

PUBLIC

Hands-On Experience with SAP Master Data Governance

SAP TechEd 2022 Hand-On Lab – Session DA260

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Contents

BEFORE YOU START	3
INTRODUCTION	3
Chapter 1 – Request & approve material creation	4
Overview.....	4
Exercise 1.1 – Logon, search and then request a new material	4
Exercise 1.2 – Process and enhance the material request	7
Exercise 1.3 – Approve the request and activate the new material.....	11
Summary	14
Chapter 2 – Validation rules for master data quality management	15
Overview.....	15
Exercise 2.1 – Submit request for new customer	15
Exercise 2.2 – Management and definition of validation rules	21
Exercise 2.3 – Re-check requested customer.....	28
Exercise 2.4 – Find and fix errors in existing data	33
Summary	43
Chapter 3 – Consolidation of business partner master data	44
Overview.....	44
Exercise 3.1 – Import business partners from spreadsheet file	44
Exercise 3.2 – Create and start consolidation process.....	48
Exercise 3.3 – Validate imported data	49
Exercise 3.4 – Enhance and standardize addresses	52
Exercise 3.5 – Find duplicates	53
Exercise 3.6 – Merge duplicates with best record calculation.....	57
Exercise 3.7 – Automated creation of ERP customer data	61
Exercise 3.8 – Finalize consolidation process.....	64
Summary	68

Please carefully read the next two chapters to understand how you can best participate in the exercises of this hand-on workshop without disturbing other participants.

BEFORE YOU START

This session gives you a hands-on introduction into selected topics of SAP Master Data Governance. Please visit the SAP Master Data Governance community on sap.com for a comprehensive description on the product: <https://www.sap.com/community/topics/master-data-governance.html>

Due to time constraints of a 2 hours session, we selected the following functional areas for exercises:

Chapter 1: Central Master Data Governance

Estimated Duration: 25 minutes

As a business user, you will request the creation of a new product. Then an expert will add additional product information and an approver will complete the processing of the request until the final creation of the product.

Chapter 2: Master Data Quality Management

Estimated Duration: 30 minutes

You will see how validation rules can be used to ensure data quality. Validation rules are used to check data at the time of entry, for example when creating a customer. You will also see how changes in your organization's definition of data quality can be handled by identifying data that needs updates and how to correct such data efficiently using mass processing. Furthermore, you will use duplicate prevention and address enrichment as additional features related to data quality.

Important: During this exercise, we will ask you to pause for the presenter to do some settings in the system that will change the system behavior. It is hence important that all participants start exercise 3 of this chapter only after this change.

Chapter 3: Master Data Consolidation

Estimated Duration: 30 minutes

You will import business partner master data from an Excel spreadsheet, cleanse & enrich the data, match the uploaded business partners with existing data in the system. You will also experience derivation of data to automate the process until having consolidated master data.

INTRODUCTION

The system used in this session is based on *SAP Master Data Governance on SAP S/4HANA OP 2021 (Feature Pack 2)*. Please note that even though SAP MDG is delivered together with SAP S/4HANA, additional licenses on top of SAP S/4HANA are required to use SAP Master Data Governance. For more information see the [SAP Master Data Governance community](https://www.sap.com/community/topics/master-data-governance.html) on sap.com.

In this session we will solely use the SAP Fiori Launchpad to access the SAP MDG system. We will not use SAP Logon nor the NetWeaver Business Client environment to access the system.

Each participant in the workshop has their participant number, which you find at your table. This number will be used to distinguish the user ID with which you will log on to the system and the objects that you will handle in the system. During the exercise, you might also see objects belonging to other groups. Make sure to work only with your dedicated user ID and with your own objects, not to disturb the work of your peer groups. Your participant number is written on the sign at your table.

Your user ID to log on is: DA260-## - ## represents your participant number. For example, enter DA260-04 or DA260-23.

Your password is: *will only be shared on-site*

Launchpad URL: *will only be shared on-site*

Chapter 1 – Request & approve material creation

Overview

Estimated time: 25 minutes

Objective

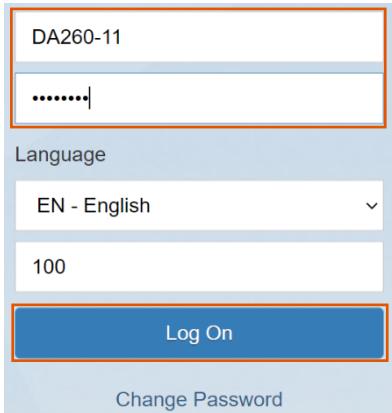
Explore basic features of central governance of master data in SAP MDG, such as multi-person workflows, change request processing, data quality validation, approval and the concept of data staging and activation.

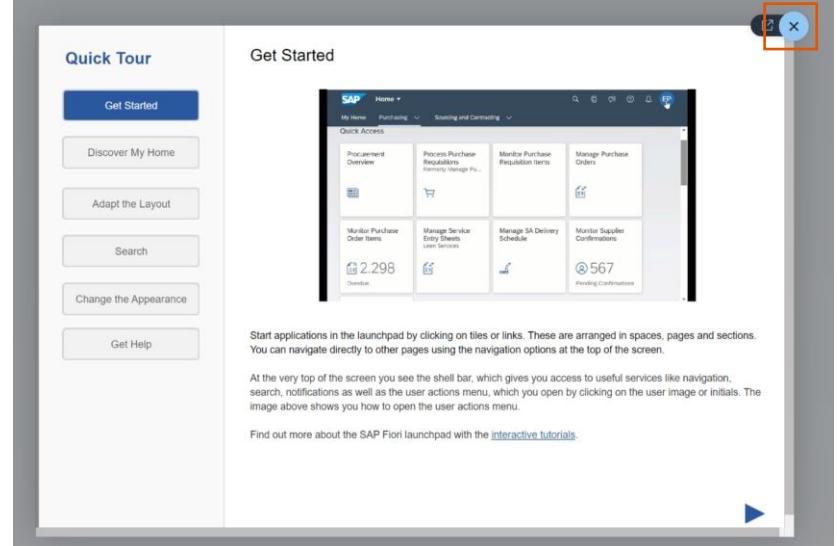
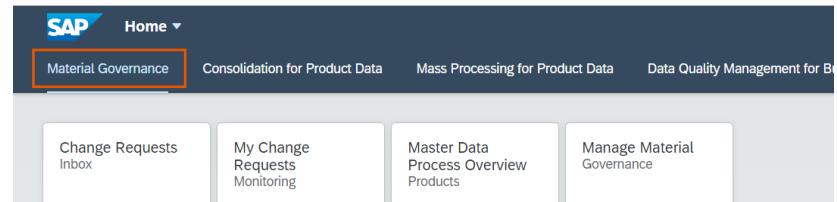
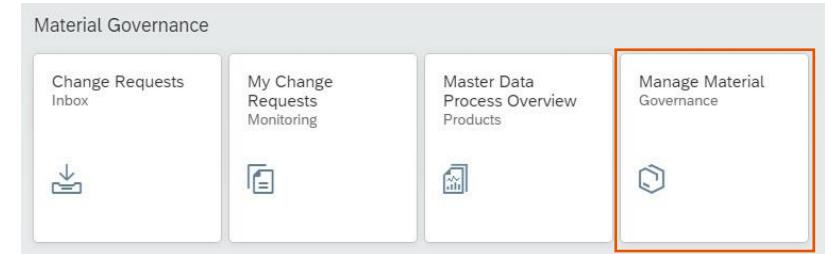
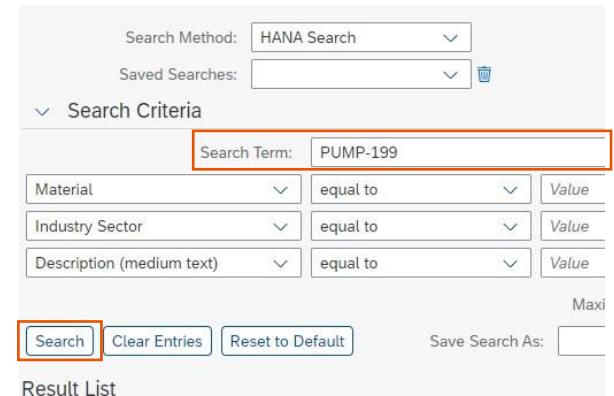
Exercise Description

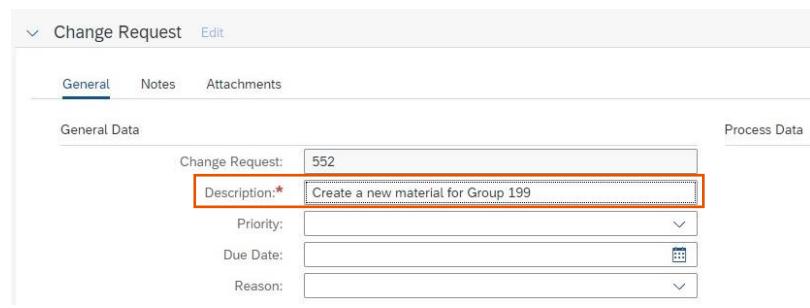
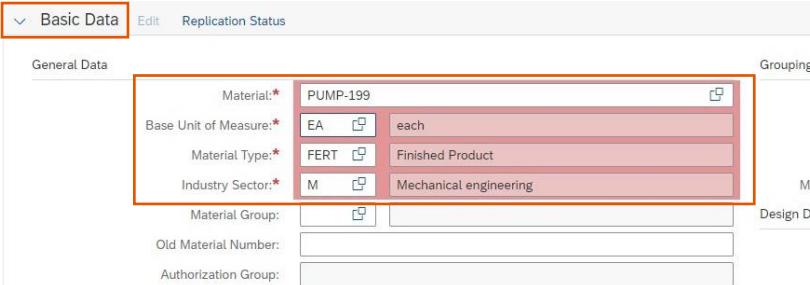
- *Exercise 1.1: As a business user, access the system, search for a material and since you do not find it, request the creation of a new material.*
- *Exercise 1.2: As a master data specialist, pick up the change request workflow, provide additional material views and attributes or correct erroneous data and then send the request for approval.*
- *Exercise 1.3: As a master data expert, check and approve the request to finalize the creation of a new material in perfect quality.*

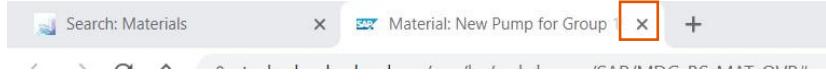
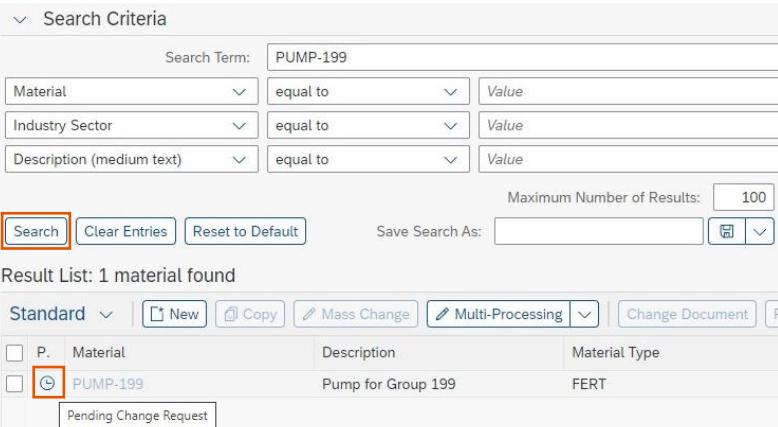
Exercise 1.1 – Logon, search and then request a new material

In this exercise, you will be a business user requesting a new material. You will send an SAP MDG Change Request which shall be further processed by other users in your company.

Explanation	Screenshot
<p>Each workshop participant uses a different username. Please make sure, to use the correct participant number as indicated through a sign on your table.</p> <ol style="list-style-type: none"> 1. Open the Fiori Launchpad URL displayed on the board 2. Enter DA260-## as username (where ## represents your participant number, for example enter DA260-04 or DA260-23) 3. Enter the password *) 4. Then click Log On <p>*) The password will be provided by your instructor in the workshop.</p>	

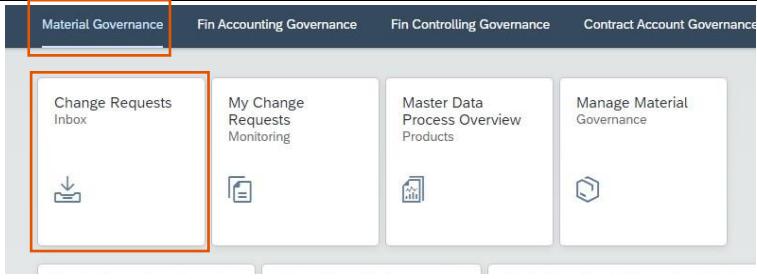
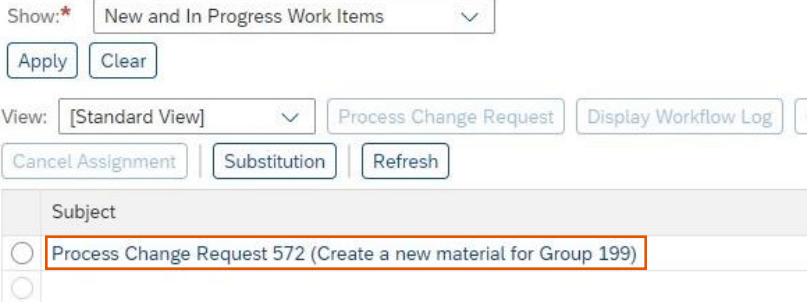
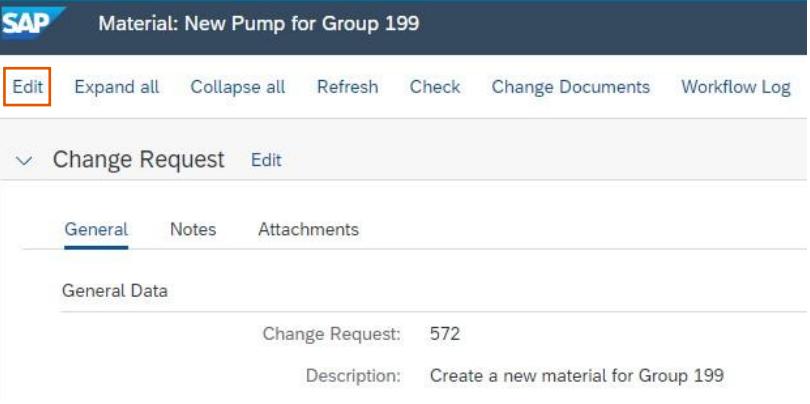
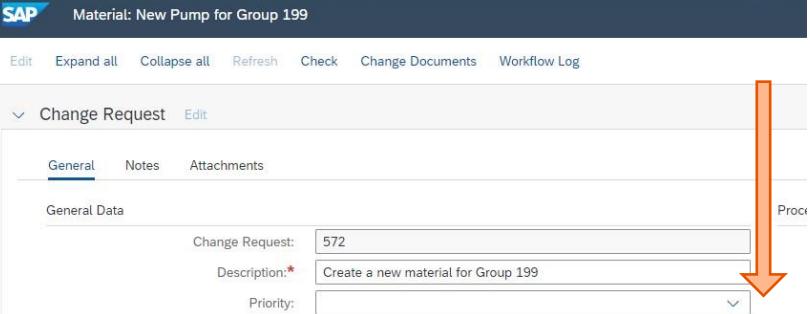
Explanation	Screenshot
<p>After logon you might see the Quick Tour dialog. If so, please close the dialog.</p> <p>5. Click on the X button in the top right corner</p>	
<p>Display the app tiles for Material Governance.</p> <p>6. Select the group Material Governance</p>	
<p>Start the application to search or create material master data.</p> <p>7. Click Manage Material (Governance)</p>	
<p>Use search to understand whether your material does already exist, else start creating it. (Remark: every group will need to work on a different material, hence please use the correct group number.)</p> <p>8. Enter PUMP-## as Search Term (where ## represents your group number, for example enter PUMP-99)</p> <p>9. Click the Search button</p>	
<p>Since you don't find any existing material, you start to request the creation of a new material.</p> <p>10. Click New</p>	

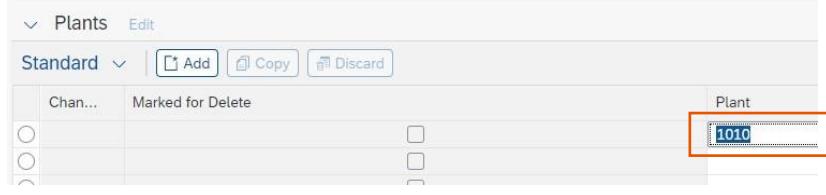
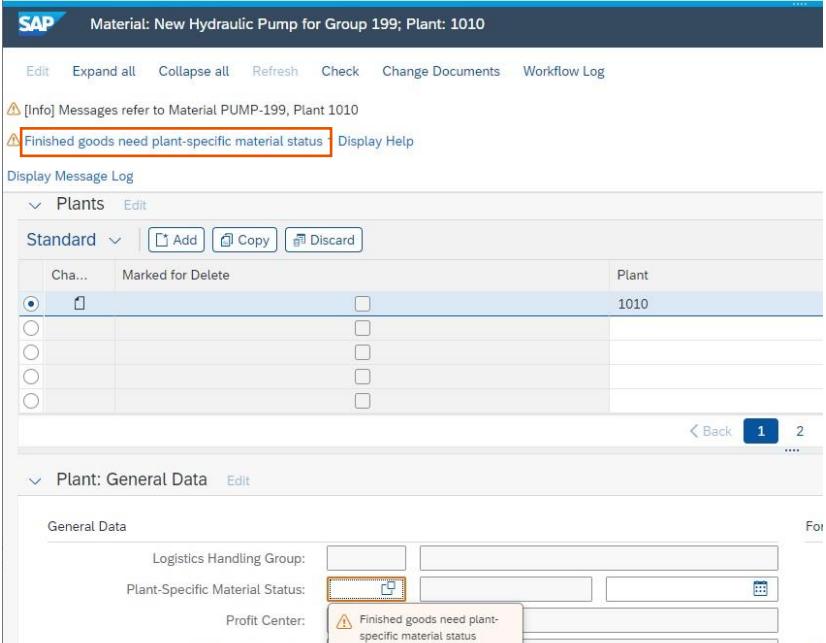
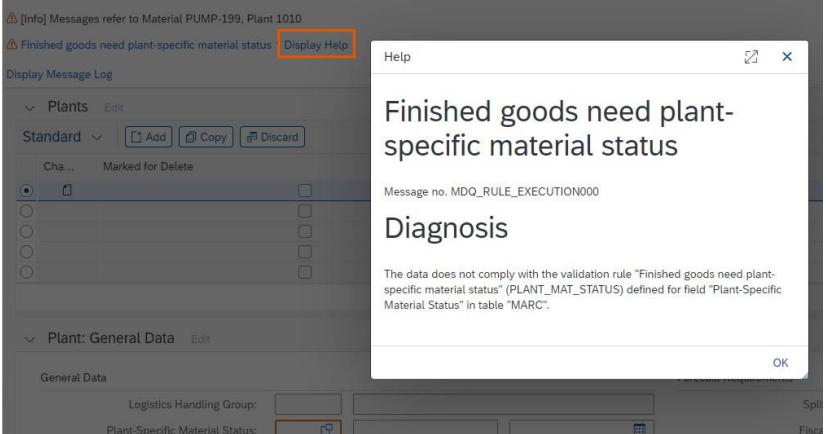
Explanation	Screenshot
<p>Enter a description for the change request. This is not the material description. This describes the process in MDG to help you identify your request later and to help further processors to better understand the business need.</p>	
<p>11. Enter a Description in the Change Request section</p>	
<p>Enter information that you (as a business user requesting the new material) would like to pass on to your colleagues. Use PUMP-## for the specific material that you create just for your group ##.</p>	
<p>12. Expand section Basic Data.</p>	
<p>13. Enter Material, Base Unit of Measure, Material Type, and Industry Sector</p>	
<p>Remark: The system highlights all changes users have done to the master data record.</p>	
<p>Propose a description for the material that shall be created.</p>	
<p>14. Enter a Material Description in the section Descriptions</p>	
<p>Check whether all mandatory data was given and if no errors exist.</p>	
<p>15. Click Check (in the top row)</p>	
<p>Save your data and trigger the process for material creation.</p>	
<p>16. Click Submit (at the bottom)</p>	
<p>Check the messages at the top of the page to see that the change request has been submitted.</p>	
<p>17. Read the messages</p>	
<p>18. You may want to note down the number of your specific change request, just in case</p>	

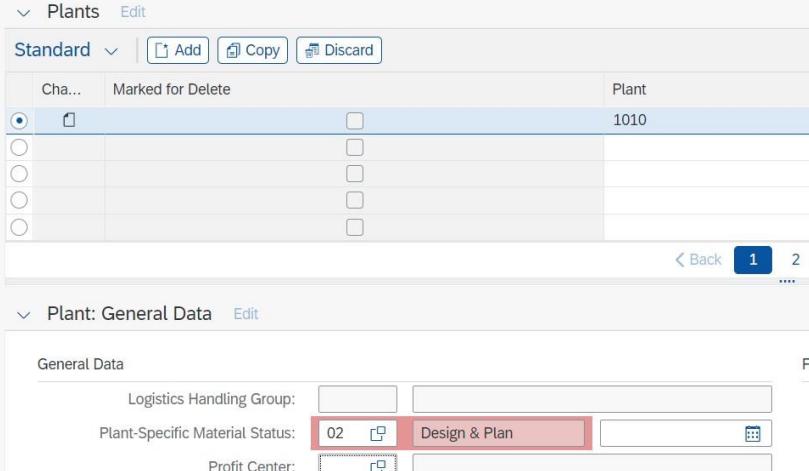
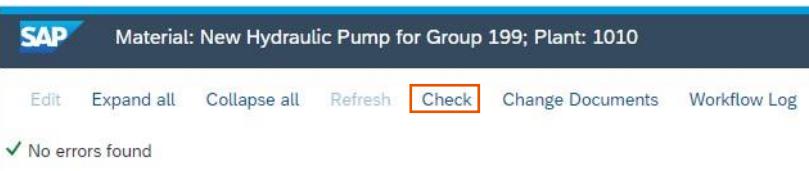
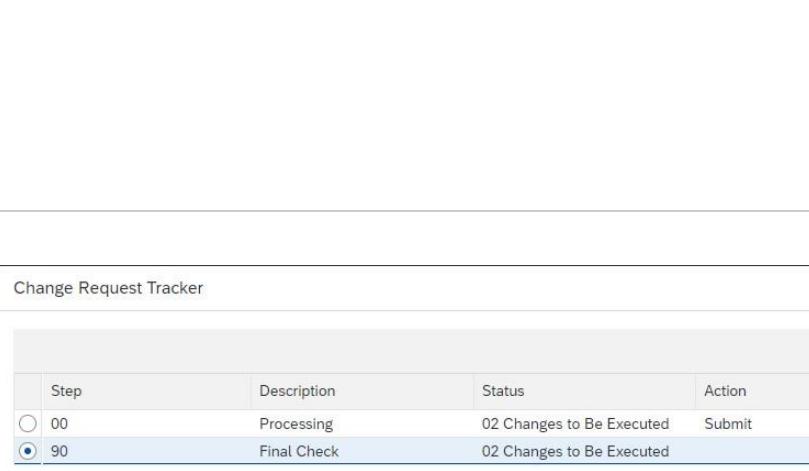
Explanation	Screenshot
<p>Close the current browser tab with your submitted change request.</p>	
<p>19. Close the browser tab</p> <p>This will bring you back to the other open tab with your search screen for material master data.</p>	
<p>Search for the material you just requested.</p>	
<p>20. Click Search</p> <p>You will see that the material number is greyed out, since the material so far only exists in SAP MDG's staging tables.</p>	
<p>You can also see an indicator for your pending change request:</p> <p>21. Hover your mouse over the change request symbol (do not click this yet)</p>	
<p>Return to the Home Screen</p>	
<p>22. Click on the SAP logo</p>	
<p>You have completed this first exercise of chapter 1.</p> <p>Please directly continue with the next exercise.</p>	

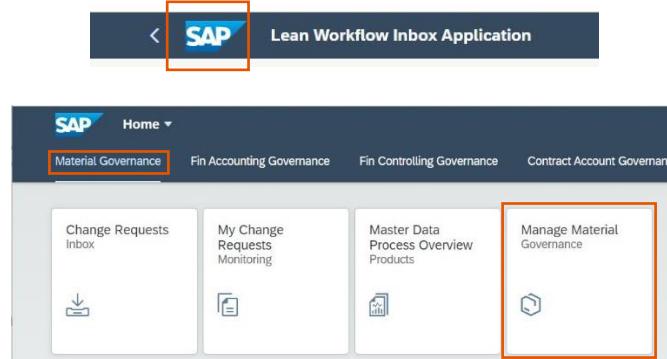
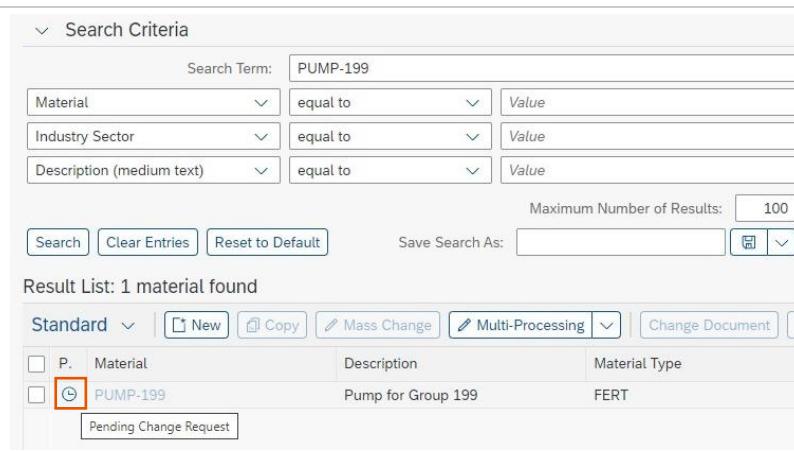
Exercise 1.2 – Process and enhance the material request

You will now switch roles. In exercise 1.1 you were the business user requesting the material. In exercise 1.2 you will be the master data specialist working on the completion of the master data record. In a real business environment, a different person would execute the following tasks. For simplicity of this workshop, you will also execute these tasks using the same system user.

