connections, HC, and Tables. Under Tables, the "Products" table is highlighted with a red box. Other tables listed include Addresses, BusinessPartners, CostCenter, CostCenterHierarchy, Countries, CountryRegion, Delivery, Employees, InternalOrders, ProductCategories, ProductCategoryTexts, and ProductTexts.</p> |
| Once the table is added on the canvas, click on the table and then click on the + sign which displays the Join Suggestions for the selected data source. |  <p>The screenshot shows the SAP Data Warehouse Cloud graphical view canvas. Two entities are present: "Products" and "View_1". A dashed orange box surrounds the "Products" entity. A red box highlights the "+" sign icon on its right side, and a tooltip "Join Suggestion" is displayed below it. To the right of the "+" sign is a small "fx" icon.</p> |
| From the Related Entities screen, select the object ProductTexts .  The join suggestions would only be available if you have already created an Entity- | |

| <p>Relationship model in the previous steps.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--------------------|--------------------------|-------------|--------------|------------|---------|----|-----------|-----------|---|---------|----|------------|------------|---|---------|----|----------|----------|---|---------|----|-----------|-----------|---|---------|----|-----------|-----------|---|---------|----|------------|------------|---|---------|----|--------------|--------------------------|---|---------|----|--------------|--------------|---|---------|----|--------------------|--------------------|---|
| <p>Once you add the object ProductTexts, it would Join the two entities automatically.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Click on the Data Preview icon for the ProductTexts table. There are values for English and German in the provided dataset available. We want to proceed only with Texts in English, therefore we have to clean up the dataset.</p> | <table border="1" data-bbox="627 1336 1389 1583"> <thead> <tr> <th>PRODUCTID</th> <th>LANGUAGE</th> <th>SHORT_DESCR</th> <th>MEDIUM_DESCR</th> <th>LONG_DESCR</th> </tr> </thead> <tbody> <tr> <td>RC-1051</td> <td>EN</td> <td>Tornado I</td> <td>Tornado I</td> <td>-</td> </tr> <tr> <td>RC-1052</td> <td>EN</td> <td>Tornado II</td> <td>Tornado II</td> <td>-</td> </tr> <tr> <td>RC-1053</td> <td>EN</td> <td>Stream I</td> <td>Stream I</td> <td>-</td> </tr> <tr> <td>RC-1054</td> <td>EN</td> <td>Stream II</td> <td>Stream II</td> <td>-</td> </tr> <tr style="outline: 2px solid red;"> <td>RC-1055</td> <td>EN</td> <td>Veloflash</td> <td>Veloflash</td> <td>-</td> </tr> <tr style="outline: 2px solid red;"> <td>RC-1055</td> <td>DE</td> <td>Rennsemmel</td> <td>Rennsemmel</td> <td>-</td> </tr> <tr> <td>RC-1056</td> <td>EN</td> <td>Veloflash SE</td> <td>Veloflash Second Edition</td> <td>-</td> </tr> <tr> <td>RC-1056</td> <td>DE</td> <td>Rennsemmel 2</td> <td>Rennsemmel 2</td> <td>-</td> </tr> <tr> <td>RC-1057</td> <td>EN</td> <td>Veloflash Ultimate</td> <td>Veloflash Ultimate</td> <td>-</td> </tr> </tbody> </table> | PRODUCTID | LANGUAGE | SHORT_DESCR | MEDIUM_DESCR | LONG_DESCR | RC-1051 | EN | Tornado I | Tornado I | - | RC-1052 | EN | Tornado II | Tornado II | - | RC-1053 | EN | Stream I | Stream I | - | RC-1054 | EN | Stream II | Stream II | - | RC-1055 | EN | Veloflash | Veloflash | - | RC-1055 | DE | Rennsemmel | Rennsemmel | - | RC-1056 | EN | Veloflash SE | Veloflash Second Edition | - | RC-1056 | DE | Rennsemmel 2 | Rennsemmel 2 | - | RC-1057 | EN | Veloflash Ultimate | Veloflash Ultimate | - |
| PRODUCTID | LANGUAGE | SHORT_DESCR | MEDIUM_DESCR | LONG_DESCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RC-1051 | EN | Tornado I | Tornado I | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RC-1052 | EN | Tornado II | Tornado II | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RC-1053 | EN | Stream I | Stream I | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RC-1054 | EN | Stream II | Stream II | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RC-1055 | EN | Veloflash | Veloflash | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RC-1055 | DE | Rennsemmel | Rennsemmel | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RC-1056 | EN | Veloflash SE | Veloflash Second Edition | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RC-1056 | DE | Rennsemmel 2 | Rennsemmel 2 | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RC-1057 | EN | Veloflash Ultimate | Veloflash Ultimate | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Click on the table ProductTexts (1) and the filter icon (2) to add and see filters.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| <p>In the canvas as well as in the Filter Properties pane on the right side an error icon is shown.</p> <p>By clicking on the error icon in the filter properties pane the error message appears.</p> |  <p>The screenshot shows the SAP Data Warehouse Cloud interface. On the left is a canvas with two boxes: 'Products' (ID 1) and 'ProductTexts' (ID 2). An arrow points from 'ProductTexts' to 'Products'. Between them is a blue Y-shaped connector with a red border and a small red error icon. To the right is a 'Filter Properties' pane titled 'Filter 1'. The 'Expression' field is empty, and a red box highlights the error message: 'The condition of filter 'Filter 1'' is empty.' Below the expression field is a search bar and a list of functions categorized by type: Functions (140), Columns (5), and Other. The first function listed is 'ABAP_ALPHANUM Function (String)'.</p> |
| <p>From the Filter Properties pane on the right side, click on the Columns and then click on the column Language.</p> <p>By clicking on the Language column will be filled automatically added to the expression.</p> | |

| | |
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| | <p>The screenshot shows the 'Filter Properties' dialog box. At the top, it says 'Filter 1' with a count of 1 and 5 total filters. Below this is an 'Expression' input field containing 'LANGUAGE'. A red box highlights this field. A message below it says 'The condition of filter 'Filter 1'' is empty. Below the expression field are three tabs: 'Functions (140)', 'Columns (5)' (which is selected and highlighted in blue), and 'Other'. Under the 'Columns' tab, there is a search bar and a list of columns. The first column listed is 'PRODUCTID'. Below it, a red box highlights the 'LANGUAGE' column, which has two entries: 'LANGUAGE' and 'LANGUAGE'. To the right of the second entry is a small hand cursor icon. Other columns listed are 'SHORT_DESCR', 'MEDIUM_DESCR', and 'LONG_DESCR'.</p> |
| <p>Click on the Others tab (1) and then select the = (Equal To) operator from the list (2).</p> <p>The expression is updated automatically. Type in the blank single quotes at the end to complete the expression like:</p> <p>LANGUAGE='EN'</p> <p>This expression would filter out all the products that have no description in English in the table. Furthermore, the error message is solved as well.</p> | |

Filter Properties

Filter 1

Expression LANGUAGE='EN' 3

Validate

5

1

Functions (140) Columns (5) Other

Operators 2

+ - / * () , ||
AND OR NOT BETWEEN
< > <= >= = != LIKE IS NULL

Predicates 2

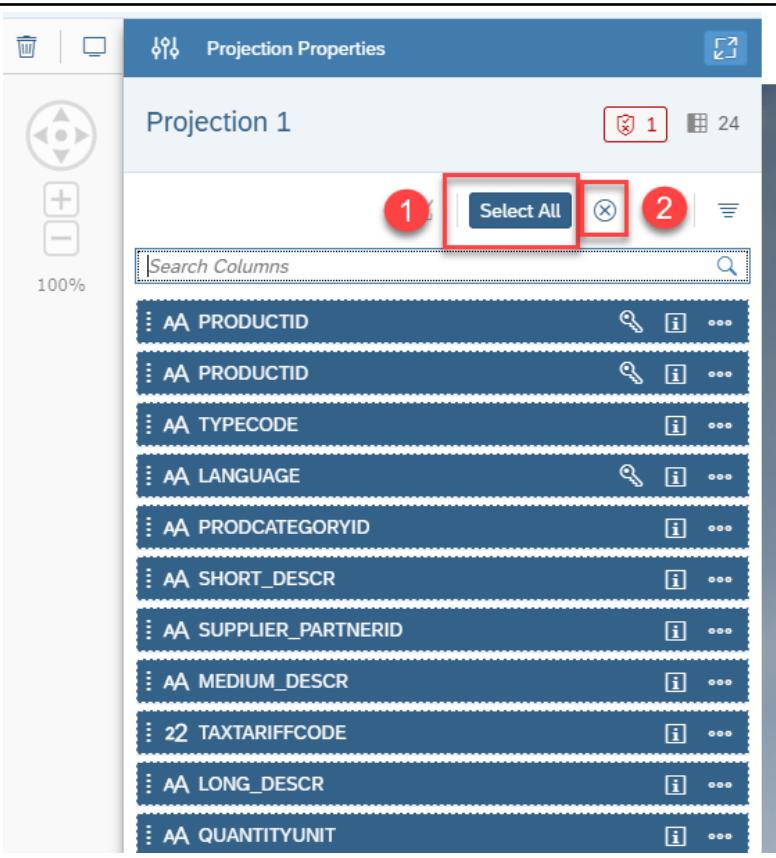
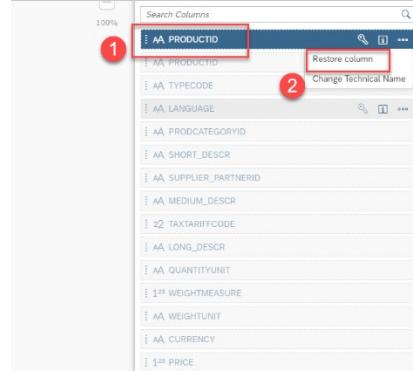
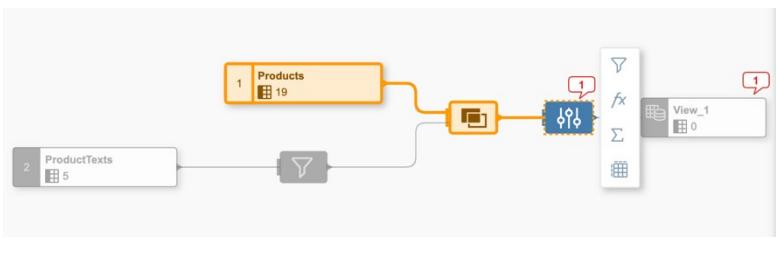
ANY SOME ALL BETWEEN
CONTAINS EXISTS IN LIKE
LIKE_REGEXPR MEMBER OF NULL

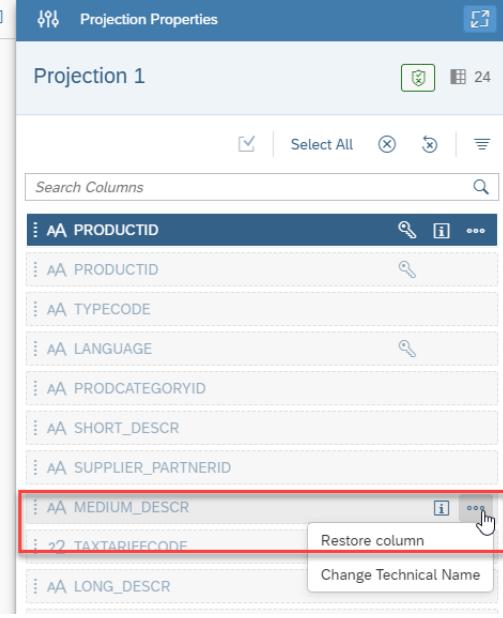
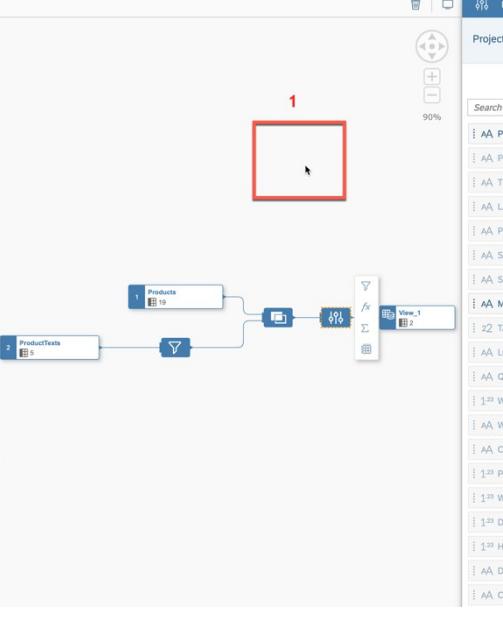
Case Expressions 2

CASE WHEN THEN ELSE END

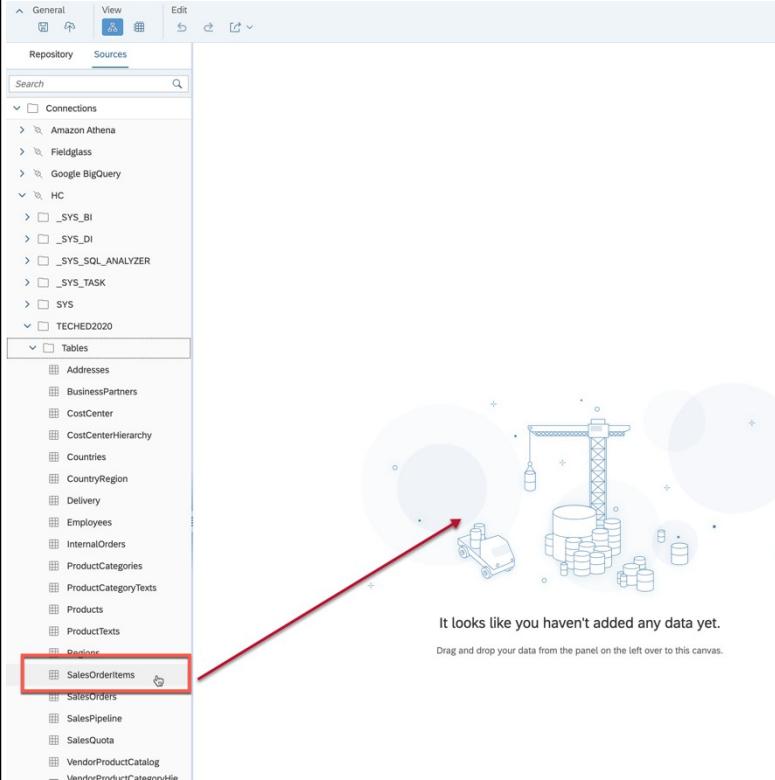
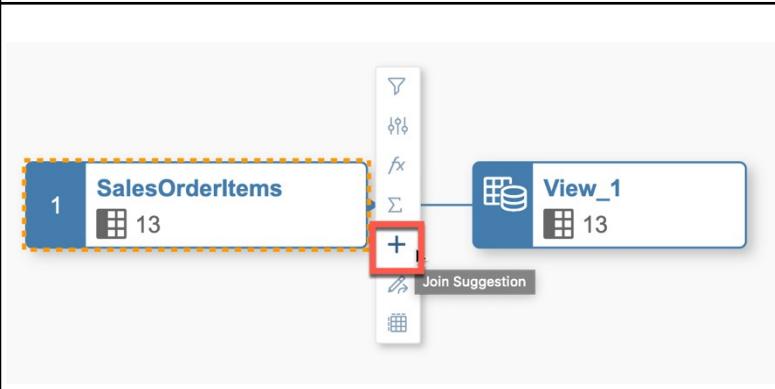
The screenshot shows the 'Filter Properties' dialog box. At the top, it displays 'Filter 1' and a shield icon with the number '5'. Below this is an 'Expression' field containing 'LANGUAGE='EN''. A red box labeled '3' highlights this field. To the right of the expression is a 'Validate' button. Below the expression is a row of tabs: 'Functions (140)', 'Columns (5)', and a red-bordered 'Other' tab. A red box labeled '1' is placed above the 'Other' tab. Below the tabs is a section titled 'Operators' with various comparison operators like '+', '=', 'AND', etc., some of which are highlighted with red boxes. A red box labeled '2' is placed below the operators. Further down are sections for 'Predicates' and 'Case Expressions', each with their own set of buttons and a red box labeled '2'.

