BAS 2 – How to Deploy Fiori App to On-Premise System from SAP Business Application Studio?

By **Rishi** - November 5, 2020

In our other tutorial we showed how to migrate SAPUI5 Project from the old Web IDE to the new BAS IDE or SAP Business Application Studio. After going through the post, many readers asked to put a tutorial on how to deploy SAPUI5 App from SAP BAS to the backend SAP System. And here we are.

But before that, we have a new training announcement to make.

NEW TRAINING ANNOUNCEMENT

ABAP RESTful Application Programming On Cloud & On Premise Training S/4HANA 1909 – Starts 14th Nov 2020

Training Days – 14, 15, 21, 22, 28, 29 Nov, 5, 6, 12 & 13 Dec 2020
Time – 7:30 AM to 9:30 AM IST GMD+5.5

Pay the Fee & Enroll

High Level Agenda

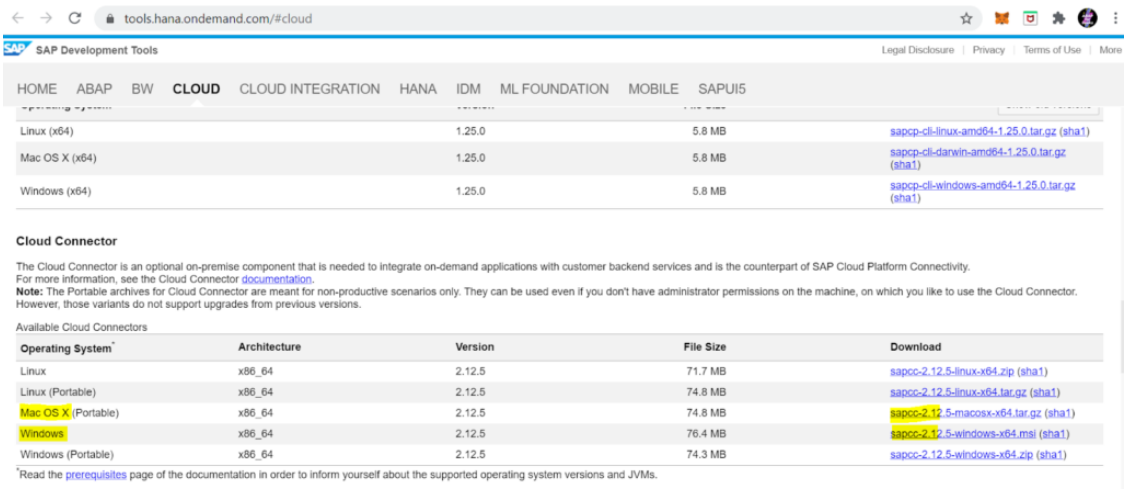
Disclaimer : *This is going to be a long post, do bear with us. It is worth the length so that you do not need to hop to multiple tutorials to get all the ends working.*

Deploy Fiori App to On-Premise System from SAP Business Application Studio

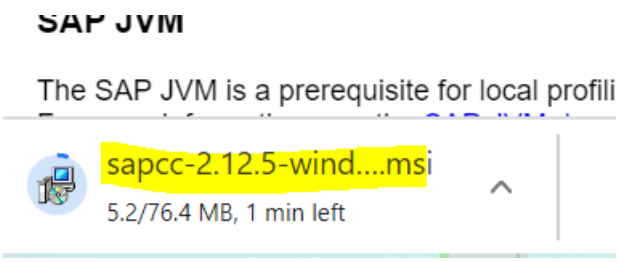
1. **Installing SAP Cloud Connector & Download SAP JVM as well**
2. **Connect to SAP Cloud Platform Trial Account from Cloud Connector**
3. **Add On-Premise System to SAP Cloud Connector (for Cloud to On Premise)**
4. **Provide mandatory roles to CF user**
5. **Create Destination from Cloud Platform to On-Premise via SAP Cloud Connector**
6. **Subscribe to SAP Business Application Studio**
7. **Create Sample Fiori Elements Application by Consuming OData Service from BAS**
8. **Deploy App to On-Premise, troubleshooting**

Step 1: Install SAP Cloud Connector

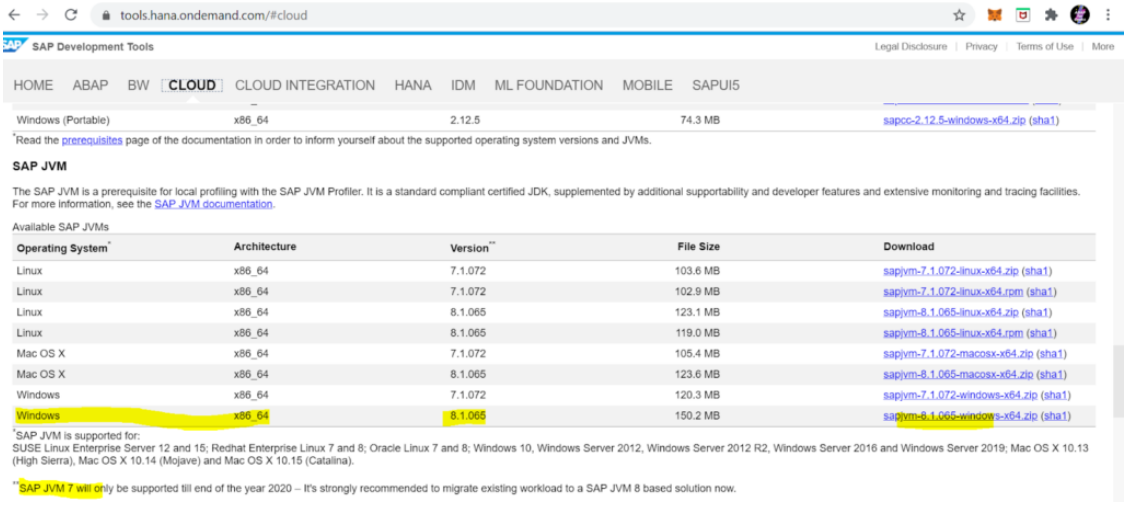
https://tools.hana.ondemand.com/#cloud



Started downloading.



Download SAP JVM:



Extract the files into a separate folder.

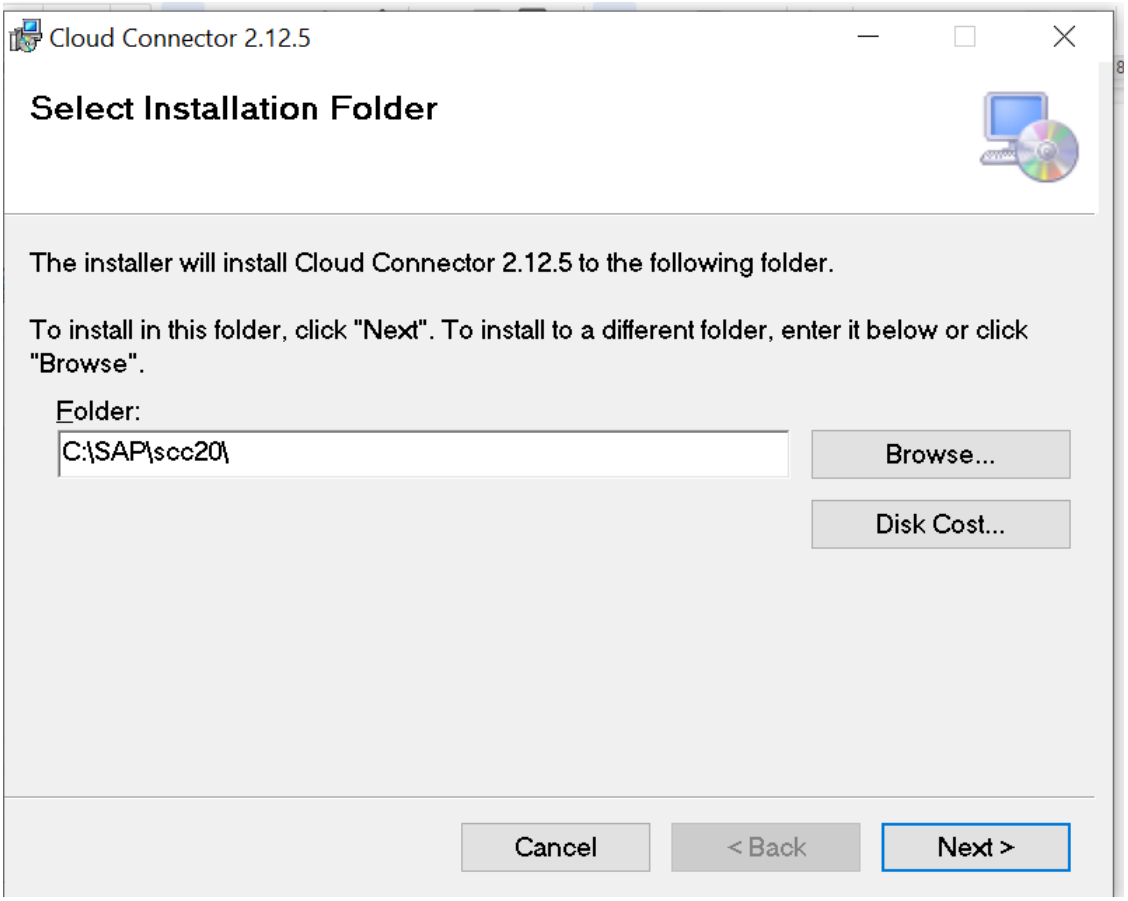
> We have a video explaining all the steps mentioned in this article. You may watch the video below and go through this step by step tutorials simultaneously for more clarity.

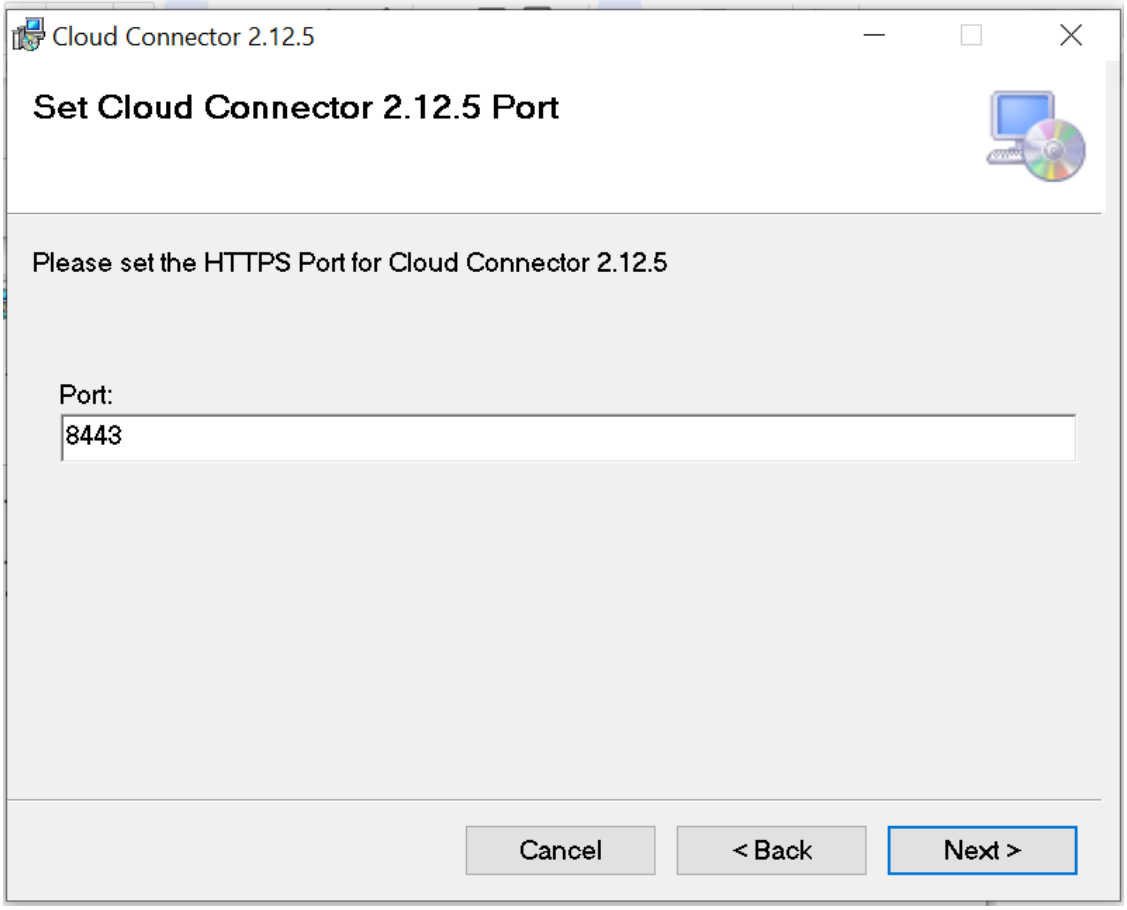
How to Deploy Fiori Apps Using SAP BAS?

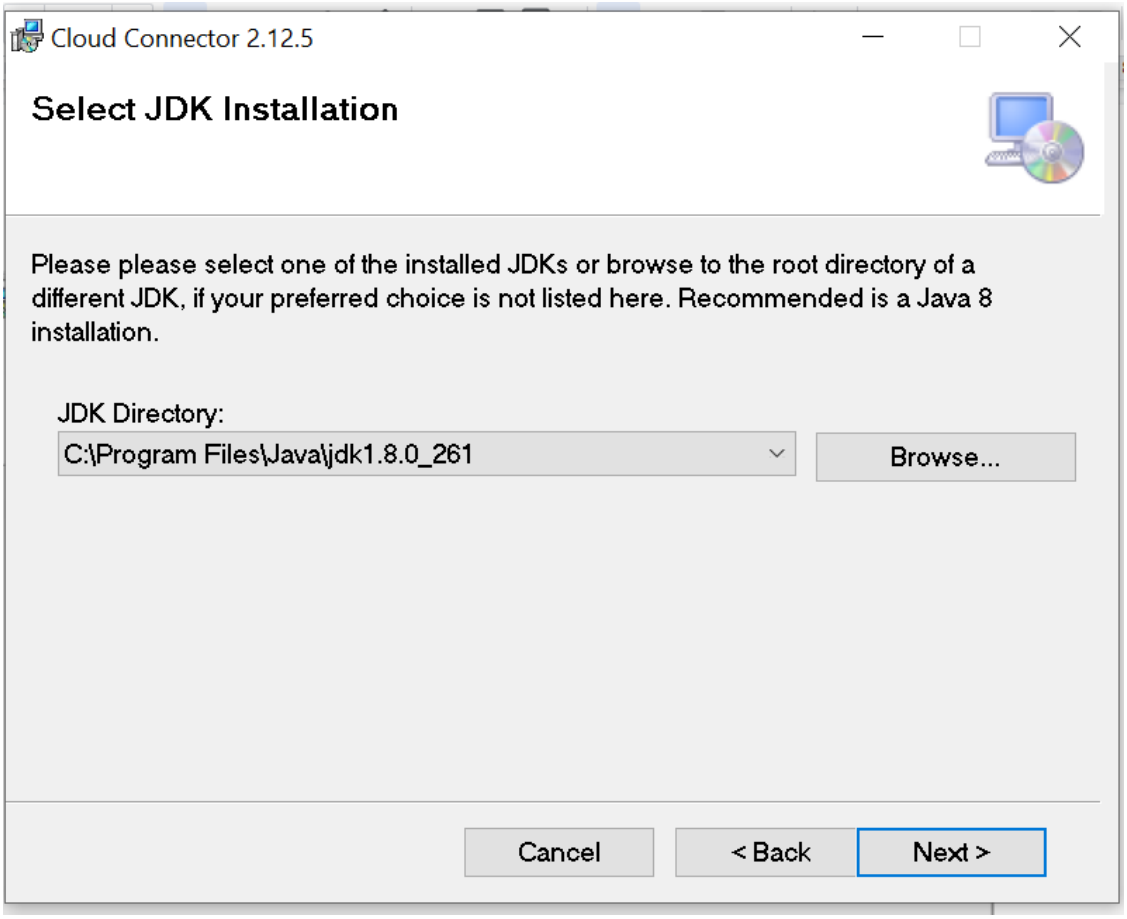
Run SAP Cloud Connector by clicking on the download file (from Step1).

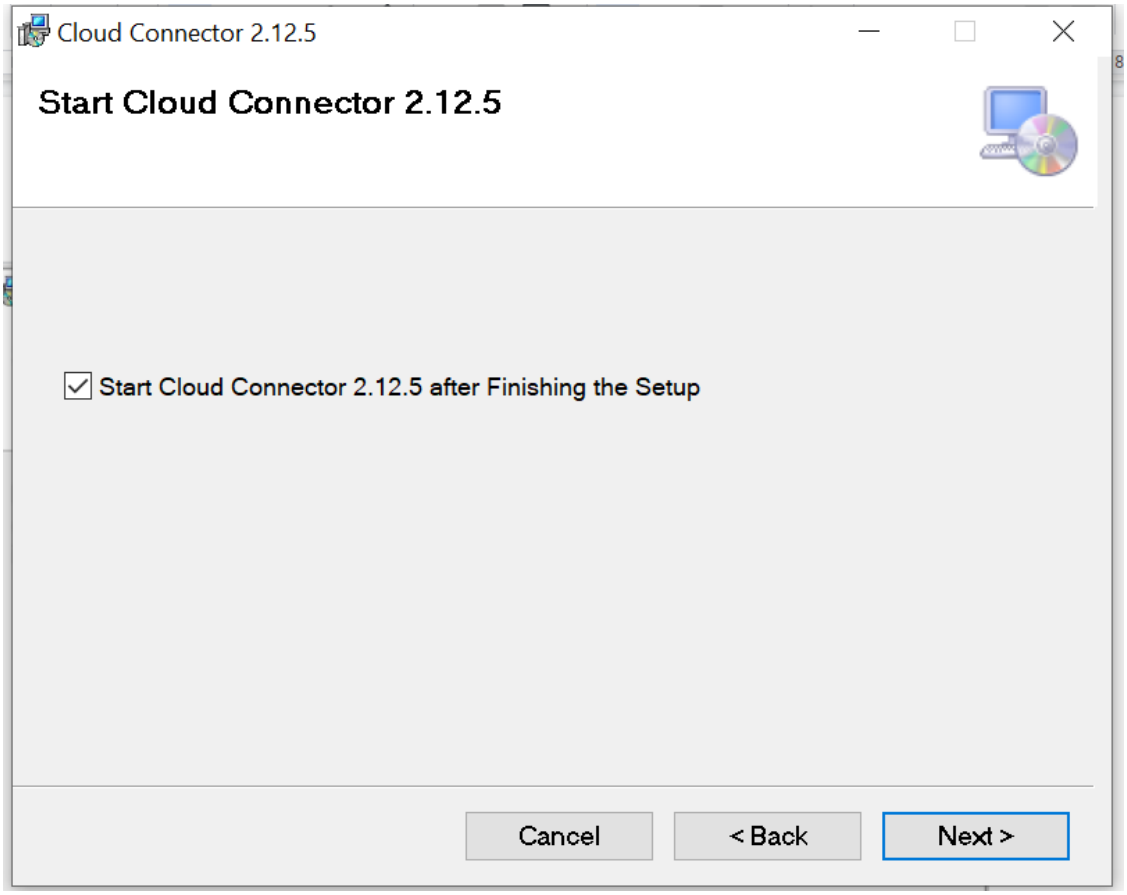
Follow the below dialog boxes

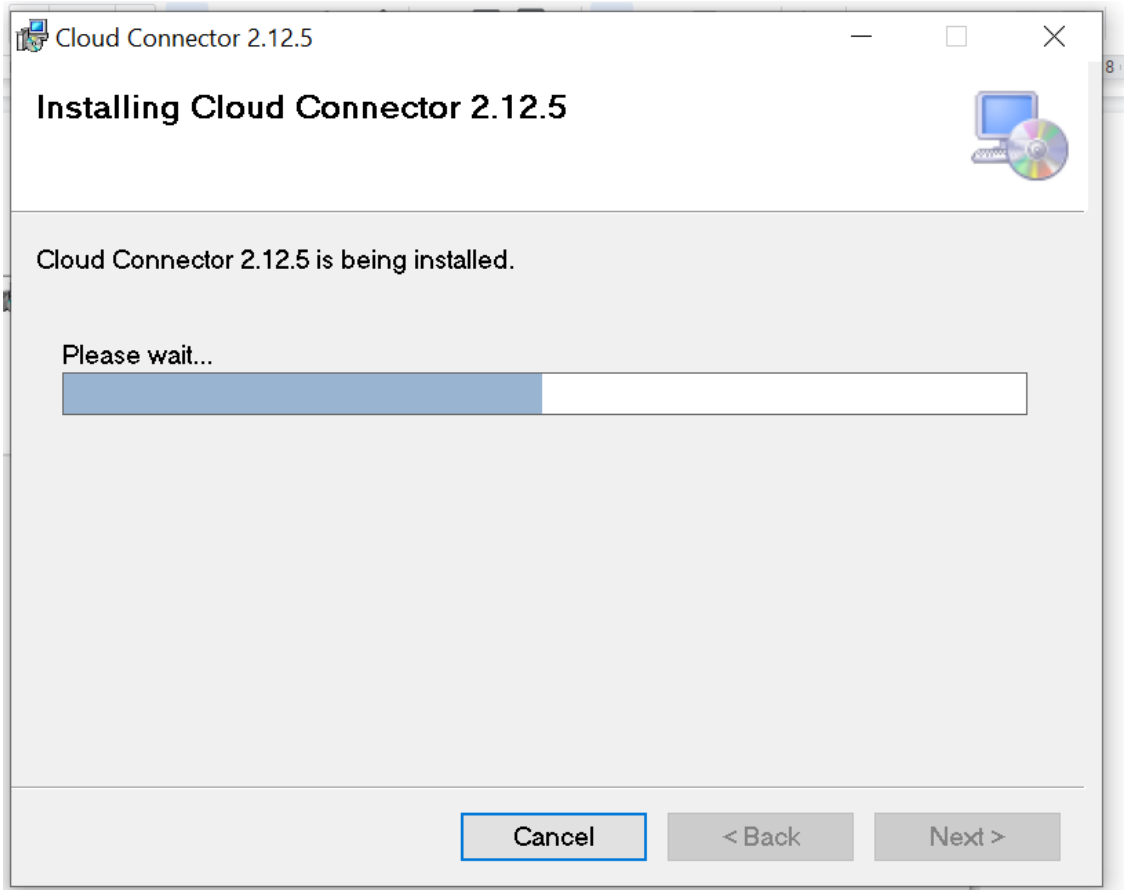
rm yourself about the supported operating system versions and JVMs.