Explanation	Screenshot
<p>Please check whether new change requests are due for processing by you. Therefore, navigate to Material Governance.</p> <p>1. Click Material Governance and Change Request Inbox</p>	
<p>If there is more than one pending change request, please identify the change request that you have just created in the previous exercise.</p> <p>2. Click the description of your change request to open it</p>	
<p>The change request always opens up in display mode. You would like to change additional information.</p> <p>3. Click Edit (in the top row)</p>	
<p>Your task is to check and complete all information provided by the business user.</p> <p>4. Scroll down until you reach the section Descriptions</p>	
<p>You notice that the description is wrong. Your company decided to be more specific in material descriptions. You also add the description in one more language.</p> <p>5. Change the description in English language</p> <p>6. Add one more line in an additional language of choice</p>	

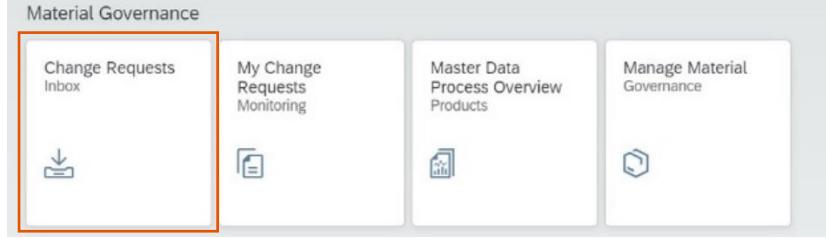
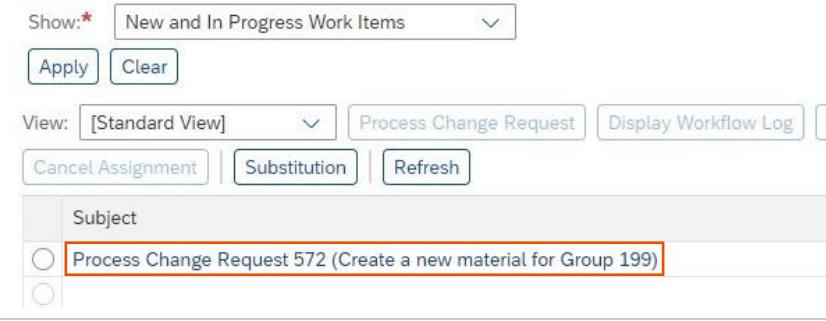
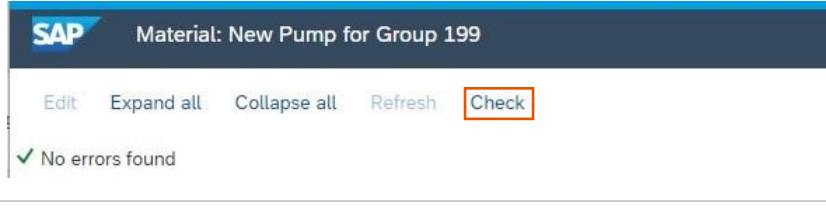
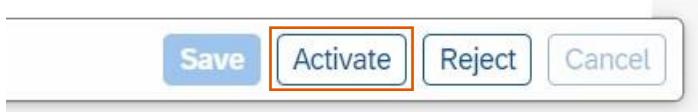
Explanation	Screenshot
No plant data has been created for this material yet. You know that pumps are always manufactured in one specific plant in your company.	
7. Enter 1010 as the first plant	<p>You want the system to check the current data.</p> <p>8. Click Check</p> <p>9. Note the warning message regarding incomplete data</p> 
Your company has agreed that new finished goods need to have a plant-specific material status. This status triggers the preparation steps necessary to enable the correct handling processes for a material in each plant	<p>10. Click the message text</p> <p>In case that the section “Plant General Data” is currently open, this will automatically scroll your screen towards the field that caused the message and provide an information at that field about the found issue. If the section was closed, please open it and press check again.</p> 
There is also more information which data quality rule has been violated and what triggered the message.	<p>11. Click Display Help (next to the message text)</p> <p>The system displays name and ID of the SAP MDG validation rule. It also explains which field in which table has been checked.</p> <p>(In chapter 2, you will learn more about SAP MDG validation rules.)</p> 

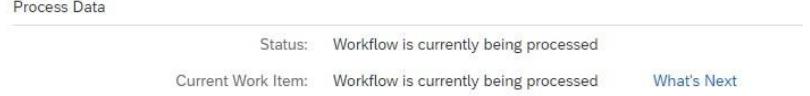
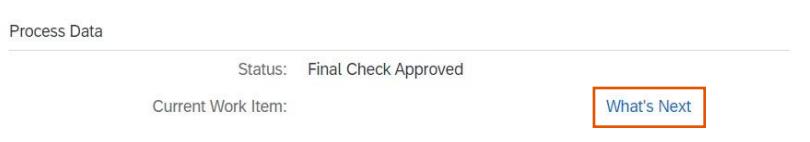
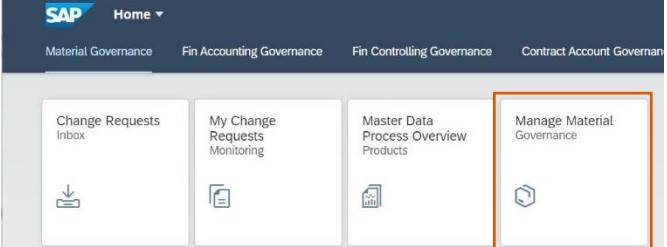
Explanation	Screenshot
<p>As requested by the system, please add a plant-specific material status for (each) assigned plant.</p>	
<p>12. Enter 02 in the field Plant-Specific Material Status</p>	
<p>Again, the system highlights the changes the user has done to the master data object in the current change request.</p>	
<p>After fixing the issue, you want to check for data consistency again.</p>	
<p>13. Click Check</p>	
<p>Ensure that no errors are found, else fix all found errors.</p>	
<p>You would like to understand the current status of the change request process.</p>	
<p>14. Check section Process Data (in the change request header)</p>	
<p>Currently, the change request is in the status Changes to be Executed and has a workflow item assigned.</p>	
<p>You would like to understand what will happen after you will complete your step in the process.</p>	
<p>15. Click What's Next</p>	
<p>This popup describes the “golden path” as defined in the change request definition. This is what will happen if everybody just processes their step and continues or approves. Of course, there can be deviations based on user decision.</p>	
<p>16. Close the popup</p>	

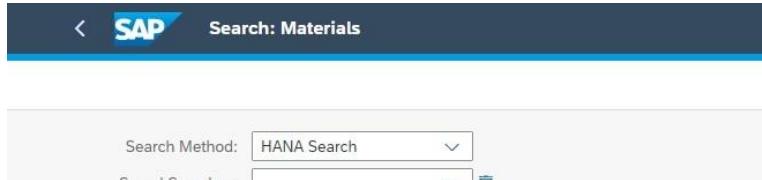
Explanation	Screenshot												
Finalize your work on this change request.	<p>17. Click Save</p> 												
18. Close the browser tab with the change request screen													
If you like, same as in exercise 1.1, you could check that the material is still not created, but still only sits in SAP MDG staging tables.													
19. On the workflow inbox screen, go to Home and Material Governance													
20. Click Manage Material (Governance)													
Search for the material that you requested. In the result list, you can still see that the material number is greyed out and you can see the pending change request .	 <table border="1" data-bbox="605 1282 1399 1383"> <thead> <tr> <th>P.</th> <th>Material</th> <th>Description</th> <th>Material Type</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/></td> <td>PUMP-199</td> <td>Pump for Group 199</td> <td>FERT</td> </tr> <tr> <td colspan="4" style="text-align: center;">Pending Change Request</td> </tr> </tbody> </table>	P.	Material	Description	Material Type	<input checked="" type="checkbox"/>	PUMP-199	Pump for Group 199	FERT	Pending Change Request			
P.	Material	Description	Material Type										
<input checked="" type="checkbox"/>	PUMP-199	Pump for Group 199	FERT										
Pending Change Request													
21. Hover your mouse over the change request symbol (do not click this yet)													
You have completed this exercise. Please continue with the next.													

Exercise 1.3 – Approve the request and activate the new material

In this exercise, you will be the third person involved in the process. As a master data expert, you are in charge to ensure that only high-quality data makes it into the production systems. Again, although this would be a different person in a real business environment, you will also execute these tasks using the same system user.

Explanation	Screenshot
<p>Please check whether any change requests are due for processing by you. Therefore, go to the Home Screen and navigate to Material Governance.</p>	
<p>1. Click Change Request Inbox</p>	
<p>If there is more than one pending change request, please identify the change request that you have just created in the previous exercise.</p> <p>2. Click the description of your change request to open it</p>	
<p>Before approving the requested changes, you check for data consistency</p>	
<p>You scroll through all given data, check whether you agree to it and then you approve the request and activate the new master data.</p> <p>3. Click Check</p>	
<p>4. Click Activate</p> <p>“Activation” in SAP MDG means moving the intended changes from “staging” into productive master data, the so-called “active data”.</p>	
<p>Before activation, the system forces one last validation and also checks whether all changes have been saved into staging before moving these to active data.</p>	
<p>Activation is a background task. The user does not have to wait in the current user interface until the activation has completed.</p>	

Explanation	Screenshot
<p>As long as the activation is running in the background, the change request status shows that the workflow is not yet completed</p> <p>5. Check the Process Data section (in the change request header)</p>	
<p>The user interface can be refreshed by the user.</p> <p>6. Click Refresh (in the top row)</p>	
<p>When activation is complete the status changes.</p> <p>7. Check the Process Data section again</p> <p>8. Click What's Next</p>	
<p>You will again see the popup with the change request tracker.</p> <p>Note that it now shows the user action “Activate” at step 90. This is what you did when you had just pressed “Activate” above.</p> <p>You want to check again whether there are any pending change requests for your material. Close the popup and the tab and go to Home.</p> <p>9. Click Manage Material (Governance)</p>	

Explanation	Screenshot
<p>Search for the material that you requested. In the result list, using mouse-over you can see that there is no pending change request anymore.</p>	
<p>The new material has been activated and now exists in the tables for (active) material data. From here it could be replicated to further systems.</p>	
<p>If you like, you can display the material by clicking its material number in the search result list.</p>	
<p>You have completed this exercise.</p>	
<p>Your instructor will inform you when to continue with chapter 2.</p>	

Summary

You have completed chapter 1. You have learned...

- ...how you can request, enhance, and approve master data changes in different roles in an organization.
- ...which possibilities are offered to ensure quality of new master data before it is added to productive ("active") master data.
- ...some capabilities offered to keep track of the change request process.

Chapter 2 – Validation rules for master data quality management

Overview

Estimated time: 30 minutes

Objective

Learn about the key capabilities of master data quality management in SAP MDG, such as validation rules, data quality evaluation and analysis of the results, and how to efficiently correct erroneous master data. Furthermore, you will see other capabilities related to data quality, namely duplicate prevention and address validation and enrichment.

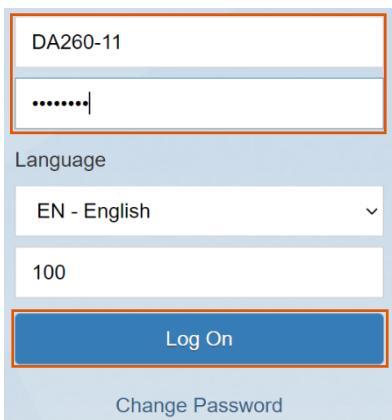
Exercise Description

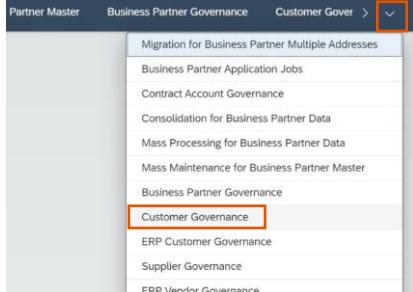
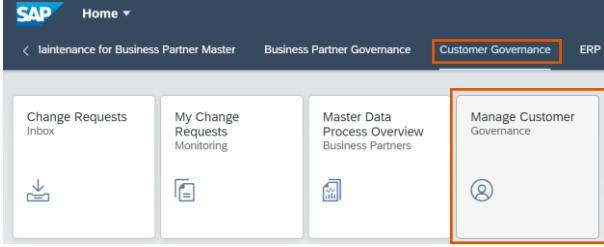
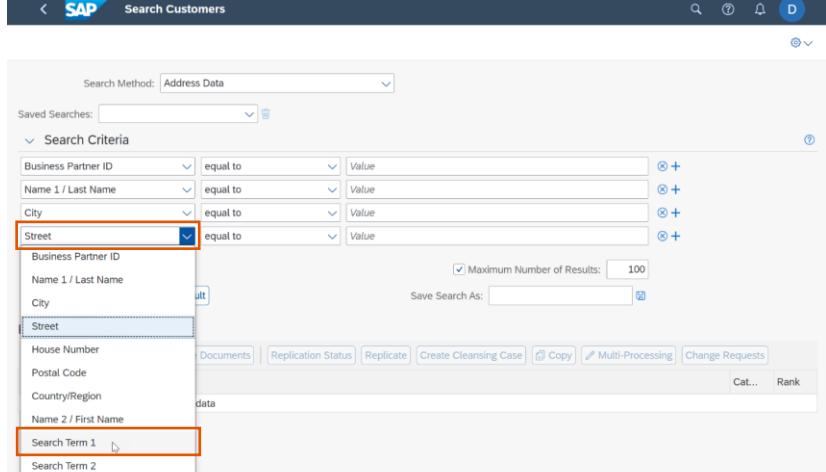
- *Exercise 2.1: Submit a request for a new customer*
 - *(Exercise 2.2: Demonstration how to manage and define validation rules)*
 - *Exercise 2.3: Re-check requested customer*
- Important:** It is important that all participants only start with this exercise after the presenter changed settings as outlined in exercise 2.2.
- *Exercise 2.4: Find and fix errors in existing data*

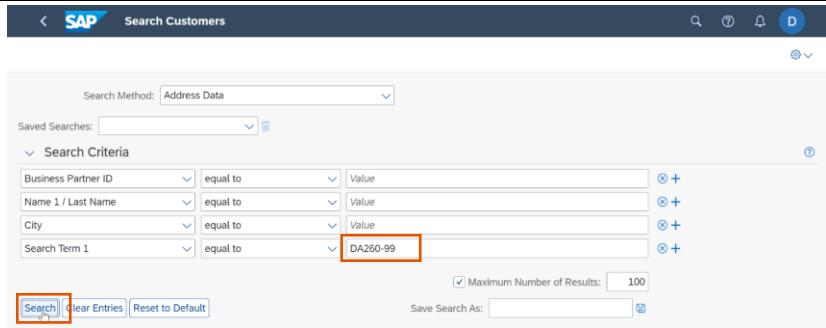
Exercise 2.1 – Submit request for new customer

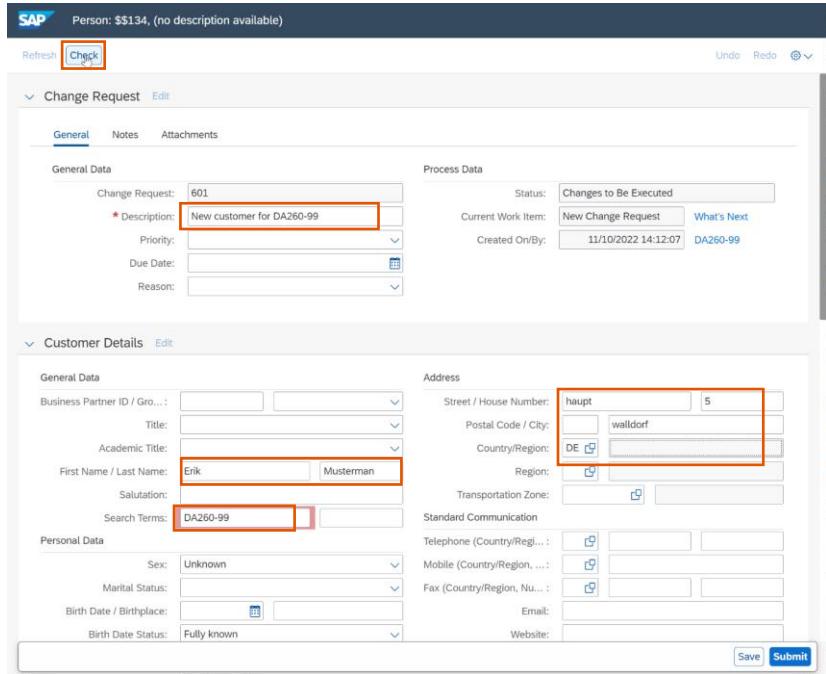
In this exercise, you will be a business user requesting a new customer. You will again send an SAP MDG Change Request which shall be further processed by other users in your company. You will see how MDG helps you to prevent the creation of duplicate master data records. Furthermore, you will use address validation and enrichment to achieve high quality master data.

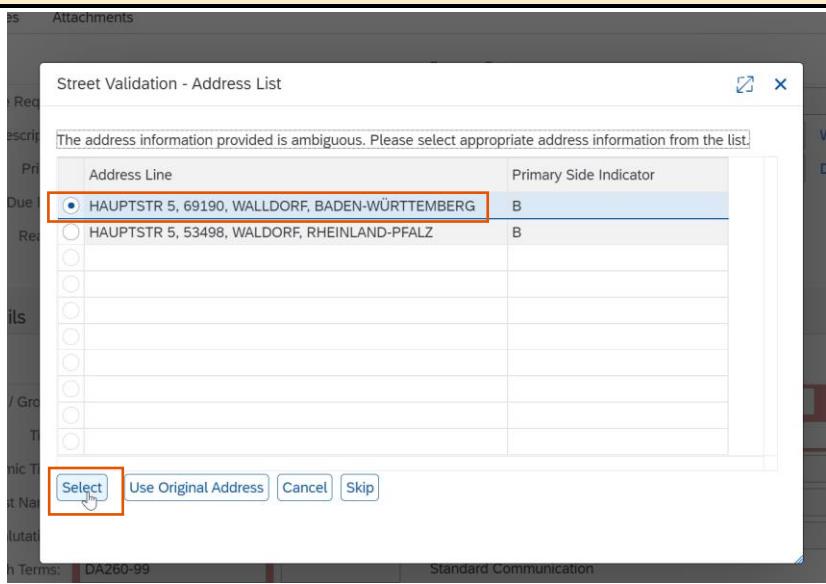
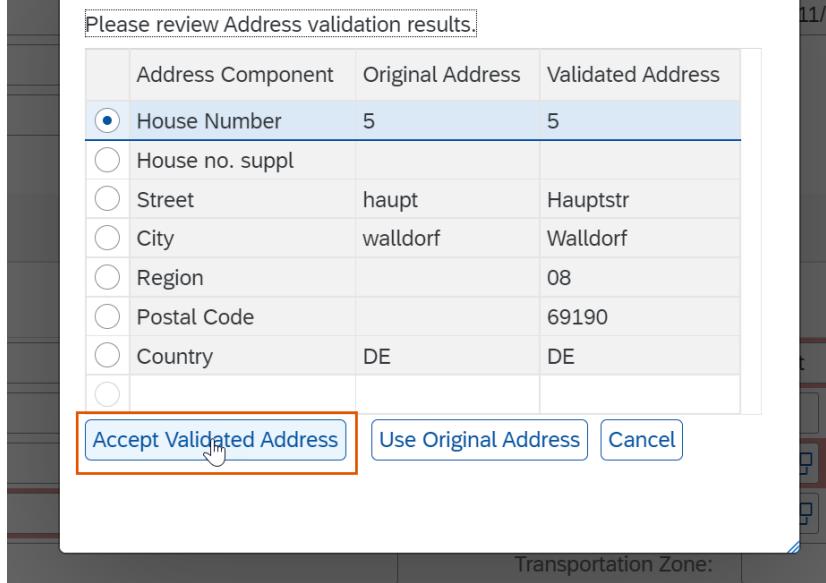
Please wait with the exercise 2.3 until the instructor has demonstrated validation rules and changed the system behavior.

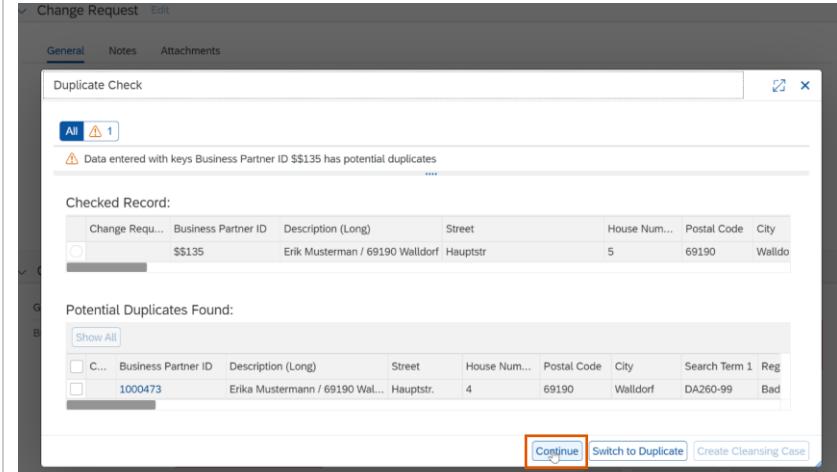
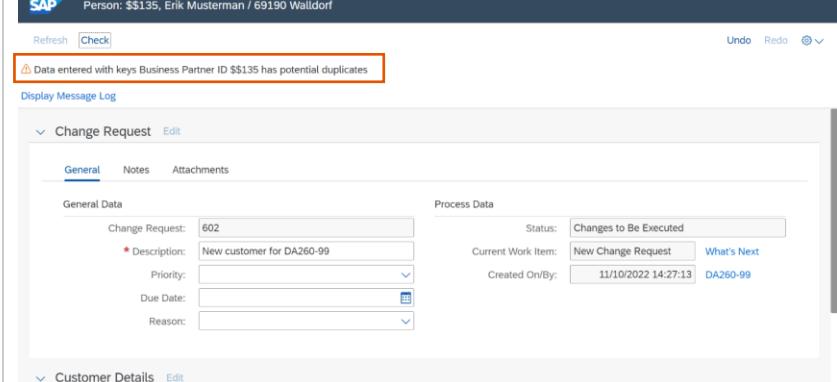
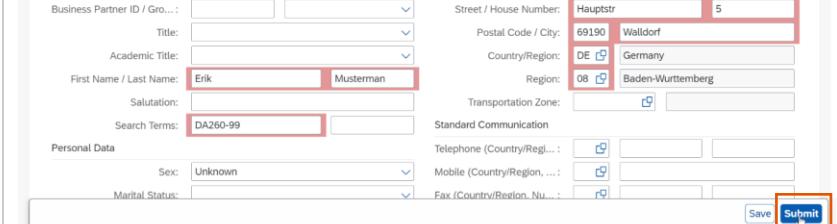
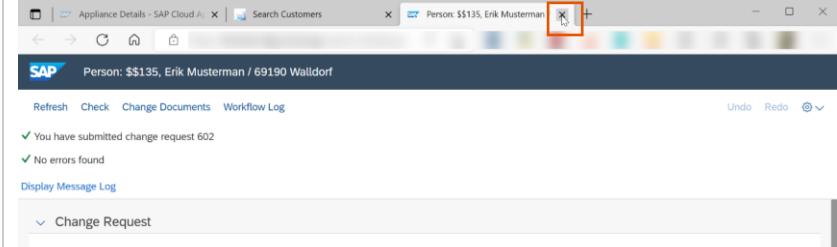
Explanation	Screenshot
<p>Each workshop participant uses a different username. Please make sure, to use the correct participant number as indicated by the sign on your table.</p> <ol style="list-style-type: none"> 1. Open the Fiori Launchpad URL displayed on the board 2. Enter DA260-## as username (where ## represents your participant number, for example enter DA260-04 or DA260-23) 3. Enter the password *) 4. Then click Log On <p>*) The password will be provided by your instructor in the workshop.</p>	

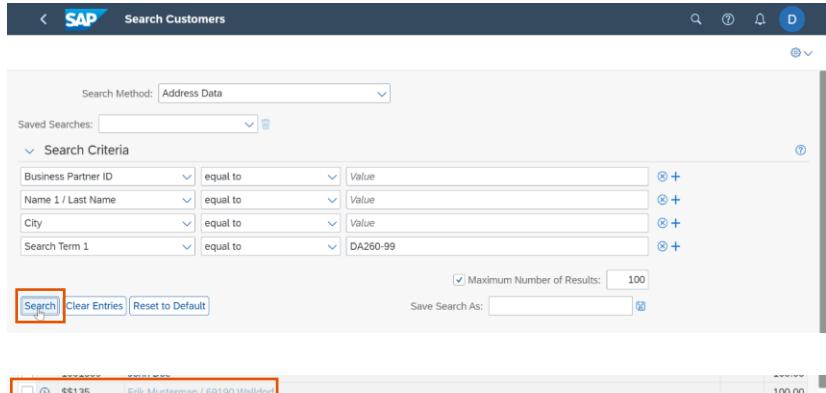
Explanation	Screenshot
<p>Display the app tiles for group Customer Governance.</p> <p>5. If the tile group is not visible, click on the down arrow (top right of screen) to display all tile groups</p> <p>6. Then select the group Customer Governance</p>	
<p>Start the application to search or create customer master data.</p> <p>7. Click on the tile Manage Customer (Governance)</p>	
<p>The system was prepared with several customers for each participant. These customers are used in exercises of this chapter and the next chapter. The value of field Search Term 1 is used to separate the customers of each participant from others.</p> <p>8. Switch the field used for the last search criterion from Street to Search Term 1.</p>	

