



App Connect with RPA

Hands-on Lab

Version 1.0

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1. Introduction

This hands-on lab you will learn to build an App Connect flow to run a bot.

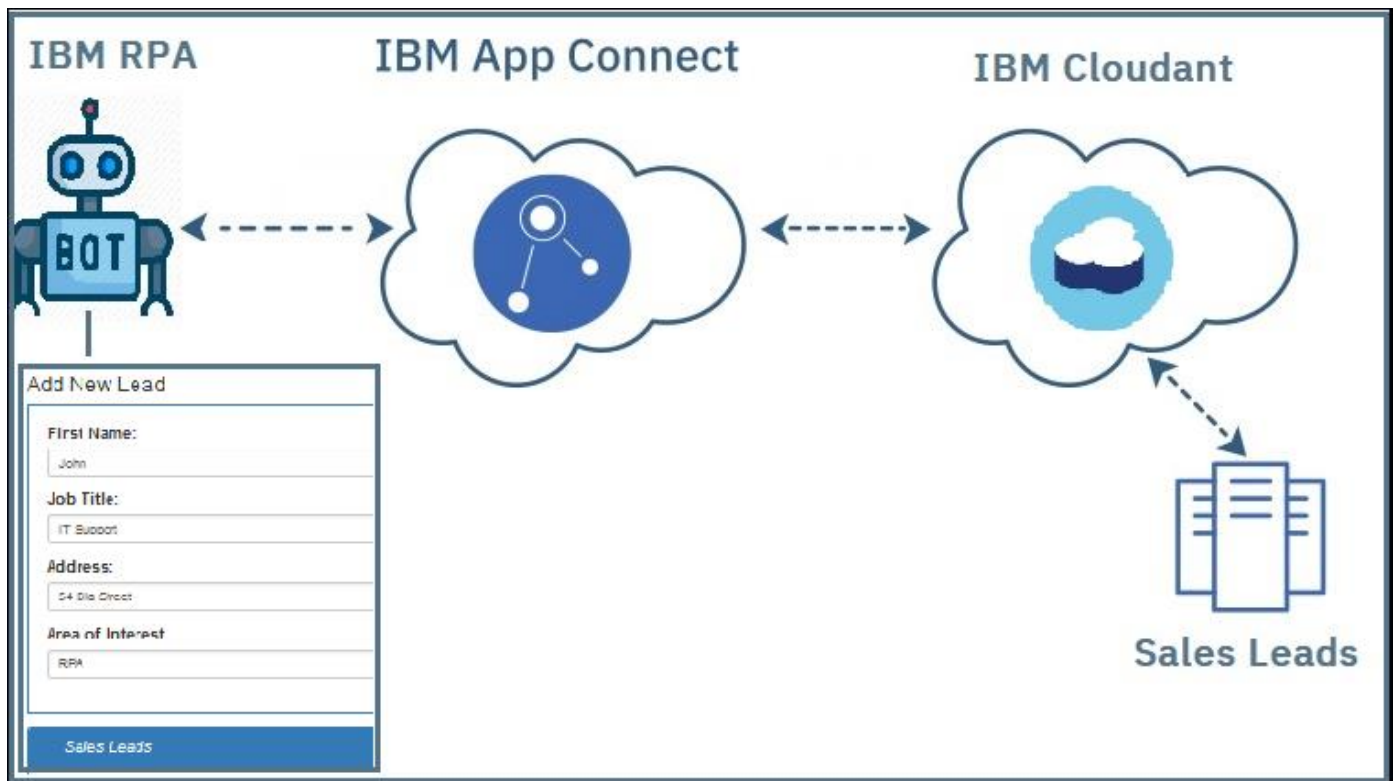


FIGURE 1. LAB ARCHITECTURE

2. Use case

In this exercise you will build a bot to automate sales leads for JK Automation. Sales leads are currently captured by the sales team and entered to a database. The sales leads are then manually copy/pasted into the online opportunity system. This task is error prone and the sales team repeatedly ask if this can be automated, but automation has been too difficult. Until now ...

3. Prerequisites

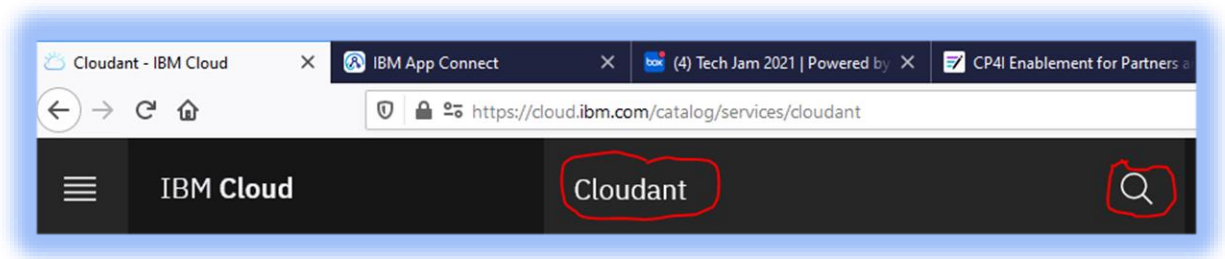
- An IBM Cloud Account. If you don't have one, visit: <https://cloud.ibm.com/registration>
- App Connect Lite (free)
- Cloudant Lite (free)

