Use of the fix within the exercises

#fix_cld900_20

Summary

When will the fix be necessary?
If the freely available ES5 database is not accessible. Then the following exercises cannot be carried out as described.
- Exercise06: Create an API provider based on your ES5 demo system
- Exercise07: Create an API based on the created API Provider.
- Exercise08: Add policies for basic authentication against the ES5 demo system.
- Exercise10: Explore The API Designer
- Exercise11: Create a Product based on your created API.
- Exercise19: Create a Request and Replay external Call

How is the following fix applied?

Exercise06: Create an API provider based on your ES5 demo system
- This exercise cannot be performed

Exercise07: Create an API based on the created API provider.
- This exercise is replaced by the procedure described below. The *API Proxy* is created directly via URL instead of via an *API provider*.

Exercise08: Adding guidelines for basic authentication against the ES5 demo system.
- This exercise can be carried out as described. However, the *replacement URL* can already be called without authentication. The exercise then has no influence on the call. As an exercise for the participants, it still makes sense.

Exercise10: Explore The API Designer
- This exercise can only be carried out to a limited extent, as only a self-created resource */ProductSet* is available instead of all resources. As an exercise for the participants, it still makes sense

Exercise11: Create a Product based on your created API.
- This exercise can only be carried out to a limited extent, as only one resource can be selected when selecting the API.

From here on, we only use the original replacement URL and not the API created in the API management itself.

Exercise18: Create and configure a Content Modifier
- In this step, an additional header parameter is created to ensure that XML is really used in the response.

Exercise19: Create a Request and Replay external Call
- In this step, an OData adapter is configured. However, the fix only provides a *REST* API. Therefore, an HTTP adapter must be configured here.

New Exercise 19/1: Create a XSLT Mapping
- Remove Namespaces from Response

Exercise20: Create and configure a Router
- The conditions must be adjusted.

Exercise21: Create a Request and Replay external Call
- The *replacement URL* is entered as *Address*.

Exercise25: Create a Request and Replay external Call
- The *replacement URL* is entered as *Address*.

Replacement URL for ES5

- Replacement URL: https://group-cld900-d052537.prod01.apimanagement.eu10.hana.ondemand.com/v1/WA_GWSAMPLE_BASIC
- The source is an S/4HANA onPrem that is connected via the Cloud Connector and API management.

Fix for Exercise07: Create an API based on the created API Provider.

Creating an API proxy of type *Internet*
- In the new navigation on the left side, click on *Configure > APIs*.
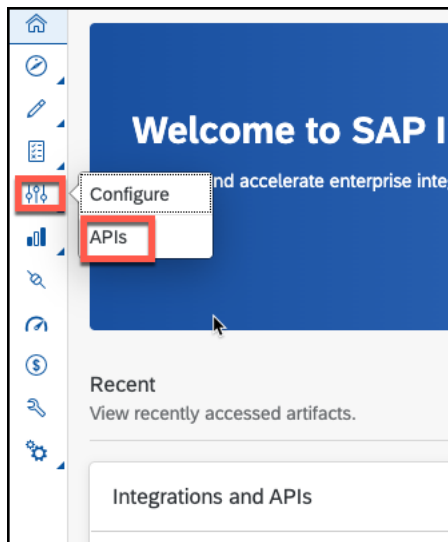
- On the detail page, select the *API Proxies* tab.

Configure

Create and configure API proxies, API providers, certificates, key-value maps, and policy templates.

API Proxies (1)   API Providers (1)   Certificates (0)   Key Value Maps (0)   Policy Templates (0)

                                                                    Create   Import API   Cr

Name	Title	Status	Type
⚬⟨ HelloWorldAPI	HelloWorldAPI	Deployed	REST

API proxies with the exercise name may already be available. The API proxy name must be unique.

- Click on the *Create* button.
- Enter the following entries in the emerging mask.

Create API

Select: ○ API Provider   ○ API Proxy   ⦿ URL   **①**

URL * ❓   [https://group-cld900-d052537.prod01.apimanagement.eu10.hana.ondemand.com/...]   **②**

API Details

Name: *   [GWSAMPE_BASIC_XX]   **③**

Title: *   [GWSAMPE_BASIC_XX]   **④**

API State: *   [Active ⌄]

Host Alias: * ❓   [dev.test.apimanagement.eu10.hana.ondemand.com ⌄]

API Base Pa... * ❓   [/GWSAMPE_BASIC_XX]   **⑤**

Version: [ ]

Service Type: [REST ⌄]

                                                            Create   Cancel

1. Click on the radio button *URL*
2. Enter the replacement URL in the URL field: https://group-cld900-d052537.prod01.apimanagement.eu10.hana.ondemand.com/v1/WA_GWSAMPLE_BASIC
3. Enter a unique name here, e.g.: GWSAMPLE_BASIC_XX .
4. Enter the same name as before here, e.g.: GWSAMPLE_BASIC_XX

5. Under API Base Path: Enter the name with presented slash, e.g. : /
    GWSAMPLE_BASIC_XX

Result

- Then enter under version: v1. The data already entered will be changed by the
  version number.
- Adjust The Following

1. Version number automatically added
2. Version number must be added manually
3. Version number automatically added to the path.
4. Only *REST* can be selected here.

Manual adjustments

1. Enter the version number under title. The name and title should be the same.

2. The *Create* button only becomes active after entering the version.
● Click on the *Create* button On the following page,
● Click on the *Deploy* button at the top right

● API proxy URL for use in cloud integration
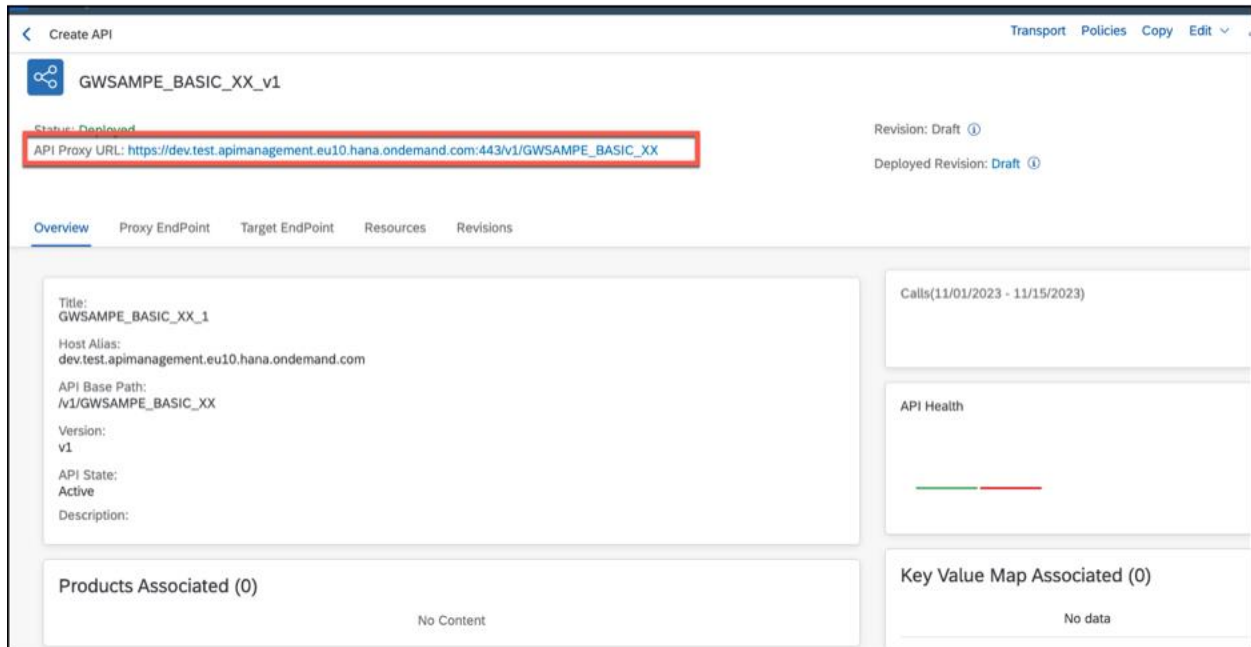
Creating a resource

A resource is created to test the URL. Since we have to use a API proxy of type *REST*, no *resources* are automatically created. If the API proxy is of type *OData*, resources are created automatically.