Explanation	Screenshot																																																								
<p>Your user ID is used as Search Term 1 for the customers you are working with.</p>	 <p>The result list shows 13 business partners found:</p> <table border="1"> <thead> <tr> <th>P. Business...</th> <th>Description</th> <th>Cat...</th> <th>Rank</th> </tr> </thead> <tbody> <tr><td>1000484</td><td>Erika Mustermann / 69190 Walldorf</td><td></td><td>100.00</td></tr> <tr><td>1000498</td><td>John Doe / Newtown Square PA 19073</td><td></td><td>100.00</td></tr> <tr><td>1000510</td><td>Jane Roe / Newtown Square PA 19073</td><td></td><td>100.00</td></tr> <tr><td>1000532</td><td>E.A.R.T.H. Comm. / 12345 Heilbronn</td><td></td><td>100.00</td></tr> <tr><td>1000533</td><td>Max Mustermann / 69190 Walldorf</td><td></td><td>100.00</td></tr> <tr><td>1000546</td><td>MERCURY Washington / Washington NJ 07882-1339</td><td></td><td>100.00</td></tr> <tr><td>1000556</td><td>Venus Beauty Salon / E-46185 Valencia</td><td></td><td>100.00</td></tr> <tr><td>1000569</td><td>Earth Link Components / 12345 Heilbronn</td><td></td><td>100.00</td></tr> <tr><td>1000576</td><td>Mars Travel Agency booth / E-30003 Murcia</td><td></td><td>100.00</td></tr> <tr><td>1000583</td><td>Saturn Satellite System / E-41007 Sevilla</td><td></td><td>100.00</td></tr> <tr><td>1001329</td><td>Mekäläinen Matti / FI-02150 Espoo</td><td></td><td>100.00</td></tr> <tr><td>1001339</td><td>Mekäläinen Maija / FI-02150 Espoo</td><td></td><td>100.00</td></tr> <tr><td>1001340</td><td>Uranus Chemicals Inc. / 76698 Ubstadt-Weiher</td><td></td><td>100.00</td></tr> </tbody> </table>	P. Business...	Description	Cat...	Rank	1000484	Erika Mustermann / 69190 Walldorf		100.00	1000498	John Doe / Newtown Square PA 19073		100.00	1000510	Jane Roe / Newtown Square PA 19073		100.00	1000532	E.A.R.T.H. Comm. / 12345 Heilbronn		100.00	1000533	Max Mustermann / 69190 Walldorf		100.00	1000546	MERCURY Washington / Washington NJ 07882-1339		100.00	1000556	Venus Beauty Salon / E-46185 Valencia		100.00	1000569	Earth Link Components / 12345 Heilbronn		100.00	1000576	Mars Travel Agency booth / E-30003 Murcia		100.00	1000583	Saturn Satellite System / E-41007 Sevilla		100.00	1001329	Mekäläinen Matti / FI-02150 Espoo		100.00	1001339	Mekäläinen Maija / FI-02150 Espoo		100.00	1001340	Uranus Chemicals Inc. / 76698 Ubstadt-Weiher		100.00
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<p>Start creating a new business partner of type person as a customer.</p> <p>11. Click on the button New 12. Then choose Person</p>																																																									

Explanation	Screenshot
<p>A new tab opens, and you see that the value of Search Term 1 used as a search parameter is already filled-in. This also works for other fields, removing the need to type in the values again. In this exercise, it ensures that the customer you are about to create is marked as belong to you, so do not change the value.</p> <p>Provide a Description for your change request. We want to see the duplicate check feature, so enter values for First Name and Last Name that are close to the existing customer Erika Mustermann. Furthermore, we want to see how addresses are validated and enriched. Please use the values below and leave the field Title empty.</p> <p>13. Fill in the field Description, for example New Customer for DA260-##, to easily find your request later</p> <p>14. Fill in the fields First Name with Erik and Last Name with Musterman.</p> <p>15. For the address, use: Street: haupt House Number: 5 City: Walldorf Country/Region: DE</p> <p>16. Click on the button Check or press the RETURN key.</p>	 <p>The screenshot shows the SAP Change Request interface. The 'Check' button in the top left is highlighted with a red box. The 'Description' field contains 'New customer for DA260-99'. The 'First Name / Last Name' field contains 'Erik Musterman'. The 'Address' section shows 'haupt 5' and 'Walldorf' with 'DE' selected. The 'Save' and 'Submit' buttons are at the bottom right.</p>

Explanation	Screenshot
<p>Address validation detects that there are 2 similar locations that could refer to the address entered.</p>	
<p>17. Having the row for WALLDORF in BADEN-WÜRTTEMBERG selected, press the Select button.</p>	
<p>Address enrichment suggests values for postal code and region. Furthermore the street name is corrected.</p>	
<p>18. Press Accept Validated Address.</p>	

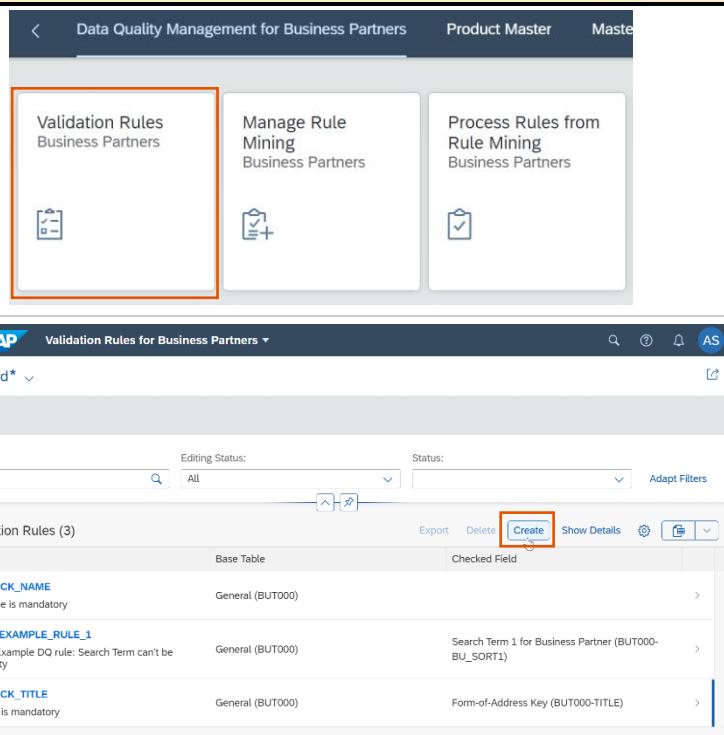
Explanation	Screenshot
<p>The system will compare the data of the new customer with existing customers. If you have entered all values as described in the exercise, it will display Erika Mustermann as a potential duplicate. For the sake of the exercise we will assume that you really want to create Erik as a customer.</p>	 <p>The screenshot shows the SAP Change Request interface. In the 'General' tab, under 'Duplicate Check', it says 'Data entered with keys Business Partner ID \$135 has potential duplicates'. Below this, 'Checked Record' shows a row for Erik Musterman with Business Partner ID \$135. Under 'Potential Duplicates Found', there is another row for Erika Mustermann with Business Partner ID 1000473. At the bottom right, buttons include 'Continue' (highlighted with a red box), 'Switch to Duplicate', and 'Create Cleansing Case'.</p>
<p>19. Click Continue to proceed with creating a new customer.</p>	
<p>Your request should have no errors, except the warning that you might create a duplicate. In real life you would typically add further information, such as ERP customer data, for example for a sales organization as well. However, we will keep it simple for this session. Once you have completed all exercises and there is still time left you can of course try this out on your own.</p>	 <p>The screenshot shows the SAP Change Request interface. In the 'General' tab, the 'Change Request' field is set to 602, and the 'Description' field contains 'New customer for DA260-99'. The 'Address' section shows 'Hauptstr 5' and '69190 Walldorf'. The 'Submit' button at the bottom right is highlighted with a red box.</p>
<p>Submit your change request.</p>	
<p>20. Click Submit on the bottom</p>	 <p>The screenshot shows the SAP Change Request interface. A message box at the top says '✓ You have submitted change request 602' and '✓ No errors found'. The 'Submit' button at the bottom right is highlighted with a red box.</p>
<p>The system indicates that your request process has been started with the customer data you have entered.</p>	
<p>Close the browser tab named according to data you entered.</p>	 <p>The screenshot shows a browser tab titled 'Appliance Details - SAP Cloud A...' with a sub-tab 'Person: \$135, Erik Musterman / 69190 Walldorf'. The SAP interface shows the same data as the previous screens: 'Hauptstr 5' and '69190 Walldorf'. The close button of the browser tab is highlighted with a red box.</p>
<p>21. Click X on the according tab</p>	

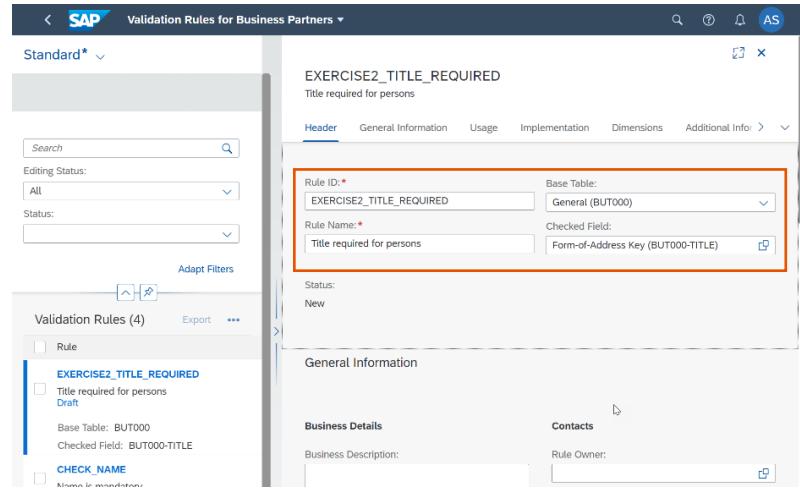
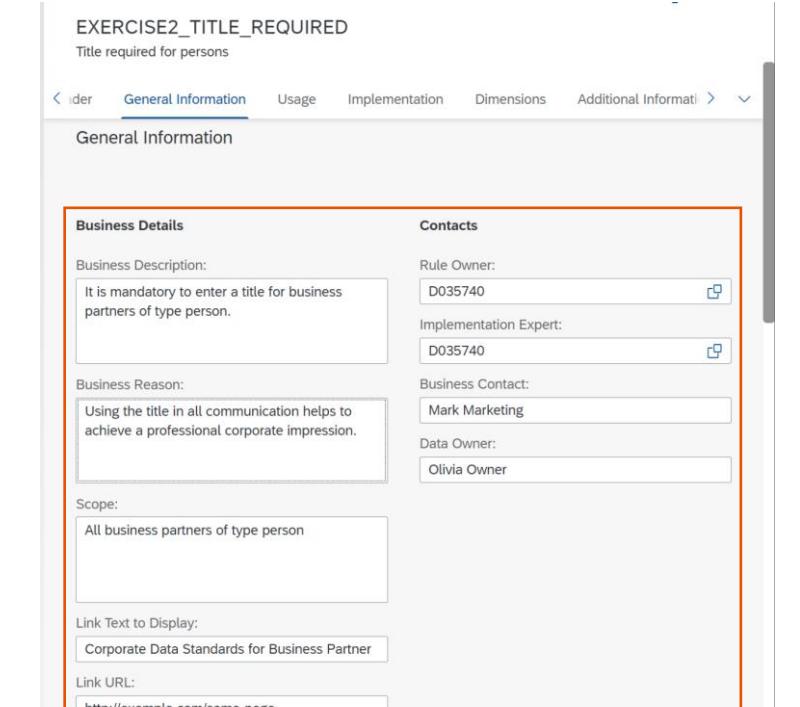
Explanation	Screenshot
<p>Click on the Search button once more. You should see that Erik Musterman is about to be created with a change request.</p> <p>Keep this page open.</p> <p>You have completed this exercise.</p> <p>Please wait until the instructor asks you to continue.</p>	

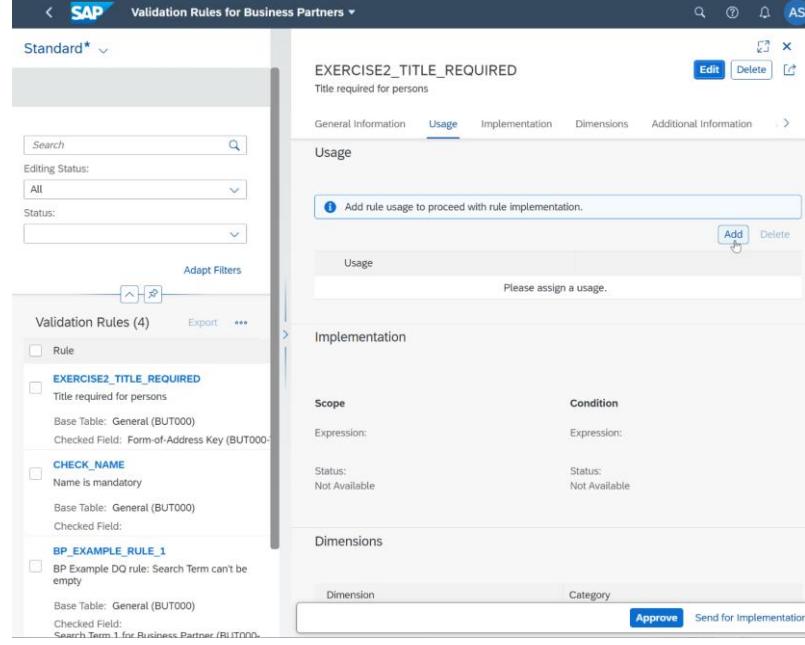
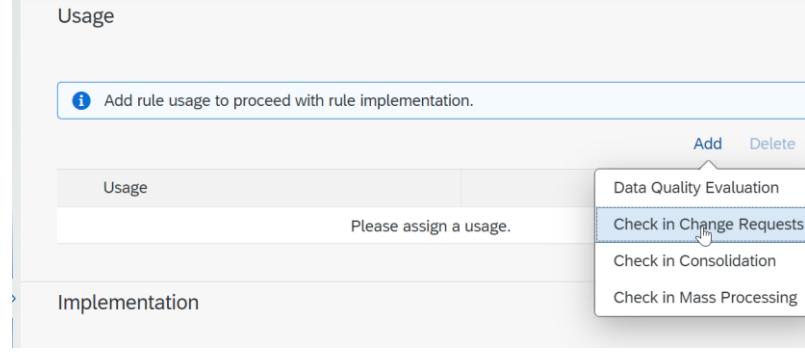
Exercise 2.2 – Management and definition of validation rules

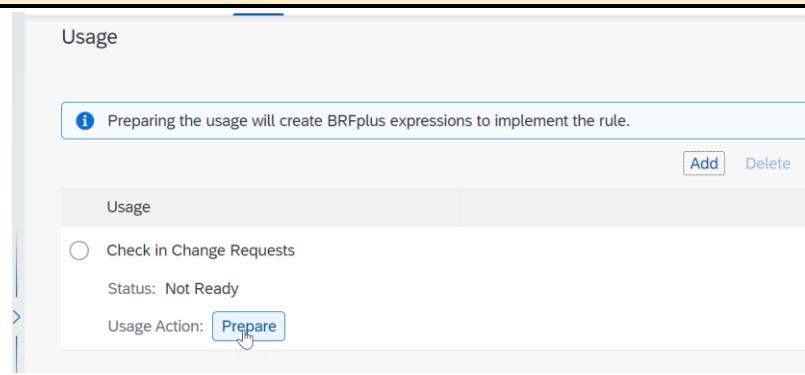
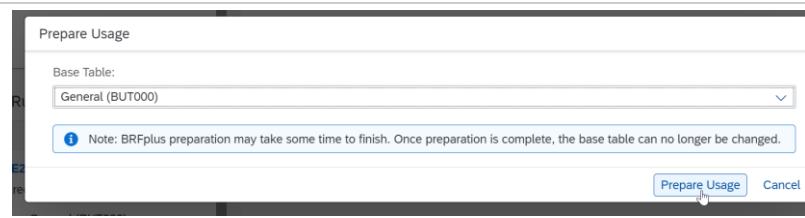
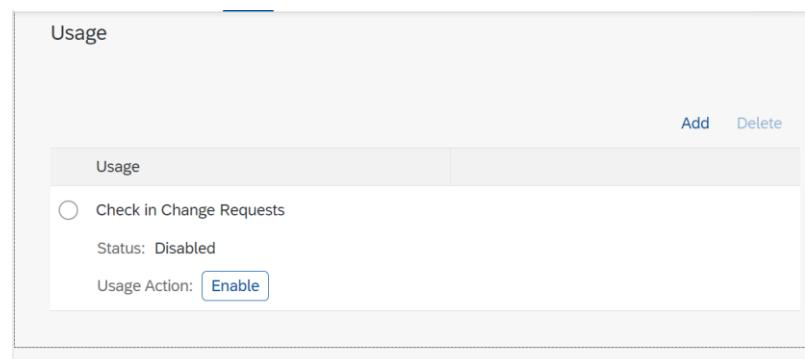
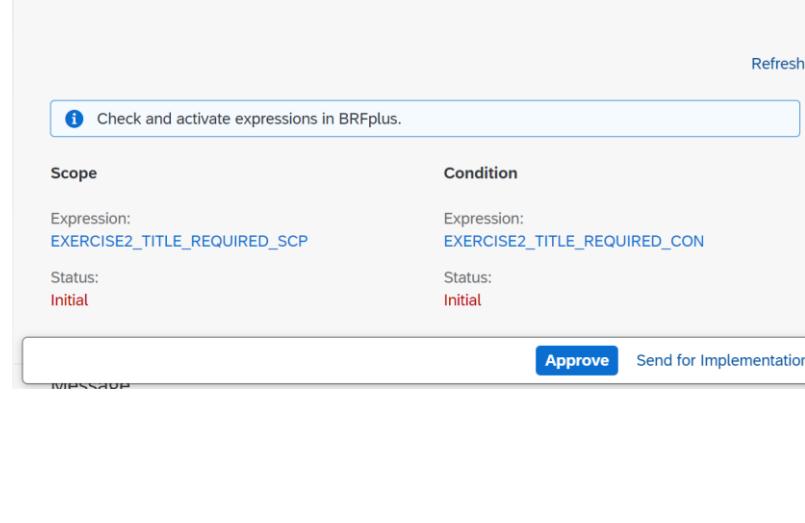
Important: This exercise is a demonstration provided by your instructor in the workshop. You will watch while changes are executed to the system that are explaining the system behavior and that will be important for the next exercise. Using your own system user you can display and examine all changes done by the presenter. However, your user does not have authorization to change anything.

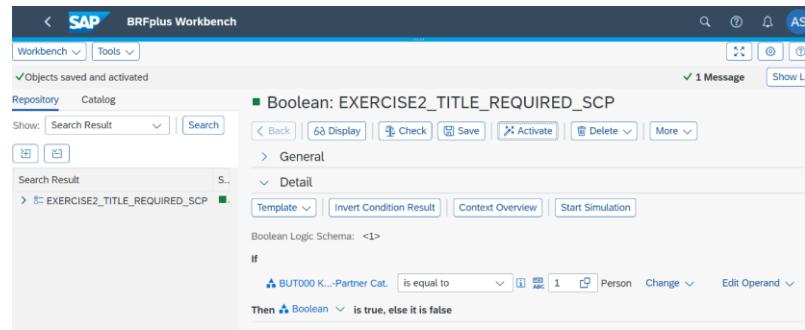
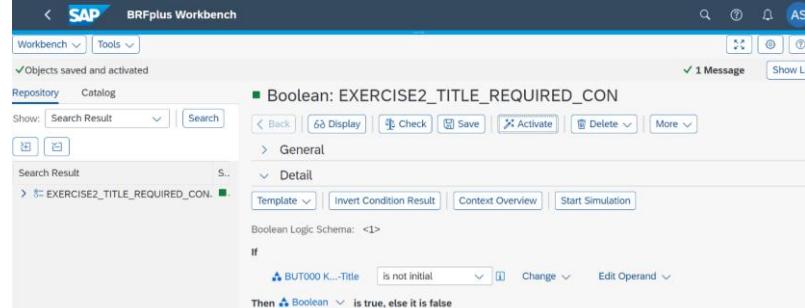
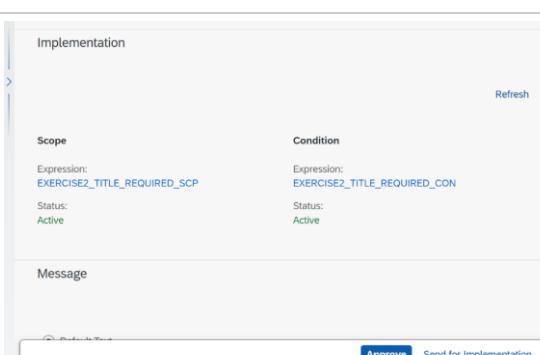
In this demonstration, you will watch the instructor in the role of a master data steward. A new SAP MDG validation rule will be created that introduces a new check to all business partner data representing persons. Only after these changes have been done centrally for all users of the system, you can continue with the next exercise.

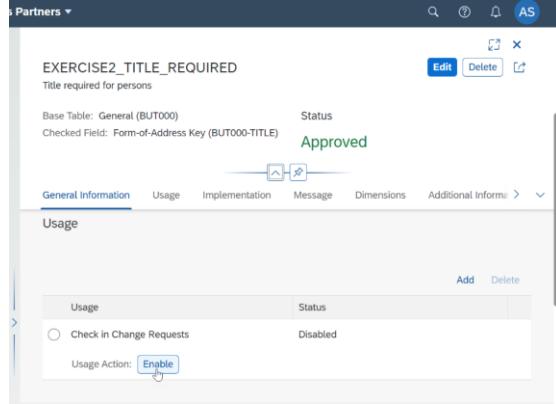
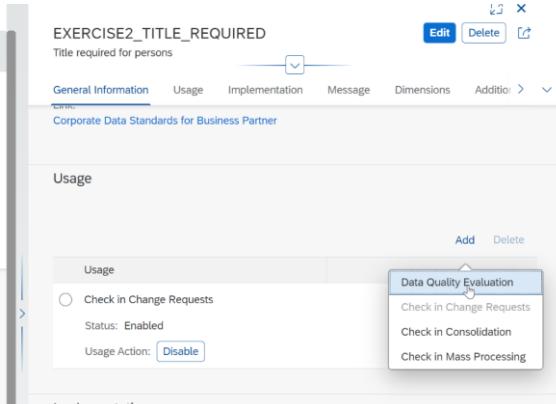
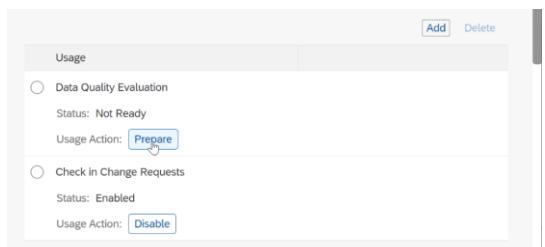
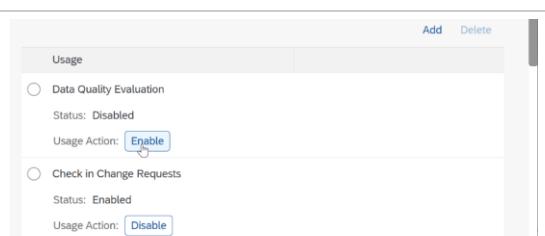
Explanation	Screenshot
<p>The instructor opens the app for management of validation rules for business partner master data</p> <ol style="list-style-type: none"> Clicks Validation Rules (Business Partner) <p>You see a list of the validation rules for business partner master data that are currently in the system.</p> <p>As the intended rule does not exist yet, the instructor starts to create it.</p> <ol style="list-style-type: none"> Clicks Create 	

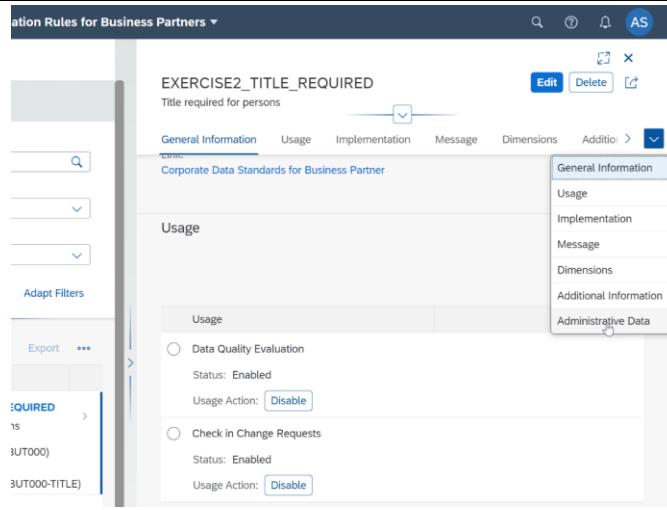
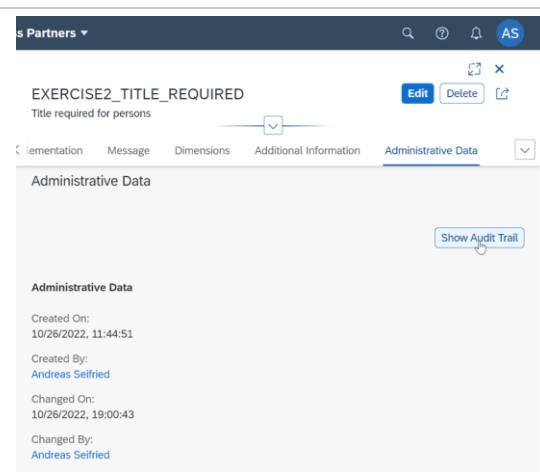
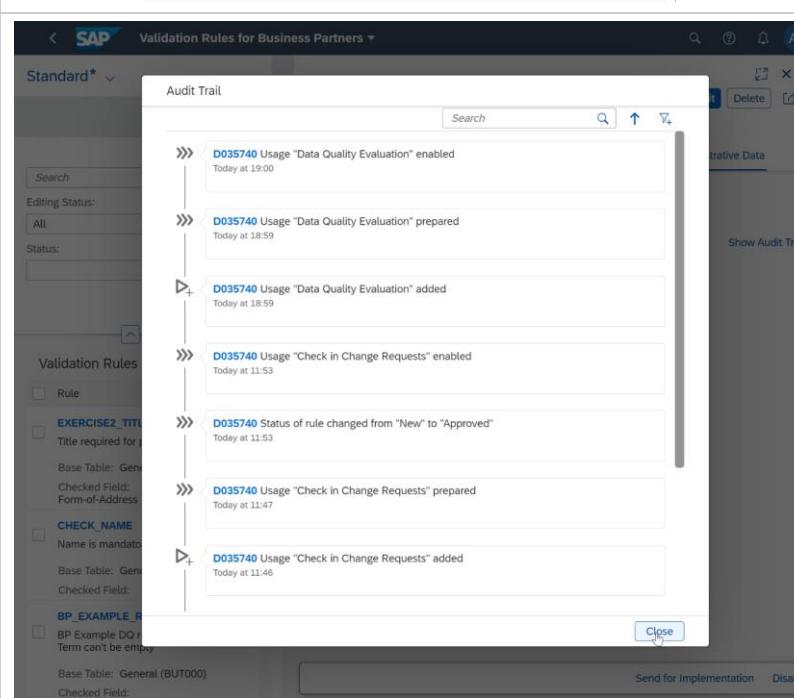
Explanation	Screenshot
<p>The rule will validate whether every business partner that is created in the system and that represents a person has a title.</p>	 <p>The screenshot shows the SAP Validation Rules for Business Partners interface. A new validation rule is being created with the following details:</p> <ul style="list-style-type: none"> Rule ID: EXERCISE2_TITLE_REQUIRED Base Table: General (BUT000) Rule Name: Title required for persons Checked Field: Form-of-Address Key (BUT000-TITLE)
<p>The instructor hence chooses a Rule ID that indicates that a title is required (and that it belongs to exercise 2). And defines which database table will be checked.</p>	
<ol style="list-style-type: none"> 3. Enters Rule ID "EXERCISE2_TITLE_REQUIRED" 4. Enters a Rule Name 5. Enters Base Table "General (BUT000)" 6. Enters Checked Field "BUT000-TITLE" 	 <p>The screenshot shows the General Information tab for the validation rule EXERCISE2_TITLE_REQUIRED. The Business Details section contains the following information:</p> <ul style="list-style-type: none"> Business Description: It is mandatory to enter a title for business partners of type person. Business Reason: Using the title in all communication helps to achieve a professional corporate impression. Scope: All business partners of type person <p>The Contacts section lists the following rule owners:</p> <ul style="list-style-type: none"> Rule Owner: D035740 Implementation Expert: D035740 Business Contact: Mark Marketing Data Owner: Olivia Owner