4. Lab Instructions

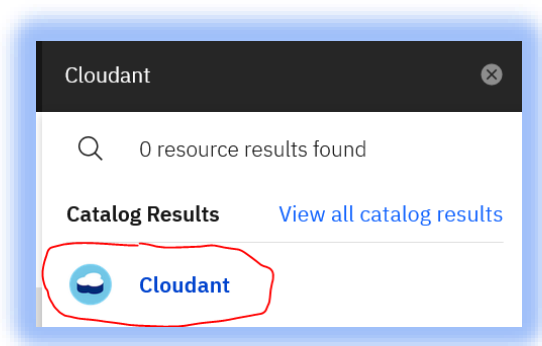
Create a Cloudant database

Log into IBM Cloud

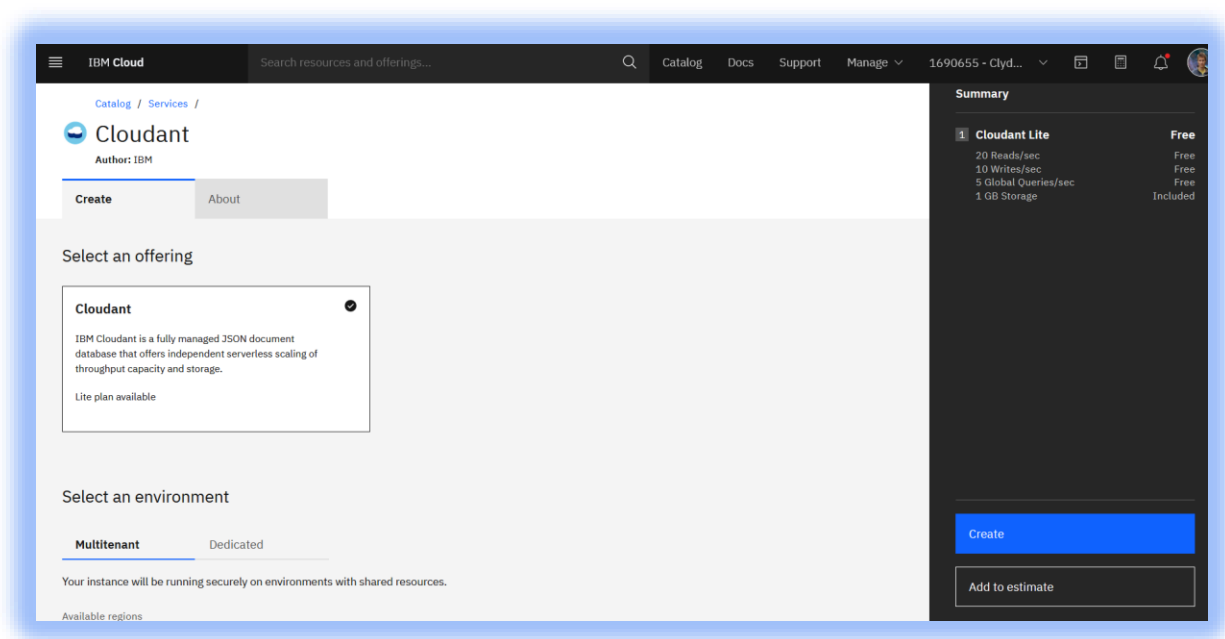
In the search bar, type Cloudant and then press the magnifying glass.



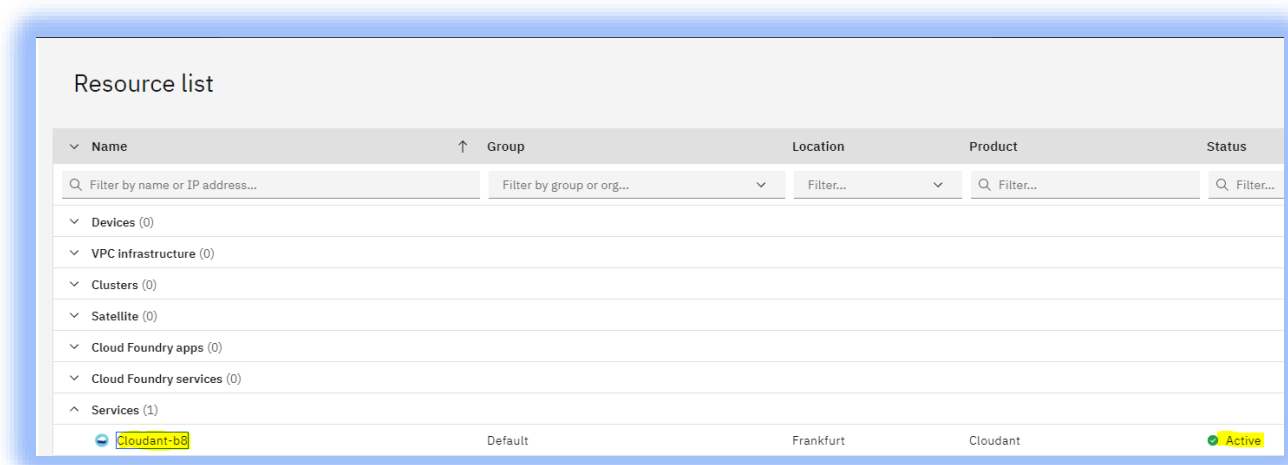
Select the Cloudant Service:



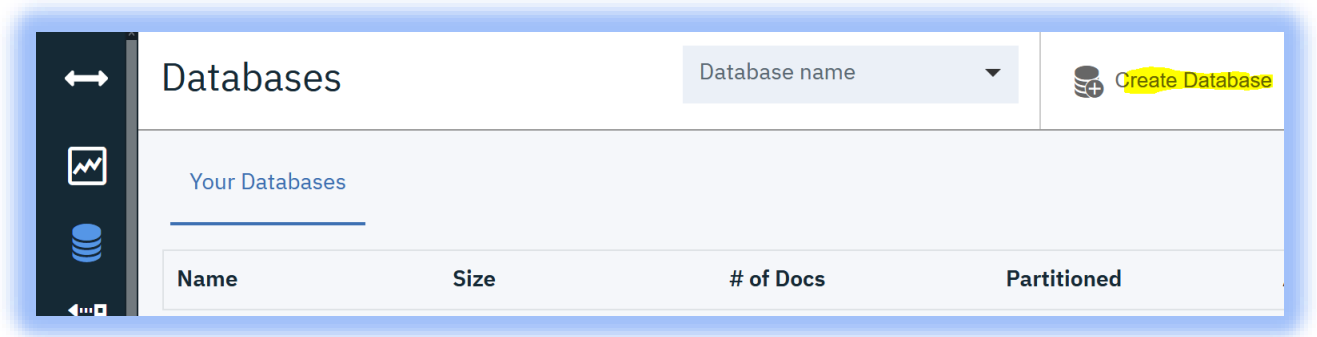
Select the **Cloudant Lite** service and then press “Create”



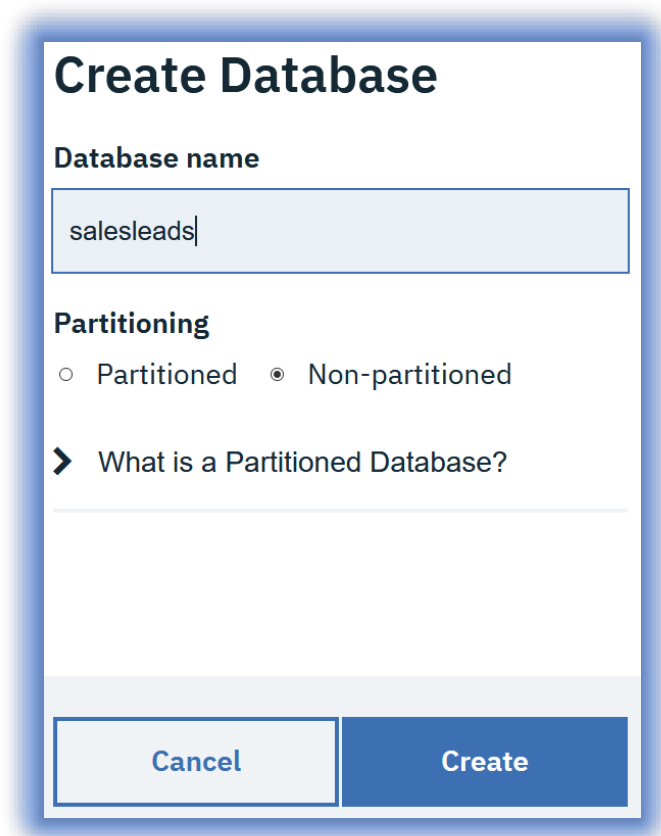
After a minute or two you should see the service has been provisioned under *Services* and is in *Active* state:



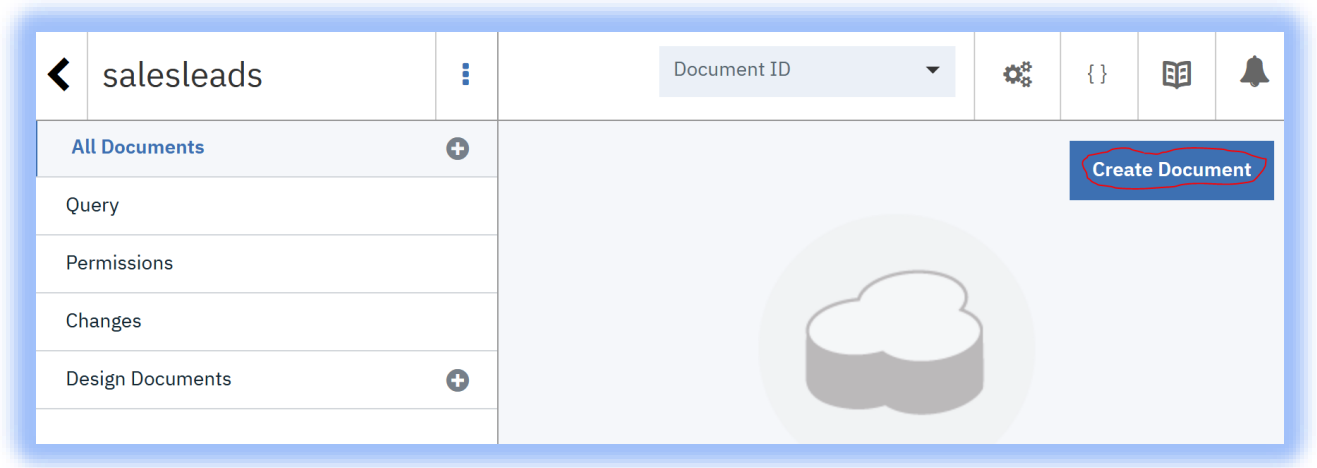
Click on your Cloudant instance and then click *Launch Dashboard*. In the dashboard, select Databases and then *Create Database*:



Give the database the name of *salesleads* and make it non-partitioned. Then press Create.