- In the *Create API* view of the just created API proxy *GWSAMPLE_BASIC_XX_v1* click on the *Edit* button, at the top right.
- Then select *Edit*.
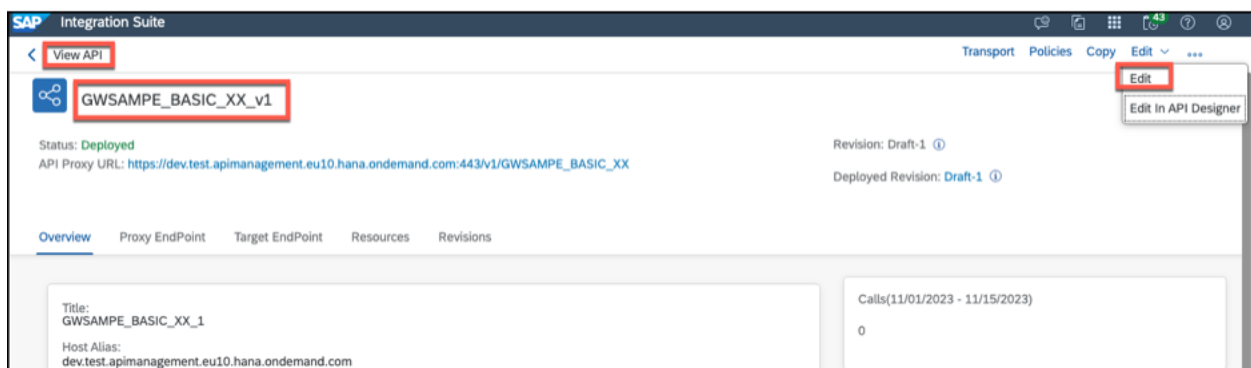
- Then click on the tab *Resources*.
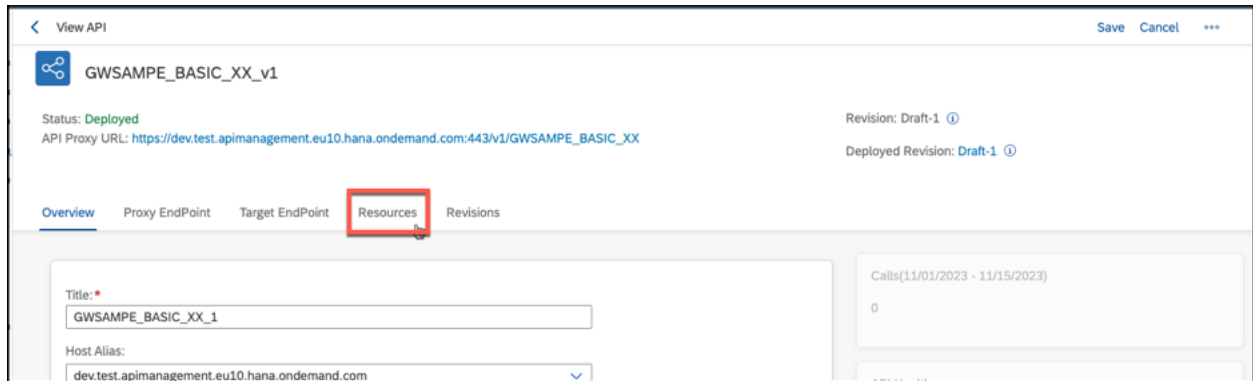
- There is an *Add* button visible.
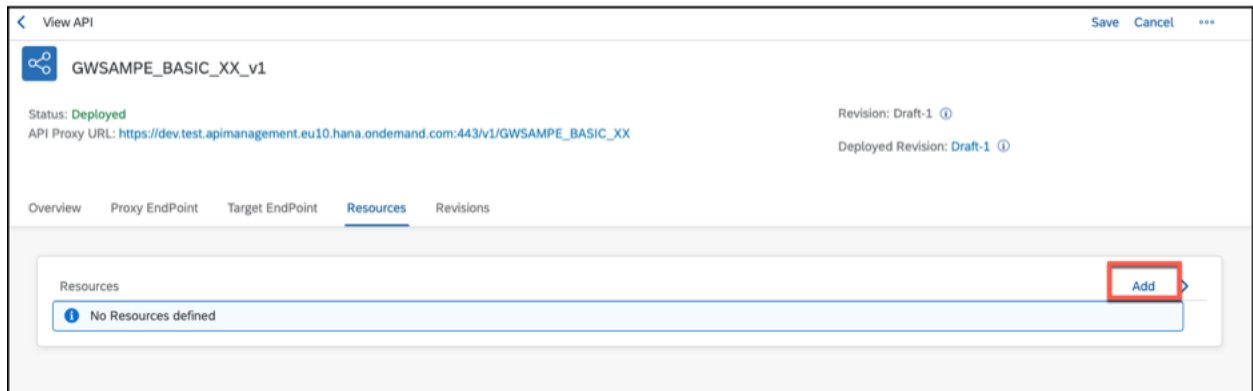
- Click on the *Add* button and enter the following in the new mask.
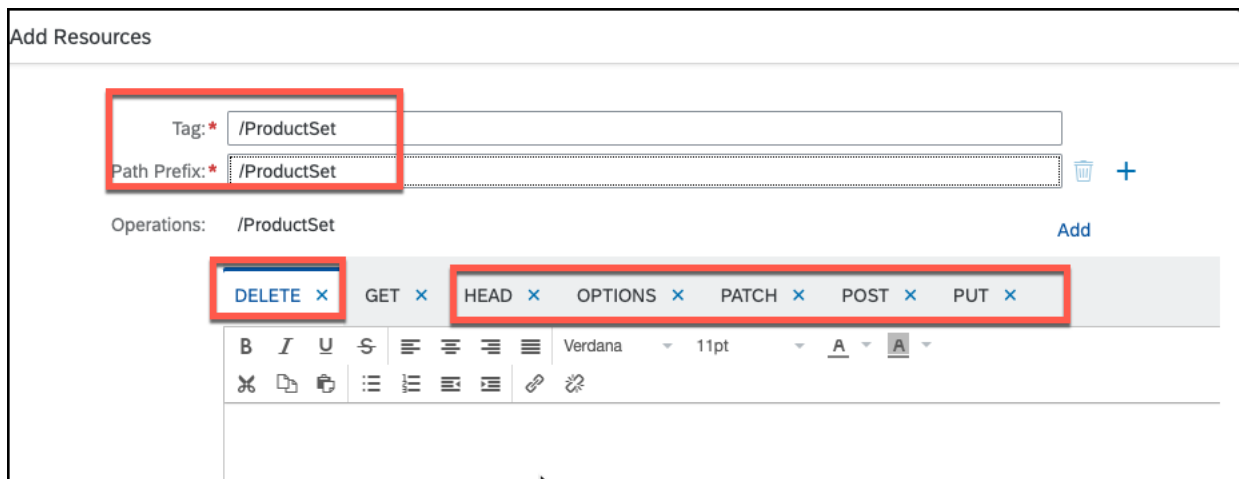
- Tag: /ProductSet
- Path Prefix : /ProductSet
- Then delete all verbs with the cross except *GET*

- Then click on *OK*.

- Back to the *View API* view.
- Now click on the *Save* button.
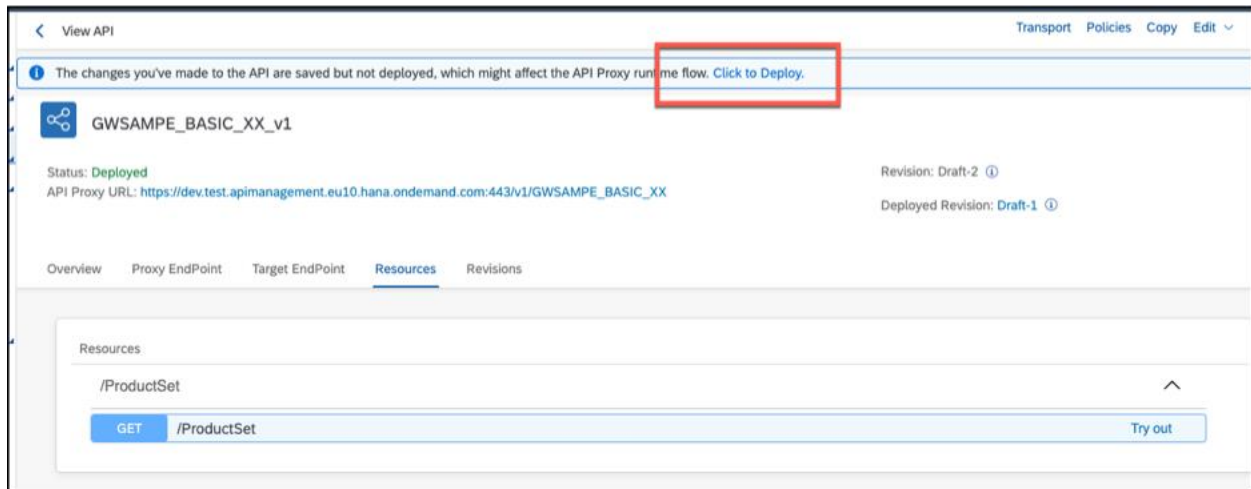
- Then click on the offered link *Click to Deploy*.