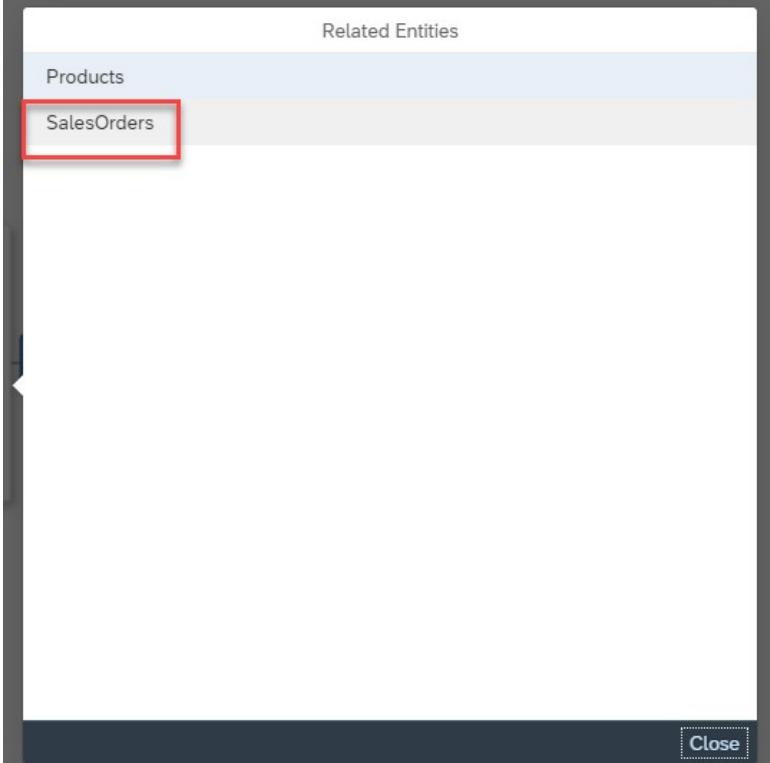
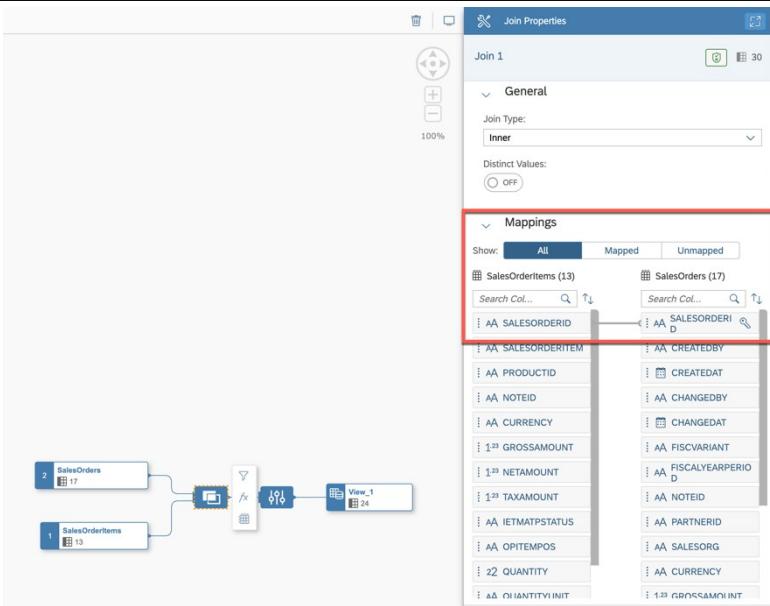
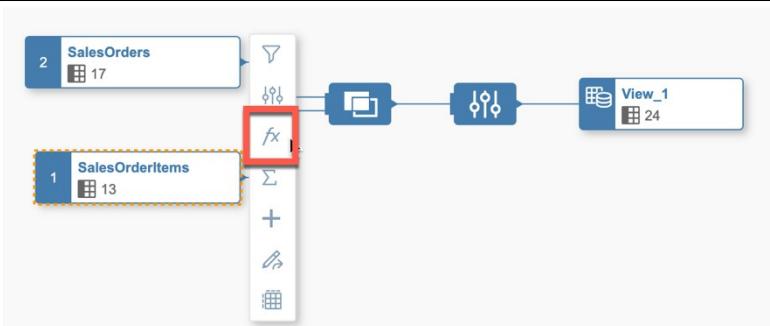
| | |
|--|--|
| | <p>Click on the Filter operator (1) in the view and then click on the Data Preview icon (2)</p> <p>As we can see in the preview, the data is now available for EN Language only. All the other languages are filtered out (3).</p> |
| <p>When building a graphical view, you can rename, exclude or restore columns. It allows you to select the required data.</p> <p>Click on the Projection operator in the canvas.</p> | |
| <p>From the Projection Properties in the right pane, click on the button with the title Select All (1) to select all the columns and then click the Exclude Selected Column button (2)</p> | |

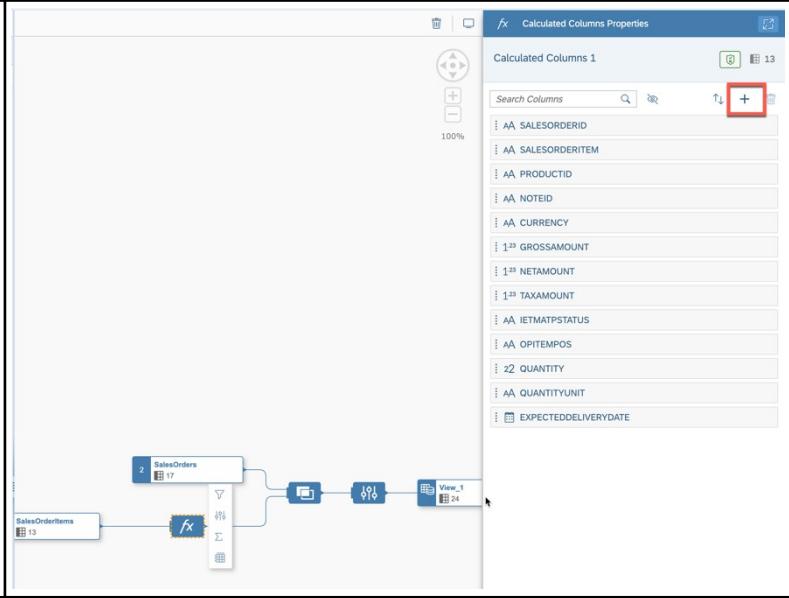
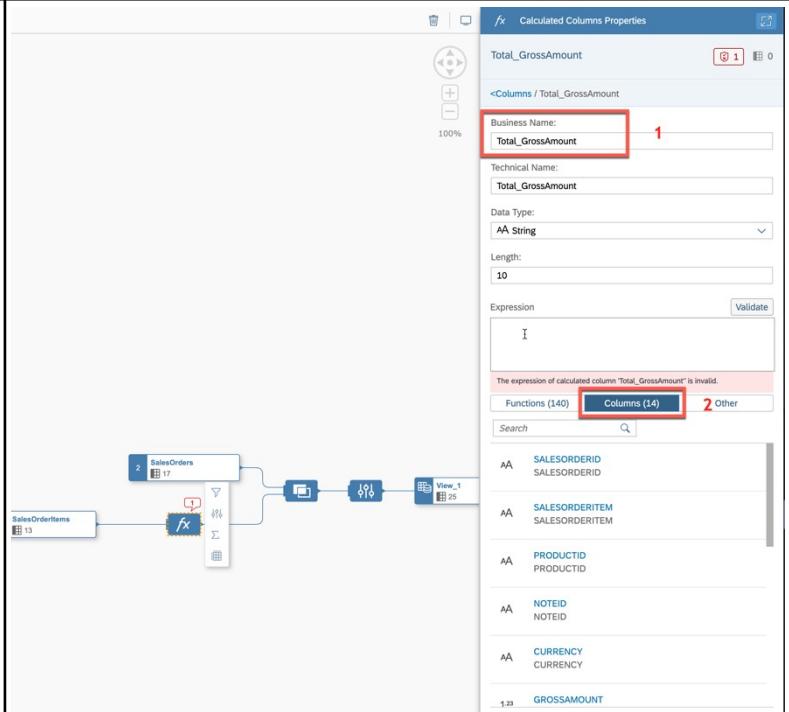
| | |
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| |  |
| <p>Click on the PRODUCTID column (1) from the highlighted list.</p> <p>Info: The view on the canvas would then highlight the lineage of the column.</p> <p>If the column originates from the PRODUCTS table.</p> <p>Click on the Actions menu (...) of the Projection Properties pane and select Restore Column (2)</p> |   |

| | |
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| <p>Repeat this steps for the column MEDIUM_DESCR</p> |  |
| <p>Click anywhere on the canvas (1). Then from the Properties pane, change the Type of the view to Dimension (2).</p> <p>Info: In a perfect scenario, you would model all the dimensions in your organization once and then reuse them in different Analytical Data Sets which are associated with it. Therefore, we will create a Product dimension which is used by the ProdSales_ADS later.</p> |  |

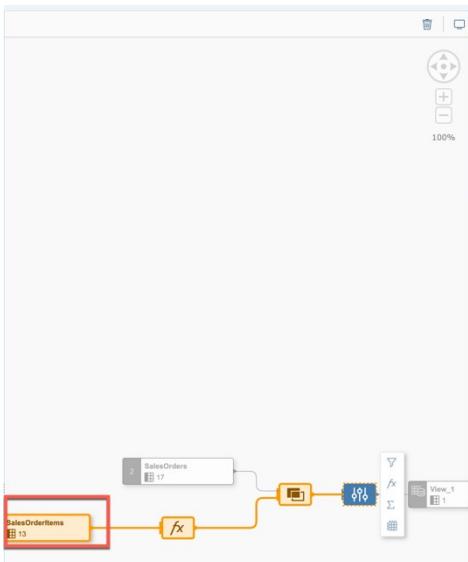
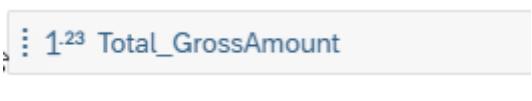
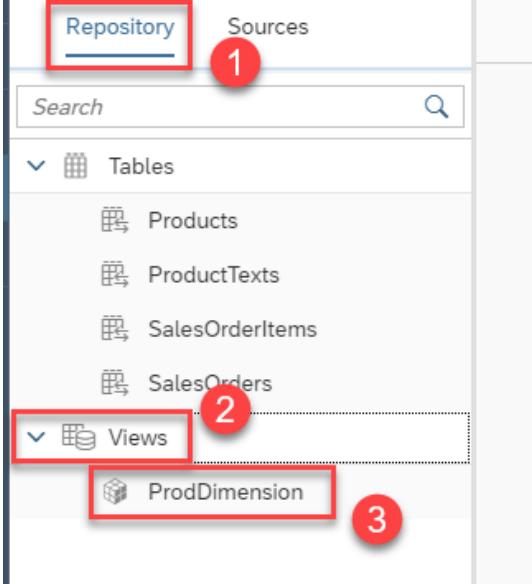
| <p>Click on the Save button (1).</p> <p>Enter the name of the view as ProdDimension (2) and Click Save (3).</p> <p>Once the model is saved, click on the Deploy icon (4)</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|-----------------|---------------------------|----------------|--------------------|---------------|--------------------|------------|------------|-------------|-------------|-------------|---------------------------|---------------|--------------------|---------------|--------------------|----------|----------|----------|---------------------------|---------------|--------------------|---------------|--------------------|-----------------|-----------------|-----------------|---------------------------|---------------|--------------------|---------------|--------------------|
| <p>Return back to the Data Builder and create a New Graphical View by clicking on the tile for the New Graphical View.</p> | <table border="1"> <thead> <tr> <th>File</th> <th>Business Name</th> <th>Technical Name</th> <th>Type</th> <th>Created By</th> <th>Created On</th> <th>Changed By</th> <th>Changed On</th> </tr> </thead> <tbody> <tr> <td>SalesOrders</td> <td>SalesOrders</td> <td>SalesOrders</td> <td>Relational Dataset (Re...</td> <td>Gordon Witzel</td> <td>Nov 11, 2020 15:10</td> <td>Gordon Witzel</td> <td>Nov 11, 2020 15:10</td> </tr> <tr> <td>Products</td> <td>Products</td> <td>Products</td> <td>Relational Dataset (Re...</td> <td>Gordon Witzel</td> <td>Nov 11, 2020 15:11</td> <td>Gordon Witzel</td> <td>Nov 12, 2020 19:13</td> </tr> <tr> <td>SalesOrderItems</td> <td>SalesOrderItems</td> <td>SalesOrderItems</td> <td>Relational Dataset (Re...</td> <td>Gordon Witzel</td> <td>Nov 12, 2020 19:03</td> <td>Gordon Witzel</td> <td>Nov 12, 2020 19:13</td> </tr> </tbody> </table> | File | Business Name | Technical Name | Type | Created By | Created On | Changed By | Changed On | SalesOrders | SalesOrders | SalesOrders | Relational Dataset (Re... | Gordon Witzel | Nov 11, 2020 15:10 | Gordon Witzel | Nov 11, 2020 15:10 | Products | Products | Products | Relational Dataset (Re... | Gordon Witzel | Nov 11, 2020 15:11 | Gordon Witzel | Nov 12, 2020 19:13 | SalesOrderItems | SalesOrderItems | SalesOrderItems | Relational Dataset (Re... | Gordon Witzel | Nov 12, 2020 19:03 | Gordon Witzel | Nov 12, 2020 19:13 |
| File | Business Name | Technical Name | Type | Created By | Created On | Changed By | Changed On | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SalesOrders | SalesOrders | SalesOrders | Relational Dataset (Re... | Gordon Witzel | Nov 11, 2020 15:10 | Gordon Witzel | Nov 11, 2020 15:10 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Products | Products | Products | Relational Dataset (Re... | Gordon Witzel | Nov 11, 2020 15:11 | Gordon Witzel | Nov 12, 2020 19:13 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SalesOrderItems | SalesOrderItems | SalesOrderItems | Relational Dataset (Re... | Gordon Witzel | Nov 12, 2020 19:03 | Gordon Witzel | Nov 12, 2020 19:13 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Under Sources and under the Connections, expand the connection for SAP HANA Cloud (HC). Expand the schema TECHED2020.</p> <p>Drag the table SalesOrderItems onto the canvas</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|  |  <p>It looks like you haven't added any data yet. Drag and drop your data from the panel on the left over to this canvas.</p> |
| <p>Click on the table name and then click on the + sign that would provide the Join Suggestions</p> |  <p>Join Suggestion</p> |

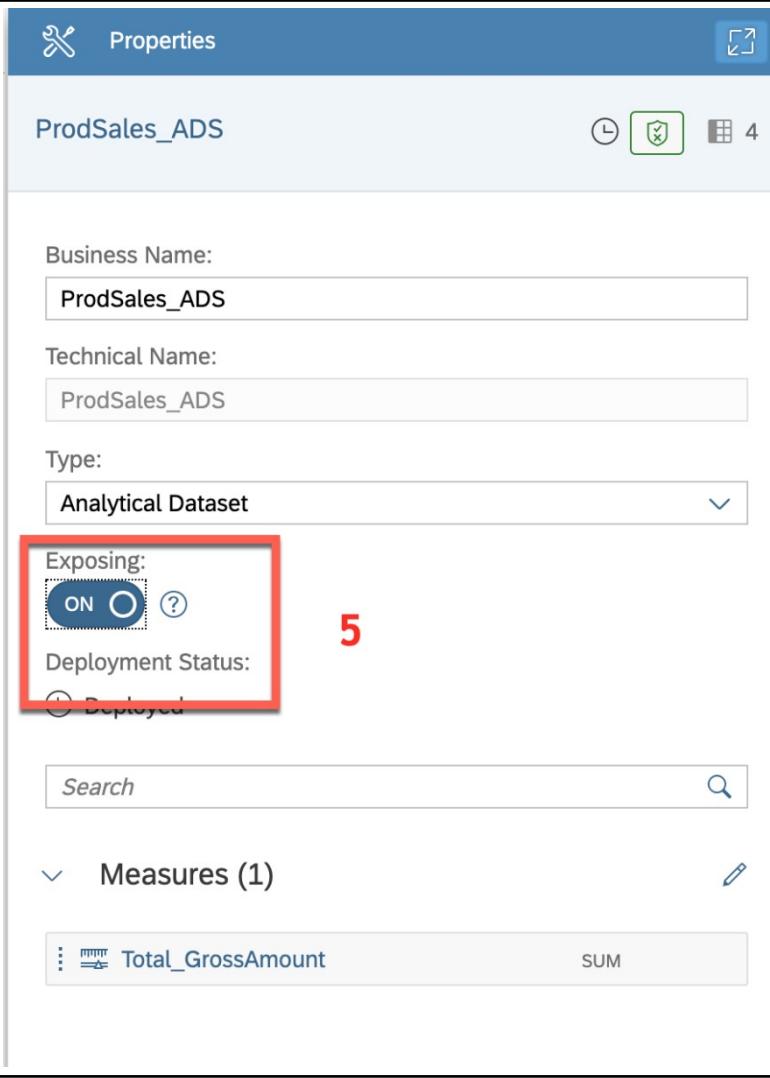
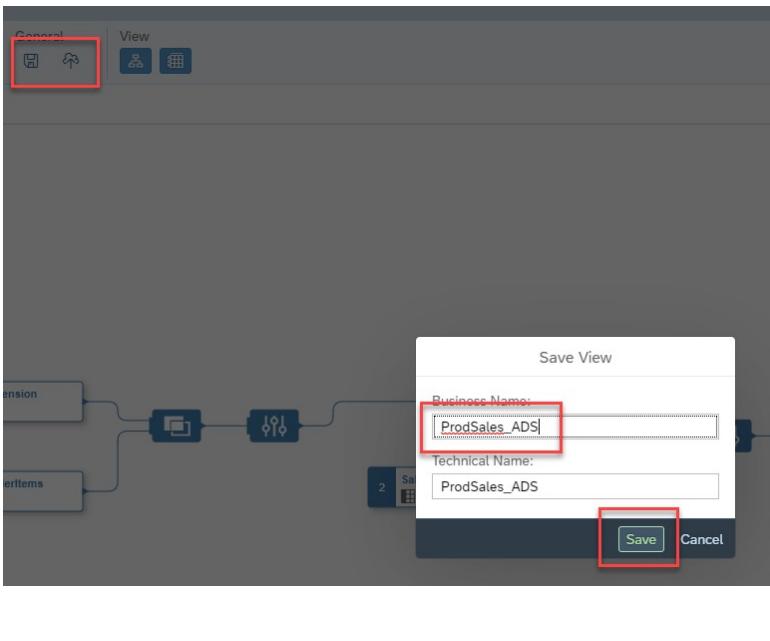
| | |
|---|--|
| <p>Select the table SalesOrders from the Related Entities list.</p> |  |
| <p>Check if the Join column is set to SALESORDERID</p> |  |
| <p>Click on the newly added SALESORDERITEMS table and click on the Calculated Column icon </p> |  |

| | |
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| | <p>Click on the + button in the Calculated Columns Properties pane to add a new calculated column</p>  |
| | <p>Enter the name of the new column to Total_GrossAmount (1). Then click on the Columns tab (2)</p>  |
| <p>Select the Data Type: Decimal(prec,scale)</p> <p>From the Columns list, select the column GROSSAMOUNT</p> <p>From the Operators list, select the operator * (Multiplication)</p> <p>From the Columns list, select the column QUANTITY</p> <p>The correct Expression is: GROSSAMOUNT*QUANTITY</p> | |