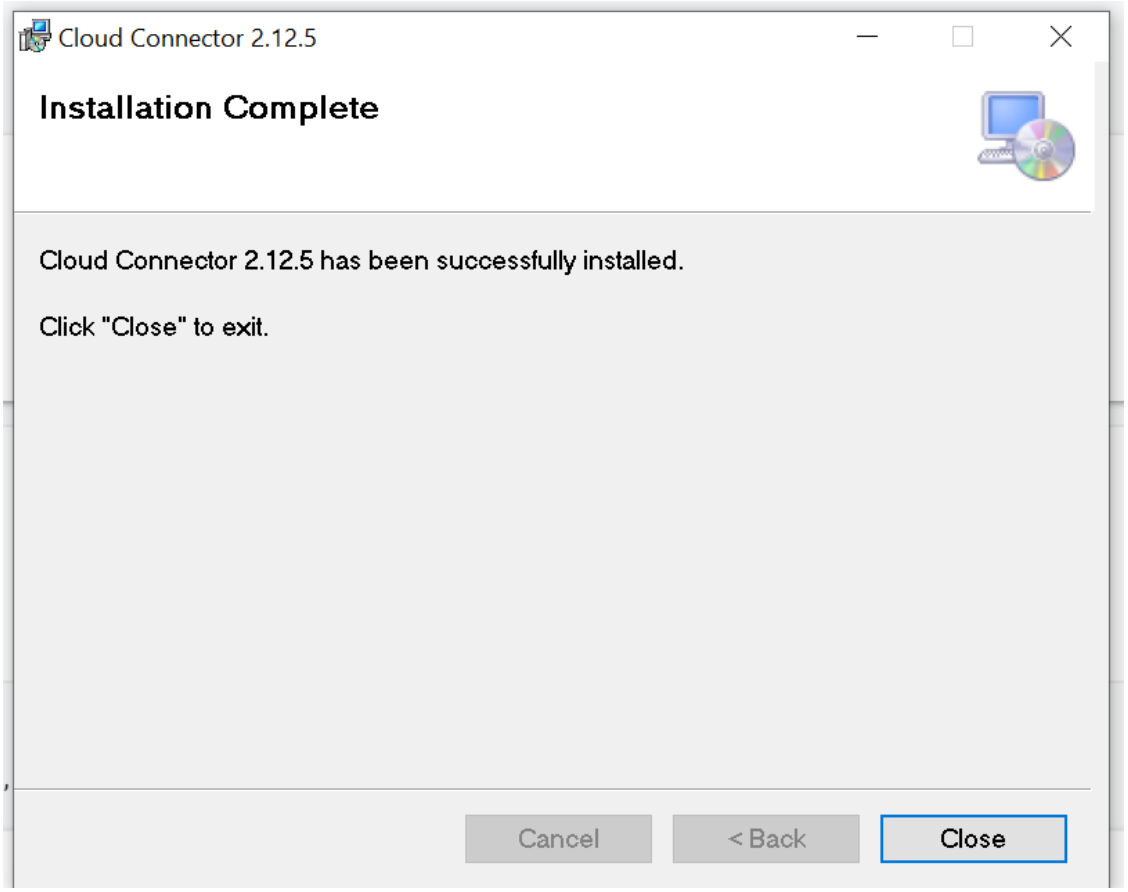

Cloud Connector 2.12.5
Set Cloud Connector 2.12.5 Port
Please set the HTTPS Port for Cloud Connector 2.12.5
Port:
8443
Cancel
< Back
Next >


Cloud Connector 2.12.5
Select JDK Installation
Please please select one of the installed JDKs or browse to the root directory of a different JDK, if your preferred choice is not listed here. Recommended is a Java 8 installation.
JDK Directory:
C:\Program Files\Java\jdk1.8.0_261
Browse...
Cancel
< Back
Next >

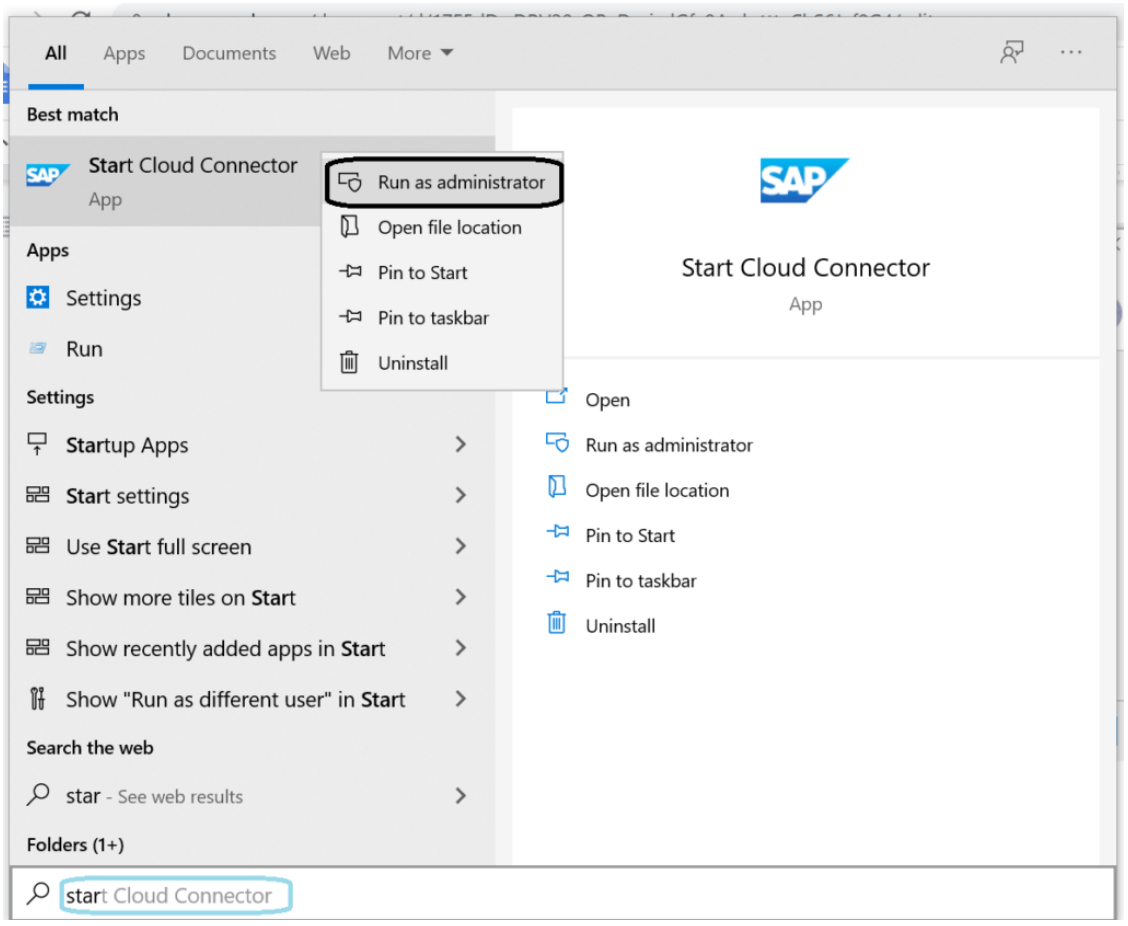




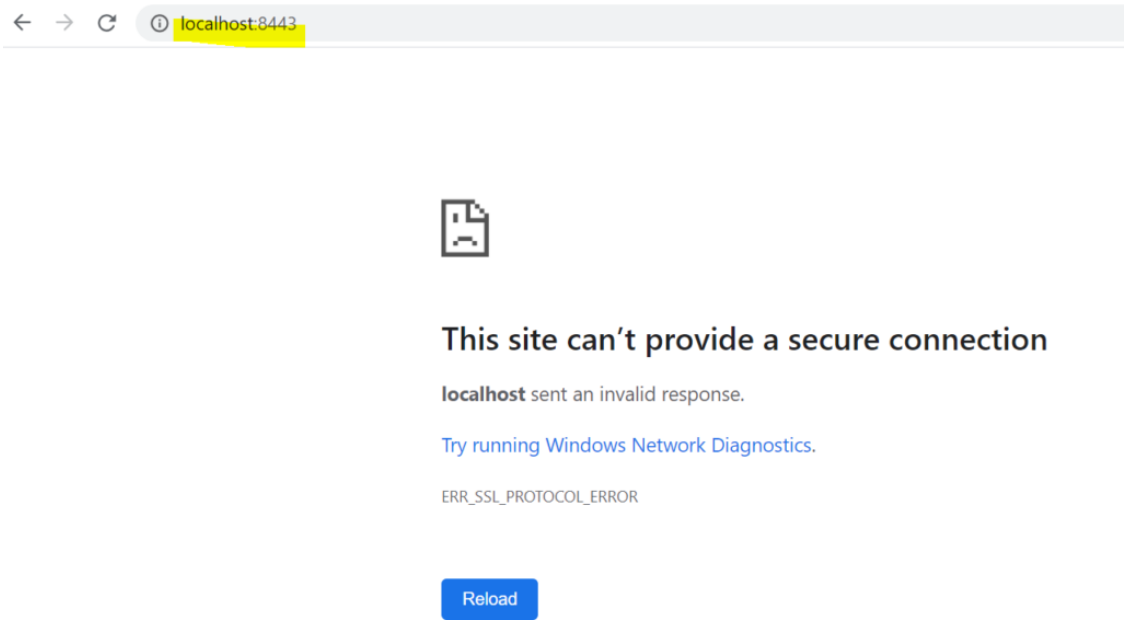
If you get any error or installation failed at this stage please re-install. I have got it successfully on my second attempt.



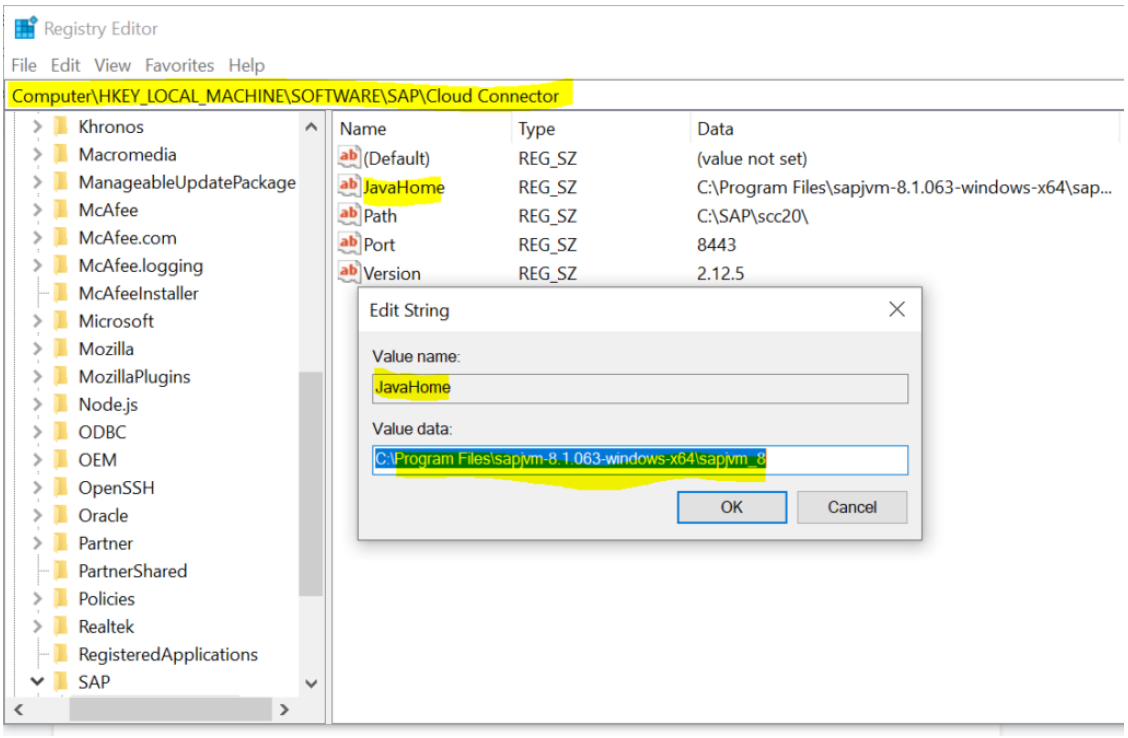
Try to run 'Start Cloud Connector'



Run the URL: https://localhost:8443/

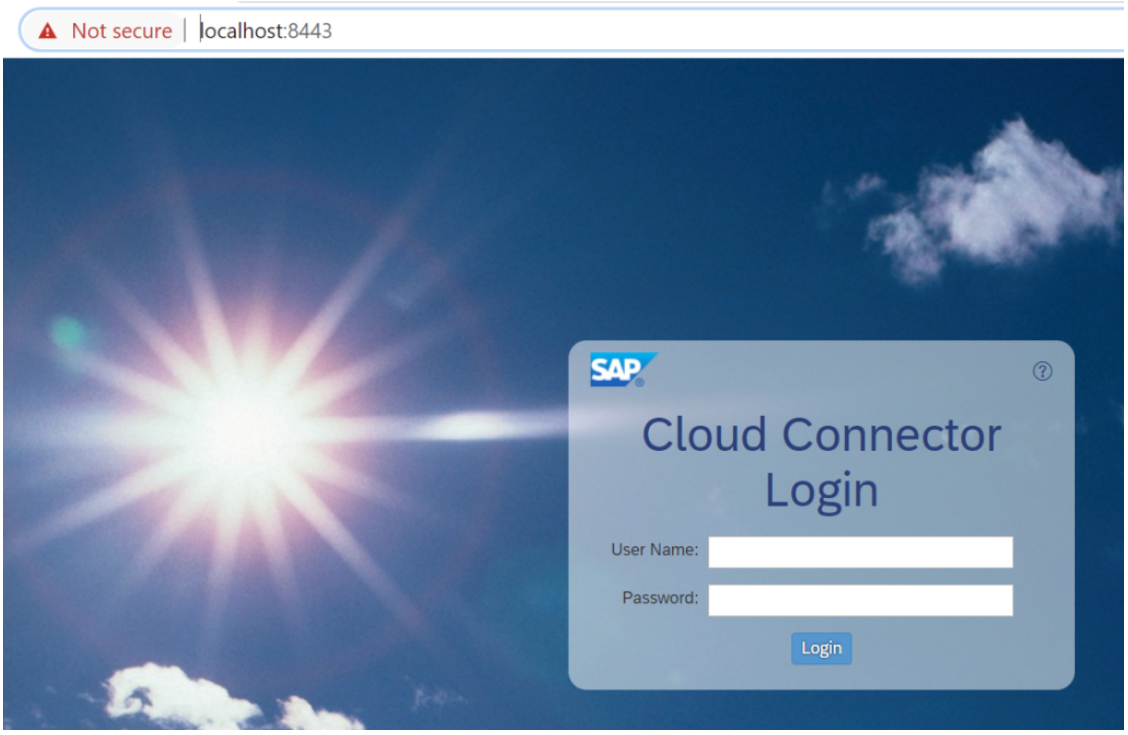


Change Registry Editor Settings.
Windows + S -> Type 'Registry Editor'
Navigate to below Path: Computer\HKEY_LOCAL_MACHINE\SOFTWARE\SAP\Cloud Connector



Now restart your system and run 'Start Cloud Connector' again (run as admin). Wait for 5 to 10 seconds.