Testing the call

- Under Resources in the *View API* view, the created resources are visible.
- After successfully deploying the changed API proxies, click on the link *Try out*.
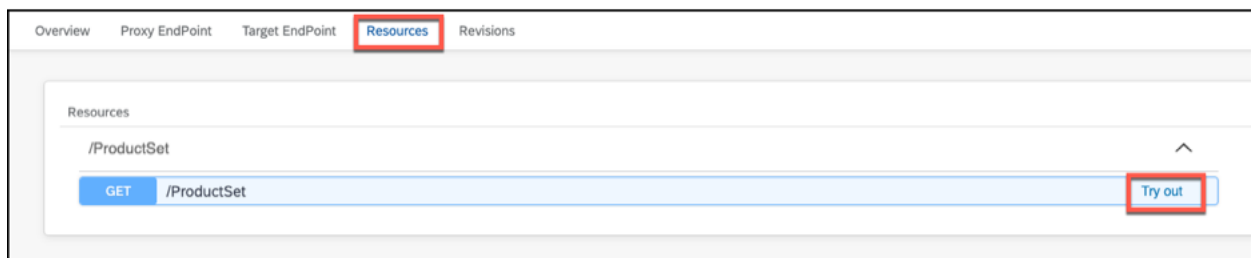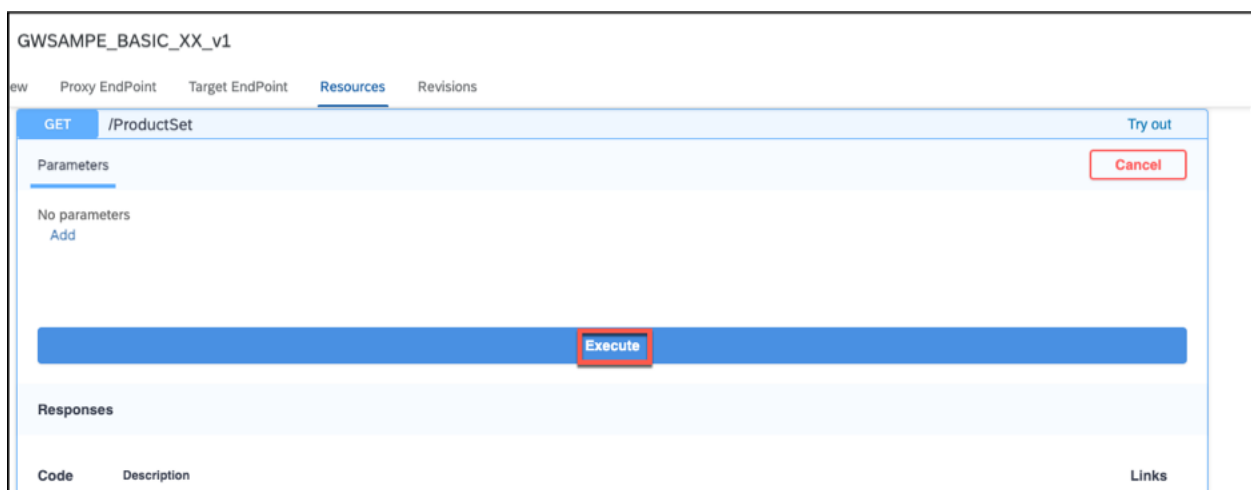

- Then click on the *Execute* button to execute the request.

- Since the replacement URL works without additional authorization, the call should be successful.

Exercise08: Add policies for basic authentication against the ES5 demo system.
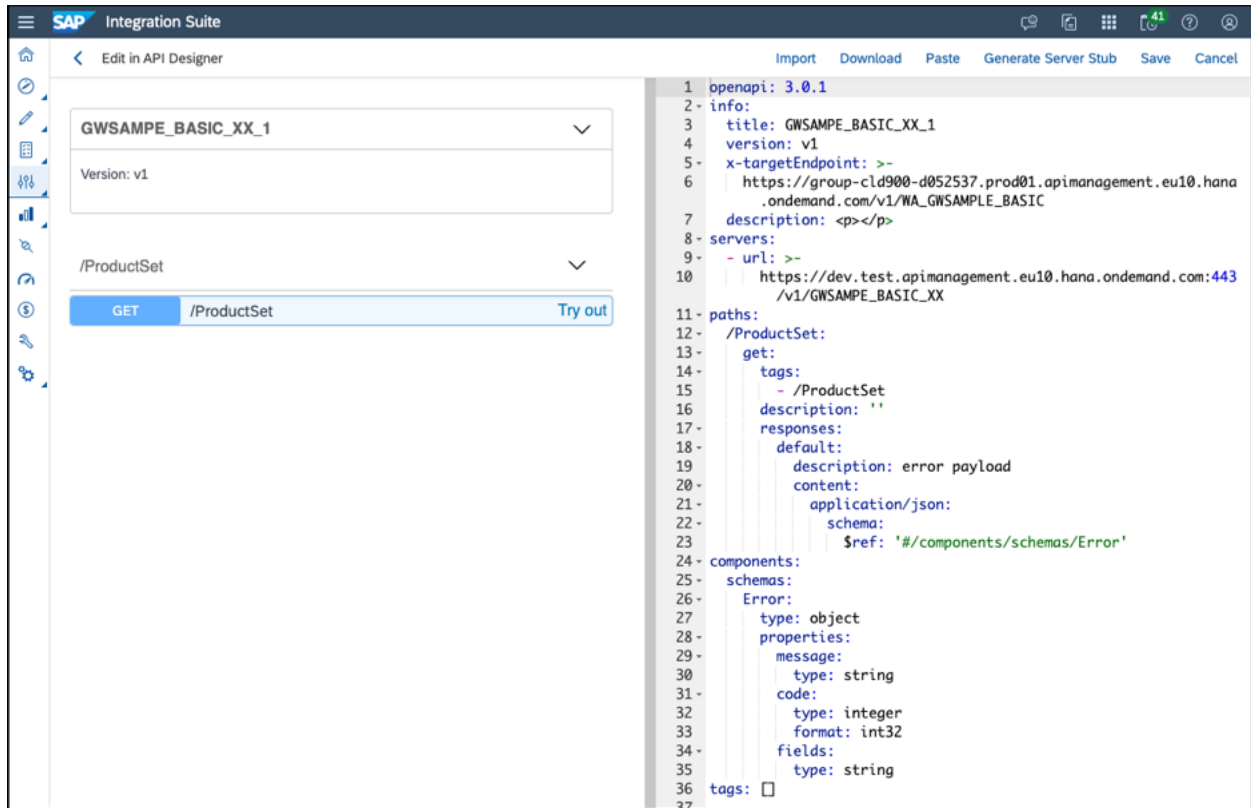
- Optionally, only for practice, the policies can be built in as described in the exercise. The training user and password can be used as the user and password. The policies have no effect.

Exercise10: Explore The API Designer

- Navigate to your *API Proxy* in the *View API* view.
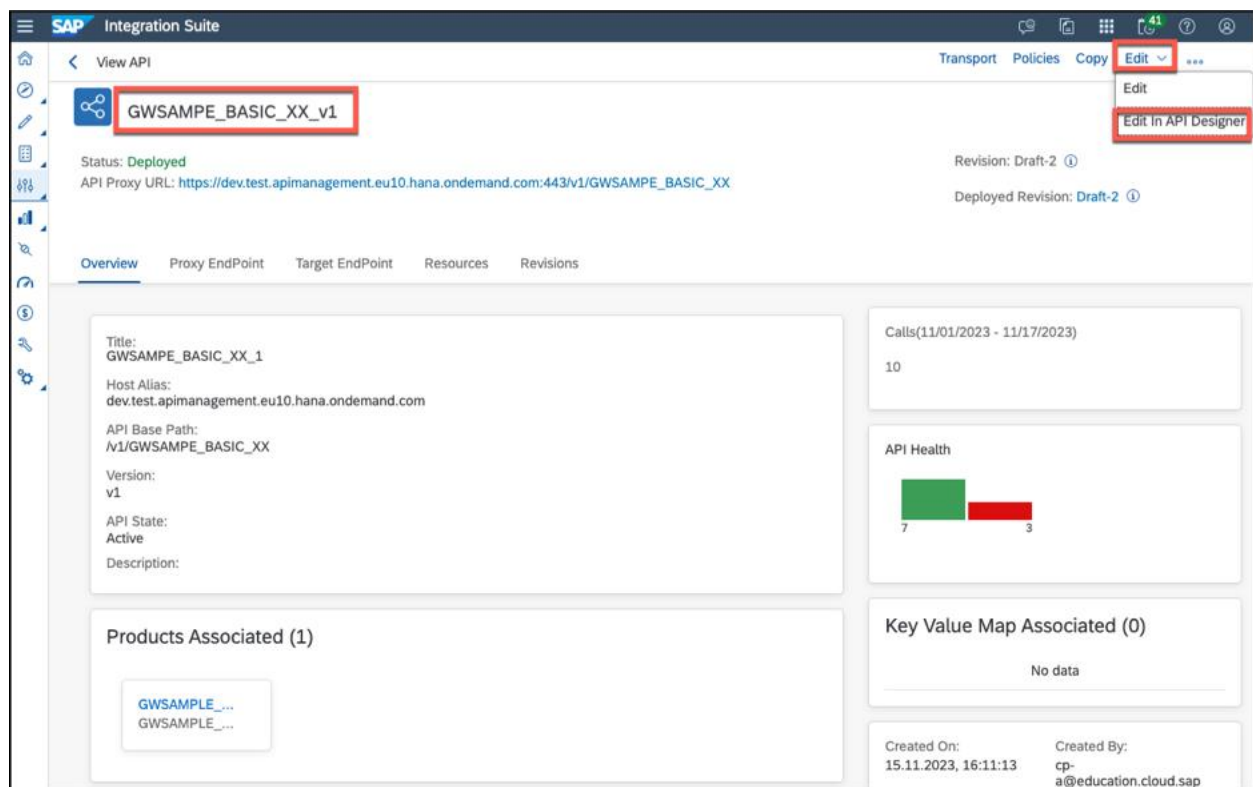
- Click on *Edit > Edit in APi Designer* in the upper right corner.

Only the openAPI definition of the self-created resource */ProductSet* is visible. You can compare this view with the screenshots in the documents.

Exercise11: Create a Product based on your created API.

