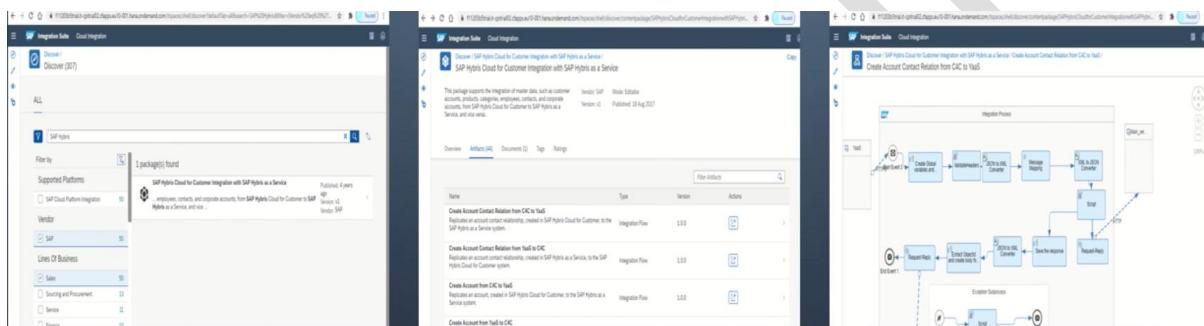


SAP CPI Web IDE Tool

CPI Web IDE Tool provides the toolset to quickly create, configure, and deploy your integration scenarios.

The four main pillars of Web IDE Tool are.

1. Discover
2. Design
3. Run
4. Monitor



Discover:

- Here we can see all the SAP-provided standard pre-packaged contents.
- We can easily adapt it to our own custom needs and use it.
- Once a package has been copied, it can easily be edited and can be modeled for us to use it as per our business scenario and this will be available in the Design tab.

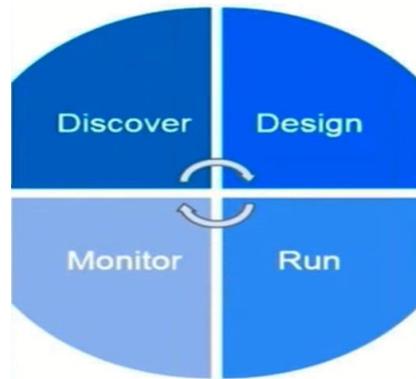
Design:

- In the design tab, you have the list of all your packages (including custom ones).
- You can edit the packages, add/modify/delete artifacts, add new flows, etc.

Operations:

- In the operations tab, you Monitor the Message Processing and manage Integration Content, Security, Stores, and Locks.
- End-to-end operations related to Web IDE for integration:

Overall, we'll be able to manage all 4 pillars. Discover, Design, Run, and Monitor for our integration scenario using the Web IDE tool provided by SAP.



First, we will see how to copy and standard I flow to make it custom and editable.

Here are the points mentioned in the image one by one reach out these steps.

61 package(s) found	
SAP Cloud for Customer Integration with SAP SuccessFactors Employee Central	Published: 5 months ago Version: 2.3 Vendor: SAP
SAP ERP HCM Integration with Pension Fund Authority - UNJSPF for NPO HR Master Data	Published: 2 years ago Version: 1.0.0 Vendor: SAP
(Deprecated) SAP SuccessFactors Employee Central Integration with SAP Cloud Platform Master Data Service for Workforce	Published: 3 years ago Version: 2.0.0 Vendor: SAP
SAP ERP HCM integration with Pension Fund Authority - UNJSPF for NPO Pension Contributions	Published: 2 years ago Version: 1.0.0 Vendor: SAP
New Zealand Inland Revenue Reporting for Payroll	Published: 5 years ago Version: 1.0.2 Vendor: SAP

After finding the Right Package you have to open it and select the mentioned I flow.

Name	Type	Version	Actions
Replicate Employee from SAP SuccessFactors Employee Central Employee Replication from SAP SuccessFactors Employee Central	Integration Flow	2.3.1	
Replicate Employee manually from SAP SuccessFactors Employee Central Employee Replication from SAP SuccessFactors Employee Central	Integration Flow	2.3.1	
Value Mapping for Integration between SAP Cloud for Customer with SAP SuccessFactors Employee Central Maintain Value mapping for Integration between SAP Cloud for Customer with SAP SuccessFactors Employee Central	Value Mapping	1.0.0	

Now, you have to download the I flow by performing these 2 steps.

SAP Integration Suite

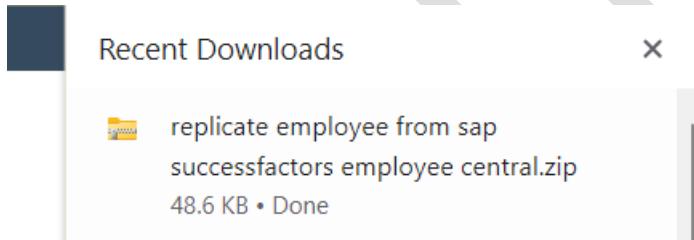
Discover (Integrations) / SAP Cloud for Customer Integration with SAP SuccessFactors Employee Central / SAP Cloud for Customer Integration with SAP SuccessFactors Employee Central

Replicate employee master data from SAP SuccessFactors Employee Central Service Center to SAP Cloud for Customer Vendor: SAP Mode: Editable Version: 2.3 Published: 17 May 2023

Overview Artifacts (3) Documents (2) Tags Ratings

Name	Type	Version	Actions
Replicate Employee from SAP SuccessFactors Employee Central Employee Replication from SAP SuccessFactors Employee Central	Integration Flow	2.3.1	View metadata Download
Replicate Employee manually from SAP SuccessFactors Employee Central Employee Replication from SAP SuccessFactors Employee Central	Integration Flow	2.3.1	View metadata Download
Value Mapping for Integration between SAP Cloud for Customer with SAP SuccessFactors Employee Central Maintain Value mapping for Integration between SAP Cloud for Customer with SAP SuccessFactors Employee Central	Value Mapping	1.0.0	View metadata

The Zip file should be saved in your system.



Now, go to your integrations tabs to create an I flow.

SAP Integration Suite

Discover (Integrations) / SAP Cloud for Customer Integration with SAP SuccessFactors Employee Central / SAP Cloud for Customer Integration with SAP SuccessFactors Employee Central

Replicate employee master data from SAP SuccessFactors Employee Central Service Center to SAP Cloud for Customer Vendor: SAP Mode: Editable Version: 2.3 Published: 17 May 2023

Design Integrations and APIs APIs Graph B2B Scenarios Custom Type Systems MIGs MAGs

Build Integration and API scenarios

Artifacts (3) Documents (2) Tags Ratings

Name	Type	Version	Actions
Replicate Employee from SAP SuccessFactors Employee Central Employee Replication from SAP SuccessFactors Employee Central	Integration Flow	2.3.1	View metadata
Replicate Employee manually from SAP SuccessFactors Employee Central Employee Replication from SAP SuccessFactors Employee Central	Integration Flow	2.3.1	View metadata
Value Mapping for Integration between SAP Cloud for Customer with SAP SuccessFactors Employee Central Maintain Value mapping for Integration between SAP Cloud for Customer with SAP SuccessFactors Employee Central	Value Mapping	1.0.0	View metadata

Click on the create button to first create a new package.

We actually create I flow in a specific package.

The screenshot shows the SAP Integration Suite interface. The top navigation bar includes icons for Home, Integrations and APIs / Design, and a search/filter bar. On the right side of the header, there are buttons for Create (highlighted with a red circle) and Import. The main content area displays a table titled 'Packages (1)'. The table has columns for Name, Mode, Version, Created By, Created Date, Description, and Action. One row is visible, showing 'Demo Package for students' as the Name, 'Editable' as the Mode, '1.0' as the Version, 'mohammad.uzair1@ibm.com' as the Created By, 'Thu, 26 Oct 2023 07:00:44 GMT' as the Created Date, 'Demo Package for Students' as the Description, and a 'Edit' icon in the Action column.

Give the information mentioned below.

The screenshot shows the SAP Integration Suite interface for creating a new package. The top navigation bar includes icons for Home, Integrations and APIs / New Package / HCM Successfactor, and a save/cancel button (highlighted with a red circle). The main content area shows a form with tabs for Header, Overview, Artifacts, Documents, and Tags. The Header tab is selected. The form fields include:

- *Name: HCM Successfactor (highlighted with a red arrow)
- *Technical Name: HCMSuccessfactor (highlighted with a red arrow)
- *Short Description: HCM SuccessFactors I flows (highlighted with a red arrow)
- Version: 1.0 (highlighted with a red arrow)
- Vendor: SAP (highlighted with a red arrow)

You can see a new package is created.

The screenshot shows the SAP Integration Suite interface under the 'Design' tab. On the left, there's a sidebar with various icons. The main area displays a table titled 'Packages (2)'. The first row contains 'Demo Package for students' with details: Mode: Editable, Version: 1.0, Created By: muhammad.uzair1@ibm.com, Created Date: Thu, 26 Oct 2023 07:00:44 GMT, Description: Demo Package for Students. The second row contains 'HCM Successfactor' with similar details. A horizontal orange box highlights the 'HCM Successfactor' row.

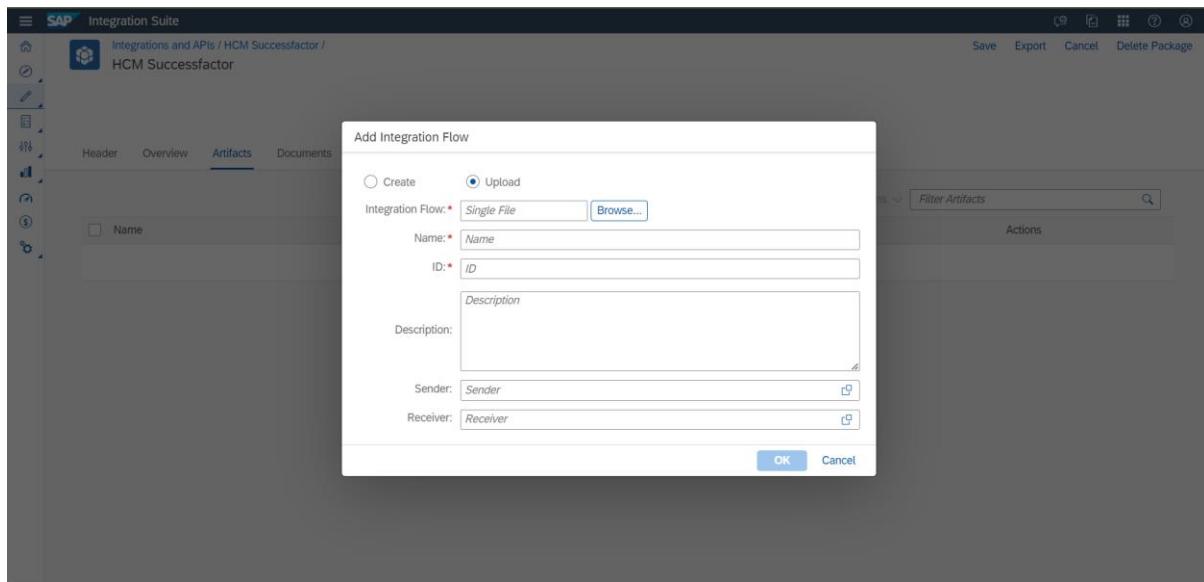
Now, to create I flow open your created package and click on edit button.

Note: Click on the **Edit button**

Now, follow the steps mentioned in the below image.