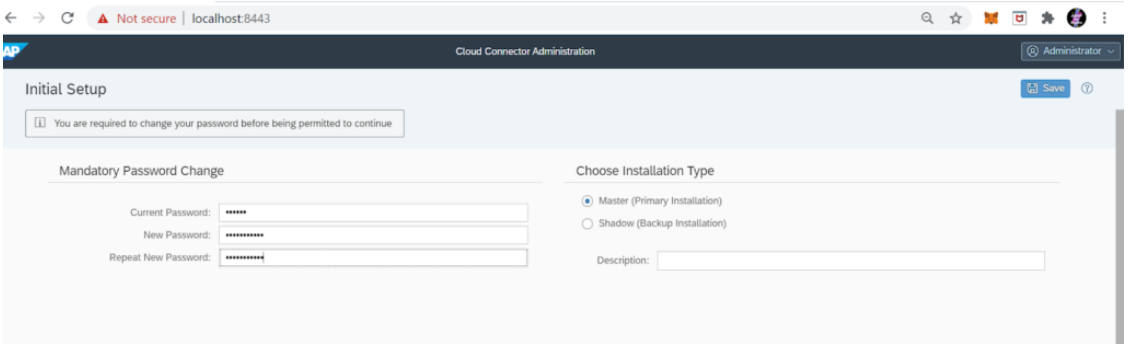
Then run the URL again. https://localhost:8443/



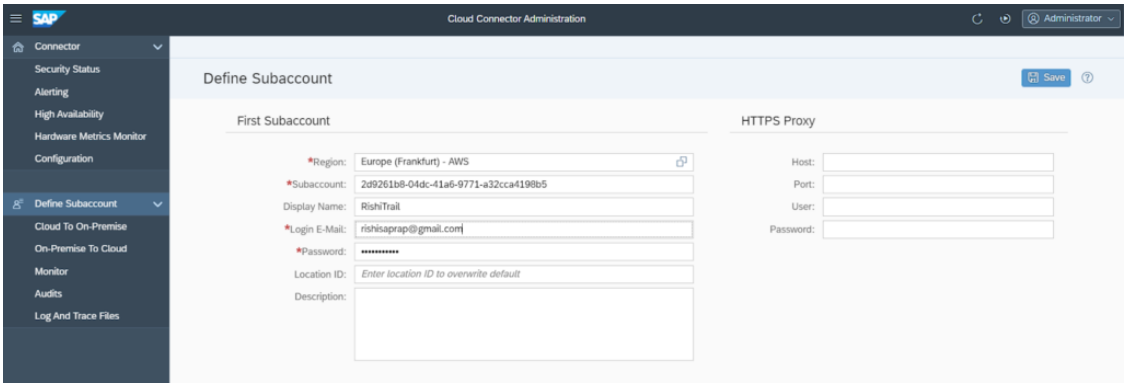
Provide :

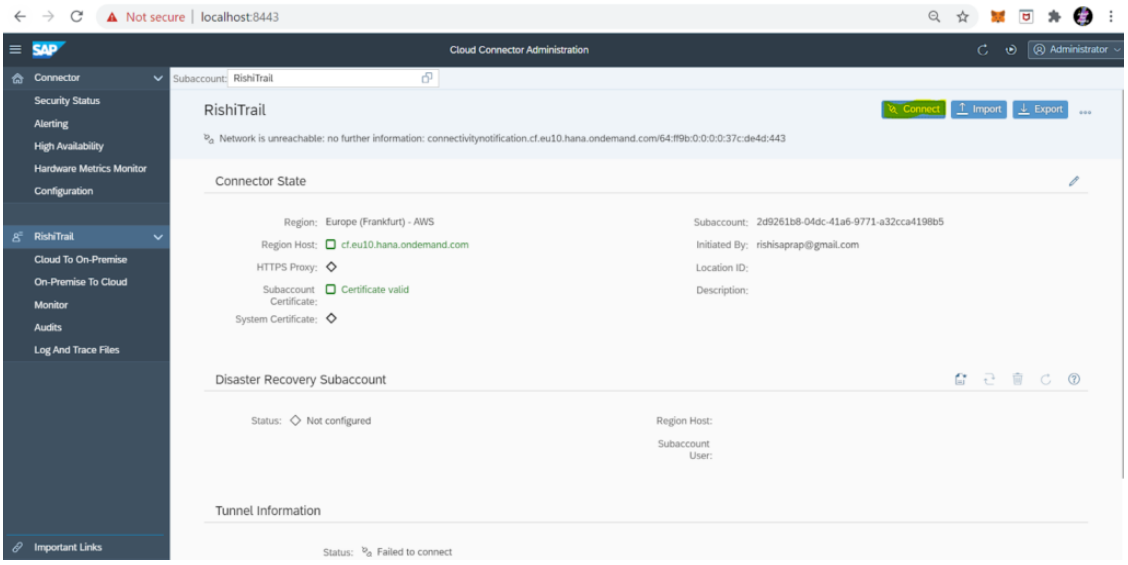
User name: 'Administrator' (case sensitive, it has capital **'A'**)
Password: 'manage'

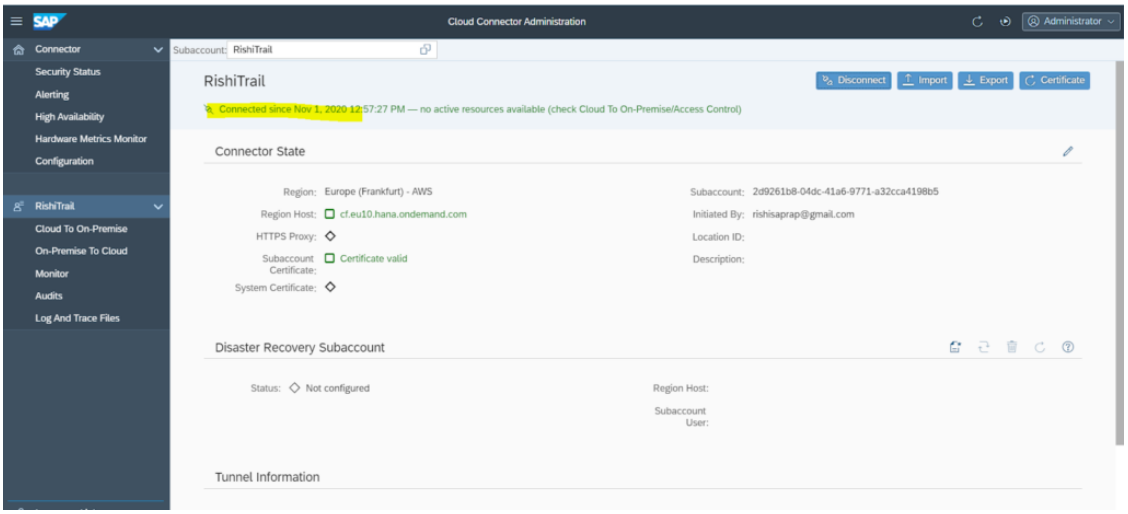
Change the password:



Step2: Connect Cloud Trial account to Cloud Connector

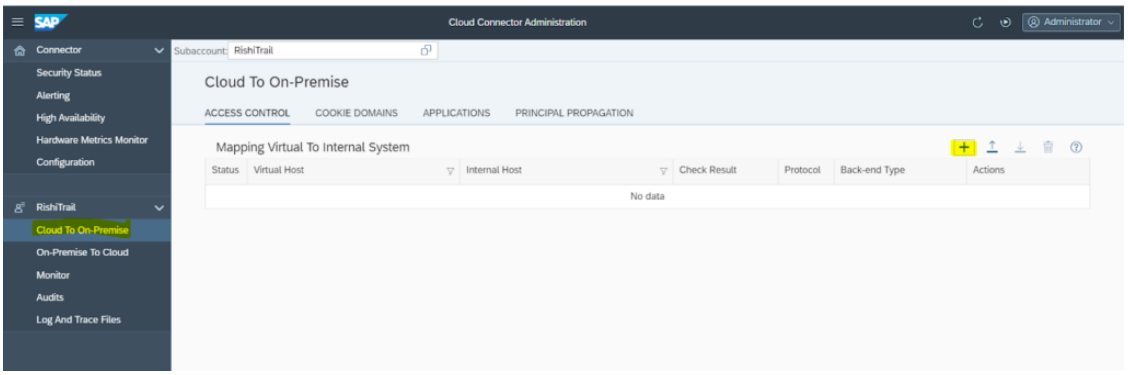




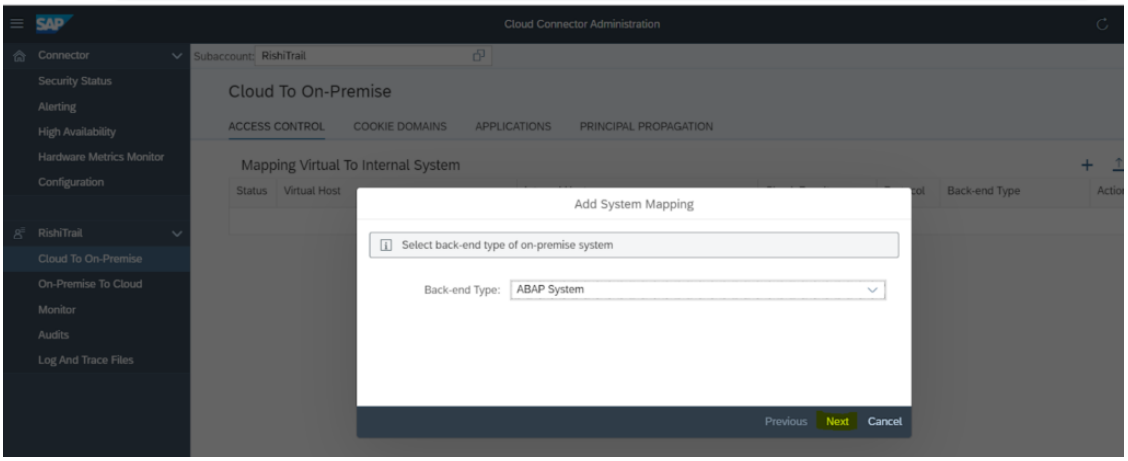


Step 3: Add On-Premise System to SAP Cloud Connector (for Cloud to On Premise)

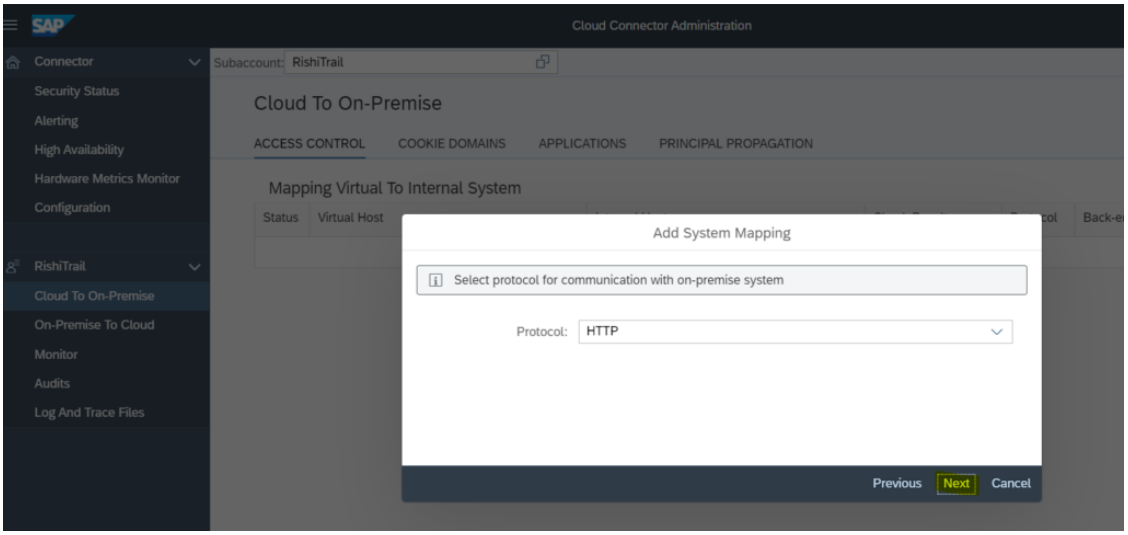
Go to 'Cloud to On-Premise' on the right, now Click '+' to add system details.



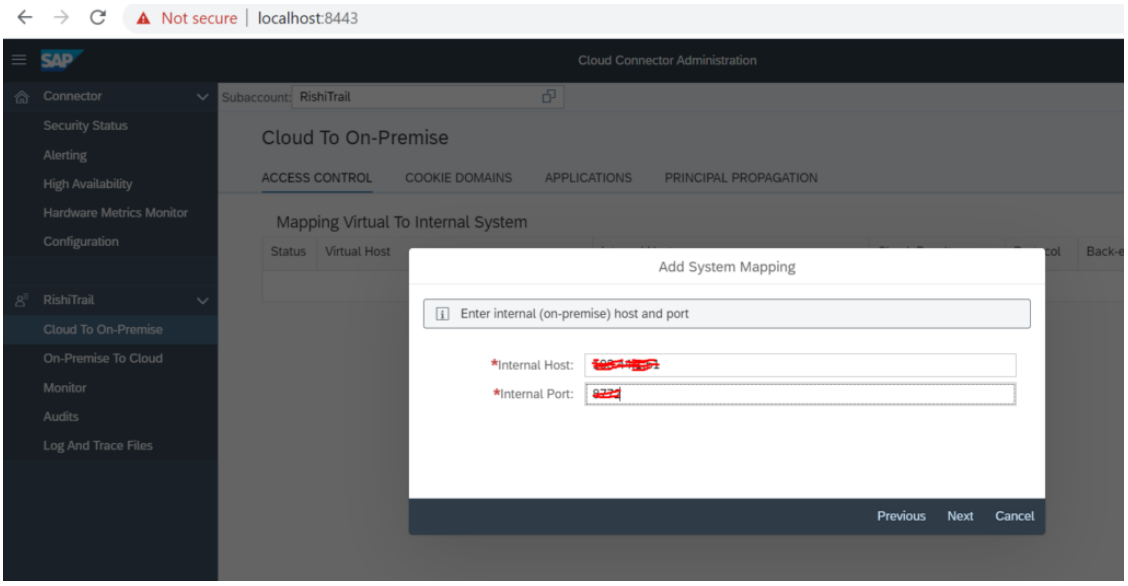
Select ABAP System.



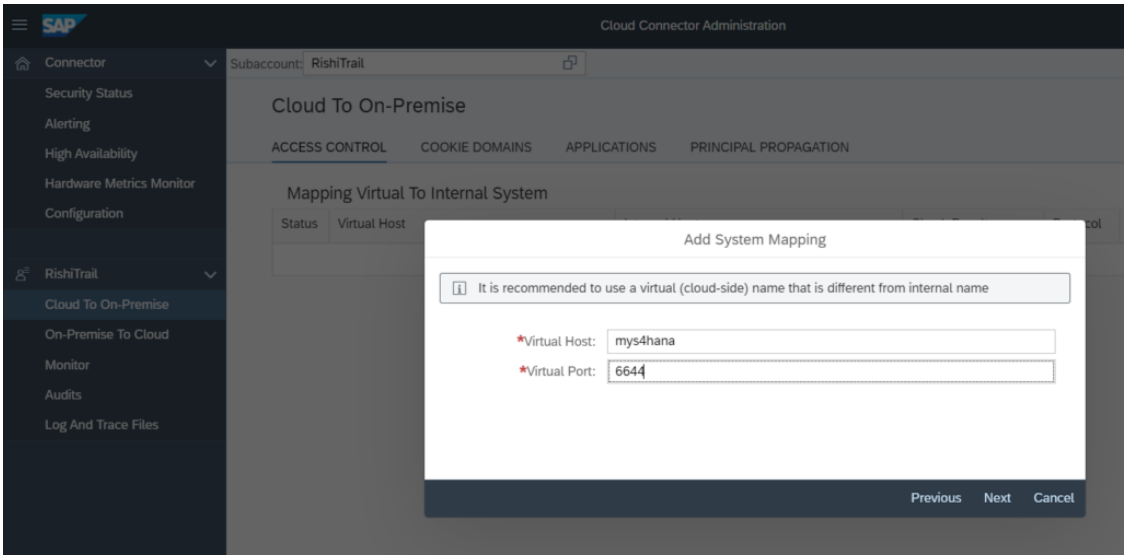
Select protocol as HTTP.



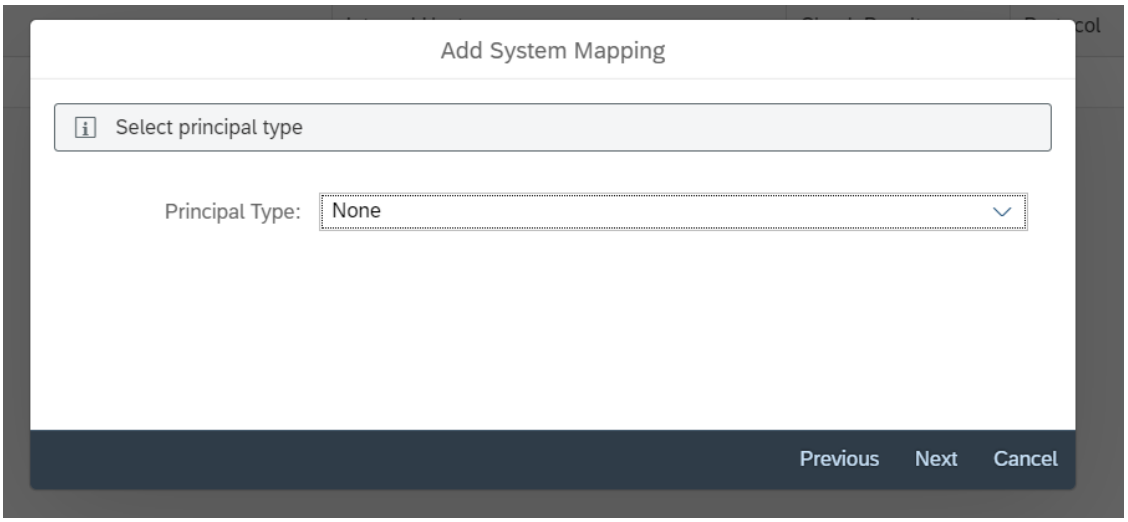
Provide Internal host : Ip address of the server, Internal Port : (check in SMICM -> transaction -> Goto -> Services check port number for HTTP) . Here eg: 8772.



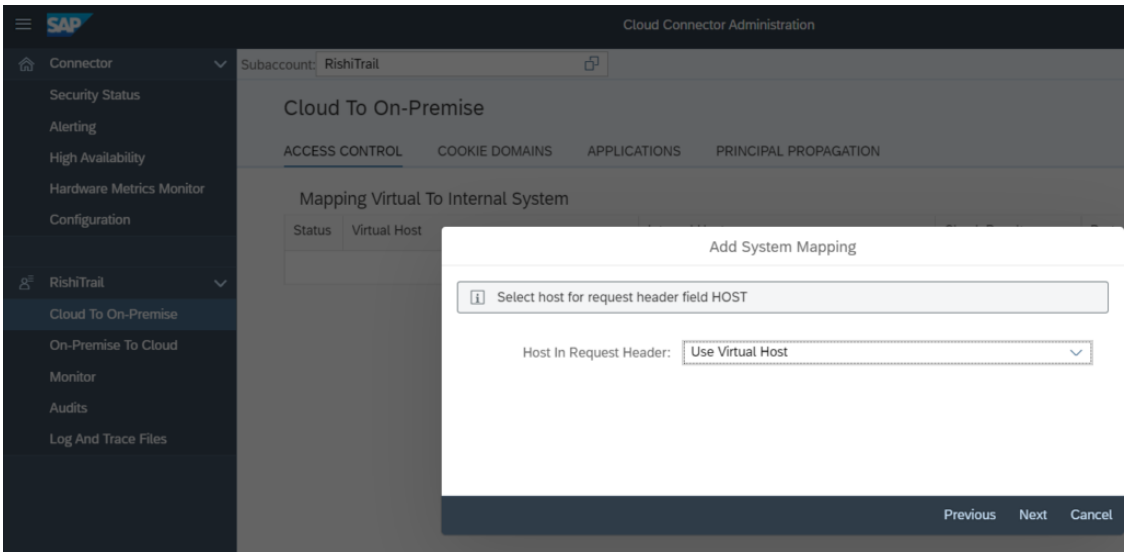
Provide Virtual name & Port for the underlying host. (we can give any name). We provide this virtual host in SAP Cloud Platform, click on Next.