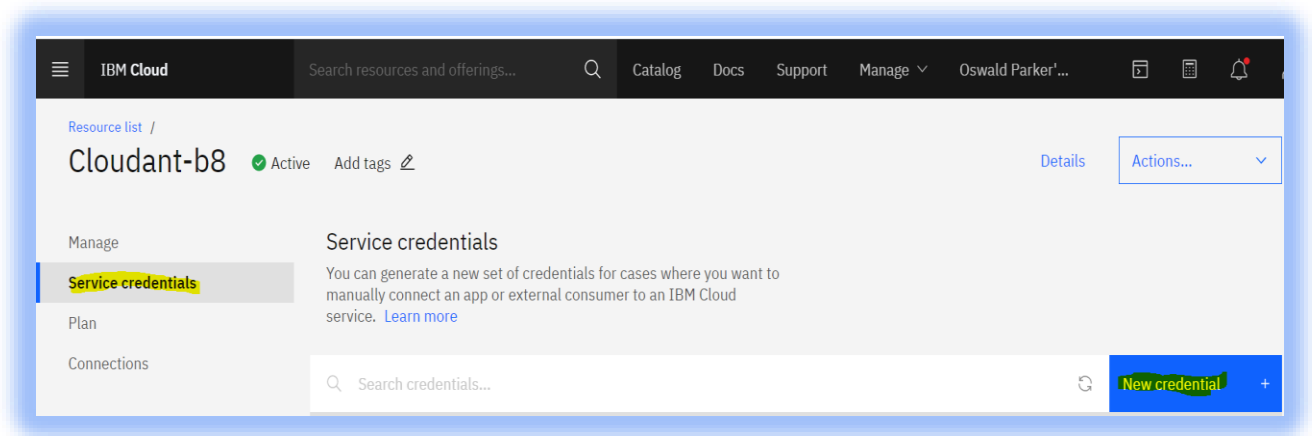
Select Create Document:



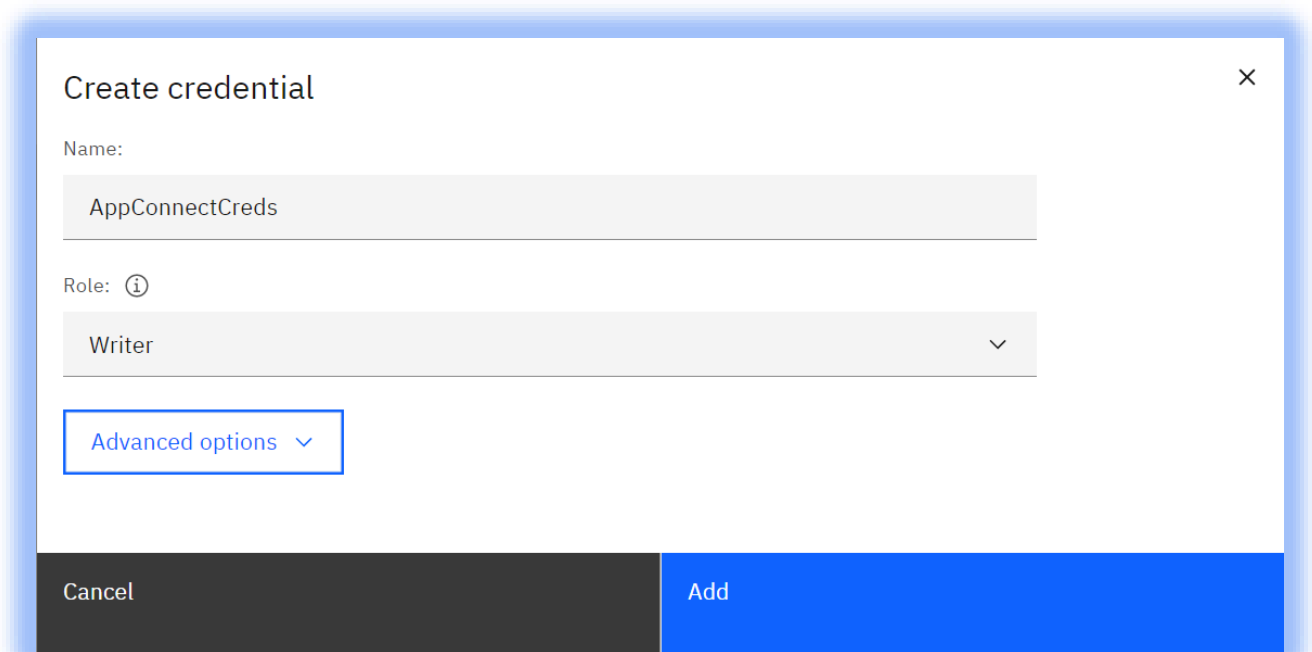
Paste the following JSON into the document and then press *Create Document*. You should see the message “*Document created successfully*”

```
{
  "_id": "28eb67f1e89deb5a058758433d36c446",
  "first_name": "Ned",
  "last_name": "Flanders",
  "job_title": "IT Support",
  "company": "IBM",
  "email": "ned@ibm.com",
  "phone": "87898977",
  "client_address": "101 Acasia Av",
  "client_city": "Springfield",
  "client_zipcode": "786786",
  "interest": "8",
  "followup": "Yes",
  "client_state": "North Carolina",
}
```

