

Exercise 0.2 - Configure Key Value Maps and Policy Template

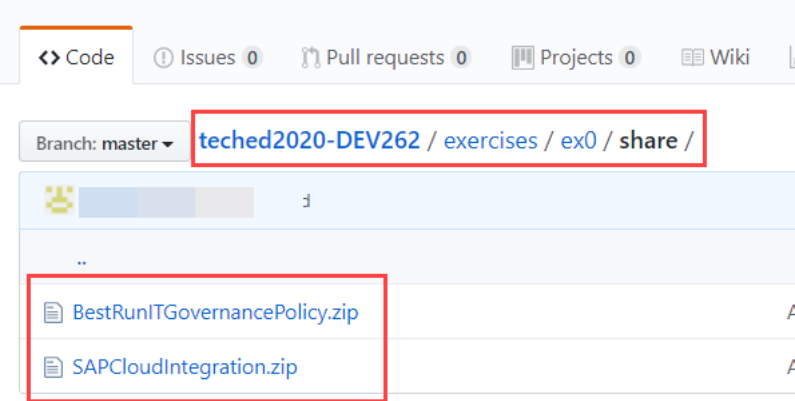
Overview

BestRun AG would like to collaborate with their customers, partners, developers and help promote co-innovation among employees, partners, and the developer community. To provide a secure access to their APIs and processes, the IT team of BestRun AG has come up with their own API access governance policy. Instead of directly sharing the credentials of their non SAP-CRM system or their SAP Cloud Platform Integration with their application developers and partners, IT team of BestRun AG would be governing the access via verify API keys generated by SAP Cloud Platform API Management and applying the rate limiting policies like Quota, Spike.

IT team of BestRun AG have modeled their API policies as an IT corporate policy templates and they would be using the encrypted Key Value map configuration of SAP Cloud Platform API Management to securely store the user credentials to connect to their target backend service

In this exercise you will configure the following for the IT team of BestRun AG

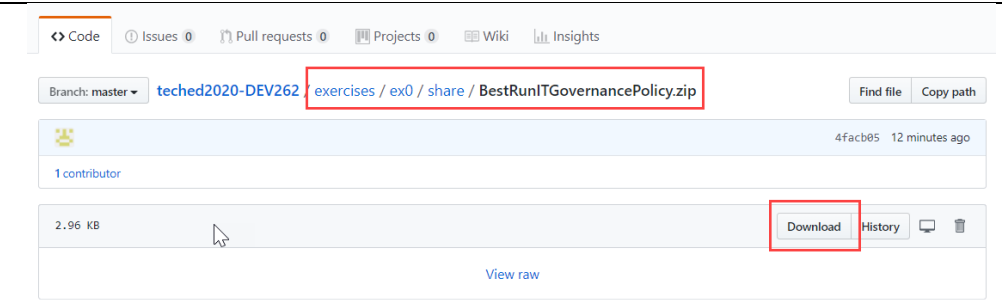
1. Upload the policy templates created by BestRun IT team into SAP Cloud Platform API Management
2. Create encrypted key value map to securely store credentials of their target system

| Step | Explanation | Screenshot |
|------|---|--|
| 1 | The IT team of BestRun AG has placed all the necessary policy templates, images and API Definitions that you will need in your exercise in the in the GitHub share folder. |  |


2. To download the policy template built by BestRun IT team, select the zip file & then click on Download.


Similarly download the other policy template.