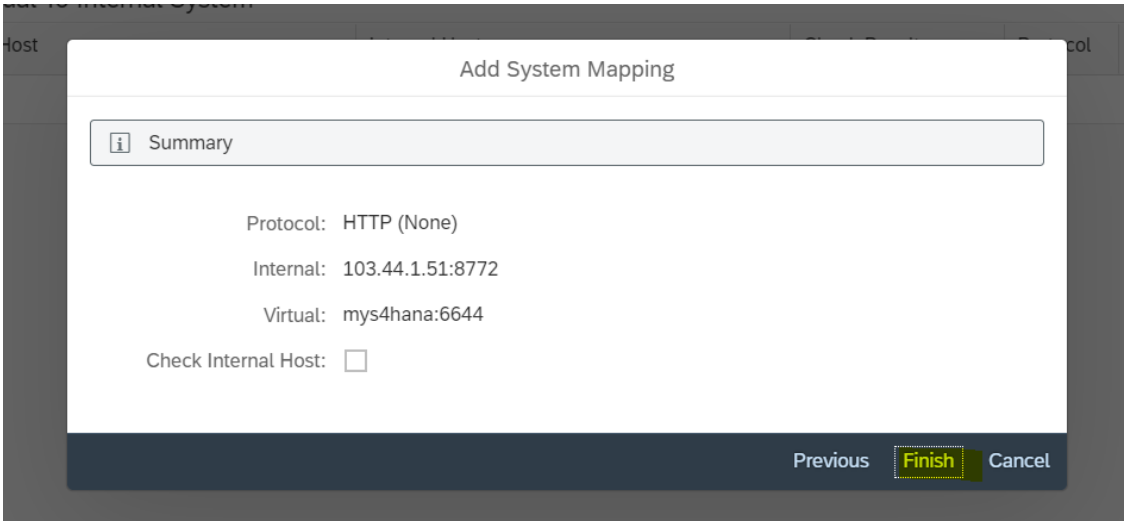
Select 'None



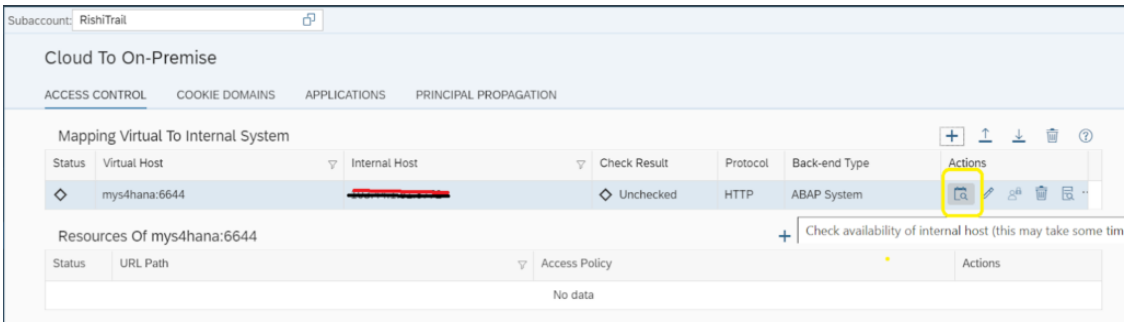
Choose 'Use Virtual Host'.



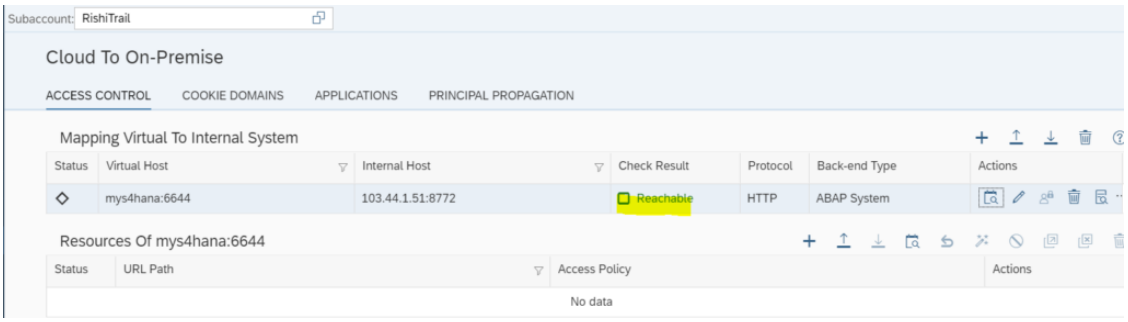
Finish.



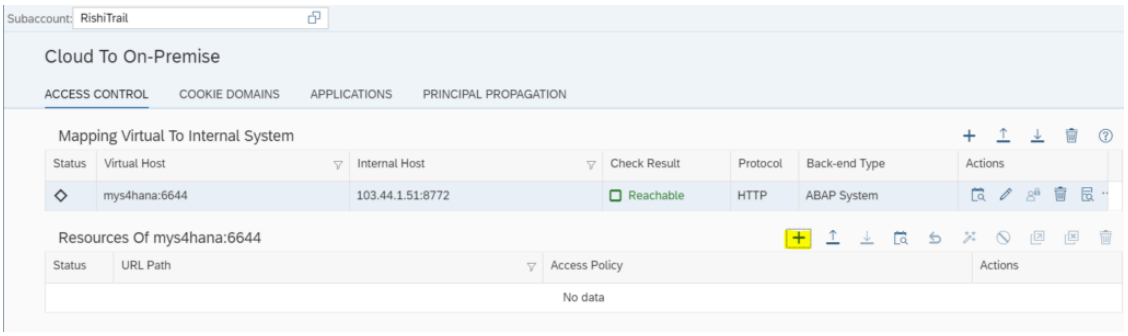
Test the connection, by clicking on the icon shown below



If the connection is successful, you will get 'Reachable' as shown below.



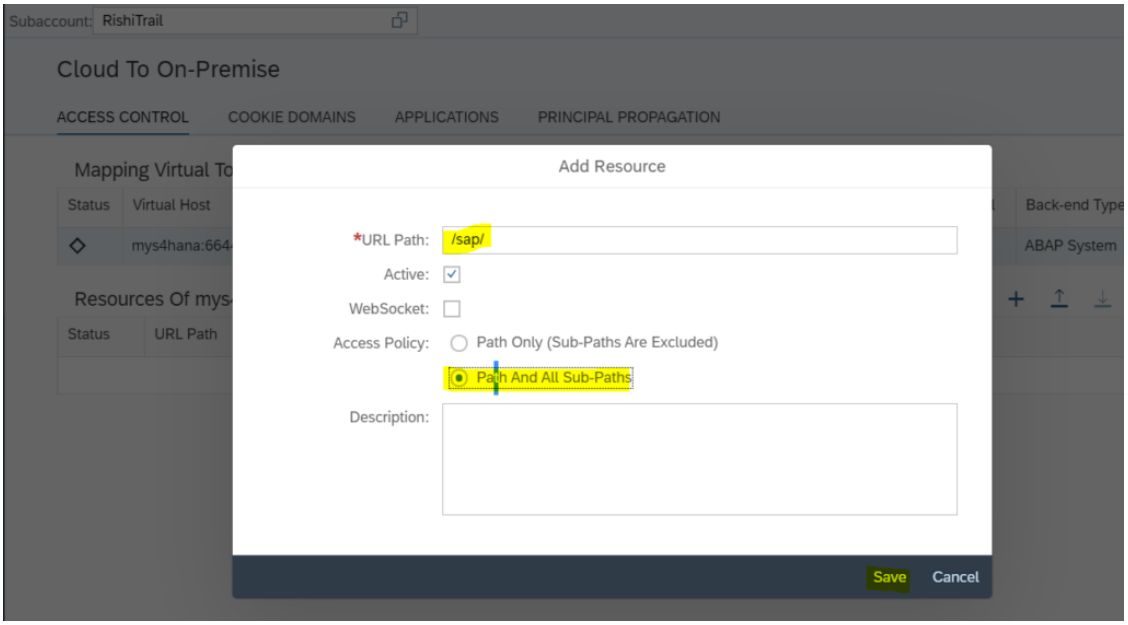
Now add URL path, to access the services. Click on '+' as shown below.



Provide : URL Path -> /SAP/

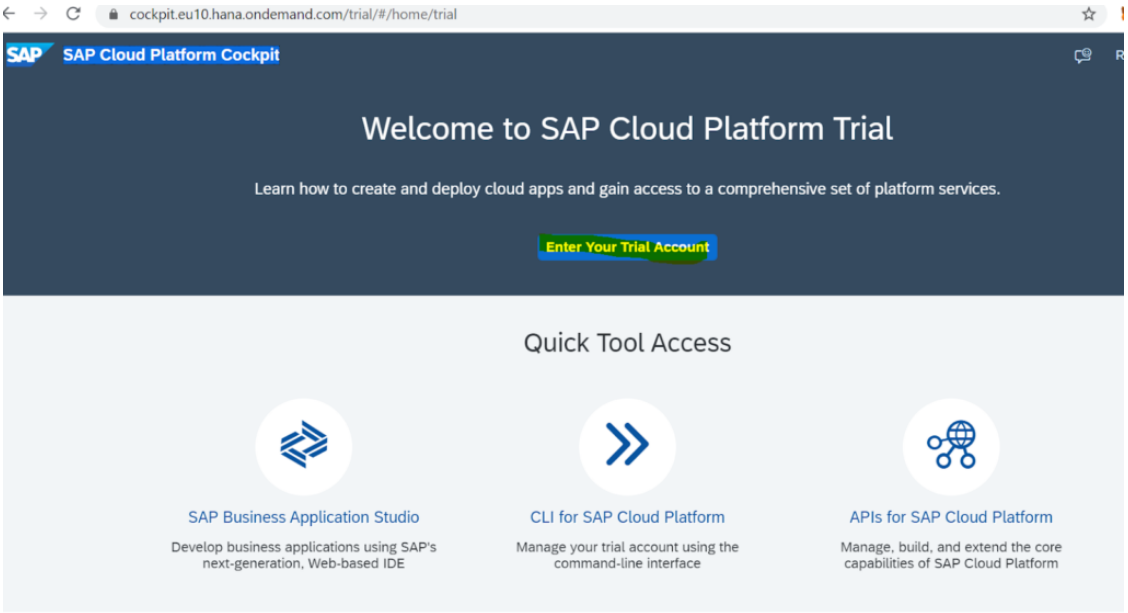
Check 'Active'

Choose the radio button 'Path and All Sub-Paths'

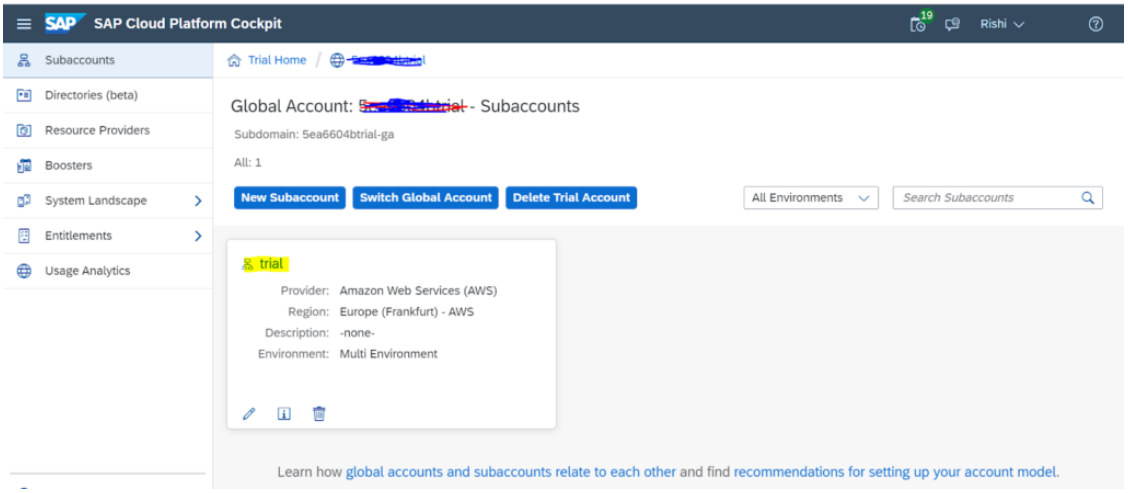


Step 4: Provide Mandatory Roles to CF user

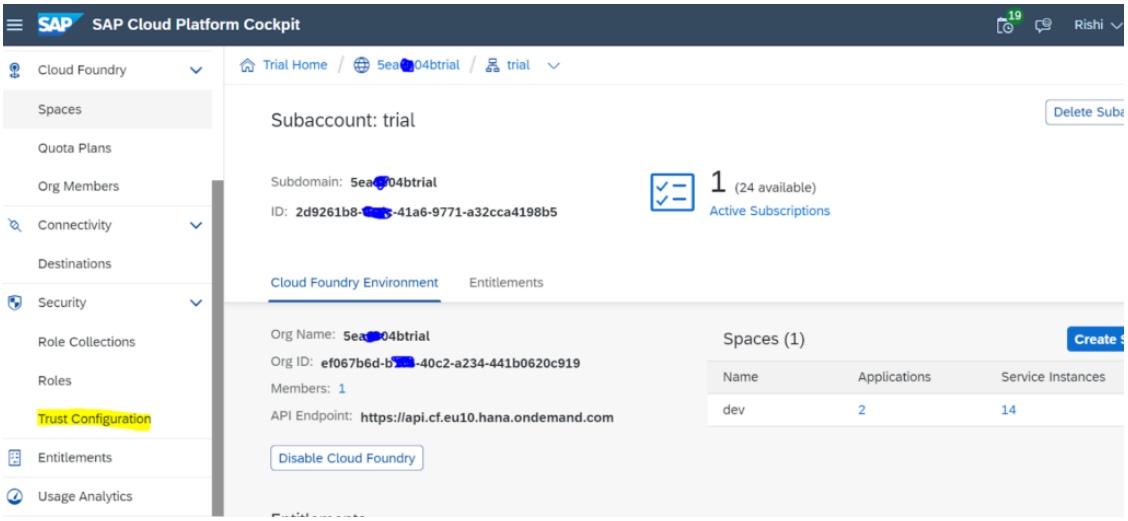
Go to your trial account home page.



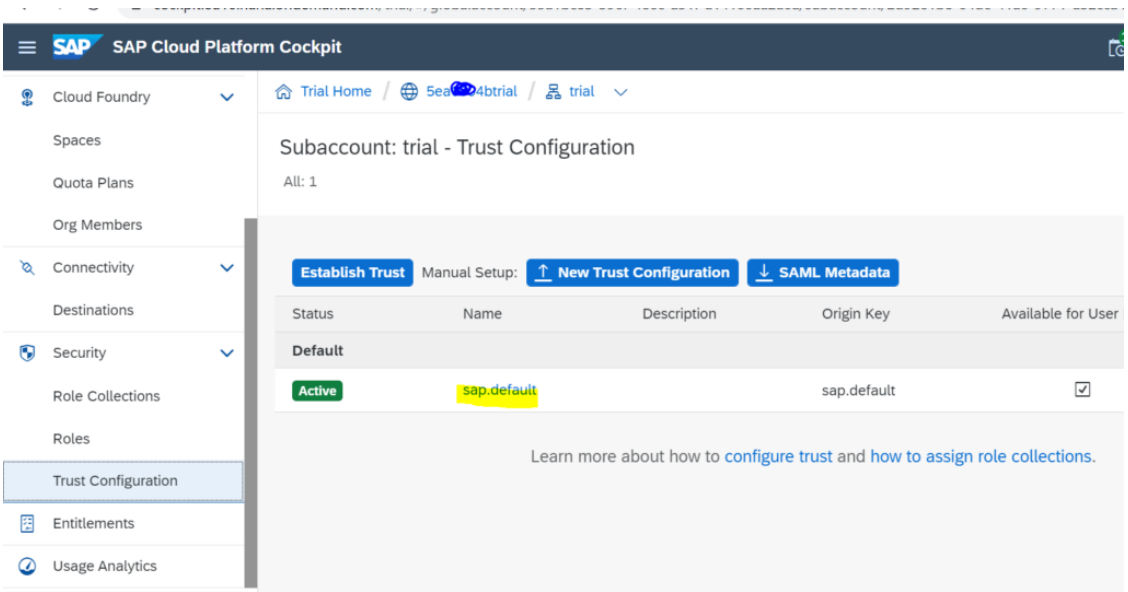
Choose your subaccount.



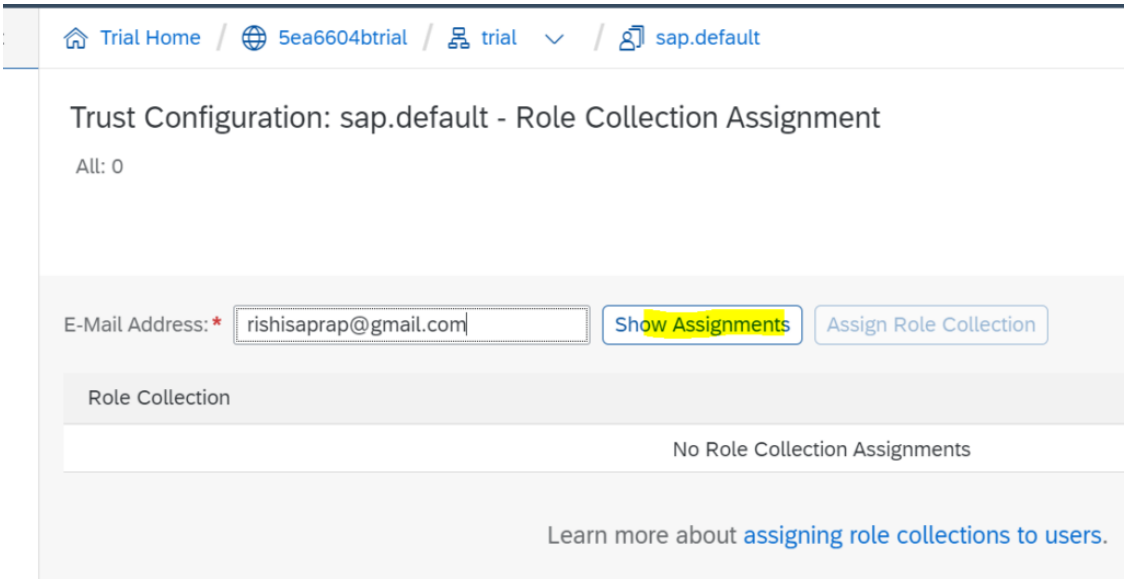
Click on 'Trust Configuration' on the left.



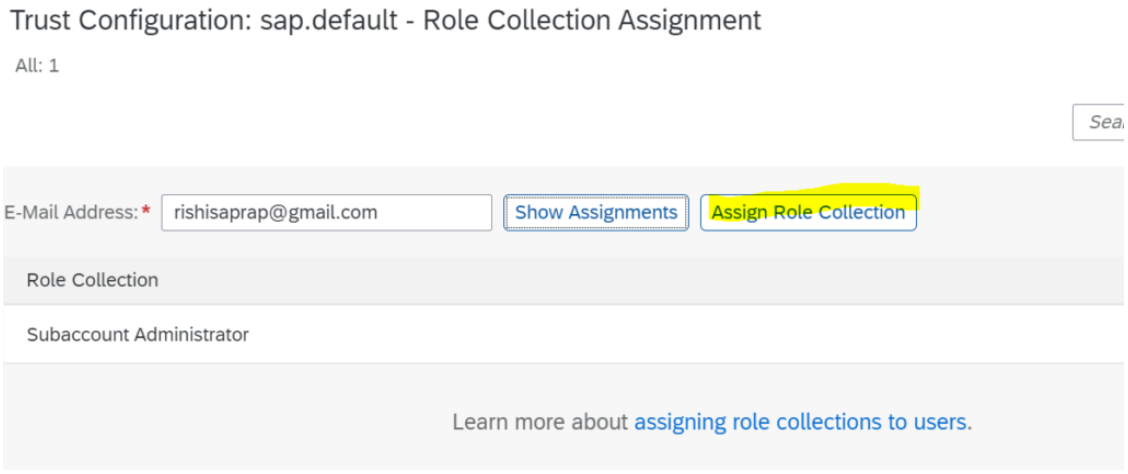
Click 'sap.default' to assign roles.