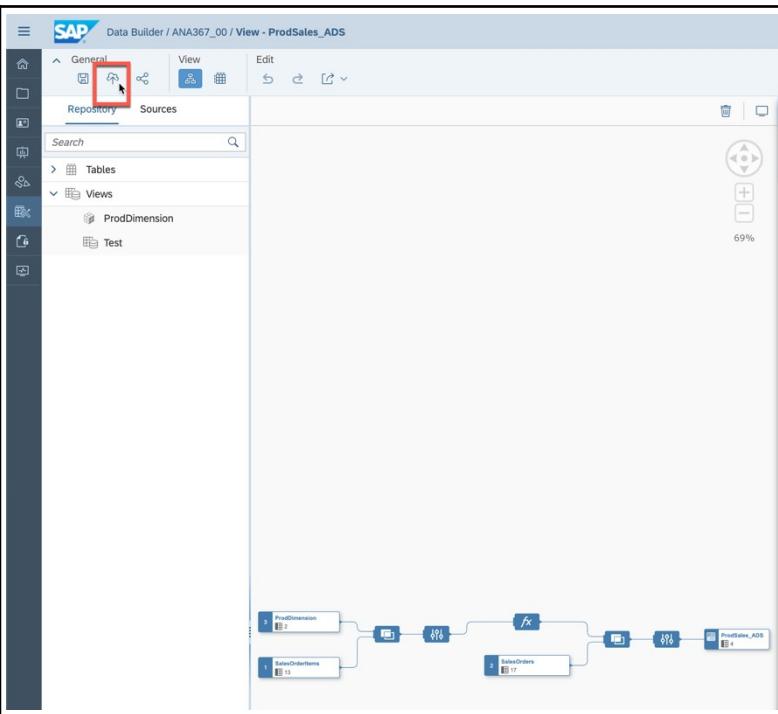
| | |
|--|---|
| | <p>The screenshot shows the SAP Data Warehouse Cloud interface. A calculated column named 'Total_GrossAmount' is being defined. The 'Data Type' is set to '123 Decimal'. The 'Expression' field contains the formula 'GROSSAMOUNT*QUANTITY'. A validation message indicates that the expression is invalid.</p> |
| <p>Click on the Projection Operator from the view (1). It would bring up the Projection Properties pane.</p> <p>From the Projection Properties pane on the left, click on Select All (2) and then Exclude Selected Columns button (3)</p> | <p>The screenshot shows the SAP Data Warehouse Cloud interface with the 'Projection Properties' pane open for 'View_1'. Step 1 highlights the projection operator in the flow. Step 2 highlights the 'Select All' button. Step 3 highlights the 'Exclude Selected Columns' button.</p> |
| <p>Use the Search to Search the columns SalesOrderID</p> | <p>The screenshot shows the SAP Data Warehouse Cloud interface with the 'Projection Properties' pane open for 'Projection 1'. The search bar at the bottom has 'SalesOrderID' typed into it. Two results for 'AA SALESORDERID' are shown in the list.</p> |

| | |
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| | <p>Click on the column SalesOrderID, check the lineage to ensure if the column originates from the SalesOrderItems table</p> <p>Click the More actions button, and then Restore the column.</p>  |
| | <p>Repeat the above steps for Total_GrossAmount column by using the search or sorting function</p>  |
| | <p>Select the Repository tab (1) on the left hand side, and expand the Views (2) so that you see ProdDimension (3)</p>  |

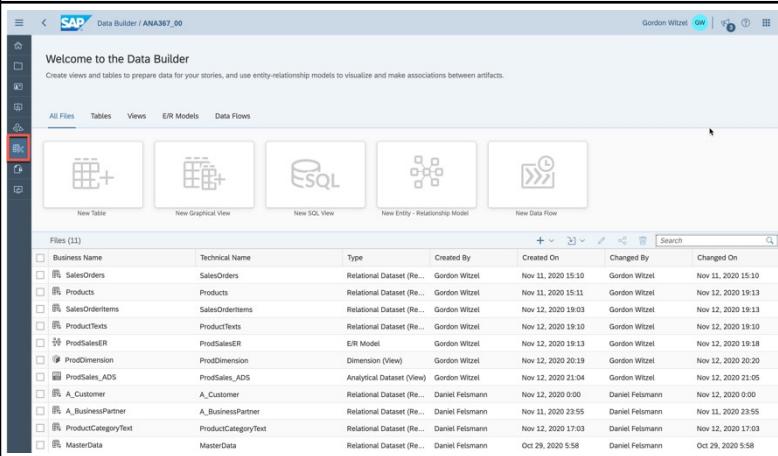
| | |
|--|--|
| <p>Drop the ProdDimension view on the SalesOrderItems table on the canvas. This would Join the two entities</p> | |
| <p>Click anywhere on the canvas (1), change the type of the view in the Properties to Analytical Dataset (2) pane.</p> <p>For an Analytical Dataset, we need Measures.</p> <p>Click the More Actions button (3) for Total_GrossAmount (3) and change it to Measure (4)</p> <p>Allow Exposing (5) to consume the data model in the Story Builder. This is an important setting – without this setting you are NOT able to use the data model in the SAP Analytics Cloud Story Builder.</p> | |

| | |
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| |  <p>Properties</p> <p>ProdSales_ADS</p> <p>Business Name: ProdSales_ADS</p> <p>Technical Name: ProdSales_ADS</p> <p>Type: Analytical Dataset</p> <p>Exposing: ON (radio button) ?</p> <p>Deployment Status: Deployed 5</p> <p>Search</p> <p>Measures (1)</p> <p>Total_GrossAmount SUM</p> |
| <p>Once done, click the Save button. Set the name of the view as ProdSales_ADS_XX (your unique UserId).</p> <p>To create a view in SAP HANA, click the Deploy button once the artefact has been saved successfully.</p> |  <p>General View</p> <p>Save View</p> <p>Business Name: ProdSales_ADS</p> <p>Technical Name: ProdSales_ADS</p> <p>Save Cancel</p> |

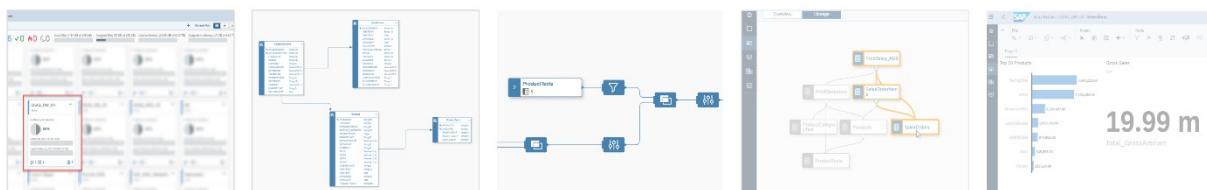
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Navigate back to the **Data Builder** (1).
Here you would see all the artefacts that we have created so far and the tables which are used in the models. (2)



In this section you have create your graphical models, and can start to build the analytics story.



Different use cases and different business strategies require tailored business needs. Spaces allow you to create an environment that meets your particular requirements. You can assign users and connections to a specific space and adjust the storage capacity.

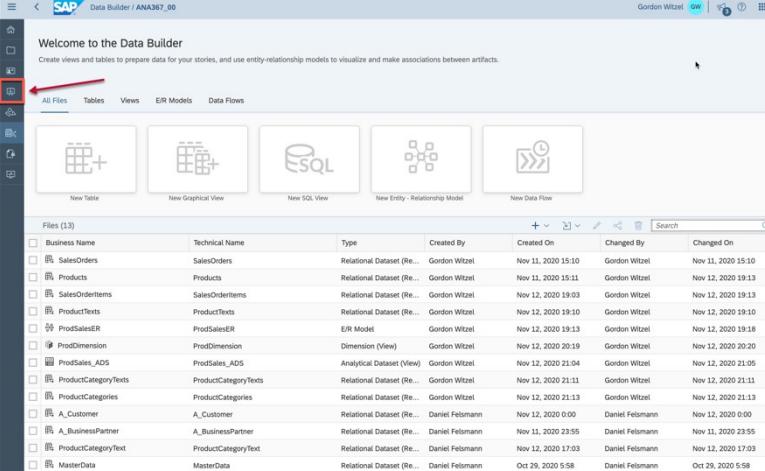
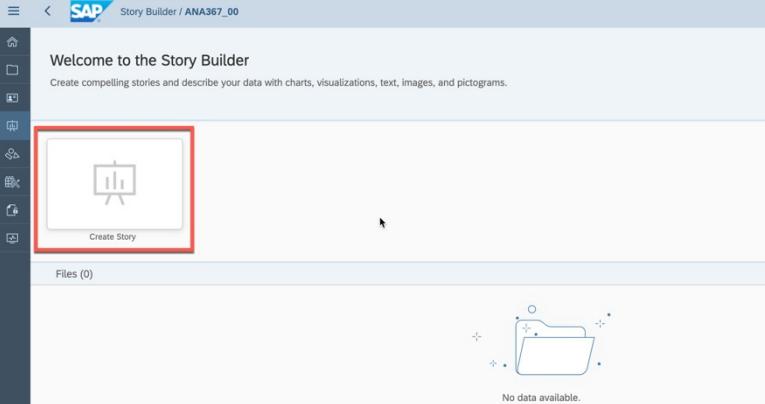
Define relations between entities and add metadata to enable the creation of graphical views with the Entity-Relationship Modeler.

In the Data Builder an connect tables and views via joins and unions in a graphical environment.

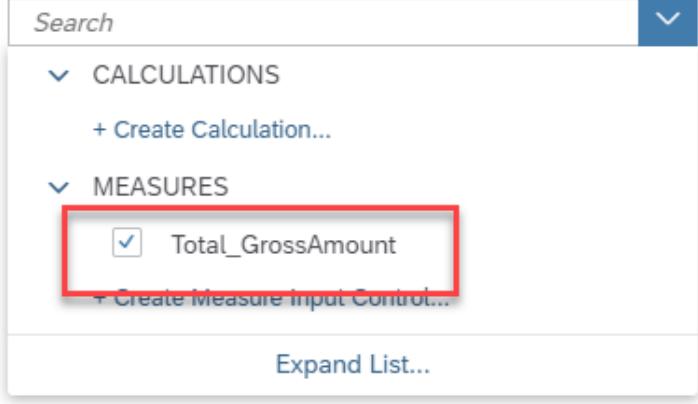
The business catalog gives you an overview of all the models you can use, across all the Spaces such as Data Sets, Dimensions and Facts you are authorized for.

Stories let you explore data interactively to find insights, visualize information with charts and tables, and share, present, and comment on your findings with colleagues.

Create a SAP Analytics Cloud Story

| | |
|--|--|
| <p> Stories let you explore data interactively to find insights, visualize information with charts and tables, and share, present, and comment on your findings with colleagues.</p> <p>Click on the Story Builder from the left navigation pane</p> |  |
| <p>Click on the tile Create Story</p> |  |
| <p>This takes you to the SAP Analytics Cloud UI.</p> <p>Select the data source as ProdSales_ADS, the Analytical Data Source that we have created earlier.</p> <p>Click on OK</p> <p>If you do not see the Analytical Dataset here, make sure that you have deployed it within the Data Builder section and Allow Exposing in the data model is enabled.</p> | <p>Add an object to the story canvas.</p> <p> Chart</p> <p> Geo Map</p> <div data-bbox="624 1635 1203 1904"> <p>Select Your Data</p> <p>Name <input type="text" value="Select Analytical Data Set"/></p> <p><small>If you don't see your dataset, check that it is deployed, and set to allow consumption in your SAP Data Warehouse Cloud System.</small></p> <p>OK Cancel</p> </div> |

| | |
|--|--|
| | <p>Select Your Data</p> <p>Name <input type="text" value="ProdSales_ADS"/> ProdSales_ADS</p> <p><i>allow consumption in your SAP Data Warehouse Cloud System ANA367_0</i></p> <p>OK Cancel</p> |
| <p>From the object list, click on the Chart to add it to our story canvas</p> | <p>Add an object to the story canvas.</p> <p>Chart Chart Geo Map Text</p> |
| <p>From the Builder panel on the right, click on Add Measure</p> | <p>Builder</p> <p>Data Source ProdSales_ADS</p> <p>+ Add Linked Models</p> <p>Chart Structure</p> <p>Comparison Trend Distribution Correlation Indicator More</p> <p>Chart Orientation Horizontal</p> <p>Measures</p> <p>+ Add Measure + Add Measure</p> <p>Dimensions</p> <p>+ Add Dimension</p> |

| | |
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| <p>From the Measures list, select our measure Total_GrossAmount.</p> <p> This will update the Chart that you have added to the canvas</p> | <p>Measures</p>  <p>Search</p> <p>▼ CALCULATIONS + Create Calculation...</p> <p>▼ MEASURES <input checked="" type="checkbox"/> Total_GrossAmount + Create Measure Input Control...</p> <p>Expand List...</p> |
| <p>From the Builder pane, now click on Add Dimension</p> | <p>Builder</p> <p>Data Source ProdSales_ADS + Add Linked Models</p> <p>▼ Chart Structure +</p> <p>Comparison  Trend  Distribution </p> <p>Correlation  Indicator  More </p> <p>Chart Orientation Horizontal</p> <p>Measures + Add Measure</p> <p>Dimensions + Add Dimension </p> |

From the list of dimensions, select the dimension **MEDIUM_DESCR**

The chart gets updated with the measures and dimensions.

Builder

Data Source
ProdSales_ADS

+ Add Linked Models

Chart Structure

Comparison Trend Distribution

Correlation Indicator More

Chart Orientation
Horizontal

Measures
Total_GrossAmount

Dimensions

Search

CALCULATED DIMENSIONS

+ Create Calculated Dimension...

DIMENSIONS

MEDIUM_DESCR

Product ID

SALESORDERID

+ Create Dimension Input Control...

Expand List...

View Mode

Enable Explorer

Configure Measures & Dimensions

Click in the Chart and then on the **More Actions** button for the chart.

Total_GrossAmount per MEDIUM_DESCR

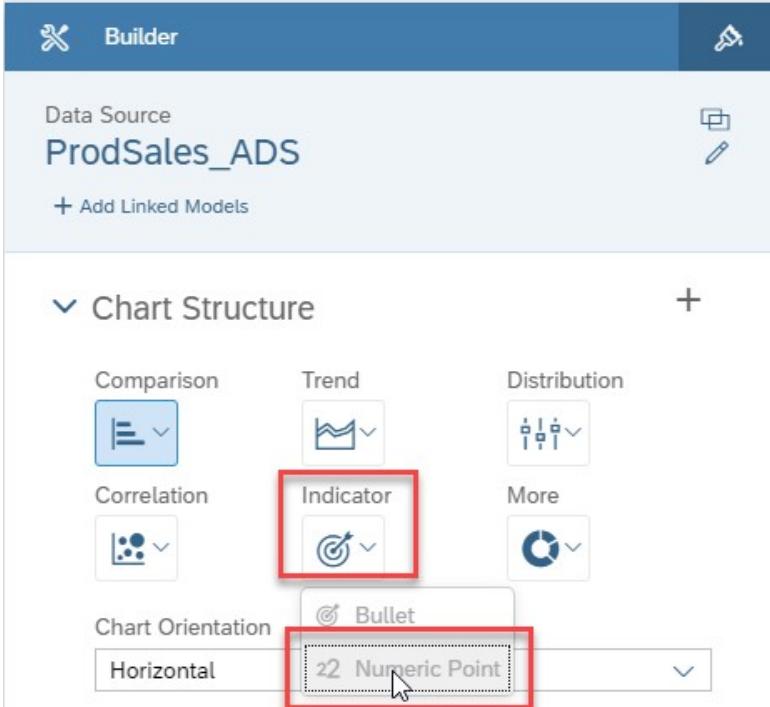
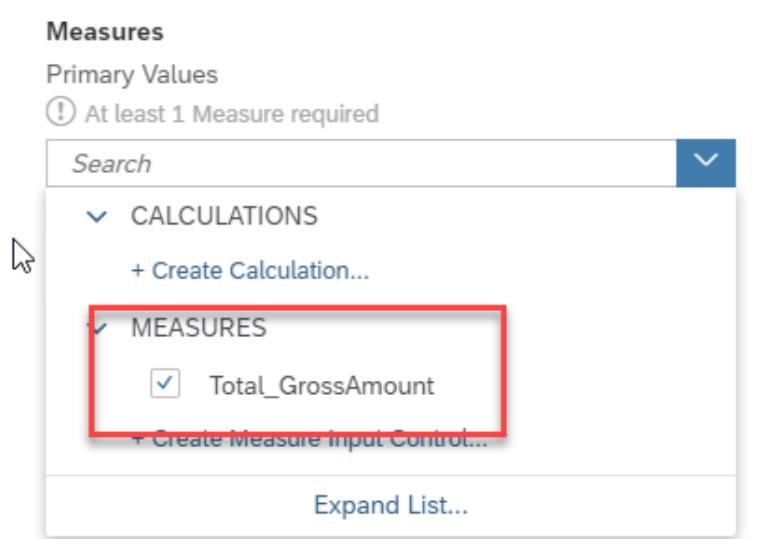
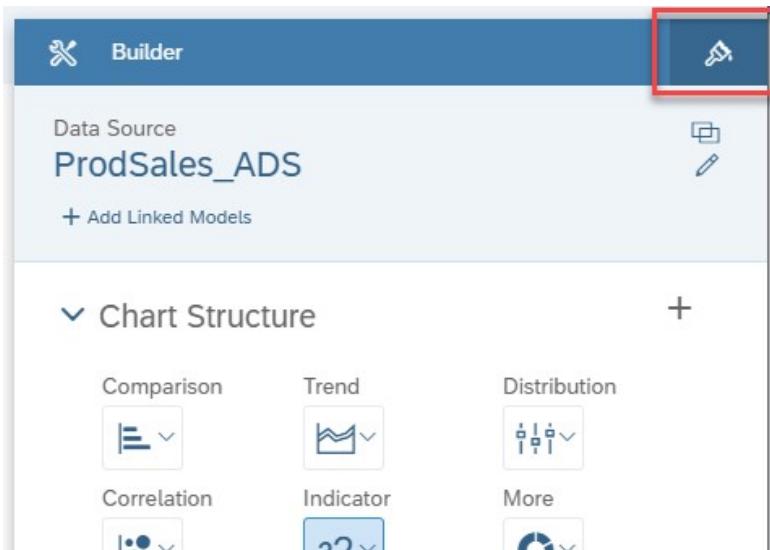
| MEDIUM_DESCR | Total_GrossAmount |
|--------------------------|-------------------|
| Mountain Discovery Basic | 17,560,960.24 |
| Mountain Discovery Drive | 38,178,414.16 |
| Mountain Discovery Rush | 107,343,151.80 |
| BMX Jump 1012 | 9,173,203.20 |
| BMX Optima | 6,778,960.12 |
| BMX Optima II | 7,967,377.54 |
| BMX Vintage 1011 | 6,105,878.34 |
| BWM Jump Luxury I | 13,966,193.52 |
| BWM Jump Luxury II | 19,697,041.86 |
| Capricorn | 31,924,687.50 |
| Capricorn II | 29,601,055.90 |
| Cyclone Basic | 30,144,114.00 |
| Cyclone III | 38,660,898.86 |
| Cyclone Speed | 31,511,700.00 |
| Flash Drive | 41,303,250.00 |
| Flash Drive II | 62,355,150.00 |
| La Plage | 10,259,031.92 |
| La Plage Gold | 7,497,036.00 |