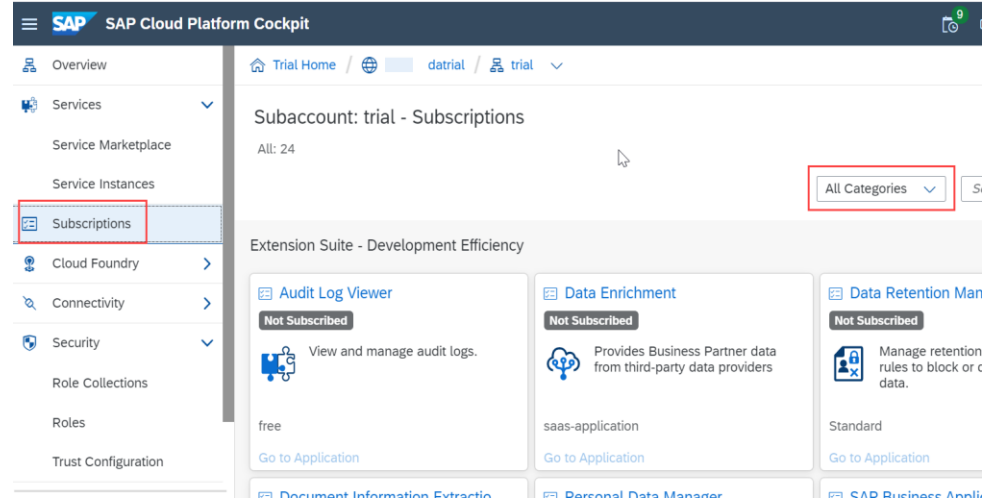
Downloaded policy templates helps to securely connect to SAP Cloud Platform Integration APIs and the BestRun IT governance policies




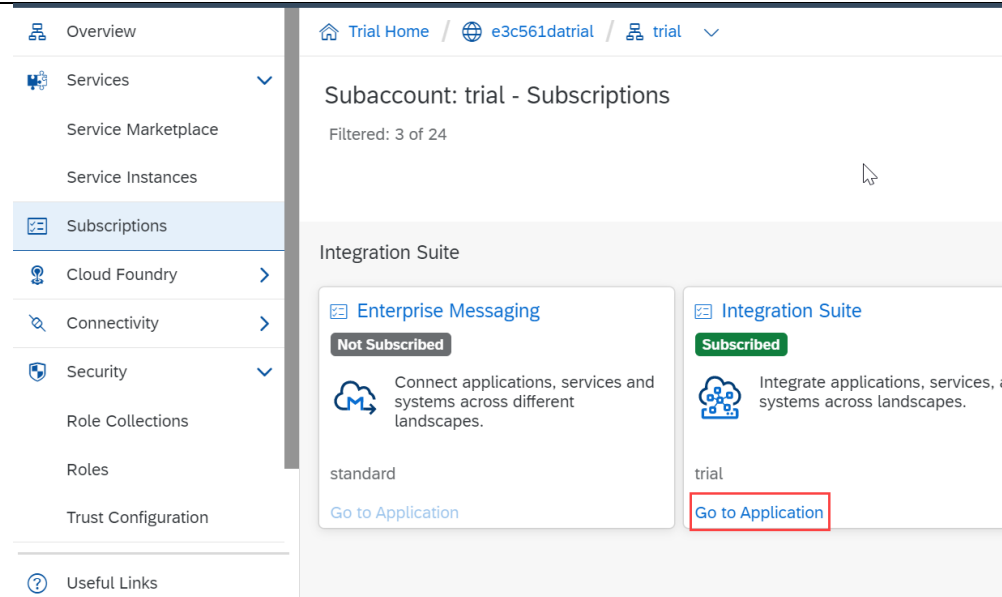
3. The policy templates from IT team of BestRun AG, would have to be imported into SAP Cloud Platform API Management

To import the policy template to your **SAP Cloud Platform API Management**, log on to the CF Trial account cockpit and click on 