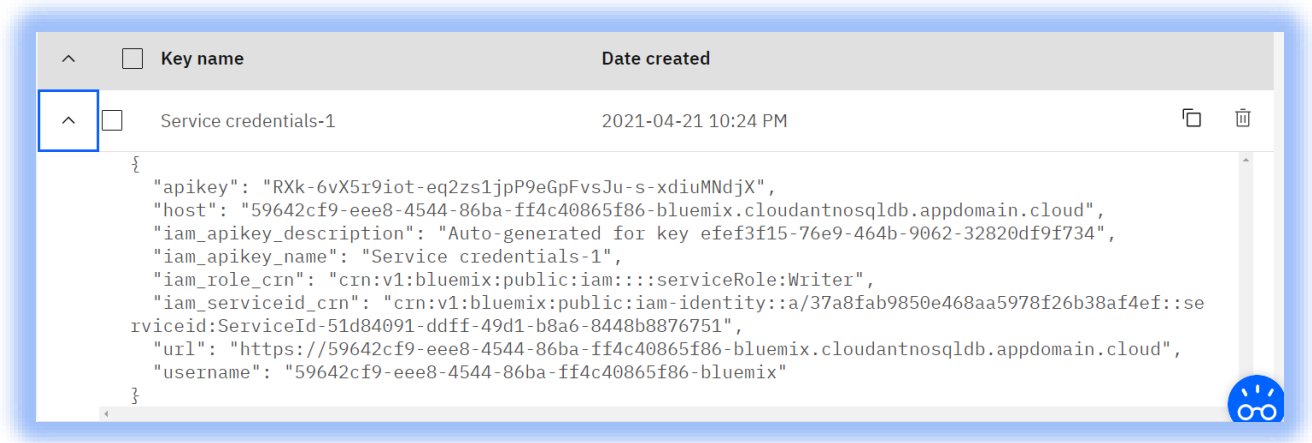
Back in the services of IBM Cloud, click on your Cloudant instance and then click on Service Credentials. Select *New Credential*:



Give the credential name of *AppConnectCreds* and make the role *Writer*:



Expand the service Credentials to view the details.

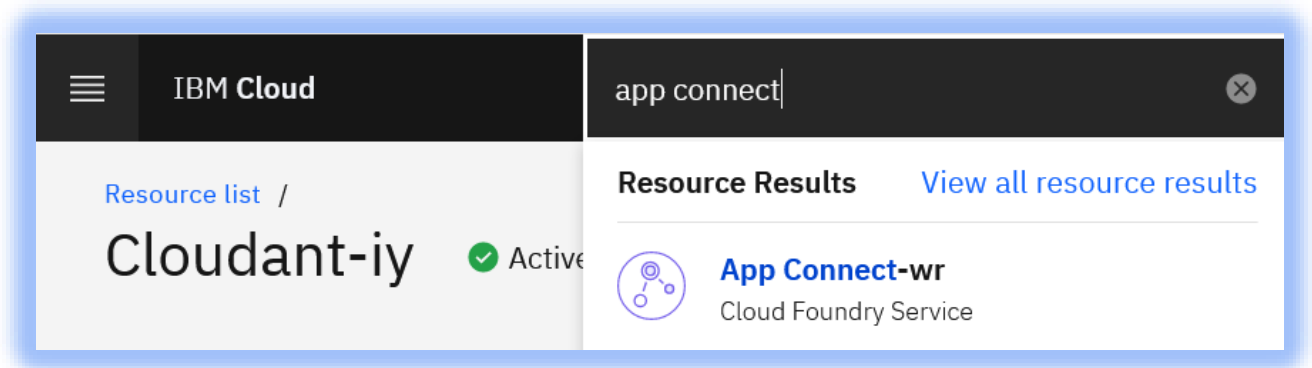


Copy these details into notepad so that you can use them in the next section.