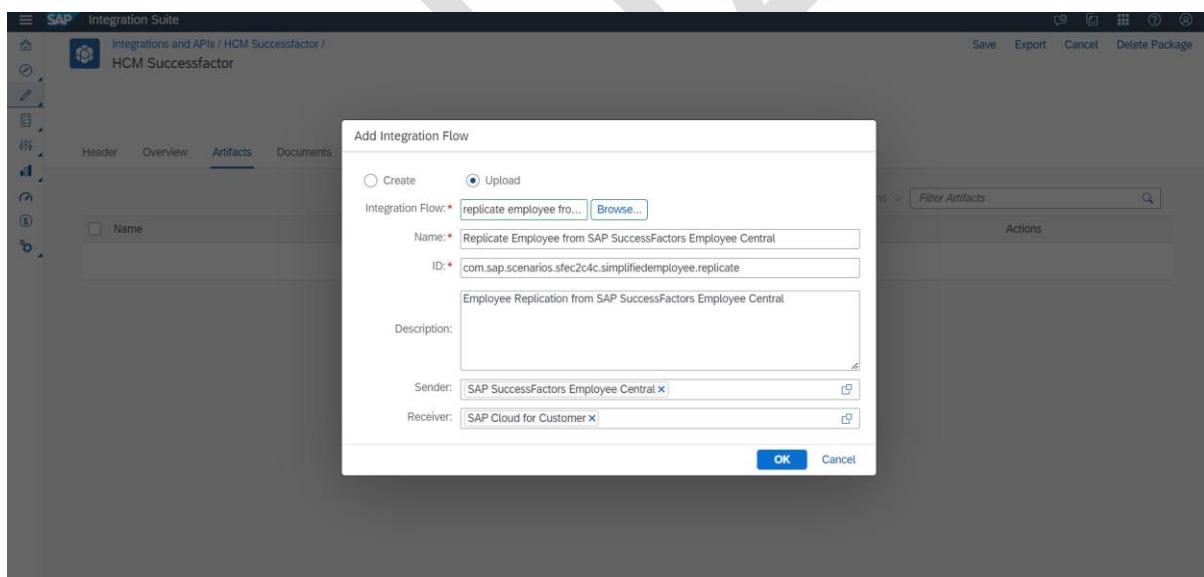
This screenshot shows the SAP Integration Suite interface for the 'HCM Successfactor' package. The top navigation bar includes 'Header', 'Overview', 'Artifacts' (which is highlighted with a red circle), 'Documents', and 'Tags'. Below this, there's a search bar and a 'No data' message. A large red arrow points from the text 'Click on edit' to a dropdown menu that is open. The dropdown menu contains several options: 'Add', 'Migrate', 'Actions', 'Filter Artifacts', and a list of artifact types including 'Integration Flow' (which is highlighted with a red box), 'SOAP API', 'Value Mapping', 'OData API', 'Script Collection', 'API', 'REST API', 'Message Mapping', 'Function Libraries', 'Integration Adapter', 'Data Type', and 'Message Type'. To the right of the dropdown, there are 'Version' and 'Actions' buttons.

This window will appear.



By clicking on the Browse Button, Import the package here.

Give the all other information as given in below image.



So, you can see I flow is created. Just save it.

The screenshot shows the SAP Integration Suite interface. In the top navigation bar, the path is 'Integrations and APIs / HCM Successfactor / HCM Successfactor'. Below the path, there are buttons for 'Save', 'Export', 'Cancel', and 'Delete Package'. The main area is titled 'Artifacts (1)' and shows a table with one item:

Name	Type	Version	Actions
Replicate Employee from SAP SuccessFactors Employee Central	Integration Flow	2.3.1	

A message box at the bottom center says 'Integration Flow created.'

Now, Click on I flow, and you can see it looks like this.

We can edit by clicking on the edit button.

The screenshot shows the SAP Integration Suite interface with the 'Edit' button selected for the integration flow. The main area displays the integration process diagram. The process starts with a 'Start' node, followed by a 'Read External Parameters' step, then a 'Get Header' step. This is followed by a decision diamond 'Is Employee'. If 'Yes', it goes through 'Read Employee' and 'Update Employee' steps. If 'No', it goes through 'Create Employee' and 'Update Employee' steps. After the employee processing, it continues with 'Calculate Hash', 'Write Hash', and 'End Process' steps. There are also parallel processes for 'Read Last Modified Date' and 'Write Last Modified Date'. The overall process is labeled 'Process Employee Data Next'.

Now, we create our own new I Flow.

For this first, we need to assign a new role “**MessagingSend**” to Our user.

For this purpose, we will first create a new role collection.

Follow these mentioned steps to create a role collection.

The screenshot shows the SAP BTP Cockpit interface. On the left sidebar, under the Security section, 'Role Collections' is highlighted with a red circle and a number '1'. A modal window titled 'Create Role Collection' is open in the center. Inside the modal, the 'Name' field contains 'Integration_Provisioner_Auto' and the 'Description' field contains 'New Role Collection for message mapping'. A red circle with a number '2' is around the 'Create' button at the bottom right of the modal. The background table lists various role collections like 'AuthGroup.API.Admin' and 'AuthGroup.Content.Author'. A red circle with a number '3' is over the 'AuthGroup.API.ApplicationDeveloper' row, and another red circle with a number '4' is over the 'AuthGroup.Content.ContentAdmin' row. A red circle with a number '5' is over the 'Create' button in the table header.

After creation, search created role collection and click on it to assign a role.

The screenshot shows the SAP BTP Cockpit interface after the role collection has been created. The 'Role Collections' item in the sidebar is highlighted with a red circle and a checkmark. The main area displays a table of role collections. One row in the table is highlighted with a red circle and a checkmark, corresponding to the 'Integration_Provisioner_Auto' entry. The table includes columns for Name, Description, Roles (which shows 'MessagingSend'), User Groups, and Actions.

SAP BTP Cockpit - Trial Home / trial / trial

Subaccount: trial - Role Co... Create

Integration_Provisioner_Auto

Description: Integration Provider for message mapping

Roles **Users (1)** **User Groups** **Attribute Mappings**

Users (1)

ID	Identity Provider	E-Mail	First Name	Last Name
muhmmad.uzair1@ibm.co	Default identity provider	muhmmad.uzair1@ibm.co	Muhamma	Uzair

User Groups

Identity Provider	Name
-------------------	------

Add these 2 roles and save.

First role is mentioned in below image. Second role in next one.

SAP BTP Cockpit - Trial Home / trial / trial

Select: Role

Role Name: **MessagingSend**

Role Template:

Application Identifier:

Roles

Role Name	Role Template	Application Identifier
MessagingSend	MessagingSend	it-rt-cf433a9trial!b55215

Selected Roles (1)

Add **Cancel**

Second Role is mentioned in below image.

Role Name	Role Template	Application Identifier
IntegrationProvisioningAdmin	IntegrationProvisioningAdmin	it-prov!t55215

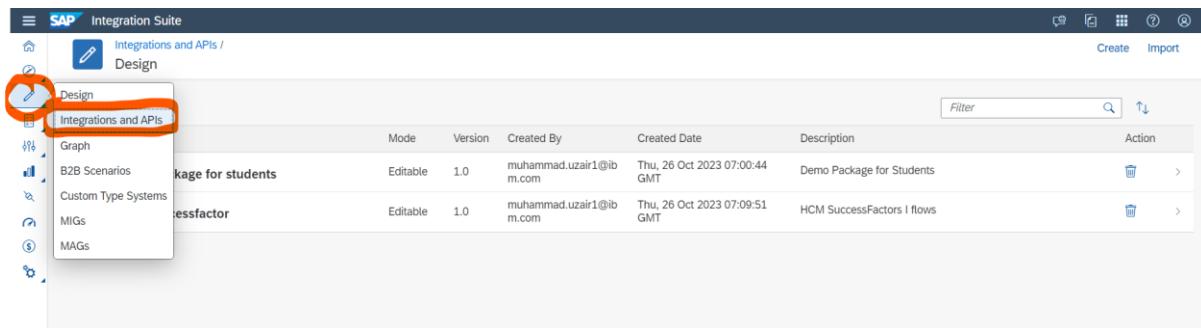
After that go to the User tab click on your user and assign that role collection to that user as before we assigned.

Name	Description	Action
Integration_Provisioner_Auto	Integration Provider for message mapping	

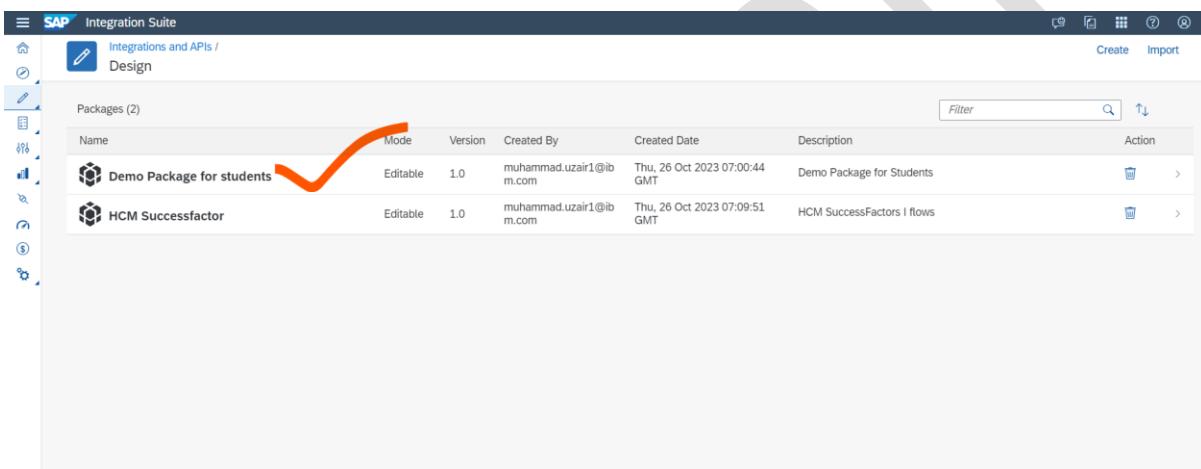
Application Name	Role Name
it-prov!t55215	IntegrationProvisioningAdmin
it-rt-cf433a9trial!b55215	MessagingSend

Now go to subscriptions, click on Integration Suit, and click Go To Application.

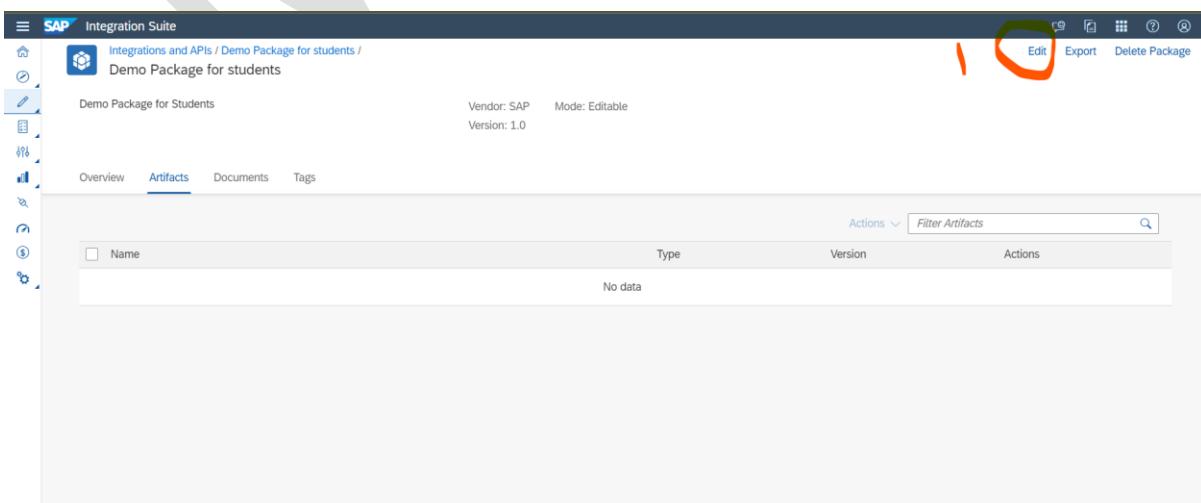
On Integration Application follow these steps.



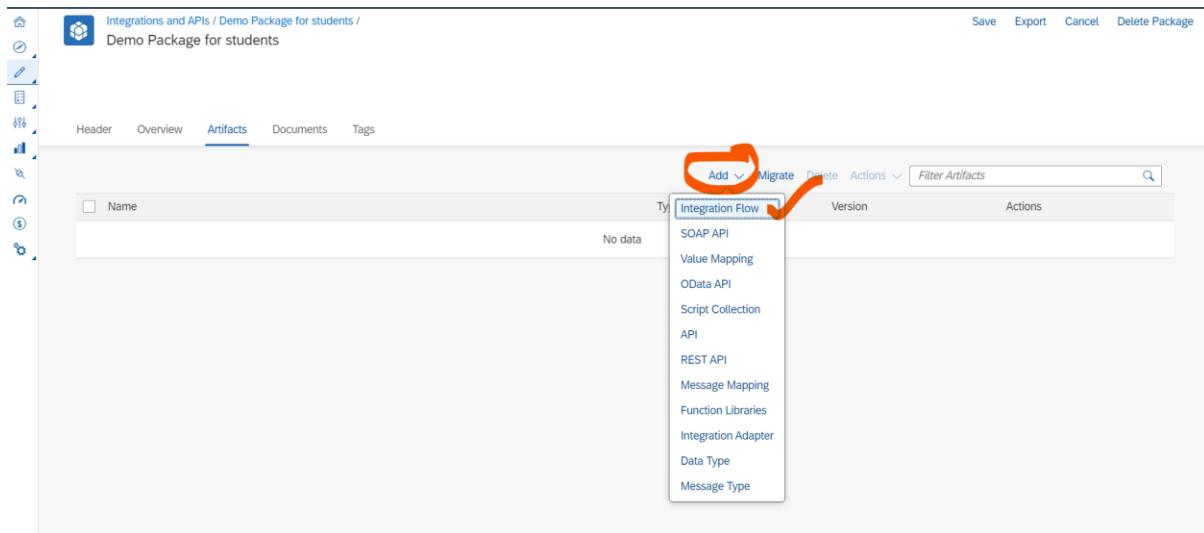
Open The Package.