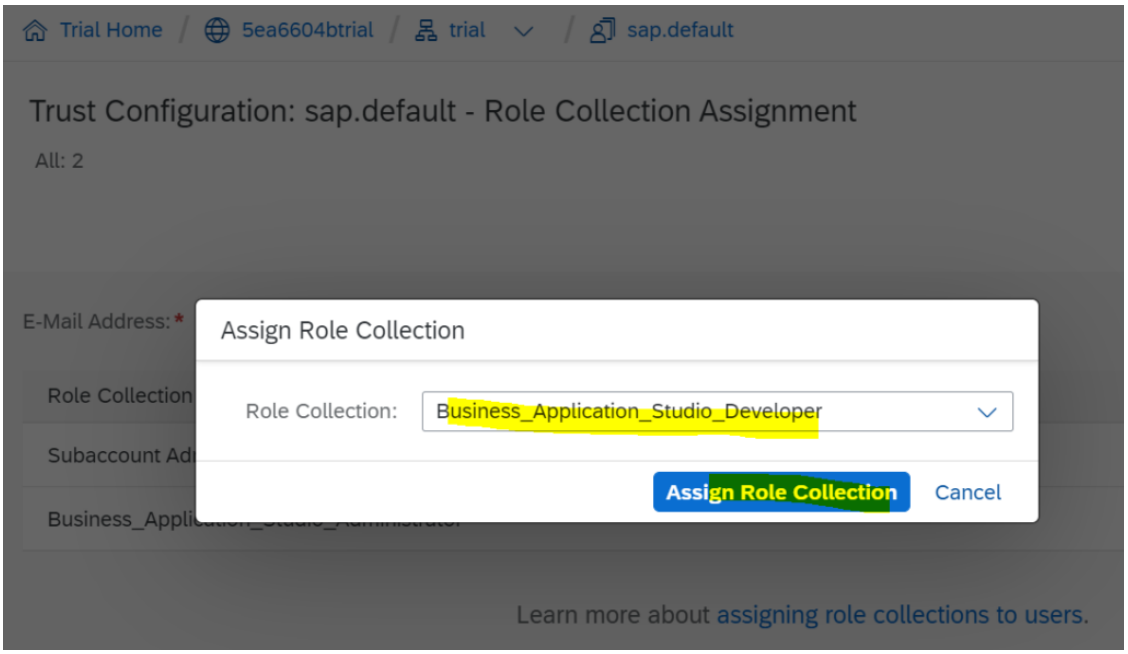
Provide your cloud trial email : and click on 'Show Assignments'.



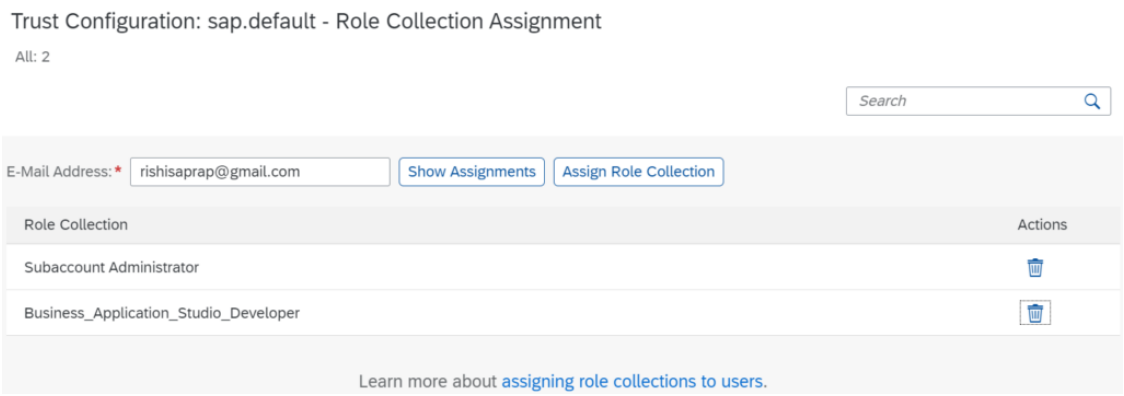
Click on 'Assign Role Collection'.



Assign role 'Business_Application_Studio_Developer'. And click 'Assign Role Collection'.

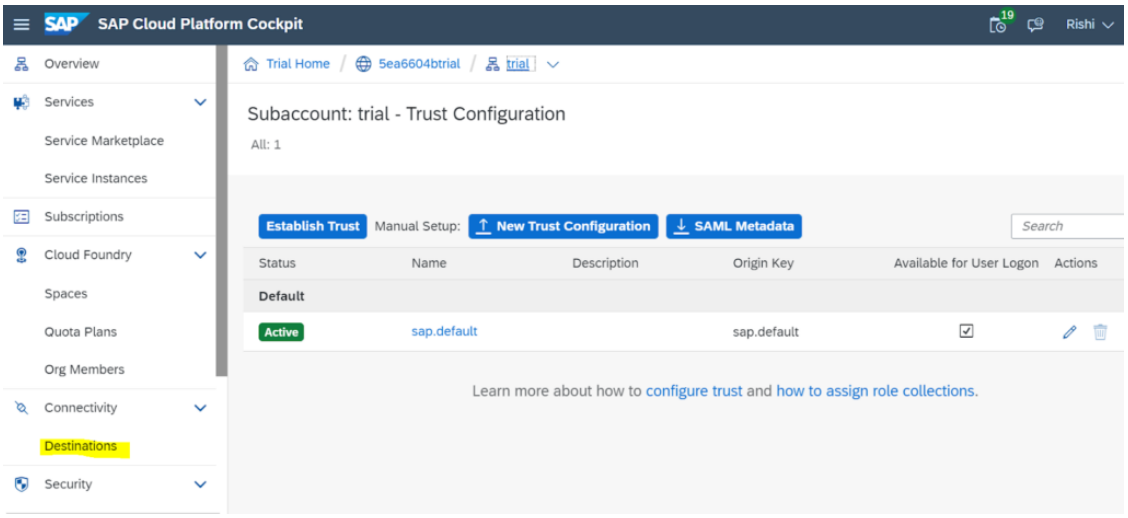


Finally it looks as below.

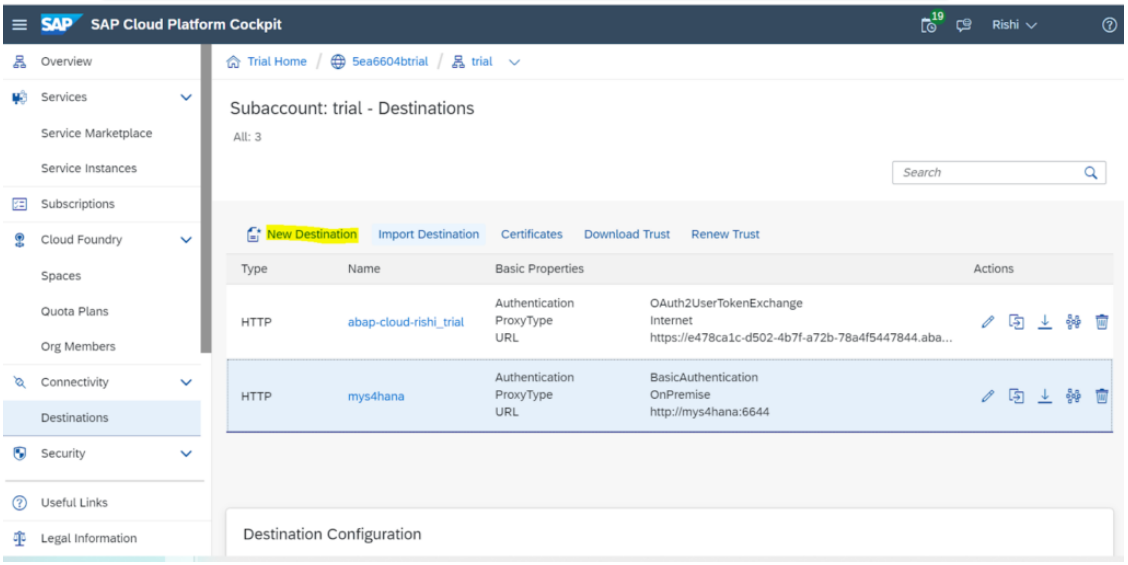


Step 5: Create Destination from Cloud Platform to On-Premise via SAP Cloud Connector

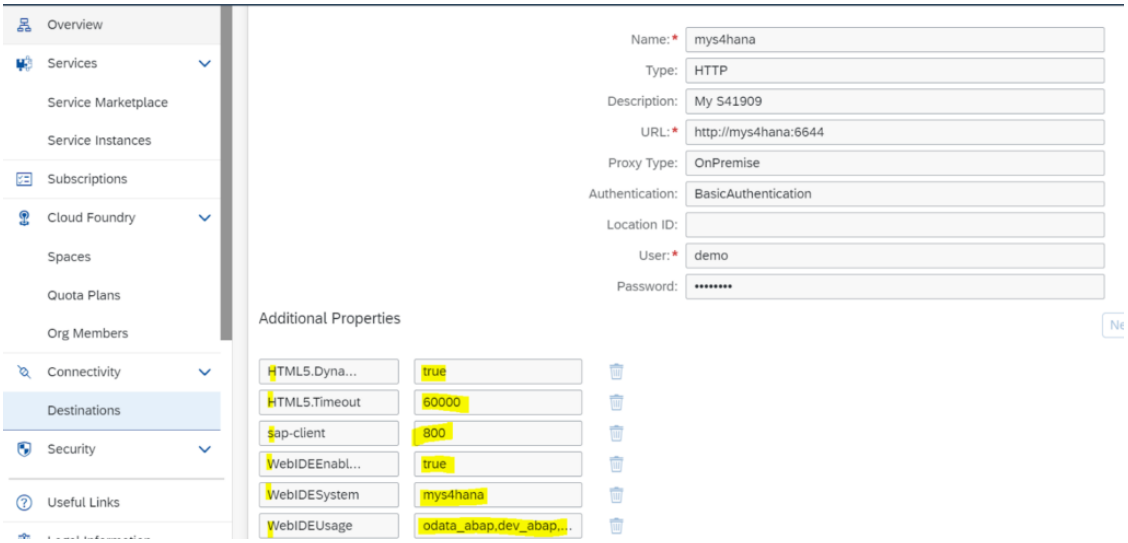
Now Click on 'Destinations' on the right side.



Click on 'New Destination'.

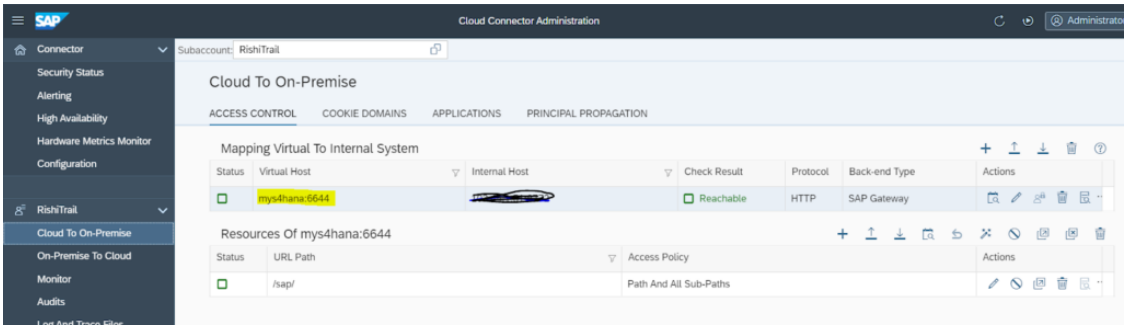


Here we need to provide on-premise system details. (More details are given below the screen shot).



System Details:

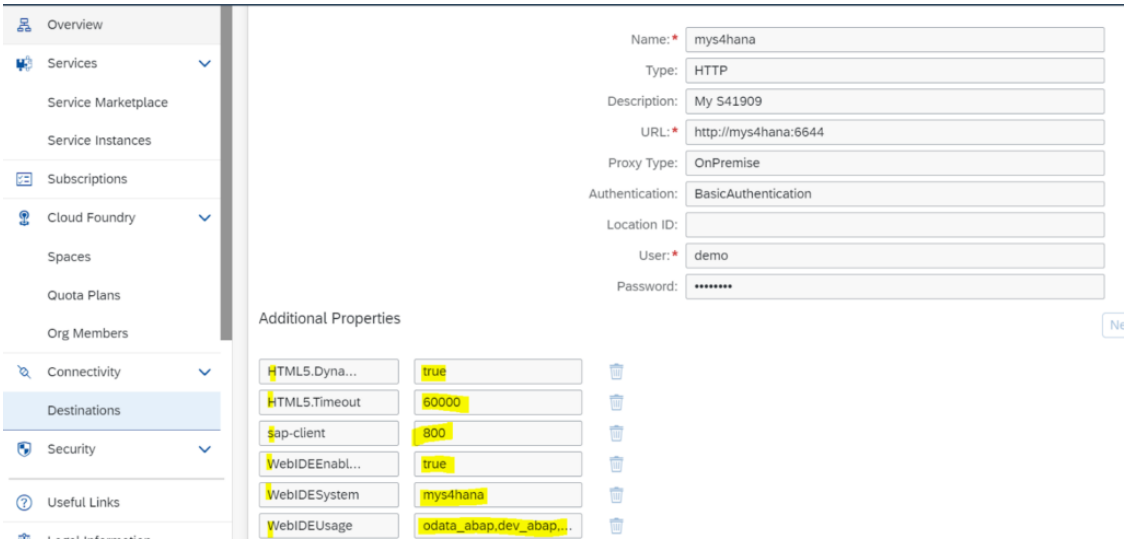
Name: mys4hana (you can give any name)
Type : HTTP
Description: any text
URL: http://(yourvirtualhost:port) eg: http://mys4hana:6644, as configured in Cloud Connector(shown below)



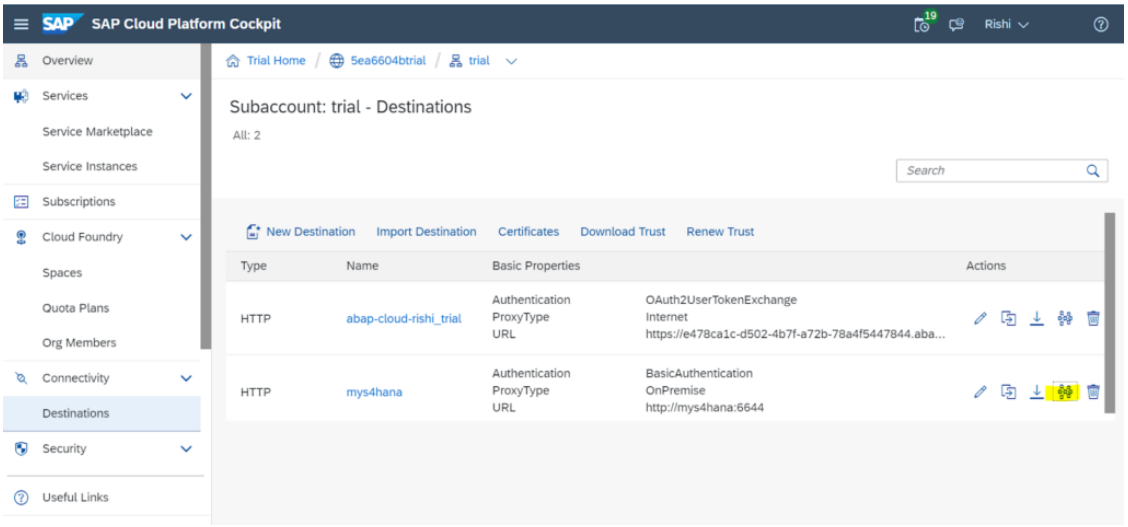
Properties:

1. HTML5.DynamicDestination – true
2. HTML5.Timeout – 60000
3. WebIDEEnabled – true
4. WebIDESystem – mys4hana (same as destination name)
5. WebIDEUsage – odata_abap,dev_abap,ui5_execute_abap,bsp_execute_abap,odata_gen
6. sap-client – 800

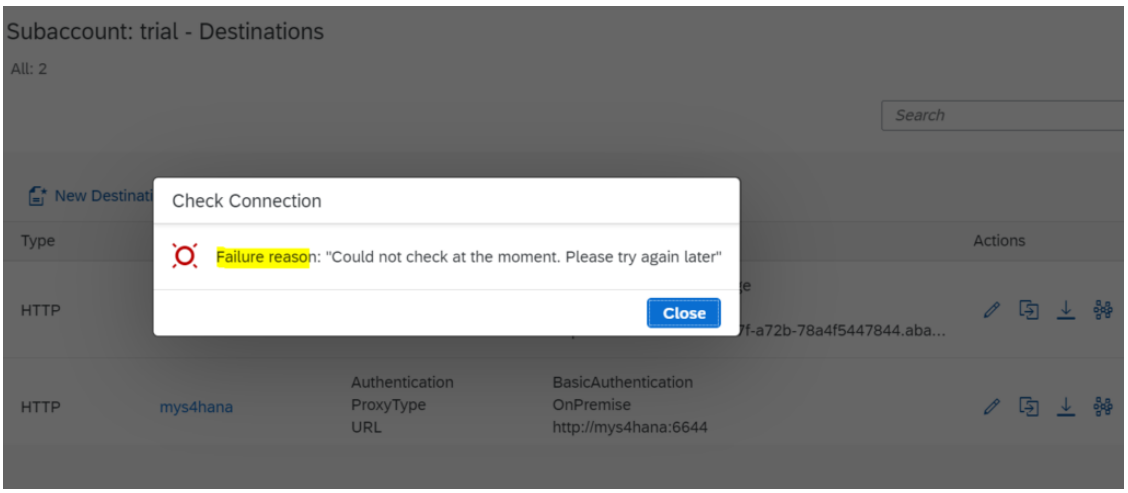
And then click on 'Save'



Test the destination, by clicking on

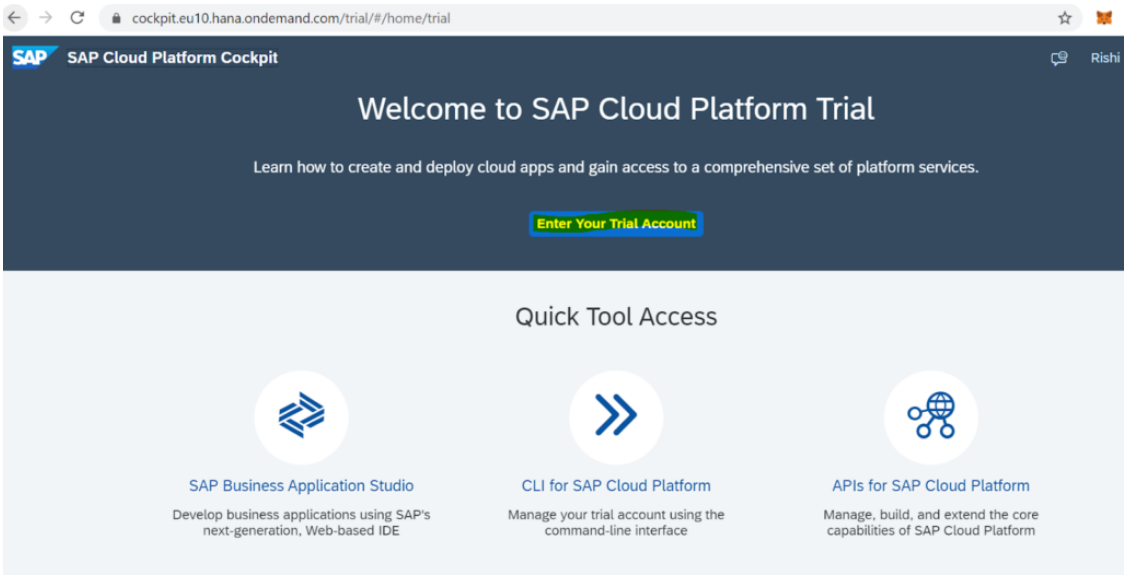


If you get the below error. No need to worry, it looks like it's a bug from the cloud platform. We can still use this destination while consuming the service.