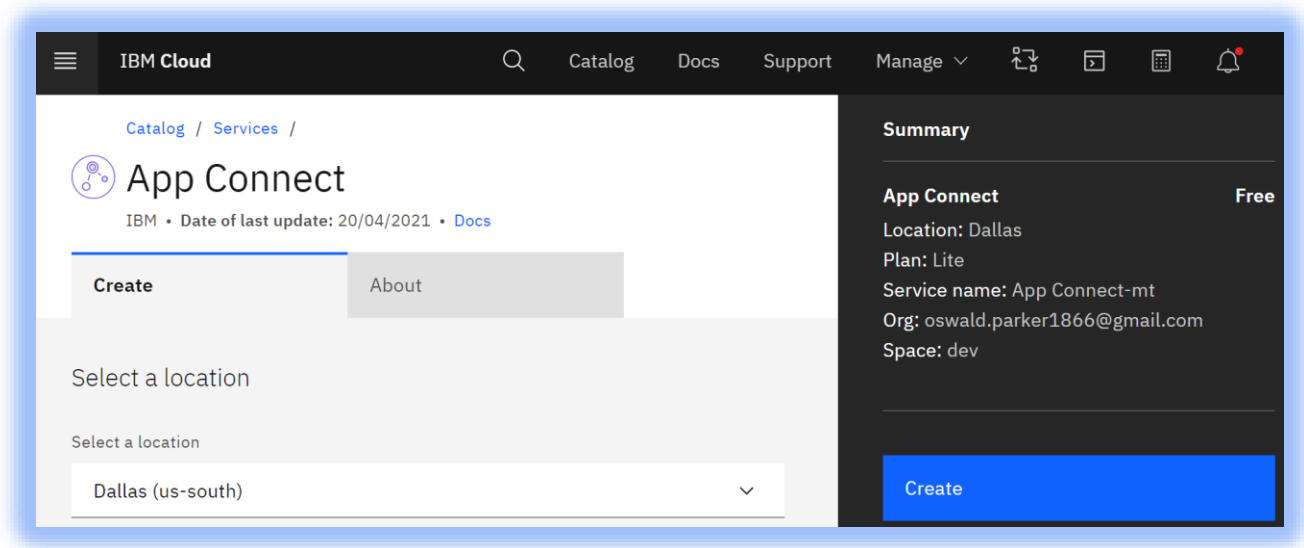
Provision an App Connect Instance

Log into IBM Cloud

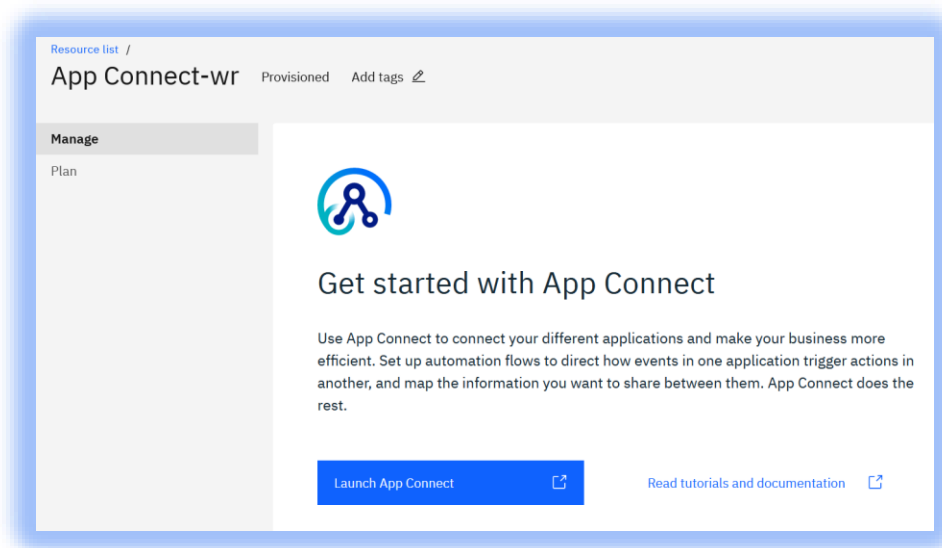
In the search bar, type App Connect and then press the magnifying glass.




Create an App Connect Lite (free plan) and press Create.

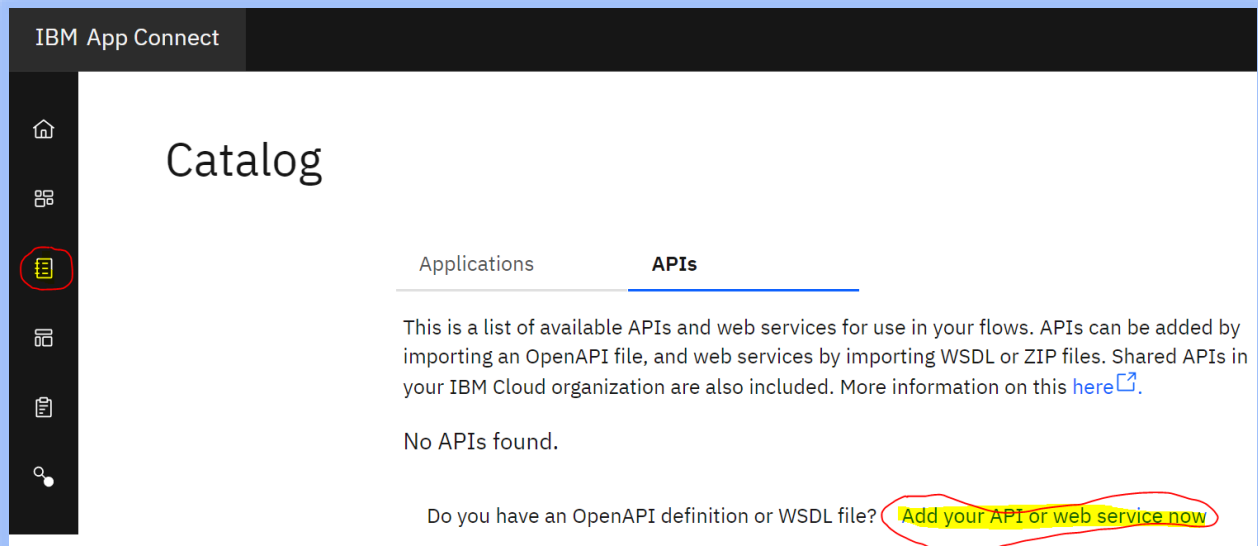


After a few minutes your App Connect instance will be provisioned. Select Launch App Connect.