Click on Edit Button.

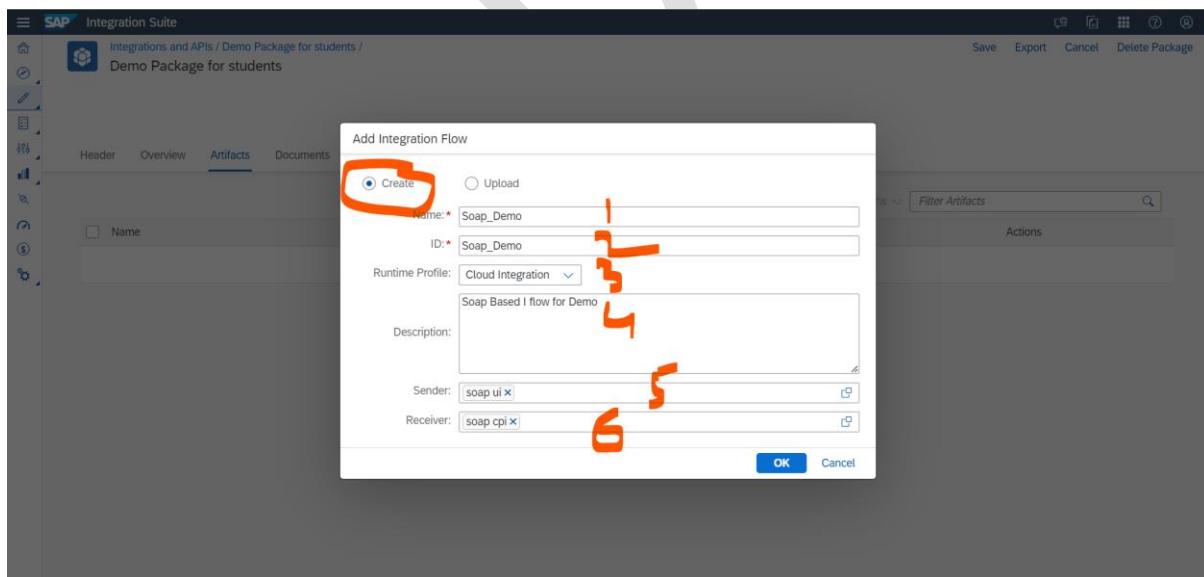


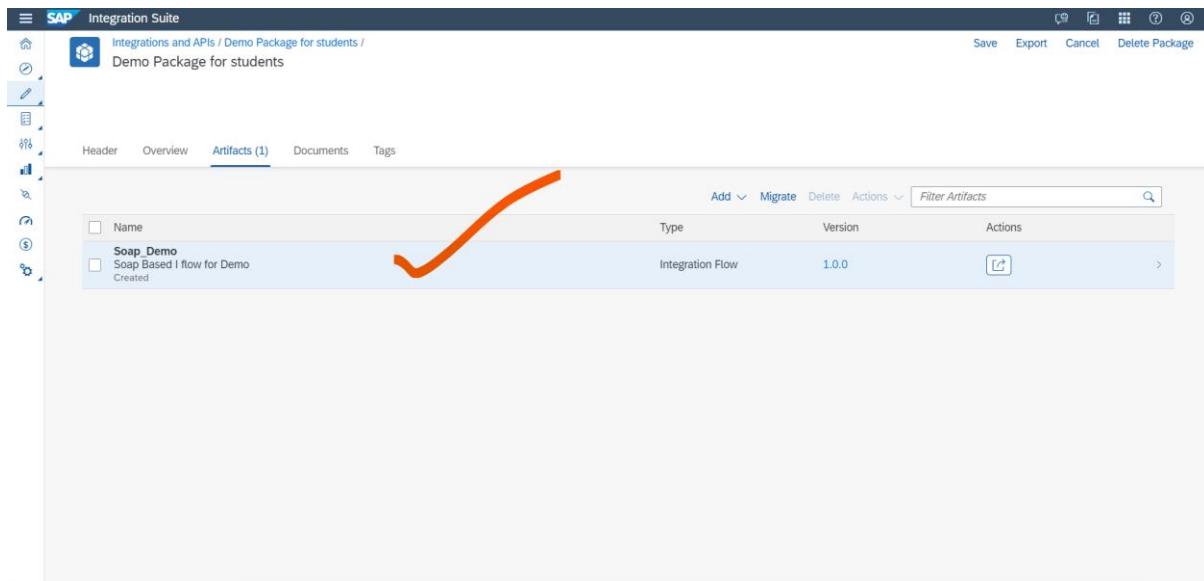
Click on circled area and click on Integration Flow.



Select the Create button and fill the information.

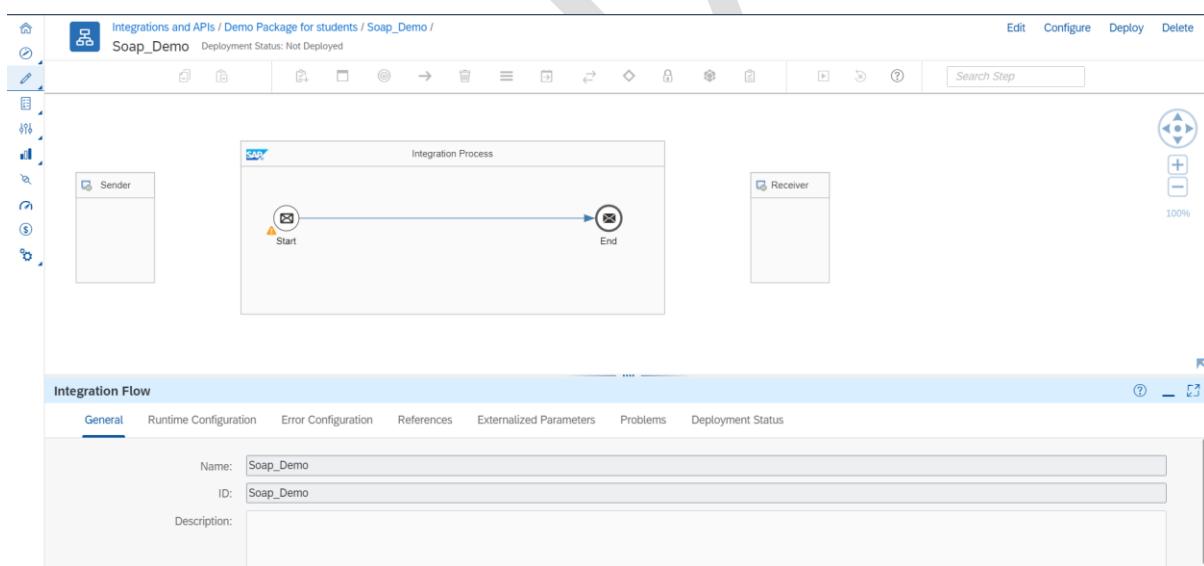
As I am taking a SOAP-based Example. So, I just write Soap UI in the sender and Soap Cpi in the receiver.





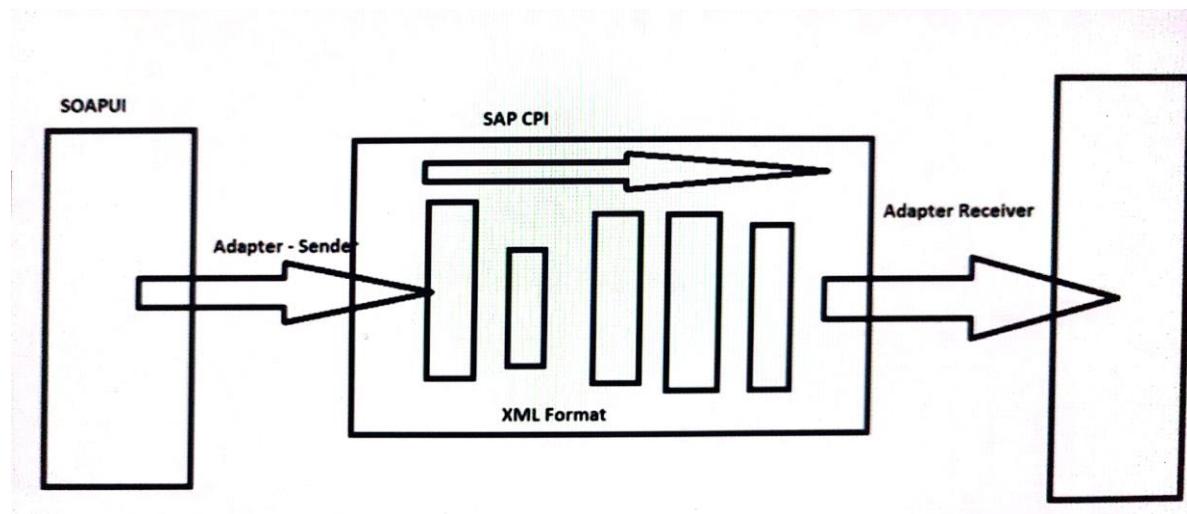
Just Click on It and Open it.

It will look like this.



In This Case Scenario, I am going to send request from SOAP UI Tool to my Integration Process.

We will send some data from SOAP Service and Receive in CPI side. Here is the Adapter receiver. Same data will come back to SOAP as response.

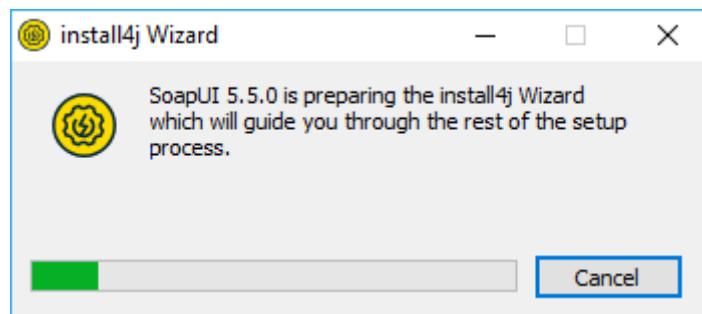


For the further process, you need to install the SOAP UI Tool.

Use this link to download: <https://www.soapui.org/downloads/soapui/>

To Install SOAP UI Tool, follow these instructions:

Once downloaded, the installation is straightforward. Start it by just double-clicking on it. The installer will start immediately.

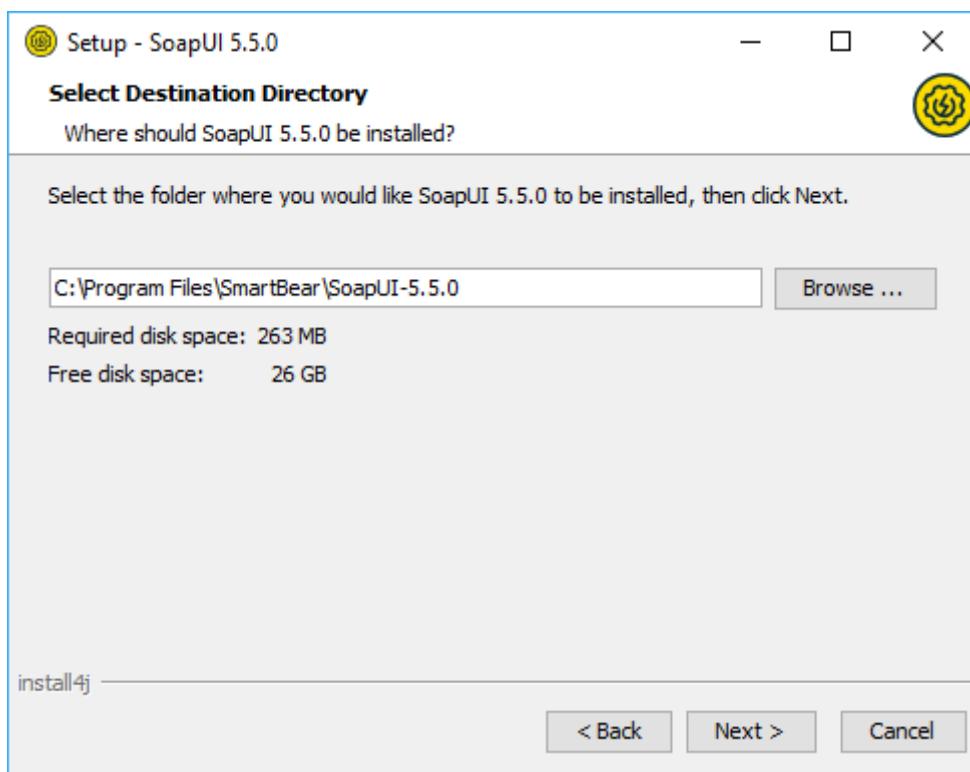


You'll soon see the starting screen.