Explanation	Screenshot
<p>Validation rules can be used for multiple purposes. Once the rule is created and saved with its basic information, a usage can be added.</p>	
<p>10. Clicks on Create and navigates to section Usage. 11. Clicks on Add to add a usage of the validation rule.</p>	
<p>As it is intended to use the rule for checks in a change request, the corresponding usage is added. Of course, you can also add further usages already in this step.</p>	
<p>12. Clicks on Check in Change Requests.</p>	
<p><i>Note the buttons Approve and Send for Implementation at the bottom. The application is designed to support the collaboration of multiple persons, for example one acting as the requestor of the rule and wanting to use the rule for checks in change requests. This person could then stop at this point and click on Send for Implementation to accordingly set the status of the rule, indicating that another person should proceed with the next steps to implement the logic of the rule.</i></p>	

Explanation	Screenshot
<p>Technically, the actual logic of the rule is implemented in BRFplus. The app prepares everything needed for that so that the user can focus on the actual implementation of the logic.</p>	
<p>13. Clicks on Prepare.</p>	
<p>The system asks for confirmation of the base table, as this cannot be reverted without deleting the BRFplus implementation.</p>	
<p>14. Clicks on Prepare Usage.</p>	
<p>Once completed, the links to the scope expression and to the condition expression become available.</p>	
<p>The scope expression defines to which data the rule is applicable. Only data that fits to the scope expression is evaluated using the condition expression. It is the implementation of what is described in Scope of the rule:</p>	
<p>Scope: All business partners of type person</p>	
<p>The condition expression defines whether data that is in scope is valid or not valid. This is typically described in Business Description of the rule:</p>	
<p>Business Description: It is mandatory to enter a title for business partners of type person.</p>	
<p>15. Clicks on EXERCISE2_TITLE_REQUIRED_SCP to open the expression in the BRFplus workbench for implementation.</p>	

Explanation	Screenshot
<p>The scope expression simply checks if the Business Partner Category is equal to Person (1).</p>	
<p>16. The instructor changes the template expression to perform the intended comparison.</p>	
<p>The template expression is a good starting point for many use cases. However, in reality there are cases in which the logic needs to be much more complex. Here, you can use many more capabilities of BRFplus and extend the expression as needed.</p>	
<p>Once the scope expression is activated, its status is displayed accordingly, and you can proceed by implementing the condition expression.</p>	
<p>17. Clicks on EXERCISE2_TITLE_REQUIRED_CON.</p>	
<p>In the simple example, the logic only needs to check if the Title is initial. More complex logic can also be included in the expression, if required.</p>	
<p>18. The instructor changes the template expression to perform the intended comparison <clicks something></p>	
<p>Once both expressions are activated, it is possible to approve the rule. It is possible to allow this activity only for dedicated users who confirm that the implementation done by another user is correct and adheres to the description of the rule.</p>	
<p>19. Clicks on Approve.</p>	

Explanation	Screenshot
<p>Once approved, the usage of a rule can be enabled. From this point in time on, data in change requests will be checked using this rule.</p> <p>20. Clicks on Enable of the usage Check in Change Requests.</p>	
<p>Further usages of the rule can be added. For example, to check already existing data, add the usage Data Quality Evaluation.</p> <p>21. Adds the usage Data Quality Evaluation.</p>	
<p>Again, BRFplus is used for the implementation. By default, the system will use the same implementation for all usages. In case the logic needs to be different for a usage, you can change the expressions accordingly.</p> <p>22. Clicks on Prepare.</p>	
<p>In case the implementation is the same for this usage, the usage can be enabled without further activities.</p> <p>23. Clicks on Enable.</p>	

Explanation	Screenshot
Change information is provided in the section Administrative Data .	
24. Chooses the section Administrative Data .	
Besides timestamps and user information of the creation and the last change, there is also a more detailed audit trail provided.	
25. Clicks on Show Audit Trail .	
The audit trail provides a list of all significant changes to the rule.	
26. Clicks on Close .	
Note that in addition to this audit trail, there is also a history of changes to the implementation in BRFplus available.	

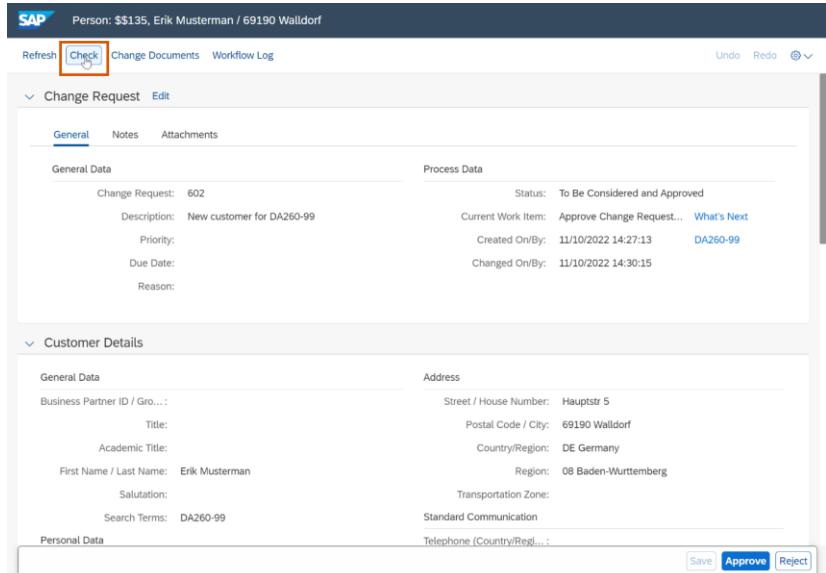
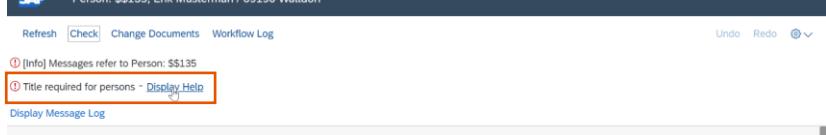
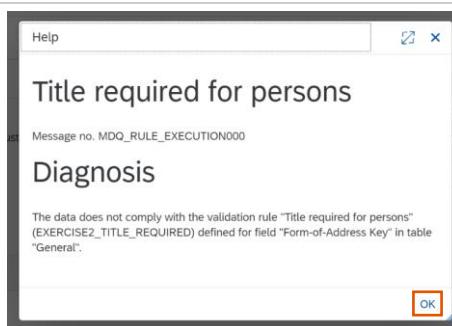
Explanation	Screenshot
<p>The instructor completed the preparation of the validation rule.</p>	

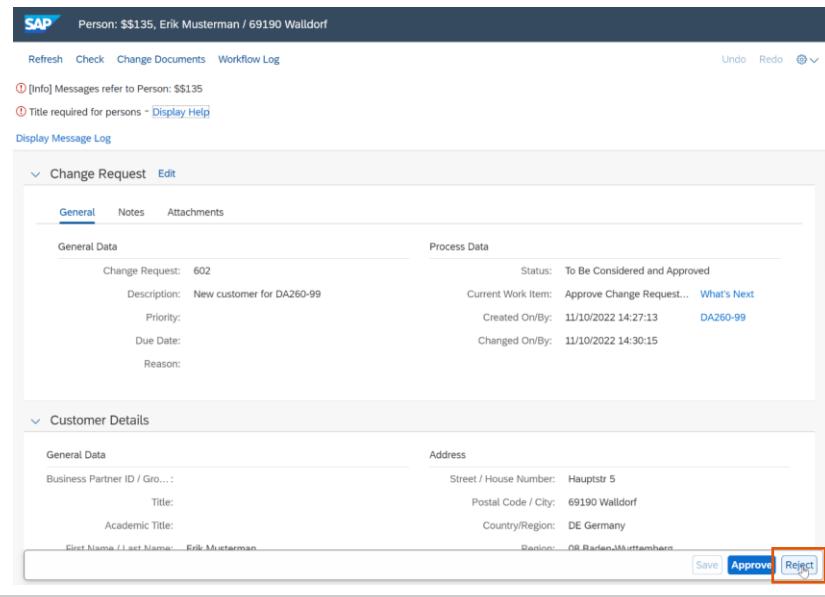
Exercise 2.3 – Re-check requested customer

Important: This exercise can only start after the instructor has changed the system settings as outlined in the exercise 2.2 above. Please wait until you are asked to begin this exercise.

In this exercise, you will use the change request that you created in Exercise 2.1 and just re-check the same data. As you will notice, the system will now act differently since a new validation rule has been introduced. After the issue has been detected, you will use the workflow and collaboration features in SAP MDG to correct the data issue.

Explanation	Screenshot
<p>You want to re-access your change request for a new person that you created in exercise 2.1 before. If not already displayed, start the app Manage Customer (Governance) again and perform a search with Search Term 1 equals your user ID.</p>	
<p>1. Click Search</p> <p>Open the change request with the customer you requested previously.</p> <p>2. Click the stopwatch icon next to the requested customer.</p>	

Explanation	Screenshot
Same as you did before in exercise 2.1, you again check the data for correctness.	 <p>The screenshot shows the SAP Fiori Change Request interface for person \$135, Erik Musterman. The 'Check' button in the top navigation bar is highlighted with a red box. The screen displays general data like Change Request ID (602), description (New customer for DA260-99), and process data including status (To Be Considered and Approved) and creation details (Created On/By: 11/10/2022 14:27:13, DA260-99). Below this is the 'Customer Details' section, which also includes address information and a note about a required title.</p>
3. Click Check	
The system now displays an error message that a title is required for every person within business partner master data. You would like to better understand the issue.	 <p>The screenshot shows the SAP Fiori Change Request interface after clicking 'Check'. An error message is displayed: 'Title required for persons' (with a red box around it) and 'Display Help' (also with a red box around it). The 'Display Message Log' link is visible below the message.</p>
4. Click Display Help	
The system displays some of the information that has been given when creating the new validation. You close the pop-up.	 <p>The screenshot shows a SAP Help dialog box with the title 'Title required for persons'. It contains the message 'Message no. MDQ_RULE_EXECUTION000' and 'Diagnosis'. The diagnosis text states: 'The data does not comply with the validation rule "Title required for persons" (EXERCISE2_TITLE_REQUIRED) defined for field "Form-of-Address Key" in table "General".' The 'OK' button at the bottom right is highlighted with a red box.</p>
5. Click OK	

Explanation	Screenshot
<p>So far, you have executed all steps using one single system user for requesting the data and for checking this request. Let's now just assume that a different human is noticing this error. We will do this just to demonstrate some of MDG's capabilities for collaboration. (Keep using the same system user, please.)</p>	 <p>The screenshot shows the SAP Fiori Change Request interface. A rejection dialog is open, asking for a reason. The 'Please enter title' field is highlighted with an orange box. The 'OK' button is also highlighted with an orange box.</p>

You will hence now **not approve** your request but reject it.

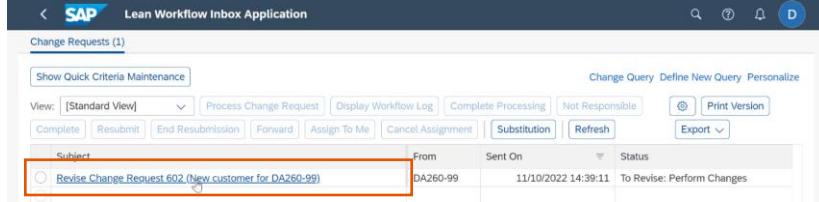
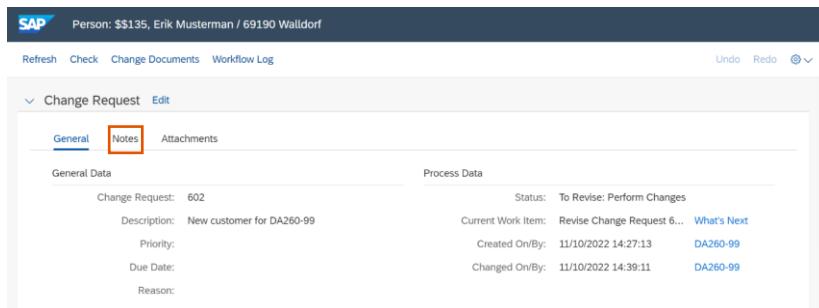
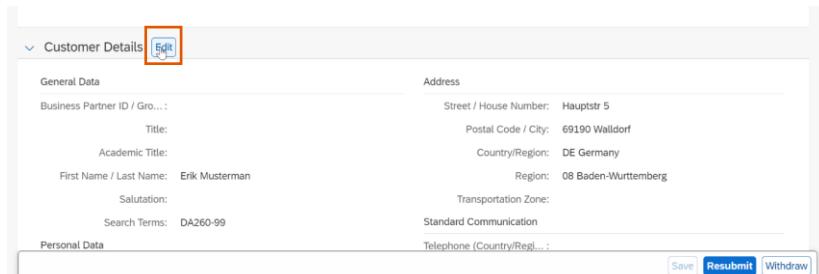
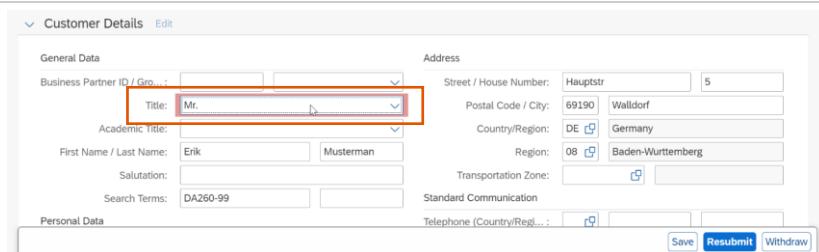
6. Click Reject

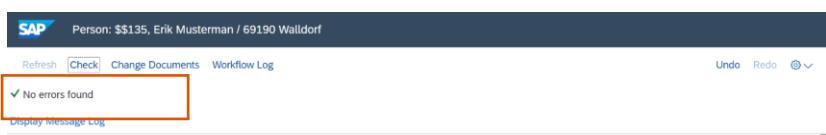
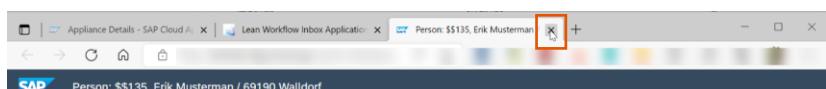
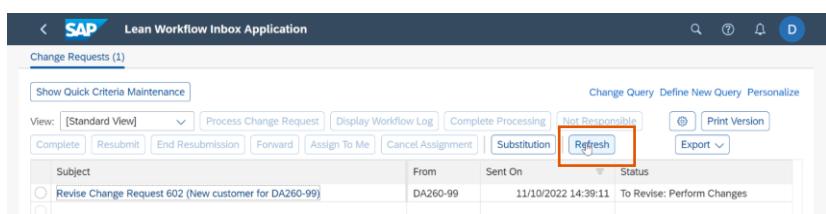
Rejecting a change request will send the workflow back to the requestor. The system requires you to enter a reason for the rejection so that the requestor can properly follow up and improve the request based on your guidance.

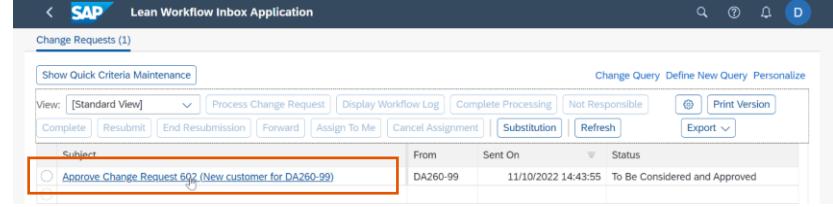
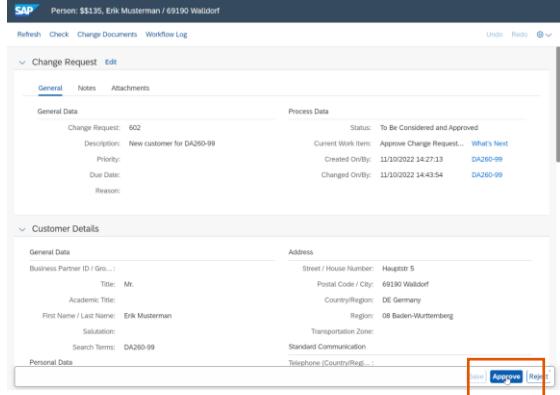
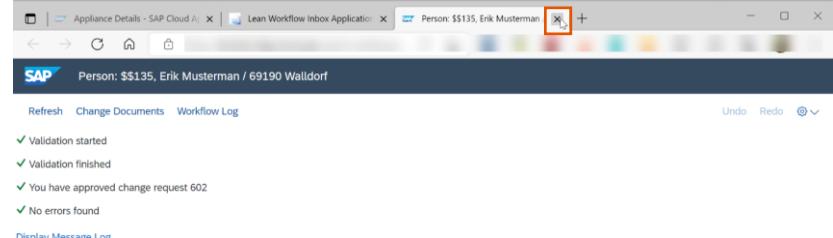
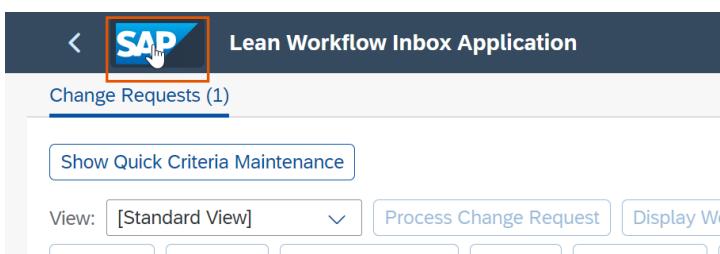
7. Enter a **reason**
8. Click **OK**

You have rejected the request. Please close the tab displaying the change request.

9. Click **X** on the respective browser tab

Explanation	Screenshot
Let's now assume that you are the first human again, the requestor.	
Go to the Home Screen and open your Change Request (Inbox) .	
You find the request and open it. (Make sure to use the correct request.)	
10. Click the request's title	
As soon as the request has opened in a new tab, you want to understand why the change request has been rejected.	
11. Click Notes	
12. Read the note of your colleague	
Scroll down to the section containing name and title of the person.	
13. At Customer Details, click Edit	
You enter the correct title.	
14. Pick the Title from the drop-down list	

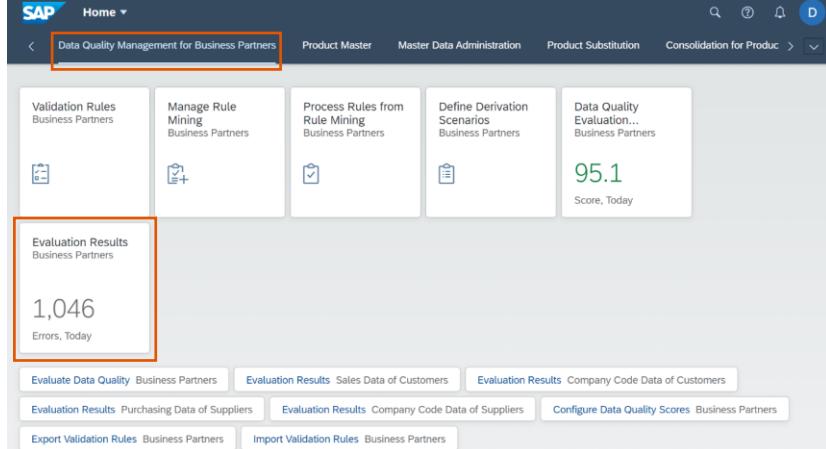
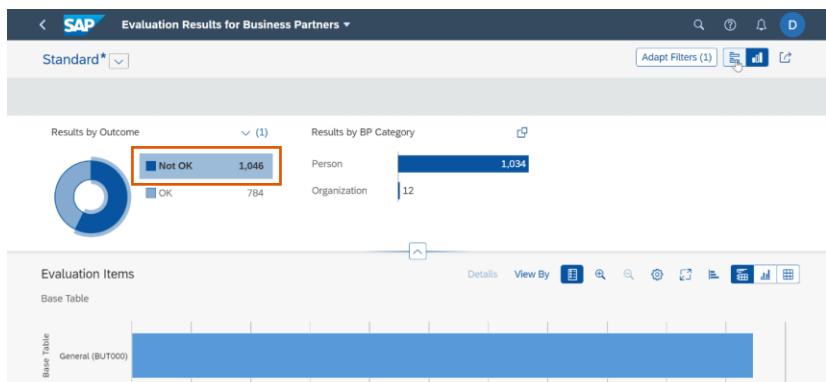
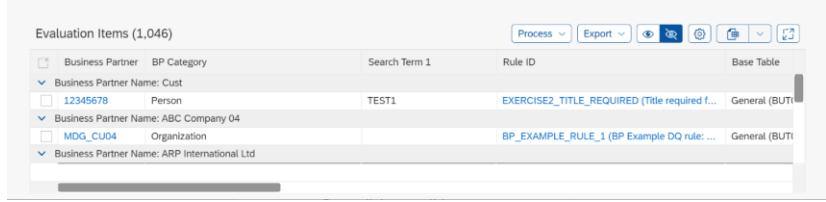
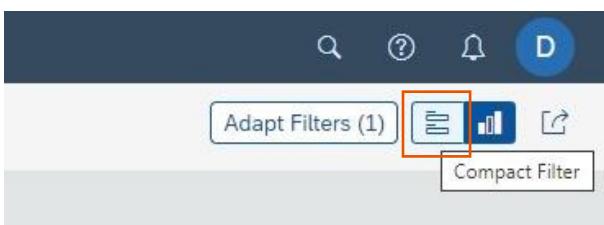
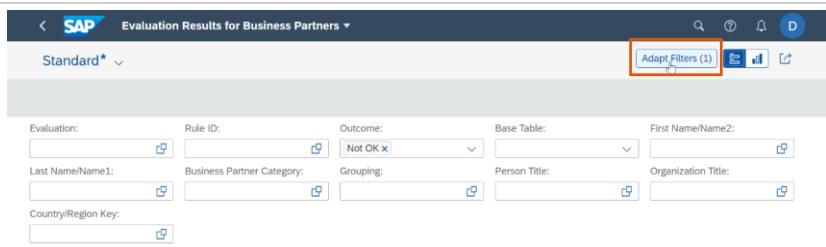
Explanation	Screenshot
Check the request data again.	 <p>15. Click Check</p> <p>As you can see, the system now does not find any issues anymore.</p>
You can now resubmit the change request.	 <p>16. Click Resubmit (at the bottom of the page)</p> <p>The change request has now been resubmitted under the same ID.</p>
Please close the browser tab with the request.	 <p>17. Click X on the respective browser tab</p>
You will now again be that other human who is approving your request (using the same system user to make things easy for you).	 <p>You review your inbox and find the respective request. (Remark: the inbox might still show the previous status to revise the request.)</p> <p>18. Click Refresh to see the latest status of your inbox.</p>

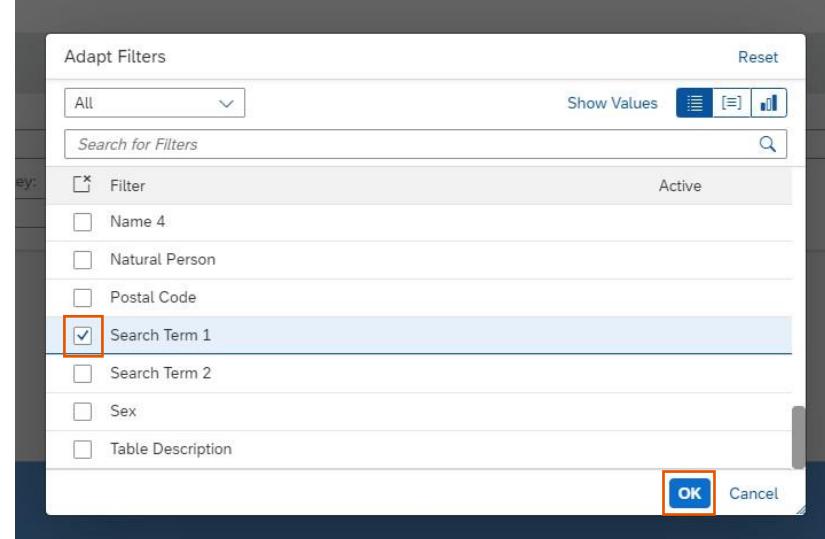
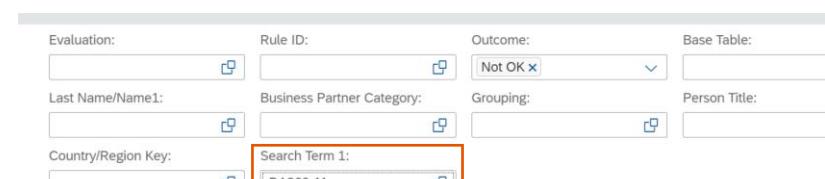
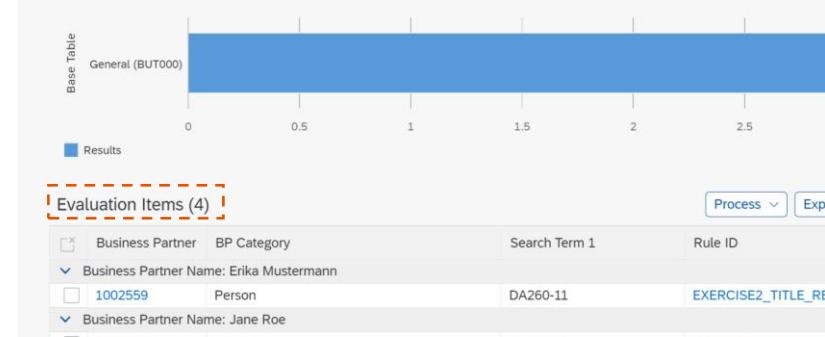
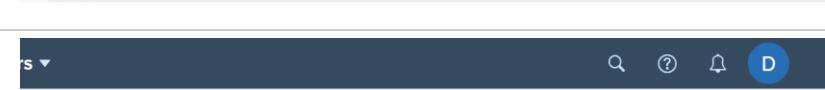
Explanation	Screenshot
As you can see the request is now again in the status to be approved.	
19. Click the Request Title to open the request in a new tab	<p>You review the request. If you like, you can have the system check it again. Once you are good with the proposed data changes, you approve the request.</p> <p>20. Click Approve</p> 
As you can see the further processing of the request has started in the background.	<p>Please close the browser tab displaying the change request.</p> <p>21. Click X on the respective browser tab</p> 
As a final step please navigate back to home page.	<p>22. Click the SAP logo at the top</p> <p>You have completed this exercise. Please directly continue with the next.</p> 