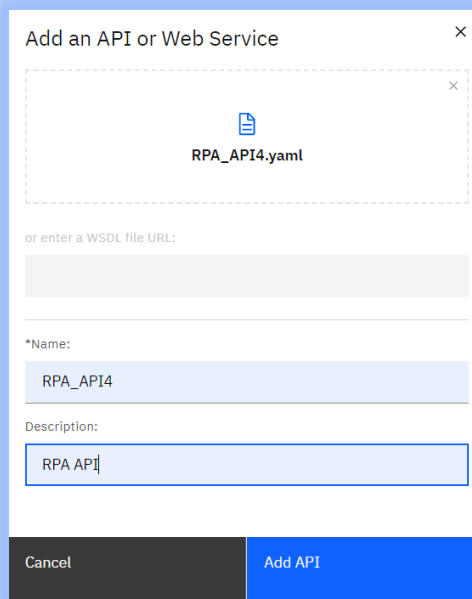


Import the RPA Bot API

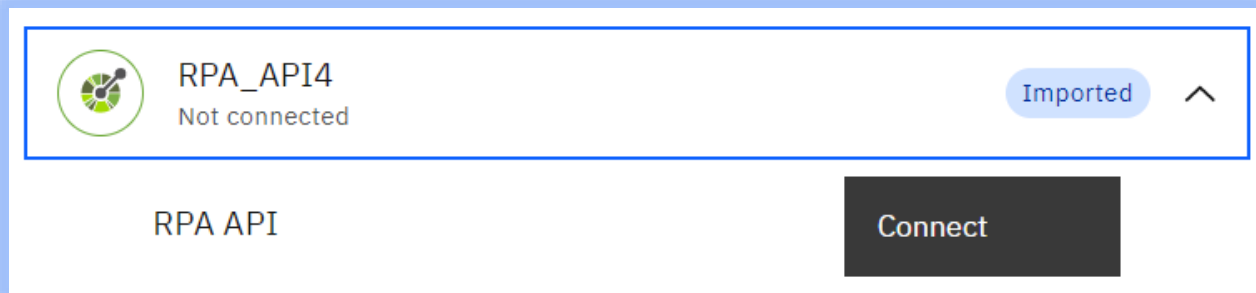
On the left-hand side, select *Catalog*  and then select the *APIs* tab and then *Add your API or web service now*



Drag https://rpapi.eu-gb.mybluemix.net/RPA_API.yaml to the drop area. Enter the name *RPA_API4* and description *RPA API*. Note the name *RPA_API4* must be exact. Press *Add API*. The API should be created without errors.



Select the drop-down arrow on the newly created *RPA API* and press *Connect*

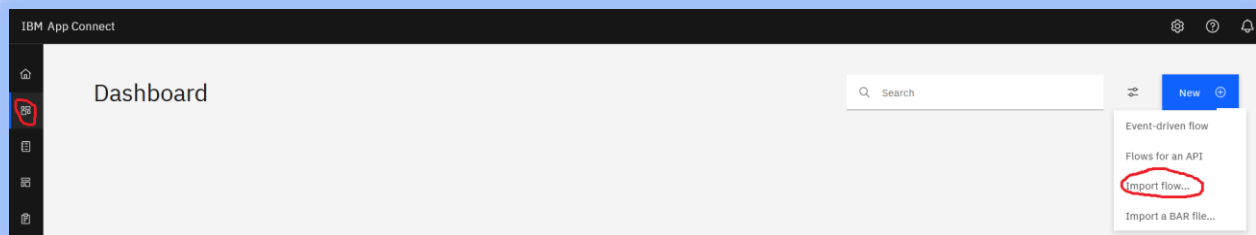


Leave all fields as default and press *Connect* again.

An Account should be created for this API.

Create an App Connect Flow

On the left-hand side, select *Dashboard*  and then on the right-hand side, press *New->Import Flow...*