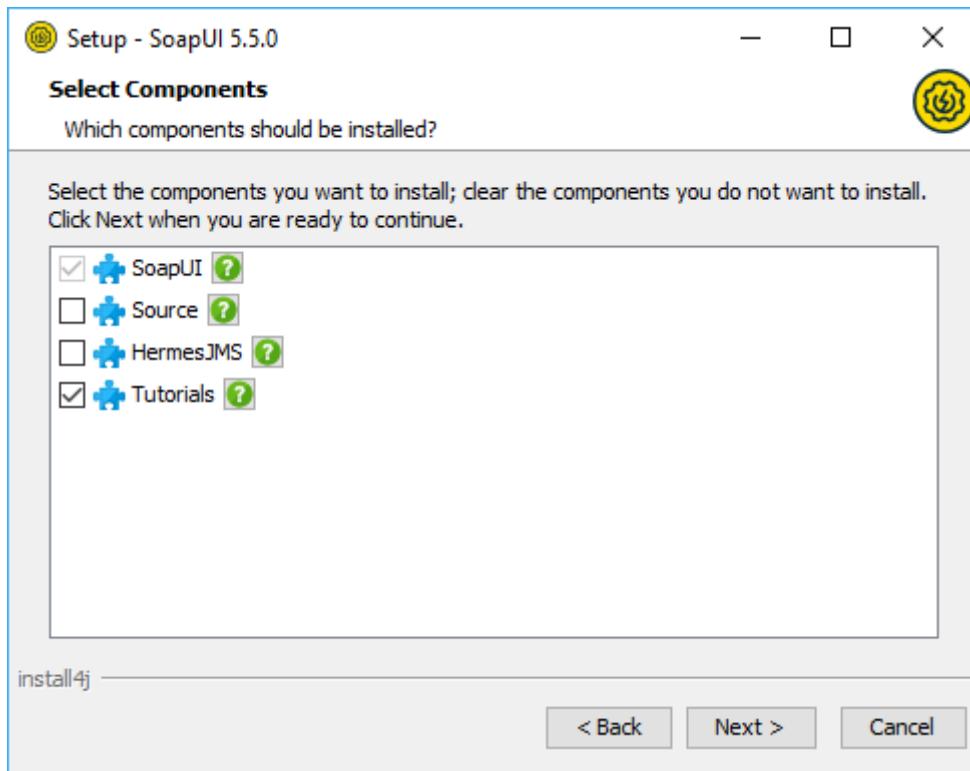


Click *Next* to continue.

Select the destination folder, which by default is set to C:\Program Files\SmartBear\SoapUI-5.5.0.

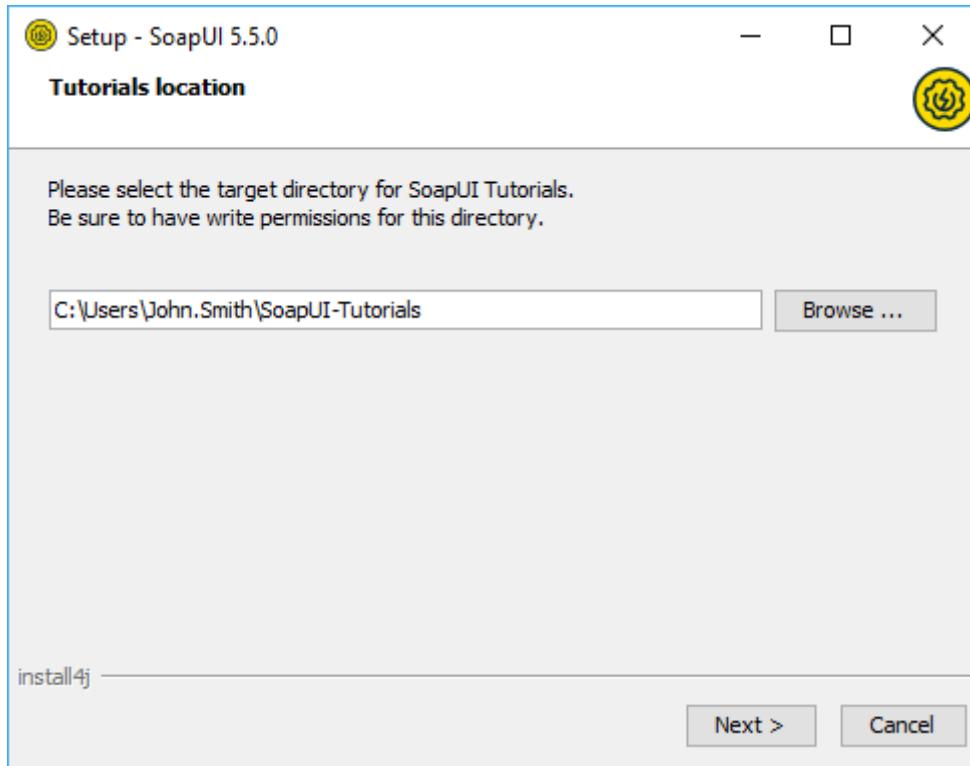


Next step gives you the opportunity to include, as additional components, SoapUI source files, HermesJMS installation and tutorials.



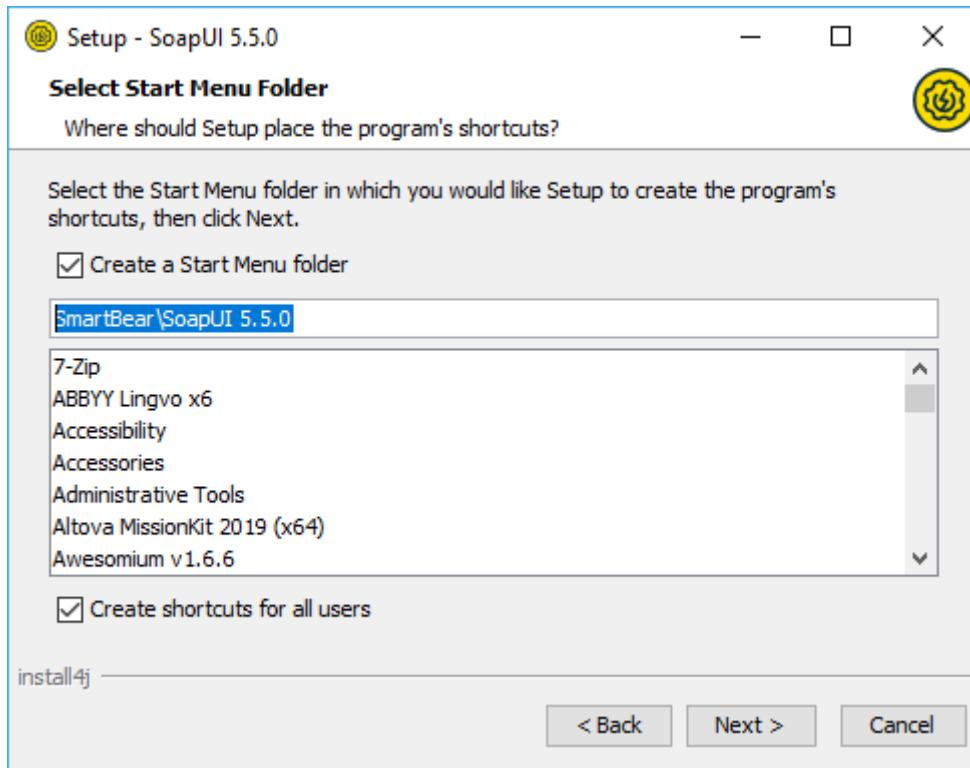
Note: If you choose to install HermesJMS, you will have to accept the HermesJMS license agreement.

If you choose to install SoapUI tutorials, specify the directory to which you want to install them.

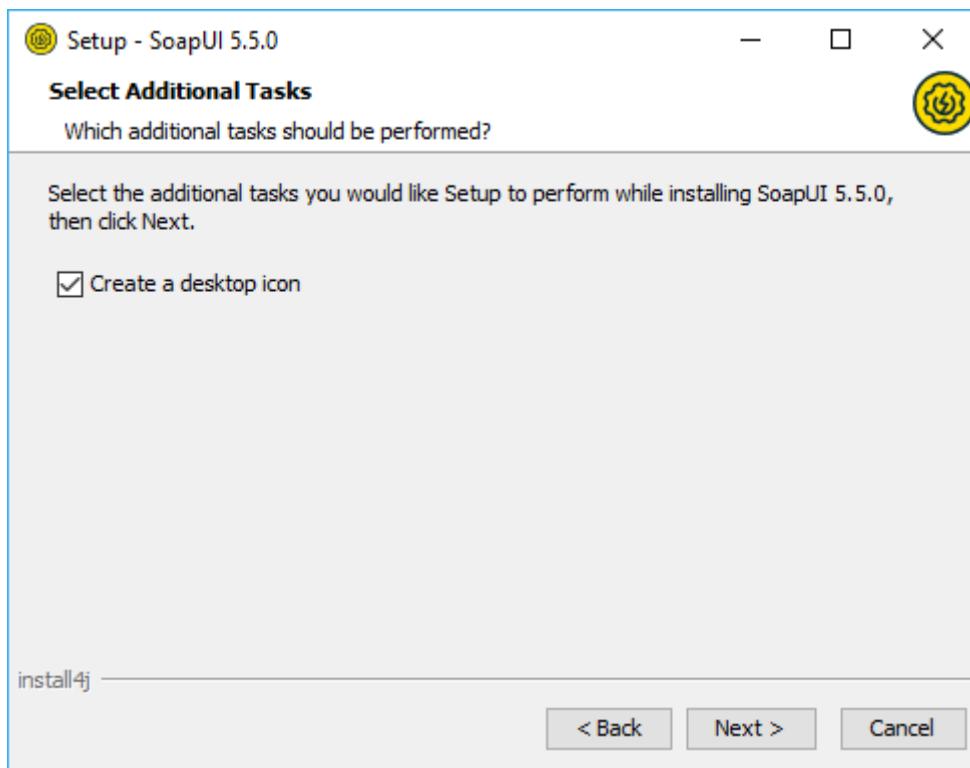


Then, you'll be able to select the Start Menu folder where you want the soapUI shortcut to be added

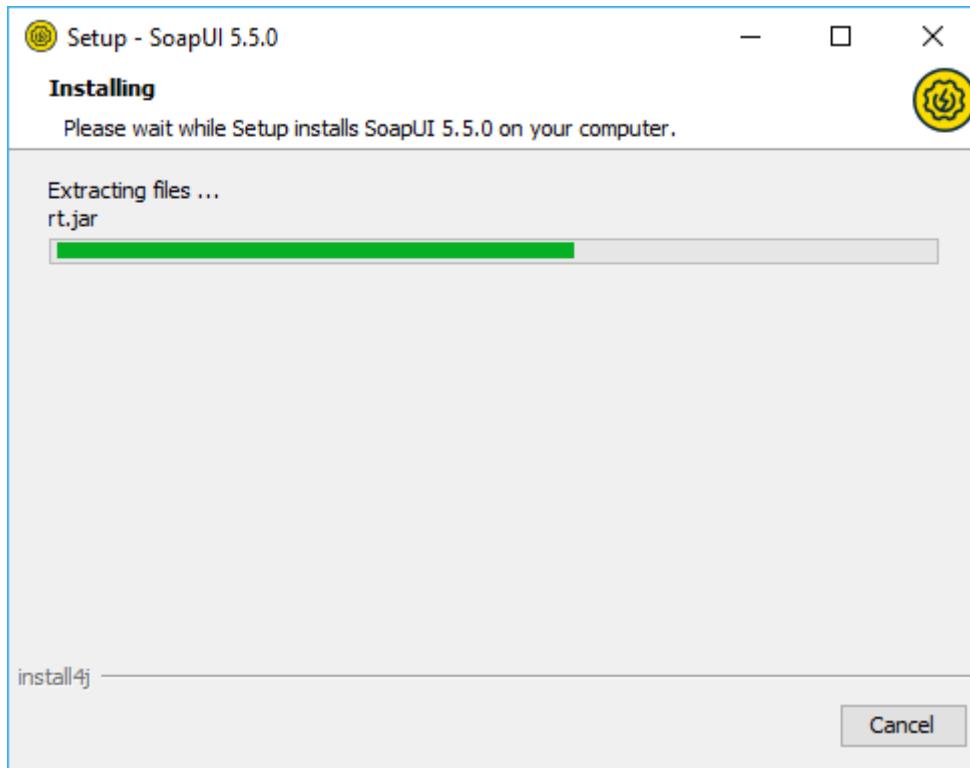




and whether you would like desktop icon added.