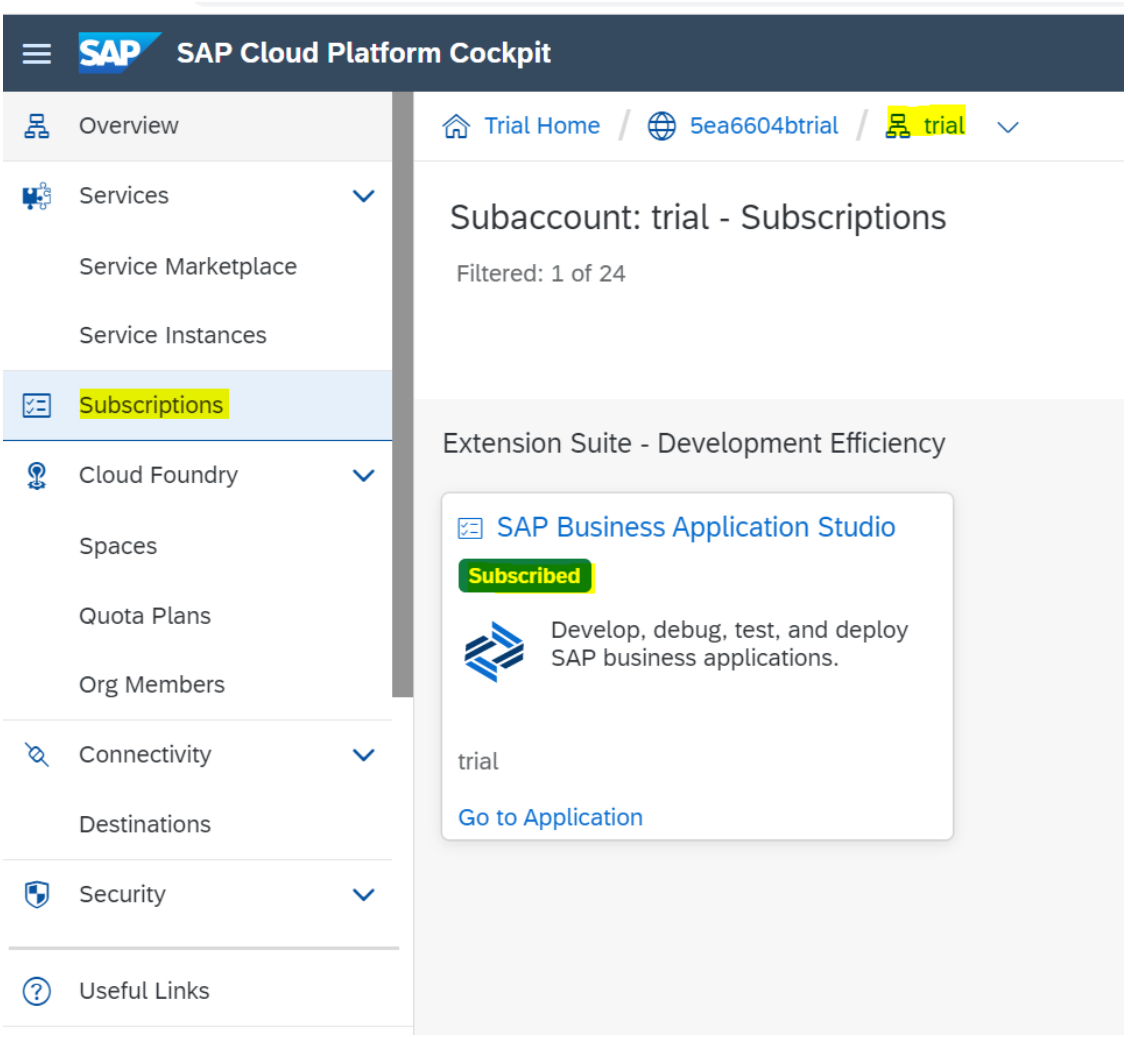


Step 6: Subscribe to SAP Business Application Studio

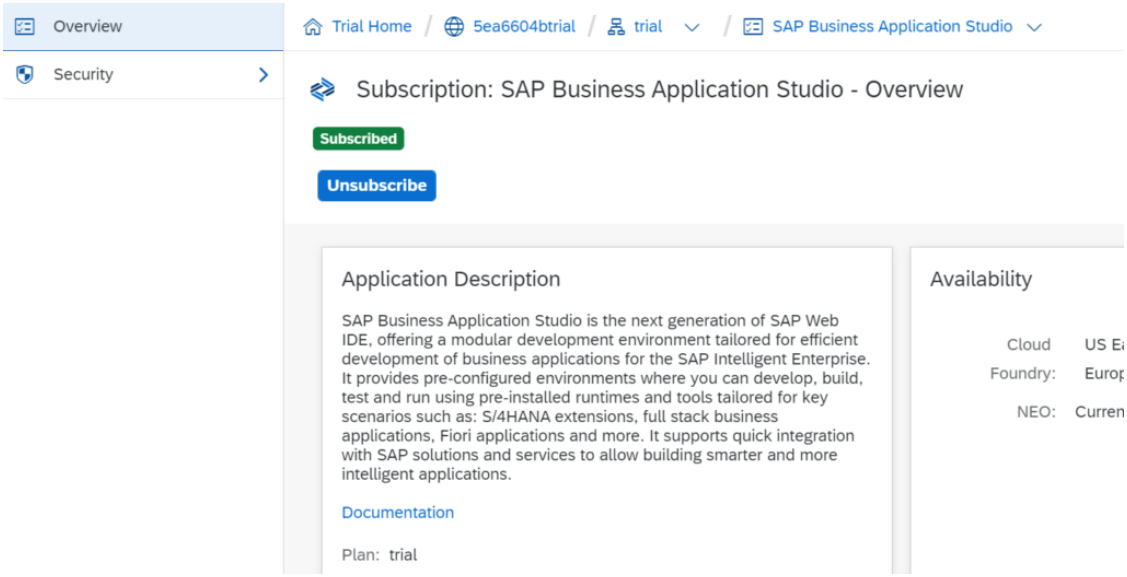
Go to your trial account home.



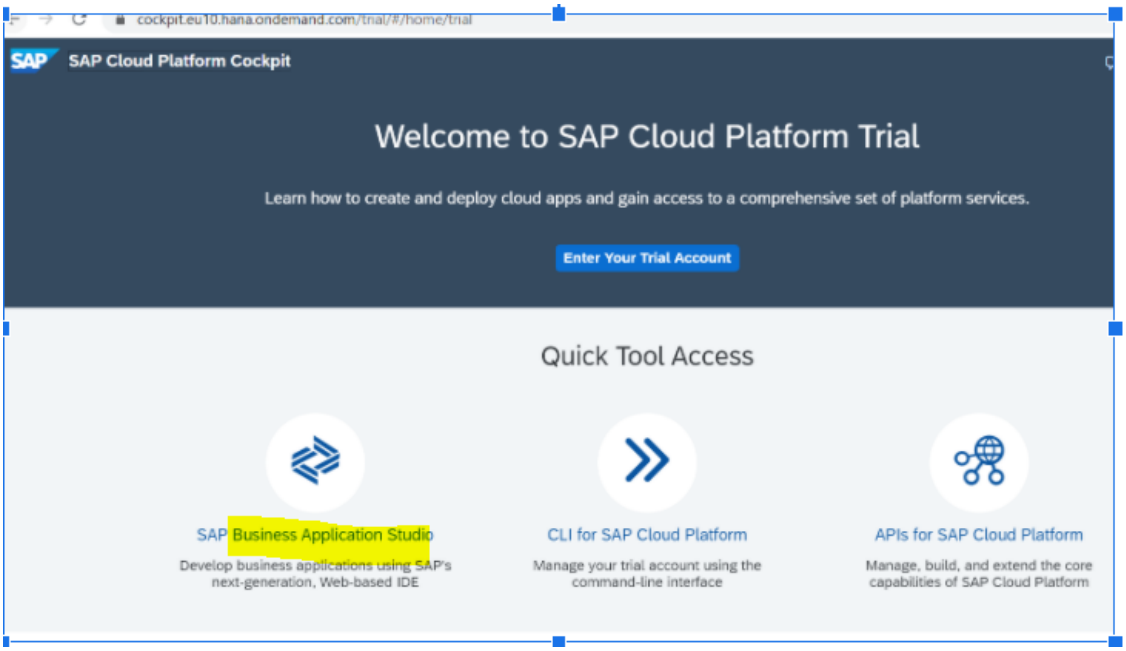
Go to your sub account (Trial), Select 'Subscriptions'.Search for 'SAP Business Application Studio'.



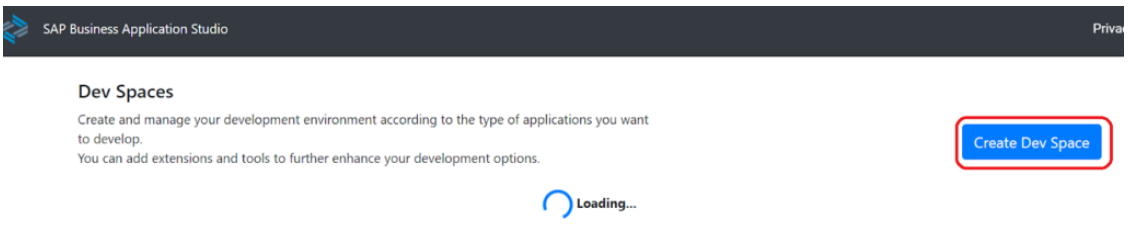
Click as shown above, and click on Subscribe (I have already subscribed)

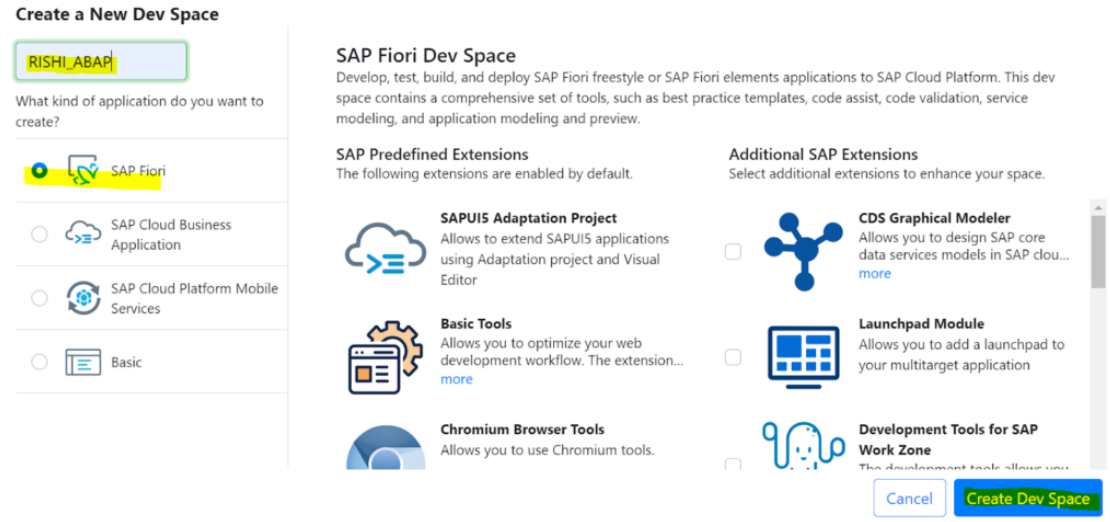


Now launch Business Application Studio.

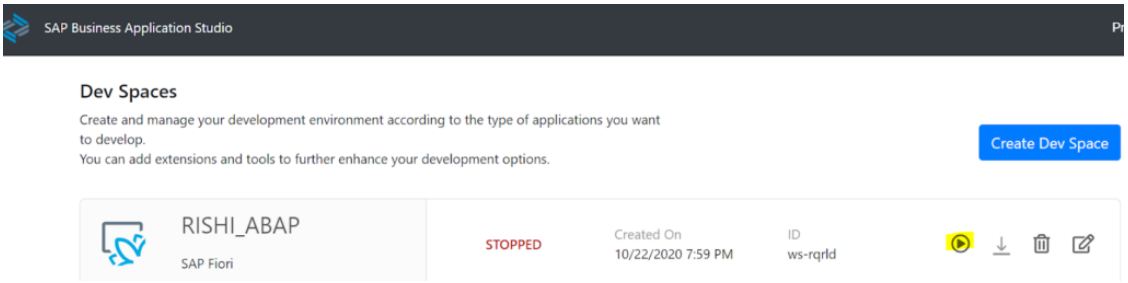


If you are launching BAS for the first time, You need to Create Dev Space.

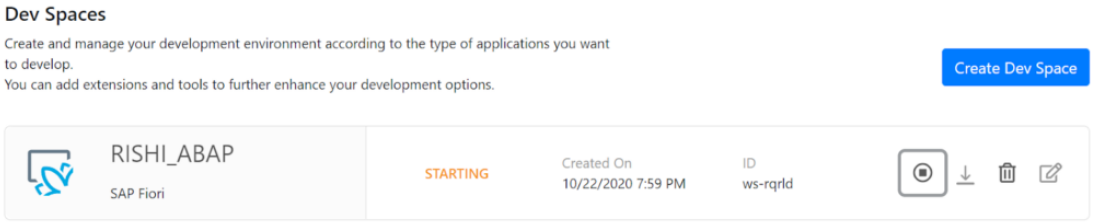




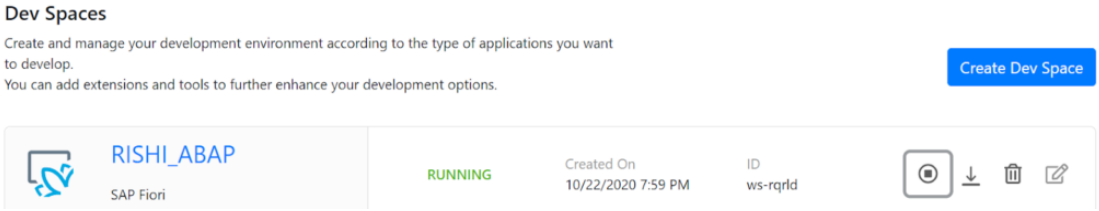
Initially it will be stopped, click on the 'Run' icon.



You can observe the status changed to 'STARTING'.



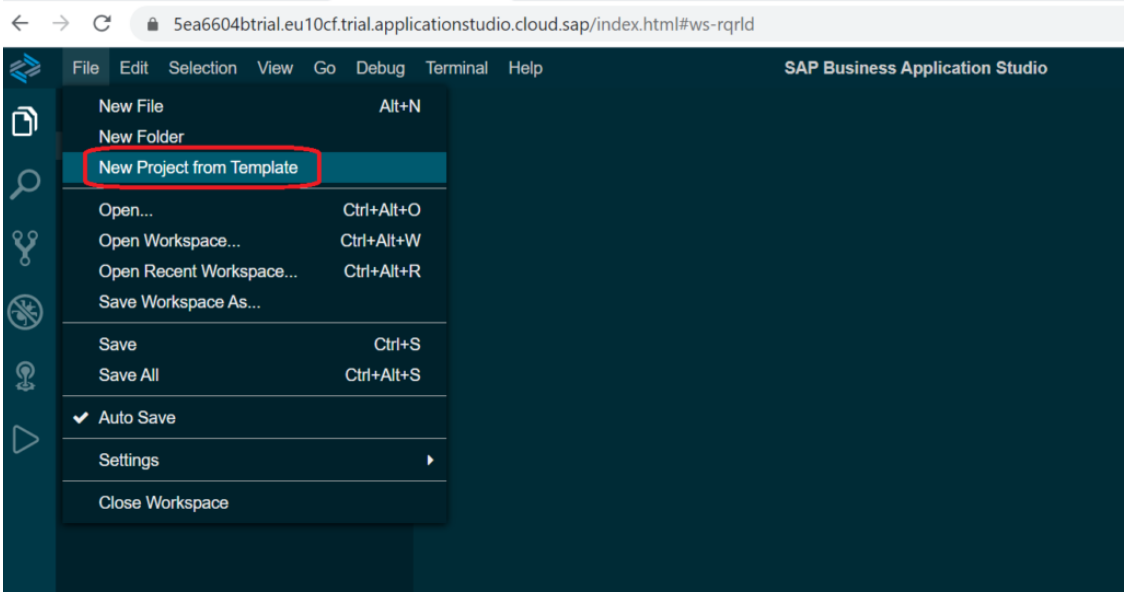
Now it's 'RUNNING'. Click on the Dev space name , here 'RISHI_ABAP' in the example.



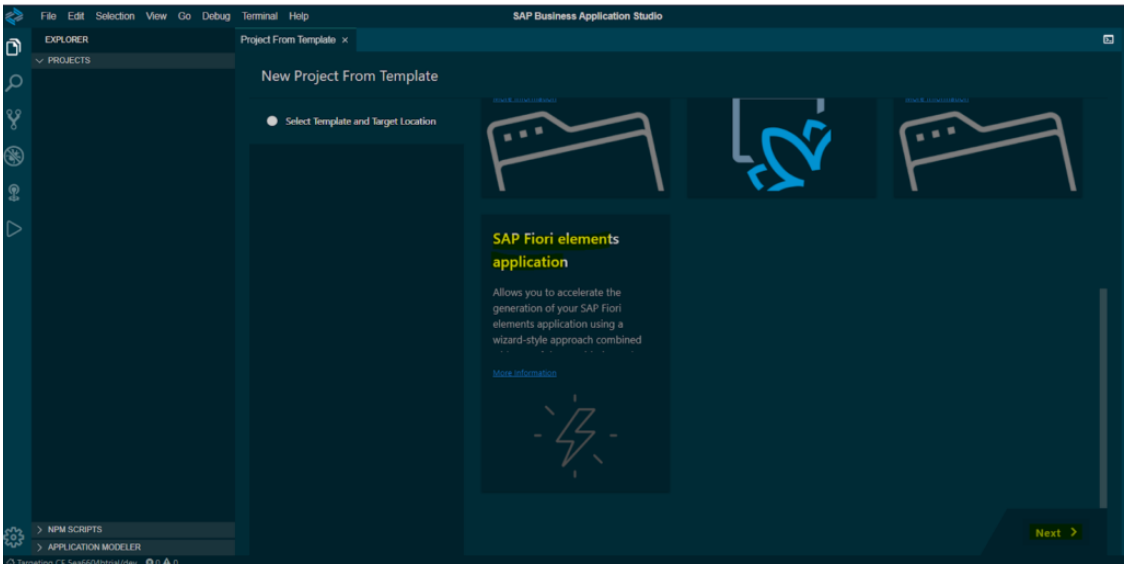
Your BAS is ready to use.

Step 7: Create Sample Fiori Elements Application by Consuming OData Service from BAS

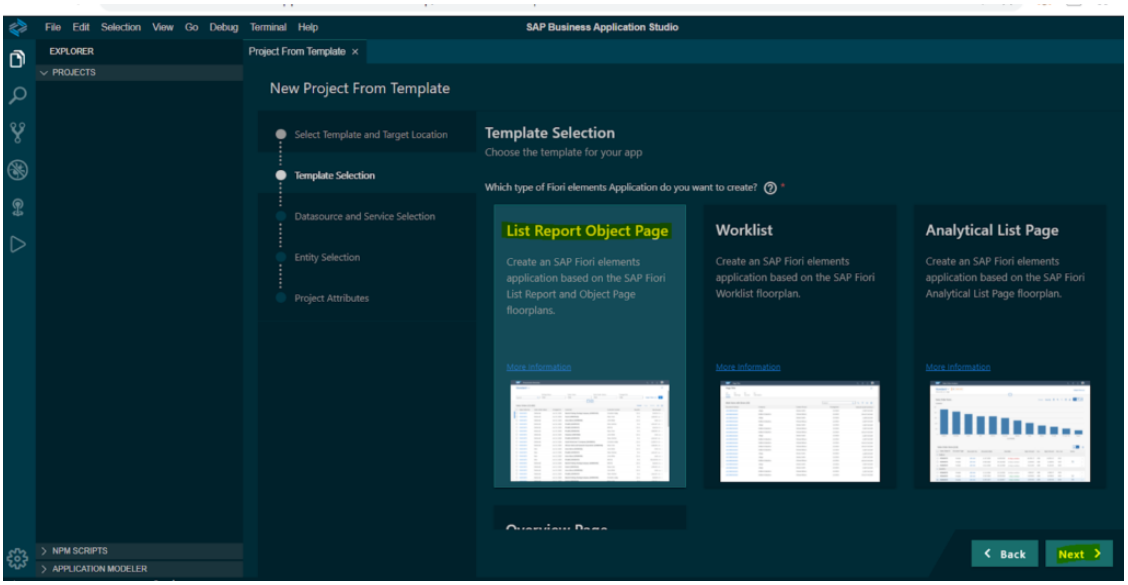
Once you got into BAS, Choose 'New Project from Template'.