Under the **Rank** menu, click on **Top N options**

Story Builder / ANA367_00 / New Story

- 1
- 2
- 3

| <p>Set the value to 10 and click on Apply</p> | <p>Top N Options</p> <p>Mode: Top</p> <p>Value: 10</p> <p>Measure: Total_GrossAmount</p> <p>Apply Cancel</p> | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--------------|-------------------|----------------|----------------|-----------|----------------|----------------|----------------|--------------------|----------------|----------|----------------|-------------|----------------|-------------------------|----------------|------------|----------------|----------|---------------|-----------|---------------|
| <p>Check out the updated chart.</p> <p>Click on Insert Chart button</p> | <p>Story Builder / ANA367_00 / New Story</p> <p>File Insert Chart Display More</p> <p>Total_GrossAmount per MEDIUM_DESCR Top 10</p> <table border="1"><thead><tr><th>MEDIUM_DESCR</th><th>Total_GrossAmount</th></tr></thead><tbody><tr><td>Speedeon Cross</td><td>209,327,287.50</td></tr><tr><td>Stream II</td><td>141,272,052.94</td></tr><tr><td>Speedeon Light</td><td>140,411,250.00</td></tr><tr><td>Veloflash Ultimate</td><td>125,249,313.86</td></tr><tr><td>Stream I</td><td>121,736,098.33</td></tr><tr><td>Lazy Cat II</td><td>120,538,800.00</td></tr><tr><td>Mountain Discovery Rush</td><td>107,343,151.80</td></tr><tr><td>Tornado II</td><td>103,991,489.41</td></tr><tr><td>Speedeon</td><td>74,030,625.00</td></tr><tr><td>Tornado I</td><td>67,582,637.50</td></tr></tbody></table> | MEDIUM_DESCR | Total_GrossAmount | Speedeon Cross | 209,327,287.50 | Stream II | 141,272,052.94 | Speedeon Light | 140,411,250.00 | Veloflash Ultimate | 125,249,313.86 | Stream I | 121,736,098.33 | Lazy Cat II | 120,538,800.00 | Mountain Discovery Rush | 107,343,151.80 | Tornado II | 103,991,489.41 | Speedeon | 74,030,625.00 | Tornado I | 67,582,637.50 |
| MEDIUM_DESCR | Total_GrossAmount | | | | | | | | | | | | | | | | | | | | | | |
| Speedeon Cross | 209,327,287.50 | | | | | | | | | | | | | | | | | | | | | | |
| Stream II | 141,272,052.94 | | | | | | | | | | | | | | | | | | | | | | |
| Speedeon Light | 140,411,250.00 | | | | | | | | | | | | | | | | | | | | | | |
| Veloflash Ultimate | 125,249,313.86 | | | | | | | | | | | | | | | | | | | | | | |
| Stream I | 121,736,098.33 | | | | | | | | | | | | | | | | | | | | | | |
| Lazy Cat II | 120,538,800.00 | | | | | | | | | | | | | | | | | | | | | | |
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| Tornado I | 67,582,637.50 | | | | | | | | | | | | | | | | | | | | | | |

| | |
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| <p>From the Builder menu, set the indicator to Numeric Point</p> |  |
| <p>Add the Measure Total_GrossAmount to our newly added Numeric Point chart</p> |  |
| <p>Click on the Styling button in the top right corner of the Builder pane</p> |  |

Now we will change the way the numeric point looks on the canvas.

Change the **Scale** within the Number Format section to **Million**

Styling

Show Styling Options For
Chart

Widget

Background Color
No Background

Border
No Border

Actions

Order
Up, Down, Move Left, Move Right

Font

Text Selection
All Text

Font Size Color
Default Default

Style
Bold, Italic, Underline, Superscript

Number Format

Measure Selection
All

Scale
Billion

Scale Format
Default

Data Label
 Show Currency and Unit
 Show Scale

Decimal Places
Default

Show Sign As
Default

Change the **Scale Format** within the Number Format section to **k, m, bn**.

Show Styling Options For
Chart

Widget

Background Color

Border

No Border

Actions

Order

Font

Text Selection

All Text

Font Default Size Default Color Default

Style **B** **I** **U** **T**

Number Format

Measure Selection All

Scale Billion

Scale Format **k, m, bn**

Data Label

Show Currency and Unit

Show Scale

Decimal Places Default

Show Sign As Default

Change the **Decimal Places to 2** and show sign as to +/-

Styling

Show Styling Options For
Chart

Widget

Background Color

Border

Actions

Font

Text Selection

Font Size Color

Style

Number Format

Measure Selection

Scale

Scale Format

Data Label

Show Currency and Unit

Show Scale

Decimal Places

Show Sign As

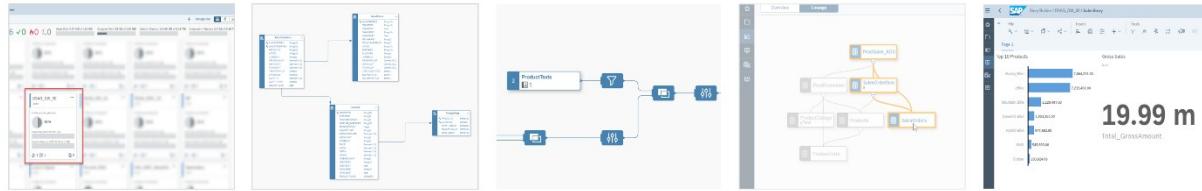
2

+ / -

| | |
|--|--|
| <p>Double click on the title of the chart and change it to Gross Sales</p> | <p>Gross Sales</p> <p>+2.09 bn</p> <p>Total_GrossAmount</p> |
| <p>Similarly, change the title of the first chart to Top 10 Products</p> | <p>Top 10 Products</p> <p>+2.09 bn</p> <p>Total_GrossAmount</p> |
| <p>Save our SAC Story by the name SalesStory_ XX (your specific UserId) and press OK.</p> | <p>Name Sales Story </p> <p>OK Cancel</p> |

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Now you have created your own story by leveraging the models which you have created beforehand.



Different use cases and different business strategies require tailored business needs. Spaces allow you to create an environment that meets your particular requirements. You can assign users and connections to a specific space and adjust the storage capacity.

Define relations between entities and add metadata to enable the creation of graphical views with the Entity-Relationship Modeler.

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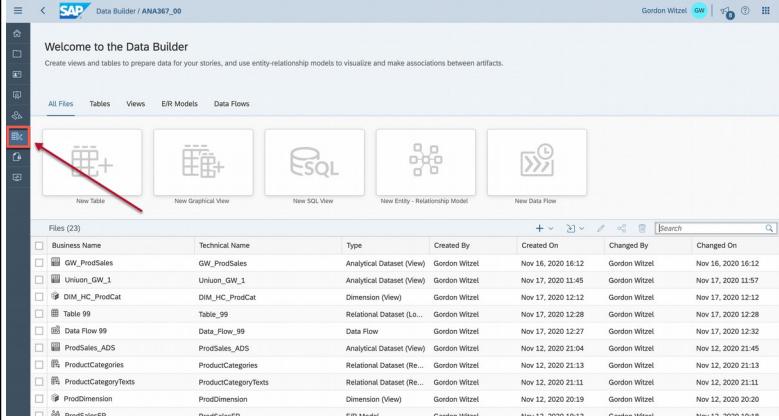
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Stories let you explore data interactively to find insights, visualize information with charts and tables, and share, present, and comment on your findings with colleagues.

Integrating Data from Google Cloud

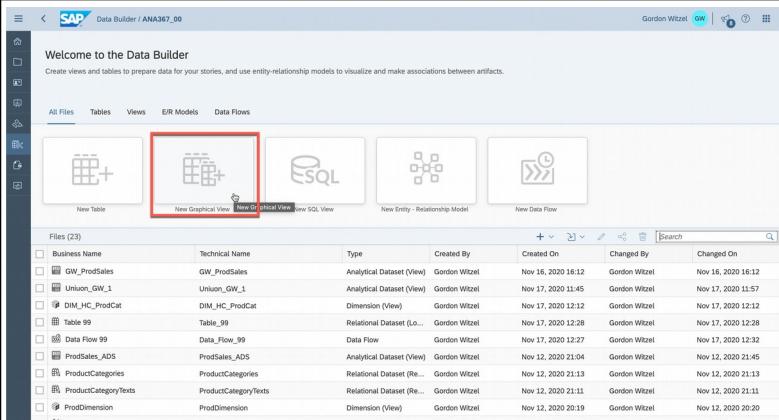
Imagine there is some further information (Product Hierarchy) located in Google Cloud. The business will use this data therefore we add this information to the data model.

Navigate to the **Data Builder** by clicking the icon in the left pane and open your Space **ANA367_XXX**.

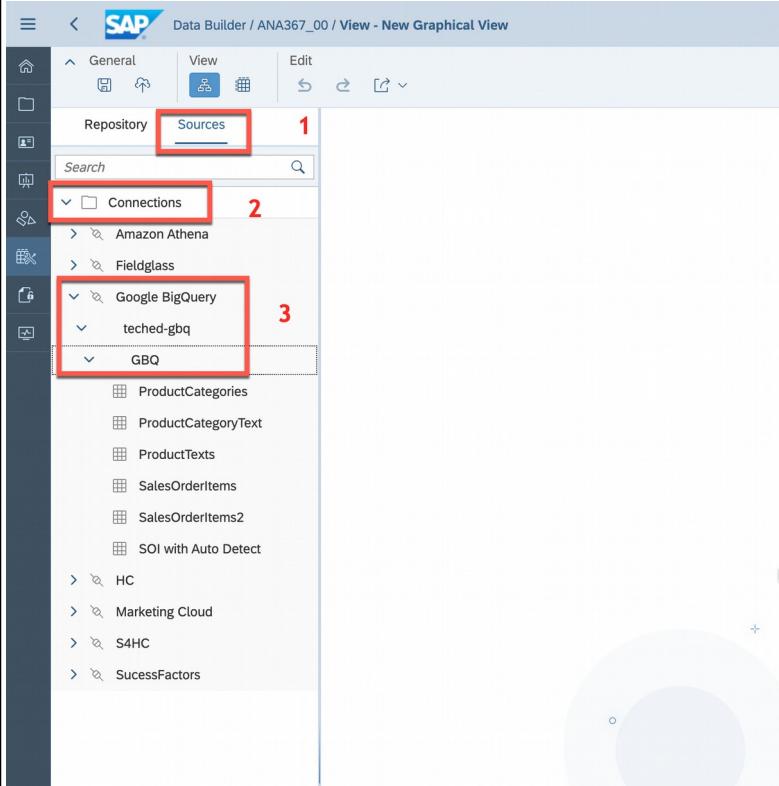
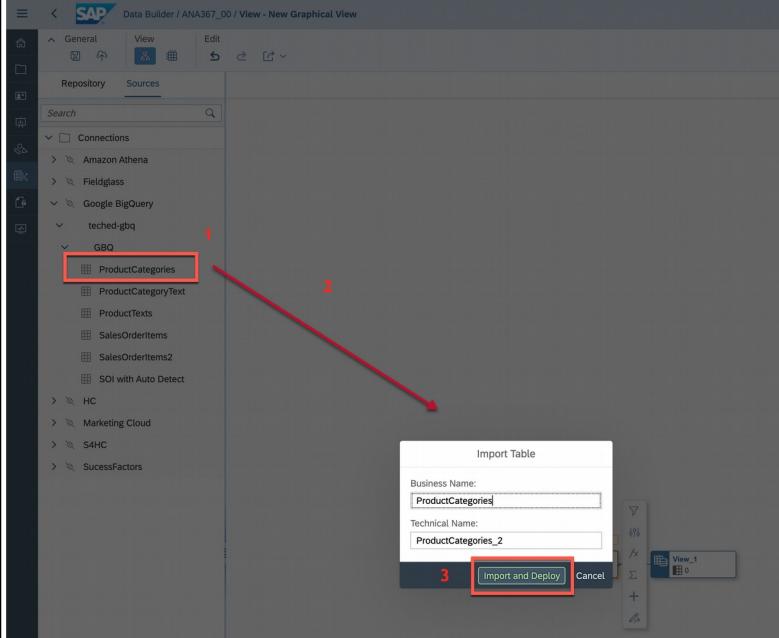


The screenshot shows the SAP Data Builder interface with a sidebar on the left containing icons for New Table, New Graphical View, New SQL View, New Entity - Relationship Model, and New Data Flow. The 'New Graphical View' icon is highlighted with a red box and has a red arrow pointing to it from the text above. The main area displays a list of files with columns for Business Name, Technical Name, Type, Created By, Created On, Changed By, and Changed On. A 'Files (23)' section is visible at the bottom.

Create a new Graphical View by pressing the tile.



This screenshot is identical to the one above, showing the SAP Data Builder interface with the 'New Graphical View' tile highlighted and the list of files below.

| | |
|---|--|
| <p>Open Sources -> Connections -> teched-gbq -> GBQ. This is your Google Big Query Account with the tables you created in the beginning of this exercise.</p> |  |
| <p>Insert table ProductCategories into the new graphical view via dragging the table into the modeling canvas. Press Import and deploy if needed. Wait until the table is deployed successfully.</p> |  |

| | |
|---|---|
| <p>Join the ProductCategories table with the ProductCategoryTexts table. Therefore drag the table ProductCategoryTexts table on the ProductCategories and use the Join.</p> | <p>The screenshot shows the SAP Data Builder interface. On the left, the 'Repository' sidebar lists various connections and tables. The 'ProductCategoryTexts' table under the 'ProductCategories' connection is selected and highlighted with a red box. A red arrow points from this table to a 'JOIN' node in the main canvas area, which is also highlighted with a red box. The canvas contains a flow with several nodes: 'ProductCategoryTexts', 'Union', 'JOIN', and 'ProductCategoryTexts' again.</p> |
| <p>Check if the Join (Inner Join) is based on PRODCATEGORYID. If not please the delete the Join and create a Join between PRODCATEGORYID.</p> | <p>The screenshot shows the 'Join Properties' dialog for 'Join 1'. The 'General' tab is selected, showing 'Join Type: Inner'. The 'Mappings' tab is also visible. In the 'Mappings' section, there are two tables: 'ProductCategories_2 (3)' and 'ProductCategoryTexts (5)'. Between them, a join condition is defined: 'AA PRODCATEGORYID' is connected to 'AA PRODCATEGORYID'. This connection is highlighted with a red box. Below the tables, there are other columns listed: '22 CREATEDBY', '22 CREATEDAT' on the left, and 'AA LANGUAGE', 'AA SHORT_DESCR', 'AA MEDIUM_DESCR', 'AA LONG_DESCR' on the right.</p> |

| | |
|--|--|
| <p>In the Projection (press 1) Hide the following fields by pressing Exclude Column :</p> <ul style="list-style-type: none"> • CREATEDBY • LANGUAGE • CREATEDAT • MEDIUM_DESCR • LONG_DESCR | |
| <p>Go to the Output Node and Change the Type from Relational Dataset to Dimension</p> | |
| <p>Add PRODCAT_DIM_XX in the business name and save the View.</p> | |

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Deploy the View PRODCAT_DIM_XX

Run a Data Preview.

| PRODCATEGORYID | SHORT_DESCR |
|----------------|------------------|
| BX | BMX |
| HB | Hybrid Bike |
| CC | Cyclo-cross Bike |
| DB | Downhill Bike |
| RC | Racing Bike |
| CB | Cruiser |
| MB | Mountain Bike |
| EB | eBike |
| RO | Road Bike |