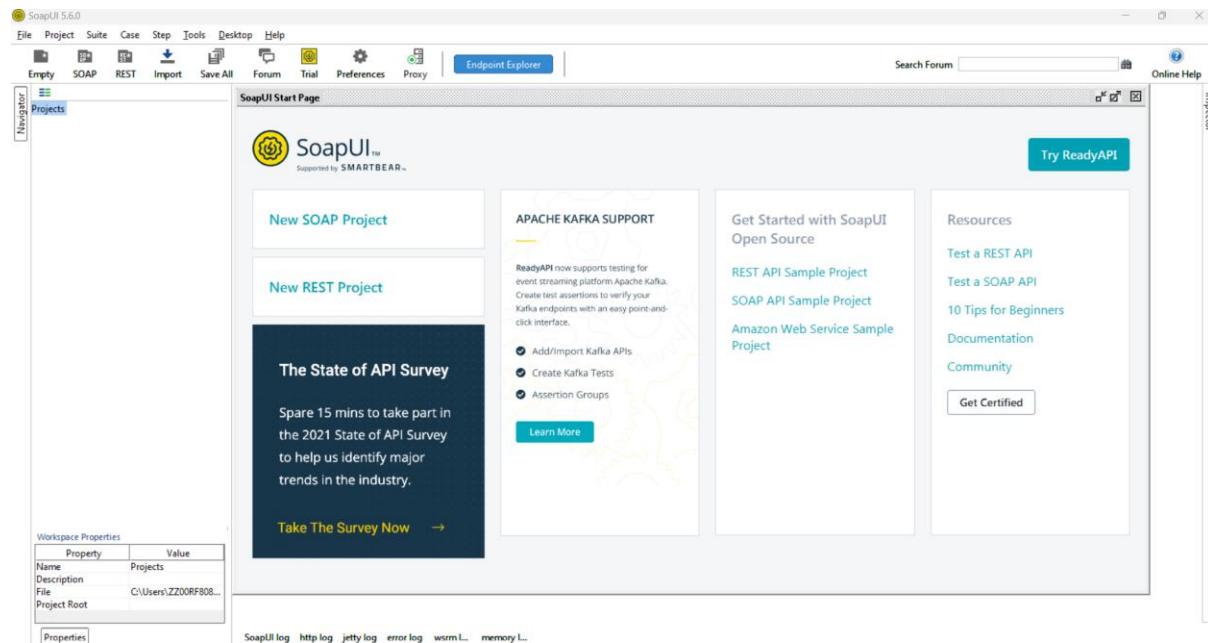
Finally, by clicking *Next*, the installation starts.



After couple of minutes at most, the installation should be finished and you should see the next screen.



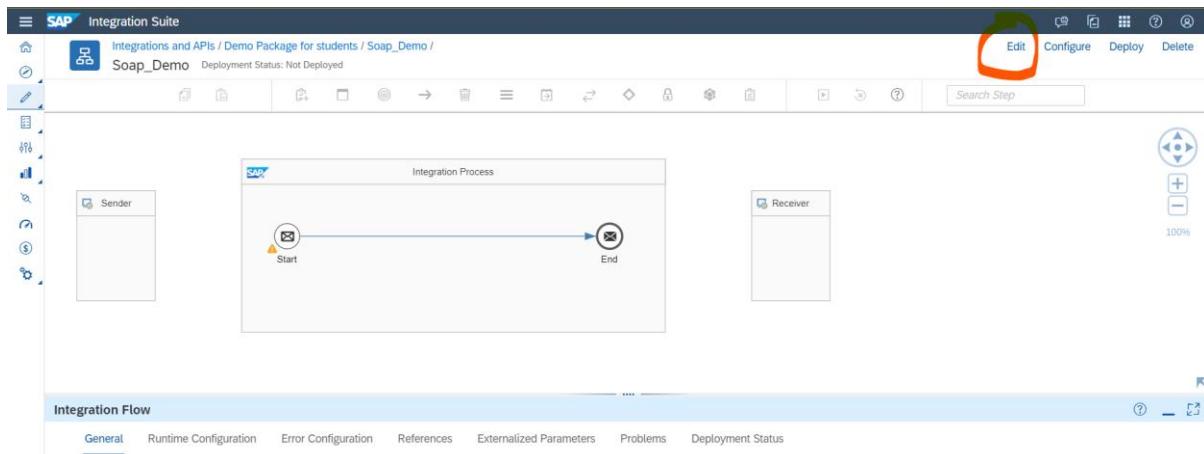
Now you are ready to use SoapUI.



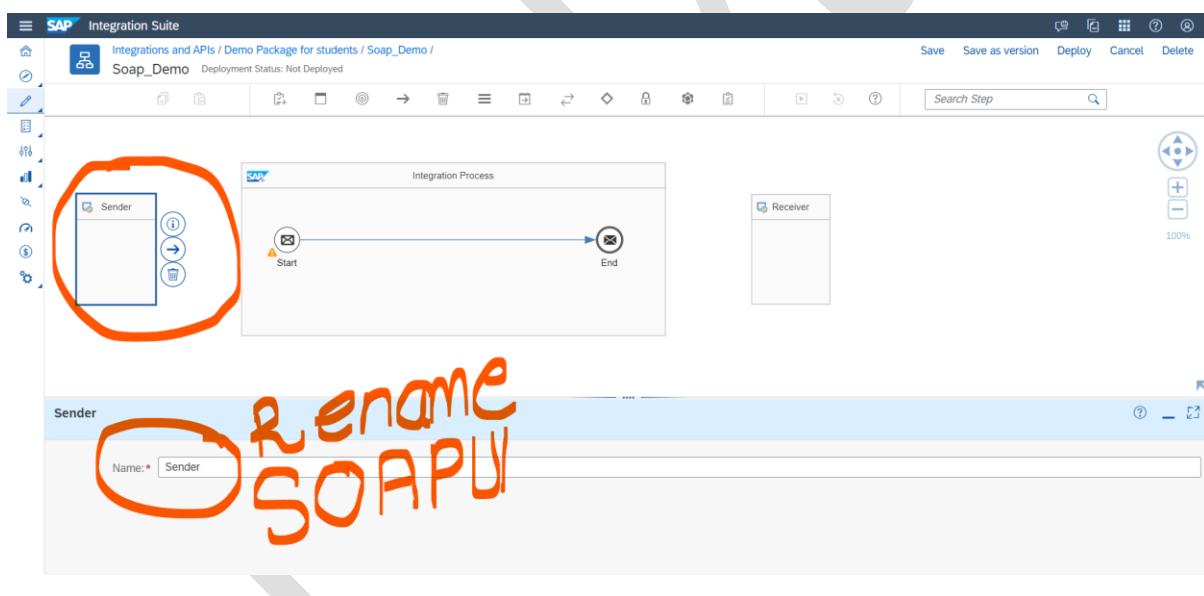
END OF INSTALLATION SOAP UI

After SOAP installation Just Go to the I flow tab in the integration Suite application.

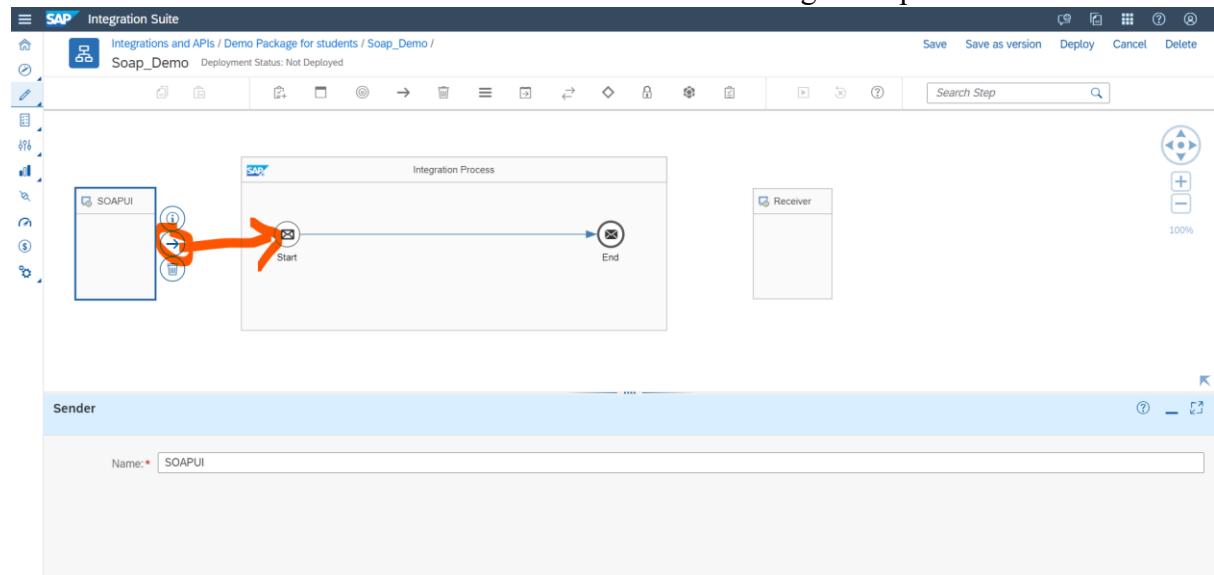
Click On Edit Button:



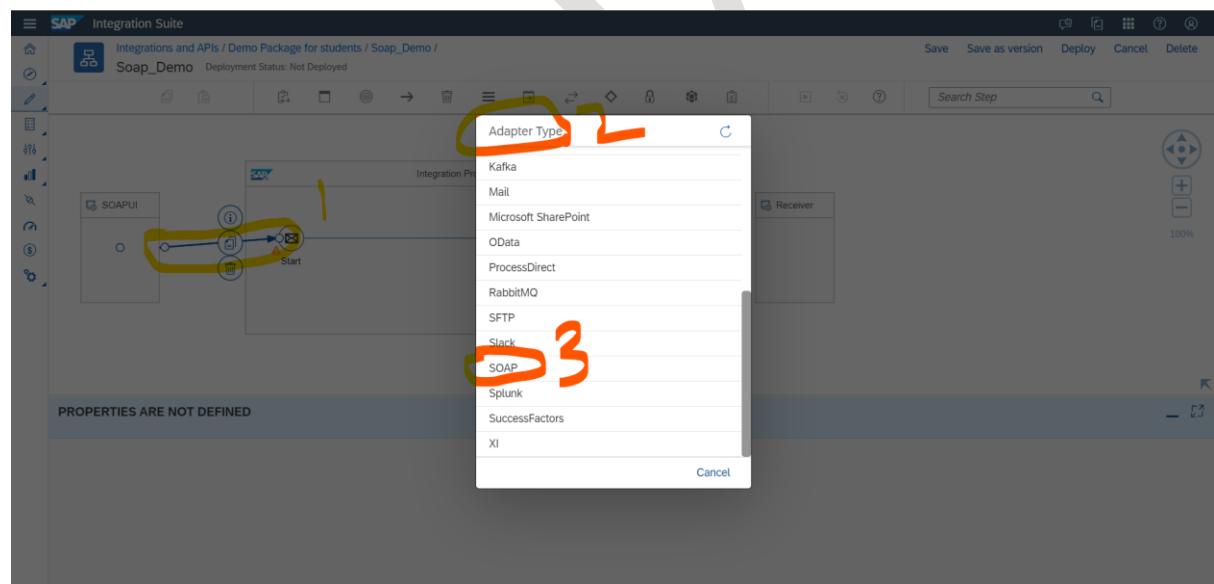
Click on Sender Box and Rename It to SOAPUI.