- If the API proxy and the resource have been successfully created and tested, click on the *Connection* button on the right.
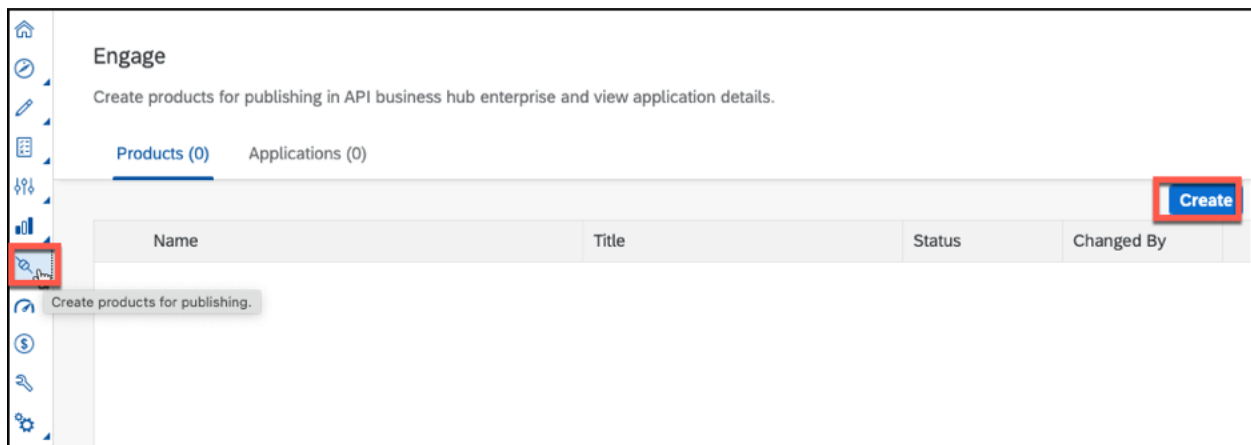
- Then click on the button *Create*.
- Below are the steps as described in the exercise.

Tabreiter Overview

- Enter the following under the Overview tab.

- Name: e.g. GWSAMPLE_BASIC_XX_v1_Product
- Title: e.g. GWSAMPLE_BASIC_XX_v1_Product
- Description: Any text. This is displayed on the tile in the *API Business Hub Enterprise*.
- Then switch to the *APIs* tab. There, click on the *Add* button and enter the following.

- Select the previously created API proxy with the resource *ProductSet* here.
- Then click on the *OK* button.

- Then, in the upper right corner, click on the *Publish* button.

Possible error

If there is an error when Publishing the product, the *API Business Hub Enterprise* app must first be initialized. This happens on the first access. Therefore, perform the following steps.

- Click on the icon with 9 points
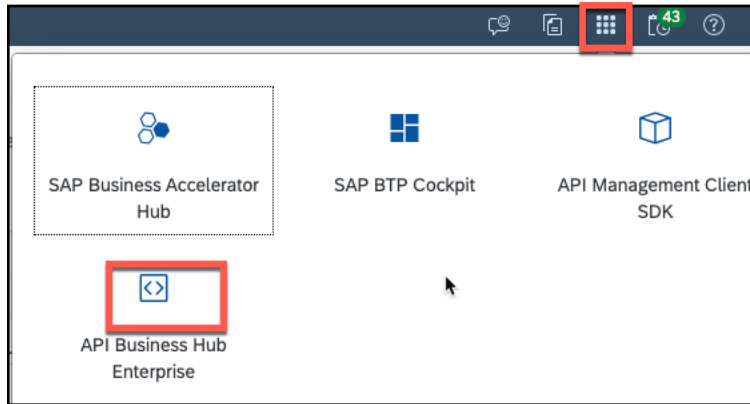
- Then click on the *API Business Hub Enterprise*.
- After that, the API Business Hub Enterprise is initialized on the first call.
- Then close the *API Business Hub Enterprise*.
- Now click on the *Publish* button again.