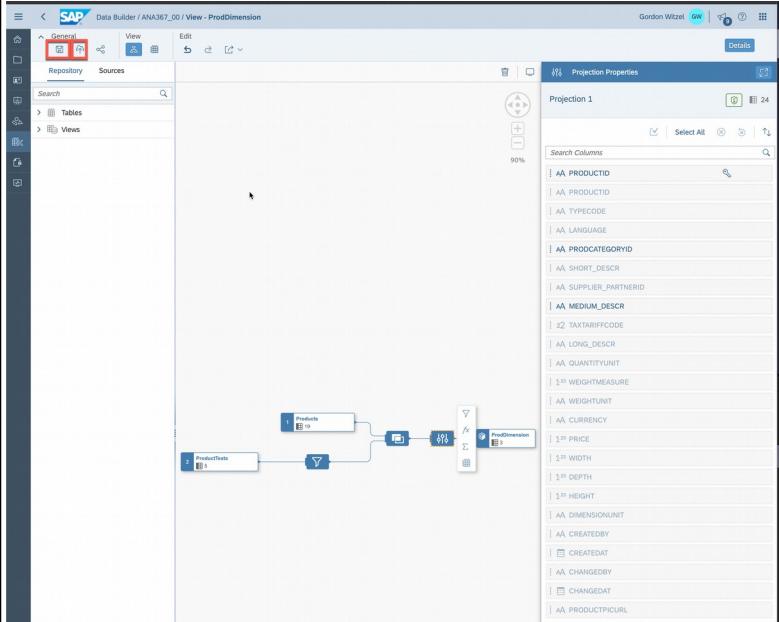
Go back to the Data Builder

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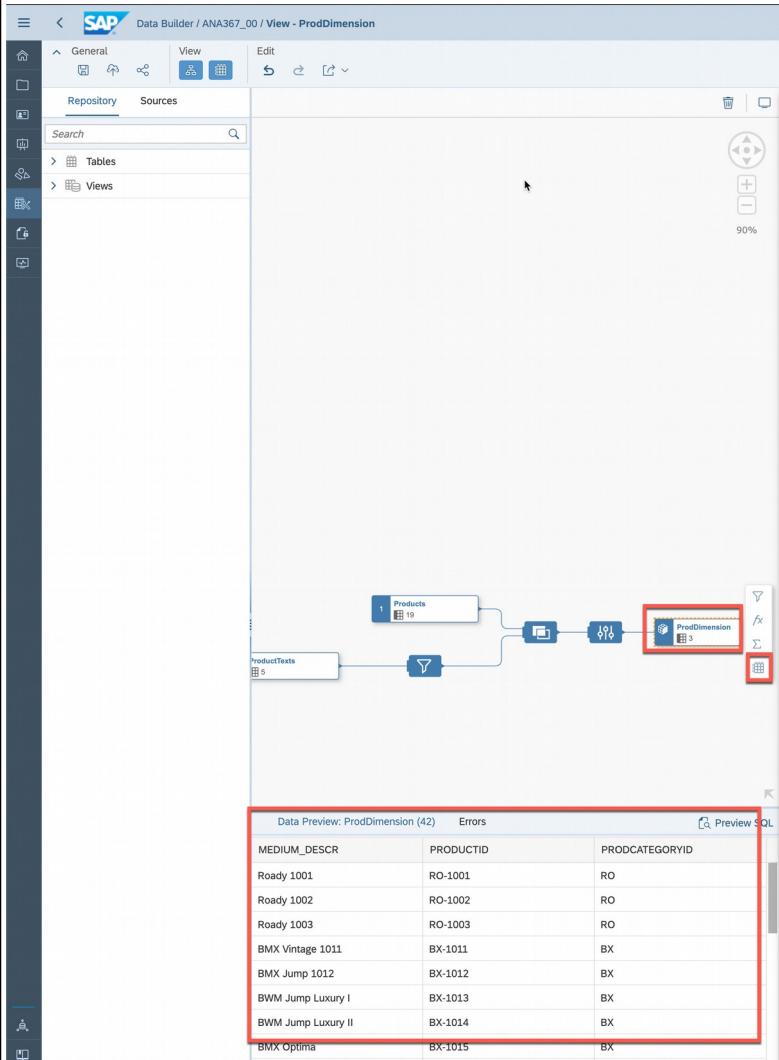
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---------------------------|----------------------|---------------------------|----------------------|---------------------------|---------------|--------------------|------------|------------|---------------------------|---------------|--------------------|---------------|--------------------|----------------|----------------|------------------|---------------|--------------------|---------------|--------------------|----------|----------|---------------------------|---------------|--------------------|---------------|--------------------|--------------|--------------|-----------|---------------|--------------------|---------------|--------------------|-------------------|---------------------|---------------------------|---------------|--------------------|---------------|--------------------|----------------|----------------|------------------|---------------|--------------------|---------------|--------------------|--------------|--------------|---------------------------|---------------|--------------------|---------------|--------------------|-------------------|-------------------|---------------------------|---------------|--------------------|---------------|--------------------|----------------------|----------------------|---------------------------|---------------|--------------------|---------------|--------------------|----------------------|----------------------|-------------------------|----------------------|---------------------------|----------------------|---------------------------|-------------|-------------|-----------|---------------|--------------------|---------------|--------------------|--------------|--------------|---------------------------|---------------|--------------------|---------------|--------------------|-----------------|-----------------|---------------------------|---------------|--------------------|---------------|--------------------|----------|----------|---------------------------|---------------|--------------------|---------------|--------------------|
| <p>Open your Dimension for Product – ProductDimension_XXX.</p> | <p>Welcome to the Data Builder Create views and tables to prepare data for your stories, and use entity-relationship models to visualize and make associations between artifacts.</p> <p>All Files Tables Views ER Models Data Flows</p> <p>Files (25)</p> <ul style="list-style-type: none"> Business Name Technical Name Type Created By Created On Changed By Changed On <table border="1"> <tbody> <tr><td>GW_ProdSales</td><td>GW_ProdSales</td><td>Analytical Dataset (View)</td><td>Gordon Witzel</td><td>Nov 16, 2020 16:12</td><td>Gordon Witzel</td><td>Nov 16, 2020 16:12</td></tr> <tr><td>Union_GW_1</td><td>Union_GW_1</td><td>Analytical Dataset (View)</td><td>Gordon Witzel</td><td>Nov 17, 2020 11:45</td><td>Gordon Witzel</td><td>Nov 17, 2020 11:57</td></tr> <tr><td>DIM_HC_ProdCat</td><td>DIM_HC_ProdCat</td><td>Dimension (View)</td><td>Gordon Witzel</td><td>Nov 17, 2020 12:12</td><td>Gordon Witzel</td><td>Nov 17, 2020 12:12</td></tr> <tr><td>Table_99</td><td>Table_99</td><td>Relational Dataset (LO...</td><td>Gordon Witzel</td><td>Nov 17, 2020 12:28</td><td>Gordon Witzel</td><td>Nov 17, 2020 12:28</td></tr> <tr><td>Data_Flow_99</td><td>Data_Flow_99</td><td>Data Flow</td><td>Gordon Witzel</td><td>Nov 17, 2020 12:27</td><td>Gordon Witzel</td><td>Nov 17, 2020 12:32</td></tr> <tr><td>ProductCategories</td><td>ProductCategories_2</td><td>Relational Dataset (Re...</td><td>Gordon Witzel</td><td>Nov 17, 2020 18:22</td><td>Gordon Witzel</td><td>Nov 17, 2020 18:22</td></tr> <tr><td>PRODCAT_DIM_XX</td><td>PRODCAT_DIM_XX</td><td>Dimension (View)</td><td>Gordon Witzel</td><td>Nov 17, 2020 20:39</td><td>Gordon Witzel</td><td>Nov 17, 2020 20:39</td></tr> <tr><td>ProdSalesADS</td><td>ProdSalesADS</td><td>Analytical Dataset (View)</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:04</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:45</td></tr> <tr><td>ProductCategories</td><td>ProductCategories</td><td>Relational Dataset (Re...</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:13</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:13</td></tr> <tr><td>ProductCategoryTexts</td><td>ProductCategoryTexts</td><td>Relational Dataset (Re...</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:11</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:11</td></tr> <tr><td>ProdDimension</td><td>ProdDimension</td><td>Dimension (View)</td><td>Gordon Witzel</td><td>Nov 12, 2020 20:19</td><td>Gordon Witzel</td><td>Nov 12, 2020 20:20</td></tr> <tr><td>ProdSalesER</td><td>ProdSalesER</td><td>E/R Model</td><td>Gordon Witzel</td><td>Nov 12, 2020 19:13</td><td>Gordon Witzel</td><td>Nov 12, 2020 19:18</td></tr> <tr><td>ProductTexts</td><td>ProductTexts</td><td>Relational Dataset (Re...</td><td>Gordon Witzel</td><td>Nov 12, 2020 19:10</td><td>Gordon Witzel</td><td>Nov 12, 2020 19:10</td></tr> <tr><td>SalesOrderItems</td><td>SalesOrderItems</td><td>Relational Dataset (Re...</td><td>Gordon Witzel</td><td>Nov 12, 2020 19:03</td><td>Gordon Witzel</td><td>Nov 12, 2020 19:13</td></tr> <tr><td>Products</td><td>Products</td><td>Relational Dataset (Re...</td><td>Gordon Witzel</td><td>Nov 11, 2020 19:11</td><td>Gordon Witzel</td><td>Nov 12, 2020 19:13</td></tr> </tbody> </table> | GW_ProdSales | GW_ProdSales | Analytical Dataset (View) | Gordon Witzel | Nov 16, 2020 16:12 | Gordon Witzel | Nov 16, 2020 16:12 | Union_GW_1 | Union_GW_1 | Analytical Dataset (View) | Gordon Witzel | Nov 17, 2020 11:45 | Gordon Witzel | Nov 17, 2020 11:57 | DIM_HC_ProdCat | DIM_HC_ProdCat | Dimension (View) | Gordon Witzel | Nov 17, 2020 12:12 | Gordon Witzel | Nov 17, 2020 12:12 | Table_99 | Table_99 | Relational Dataset (LO... | Gordon Witzel | Nov 17, 2020 12:28 | Gordon Witzel | Nov 17, 2020 12:28 | Data_Flow_99 | Data_Flow_99 | Data Flow | Gordon Witzel | Nov 17, 2020 12:27 | Gordon Witzel | Nov 17, 2020 12:32 | ProductCategories | ProductCategories_2 | Relational Dataset (Re... | Gordon Witzel | Nov 17, 2020 18:22 | Gordon Witzel | Nov 17, 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| GW_ProdSales | GW_ProdSales | Analytical Dataset (View) | Gordon Witzel | Nov 16, 2020 16:12 | Gordon Witzel | Nov 16, 2020 16:12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Union_GW_1 | Union_GW_1 | Analytical Dataset (View) | Gordon Witzel | Nov 17, 2020 11:45 | Gordon Witzel | Nov 17, 2020 11:57 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DIM_HC_ProdCat | DIM_HC_ProdCat | Dimension (View) | Gordon Witzel | Nov 17, 2020 12:12 | Gordon Witzel | Nov 17, 2020 12:12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Table_99 | Table_99 | Relational Dataset (LO... | Gordon Witzel | Nov 17, 2020 12:28 | Gordon Witzel | Nov 17, 2020 12:28 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Data_Flow_99 | Data_Flow_99 | Data Flow | Gordon Witzel | Nov 17, 2020 12:27 | Gordon Witzel | Nov 17, 2020 12:32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ProductCategories | ProductCategories_2 | Relational Dataset (Re... | Gordon Witzel | Nov 17, 2020 18:22 | Gordon Witzel | Nov 17, 2020 18:22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRODCAT_DIM_XX | PRODCAT_DIM_XX | Dimension (View) | Gordon Witzel | Nov 17, 2020 20:39 | Gordon Witzel | Nov 17, 2020 20:39 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ProdSalesADS | ProdSalesADS | Analytical Dataset (View) | Gordon Witzel | Nov 12, 2020 21:04 | Gordon Witzel | Nov 12, 2020 21:45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ProductCategories | ProductCategories | Relational Dataset (Re... | Gordon Witzel | Nov 12, 2020 21:13 | Gordon Witzel | Nov 12, 2020 21:13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ProductCategoryTexts | ProductCategoryTexts | Relational Dataset (Re... | Gordon Witzel | Nov 12, 2020 21:11 | Gordon Witzel | Nov 12, 2020 21:11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ProdDimension | ProdDimension | Dimension (View) | Gordon Witzel | Nov 12, 2020 20:19 | Gordon Witzel | Nov 12, 2020 20:20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ProdSalesER | ProdSalesER | E/R Model | Gordon Witzel | Nov 12, 2020 19:13 | Gordon Witzel | Nov 12, 2020 19:18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ProductTexts | ProductTexts | Relational Dataset (Re... | Gordon Witzel | Nov 12, 2020 19:10 | Gordon Witzel | Nov 12, 2020 19:10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SalesOrderItems | SalesOrderItems | Relational Dataset (Re... | Gordon Witzel | Nov 12, 2020 19:03 | Gordon Witzel | Nov 12, 2020 19:13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Products | Products | Relational Dataset (Re... | Gordon Witzel | Nov 11, 2020 19:11 | Gordon Witzel | Nov 12, 2020 19:13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Open the Projection</p> | <p>Projection Properties</p> <p>Projection 1</p> <p>Search Columns</p> <ul style="list-style-type: none"> AA_PRODUCTID AA_PRODUCTID AA_TYPECODE AA_LANGUAGE AA_PRODCATEGORYID AA_SHORT_DESCR AA_SUPPLIER_PARTNERID AA_MEDIUM_DESCR x2 TAXARTIFFCODE AA_LONG_DESCR AA_QUANTITYUNIT 1st WEIGHTMEASURE AA_WEIGHTUNIT AA_CURRENCY 1st PRICE 1st WIDTH 1st DEPTH 1st HEIGHT AA_DIMENSIONUNIT AA_CREATEDBY CREATEDAT AA_CHANGEDBY CHANGEDAT AA_PRODUCTPCURL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Restore Column for PRODCATEGORYID</p> | <p>Projection Properties</p> <p>Projection 1</p> <p>Search Columns</p> <ul style="list-style-type: none"> AA_PRODUCTID AA_PRODUCTID AA_TYPECODE AA_LANGUAGE AA_PRODCATEGORYID AA_SHORT_DESCR AA_SUPPLIER_PARTNERID AA_MEDIUM_DESCR x2 TAXARTIFFCODE AA_LONG_DESCR AA_QUANTITYUNIT 1st WEIGHTMEASURE AA_WEIGHTUNIT AA_CURRENCY 1st PRICE 1st WIDTH 1st DEPTH 1st HEIGHT AA_DIMENSIONUNIT AA_CREATEDBY CREATEDAT AA_CHANGEDBY CHANGEDAT AA_PRODUCTPCURL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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Save and Activate the View.
First press **Save** and then
DEPLOY.

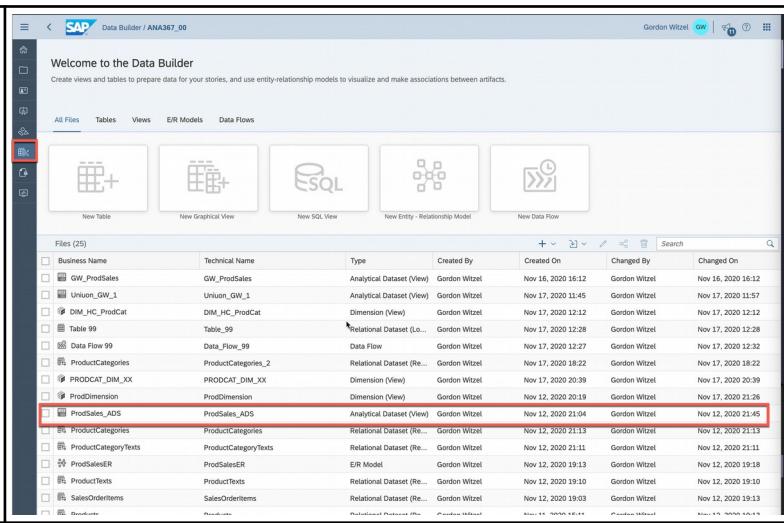
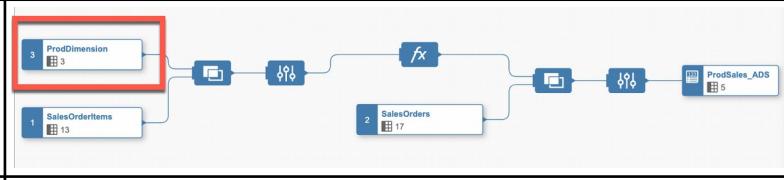
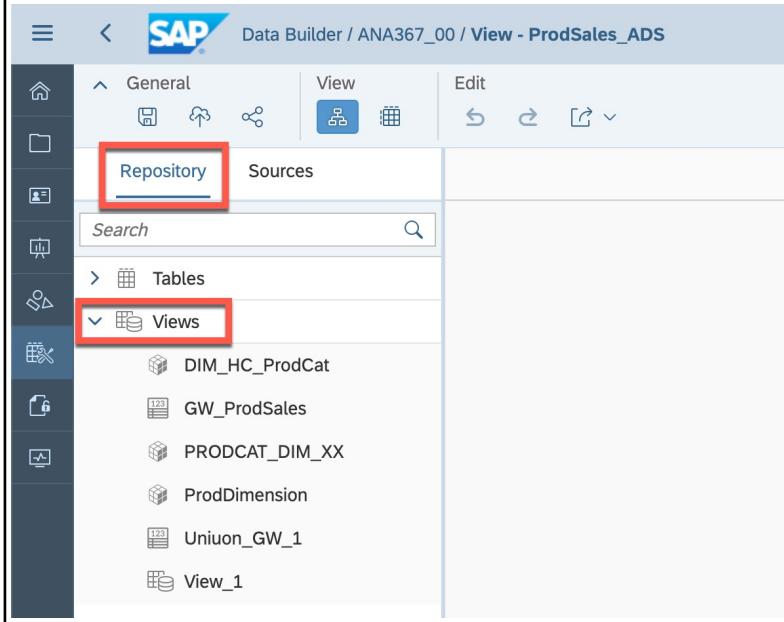