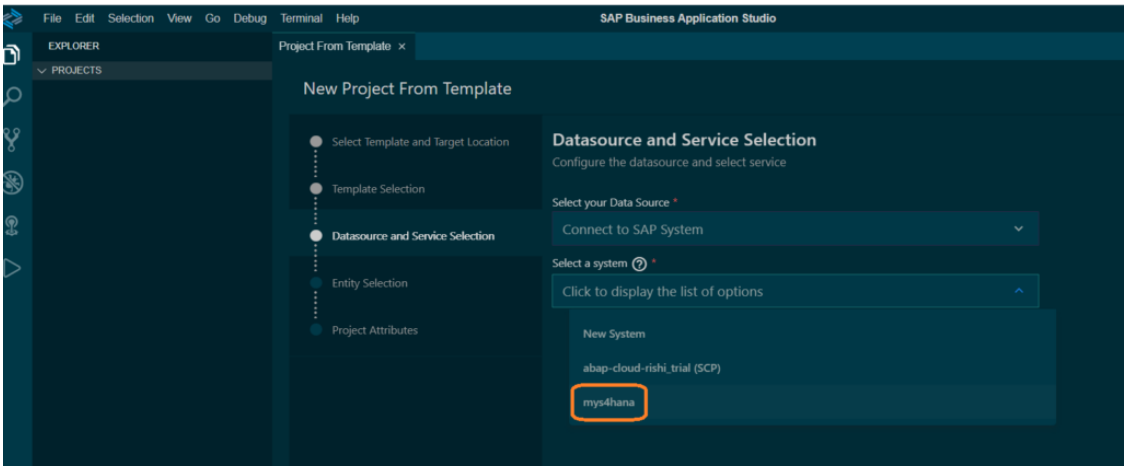
Choose: SAP Fiori Elements application.



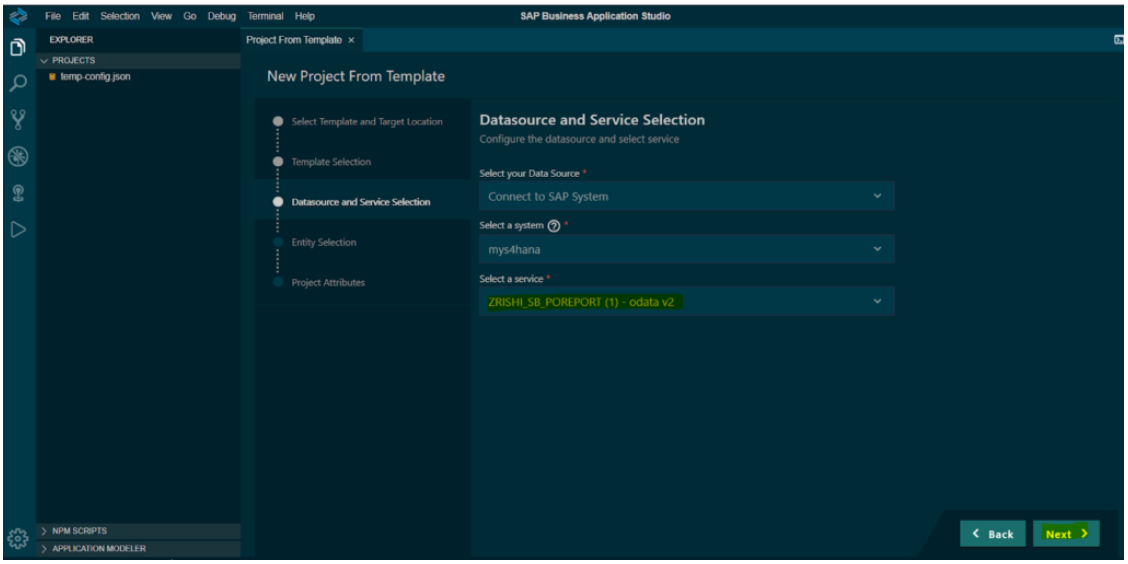
Select 'List Report Object Page'. Next.



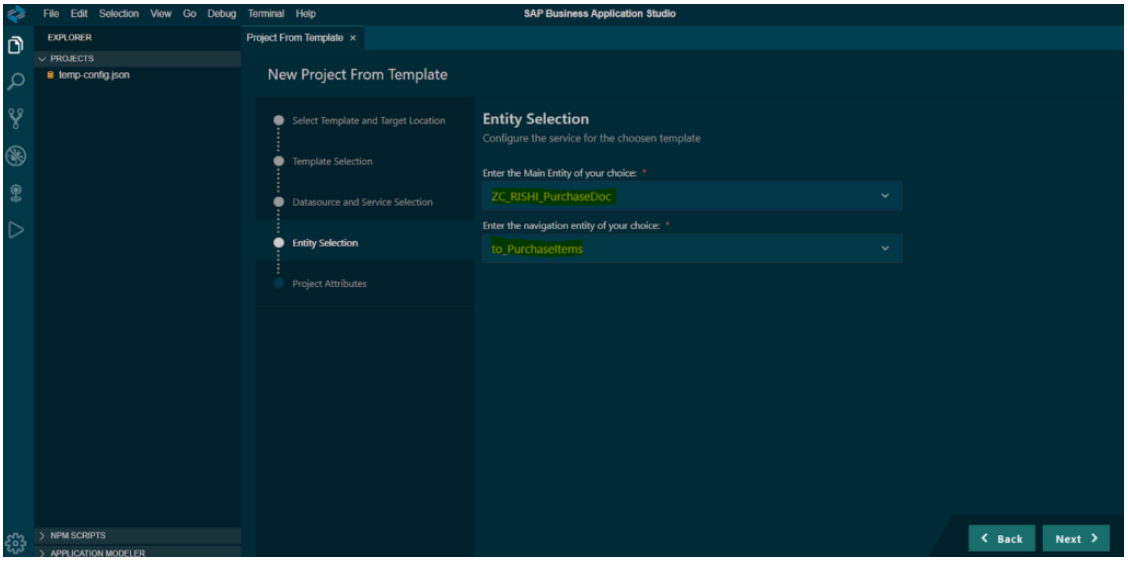
Select Data Source as 'Connect to SAP System' & Select a system 'mys4hana'. This name is the same system name as we provided in Destination.



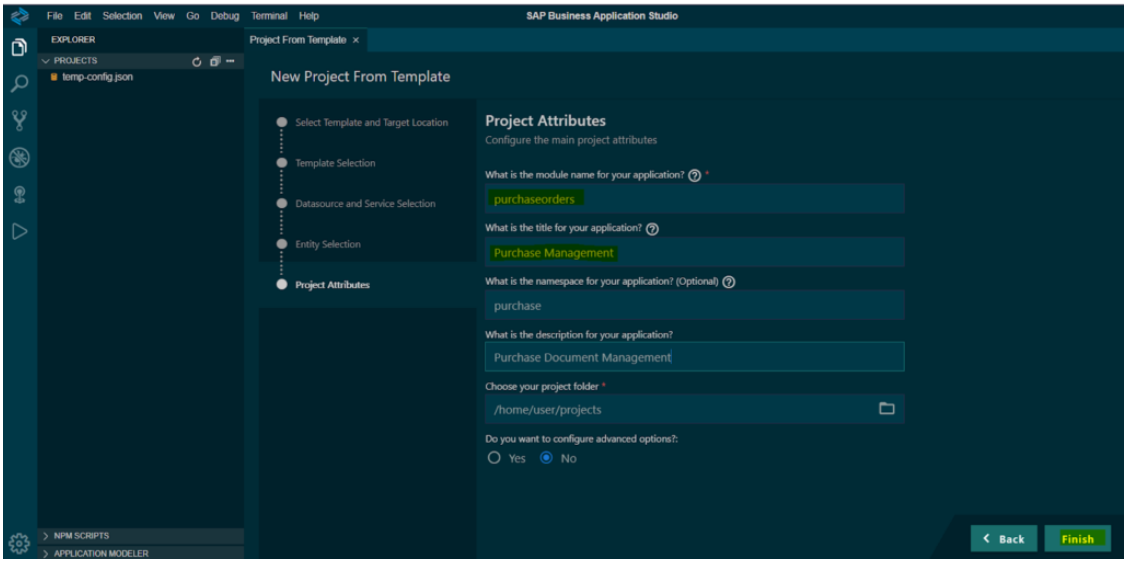
Select the required service , here 'ZRISHI_SB_POREPORT(1)'. Click on Next.



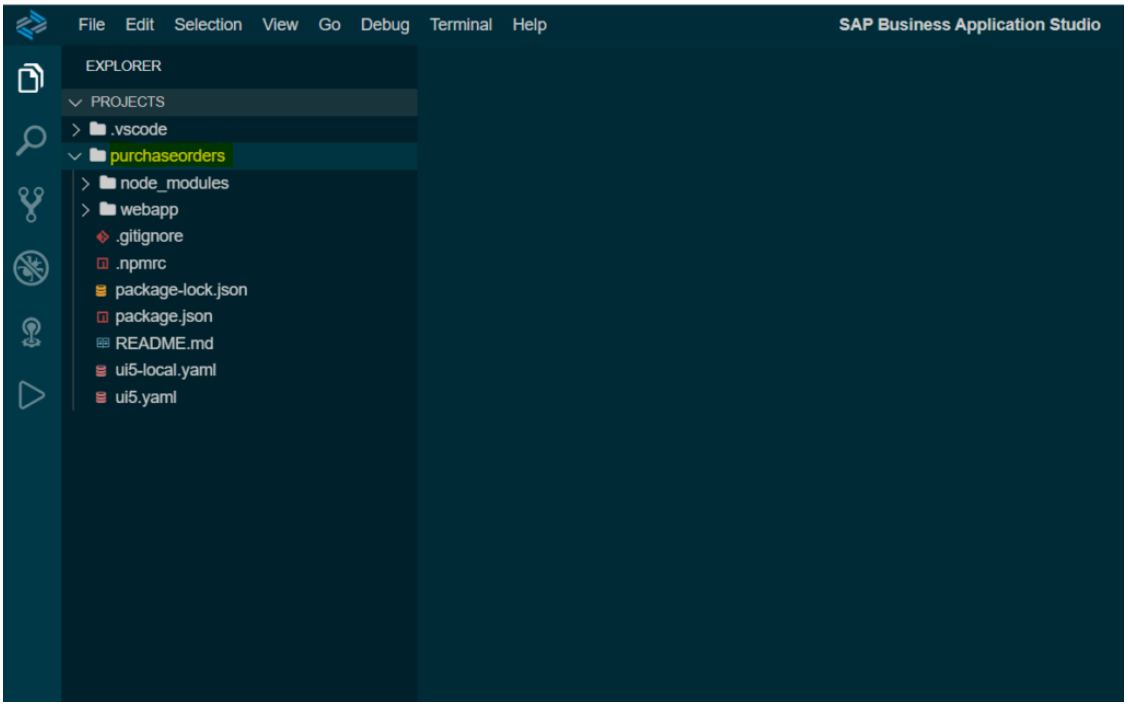
Entity selection. Choose 'ZC_RISHI_PurchaseDoc'. Navigation entity as 'to_PurchaseItems'.



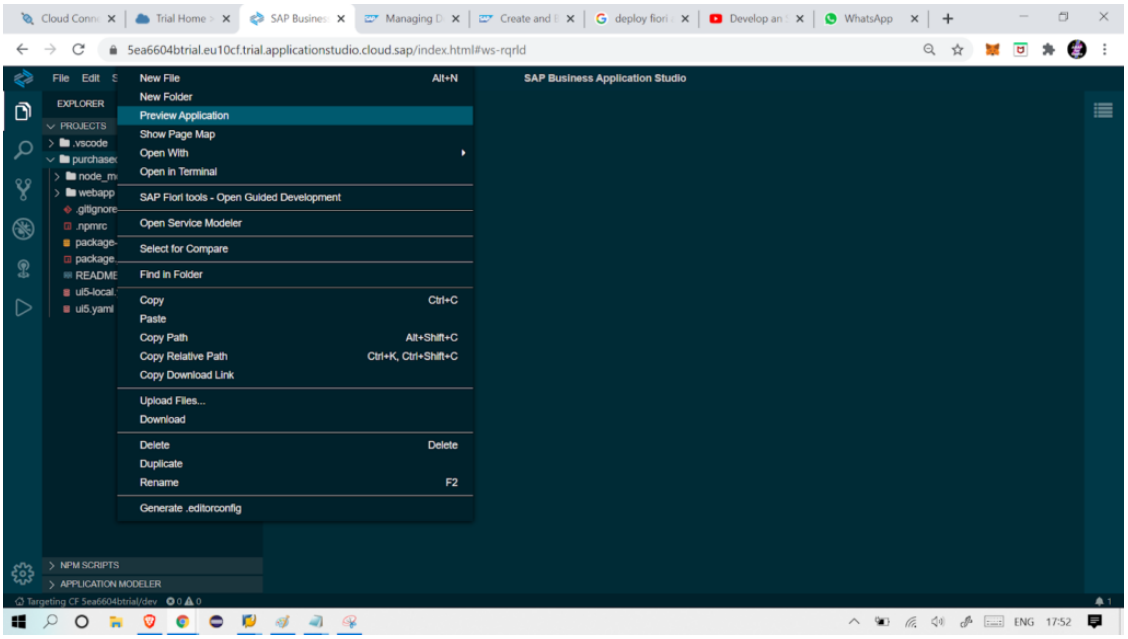
In the next screen, provide project attributes as shown below. & Click on Finish.



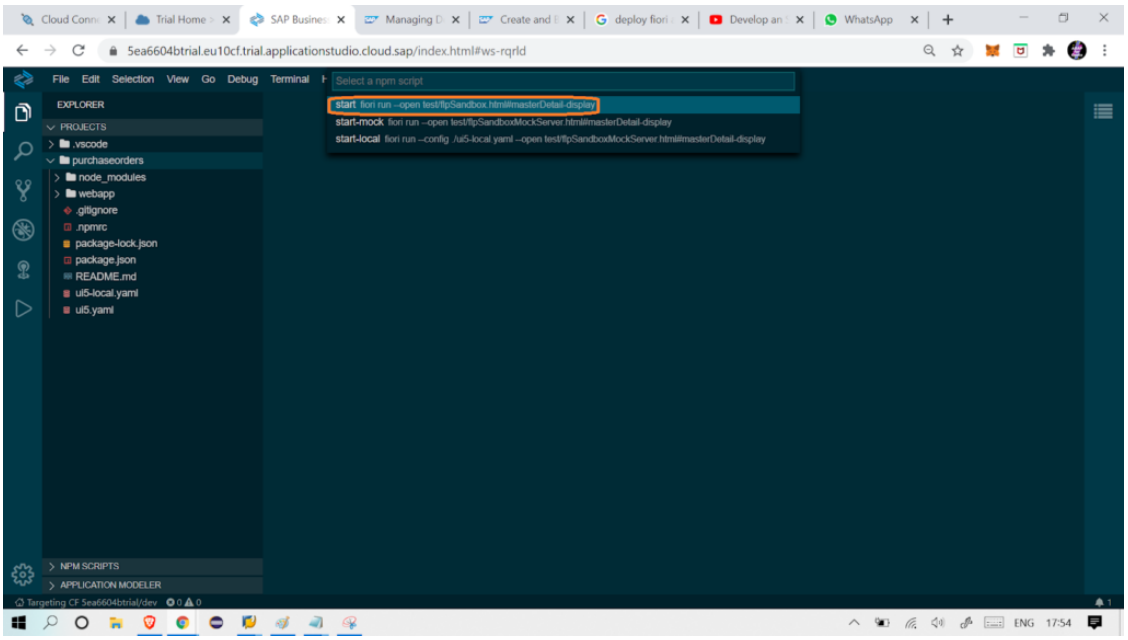
Now you can see your app in the workspace . (if you get a pop up to add project workspace you can choose)



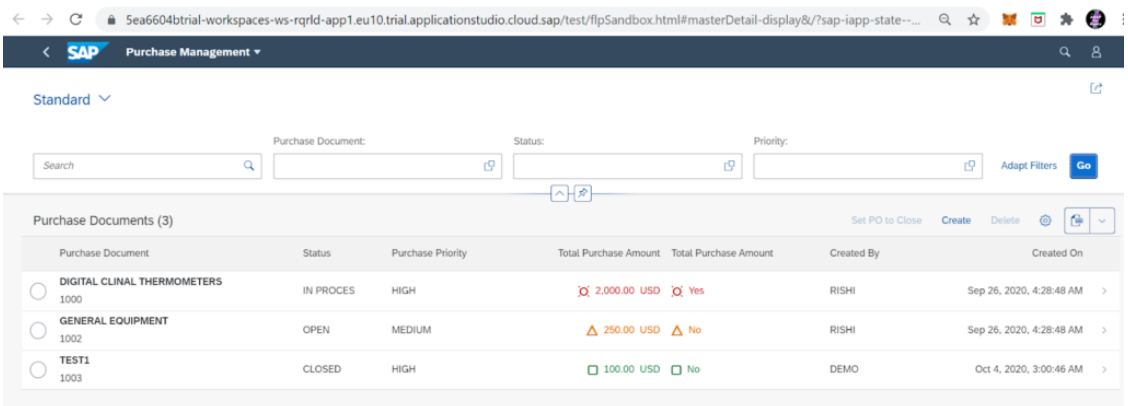
Test the application, right click -> Preview application.



Now select 'Start fior run' (press enter).



App is running fine.

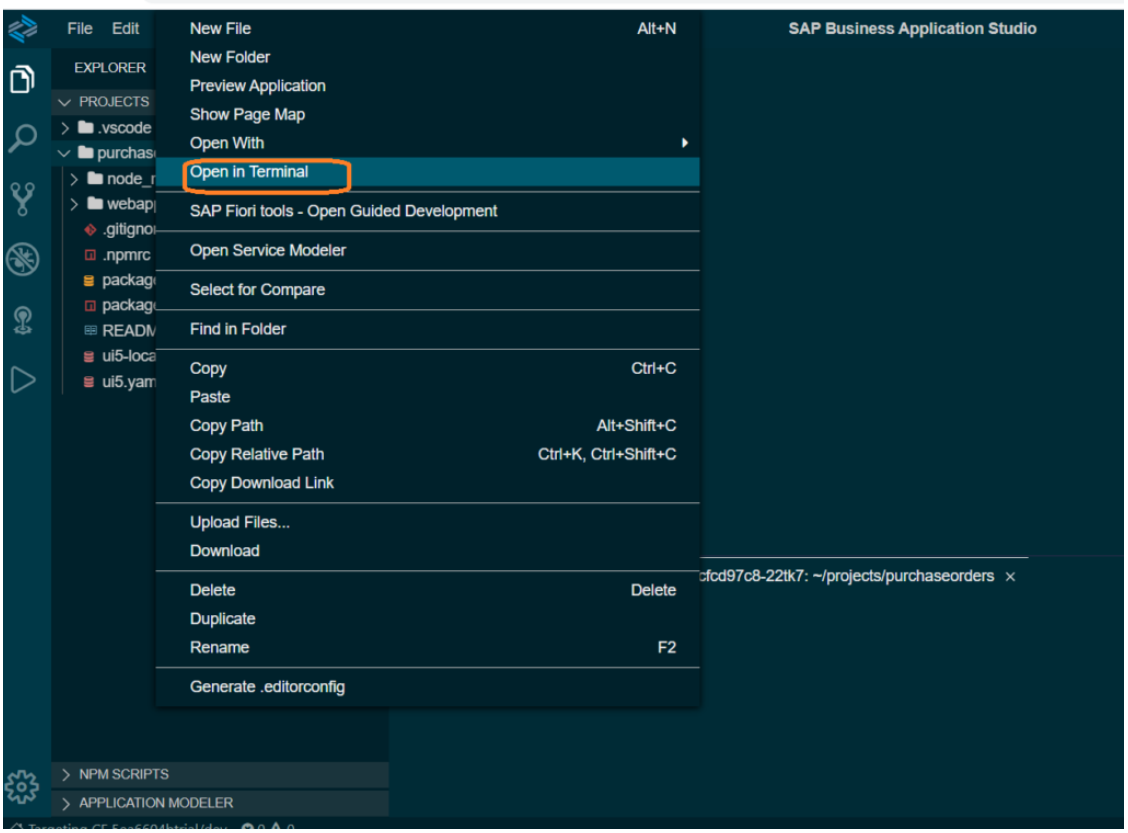


Step 8: Deploy App to On-Premise System.