Test of the product

- After the successful publisher of the product in the *API Business Hub Enterprise*, click on the button with the 9 points again. *
- Then click on *the API Business Hub Enterprise* button.
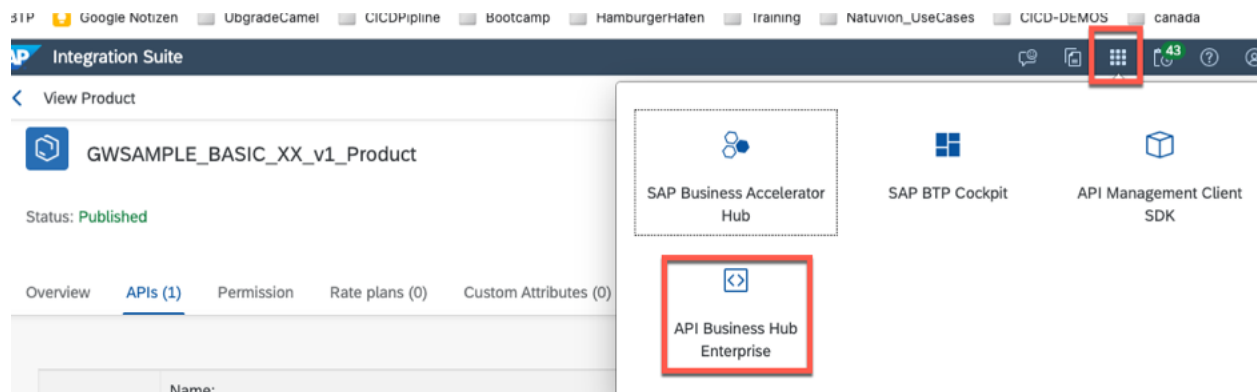
- Im *API Business Hub Enterprise* auf die Kachel mit dem Produktnamen klicken
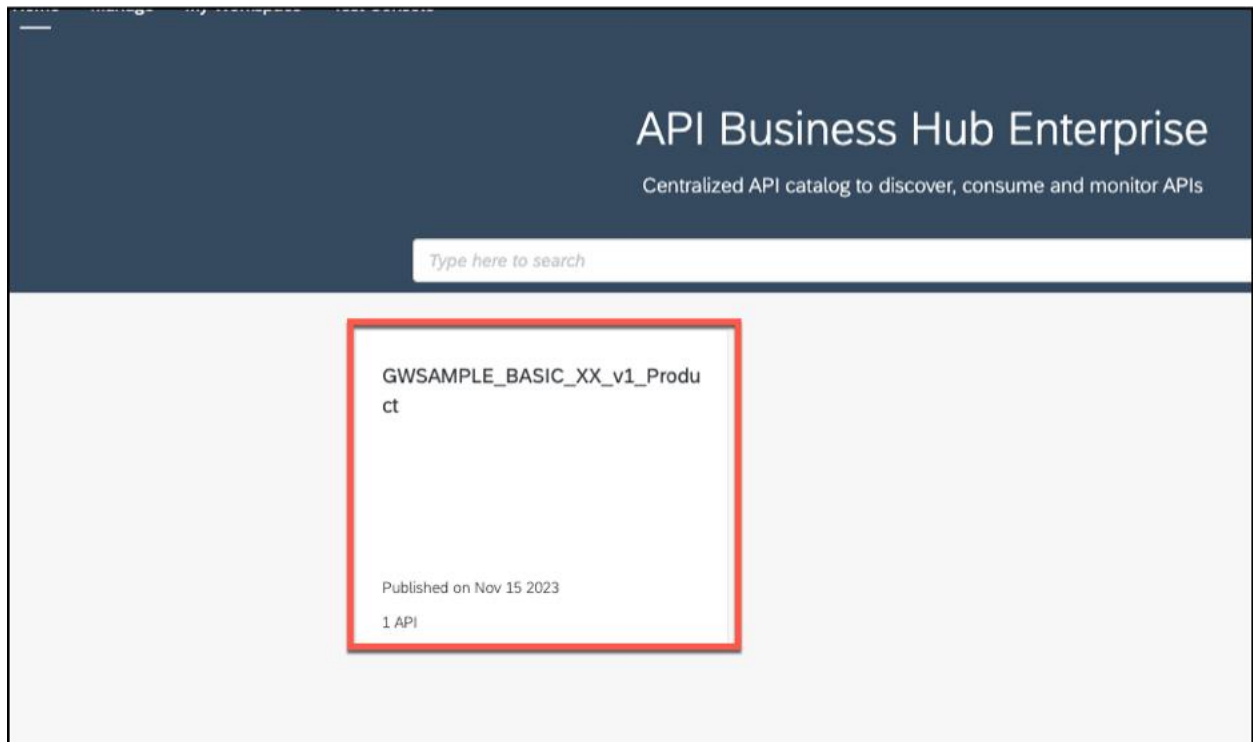
- In this example, no description was entered when creating the product.
- Click on the tile.
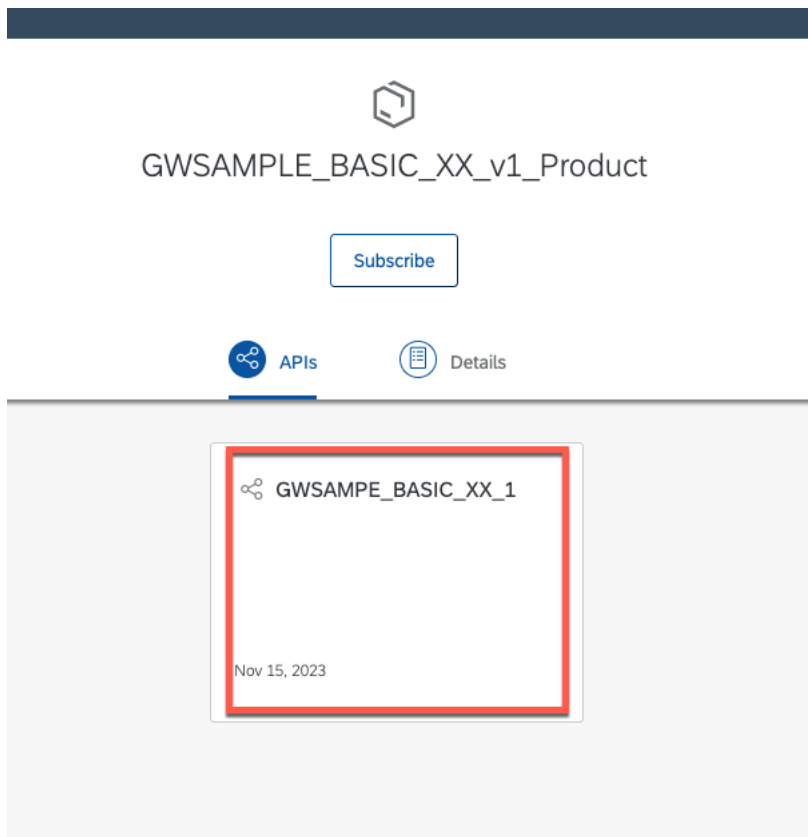
- Click on the tile
- There is only one resource */ProductSet* that is displayed.
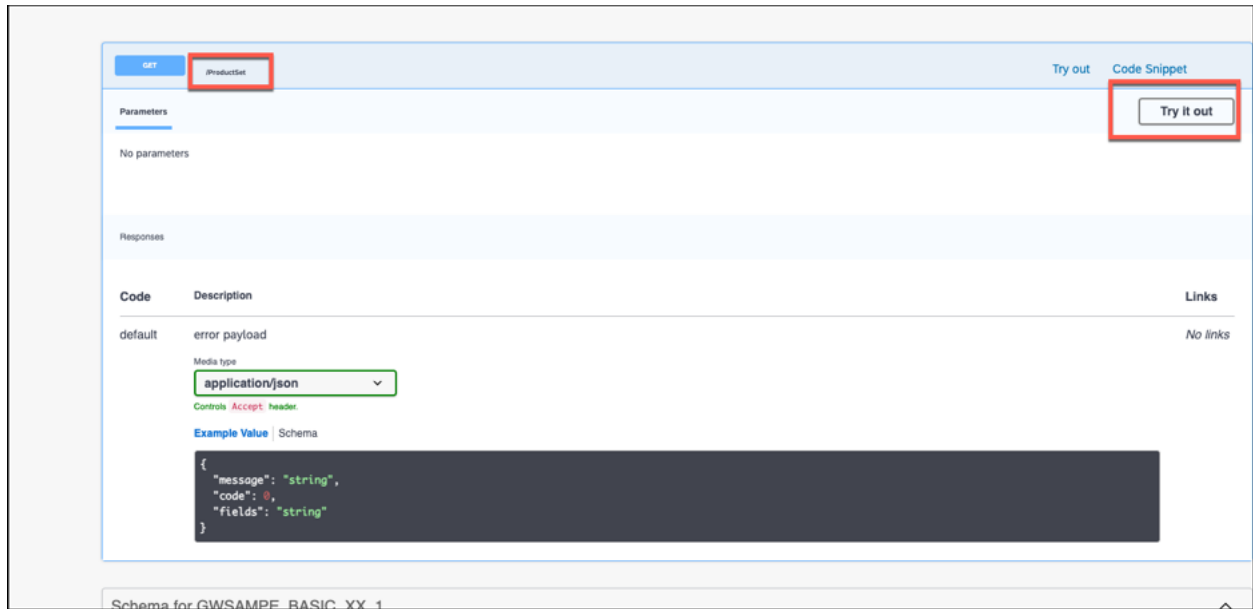
- Click on the *Try it out* and then on the *Execute* button.
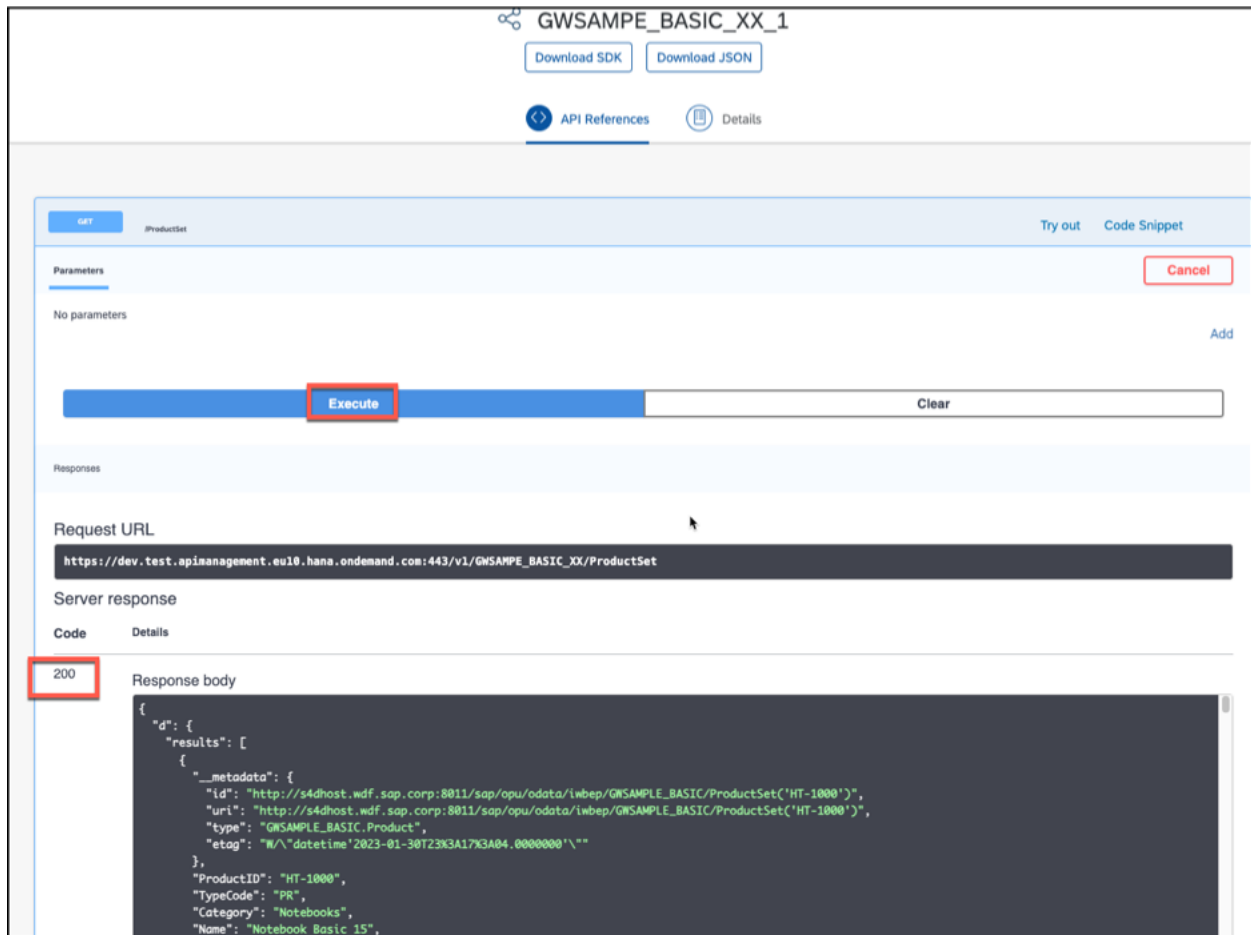
- If the call was successful, the *HTTPS traffic jams* 200 comes and the response is displayed.

Exercise18: Create and configure a Content Modifier

To ensure that the following *Request and Reply* call actually delivers XML as a response message, we set a header parameter that ensures this.
- Run Task 1 and Task 2 as described in Exercise 18.