Execute a Data Preview

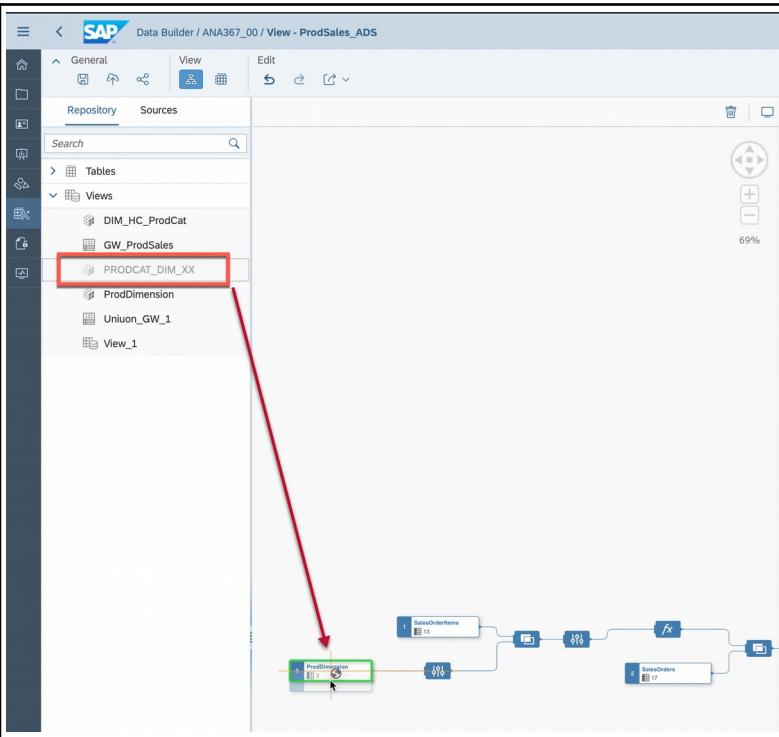
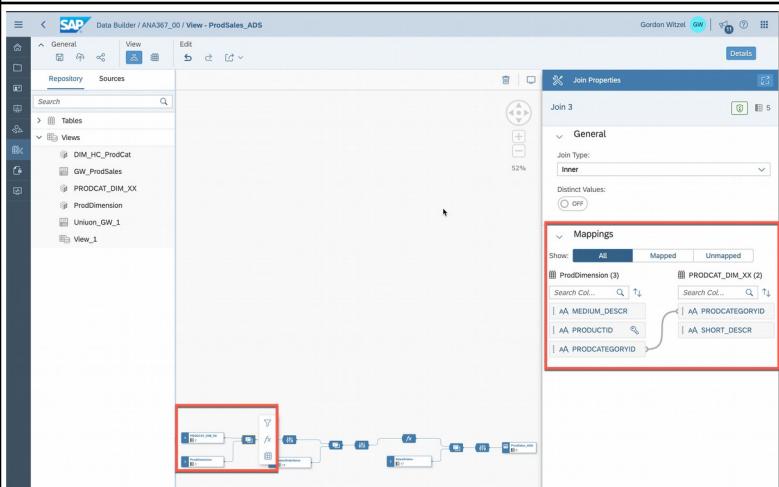
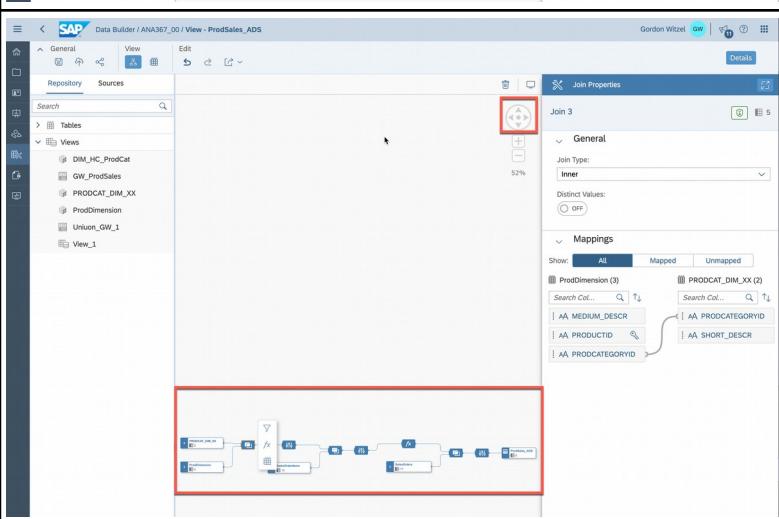


| MEDIUM_DESCR | PRODUCTID | PRODCATEGORYID |
|--------------------|-----------|----------------|
| Roady 1001 | RO-1001 | RO |
| Roady 1002 | RO-1002 | RO |
| Roady 1003 | RO-1003 | RO |
| BMX Vintage 1011 | BX-1011 | BX |
| BMX Jump 1012 | BX-1012 | BX |
| BWM Jump Luxury I | BX-1013 | BX |
| BWM Jump Luxury II | BX-1014 | BX |
| BMX Optima | BX-1015 | BX |

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| <p>Go back to the Data Builder and open (double click on the object) your Analytical Dataset ProdSales_ADS_XX</p> |  <p>Welcome to the Data Builder Create views and tables to prepare data for your stories, and use entity-relationship models to visualize and make associations between artifacts.</p> <p>All Files Tables Views E/R Models Data Flows</p> <p>New Table New Graphical View New SQL View New Entity - Relationship Model New Data Flow</p> <p>Files (25)</p> <table border="1"><thead><tr><th></th><th>Business Name</th><th>Technical Name</th><th>Type</th><th>Created By</th><th>Created On</th><th>Changed By</th><th>Changed On</th></tr></thead><tbody><tr><td>1</td><td>GW_ProdSales</td><td>GW_ProdSales</td><td>Analytical Dataset (View)</td><td>Gordon Witzel</td><td>Nov 16, 2020 16:12</td><td>Gordon Witzel</td><td>Nov 16, 2020 16:12</td></tr><tr><td>2</td><td>Union_GW_1</td><td>Union_GW_1</td><td>Analytical Dataset (View)</td><td>Gordon Witzel</td><td>Nov 17, 2020 11:45</td><td>Gordon Witzel</td><td>Nov 17, 2020 11:57</td></tr><tr><td>3</td><td>DIM_HC_ProdCat</td><td>DIM_HC_ProdCat</td><td>Dimension (View)</td><td>Gordon Witzel</td><td>Nov 17, 2020 12:12</td><td>Gordon Witzel</td><td>Nov 17, 2020 12:12</td></tr><tr><td>4</td><td>Table_99</td><td>Table_99</td><td>Relational Dataset (Locally)</td><td>Gordon Witzel</td><td>Nov 17, 2020 12:28</td><td>Gordon Witzel</td><td>Nov 17, 2020 12:28</td></tr><tr><td>5</td><td>Data_Flow_99</td><td>Data_Flow_99</td><td>Data Flow</td><td>Gordon Witzel</td><td>Nov 17, 2020 12:27</td><td>Gordon Witzel</td><td>Nov 17, 2020 12:32</td></tr><tr><td>6</td><td>ProductCategories</td><td>ProductCategories_2</td><td>Relational Dataset (Relational)</td><td>Gordon Witzel</td><td>Nov 17, 2020 18:22</td><td>Gordon Witzel</td><td>Nov 17, 2020 18:22</td></tr><tr><td>7</td><td>PRODCAT_DIM_XX</td><td>PRODCAT_DIM_XX</td><td>Dimension (View)</td><td>Gordon Witzel</td><td>Nov 17, 2020 20:39</td><td>Gordon Witzel</td><td>Nov 17, 2020 20:39</td></tr><tr><td>8</td><td>ProdDimension</td><td>ProdDimension</td><td>Dimension (View)</td><td>Gordon Witzel</td><td>Nov 12, 2020 20:19</td><td>Gordon Witzel</td><td>Nov 17, 2020 21:26</td></tr><tr><td>9</td><td>ProdSales_ADS</td><td>ProdSales_ADS</td><td>Analytical Dataset (View)</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:04</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:45</td></tr><tr><td>10</td><td>ProductCategories</td><td>ProductCategories</td><td>Relational Dataset (Relational)</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:13</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:13</td></tr><tr><td>11</td><td>ProductCategoryTexts</td><td>ProductCategoryTexts</td><td>Relational Dataset (Relational)</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:11</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:11</td></tr><tr><td>12</td><td>ProdSalesER</td><td>ProdSalesER</td><td>E/R Model</td><td>Gordon Witzel</td><td>Nov 12, 2020 19:13</td><td>Gordon Witzel</td><td>Nov 12, 2020 19:18</td></tr><tr><td>13</td><td>ProductTexts</td><td>ProductTexts</td><td>Relational Dataset (Relational)</td><td>Gordon Witzel</td><td>Nov 12, 2020 19:10</td><td>Gordon Witzel</td><td>Nov 12, 2020 19:10</td></tr><tr><td>14</td><td>SalesOrderItems</td><td>SalesOrderItems</td><td>Relational Dataset (Relational)</td><td>Gordon Witzel</td><td>Nov 12, 2020 19:03</td><td>Gordon Witzel</td><td>Nov 12, 2020 19:13</td></tr><tr><td>15</td><td>Products</td><td>Products</td><td>Relational Dataset (Relational)</td><td>Gordon Witzel</td><td>Nov 12, 2020 19:14</td><td>Gordon Witzel</td><td>Nov 12, 2020 19:14</td></tr><tr><td>16</td><td>ProdDimension</td><td>ProdDimension</td><td>Dimension (View)</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:26</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:26</td></tr><tr><td>17</td><td>SalesOrderItems</td><td>SalesOrderItems</td><td>Relational Dataset (Relational)</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:13</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:13</td></tr><tr><td>18</td><td>SalesOrders</td><td>SalesOrders</td><td>Relational Dataset (Relational)</td><td>Gordon Witzel</td><td>Nov 12, 2020 19:18</td><td>Gordon Witzel</td><td>Nov 12, 2020 19:18</td></tr><tr><td>19</td><td>ProdSales_ADS</td><td>ProdSales_ADS</td><td>Analytical Dataset (View)</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:45</td><td>Gordon Witzel</td><td>Nov 12, 2020 21:45</td></tr></tbody></table> | | Business Name | Technical Name | Type | Created By | Created On | Changed By | Changed On | 1 | GW_ProdSales | GW_ProdSales | Analytical Dataset (View) | Gordon Witzel | Nov 16, 2020 16:12 | Gordon Witzel | Nov 16, 2020 16:12 | 2 | Union_GW_1 | Union_GW_1 | Analytical Dataset (View) | Gordon Witzel | Nov 17, 2020 11:45 | Gordon Witzel | Nov 17, 2020 11:57 | 3 | DIM_HC_ProdCat | DIM_HC_ProdCat | Dimension (View) | Gordon Witzel | Nov 17, 2020 12:12 | Gordon Witzel | Nov 17, 2020 12:12 | 4 | Table_99 | Table_99 | Relational Dataset (Locally) | Gordon Witzel | Nov 17, 2020 12:28 | Gordon Witzel | Nov 17, 2020 12:28 | 5 | Data_Flow_99 | Data_Flow_99 | Data Flow | Gordon Witzel | Nov 17, 2020 12:27 | Gordon Witzel | Nov 17, 2020 12:32 | 6 | ProductCategories | ProductCategories_2 | Relational Dataset (Relational) | Gordon Witzel | Nov 17, 2020 18:22 | Gordon Witzel | Nov 17, 2020 18:22 | 7 | PRODCAT_DIM_XX | PRODCAT_DIM_XX | Dimension (View) | Gordon Witzel | Nov 17, 2020 20:39 | Gordon Witzel | Nov 17, 2020 20:39 | 8 | ProdDimension | ProdDimension | Dimension (View) | Gordon Witzel | Nov 12, 2020 20:19 | Gordon Witzel | Nov 17, 2020 21:26 | 9 | ProdSales_ADS | ProdSales_ADS | Analytical Dataset (View) | Gordon Witzel | Nov 12, 2020 21:04 | Gordon Witzel | Nov 12, 2020 21:45 | 10 | ProductCategories | ProductCategories | Relational Dataset (Relational) | Gordon Witzel | Nov 12, 2020 21:13 | Gordon Witzel | Nov 12, 2020 21:13 | 11 | ProductCategoryTexts | ProductCategoryTexts | Relational Dataset (Relational) | Gordon Witzel | Nov 12, 2020 21:11 | 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| 19 | ProdSales_ADS | ProdSales_ADS | Analytical Dataset (View) | Gordon Witzel | Nov 12, 2020 21:45 | Gordon Witzel | Nov 12, 2020 21:45 |
|---|--|----------------------|---------------------------------|----------------|--------------------|---------------|--------------------|------------|------------|---|--------------|--------------|---------------------------|---------------|--------------------|---------------|--------------------|---|------------|------------|---------------------------|---------------|--------------------|---------------|--------------------|---|----------------|----------------|------------------|---------------|--------------------|---------------|--------------------|---|----------|----------|------------------------------|---------------|--------------------|---------------|--------------------|---|--------------|--------------|-----------|---------------|--------------------|---------------|--------------------|---|-------------------|---------------------|---------------------------------|---------------|--------------------|---------------|--------------------|---|----------------|----------------|------------------|---------------|--------------------|---------------|--------------------|---|---------------|---------------|------------------|---------------|--------------------|---------------|--------------------|---|---------------|---------------|---------------------------|---------------|--------------------|---------------|--------------------|----|-------------------|-------------------|---------------------------------|---------------|--------------------|---------------|--------------------|----|----------------------|----------------------|---------------------------------|---------------|--------------------|---------------|--------------------|----|-------------|-------------|-----------|---------------|--------------------|---------------|--------------------|----|--------------|--------------|---------------------------------|---------------|--------------------|---------------|--------------------|----|-----------------|-----------------|---------------------------------|---------------|--------------------|---------------|--------------------|----|----------|----------|---------------------------------|---------------|--------------------|---------------|--------------------|----|---------------|---------------|------------------|---------------|--------------------|---------------|--------------------|----|-----------------|-----------------|---------------------------------|---------------|--------------------|---------------|--------------------|----|-------------|-------------|---------------------------------|---------------|--------------------|---------------|--------------------|----|---------------|---------------|---------------------------|---------------|--------------------|---------------|--------------------|
| | Business Name | Technical Name | Type | Created By | Created On | Changed By | Changed On | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | GW_ProdSales | GW_ProdSales | Analytical Dataset (View) | Gordon Witzel | Nov 16, 2020 16:12 | Gordon Witzel | Nov 16, 2020 16:12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Union_GW_1 | Union_GW_1 | Analytical Dataset (View) | Gordon Witzel | Nov 17, 2020 11:45 | Gordon Witzel | Nov 17, 2020 11:57 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | DIM_HC_ProdCat | DIM_HC_ProdCat | Dimension (View) | Gordon Witzel | Nov 17, 2020 12:12 | Gordon Witzel | Nov 17, 2020 12:12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Table_99 | Table_99 | Relational Dataset (Locally) | Gordon Witzel | Nov 17, 2020 12:28 | Gordon Witzel | Nov 17, 2020 12:28 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Data_Flow_99 | Data_Flow_99 | Data Flow | Gordon Witzel | Nov 17, 2020 12:27 | Gordon Witzel | Nov 17, 2020 12:32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | ProductCategories | ProductCategories_2 | Relational Dataset (Relational) | Gordon Witzel | Nov 17, 2020 18:22 | Gordon Witzel | Nov 17, 2020 18:22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | PRODCAT_DIM_XX | PRODCAT_DIM_XX | Dimension (View) | Gordon Witzel | Nov 17, 2020 20:39 | Gordon Witzel | Nov 17, 2020 20:39 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | ProdDimension | ProdDimension | Dimension (View) | Gordon Witzel | Nov 12, 2020 20:19 | Gordon Witzel | Nov 17, 2020 21:26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | ProdSales_ADS | ProdSales_ADS | Analytical Dataset (View) | Gordon Witzel | Nov 12, 2020 21:04 | Gordon Witzel | Nov 12, 2020 21:45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | ProductCategories | ProductCategories | Relational Dataset (Relational) | Gordon Witzel | Nov 12, 2020 21:13 | Gordon Witzel | Nov 12, 2020 21:13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | ProductCategoryTexts | ProductCategoryTexts | Relational Dataset (Relational) | Gordon Witzel | Nov 12, 2020 21:11 | Gordon Witzel | Nov 12, 2020 21:11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | ProdSalesER | ProdSalesER | E/R Model | Gordon Witzel | Nov 12, 2020 19:13 | Gordon Witzel | Nov 12, 2020 19:18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | ProductTexts | ProductTexts | Relational Dataset (Relational) | Gordon Witzel | Nov 12, 2020 19:10 | Gordon Witzel | Nov 12, 2020 19:10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | SalesOrderItems | SalesOrderItems | Relational Dataset (Relational) | Gordon Witzel | Nov 12, 2020 19:03 | Gordon Witzel | Nov 12, 2020 19:13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | Products | Products | Relational Dataset (Relational) | Gordon Witzel | Nov 12, 2020 19:14 | Gordon Witzel | Nov 12, 2020 19:14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | ProdDimension | ProdDimension | Dimension (View) | Gordon Witzel | Nov 12, 2020 21:26 | Gordon Witzel | Nov 12, 2020 21:26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | SalesOrderItems | SalesOrderItems | Relational Dataset (Relational) | Gordon Witzel | Nov 12, 2020 21:13 | Gordon Witzel | Nov 12, 2020 21:13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | SalesOrders | SalesOrders | Relational Dataset (Relational) | Gordon Witzel | Nov 12, 2020 19:18 | Gordon Witzel | Nov 12, 2020 19:18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | ProdSales_ADS | ProdSales_ADS | Analytical Dataset (View) | Gordon Witzel | Nov 12, 2020 21:45 | Gordon Witzel | Nov 12, 2020 21:45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>You can see the ProdDimension View contains now 3 fields.</p> |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Open the Views in the Repository.</p> |  <p>General View Edit</p> <p>Repository Sources</p> <p>Search</p> <p>Tables</p> <p>Views</p> <ul style="list-style-type: none">DIM_HC_ProdCatGW_ProdSalesPRODCAT_DIM_XXProdDimensionUnion_GW_1View_1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

AIN367 - Integration Cloud Solution with SAP Data Warehouse Cloud

| | |
|--|--|
| <p>Join the PRODCAT_DIM_XX (data is coming from Google Big Query) to the Dataset. Therefore add the View PRODCAT_DIM_XX to the view ProdDimension.</p> |  |
| <p>Check if the Join is correct. Otherwise delete the existing Join and create a new one. Join Productcategoryid with Productcategoryid.</p> |  |
| <p>Arrange the View.</p> |  |

AIN367 - Integration Cloud Solution with SAP Data Warehouse Cloud

The screenshot shows the SAP Data Builder interface for a view named 'ProdSales_ADS'. The top navigation bar includes 'SAP Data Builder / ANA367_00 / View - ProdSales_ADS', 'General' tab, 'View' tab, 'Edit' tab, and zoom controls (52%). The left sidebar has 'Repository' and 'Sources' tabs, with 'Tables' and 'Views' listed under Sources. The main area displays a data flow diagram with various nodes like 'HANA', 'Dimensions', 'Joiner', and 'ProdSales_ADS'. A red box highlights the 'ProdSales_ADS' node. Below the diagram is a 'Data Preview' table titled 'Data Preview: ProdSales_ADS (1000) Errors'. The table has columns: SALESORDE..., Total_GrossA..., MEDIUM_DE..., PRODUCTID, PRODCATEG..., and SHORT_DES... . The data preview shows 10 rows of sales data combined with dimensions from Google Big Query.

| SALESORDE... | Total_GrossA... | MEDIUM_DE... | PRODUCTID | PRODCATEG... | SHORT_DES... |
|--------------|-----------------|-----------------|-----------|--------------|--------------|
| 0500003382 | 8971.85 | BMX Optima II | BX-1016 | BX | BMX |
| 0500003355 | 18184.50 | BWM Jump L... | BX-1013 | BX | BMX |
| 0500003346 | 4546.11 | BWM Jump L... | BX-1013 | BX | BMX |
| 0500003289 | 4546.11 | BWM Jump L... | BX-1013 | BX | BMX |
| 0500003260 | 2521.11 | BMX Vintage ... | BX-1011 | BX | BMX |
| 0500003255 | 18184.50 | BWM Jump L... | BX-1013 | BX | BMX |
| 0500003242 | 4546.11 | BWM Jump L... | BX-1013 | BX | BMX |
| 0500003209 | 4546.11 | BWM Jump L... | BX-1013 | BX | BMX |
| 0500003186 | 4546.11 | BWM Jump L... | BX-1013 | BX | BMX |
| 0500003066 | 48438.00 | BMX Optima | BX-1015 | BX | BMX |
| 0500003050 | 4546.11 | BWM Jump L... | BX-1013 | BX | BMX |

Execute a Data Preview.