Click on  to select Integration Suite

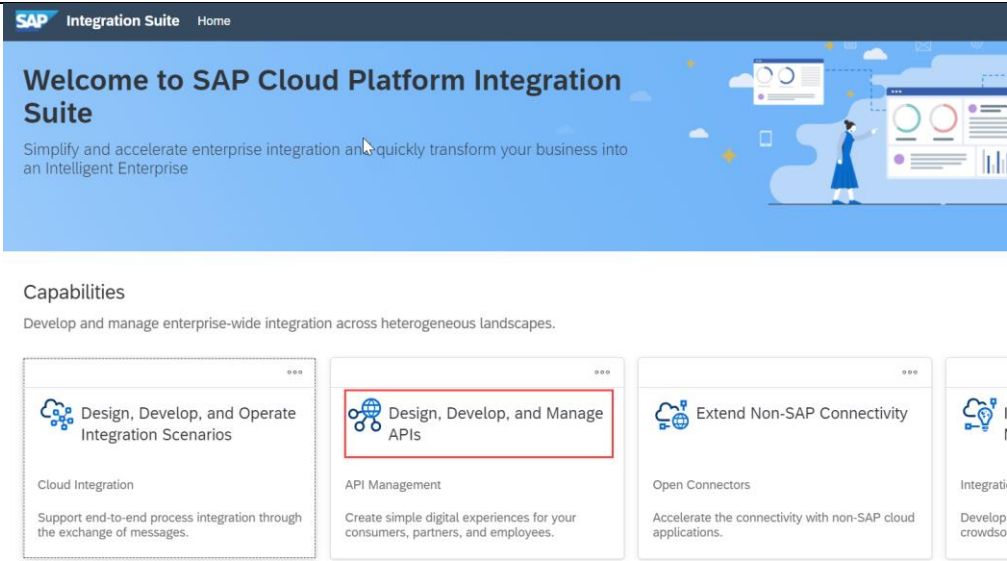



4. Integration Suite tile is displayed, click  to launch Integration Suite

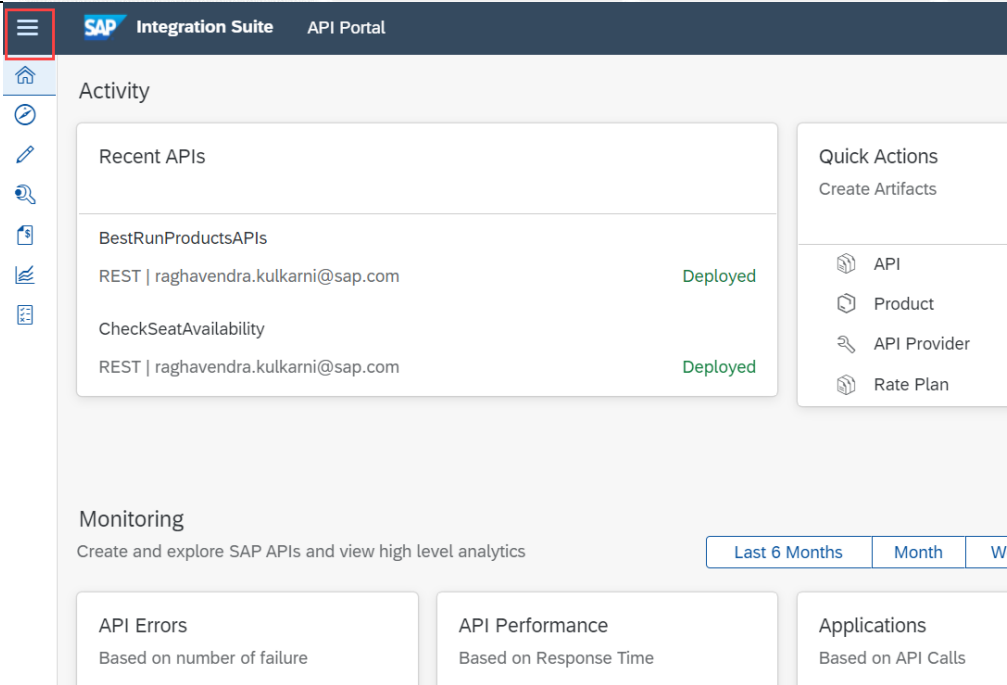


5 In the **Integration Suite Launchpad**, select the capability

 Design, Develop, and Manage APIs

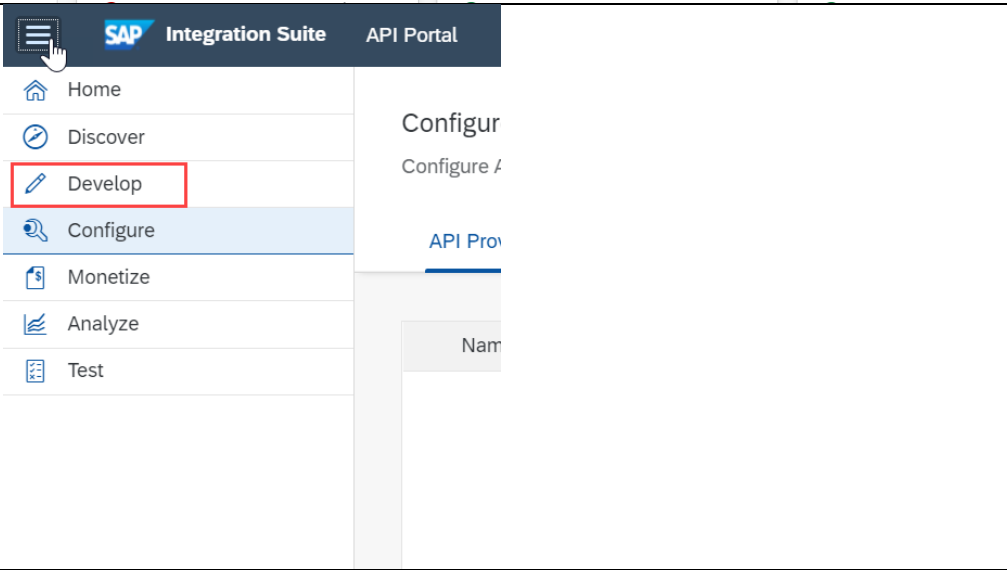


6 APIPortal is launched, click on  to expand menu items tab

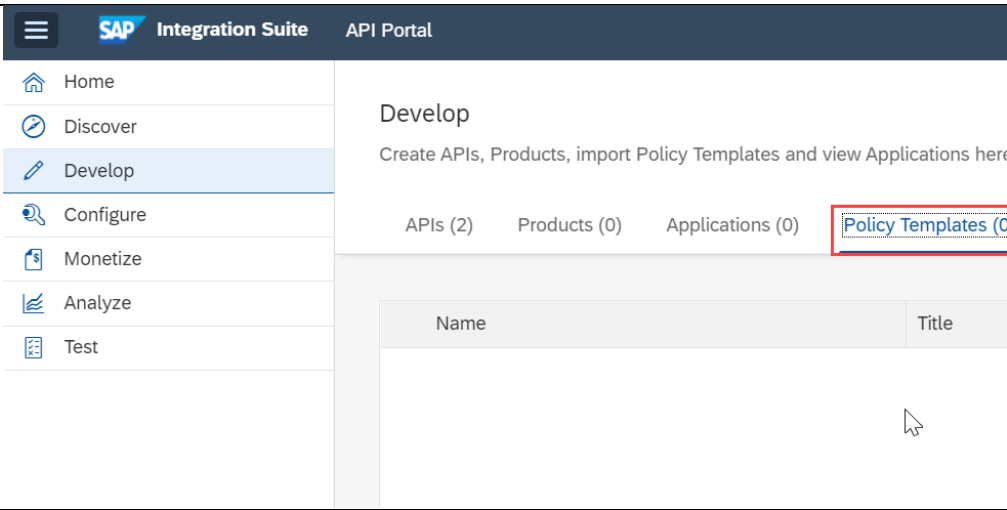


7 Navigate to Develop tab, to import policy templates