- Then switch to the tab *Message Header*.
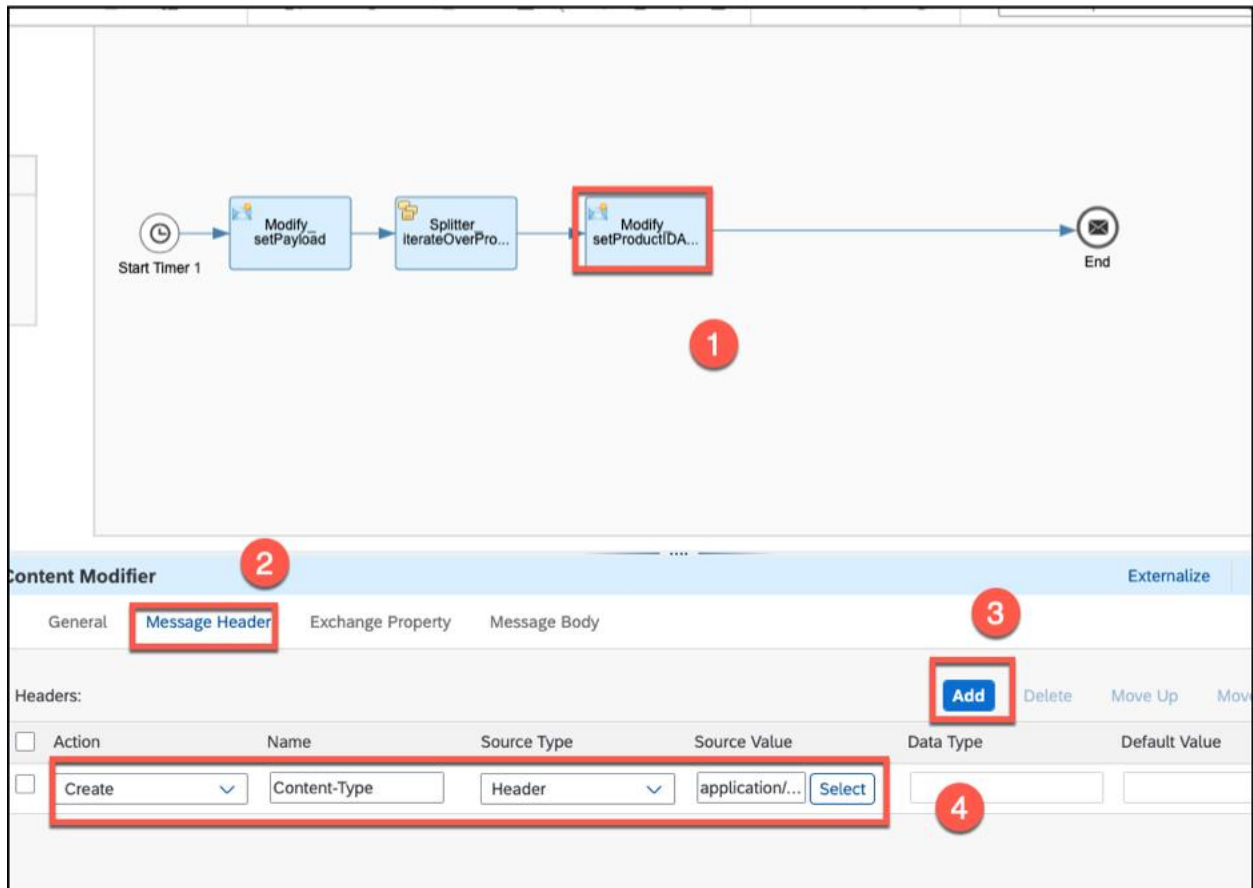
- Add the following parameters after clicking on the *Add* button.
- Action: Create Name: Content-Type
- Source Type: Header
- Source Value: application/xml
- Then perform task 3 as described.

Exercise19: Create a Request and Replay external Call

From here on, we only use the original replacement URL and not the
API created in the API management itself.

In this step, an *OData Adapter* is configured with the wizard. Since we now only offer a
REST interface as a replacement, we have to use the HTTP adapter here.

Selecting the HTTP Adapter in Task 2 No 3 Configure the OData Adapter

- Select *HTTP* adapter
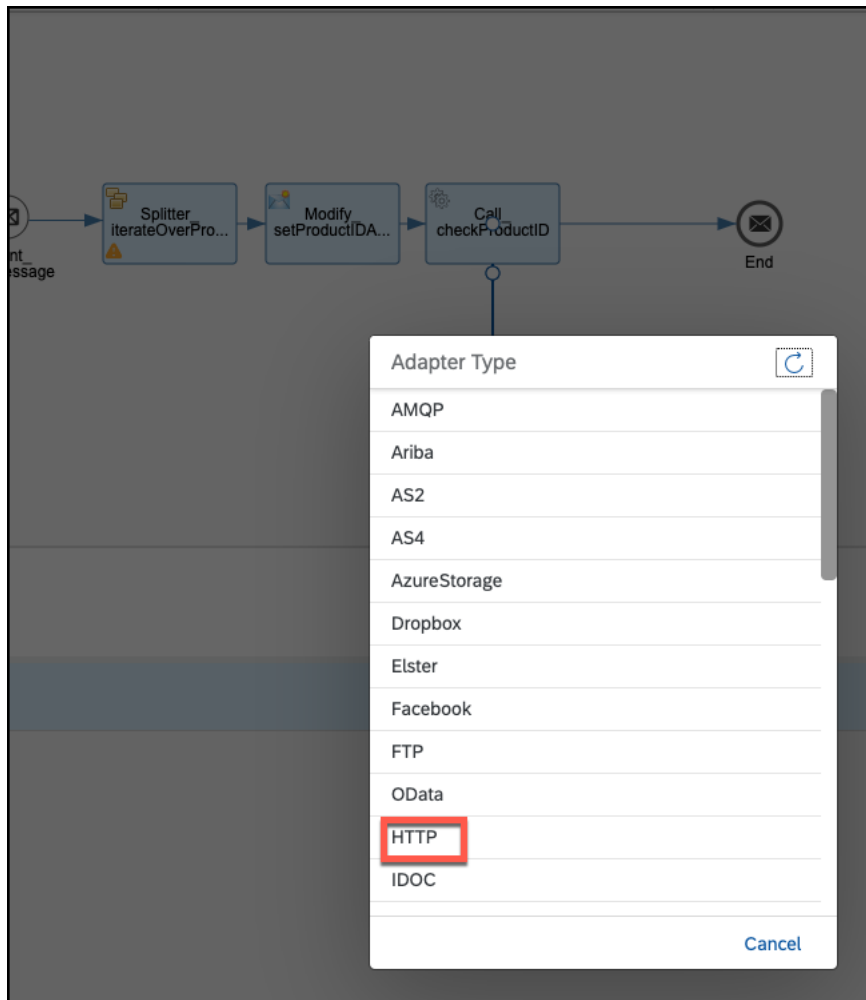
- Under the tab *Connection*, the following parameters are entered.
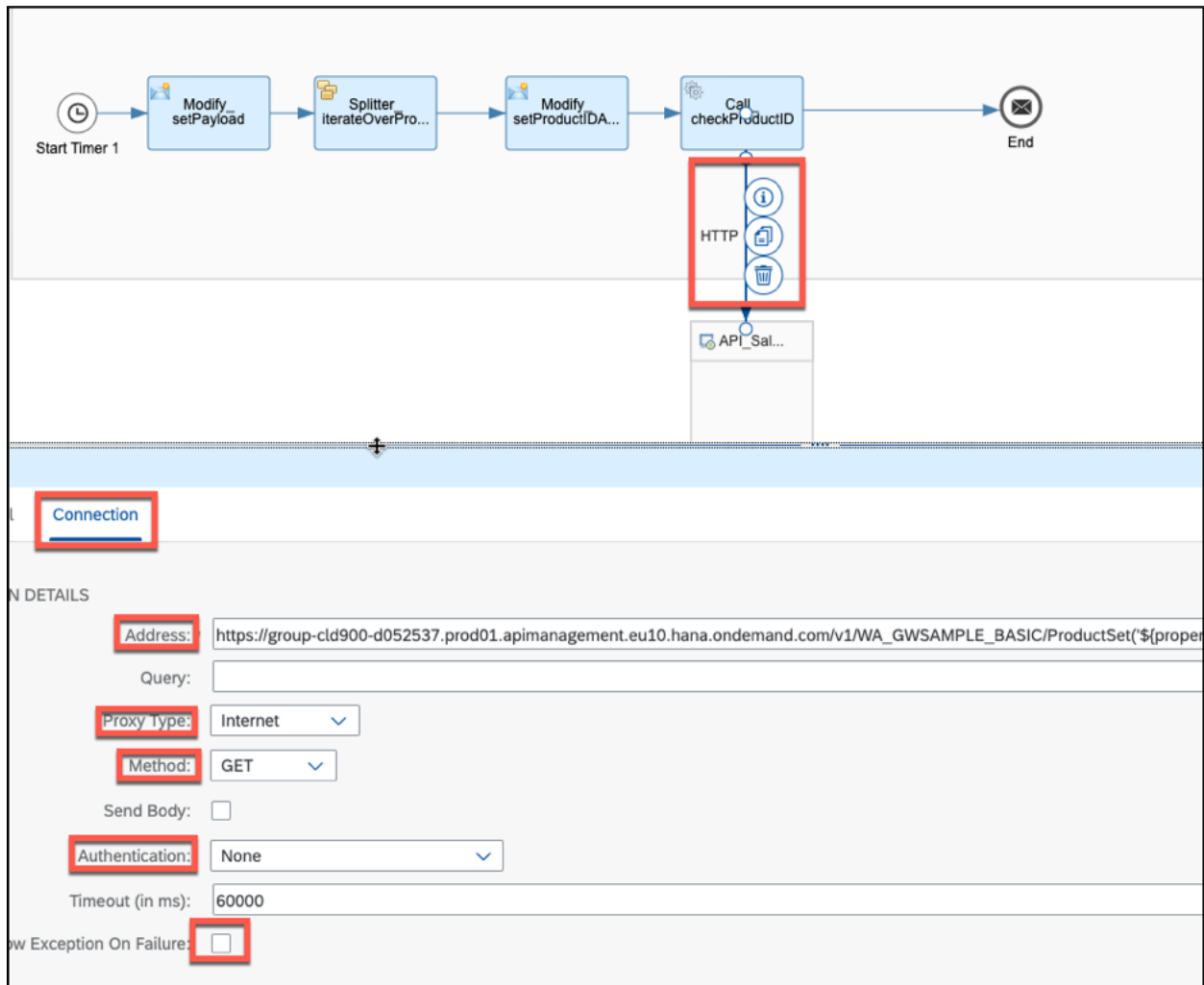
- Address:
https://group-cld900-
d052537.prod01.apimanagement.eu10.hana.ondemand.com/v1/WA_GWSAMPLE_BA
SIC/ProductSet('${property.ProductID}')

- Query: leave it empty
- Proxy Type: Internet
- Method: GET
- Authentication: None
- Remove the check mark at Throw Exception
- On Failure: Accept the remaining parameters.

Attention: After copying the URL from the documents, enter the
quotation marks before $ and after } by hand again in the address field
otherwise you will get a 404 error.