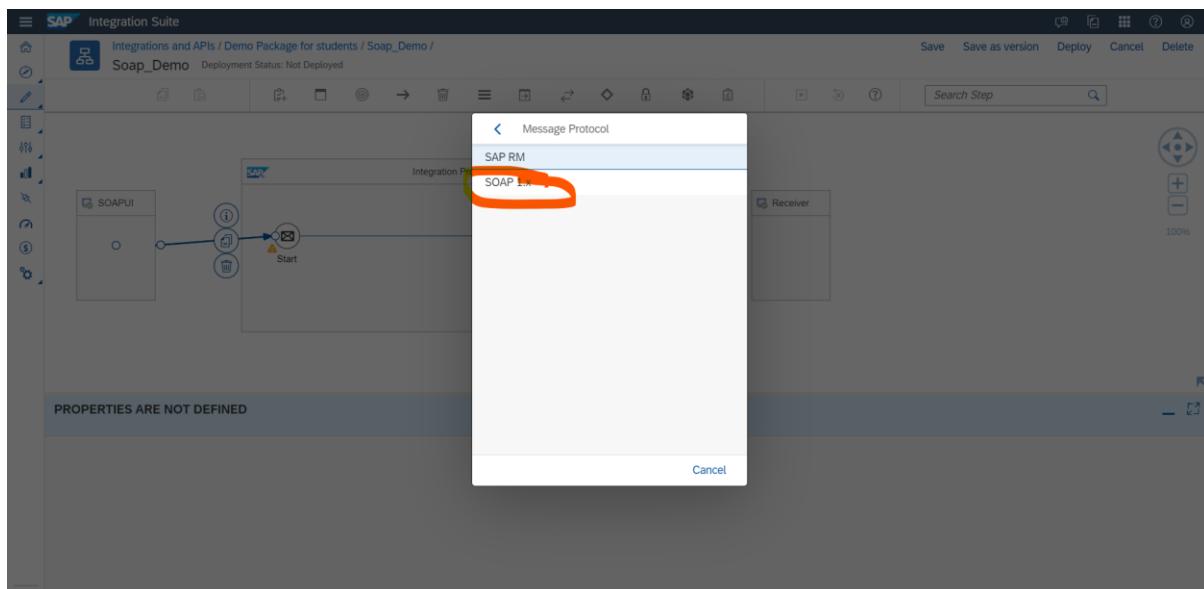
Now click on Sender Box and catch arrow and meet with Integration process Start Icon.



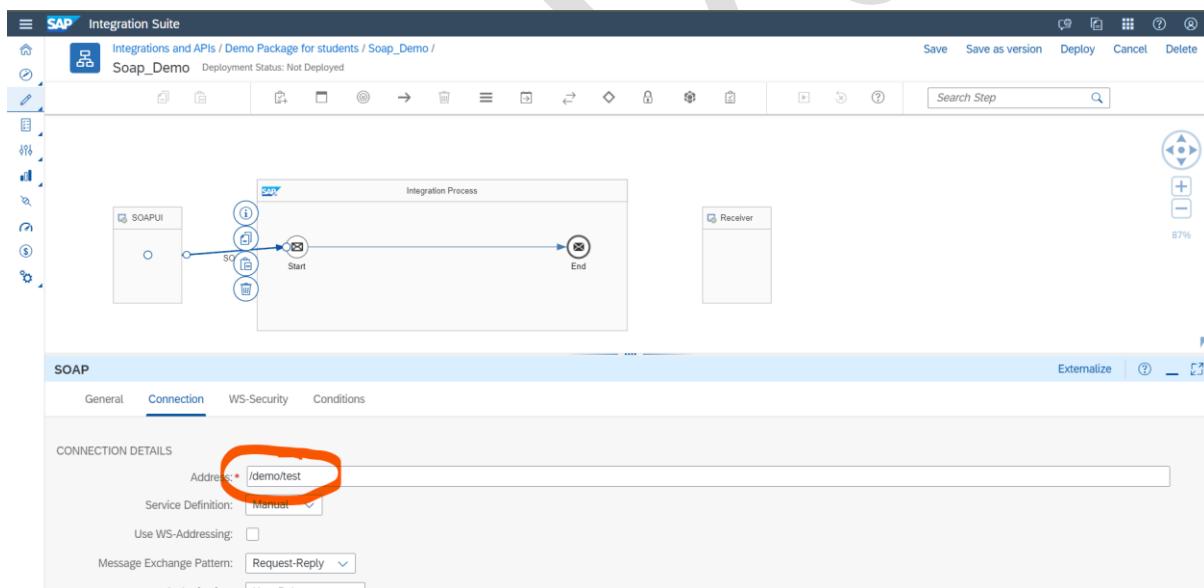
When we drag the arrow and meet with the start icon, It prompts a box with adapter types. Adapter means the way from where we are communicating. In our case it's SOAP. So, Select SOAP.



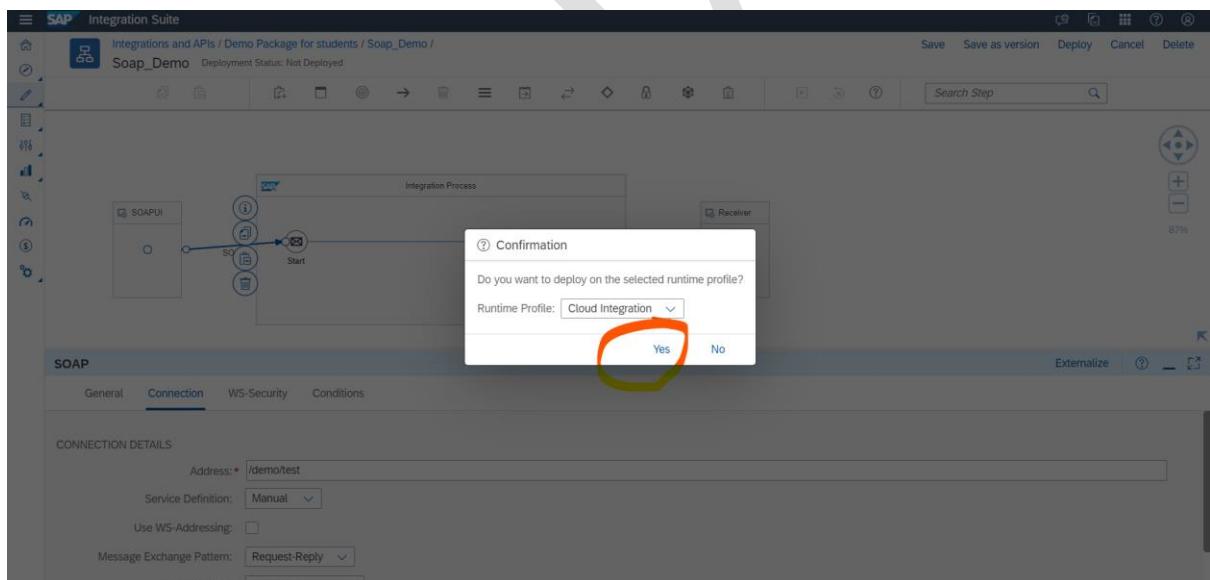
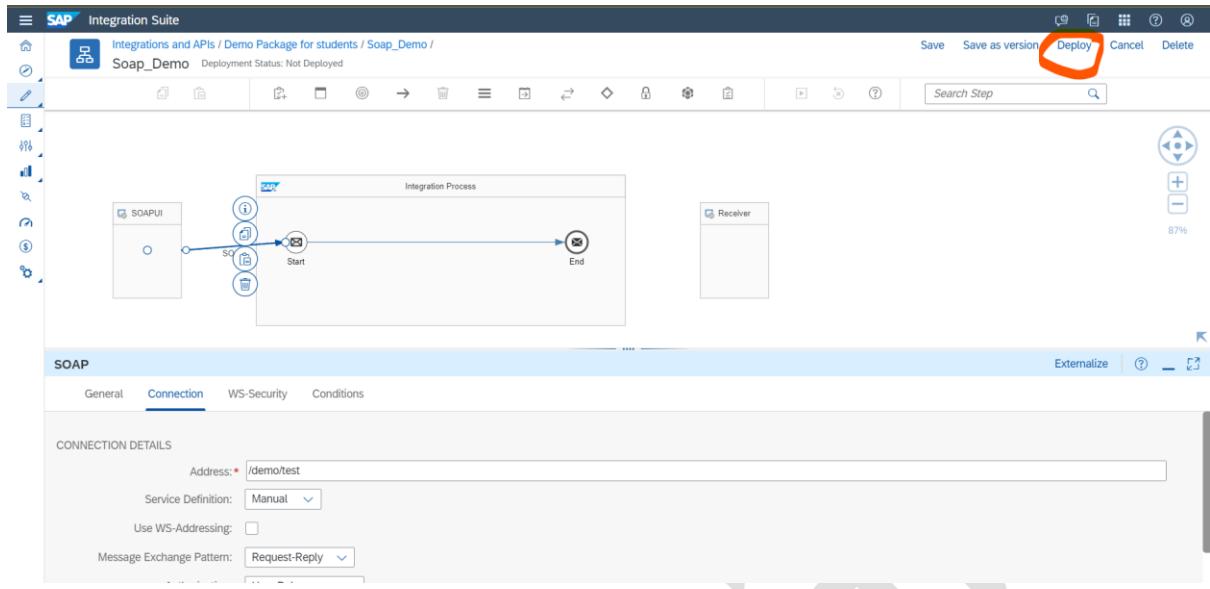
Now Select Message Protocol:

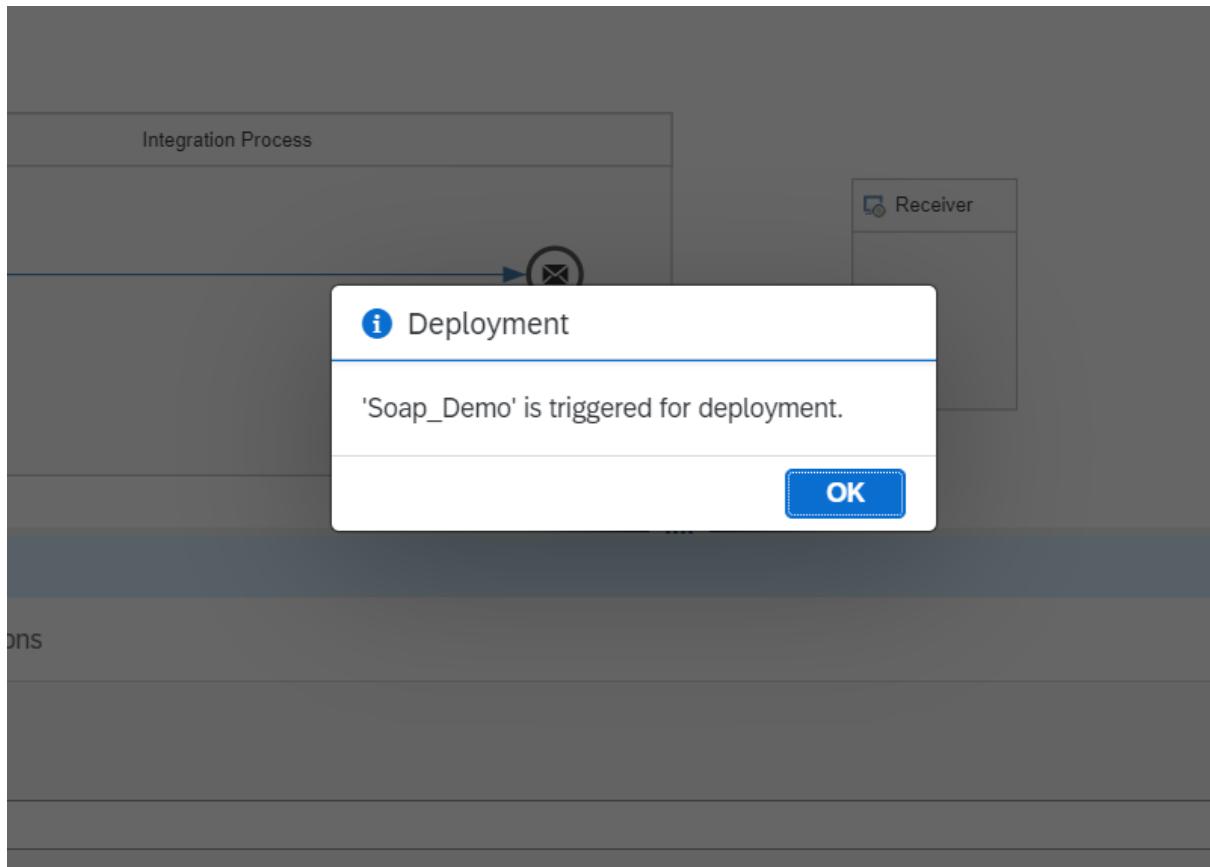


Click on the connection tab and write the address. Here you can write which you want and save it.