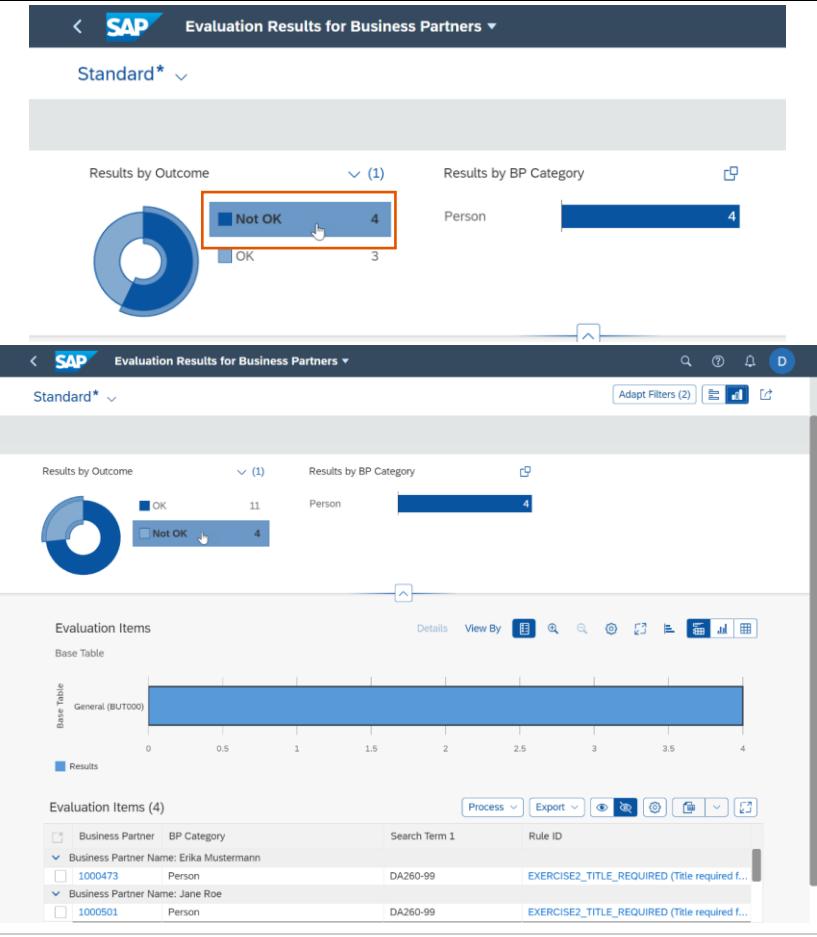
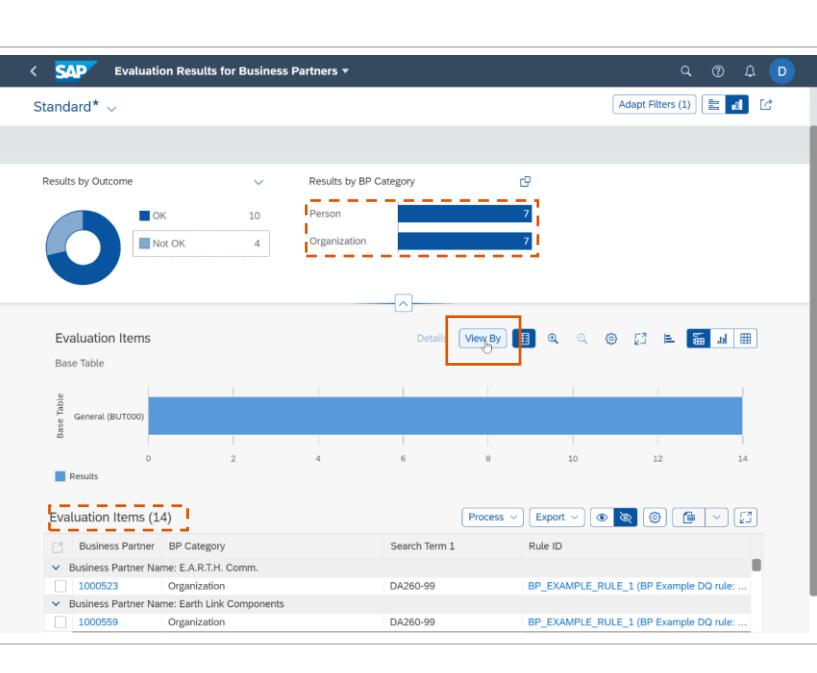
Exercise 2.4 – Find and fix errors in existing data

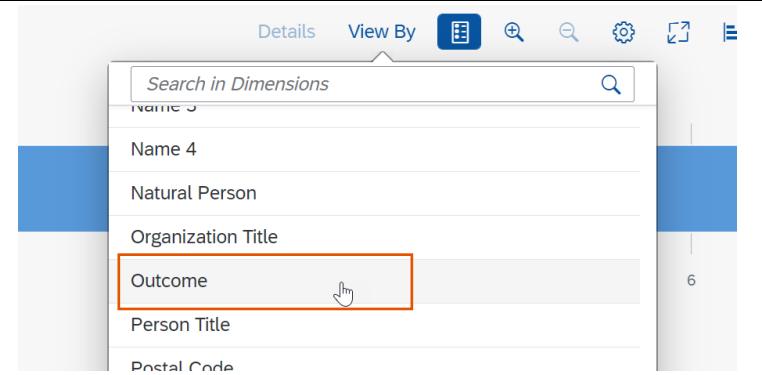
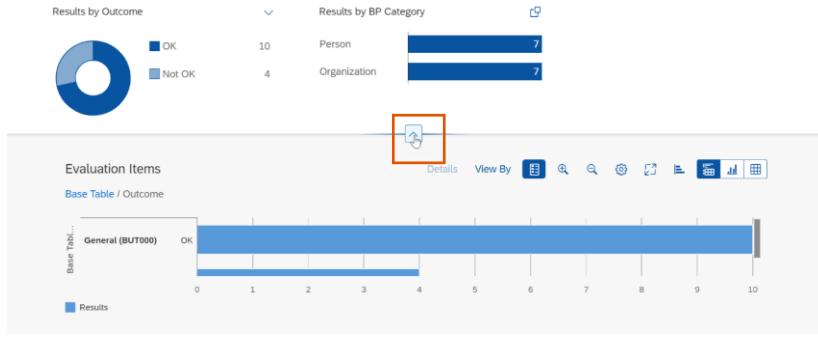
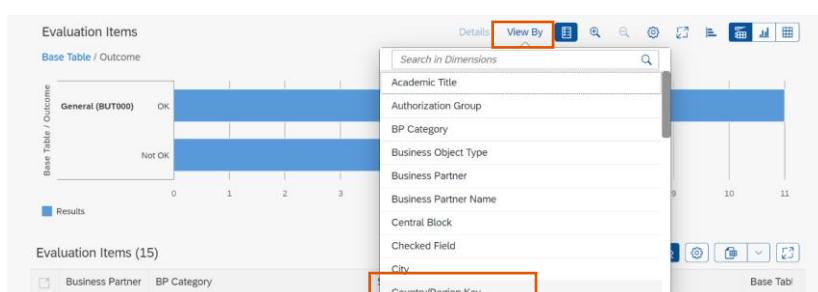
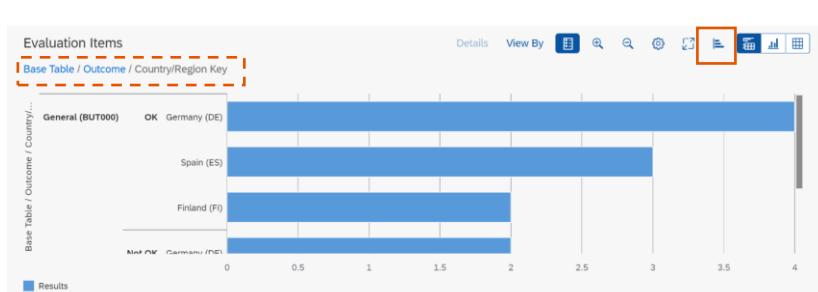
In this exercise, you will investigate the results of the system-driven regular evaluation of the master data quality. You will analyze the results and then execute some improvements of the quality by changing the erroneous master data records. For example, there might be some records that had been created before the new rule on titles for persons had been activated. These records hence now need to be found and corrected.

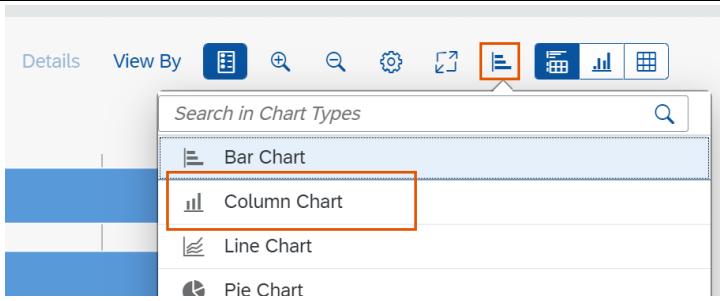
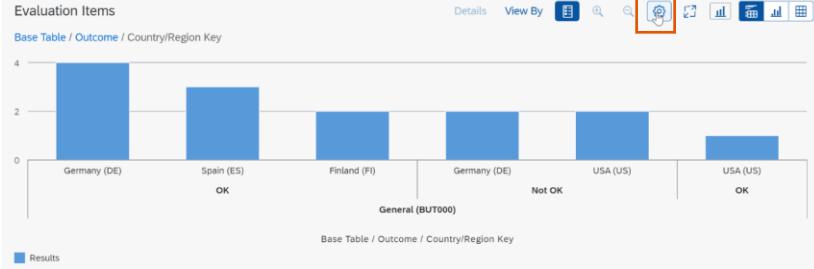
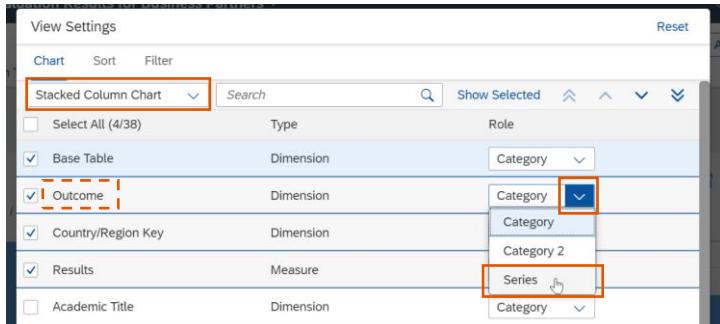
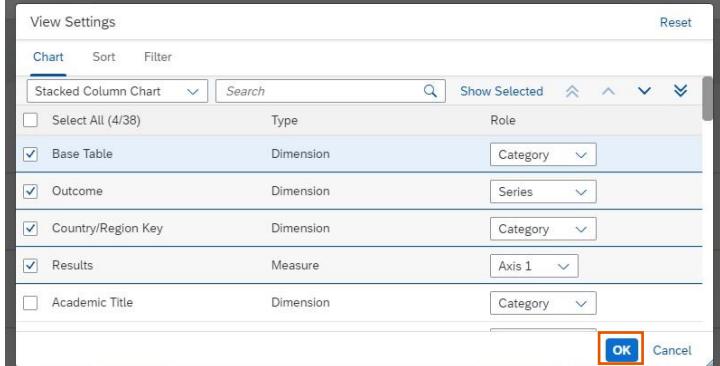
Note: as other users work in parallel and might change data, the figures displayed on the screenshot of this exercise might vary, except where explicitly noted.

Explanation	Screenshot
<p>Display the group Data Quality Management for Business Partners.</p> <ol style="list-style-type: none"> 1. If the group is not visible, click the down arrow (top right) to display all tile groups 2. Then select the group Data Quality Management for Business Partners 3. Click Evaluation Results (Business Partners) 	 <p>The screenshot shows the SAP Home interface. A red box highlights the 'Data Quality Management for Business Partners' tile. Below it, another red box highlights the 'Evaluation Results Business Partners' card, which displays '1,046 Errors, Today'.</p>
<p>This screen shows the result of the validation of all current data quality rules that are regularly checked.</p> <p>At the top, you find two sections with statistical information. These sections can be used to filter the result list at the bottom. E. g., you can filter the results to those that are "not ok", hence violating rules:</p> <ol style="list-style-type: none"> 4. Make sure Not OK is selected (top left) 	 <p>The screenshot shows the 'Evaluation Results for Business Partners' screen. At the top, there's a pie chart showing 'Not OK' (1,046), 'OK' (784), and 'Unknown' (1). Below it is a bar chart for 'Results by BP Category' showing 'Person' (1,034) and 'Organization' (12). The main area displays a large horizontal bar chart for 'Evaluation Items' across a base table named 'General (BUT000)'.</p>
<p>This list at the bottom shows the detailed findings per rule and per master data object. This list can be used to trigger single or mass corrections to improve the quality of the master data.</p>	 <p>The screenshot shows the detailed list of evaluation items. It includes columns for Business Partner, BP Category, Rule ID, and Base Table. One item is highlighted: '12345678 Person TEST1 EXERCISE2_TITLE_REQUIRED (Title required for ... General (BUT000))'.</p>
<p>You want to change some of the filters at the top and for that you switch to a different display mode.</p> <ol style="list-style-type: none"> 5. Click the symbol for Compact Filter (at the top right) 	 <p>The screenshot shows the 'Compact Filter' mode. The top navigation bar has a red box around the 'Compact Filter' button. Below it, the 'Adapt Filters (1)' button is also highlighted with a red box.</p>
<p>Some of the fields that you would like to use for filtering are not yet displayed on the screen, you hence want to add these</p> <ol style="list-style-type: none"> 6. Click Adapt Filters (top right) 	 <p>The screenshot shows the 'Standard' filter mode with many filter fields expanded at the top. The 'Adapt Filters (1)' button is highlighted with a red box.</p>

Explanation	Screenshot
<p>In the popup you could now chose all fields that you would like to add to your filter section of the evaluation results screen.</p>	
<p>For this exercise it is important to filter for Search Term 1, as this will separate your data from the data of all other workshop participant's.</p>	
<p>7. Select Search Term 1</p>	
<p>8. Click OK</p>	
<p>This will bring this additional field into your filter area.</p>	
<p>This step here is very important for the success of the workshop. We need to ensure that every participant works on exactly their own data.</p>	
<p>9. Enter “DAT260-##” as Search Term 1 in your filter area</p>	
<p>Where again “##” is your number as indicated on the table.</p>	
<p>Be sure to properly apply this filter so that you <u>work with your data only!</u></p>	
<p>You should see no more than four (4) results that are Not Ok! Else please contact the instructor.</p>	
<p>You may now switch your filter display back to a visual display.</p>	
<p>10. Click the symbol for Visual Filter (at the top right)</p>	

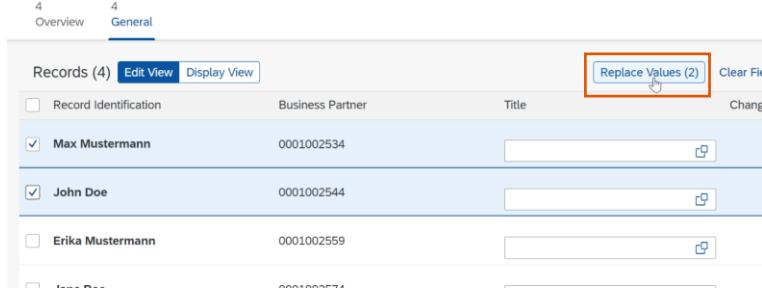
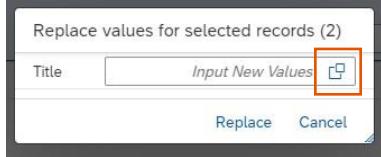
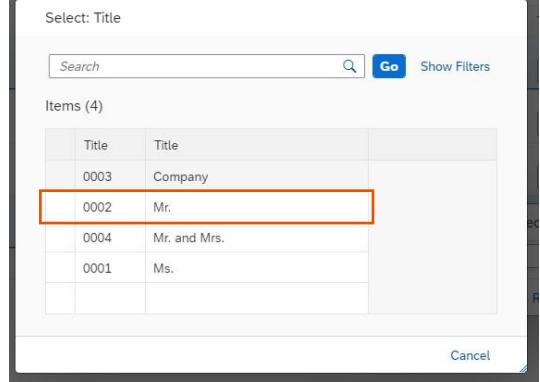
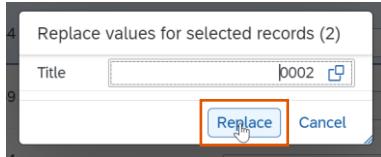
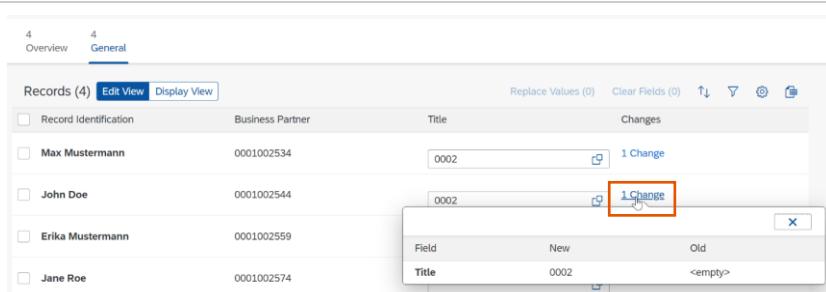
Explanation	Screenshot
<p>In most cases, master data specialists will of course rather focus on data that needs to be corrected. But for the purpose of this exercise please unselect Not Ok to see all data that has been checked. Including the data without issues.</p>	 <p>11. Unselect Not OK (in the filter at the top)</p>
<p>You should now be seeing a total of 14 evaluation items, 7 for persons and 7 for organizations.</p> <p>We want to now use the second filter section of the screen and change the way results can be analyzed and filtered.</p> <p>12. Click View By (in the graphical Evaluation Items section in the middle of the screen)</p>	

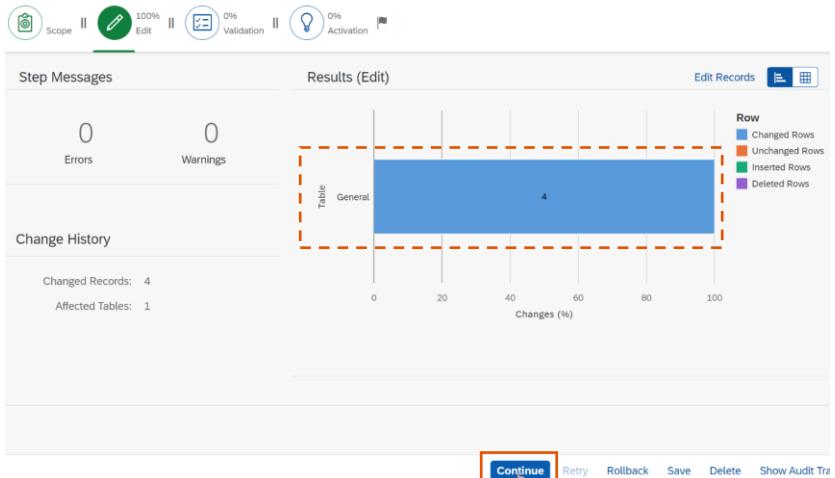
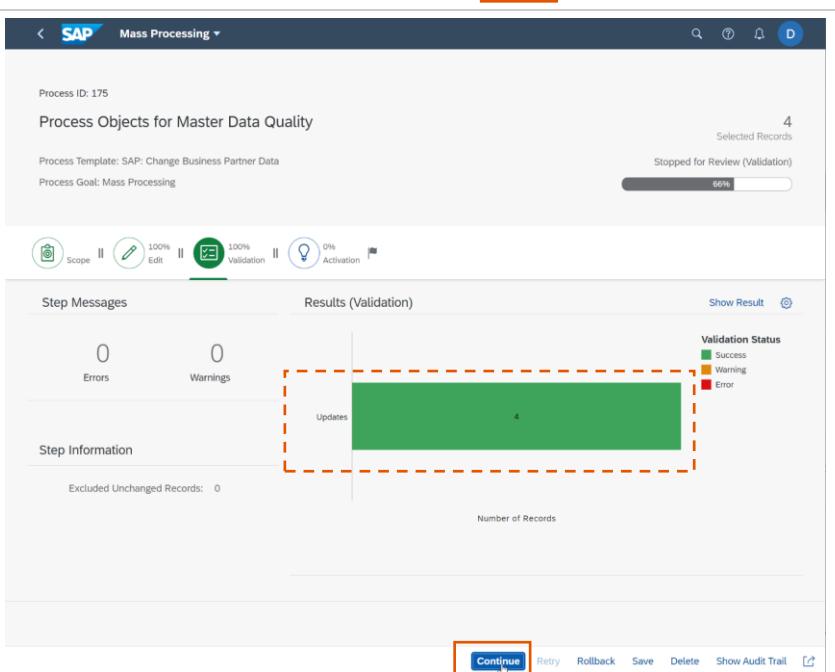
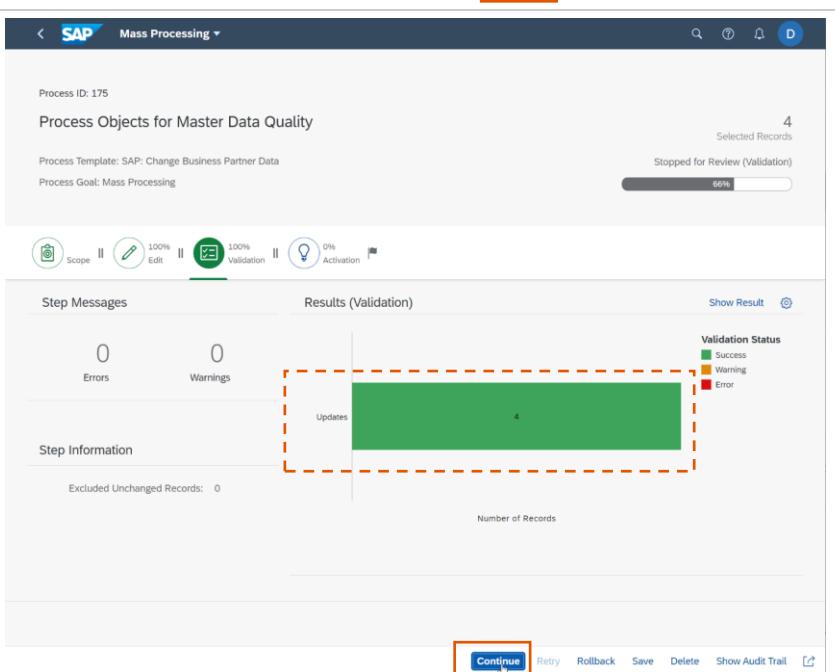
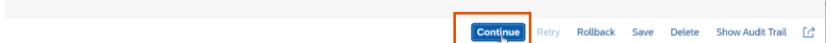
Explanation	Screenshot
<p>The graphical filter that you would like to use in this section is called Outcome. This is the evaluation result per single check with the results “OK” or “Not OK”.</p> <p>13. Click Outcome</p>	
<p>The graphical display in the middle should now be telling you that there are 4 Not Ok and the 10 OK items.</p> <p>To save some screen space, you can hide the upper filter area.</p> <p>14. Click the UP ARROW ^ (in the middle of the screen)</p>	
<p>You want to now drill-down further into the analytics of your results.</p> <p><i>In a real-world scenario, you might be seeing thousands of items here. For this workshop, we will keep it simple and use just a few. But imagine applying the following to a much larger amount of data.</i></p> <p>Add another drill-down dimension</p>	
<p>15. Click View By</p> <p>16. Click Country/Region Key</p> <p>The additional dimension has now been added to the analysis.</p> <p>Please note the bread-crumb on the top left of this section. You could add more drill-down dimensions if you like or use the bread-crumb to remove some.</p> <p>But for now, you would just like to render this result differently...</p>	

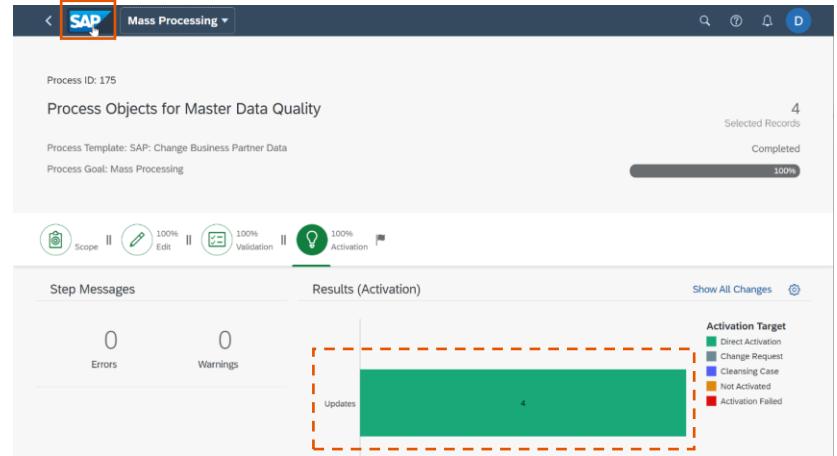
Explanation	Screenshot
<p>...you would like to switch to a column chart display.</p>	
<p>17. Click Select Chart Type (at the right side)</p> <p>18. Click Column Chart</p>	
<p>A column chart is now displayed. You then want to fine-tune the way it is presented.</p>	
<p>You want to see the outcome (OK, Not OK) as two differently colors in the bars for each country.</p> <p>19. Click Settings</p> <p>20. Select Stacked Column Chart (at the top)</p> <p>21. In the line for Outcome, select to display this information as Series</p>	
<p>Apply your new settings.</p> <p>22. Click OK</p>	