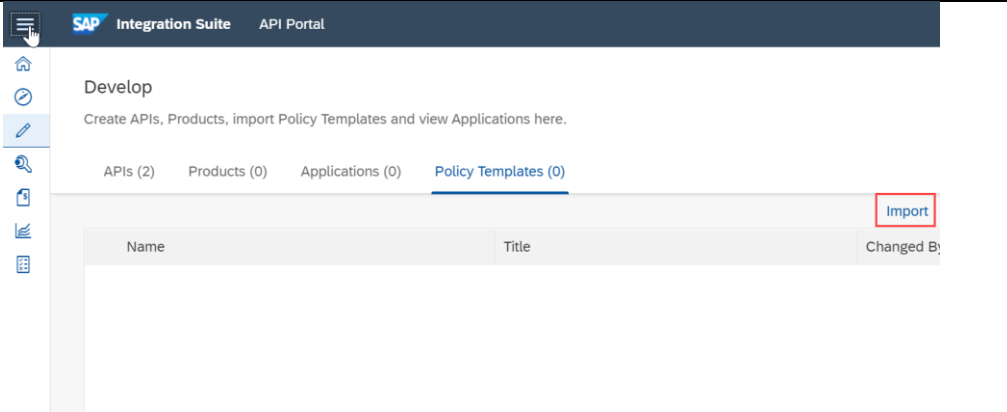
Click on Develop



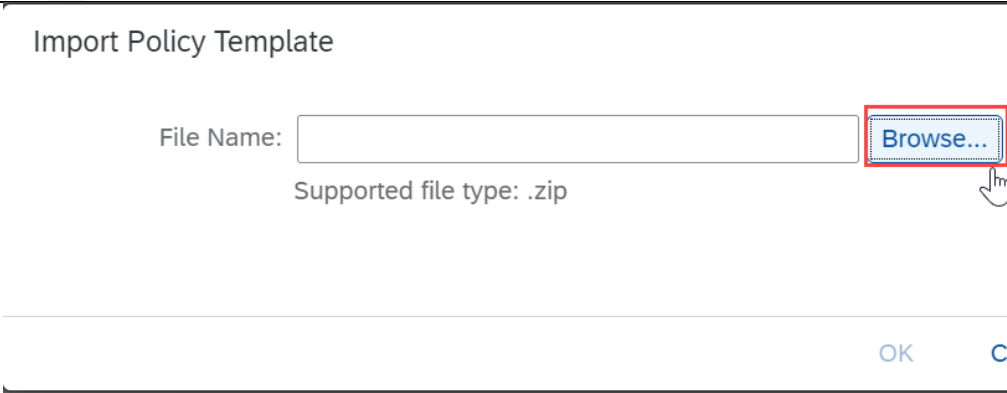
8 Click **Policy Templates** to navigate to the Policy templates section.




9 Click on **Import** to import BestRun AG built policy templates

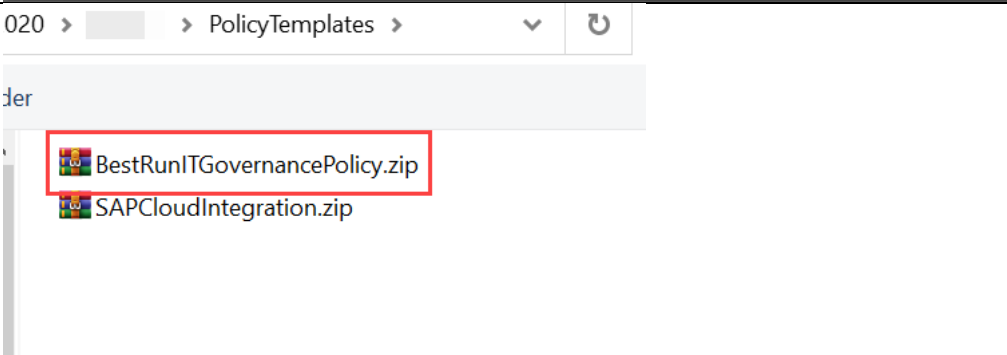


10 Click on **Browse...** to select the downloaded policy template to be imported in your SAP Cloud Platform API Portal.



11 From file select dialog, select the folder path here you had downloaded policy template

Select the policy template
 BestRunITGovernancePolicy.zip



12 Click on **OK** to import the selected policy templates

Import Policy Template

File Name:

Supported file type: .zip

13 Policy template **BestRunITGovernancePolicy** is imported in your SAP Cloud Platform APIPortal


Repeat the steps to import **SAPCloudIntegration.zip** policy templates

SAP Integration Suite API Portal

Develop

Create APIs, Products, import Policy Templates and view Applications here.