After saving just Click on Deploy:





After Deploying follow these steps:

A screenshot of the SAP Integration Suite Overview page. The page has several sections: "Monitor Message Processing" (with a red circle and arrow highlighting the "Monitor" tab under "Integrations and APIs"), "Manage Integration Content" (showing 1 integration), and "Manage Security". Each section contains various metrics like Failed Messages, Retry Messages, Completed Messages, and connectivity tests. The "Monitor" section under "Integrations and APIs" shows 0 failed messages, 0 retry messages, and 0 completed messages.

Monitor Message Processing

- All Artifacts Past Hour: 0
- Failed Messages: 0
- Retry Messages: 0
- Completed Messages: 0

Manage Integration Content

- All: 1
- Started: 0
- Error: 0

Integration Content (1)

Name	Status
Soap_Demo	Starting
Integration Flow	

Soap_Demo

Deployed On: Oct 26, 2023, 22:55:32
Deployed By: muhammad.uzair1@ibm.com
ID: Soap_Demo
Version: 1.0.0
Package: Demo Package for students

Endpoints Status Details Artifact Details Log Configuration

The Integration Flow is starting.

Integration Content (1)

Name	Status
Soap_Demo	Started
Integration Flow	

Soap_Demo

Deployed On: Oct 26, 2023, 22:55:32
Deployed By: muhammad.uzair1@ibm.com
ID: Soap_Demo
Version: 1.0.0
Package: Demo Package for students

Endpoints Status Details Artifact Details Log Configuration

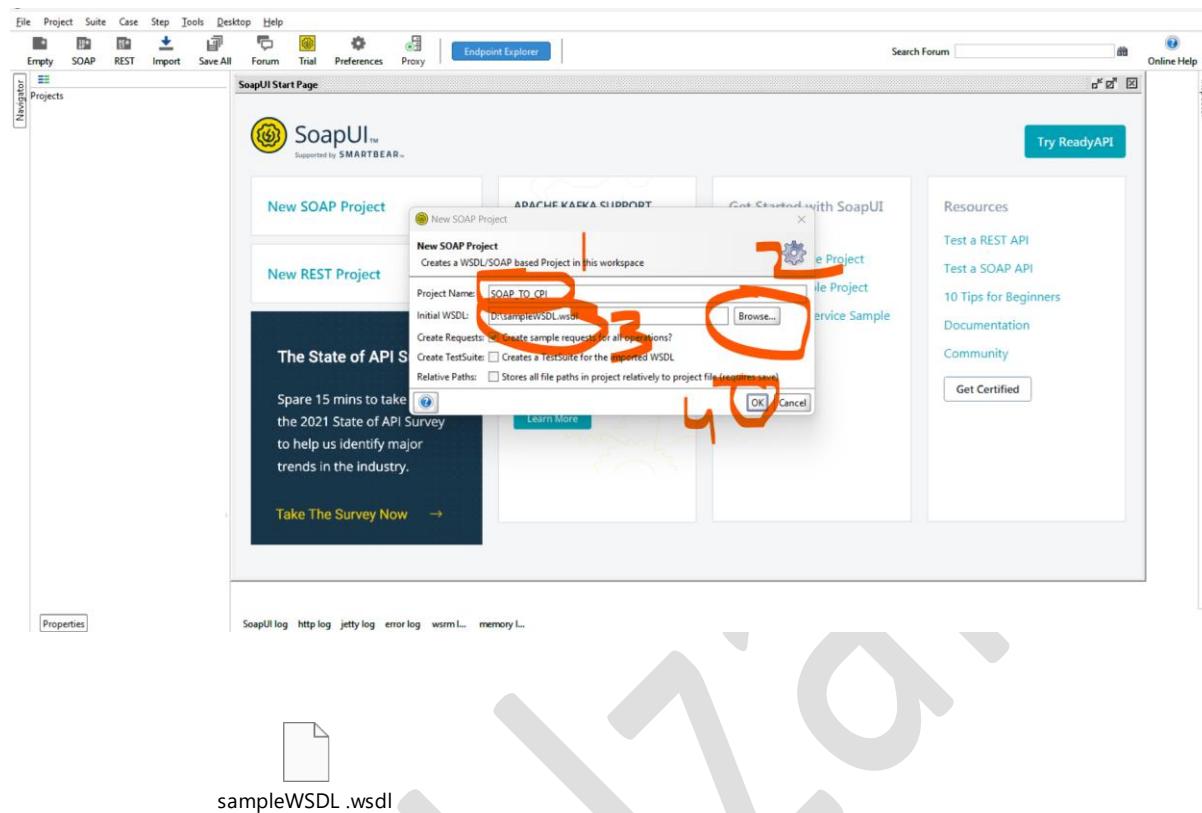
The Integration Flow is deployed successfully.

After a while again refresh by 1 area.

The screenshot shows the SAP Integration Suite interface. On the left, there's a sidebar with icons for Overview, Integration Content, Filter by Name or ID, and a search bar. Below that are sections for Name and Status, with 'Soap_Demo' listed as Started. The main panel displays 'Soap_Demo' details: Deployed On: Oct 26, 2023, 22:55:32; Deployed By: muhammad.uzair1@ibm.com; ID: Soap_Demo; Package: Demo Package for students; Version: 1.0.0. There are tabs for Endpoints, Status Details, Artifact Details, and Log Configuration. The Endpoints tab shows a WSDL endpoint URL: <https://cf433a9dtrial1.it-cpitrial06-rt.cfapps.us10-001.hana.ondemand.com/cx/demos/1425>. A red box highlights this URL. Below it are links for WSDL and WSDL without policies, along with download icons. The Status Details section indicates the flow was deployed successfully. The Artifact Details section includes links for Monitor Message Processing, View deployed Artifact, and Navigate to Artifact Editor. The Log Configuration section is currently empty.

Note here is some endpoint that is the address given on I flow creation time.

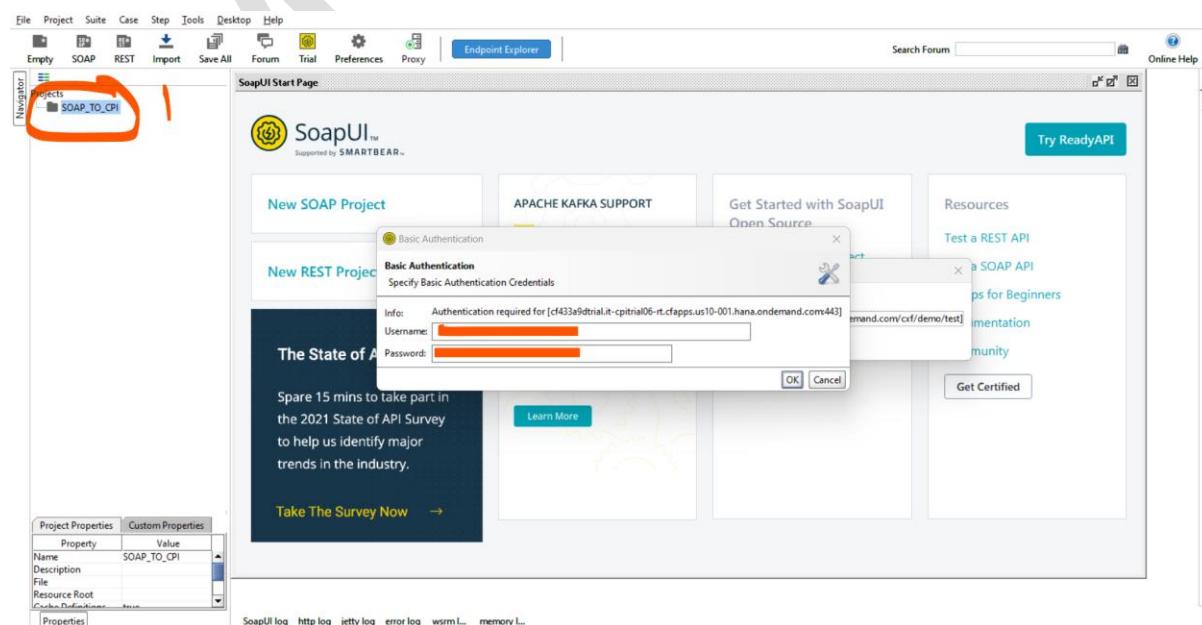
Now go to SOAP UI Tool and follow:

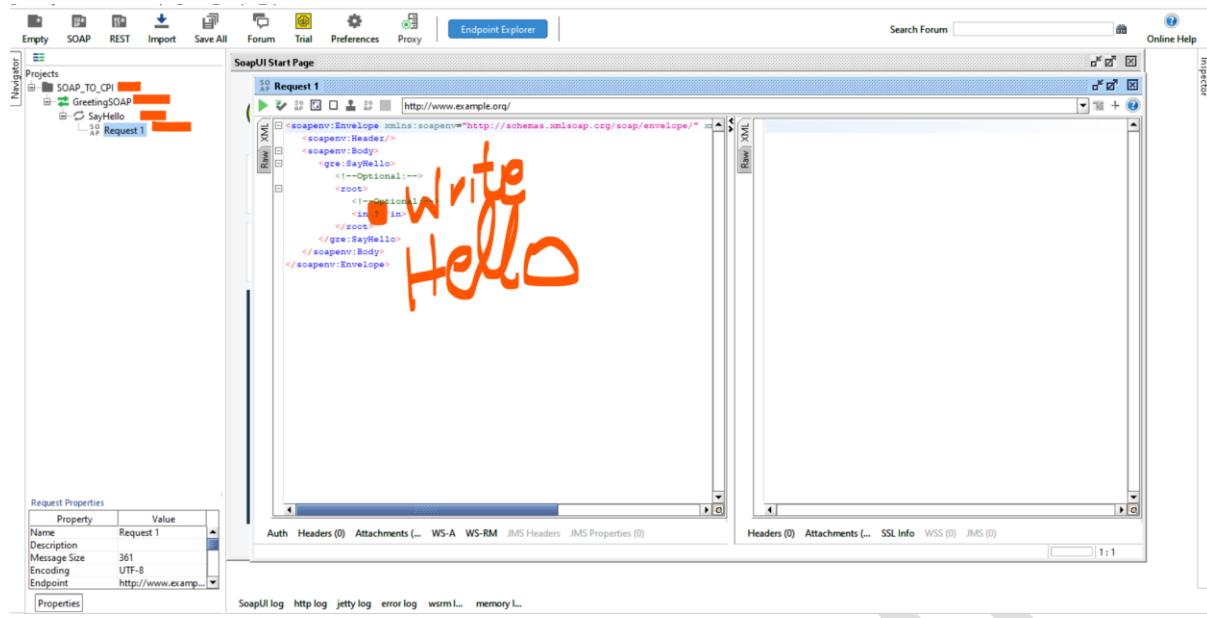


File to upload:

This file actually creates a whole XML View to send and receive data in SOAP.

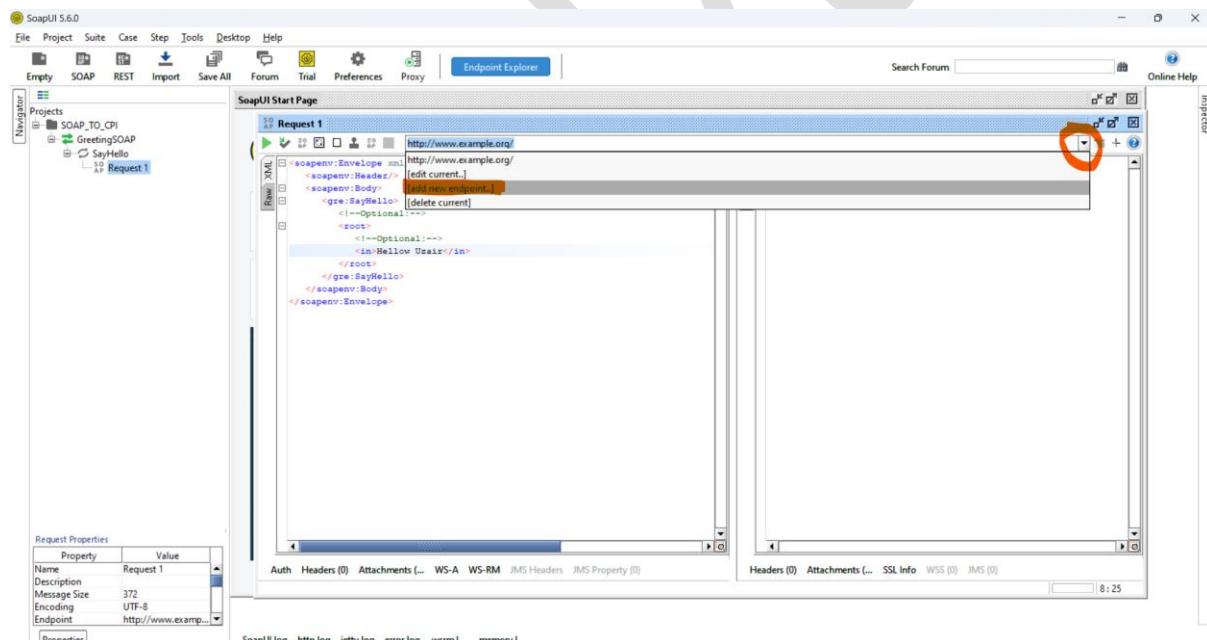
Next, Give the username and password by which you are login in CPI.