Explanation	Screenshot
<p>You have now prepared your graphical filter to best suit the interactive work on the data that needs correction.</p>	
<p>Keep in mind that (in a real-world scenario) you would be working on huge amounts of data. You would use the graphics to slice-and-dice the found issues to identify clusters that can be corrected together.</p>	
<p>Let's first look at data issues in Germany.</p>	
<p>23. Click the part of column representing Not Ok / Germany</p>	
<p>Note how the selection of records below reacts to your selections, from 14 before you click...</p>	
<p>...two only the 2 in Germany after you selected the column.</p>	
<p>You now want to add the data not ok in the USA as well. You hence additionally select that column.</p>	
<p>24. Click the column representing Not Ok / USA</p>	
<p>Note that you can select and de-select columns by clicking them. Accordingly, both (Germany and USA) are now selected and could each be de-selected with a click.</p>	
<p>After you selected both columns as mentioned above, you selected 4 records in 2 countries. All have the same issue: the title is missing.</p>	
<p>The purpose of this selection is that you want to process all similar issues that you selected at once.</p>	
<p>25. Click Process → All</p>	

Explanation	Screenshot
<p>You have now started an SAP MDG mass process to correct all selected issues at once.</p> <p>You are taken to the overview screen for this process where you can see various information.</p>	
<p>The 4 records you selected have been transferred into the process. The process will have multiple steps and is yet to start: “Saved (Not Started), progress = 0%.</p> <p>Please keep the default configuration settings for the process and start it.</p>	
<p>26. Click Start (at the bottom)</p>	
<p>The process will automatically pause at the second step (Edit).</p> <p>In the graphics you see that so far there are only “unchanged” items. (<i>Remember, there could be huge data amounts. These statistics help you to keep track of your work.</i>)</p>	
<p>You can now do the intended changes.</p>	
<p>27. Click Edit Records</p>	
<p>The edit screen allows you to see and edit all records at once.</p>	
<p>The field Title that you would like to correct is part of the “General Data” of a business partner.</p>	
<p>28. Click General</p>	

Explanation	Screenshot
<p>Often you know that for several items you can add the same value.</p> <p>Here, you select all male persons and enter the same title for both.</p> <p>29. Click Replace Values (2)</p> <p><i>Note that the “(2)” indicates how many objects you will change.</i></p>	
<p>Use the value help and select the value that you will use to replace all current values in the selected objects.</p> <p>30. Click the value help on the field Title in the popup</p> <p>31. Click 0002 Mr. in the second popup</p>	 
<p>Replace all values with the selected new value.</p> <p>32. Click Replace</p>	
<p>Manually maintain the title for the remaining persons.</p> <p>33. Enter 0001 or use value help</p> <p>The column Changes provides information on all changes that have already been done, indicating which field has been changed and what the old and new values are.</p> <p>34. Click 1 Change in one of the changed rows</p>	 

Explanation	Screenshot
Navigate back to the process overview screen.	
35. Click < (Back) in the top left corner	
As you can see, the graphic now displays that all 4 items have been changed .	
You now want to continue the mass process to have the changed data validated against all data quality rules.	
36. Click Continue (at the bottom)	
After completion, the validation result is displayed. All data has been successfully validated .	
<p><i>Maybe worthwhile to mention that this application has been designed to work with huge amounts of data. The actual work is hence always executed in the background. You can leave this application at any time and come back to pick up your work – for example once a larger background job has completed.</i></p>	
You now want to continue the process and activate all changes.	
37. Click Continue	

Explanation	Screenshot
The system “activates” all changes.	
<p>You can again see the statistics. The data has directly been posted to the database tables. There are other potential results, in case of issues or if re-work is needed.</p>	 <p>The screenshot shows the SAP Mass Processing interface. At the top, it displays "Process ID: 175", "Process Objects for Master Data Quality", "Process Template: SAP: Change Business Partner Data", and "Process Goal: Mass Processing". Below this, there are four status indicators: Scope (100% completed), Edit (100% completed), Validation (100% completed), and Activation (100% completed). The Activation section shows 4 Selected Records and 100% Completed. In the main area, there are two tabs: "Step Messages" (0 Errors, 0 Warnings) and "Results (Activation)". The "Results (Activation)" tab shows a green bar indicating 4 Updates. A legend titled "Activation Target" defines the colors: Direct Activation (green), Change Request (grey), Cleansing Case (blue), Not Activated (orange), and Activation Failed (red). A dashed orange box highlights the green bar representing Direct Activation.</p>
<p>38. Click the SAP Logo to return to the home screen</p>	
<p>You have completed this exercise. Please continue with the next.</p>	

Summary

You have completed chapter 2. You have learned...

- ...how you can introduce new master data validation rules based on business needs
- ...the capabilities for data quality evaluation and analysis of the result
- ...which possibilities are offered to efficiently correct data – directly from the evaluation analysis

Chapter 3 – Consolidation of business partner master data

Overview

Estimated time: 30 minutes

Objective

A single source of truth for master data is essential. SAP Master Data Governance lets you integrate data from SAP and non-SAP systems or other sources to reach this goal. In this chapter, you will learn the basics for working with the consolidation capabilities of SAP Master Data Governance. You will start with the import of source data in spreadsheet format and the creation of a consolidation process. Then you will examine the results of each process step. Furthermore, you will learn how to use the match review to understand the result of matching and how to work with match groups and the result of the best record calculation.

Another feature that is highlighted in this chapter, is the derivation of master data as part of the process that can be used, for example to create ERP customer data.

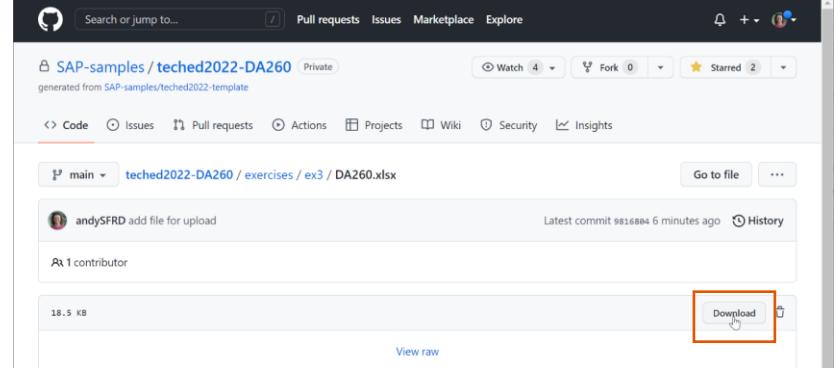
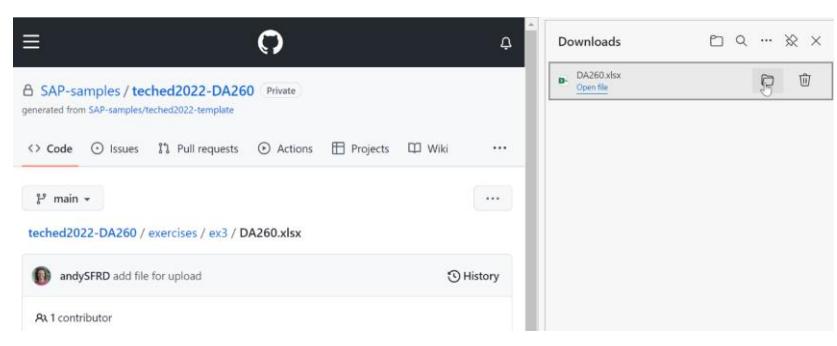
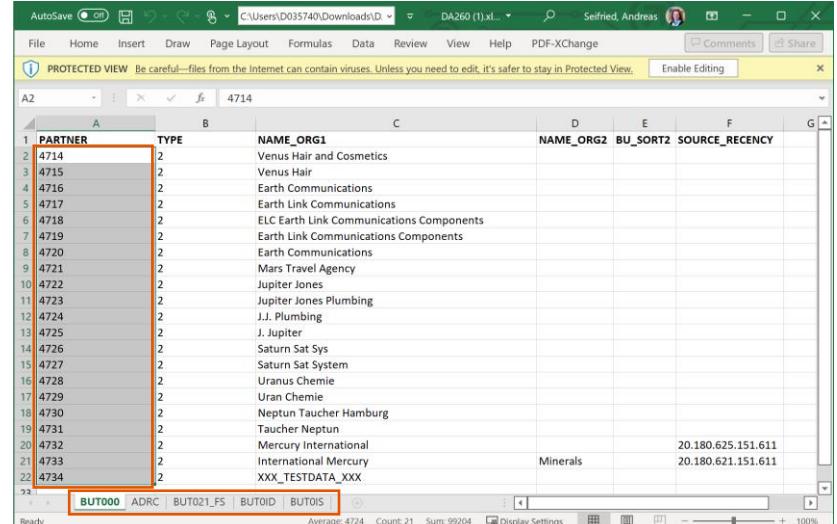
Exercise Description

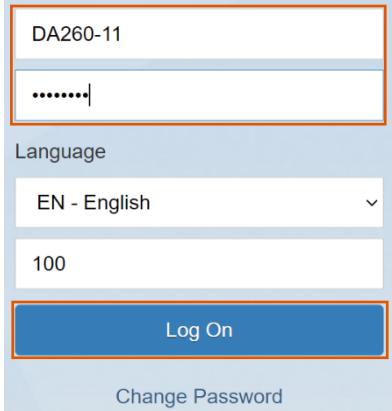
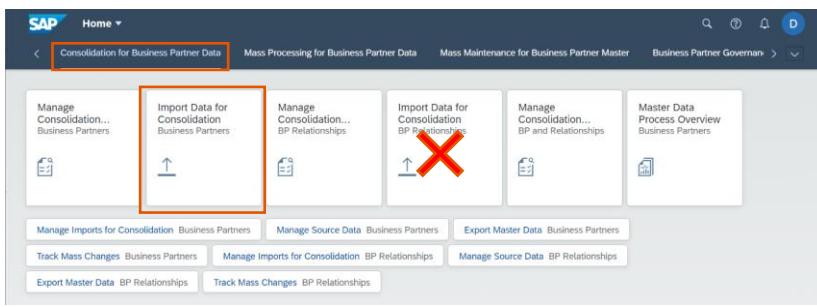
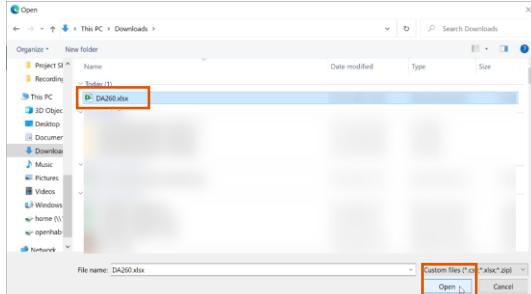
- *Exercise 3.1: Import business partners from spreadsheet file.*
- *Exercise 3.2: Create and start consolidation process.*
- *Exercise 3.3: Validate imported data.*
- *Exercise 3.4: Enhance and standardize addresses.*
- *Exercise 3.5: Find duplicates.*
- *Exercise 3.6: Merge duplicates with best record calculation.*
- *Exercise 3.7: Automated creation of ERP customer data*
- *Exercise 3.8: Finalize consolidation process.*

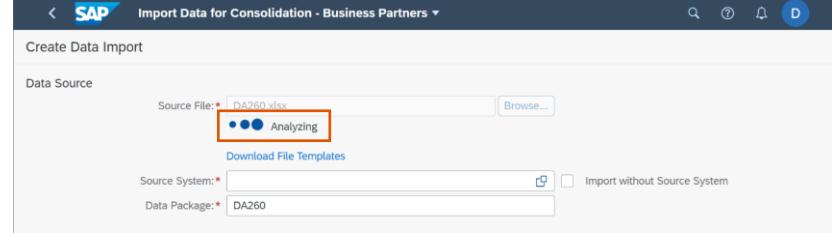
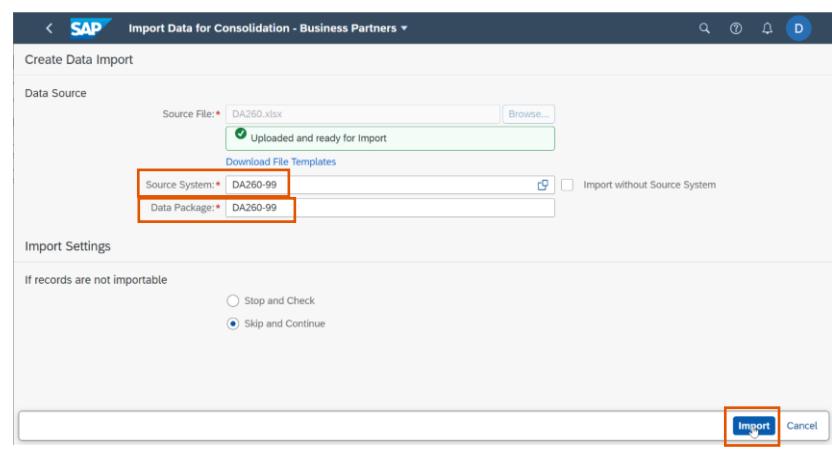
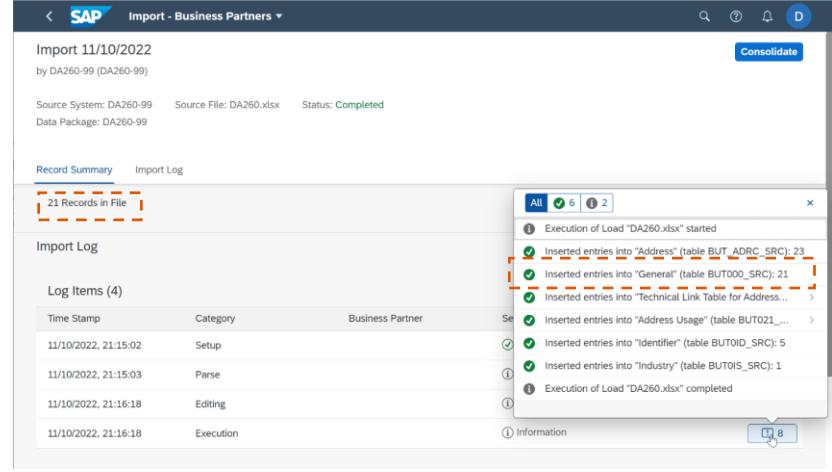
Exercise 3.1 – Import business partners from spreadsheet file

You have some customer data with addresses, and phone numbers, and more in a spreadsheet file. This file is available for download on github.com. You can upload this file using the app Import Data for Consolidation (Business Partners).

Explanation	Screenshot
<p>Download the file with example customer data. The spreadsheet to upload is provided on github.com.</p> <ol style="list-style-type: none"> 1. Open the URL https://github.com/SAP-samples/teched2022-DA260 2. Navigate to chapter 3, exercise 1. 3. Click on the link DA260.xlsx to navigate to the file (do not choose download link!). 	<p>The screenshot shows the content of the README.md file. It starts with a brief introduction about the importance of a single source of truth for master data. Below that, it provides the exercise description: "Exercise 3.1 – Import business partners from spreadsheet file". It explains that the file contains customer data and can be uploaded using the "Manage Imports" app. A note says "Important: Download the spreadsheet DA260.xlsx to use it in this exercise." At the bottom, there is a link to "Exercise 3.2 - Create and start consolidation process".</p>

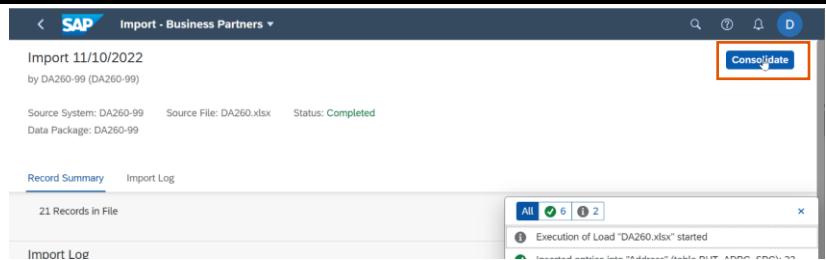
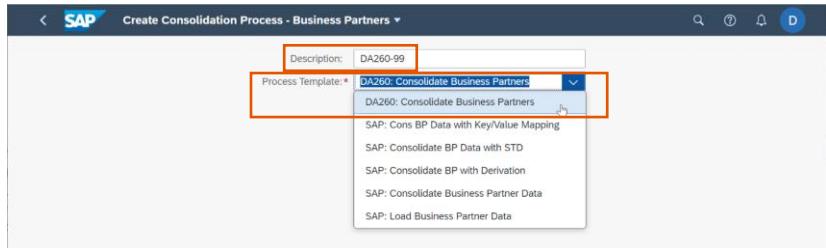
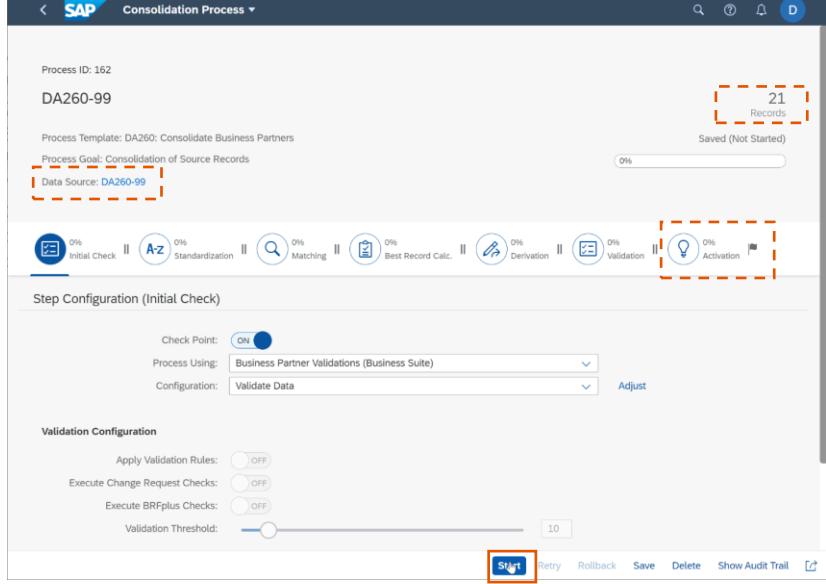
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<p>Download the file.</p> <p>4. Click on the button Download.</p>																																																																																																																																					
<p>Open the file to verify its content.</p> <p>5. Open the Downloads folder. 6. Remember the location of the file for the later upload. 7. Open the file.</p> <p>The steps above might look differently depending on the used browser.</p>																																																																																																																																					
<p>Verify the file's content.</p> <p>8. The file has 5 tabs with various data for 21 business partners.</p>	 <table border="1"> <thead> <tr> <th>PARTNER</th> <th>TYPE</th> <th>NAME_ORG1</th> <th>NAME_ORG2</th> <th>BU_SORT2</th> <th>SOURCE_RECENCY</th> </tr> </thead> <tbody> <tr><td>4714</td><td>2</td><td>Venus Hair and Cosmetics</td><td></td><td></td><td></td></tr> <tr><td>4715</td><td>2</td><td>Venus Hair</td><td></td><td></td><td></td></tr> <tr><td>4716</td><td>2</td><td>Earth Communications</td><td></td><td></td><td></td></tr> <tr><td>4717</td><td>2</td><td>Earth Link Communications</td><td></td><td></td><td></td></tr> <tr><td>4718</td><td>2</td><td>ELC Earth Link Communications Components</td><td></td><td></td><td></td></tr> <tr><td>4719</td><td>2</td><td>Earth Link Communications Components</td><td></td><td></td><td></td></tr> <tr><td>4720</td><td>2</td><td>Earth Communications</td><td></td><td></td><td></td></tr> <tr><td>4721</td><td>2</td><td>Mars Travel Agency</td><td></td><td></td><td></td></tr> <tr><td>4722</td><td>2</td><td>Jupiter Jones</td><td></td><td></td><td></td></tr> <tr><td>4723</td><td>2</td><td>Jupiter Jones Plumbing</td><td></td><td></td><td></td></tr> <tr><td>4724</td><td>2</td><td>J.J. Plumbing</td><td></td><td></td><td></td></tr> <tr><td>4725</td><td>2</td><td>J. Jupiter</td><td></td><td></td><td></td></tr> <tr><td>4726</td><td>2</td><td>Saturn Sat Sys</td><td></td><td></td><td></td></tr> <tr><td>4727</td><td>2</td><td>Saturn Sat System</td><td></td><td></td><td></td></tr> <tr><td>4728</td><td>2</td><td>Uranus Chemie</td><td></td><td></td><td></td></tr> <tr><td>4729</td><td>2</td><td>Uran Chemie</td><td></td><td></td><td></td></tr> <tr><td>4730</td><td>2</td><td>Neptun Taucher Hamburg</td><td></td><td></td><td></td></tr> <tr><td>4731</td><td>2</td><td>Taucher Neptun</td><td></td><td></td><td></td></tr> <tr><td>4732</td><td>2</td><td>Mercury International</td><td></td><td></td><td>20.180.625.151.611</td></tr> <tr><td>4733</td><td>2</td><td>International Mercury</td><td>Minerals</td><td></td><td>20.180.621.151.611</td></tr> <tr><td>4734</td><td>2</td><td>XXX_TESTDATA_XXX</td><td></td><td></td><td></td></tr> </tbody> </table>	PARTNER	TYPE	NAME_ORG1	NAME_ORG2	BU_SORT2	SOURCE_RECENCY	4714	2	Venus Hair and Cosmetics				4715	2	Venus Hair				4716	2	Earth Communications				4717	2	Earth Link Communications				4718	2	ELC Earth Link Communications Components				4719	2	Earth Link Communications Components				4720	2	Earth Communications				4721	2	Mars Travel Agency				4722	2	Jupiter Jones				4723	2	Jupiter Jones Plumbing				4724	2	J.J. Plumbing				4725	2	J. Jupiter				4726	2	Saturn Sat Sys				4727	2	Saturn Sat System				4728	2	Uranus Chemie				4729	2	Uran Chemie				4730	2	Neptun Taucher Hamburg				4731	2	Taucher Neptun				4732	2	Mercury International			20.180.625.151.611	4733	2	International Mercury	Minerals		20.180.621.151.611	4734	2	XXX_TESTDATA_XXX			
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Explanation	Screenshot
<p>Each workshop participant uses a different username. Please make sure, to use the correct participant number as indicated through a sign on your table.</p> <ol style="list-style-type: none"> 9. Open the Fiori Launchpad URL displayed on the board 10. Enter DA260-## as username (where ## represents your participant number, for example enter DA260-04 or DA260-23) 11. Enter the password *) 12. Then click Log On 	
<p>*) The password will be provided by your instructor in the workshop.</p>	
<p>Launch the app Import Data for Consolidation (Business Partners)</p>	
<ol style="list-style-type: none"> 13. Navigate to the tile group Consolidation for Business Partner Data. 14. Click on the tile Import Data for Consolidation (Business Partners). 	
<p>Take care to not accidentally launch any of the other apps for import!</p>	
<p>The screen Create Data Import is displayed.</p>	
<p>Select the file DA260.xlsx that you downloaded previously.</p>	
<ol style="list-style-type: none"> 15. Click on Browse... . 16. Navigate to the folder where you have downloaded the file and select the file DA260.xlsx 17. Click on Open. 	

Explanation	Screenshot
<p>The file is uploaded and analyzed.</p>	
<p>Once the file is uploaded and ready for import, enter Source System and Data Package.</p> <p>18. Enter your user ID DA260-## as Source System. 19. Enter your user ID DA260-## as Data Package. 20. Click on Import.</p>	
<p>These values allow you to uniquely select your uploaded data for consolidation.</p> <p>Furthermore, what you cannot see is that the system is enhanced for the purpose of this workshop to fill Search Term 1 with your user ID. We use this to separate each participant's data set during matching and to make it possible for you to identify your data even after the consolidation process is completed.</p>	
<p>The system imports the data in the uploaded file to the staging Source Data tables.</p> <p>21. Verify that 21 records are in the file. 22. Confirm that 21 entries were inserted into table BUT000_SRC.</p> <p>You have completed this exercise.</p>	

Exercise 3.2 – Create and start consolidation process

After having imported the data from the file, you start a consolidation process.