New Exercise 19/1: Create an XSLT Mapping

The response of an HTTP call against this interface provides a *feed* with namespaces. We cannot access the content with XPATH in the next step. However, the *router* needs this to dispatch. Therefore, we need to install an XSLT mapping to remove the namespaces. We'll do it again later in: *Exercise22: Create a XSLT Mapping*.

- Exercise26: Create a XSLT Mapping

Creating an iFlow component of type XST mapping
- The procedure is described in detail in *Exercise22 and 26*.
- The iFlow component is used directly after *Exercise 19*.
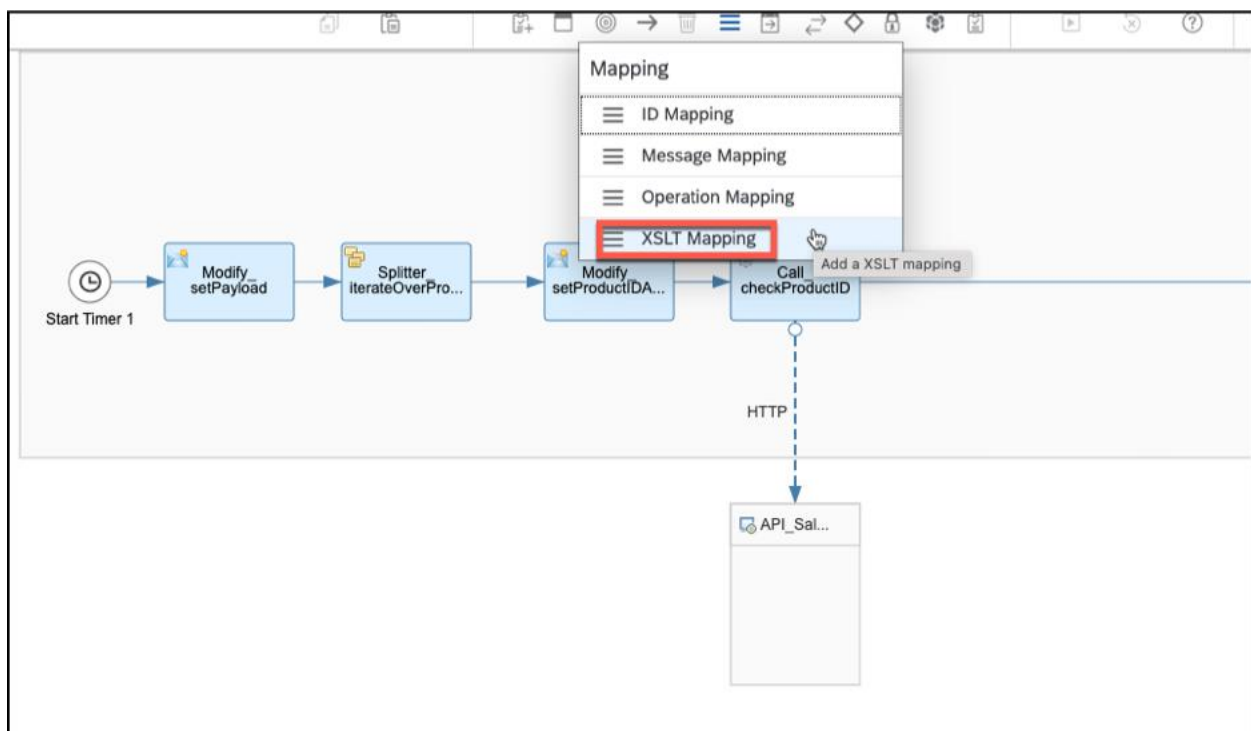
- Click on the icon with the document

- The Groovy Script is also used in *Exercise22 and 26.*
- In the editor, enter the following code snippet:

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="3.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
        <xsl:template match="*">

                        <xsl:element name="{local-name()}">
            <xsl:apply-templates select="@* | node()"/>
         </xsl:element>