APIs (2) Products (0) Applications (0) **Policy Templates (1)**


| Name | Title |
|--|-----------------|
|  BestRunITGovernancePolicy | Policy template |

14 Now Click on **BestRunITGovernancePolicy** to view the policy template.

All the policies which are part of policy templates are shown under section Policies.





The **BestRunITGovernance** policy template consists of Verify API Key, Quota, Spike Arrest policy. As a best practice, the API Key passed from the consumer client application is removed as the API Key generated by SAP Cloud Platform API Management need not be passed to the target backend service. Removal of API Key is done through removeAPIKey policy (which is of type AssignMessagepolicy)

SAP Integration Suite API Portal


 **BestRunITGovernancePolicy**

Overview **Resource**

Policies

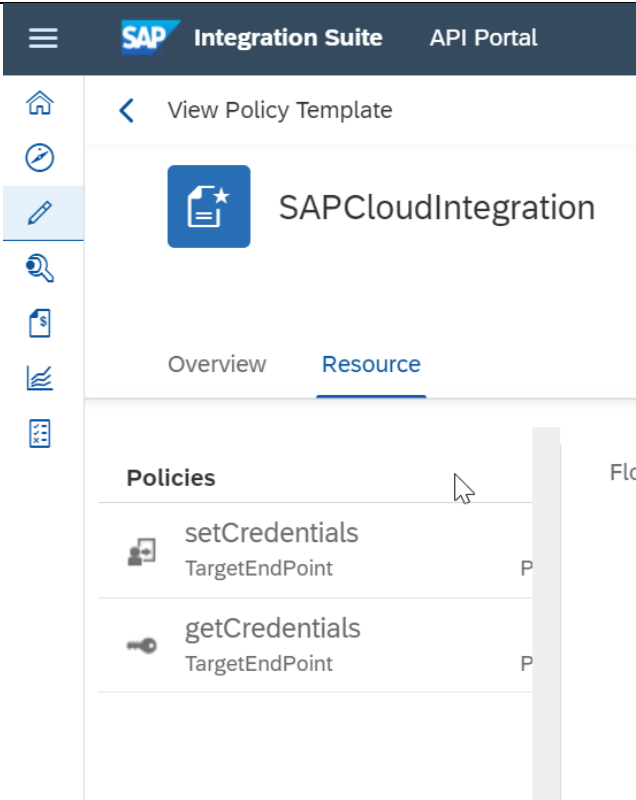
| | |
|---|---|
|  checkspike ProxyEndPoint | P |
|  checkAPIKey ProxyEndPoint | P |
|  checkQuota ProxyEndPoint | P |
|  removeAPIKey ProxyEndPoint | P |

Flow Type: P





15 Click on [SAPCloudIntegration](#) to view the policy template

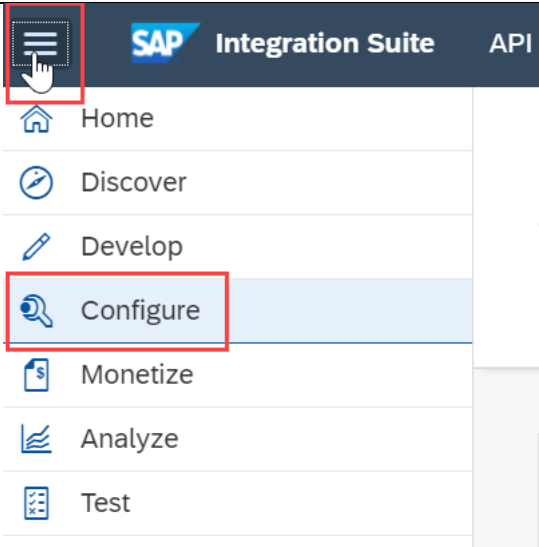
This policy templates consist of a Key Value Map policy to read user and password stored in the Key Value map named SAPCLOUDINTEGRATION (getCredentials policy) and Basic Authentication policy to connect to the target backend server using Basic Authentication (setCredentials policy)