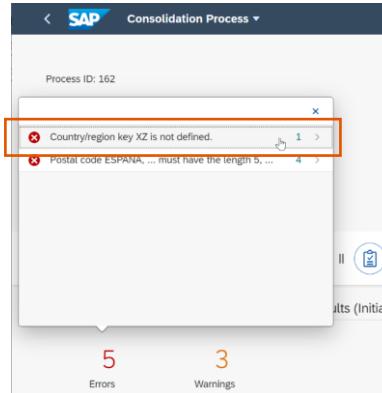
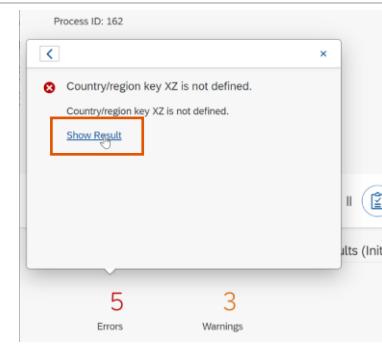
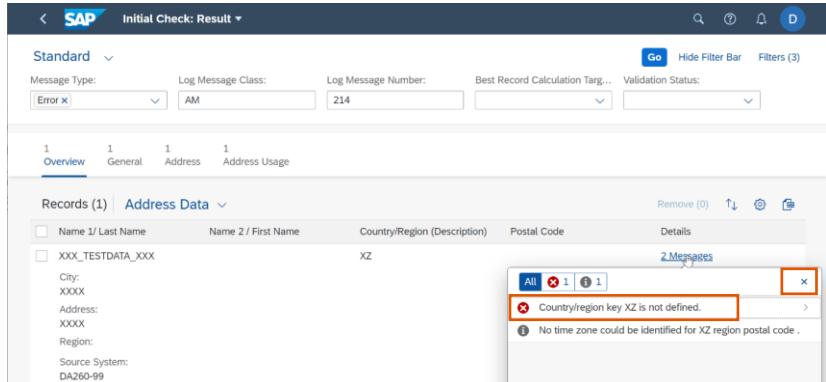
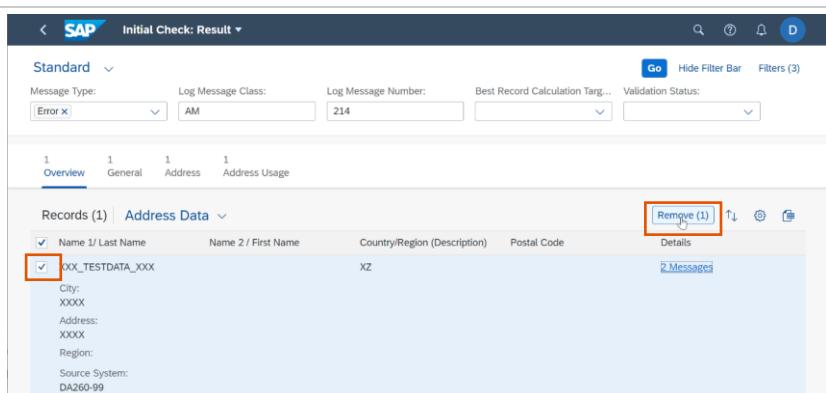
Explanation	Screenshot
<p>Create a consolidation process for the data that you imported in the previous exercise.</p>	
<p>1. Click on Consolidate.</p> <p>Provide a description of your process to identify it later. Consolidation processes consist of multiple steps, which are defined by the used process template.</p> <p>2. Enter DA260-## as Description.</p> <p>3. Select DA260: Consolidate Business Partners as the Process Template.</p>	
<p>Confirm your entries.</p> <p>4. Click on Save.</p>	
<p>A consolidation process with the steps defined by the template is created. It processes the data of the data source that you created with your import. Consequently, there are 21 records in the process. No process step was executed yet and a progress of 0% is displayed. The configuration of the selected step Initial Check is displayed. Note that the switch Check Point is switched on.</p> <p>Note: depending on the width of the screen you might see the button More or all steps of the process like on the screenshot.</p> <p>5. Click on Start.</p>	

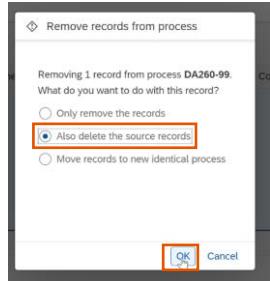
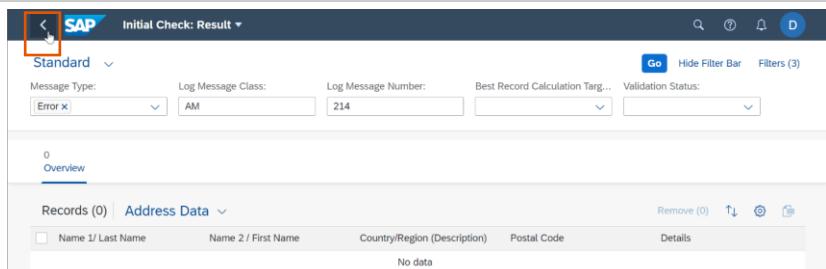
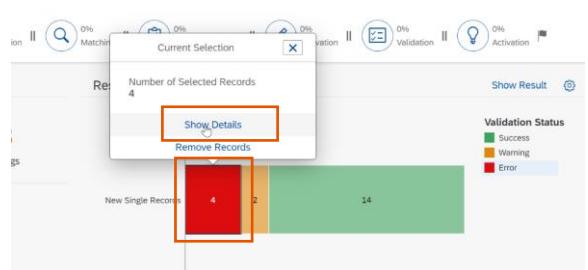
Explanation	Screenshot								
<p>The system starts the execution of the first process step. The switch Check Point of step Initial Check was switched on, so the execution does not proceed with the next step. The results of the selected step Initial Check are displayed and are examined in the next exercise.</p> <p>You have completed this exercise.</p>	<p>Process ID: 162 DA260-99 Process Template: DA260: Consolidate Business Partners Process Goal: Consolidation of Source Records Data Source: DA260-99</p> <p>Step Messages</p> <p>Results (Initial Check)</p> <p>Validation Status: Success (Green), Warning (Yellow), Error (Red)</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>New Single Records</td> <td>5</td> </tr> <tr> <td>Warnings</td> <td>2</td> </tr> <tr> <td>Success</td> <td>14</td> </tr> </tbody> </table> <p>Number of Records</p> <p>Buttons: Continue, Retry, Rollback, Save, Delete, Show Audit Trail</p>	Type	Count	New Single Records	5	Warnings	2	Success	14
Type	Count								
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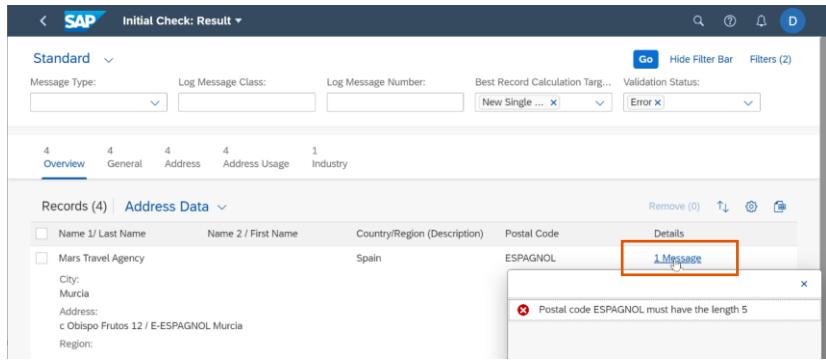
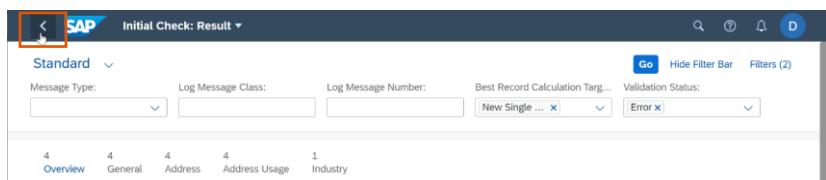
Exercise 3.3 – Validate imported data

After an initial check you review the uploaded data and can make manual changes.

Explanation	Screenshot								
<p>The execution of the initial check produced 5 errors that you want to examine.</p> <ol style="list-style-type: none"> Click on the number 5. 	<p>Process ID: 162 DA260-99 Process Template: DA260: Consolidate Business Partners Process Goal: Consolidation of Source Records Data Source: DA260-99</p> <p>Step Messages</p> <p>Results (Initial Check)</p> <p>Validation Status: Success (Green), Warning (Yellow), Error (Red)</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>New Single Records</td> <td>5</td> </tr> <tr> <td>Warnings</td> <td>2</td> </tr> <tr> <td>Success</td> <td>14</td> </tr> </tbody> </table> <p>Number of Records</p> <p>Buttons: Continue, Retry, Rollback, Save, Delete, Show Audit Trail</p>	Type	Count	New Single Records	5	Warnings	2	Success	14
Type	Count								
New Single Records	5								
Warnings	2								
Success	14								

Explanation	Screenshot										
<p>The pop-up displays the number of errors categorized by error message. You want to see the details of the first type of error.</p> <p>2. Click on Country/region key xz is not defined.</p>	 <p>The screenshot shows a SAP interface titled "Consolidation Process". A pop-up window is displayed with the following error message: Country/region key XZ is not defined. Postal code ESPANA, ... must have the length 5, ... 5 Errors 3 Warnings</p>										
<p>You want to see which records produced this error.</p> <p>3. Click on Show Result.</p>	 <p>The screenshot shows a SAP interface titled "Initial Check: Result". A pop-up window is displayed with the following message: Country/region key XZ is not defined. Show Result 5 Errors 3 Warnings</p>										
<p>You are provided with a tabular display of the record that produced this error. Actually, this record produced 2 messages.</p> <p>4. Click on 2 Messages to display more information</p> <p>5. After you have ready the information, close the pop-up</p>	 <p>The screenshot shows a SAP interface titled "Initial Check: Result". A table is displayed with the following data: Records (1) Address Data <table border="1"> <thead> <tr> <th>Name 1 / Last Name</th> <th>Name 2 / First Name</th> <th>Country/Region (Description)</th> <th>Postal Code</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>XXX_TESTDATA_XXX</td> <td></td> <td>XZ</td> <td></td> <td>2 Messages</td> </tr> </tbody> </table> The "2 Messages" link is highlighted with a red box. Below the table, there is a message: "Country/region key XZ is not defined." and "No time zone could be identified for XZ region postal code." with a red box around the first message.</p>	Name 1 / Last Name	Name 2 / First Name	Country/Region (Description)	Postal Code	Details	XXX_TESTDATA_XXX		XZ		2 Messages
Name 1 / Last Name	Name 2 / First Name	Country/Region (Description)	Postal Code	Details							
XXX_TESTDATA_XXX		XZ		2 Messages							
<p>The error comes from a record that apparently was created for some tests and was accidentally included in the file. You want to remove the record.</p> <p>6. Mark the check box of the record XXX_TESTDATA_XXX</p> <p>7. Click on Remove (1)</p>	 <p>The screenshot shows a SAP interface titled "Initial Check: Result". The same table is displayed, but now the checkbox next to the record "XXX_TESTDATA_XXX" is checked. The "Remove (1)" button is highlighted with a red box.</p>										

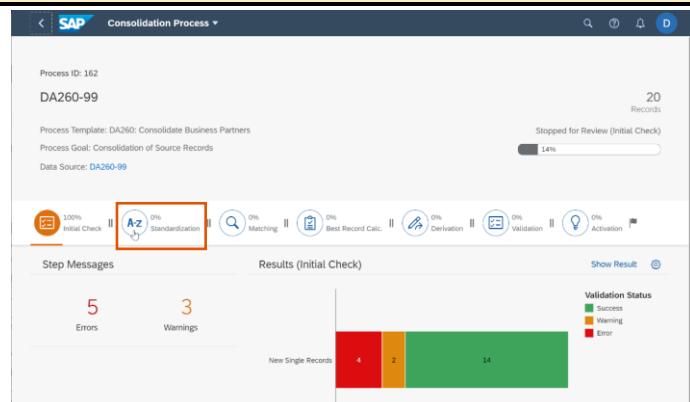
Explanation	Screenshot
<p>You have 3 options when removing a record from a process:</p> <ul style="list-style-type: none"> - Only remove the record from the process and leave the records in the staging Source Data tables. You can again use the record in a consolidation process. - Remove from the process and also delete the record from the staging Source Data tables. - Move the record in the state of the current process to a new process. 	
<p>8. Select Also delete the source records 9. Click on OK</p>	
<p>The system deletes the record from the process and its data from the source data tables.</p>	
<p>10. Click on < Back</p>	
<p>You also want to examine the other 4 errors. The UI also provides a diagram that displays the number of records with errors and number of records in the other statuses. You see that the 4 remaining errors come from 4 records.</p>	
<p>11. Click on the part of the diagram representing the 4 records with errors. 12. Click on Show Details.</p>	

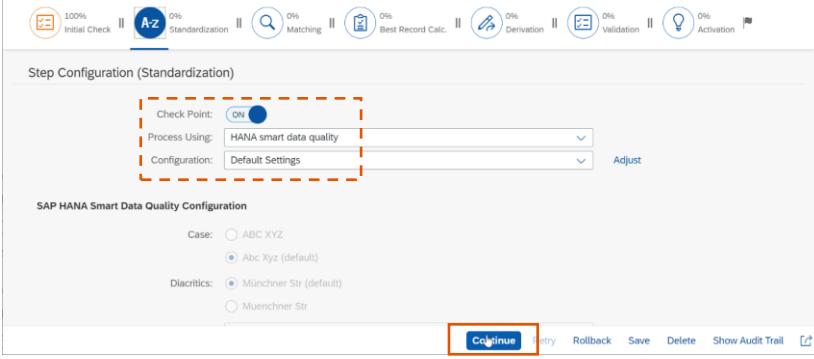
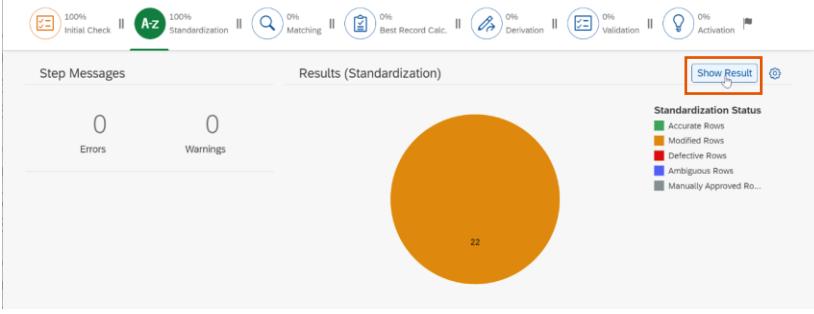
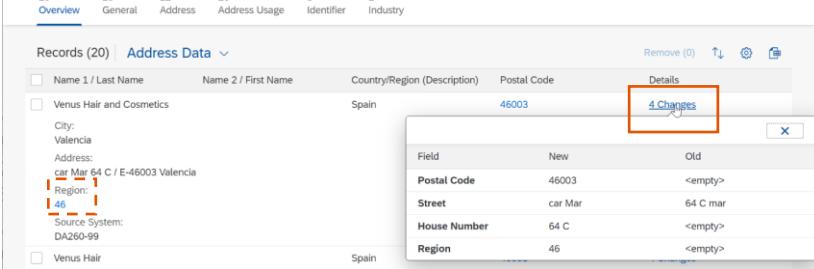
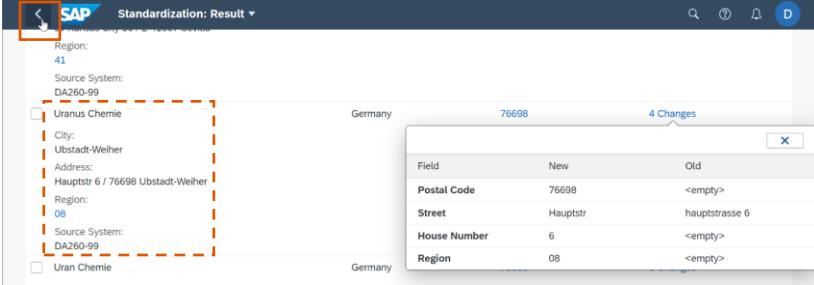
Explanation	Screenshot
<p>You are presented with the 4 records with errors. The column Details displays the number of messages as a link to more information.</p>	 <p>The screenshot shows the SAP Initial Check: Result interface. A record for 'Mars Travel Agency' is selected. The 'Postal Code' field contains 'ESPAGNOL'. A validation message 'Postal code ESPAGNOL must have the length 5' is displayed in a pop-up window. The 'Details' link in the 'Messages' column of the table is highlighted with a red box.</p>
<p>13. Click on 1 Message of the first row.</p> <p>You see that the field Postal Code contains invalid data. You also see that there are further issues with the record, for example there is no region given.</p>	
<p>14. Close the pop-up.</p>	
<p>You see that the other 3 records suffer from the same defects. For this exercise we want to see how these defects can be corrected automatically. Therefore, leave all data unchanged.</p>	 <p>The screenshot shows the SAP Initial Check: Result interface again. The same record for 'Mars Travel Agency' is selected, but the validation message is no longer visible. The 'Details' link in the 'Messages' column is still present.</p>
<p>15. Click < Back</p>	
<p>You have completed this exercise.</p>	

Exercise 3.4 – Enhance and standardize addresses

In this exercise, you use the address standardization functionality of SAP Data Quality Management that is integrated in SAP Master Data Governance to validate and correct the addresses in the uploaded data.

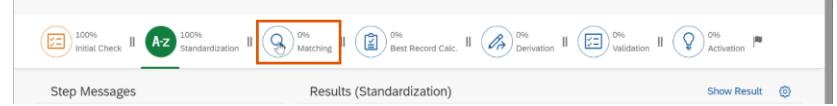
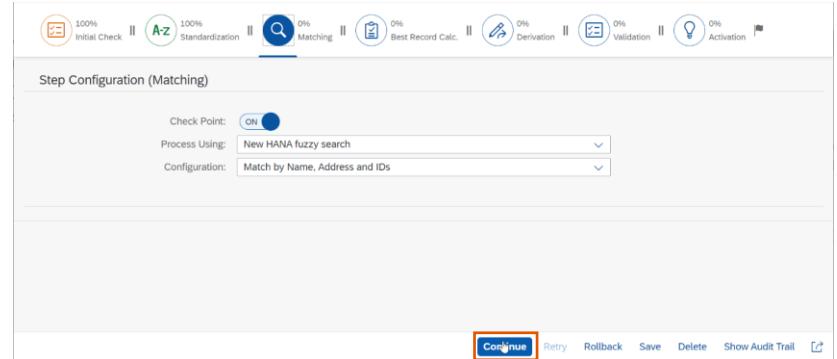
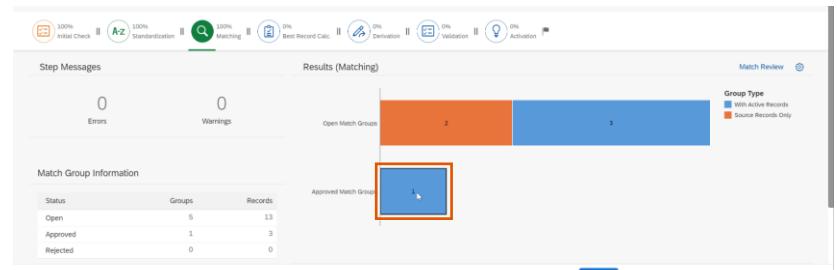
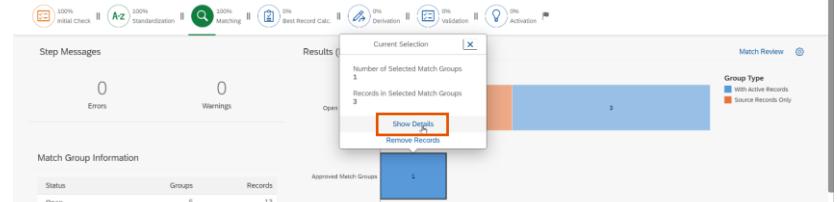
Note: SAP Data Quality Management requires an additional license besides SAP Master Data Governance. For legal reasons, the system that is used in this workshop is only set up for a very limited range of addresses.

Explanation	Screenshot
<p>The next step of the process is Standardization. Have a look at its configuration.</p>	 <p>The screenshot shows the SAP Consolidation Process interface. The 'Standardization' step is selected and highlighted with a red box. The status bar indicates '20 Records' and 'Stopped for Review (Initial Check)'. The results section shows 5 Errors and 3 Warnings.</p>
<p>1. Click on Standardization.</p> <p>Note: Regardless which step is selected for display, the system always executes the next step that was not yet executed when you click on Continue.</p>	

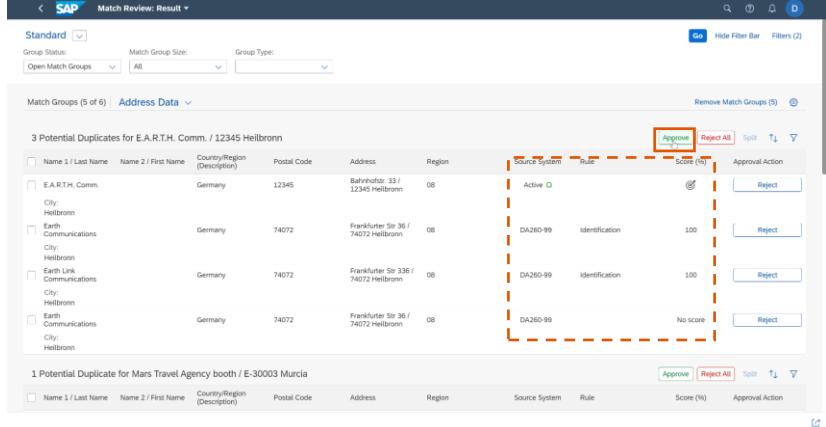
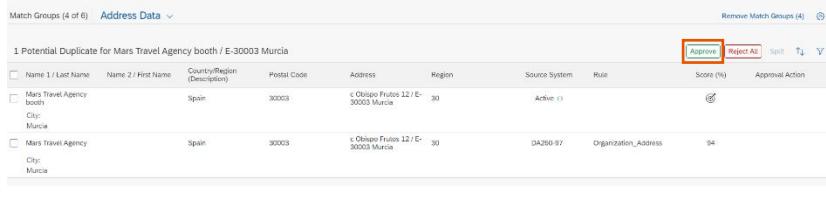
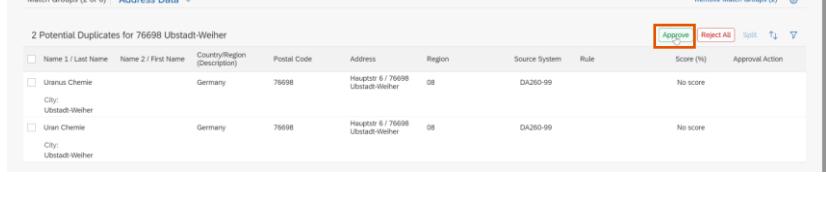
Explanation	Screenshot
<p>Technically, the smart data quality features of SAP HANA are used.</p> <p>2. Click on Continue.</p>	
<p>It should only take a few seconds to perform this operation. Once finished, examine the results.</p> <p>3. Click on Show Result.</p>	
<p>You can see the adjustments for each record. Changes are indicated in blue. You can also use the summary provided in the column Details.</p> <p>4. Click on 4 Changes.</p>	
<p>You can also have a look at the other records. Once you are done, return to the display of the process.</p> <p>5. Click on < Back.</p> <p>You have completed this exercise.</p>	

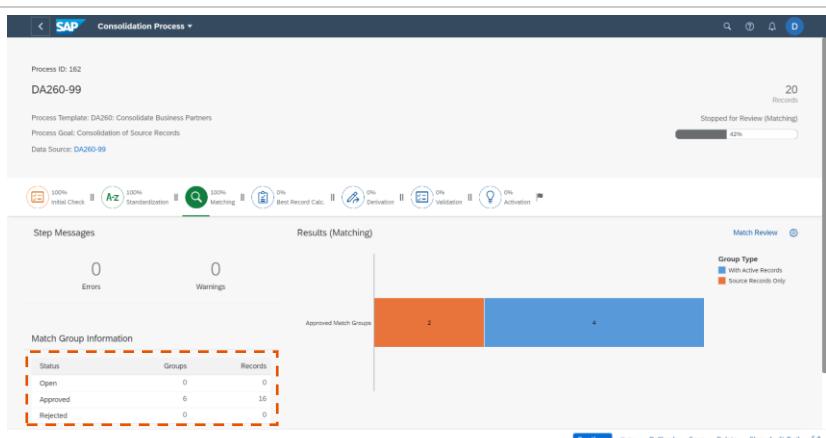
Exercise 3.5 – Find duplicates

The consolidation process that you run uses features of SAP HANA that are integrated in SAP Master Data Governance for searching and matching. These features are applied to the uploaded data to detect duplicates in the uploaded data and to identify corresponding data that is already in the system. This results in match groups of identical, or at least similar records.

Explanation	Screenshot
Display the configuration of the step Matching.	
The fuzzy search capabilities of SAP HANA are used in this exercise. You can choose from configurations that are created using the app Configure Matching (Consolidation).	
2. Click on Continue .	
The system searches for duplicates in the uploaded data and also tries to match the uploaded business partners with existing business partners in the system. Similar business partners are combined in match groups. Depending on the similarity match groups can be automatically approved or are in status open for manual review.	
3. Click on the part of the diagram representing the single approved match group.	
You see that there are 3 records in the selected match group. Display more information.	
4. Click on Show Details .	

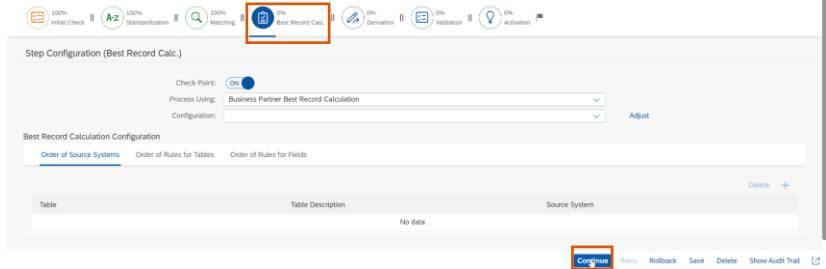
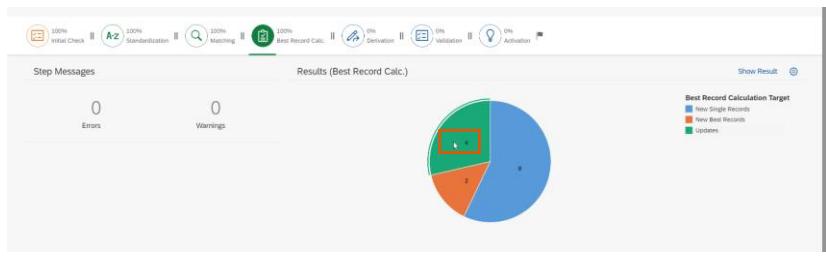
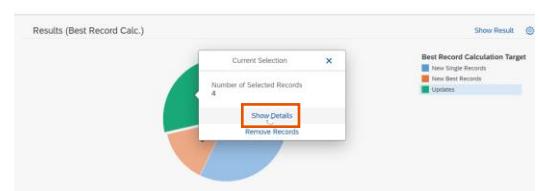
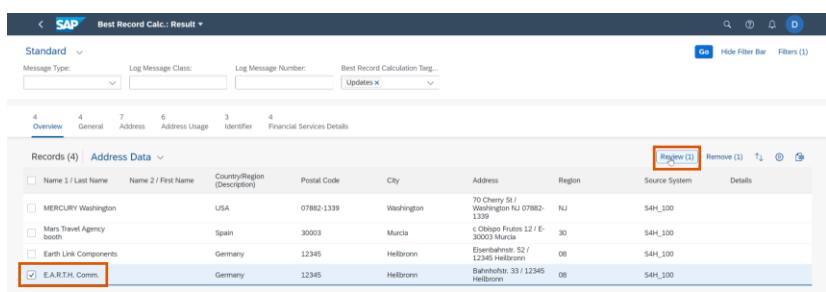
<p>Explanation</p> <p>The match group contains 3 records. The first record is an already existing business partner in the system. It was chosen as the target record to potentially receive updates from the other records in the group. The other records come from the uploaded spreadsheet, as indicated by the value in Source System. You also see by which match rule the record was put in the group, and which score the comparison produced. Switch the view from Address Data to Identifiers.</p> <p>5. Click the down arrow 6. Click on Identifiers</p> <p>You see that all records share the same identification number.</p> <p>7. Click on < Back</p> <p>Before the system can continue with the process, you need to make your decision on the match groups in status open.</p> <p>8. Click on Match Review.</p>	<p>Screenshot</p>
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Explanation	Screenshot
<p>The group E.A.R.T.H. Comm. contains 4 records. Like the previous group, it has one active record, chosen as the target. 3 records come from the uploaded data. 2 of them were matched directly to the target record, because of their identification numbers. The 3rd record is a so call “indirect match”. It is not similar enough to the target record, but has a similarity with at least one of the other imported records. Therefore, there is no score displayed for this record. You decide that the 4 records are duplicates and approve the match group.</p>	
<p>9. Click on Approve.</p> <p>The system displays the next match group for approval. The first record is an active record from the system. The second record comes from the uploaded spreadsheet and was matched with the rule Organization_Address and score 94. You decide that these are duplicates and approve the match group.</p>	
<p>10. Click on Approve.</p>	
<p>The system displays the next match group for approval. The match rule that was used to group a record and the score is only available if there is an active record in the group. You decide that these are duplicates.</p>	
<p>11. Click on Approve.</p>	
<p>Also approve the next group.</p>	
<p>12. Click on Approve.</p>	

Explanation	Screenshot
<p>The last group contains an active record. Here, you can see that it is not only possible to approve or reject a group. You could also decide to remove single records from the group. Such rejected records would then be used to create a new business partner in the system. However, for this exercise, also approve the group.</p>	
<p>13. Click on Approve.</p>	
<p>You have decided on all open match groups. Return to the process display.</p>	
<p>14. Click < Back</p>	
<p>The result of the Matching step is updated to display that there are no more groups in status open, none rejected, all are approved.</p>	
<p>You have completed this exercise.</p>	

Exercise 3.6 – Merge duplicates with best record calculation

After the match review and your decision on match groups in status open, the best record calculation will merge the data of each match group.