We have now combined data from SAP HANA Cloud with a Dimension coming from Google Big Query.
Go back to the Data Builder.

Persist data with the Data Flow in the Data Builder

| | |
|--|--|
| <p>Navigate to the Data Builder by clicking the icon in the left pane and open your Space ANA367_XX if needed.</p> | |
| <p>Create a New Data Flow by pressing the New Data Flow Tile.</p> | |
| <p>Open the Hana Cloud Tables via Sources -> Connections -> HC -> TECHED2020</p> | |

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The image consists of two vertically stacked screenshots of the SAP Data Builder interface, specifically for a project titled "Data Builder / ANA367_00 / New Data Flow".

Top Screenshot: This screenshot shows the "Sources" tab of the Repository. A red box highlights the "SalesOrders - Sales orders" item under the "TECHED2020" connection. A red arrow points from this highlighted item to a "SalesOrders Source" node on the modeling canvas below.

Bottom Screenshot: This screenshot shows the "Operators" tab of the Repository. A red box highlights the "Join" operator icon. A red arrow points from this icon to a "Join 1" node on the modeling canvas below.

Modeling Canvas (Both Screenshots): The modeling canvas displays a "SalesOrders Source" node connected to a "Join 1" node. The "Join 1" node has a "Properties" panel open, showing a single join definition labeled "Join 1" with an "INNER" join type.

Add Table Sales_Orders to the Modeling Canvas.

Insert a Join Operator to the canvas

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Add table BusinessPartner to the Modeling Canvas.

Connect the Sources SalesOrderItems and BusinessPartner to the Join. Connect the arrows from the tables to the Join.

Click on the Join Conditions

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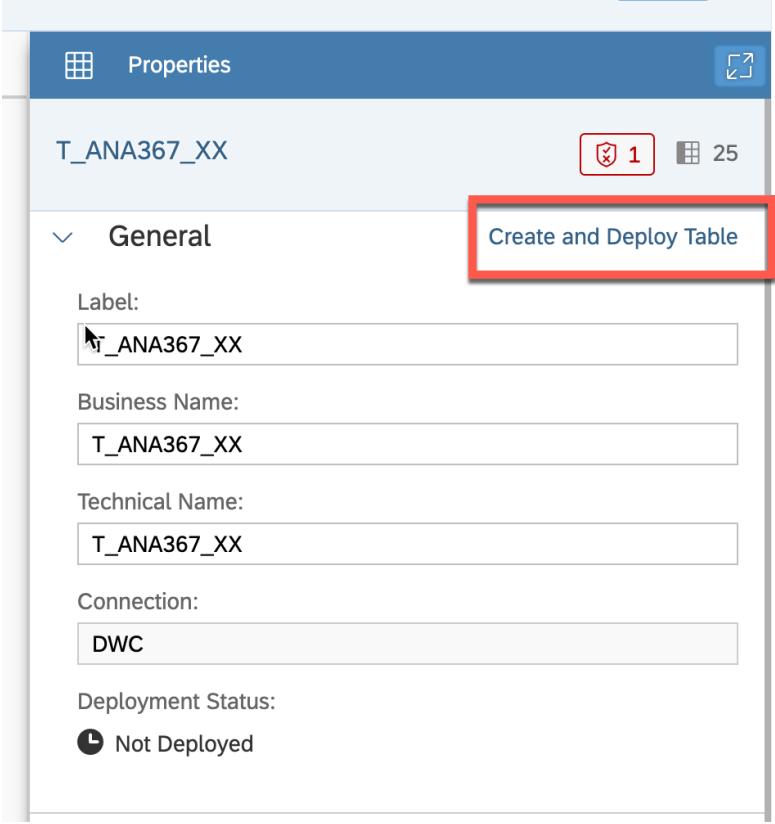
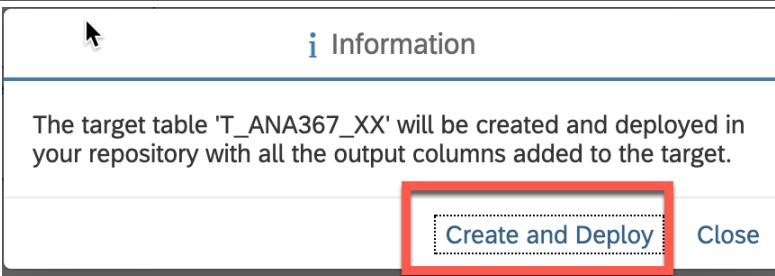
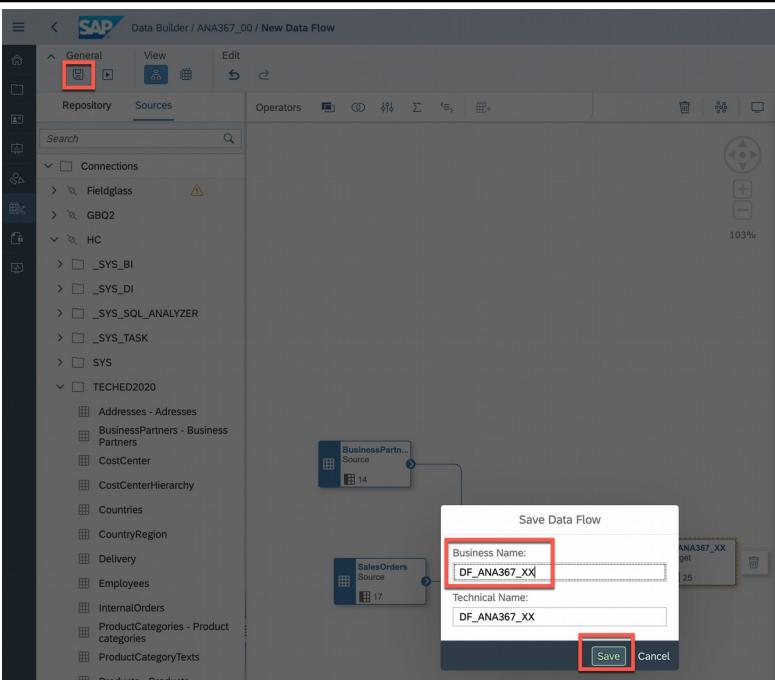
| | |
|---|--|
| <p>Edit the Join Conditions</p> | |
| <p>Open the Join Conditions</p> | |
| <p>Mark and delete all conditions with the exception of Partnerid.</p> | |

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| | |
|---|--|
| <p>PartnerId -> PartnerId is the one and only Join condition in this example</p> | |
| <p>Go back to the Data Flow Modeling View.</p> | |
| <p>Add a Table as an Output Structure.</p> | |

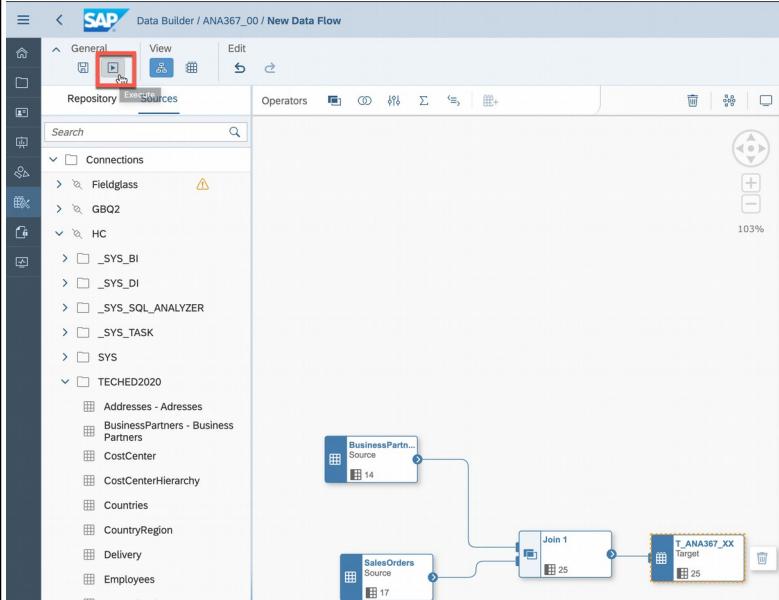
Connect the Join to the Table

Maintain the Label, the Business Name and the Technical Name. Use T_ANA367_XX (XX is your unique user number)

| | |
|---|--|
| Create and deploy the table |  <p>T_ANA367_XX</p> <p>General</p> <p>Create and Deploy Table (highlighted)</p> <p>Label: T_ANA367_XX</p> <p>Business Name: T_ANA367_XX</p> <p>Technical Name: T_ANA367_XX</p> <p>Connection: DWC</p> <p>Deployment Status: Not Deployed</p> |
| Confirm the information with Create and Deploy. |  <p>i Information</p> <p>The target table 'T_ANA367_XX' will be created and deployed in your repository with all the output columns added to the target.</p> <p>Create and Deploy (highlighted)</p> <p>Close</p> |
| Save the Data Flow. Enter DF_ANA367_XX (XX is your unique user number) |  <p>Data Builder / ANA367_00 / New Data Flow</p> <p>Save Data Flow</p> <p>Business Name: DF_ANA367_XX (highlighted)</p> <p>Technical Name: DF_ANA367_XX</p> <p>Save (highlighted)</p> |

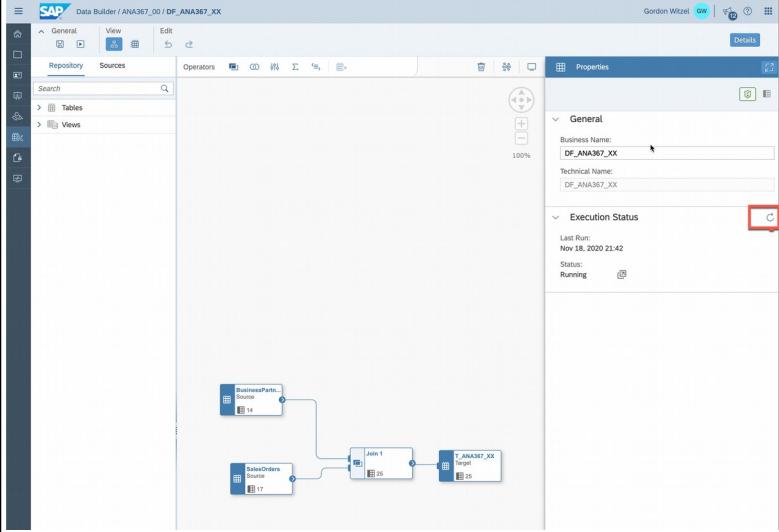
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Execute the Data Flow.

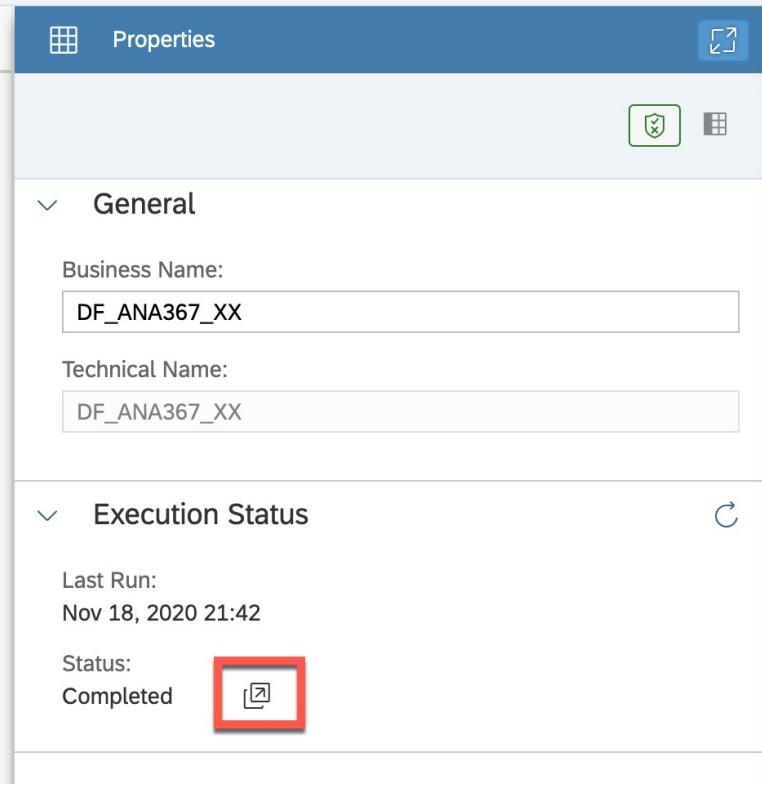
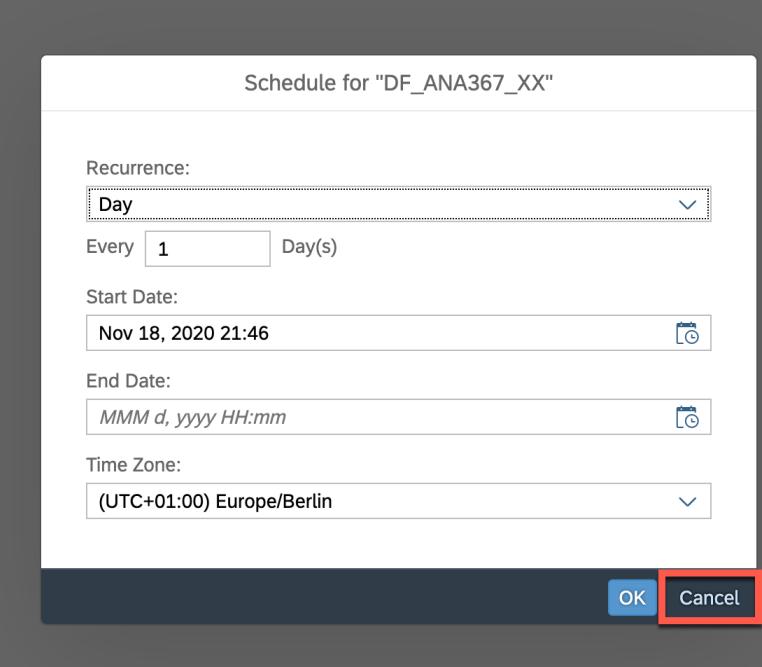


The screenshot shows the SAP Data Builder interface for a project named 'ANA367_00'. The 'Sources' tab is selected. On the left, the repository tree shows various connections like Fieldglass, GBQ2, HC, and TECHED2020, each containing multiple data sources. On the right, a data flow diagram is displayed. It starts with a 'BusinessPartners Source' (ID 14) and a 'SalesOrders Source' (ID 17). These two sources are connected to a 'Join 1' operator (ID 25). The output of 'Join 1' is then connected to a 'T_ANA367_XX Target' (ID 25). A red box highlights the 'Execute' button in the top toolbar.