Congratulations!, you have successfully imported the policy templates from IT team of BestRun AG into Platform API Management

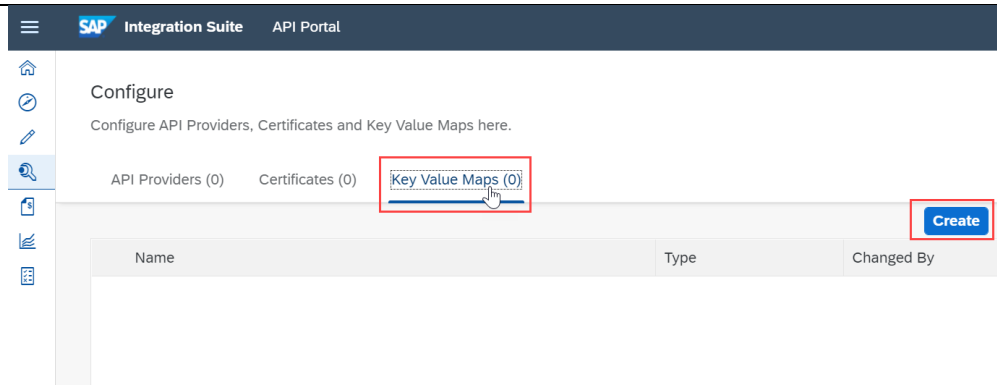
16 To Create Key Value map for SAP Cloud Platform Integration,
Click  to view all Menu tabs and select  Configure

You can create API Providers, Manage your certificates and Key Value maps from Configure tab



17 Click [Key Value Maps \(0\)](#) to navigate to Key Value maps tab, and now Click [Create](#) to create a new Key Value Map

A key value map lets you create and manage collections of arbitrary key value pairs for any number of API proxies. Each key value pair is stored in a map as an entry

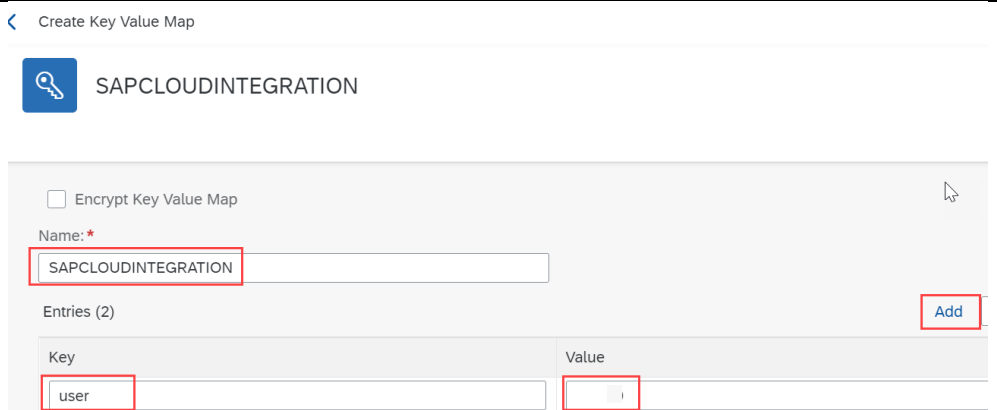


18 The Name of the Key Value Map is used as the MapIdentifier in the Key Value Maps policy to read the value in the API Proxy execution

In the SAP Cloud Platform Integration Credentials policy template the MapIdentifier is **SAPCLOUDINTEGRATION**. So Enter **SAPCLOUDINTEGRATION** in the Name text field

Enter **user** in the Key text field.