Explanation	Screenshot
<p>Display the configuration of the step Best Record Calculation. In this step the information from all records in a match group is combined to produce a best record for each group. You can influence how this is done, for example by preferring a particular system. For this exercise we will just use the default behavior. This prefers the data of active business partners. If there is no active business partner in a group, an arbitrary member is chosen as the best record.</p>	
<p>1. Click on Continue.</p>	
<p>A diagram displays the number of groups per target. There are 8 records without another matching record. There are 2 match groups for which the system produced a best record that will be used to create a new business partner. There are 4 groups with an active record. The results of the best record calculation will be used to update the active record. Let's examine one example.</p>	
<p>2. Click on the part of the diagram representing the 4 updates</p> <p>3. Click on Show Details</p>	
<p>The result of the best record calculation is displayed for each group. You can review and change how these results were produced.</p>	

Explanation

This is the group that you approved manually in matching. You see that the best record is produced using the 4 records in the group. You also see that the information from the active record (source system is S4H_100) was used to produce the name E.A.R.T.H. Comm. Let's see how you can change this manually.

- Click on the **table settings** icon

Screenshot

Record Identification	Source System	Source ID	Partner Cat.	Title	Search Term 1	Rules
EARTH Comm.	S4H_100	0001001872	2		DA260-99	
Earth Communications	DA260-99	4716	2		DA260-99	
Earth Link Communications	DA260-99	4717	2		DA260-99	
Earth Communications	DA260-99	4720	2		DA260-99	
E.A.R.T.H. Comm.	S4H_100	0001001872	2		DA260-99	

Add the field Name 1 as an additional column.

- Select **Name 1**

- Click on **OK**

Switch to edit mode.

- Click on **Edit**.

You could enter values directly in the fields. However, you can also copy the data of all fields that are in edit mode from one source record to the best record using drag and drop.

- Hover the mouse pointer over the record Earth Link Communications. The pointer changes to the hand symbol.
- Click and hold to mouse button to drag...

Explanation

12. ... the record to the best record

13. Then, release the mouse button

Name 1 has changed to the value of the dragged record.

14. Click on **Save**

Screenshot

Record Identification	Source System	Source ID	Partner Cat.	Title	Search Term 1	Name 1	Rules
EARTH Comm.	SAH_100	0001001872	2		DA260-99	Earth Link Communications	

Source Records (4)

Record Identification	Source System	Source ID	Partner Cat.	Title	Search Term 1	Name 1	Rules
Earth Communications	DA260-99	4716	2		DA260-99	Earth Communications	
Earth Link Communications	DA260-99	4717	2		DA260-99	Earth Link Communications	
Earth Communications	DA260-99	4720	2		DA260-99	Earth Communications	
EARTH Comm.	SAH_100	0001001872	2		DA260-99	EARTH Comm.	

Let's examine the addresses of the best record.

15. Click on **Address**.

You see that the best record has 3 addresses. When you select an address of the best record, you see from which source record it was produced. The first address comes from the active record with the name E.A.R.T.H. Comm. Since address validation was only applied to the imported business partners, the postal code of this address was not verified. Apparently, it has a wrong value that you want to adjust manually.

Note: you could also start a mass process to validate and enrich addresses of active records or use a process template for consolidation with another address validation step after best record calculation.

16. Click on **Edit**.

Record Identification	Source System	Source ID	Partner Cat.	Title	Search Term 1	Name 1	Rules
Earth Link Communications	SAH_100	0001001872	2		DA260-99	Earth Link Commun...	

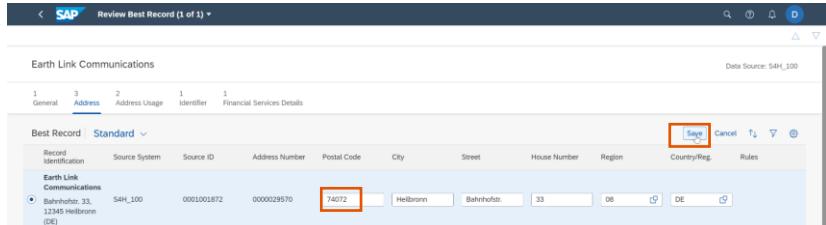
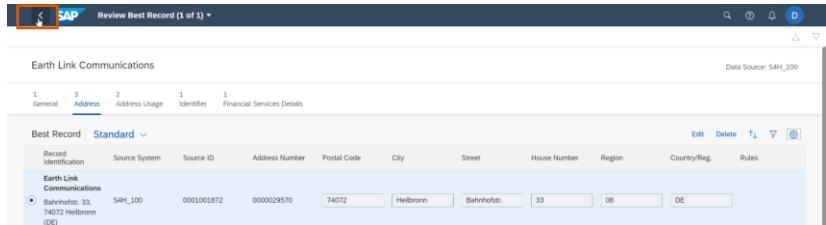
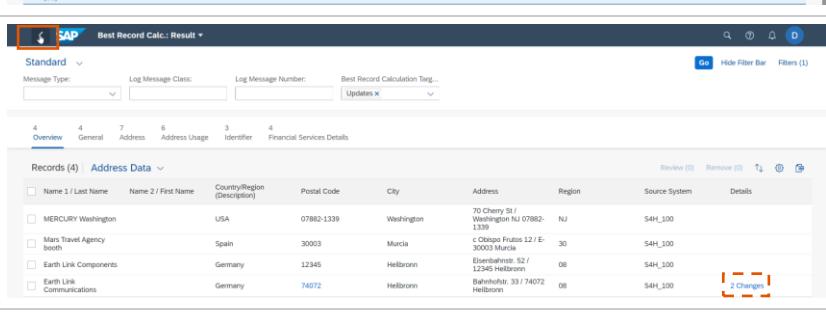
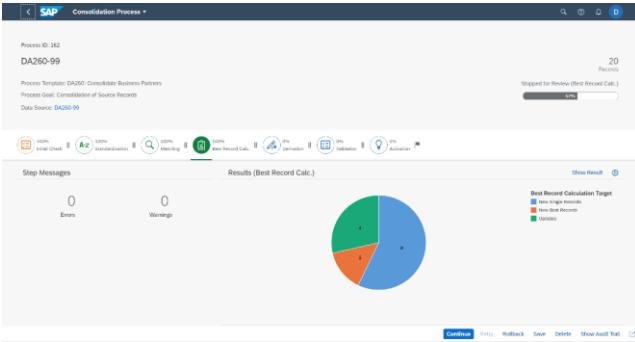
Source Records (4)

Record Identification	Source System	Source ID	Partner Cat.	Title	Search Term 1	Name 1	Rules
Earth Communications	DA260-99	4716	2		DA260-99	Earth Communications	
Earth Link Communications	DA260-99	4717	2		DA260-99	Earth Link Communications	
Earth Communications	DA260-99	4720	2		DA260-99	Earth Communications	
EARTH Comm.	SAH_100	0001001872	2		DA260-99	EARTH Comm.	

Record Identification	Source System	Source ID	Address Number	Postal Code	City	Street	House Number	Region	Country/Reg.	Rules
Earth Link Communications	SAH_100	0001001872	0000029570	12345	Heilbronn	Bahnhofstr.	33	08	DE	

Source Records (1)

Record Identification	Source System	Source ID	Address Number	Postal Code	City	Street	House Number	Region	Country/Reg.	Rules
EARTH Comm.	SAH_100	0001001872	0000029570	12345	Heilbronn	Bahnhofstr.	33	08	DE	

Explanation	Screenshot
<p>Adjust the postal code.</p> <p>17. Change the value of Postal Code to 74072.</p> <p>18. Click on Save.</p>	
<p>You are done with the review of the best record.</p> <p>19. Click < Back to return to the list of best records.</p>	
<p>You can see that you made 2 changes to the best record you have reviewed. You are done with the review of all best records.</p> <p>20. Click < Back.</p>	
<p>You have completed this exercise.</p>	

Exercise 3.7 – Automated creation of ERP customer data

To demonstrate capabilities of derivation rules for automating master data processes, the consolidation process of this exercise uses the step Derivation to enhance the business partners for using them as customers in ERP processes. In this example, business partner grouping, roles, and general customer data are added. Furthermore, example data on company code-level is derived.

Explanation	Screenshot
<p>See the configuration of step Derivation and execute the step.</p> <ol style="list-style-type: none"> 1. Click on Derivation. 2. Click on Continue. 	
<p>Once processing is complete, the diagram provides you with an overview of the applied changes. For example, you see that general data was changed for 10 of the 14 records. For the exercise we use a simple derivation scenario that only changes business partners of type organization. If time permits, you can review the derivation scenario with the app Manage Derivation Scenarios (Business Partners).</p> <ol style="list-style-type: none"> 3. Click on the part of the diagram representing 10 changed rows for General data. 4. Click on Show Details. 	
<p>You see that the fields Grouping and Correspondence language were automatically filled with BP02 and EN.</p> <ol style="list-style-type: none"> 5. Click on 2 Changes 6. Click on < Back 	
<p>The diagram also indicates that 28 rows were added to Role.</p> <ol style="list-style-type: none"> 7. Click on the part of the diagram representing 28 inserted rows for Role 8. Click on Show Details 	

Explanation

You can see that 2 roles were inserted for each record.

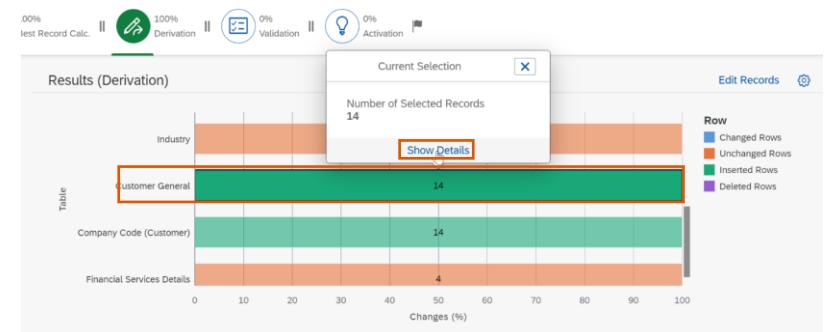
- Click on < Back

Screenshot

14 Overview	14 General	28 Role	17 Address	15 Address Usage	3 Identifier	1 Industry	14 Customer General	14 Company Code (Customer)	4 Financial Services Details

The diagram indicates that 14 rows have been inserted in Customer General data.

- Click on the part of the diagram representing **14 inserted rows** in Customer General data.
- Click on Show Details.



You can see that for each record an **Account group** and a value for **Authorization** were added.

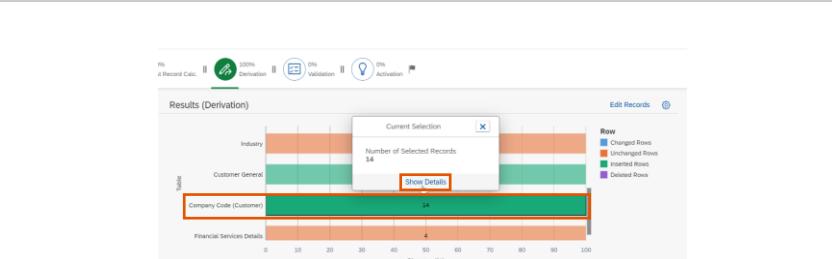
The example derivation scenario only set values for very few fields. Of course, you could add much more information using the functionality.

- Click on < Back

14 Overview	14 General	28 Role	17 Address	15 Address Usage	3 Identifier	1 Industry	14 Customer General	14 Company Code (Customer)	4 Financial Services Details

Finally, there is the last segment Company Code (Customer) into which rows have been inserted.

- Click on the part of the diagram representing **14 inserted rows** in Company Code (Customer).
- Click on Show Details.



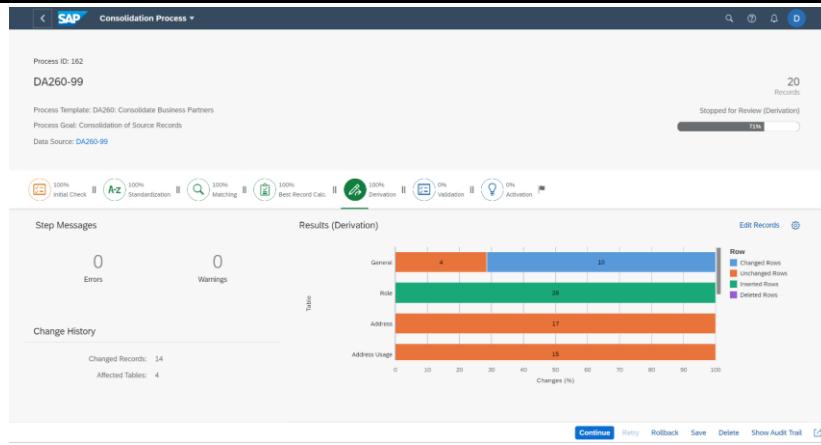
You see that data for company code 0001 was added for each record and a reconciliation account was derived.

- Click < Back

14 Overview	14 General	28 Role	17 Address	15 Address Usage	3 Identifier	1 Industry	14 Customer General	14 Company Code (Customer)	4 Financial Services Details

Explanation

You have completed this exercise.

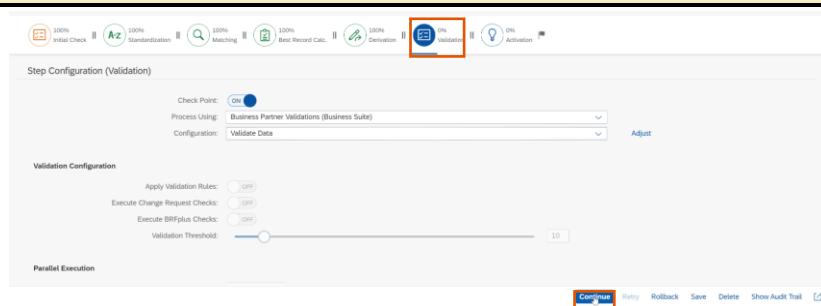
Screenshot**Exercise 3.8 – Finalize consolidation process**

Eventually, the validation and activation steps will bring the loaded data into the system. After finalizing the process, you can check all actions inside this process using the audit trail functionality. Of course, you can also use the app Manage Customer to review the created and updated business partners.

Explanation

Select the validation step to review its configuration then execute the step.

1. Click on **Validation**.
2. Click on **Continue**.

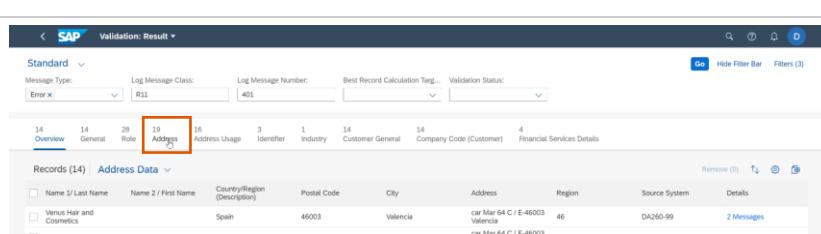
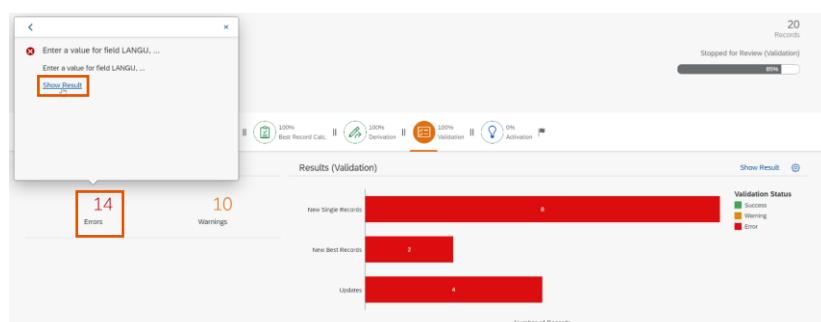
Screenshot

Once completed, you see that there are 14 errors found. You also see that there was no value provided for field Language (LANGU). Obviously, this was omitted in the derivation scenario. Maybe

3. Click on **14 Errors**.
4. Click on **Show Result**.

Switch to the **Address** tab.

5. Click on **Address**.



Explanation

The field Language is not displayed by default, so you have to add it to the table.

- Click on table settings.

Screenshot

The screenshot shows the SAP Fiori table settings dialog. The 'Changes' tab is selected. A red box highlights the 'Language' checkbox in the list of changes.

Add Language to the columns.

- Select **Language**.
- Click on **OK**.

The screenshot shows the SAP Fiori table settings dialog with the 'Language' checkbox selected and highlighted with a red box. The 'OK' button is also highlighted with a red box.

You want to enter a different language per country, so it makes sense to sort by country.

- Click on the symbol for sorting

The screenshot shows the SAP Fiori table with the 'Sort' dialog open. 'Country/Region' is selected and highlighted with a red box. The 'OK' button is also highlighted with a red box.

Sort by Country/Region.

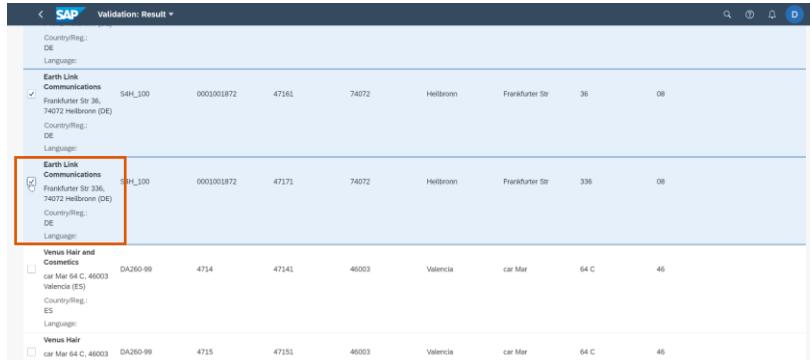
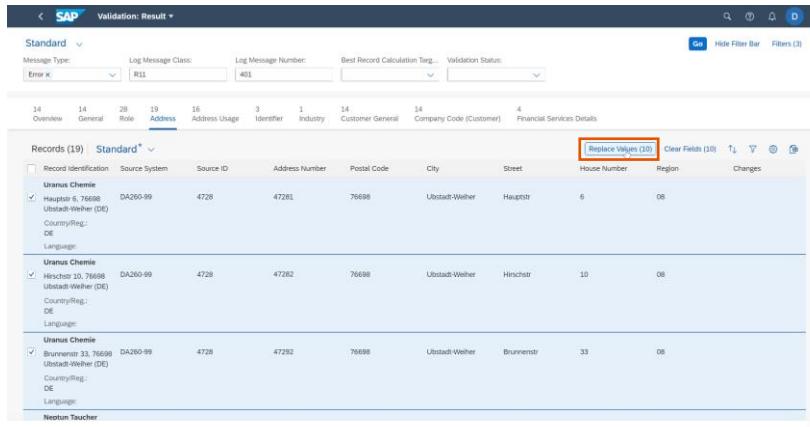
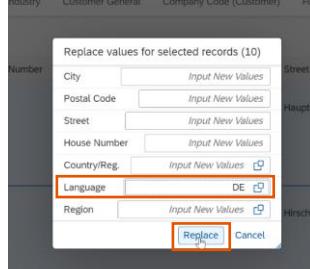
- Select **Country/Region** as the sorting criterion

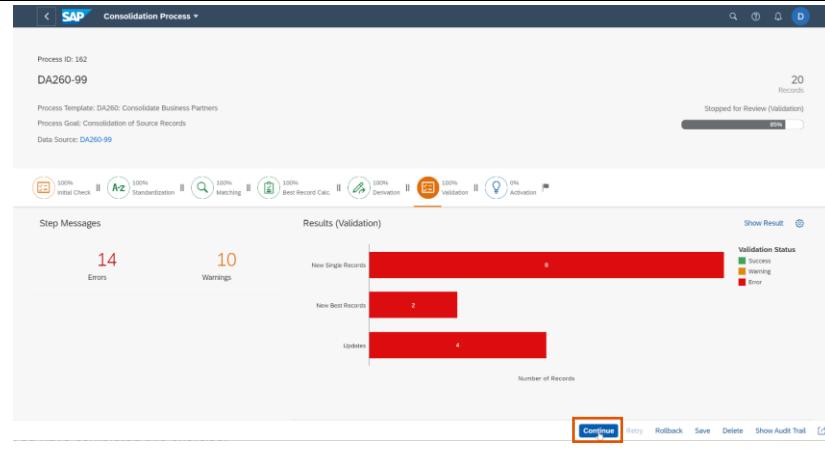
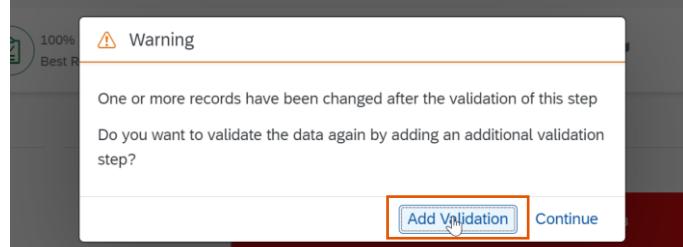
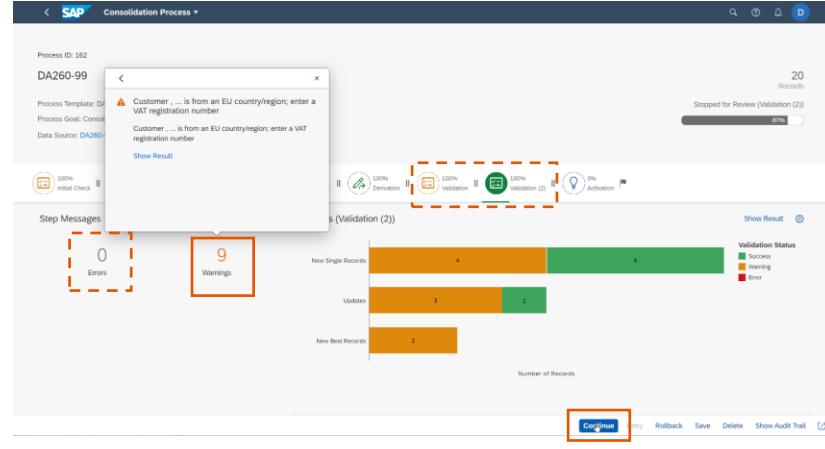
- Click on **OK**

Since there are several rows for Germany, you want to apply your change to them at once.

- Select the first row with country DE

The screenshot shows the SAP Fiori table with the first row containing 'Country: DE' selected and highlighted with a red box. The 'OK' button is also highlighted with a red box.

Explanation	Screenshot
<p>Use the multi-select feature to select all rows for Germany.</p> <p>13. Scroll down to the last row with country DE. 14. Shift-Click on the last row for multi-selection.</p>	
<p>Replace the initial value for Language with DE.</p> <p>15. Click on Replace Values (10).</p>	
<p>Enter DE as language.</p> <p>16. Enter DE in the field Language. 17. Click on Replace.</p>	
<p>Repeat the previous steps for country ES and set the language to ES.</p> <p>Perform the same steps also for country US and set the language to EN.</p>	<p>Repeat the previous steps.</p>

Explanation	Screenshot
Return to the process display and continue the process.	
18. Click on Continue .	<p>Since you changed data, the system asks you whether you want to perform the validation again.</p> 
19. Click on Add Validation .	<p>The process is extended with another validation step. You can see that there are no further errors. Only warnings are displayed, that you can ignore.</p> 
20. Click on Continue .	<p>This starts the execution of the last step Activation that will update and create the business partners in the system.</p>

Explanation	Screenshot
<p>You should see that the process is completed without errors.</p>	
<p>You have completed this exercise.</p>	
<p>If time permits, you can check all actions inside this process using the audit trail functionality.</p>	
<p>Of course, you can also use the app Manage Customer to review the created and updated business partners. Use the search term DA260-## to find the customers you have created.</p>	

Summary

You have completed chapter 3. You have learned...

- ...how you can upload data for import and consolidation in MDG.
- ...possibilities for validation and address enrichment, as well as for matching and merging of imported data.
- ...to know some of the capabilities for automating master data processes with derivation rules.

You've now completed all exercises that we prepared for you.

Thank you for joining!