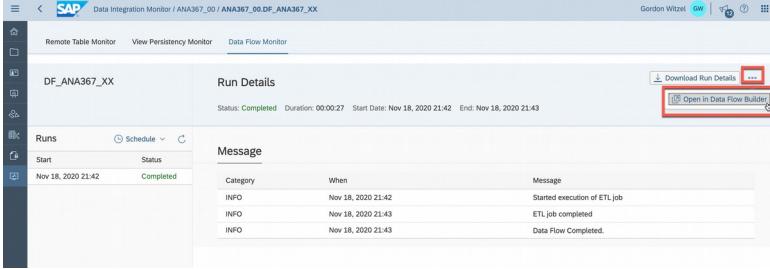
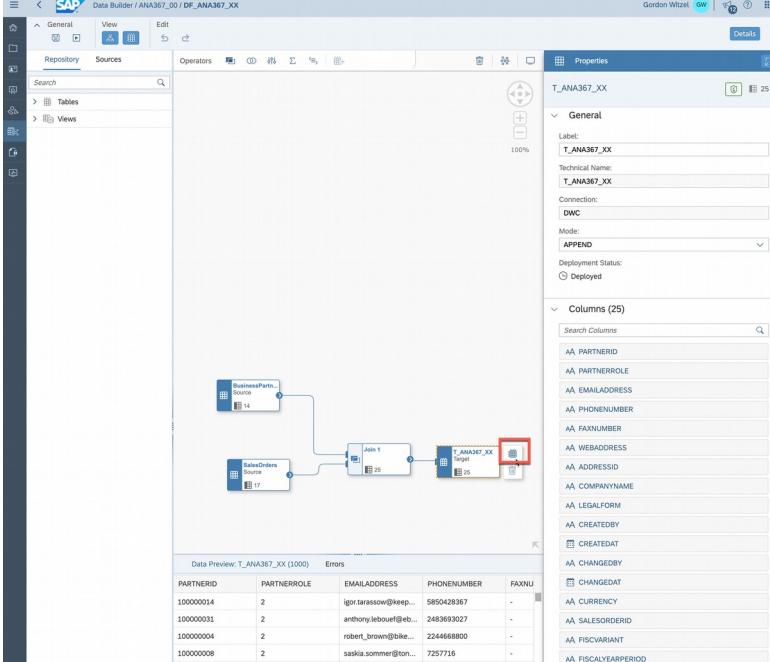
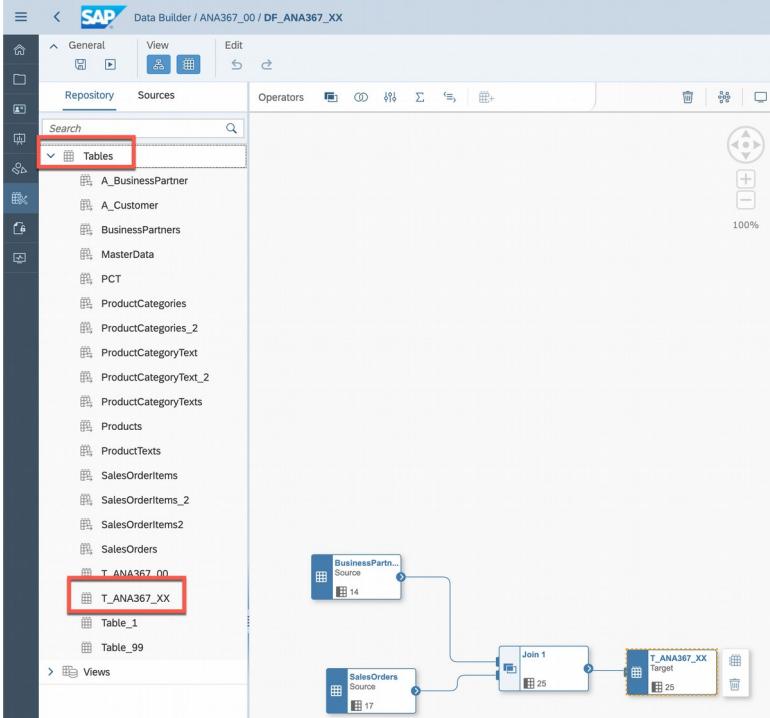
Check the Execution Status by pressing Refresh



The screenshot shows the SAP Data Builder interface for the same project. The 'Sources' tab is selected. On the right, there is a 'Properties' panel. Under the 'General' section, it shows the Business Name as 'DF_ANA367_XX' and the Technical Name as 'DF_ANA367_XX'. Under the 'Execution Status' section, it shows the Last Run date as 'Nov 18, 2020 21:42' and the Status as 'Running'. A red box highlights the 'refresh' icon in the top right corner of the properties panel.

| <p>If the Execution is Completed open the Data Flow Monitor.</p> |  <p>Properties</p> <p>General</p> <p>Business Name: DF_ANA367_XX</p> <p>Technical Name: DF_ANA367_XX</p> <p>Execution Status</p> <p>Last Run: Nov 18, 2020 21:42</p> <p>Status: Completed</p> | | | | | | | | | | | | |
|--|--|------------------------------|------|---------|------|--------------------|------------------------------|------|--------------------|-------------------|------|--------------------|----------------------|
| <p>It is possible to Create a Schedule for the Execution of the DataFlow. Open Schedule -> Create Schedule</p> |  <p>SAP Data Integration Monitor / ANA367_00 / ANA367_00_DF_ANA367_XX</p> <p>Run Details</p> <p>Status: Completed Duration: 00:00:27 Start Date: Nov 18, 2020 21:42 End: Nov 18, 2020 21:43</p> <p>Runs</p> <ul style="list-style-type: none"> Start: Nov 18, 2020 21:42 Edit Schedule Delete Schedule <p>Create Schedule</p> <p>Message</p> <table border="1"> <thead> <tr> <th>Category</th> <th>When</th> <th>Message</th> </tr> </thead> <tbody> <tr> <td>INFO</td> <td>Nov 18, 2020 21:42</td> <td>Started execution of ETL job</td> </tr> <tr> <td>INFO</td> <td>Nov 18, 2020 21:43</td> <td>ETL job completed</td> </tr> <tr> <td>INFO</td> <td>Nov 18, 2020 21:43</td> <td>Data Flow Completed.</td> </tr> </tbody> </table> | Category | When | Message | INFO | Nov 18, 2020 21:42 | Started execution of ETL job | INFO | Nov 18, 2020 21:43 | ETL job completed | INFO | Nov 18, 2020 21:43 | Data Flow Completed. |
| Category | When | Message | | | | | | | | | | | |
| INFO | Nov 18, 2020 21:42 | Started execution of ETL job | | | | | | | | | | | |
| INFO | Nov 18, 2020 21:43 | ETL job completed | | | | | | | | | | | |
| INFO | Nov 18, 2020 21:43 | Data Flow Completed. | | | | | | | | | | | |
| <p>It would be possible to create a schedule for the execution of the Data Flow based on the requirements. In this exercise we will not schedule the DataFlow Execution. Therefore press Cancel.</p> |  <p>Schedule for "DF_ANA367_XX"</p> <p>Recurrence: Day</p> <p>Every 1 Day(s)</p> <p>Start Date: Nov 18, 2020 21:46</p> <p>End Date: MMM d, yyyy HH:mm</p> <p>Time Zone: (UTC+01:00) Europe/Berlin</p> <p>OK Cancel</p> | | | | | | | | | | | | |

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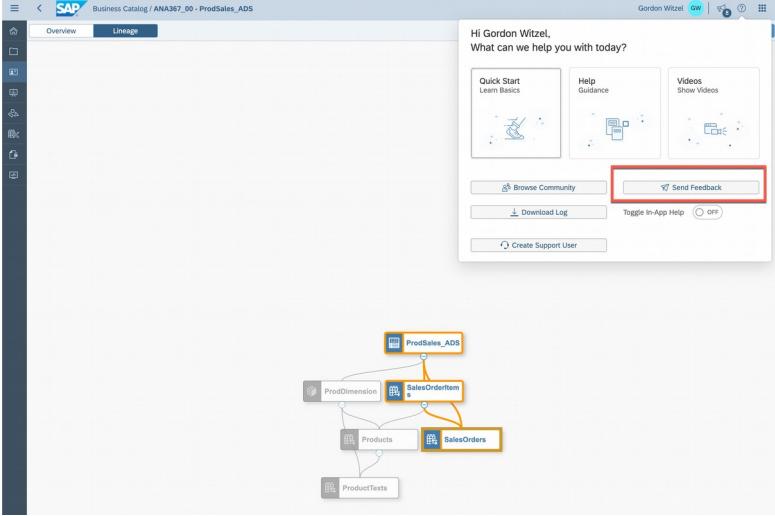
| | |
|---|--|
| Go back to the Data Flow Builder |  |
| Execute the Preview on your new created table |  |
| The table with data coming from a external cloud source is now available in the Repository of SAP Data Warehouse Cloud and available for new data models. |  |

Data Lineage and Feedback

| | |
|---|---|
| <p>Navigate to the Business Catalog by clicking the icon in the left pane and open your Space ANA367_XXX.</p> | <p>The Business Catalog gives you an overview of all the models you can use, across all the Spaces such as Data Sets, Dimensions and Facts you are authorized for.</p> <p>The descriptions and the assignment of a business use help you to find the right model to create your story for analysis</p> |
| | |

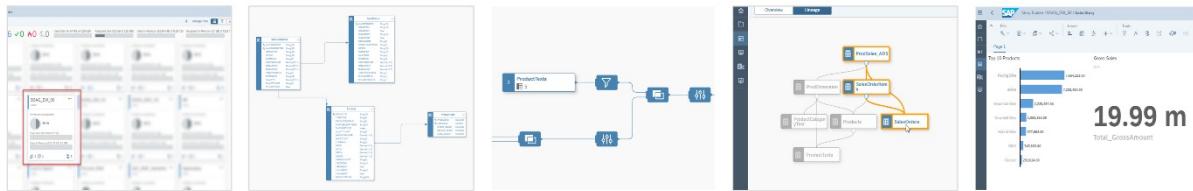
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| | |
|--|--|
| <p>From the list of models, click on ProdSales_ADS_XXX (your unique user number)</p> | |
| <p>The overview page displays the information about the model like Fields, Tags, Purpose, Dependencies Click on Lineage from the top-left corner</p> | |
| <p>Info: By switching to the lineage view, you can trace the data provisioning and flow of a model. You can try clicking on the different nodes to see the lineage.</p> | |

| | |
|---|---|
| <p>From the top-right corner click on the  icon to open the help center. In order to leave feedback, click on Send Feedback.</p> |  |
| <p> Do you have any suggestions for us? Any features that you would like to see added?</p> <p>We take your feedback seriously at SAP. It enables us to improve the product experience for you as a user. Delivering satisfactory products and experiences to you is our top concern. Thank you for helping us realize it!</p> <p>What happens next?</p> <p>Our Product Management team reviews and consolidate your responses. Based on your feedback we will identify focus areas and prioritizes new features and enhancements accordingly.</p> | <p>Share Feedback</p> <p>How would you rate your experience? ★★★★★</p> <p>What do you like? <i>We appreciate your feedback. Please do not enter any personal data here.</i></p> <p>1000 characters remaining</p> <p>What could we improve? <i>We appreciate your feedback. Please do not enter any personal data here.</i></p> <p>1000 characters remaining</p> <p> By providing feedback, you permit SAP to use it to improve its products.</p> <p>Send Cancel</p> |

The build business model can be adjusted using a CSV file or combine with different other sources. The business catalog gives you an overview of all the models you can use, across all the Spaces such as Data Sets, Dimensions and Facts you are authorized for.

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Different use cases and different business strategies require tailored business needs. Spaces allow you to create an environment that meets your particular requirements. You can assign users and connections to a specific space and adjust the storage capacity.

Define relations between entities and add metadata to enable the creation of graphical views with the Entity-Relationship Modeler.

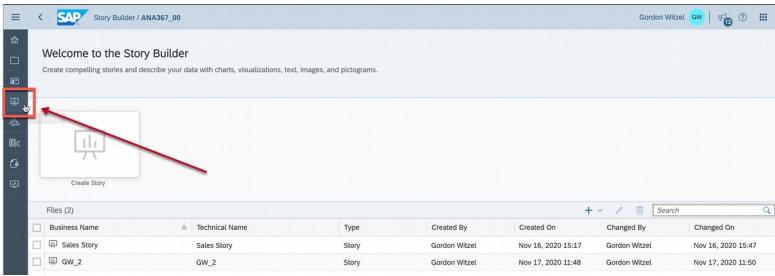
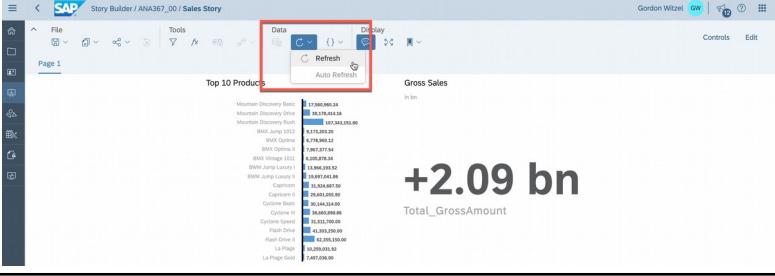
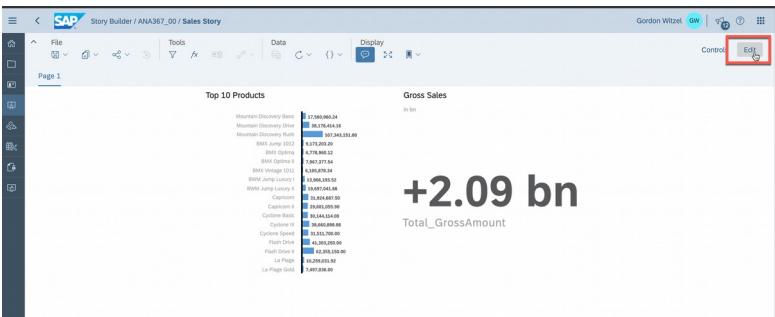
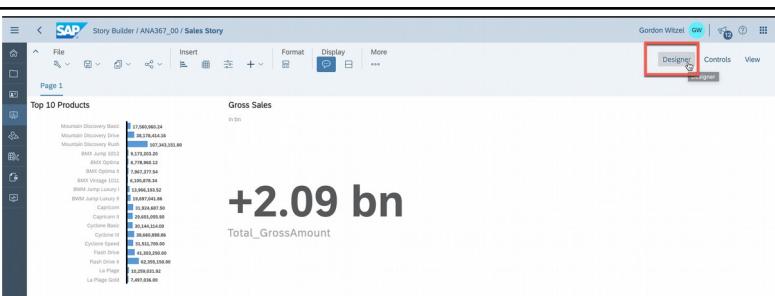
In the Data Builder an connect tables and views via joins and unions in a graphical environment.

The business catalog gives you an overview of all the models you can use, across all the Spaces such as Data Sets, Dimensions and Facts you are authorized for.

Stories let you explore data interactively to find insights, visualize information with charts and tables, and share, present, and comment on your findings with colleagues.

In the next chapter you will learn how you can adjust your created story.

**Update the SAP Analytics Cloud Story and add the ProductCategory Short Text
(data is coming from Google Big Query)**

| | |
|---|--|
| <p>Go to the Story Builder.</p> |  |
| <p>Open your Sales Story (Sales Story XXX). Therefore double click on your created story.</p> |  |
| <p>On Data – click Refresh</p> |  |
| <p>Press Edit to maintain the Story.</p> |  |
| <p>Press Designer.</p> |  |

| | |
|--|--|
| <p>Open the Builder View.</p> | <p>The screenshot shows the SAP Story Builder interface with the 'Builder' tab selected. On the left, there's a 'Top 10 Products' chart with a table of data. On the right, the styling pane is open, showing options for 'Canvas' (Background Color, Show Grid, Snap to Grid, Snap to Object) and 'Page Size' (Dynamic, Fixed).</p> |
| <p>In the Edit mode, click on the Top 10 Products chart (1)</p> <p>From the configuration pane, click on Add Dimension (2)</p> | <p>The screenshot shows the SAP Story Builder interface with the 'Builder' tab selected. The 'Dimensions' section is highlighted with a red box labeled '1'. The 'Dimensions' pane on the right shows 'MEDIUM_DESCR' selected. A red box labeled '2' highlights the '+ Add Dimension' button in the Dimensions pane.</p> |
| <p>Add SHORT_DESCR to see the newly added Product Category (data is coming from GBQ)</p> | <p>The screenshot shows the 'Dimensions' configuration pane. The 'Dimensions' section is expanded, showing several checkboxes. One of the checkboxes, 'SHORT_DESCR', is highlighted with a red box and checked.</p> |

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| | |
|--|---------------------------------------|
| <p>The charts gets updated immediately and looks similar to the one in the screenshot.</p> | <p>+2.09 bn Total_GrossAmount</p> |
| <p>Click on the More Action (1) for the chart and Sort (2) the chart on Total_GrossAmount (3) as Highest to Lowest (4)</p> | <p>1 2 3 4</p> |
| <p>The updated chart now looks similar to the one in the screenshot.</p> | <p>+2.09 bn Total_GrossAmount</p> |
| <p>Save your changes and explore SAP Data Warehouse Cloud by your own or follow on with the housekeeping section.</p> | <p>+2.09 bn Total_GrossAmount</p> |

Housekeeping

| | |
|---|--|
| <p>As we are through with the hands-on, we would be performing some housekeeping tasks.</p> <p>From the left-bottom corner of the pane, click on the Space Management icon</p> | <p>+2.09 bn</p> <p>Total_GrossAmount</p> |
| <p>If the details for your space are automatically opened, click on the Monitor Space to see the Space Details.</p> | <p>Monitor Space</p> |

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| | |
|---|---|
| <p>Check the details and you back to your Space ANA367_XXX once you are finished.</p> | <p>Overall Table Consumption by Schema</p> <p>Overall Consumption by Table Type</p> <p>Table Storage Consumption</p> <p>Table Details</p> |
| <p>If the details for your space are automatically opened, click on the Delete Button to delete the entire Space.</p> <p>Please be careful and delete no other Spaces. If you are not sure about your Space DO NOT DELETE IT.</p> | <p>General Settings</p> <p>Storage Assignment:</p> <ul style="list-style-type: none"> Disk (GB): 2.0 + In-Memory (GB): 1.0 + <p>In-Memory Acceleration: 50 %</p> <p>Data Lake Access: <input type="checkbox"/> Use this space to access the data lake</p> |
| <p>Confirm the deletion of the space by clicking Yes.</p> | <p>⚠ Delete Space</p> <p>Are you sure you want to delete this space? It will be permanently removed.</p> <p>Yes No</p> |
| <p> Your Space is deleted and you finished the Hands-On Session.</p> | |

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