        </xsl:template>
</xsl:stylesheet>
```
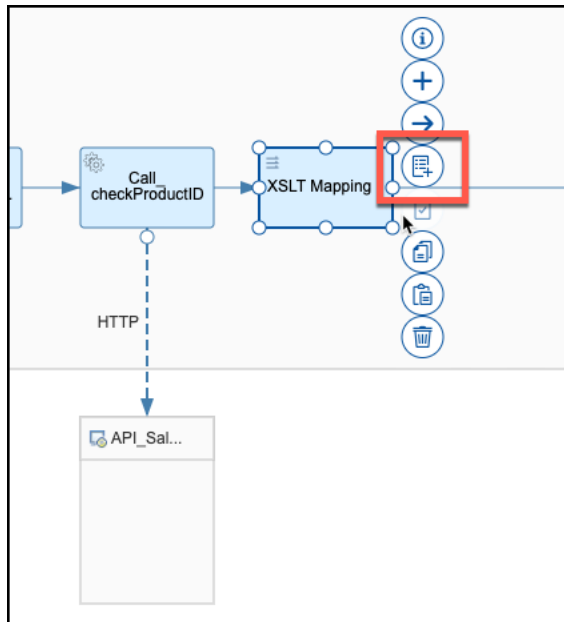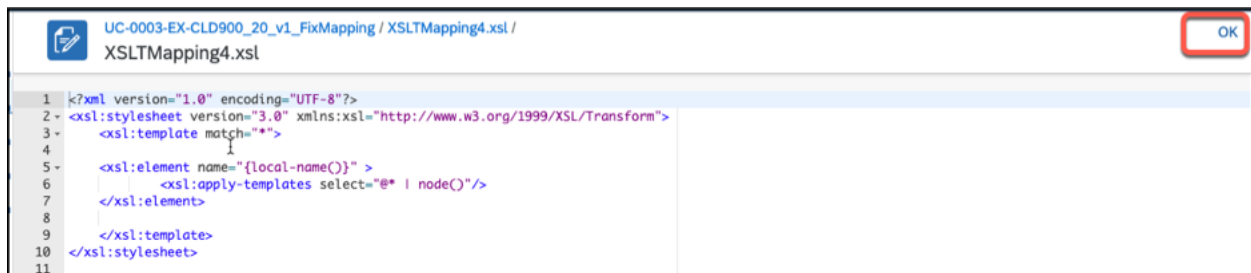

- Click on the *OK* button

Testing the call
- Deploy and examine the response.

- Since a non-existent ProductID leads to an error in the HTTP adapter and we are not allowed to intercept it in the fix, only ProductIDs are used for the fix that also provide a response.
- E.g.:
    - HT-1000
    - HT-1002
    - HT-1020
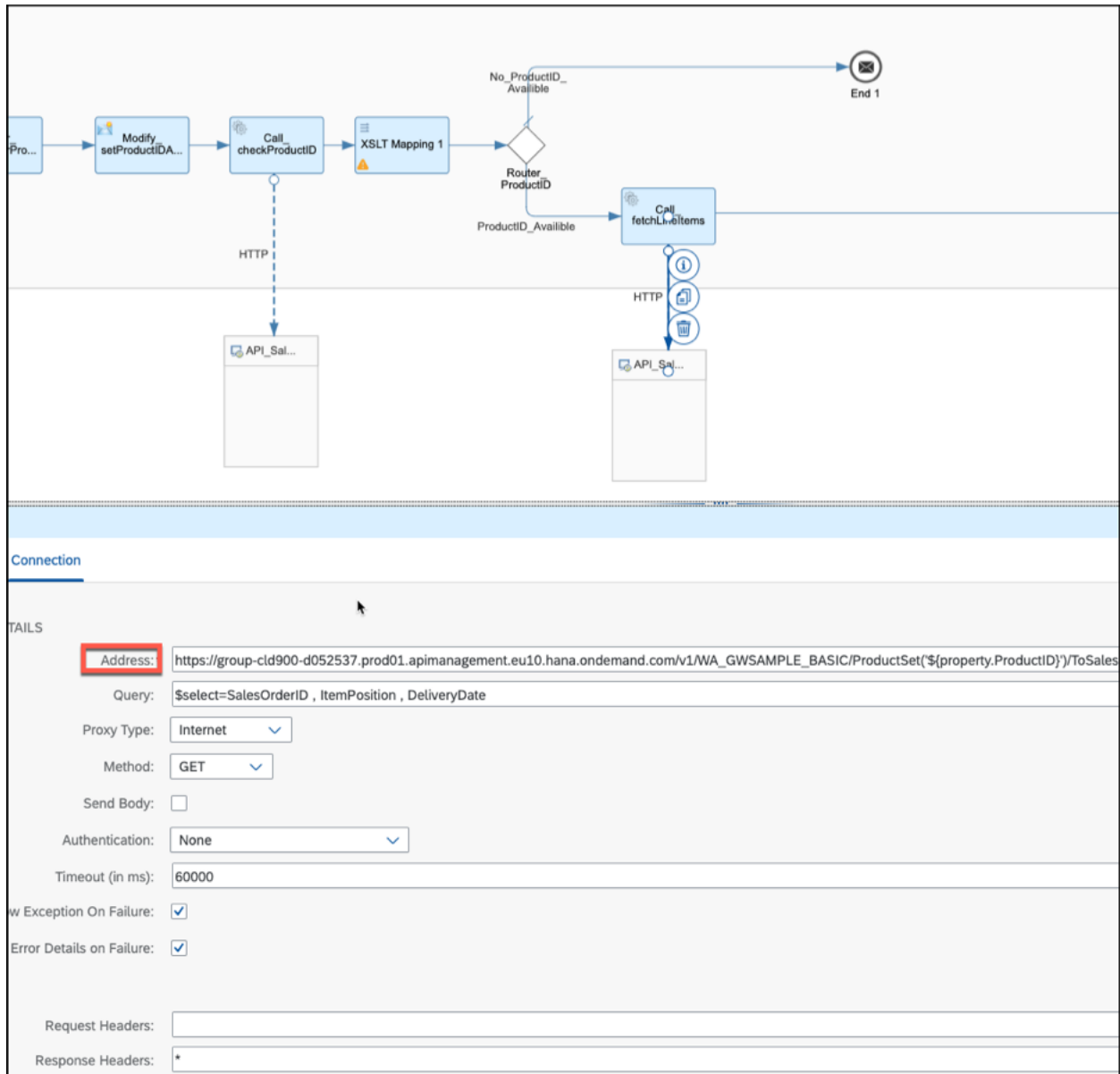   - HT-1023

Exercise20: Create and configure a Router

- The response has other entities. Therefore, the routing must be adapted.
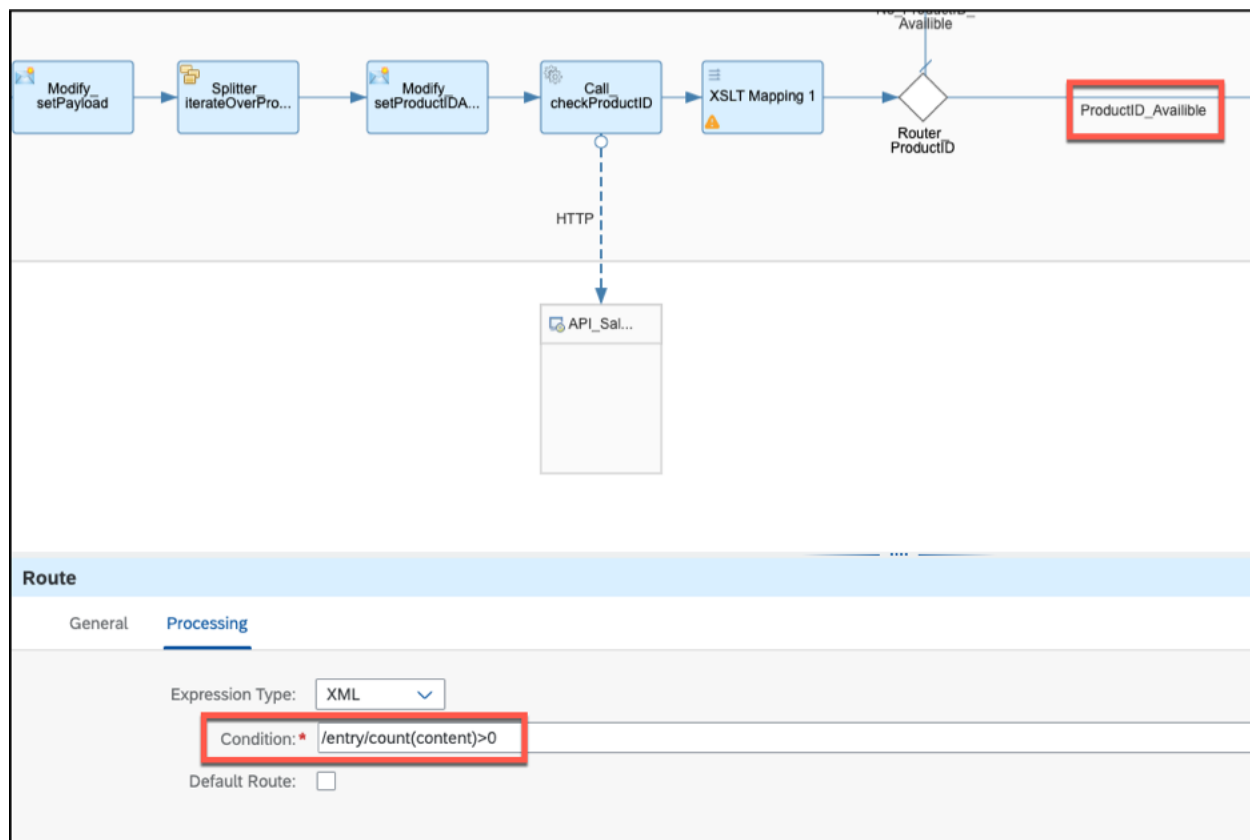
- Enter the following under the branch * ProductID_Availible > Processing*:
    - Condition: /entry/count(content)>0

Exercise21: Create a Request and Replay external Call
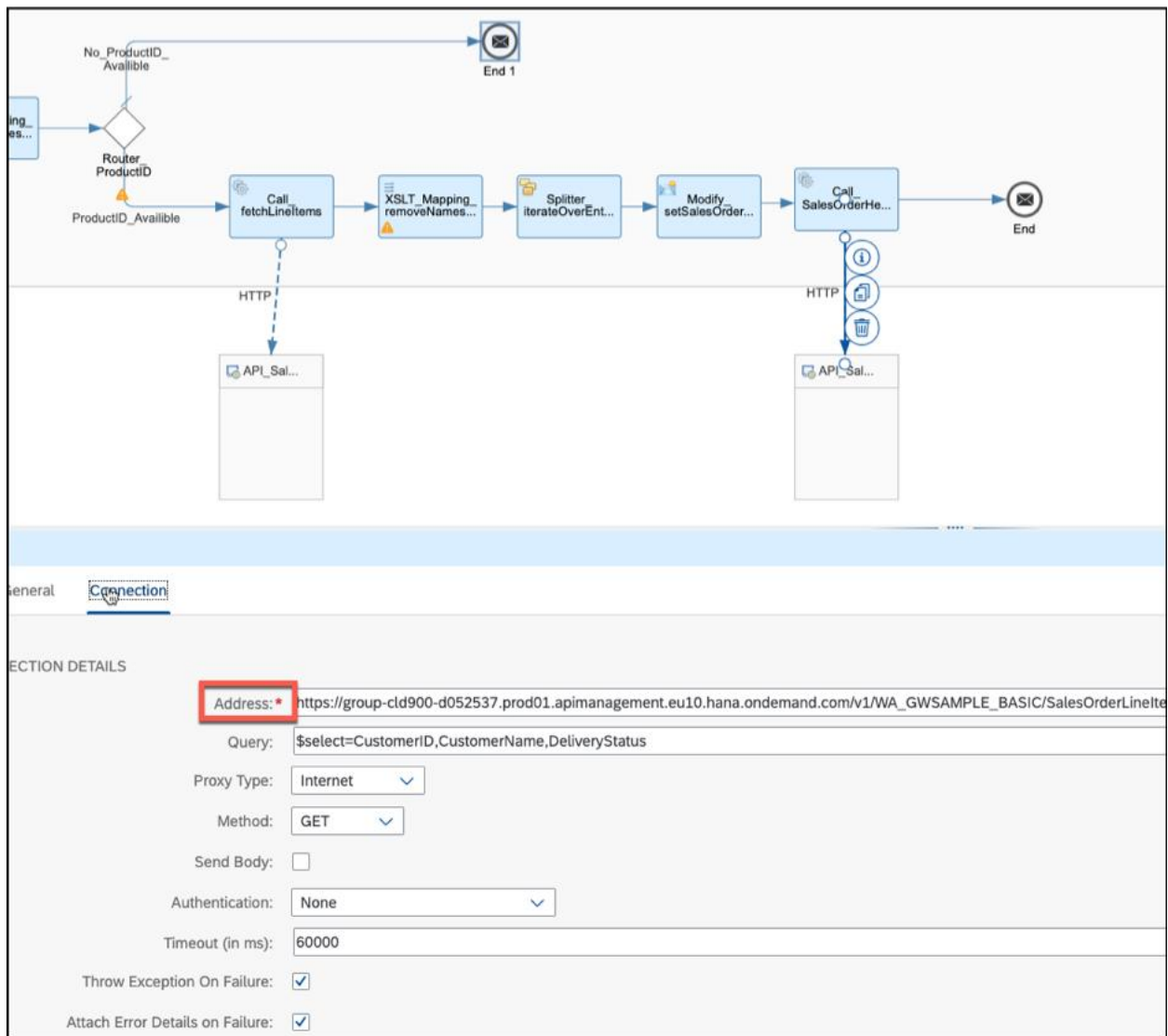
- The *Replacement url* is entered as *Address*.

- Enter the following parameters under *Address*:

https://group-cld900-d052537.prod01.apimanagement.eu10.hana.ondemand.com/v1/WA_GWSAMPLE_BASIC/ProductSet('${property.ProductID}')/ToSalesOrderLineItems

- The other parameters are entered according to the exercise description.

Attention: After copying the URL from the documents, enter the quotation marks before $ and after } by hand again in the address field otherwise you will get a 404 error.

Exercise25: Create a Request and Replay external Call

- The replacement url is entered as *Address*.

- Enter the following parameters under Address:

https://group-cld900-d052537.prod01.apimanagement.eu10.hana.ondemand.com/v1/WA_GWSAMPLE_BASIC/SalesOrderLineItemSet(SalesOrderID='${property.SalesOrderID}',ItemPosition='${property.ItemPosition}')/ToHeader

> Attention: After copying the URL from the documents, enter the quotation marks before $ and after } by hand again in the address field otherwise you will get a 404 error.

- Query: $select=CustomerID,CustomerName,DeliveryStatus
- The other parameters according to the exercise description.