Enter **user10** in the Value text field

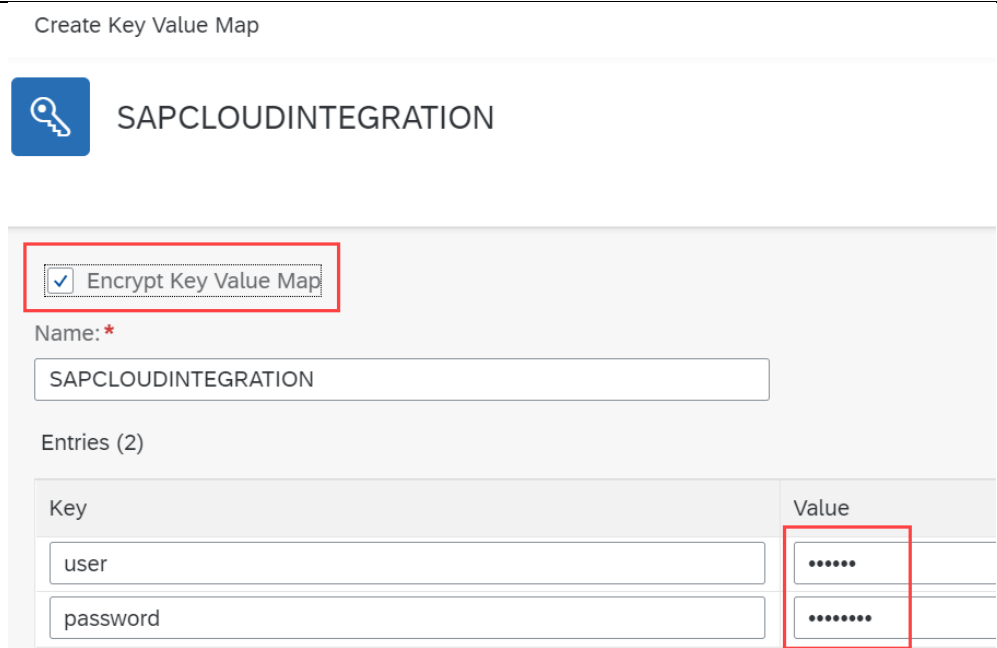









19 Click [Add](#) to add more Entries in the Key Value Map named SAPCLOUDINTEGRATION

Enter **password** in the Key text field.

Enter **Welcome01** in the Value text field

Click on ☒ [Encrypt Key Value Map](#) to securely store the credentials, the key value map will be encrypted.



| 20 | <div>Save</div> <div>Click Save to persist all changes.</div> | <div>Create Key Value Map</div> <div><div> SAPCLOUDINTEGRATION</div><div><div><input checked="" type="checkbox"/> Encrypt Key Value Map</div><div>Name: * <input type="text" value="SAPCLOUDINTEGRATION"/></div><div>Entries (2) Add <input type="text" value="Search"/></div><table><thead><tr><th>Key</th><th>Value</th><th>Action</th></tr></thead><tbody><tr><td><input type="text" value="user"/></td><td><input type="text" value="*****"/></td><td></td></tr><tr><td><input type="text" value="password"/></td><td><input type="text" value="*****"/></td><td></td></tr></tbody></table></div></div> | Key | Value | Action | <input type="text" value="user"/> | <input type="text" value="*****"/> |  | <input type="text" value="password"/> | <input type="text" value="*****"/> |  |
|---------------------------------------|---|---|-----|-------|--------|-----------------------------------|------------------------------------|---|---------------------------------------|------------------------------------|---|
| Key | Value | Action | | | | | | | | | |
| <input type="text" value="user"/> | <input type="text" value="*****"/> |  | | | | | | | | | |
| <input type="text" value="password"/> | <input type="text" value="*****"/> |  | | | | | | | | | |
| | Congratulations, you have successfully created a Key Value map named SAPCLOUDINTEGRATION to securely store the technical user credentials to connect to SAP Cloud Platform Integration. | | | | | | | | | | |

Continue to [Exercise 1.1 - Manage your microservice built using SAP Cloud Application Programming](#)