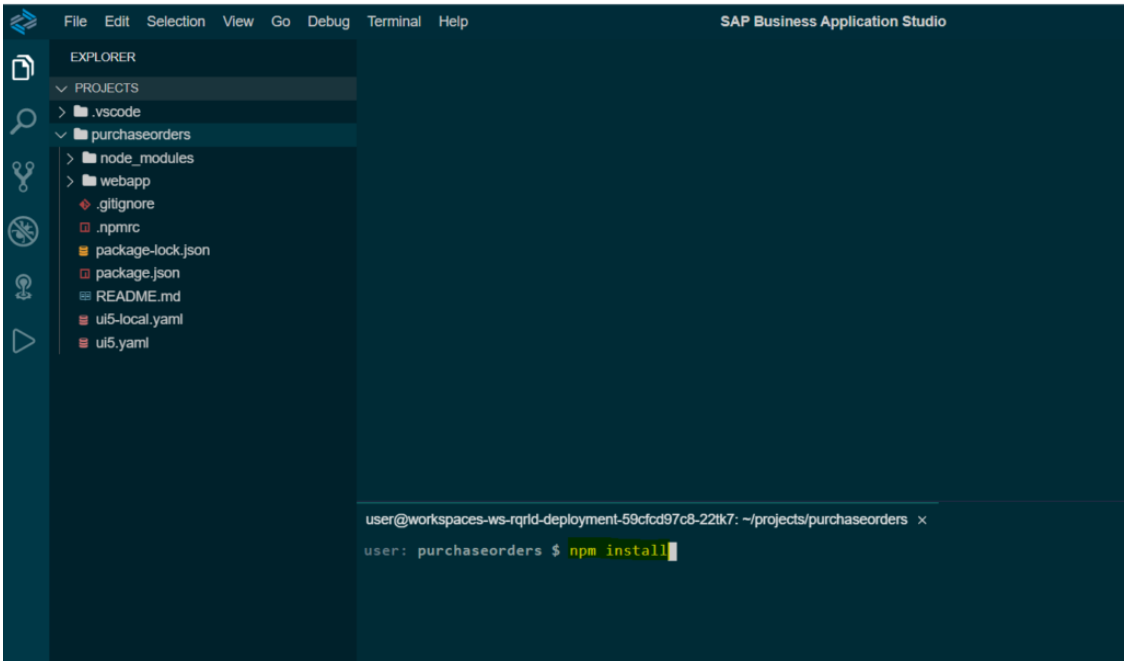
We need to execute 3 simple commands to deploy the app.

1. **npm install**
2. **npm run build**
3. **abap-deploy**

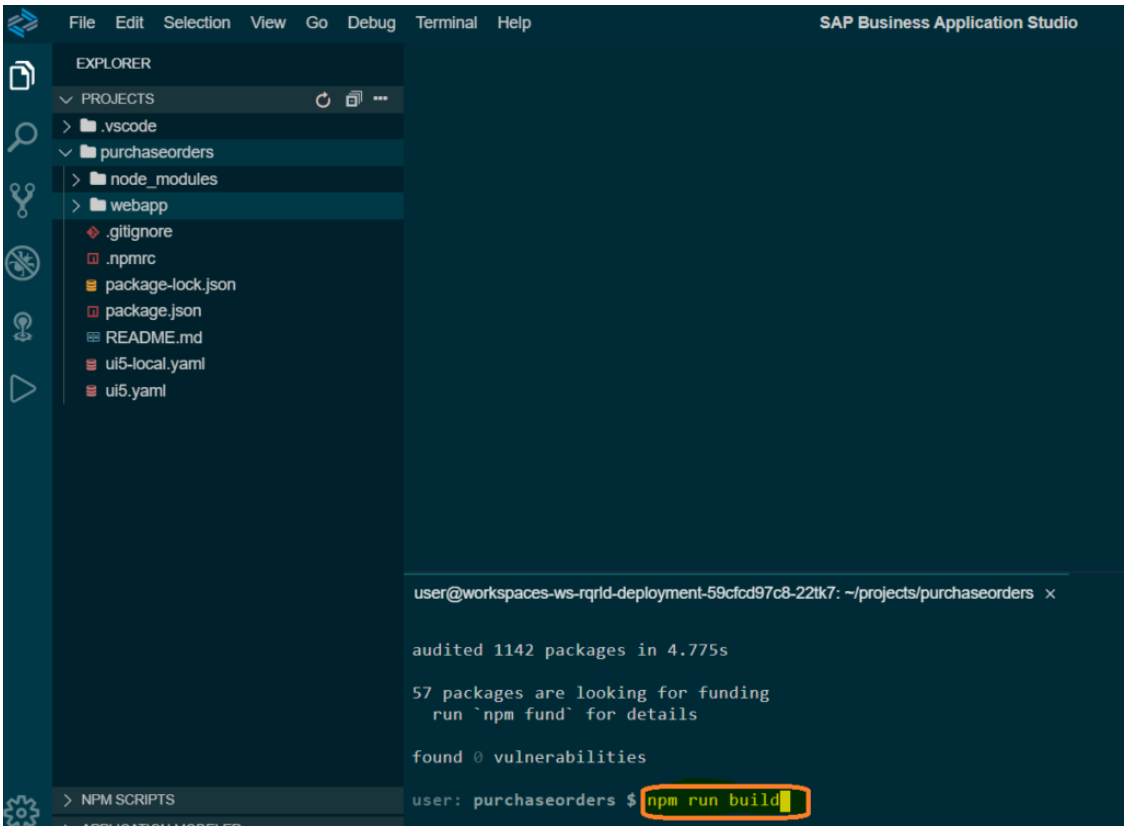
Right click on the project folder, choose 'Open in Terminal'.



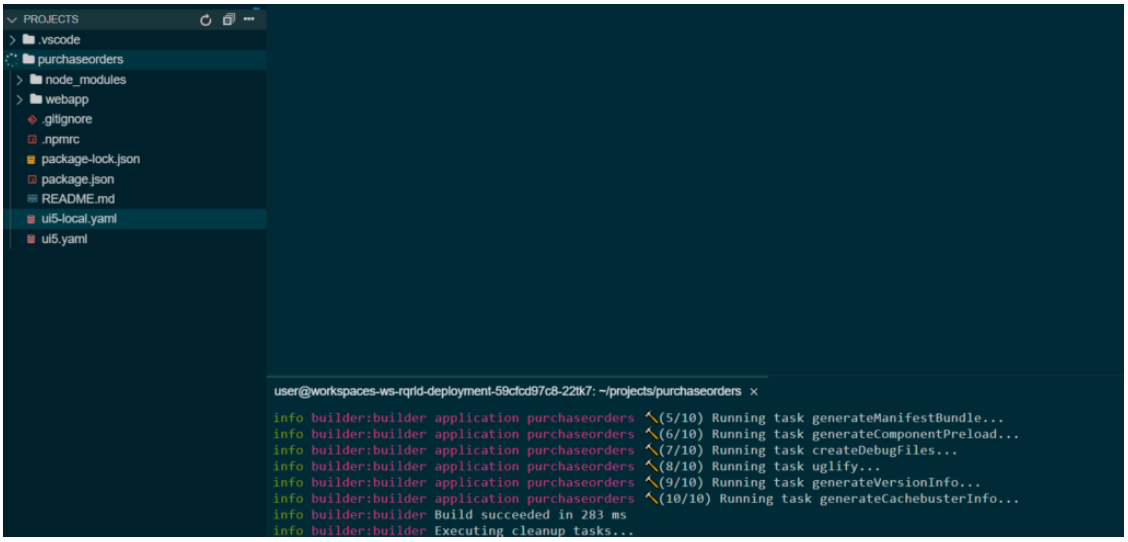
Now execute 'npm install' in the terminal & press enter. (show below)



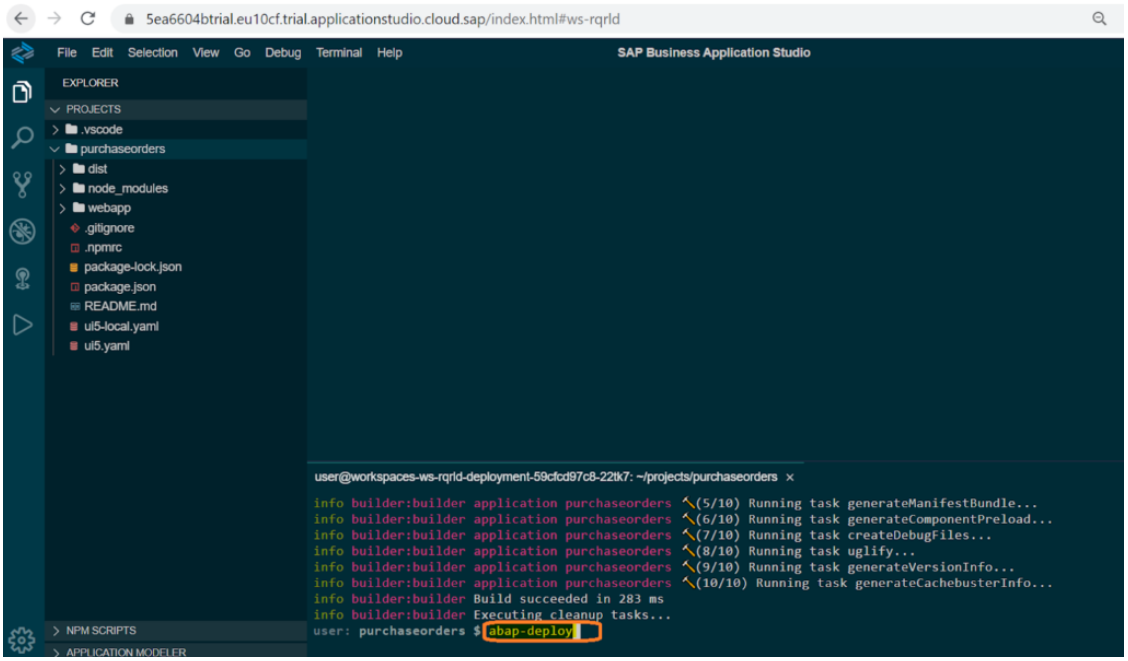
Now build the app, execute 'npm run build' , press enter.



Build is successful.

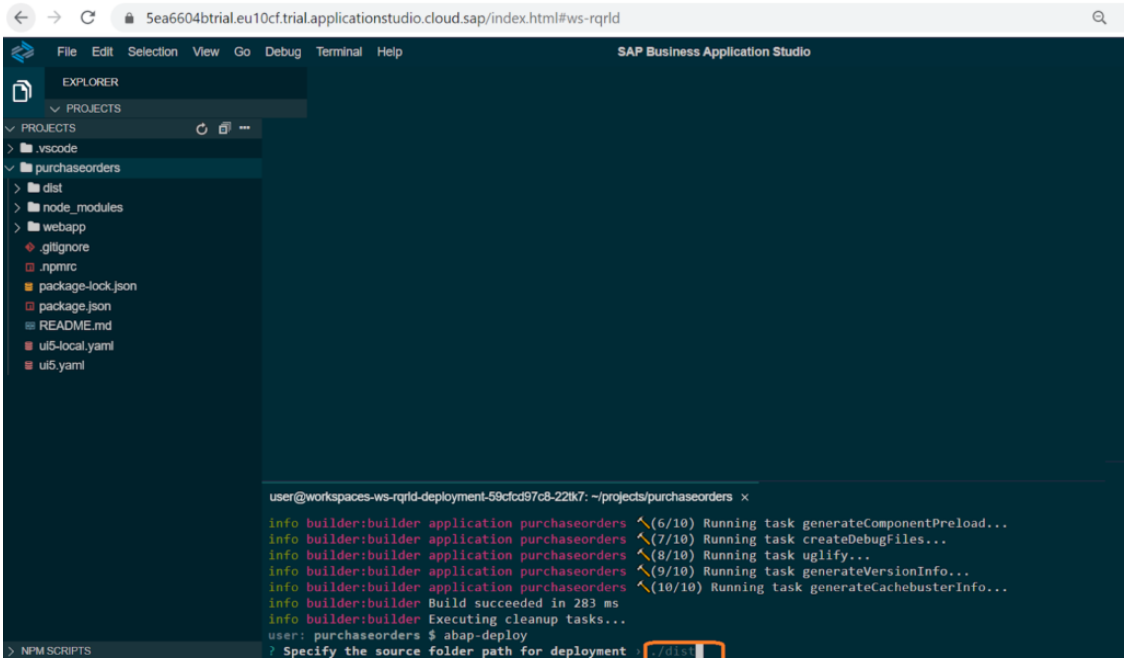


Now execute : abap-deploy

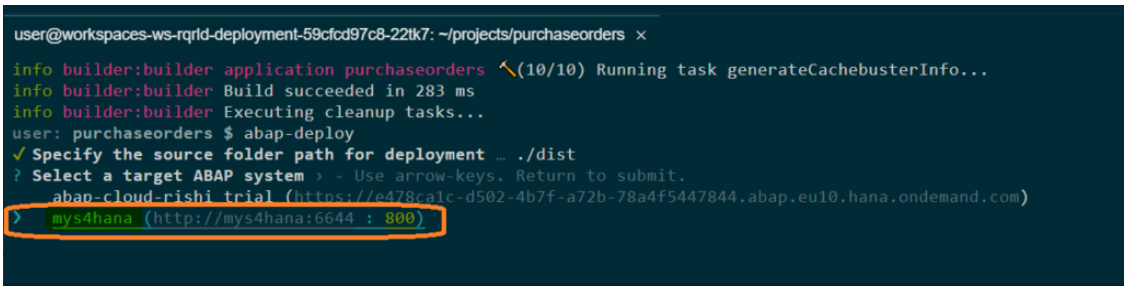


Provide details for each question as shown below.

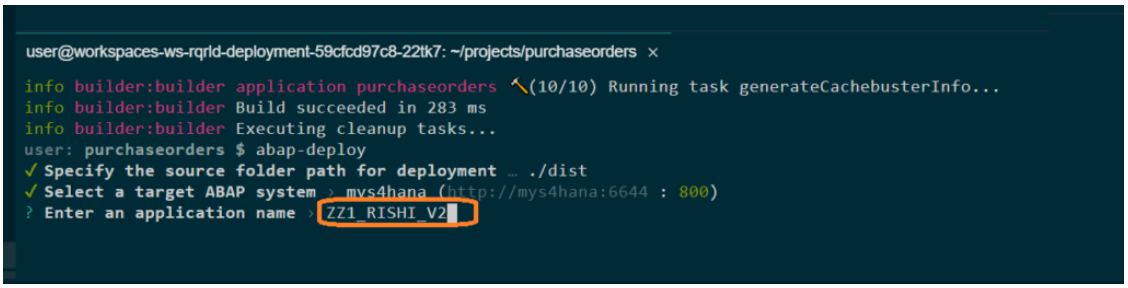
Keep the value ‘./dst’ and press enter.



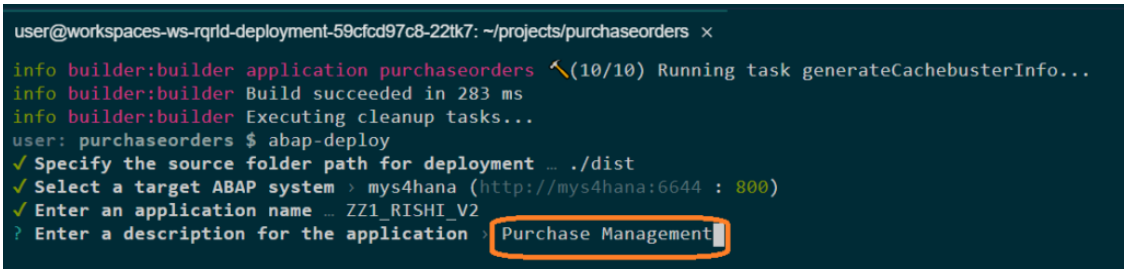
Select our on-premise system from the list. Press enter.



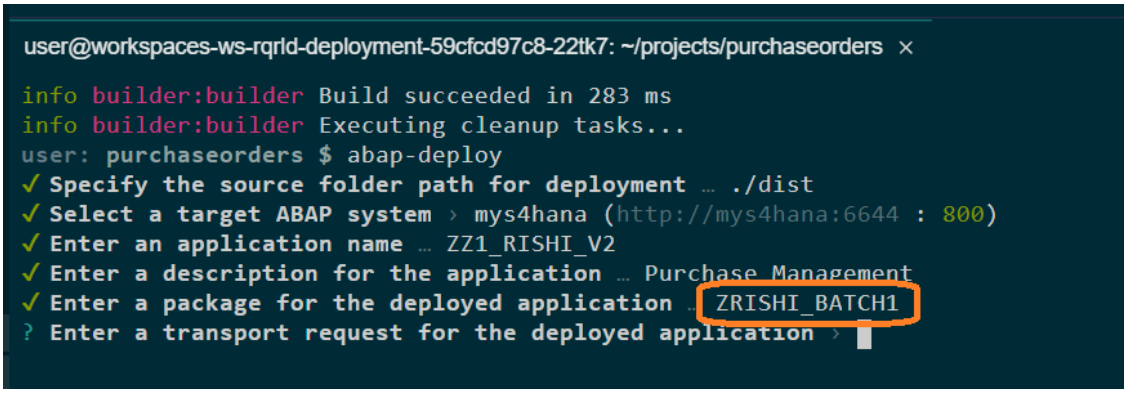
Provide your application name starting with 'ZZ1_', as shown below.



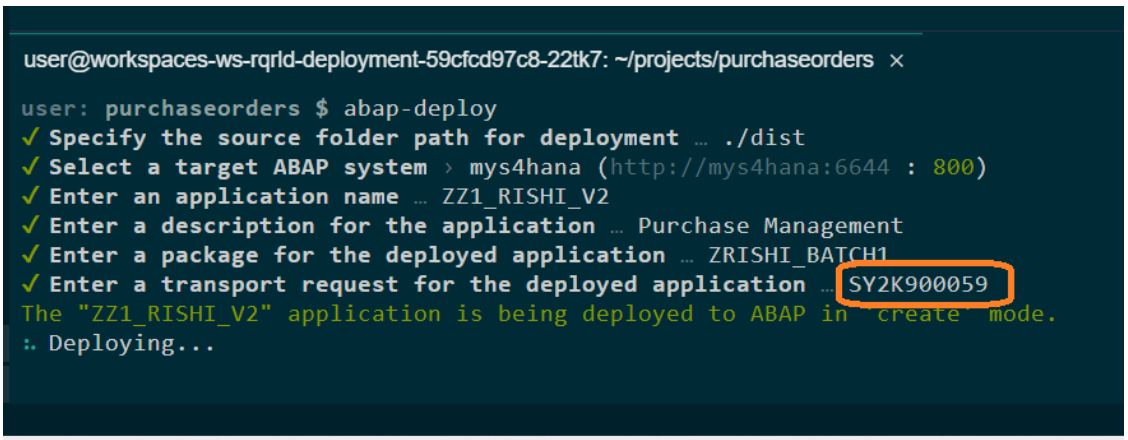
Provide description of the app.



Enter the package name 'ZRISHI_BATCH1' (choice of your package).



Provide the transport request number, where you would like to lock. & press enter.



The app will be deployed as shown below. If not successful, please repeat the steps from 'abap-deploy'.

You can verify by going to transaction SE80 -> BSP Application -> provide your app name.

Fewwwwhhhhh… This is one of the longest articles we have written at SAPYard. If you face any issue, feel free to put your questions in the comment section below.

Also, I run a YouTube Channel named "ABAP for Geeks". Please do consider subscribing to ABAP for Geeks and encourage me.

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Rishi

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