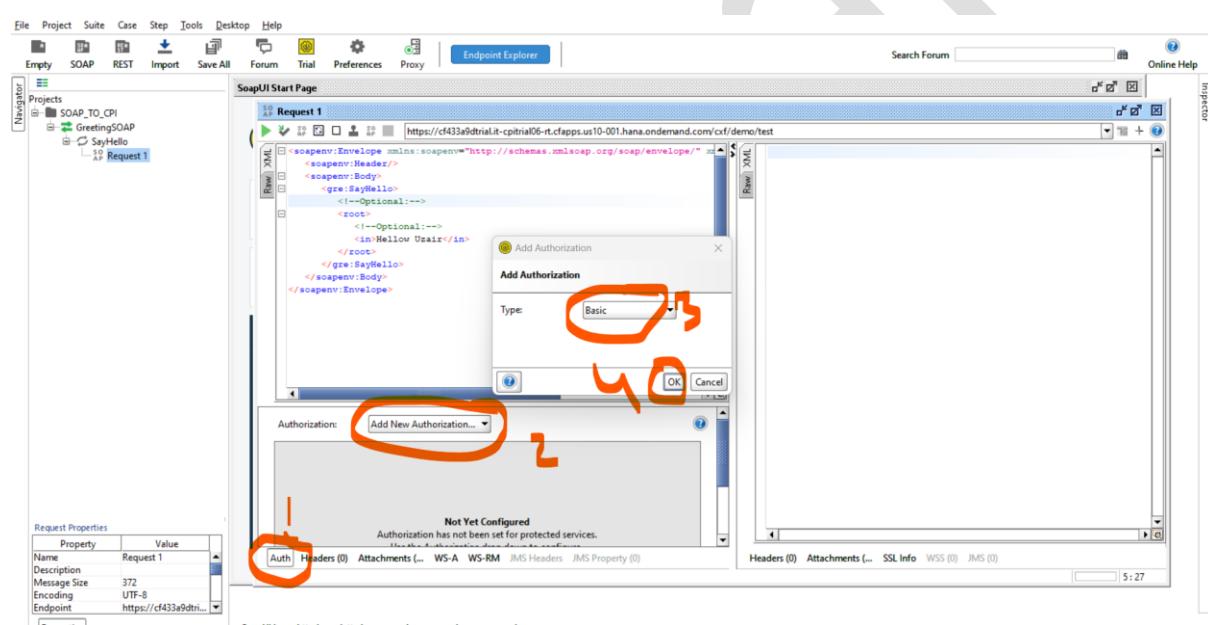
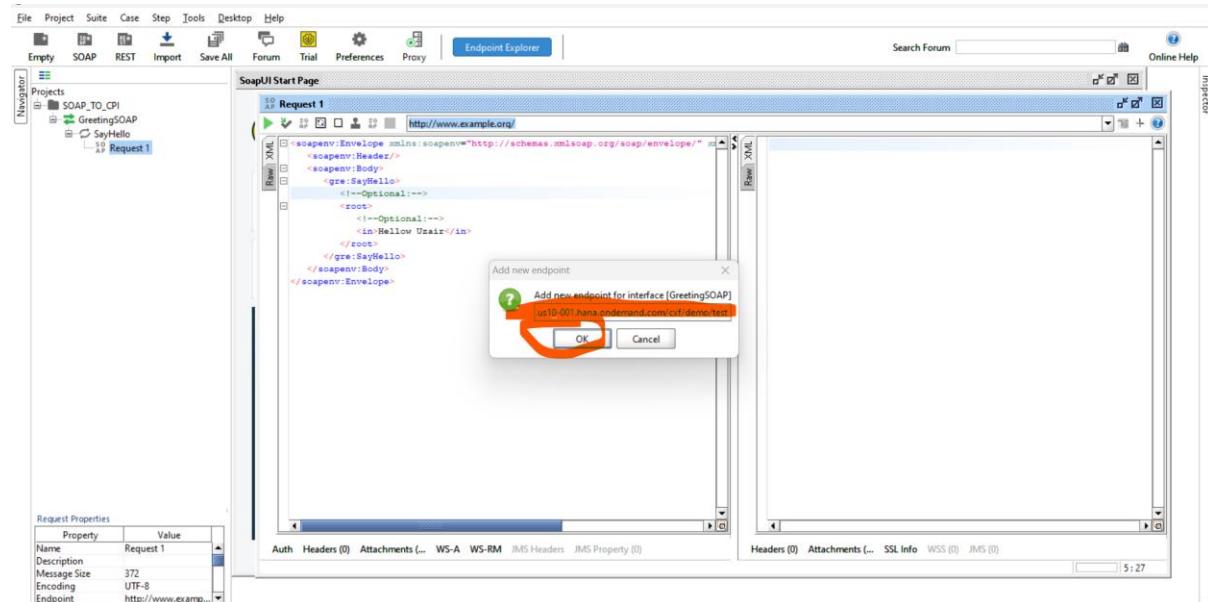


Write something in the “Hello Uzair” area.

Next, follow these steps:



Just Paste the endpoint copied from Integration Suit I Flow page:



Give the username and password here.

SoapUI Start Page

Request 1

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Header/>
  <soapenv:Body>
    <!--Optional:-->
    <root>
      <!--Optional:-->
      <in>Hello Uzair</in>
    </root>
  </soapenv:Body>
</soapenv:Envelope>
```

Authorization: Basic

Username:	muhammad.uzair1@ibm.com
Password:	[REDACTED]
Domain:	
Pre-emptive auth:	<input checked="" type="radio"/> Use global preference

Headers (0) Attachments (0) SSL Info WSS (0) JMS (0) 5:27

Here is the response of CPI.

SoapUI Start Page

Request 1

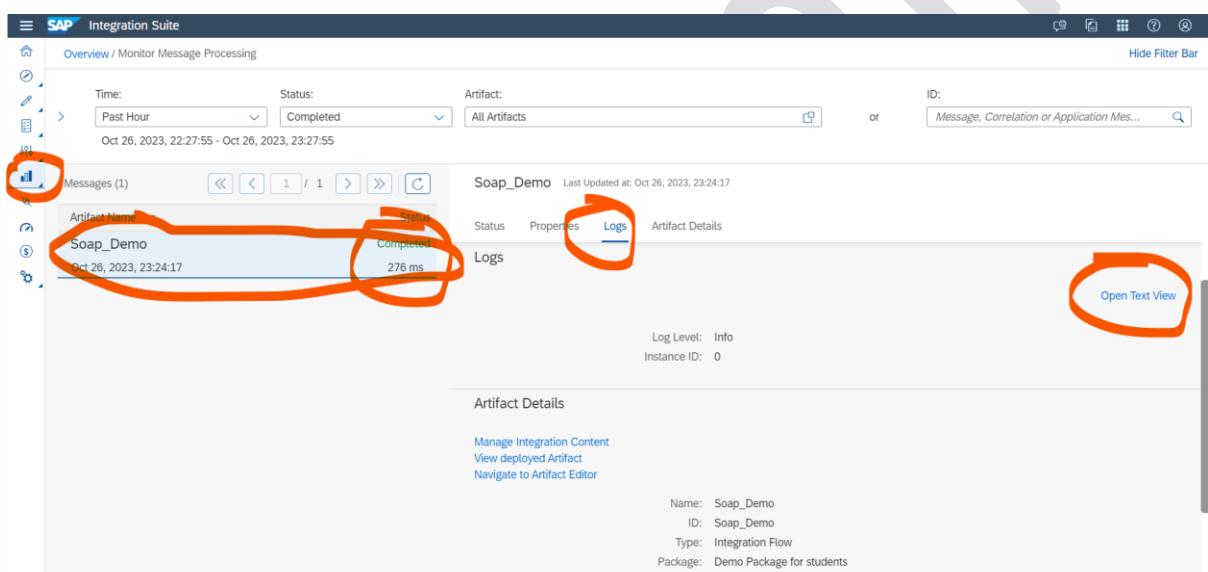
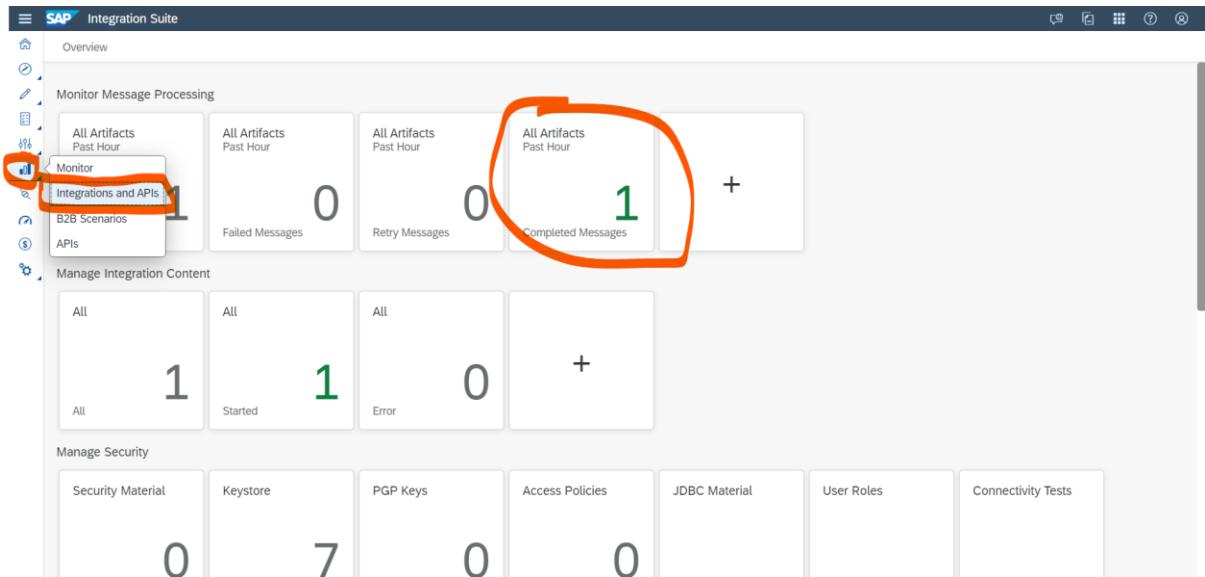
```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Header/>
  <soapenv:Body>
    <!--Optional:-->
    <root>
      <!--Optional:-->
      <in>Hello Uzair</in>
    </root>
  </soapenv:Body>
</soapenv:Envelope>
```

Authorization: Basic

Username:	muhammad.uzair1@ibm.com
Password:	[REDACTED]
Domain:	
Pre-emptive auth:	<input checked="" type="radio"/> Use global preference

Headers (15) Attachments (0) SSL Info WSS (0) JMS (0) 1:1

response time: 3874ms (381 bytes)



Here is the response and log of integration triggering.



SAP Integration Suite

Overview / Monitor Message Processing / Message Processing Log Attachments

Name: Soap_Demo Status: Completed Processing Time: 276 ms
Last Updated at: Oct 26, 2023, 23:24:17 Log Level: Info

Log Download

Message Processing Log:

```
StartTime = Thu Oct 26 18:24:17.234 UTC 2023
StopTime = Thu Oct 26 18:24:17.510 UTC 2023
OverallStatus = COMPLETED
MessageGuid = AQU6rtGKMLMj6N68YChu46bu1wpY
LogLevel1 = INFO
LogLevelExternal = NONE
ArchivingAttachments = false
ArchivingPersistedMessages = false
ArchivingReceiverChannelMessages = false
ArchivingSenderChannelMessages = false
ChildrenCounter = 0
ContextName = Soap_Demo
CorrelationId = AQU6rtFCPO_L60TEsVgcaXgv_k0H
IntermediateError = False
Node = 0
OriginComponentName = CPI_cf433a9dtrial
PreviousComponentName = CPI_cf433a9dtrial
SenderId = SOAPUI_SOAP
TransactionId = 6d97eab146f24103bb6b7952c341ddc8
```

Finally, we go through the CPI WEB IDE and Successfully created a I flow and tested from SOAP.