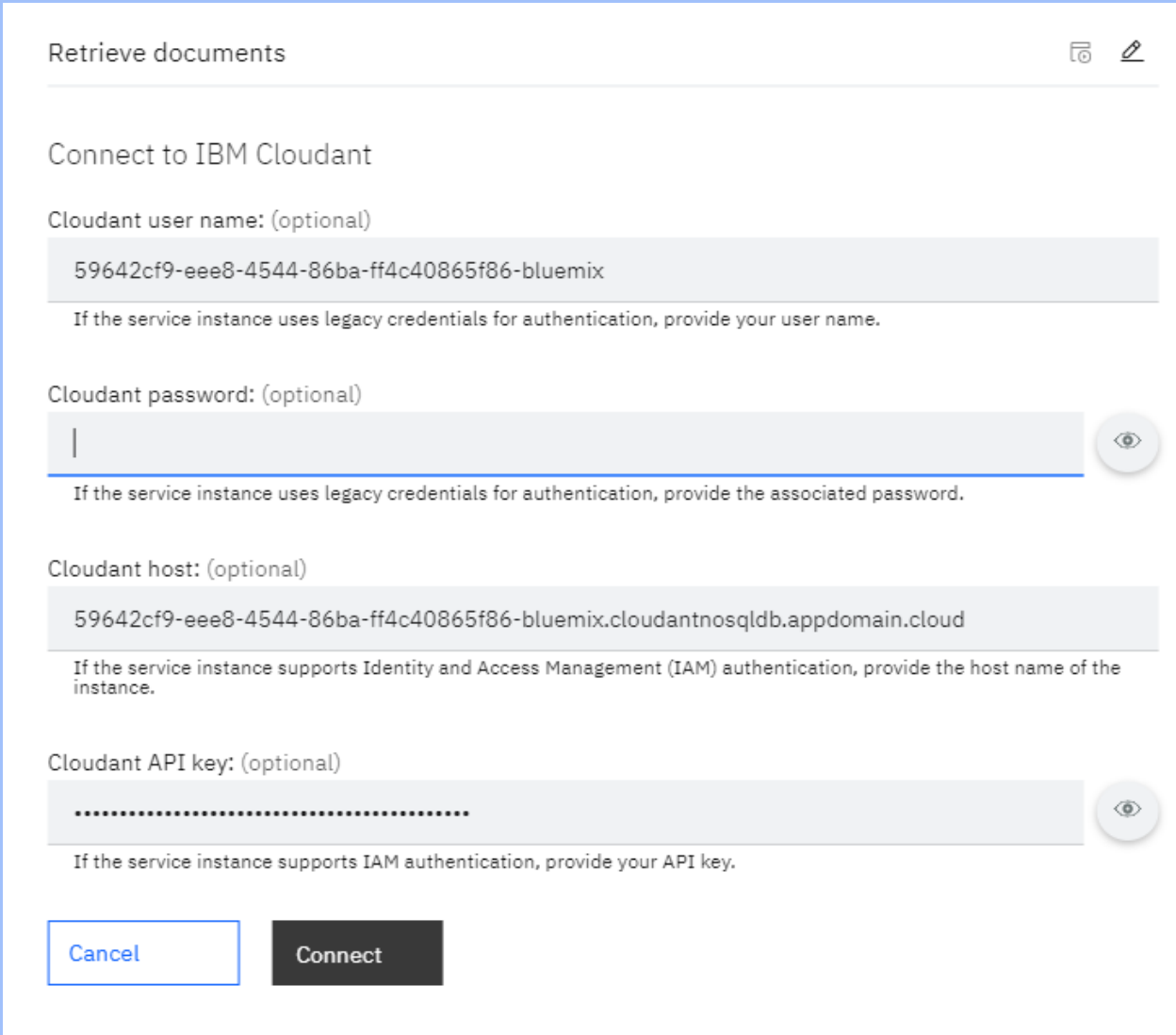


Drag <https://rpapi.eu-gb.mybluemix.net/SalesLeadsApi.yaml> to the drop area and press *Import*. The API Flow should be imported. You should see several errors that we will rectify in the next step.

Fix Errors in the Flow

Click on the Scheduler inside the flow. Create an account. The error should disappear.

Click on IBM Cloudant. Click on connect. Enter the credentials of the Cloudant instance you created earlier. The Cloudant password is not required:

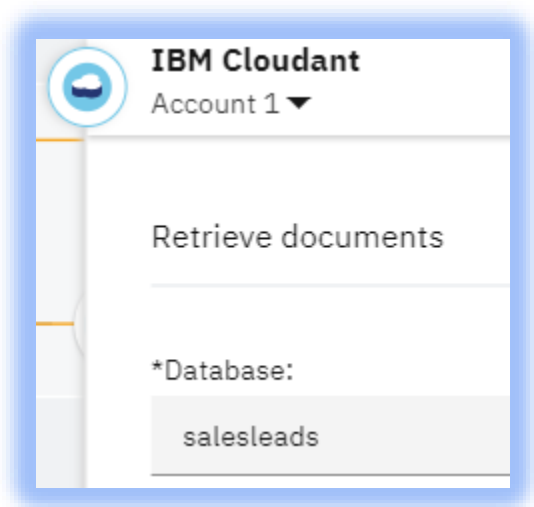


The screenshot shows a dialog box titled "Retrieve documents" with a close button and an edit icon in the top right corner. The main heading is "Connect to IBM Cloudant". There are four input fields, each with a label and a hint:

- Cloudant user name: (optional)**
The input field contains the text "59642cf9-eee8-4544-86ba-ff4c40865f86-bluemix".
Hint: "If the service instance uses legacy credentials for authentication, provide your user name."
- Cloudant password: (optional)**
The input field is empty with a cursor. To the right is an eye icon for toggling visibility.
Hint: "If the service instance uses legacy credentials for authentication, provide the associated password."
- Cloudant host: (optional)**
The input field contains the text "59642cf9-eee8-4544-86ba-ff4c40865f86-bluemix.cloudantnosqldb.appdomain.cloud".
Hint: "If the service instance supports Identity and Access Management (IAM) authentication, provide the host name of the instance."
- Cloudant API key: (optional)**
The input field contains a series of dots. To the right is an eye icon for toggling visibility.
Hint: "If the service instance supports IAM authentication, provide your API key."

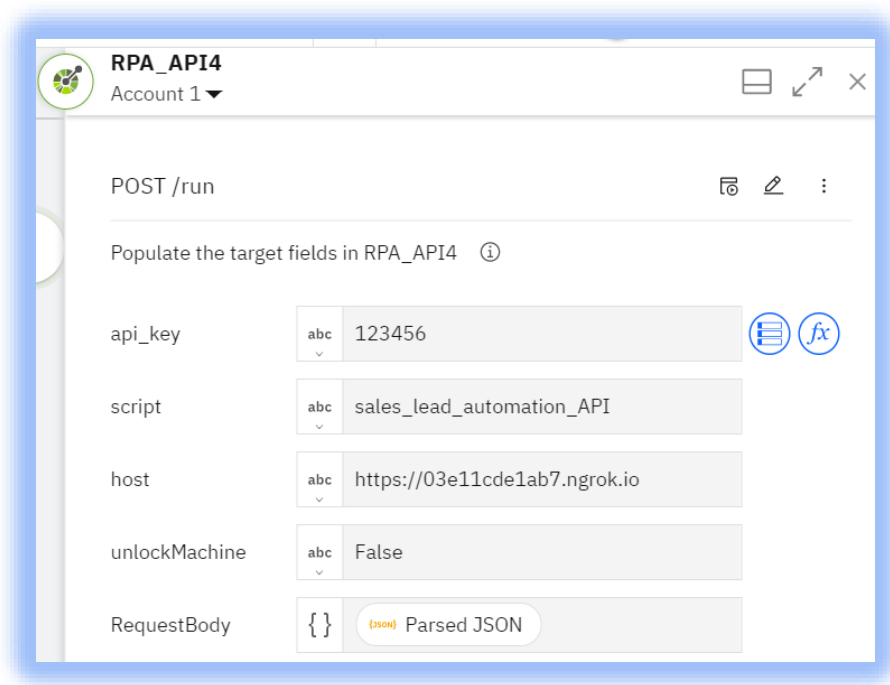
At the bottom, there are two buttons: "Cancel" (outlined in blue) and "Connect" (solid black).

If you have more than one Cloudant database, select *salesleads*



Click *IBM Cloudant*, select the drop down and select *salesleads* under *Database*. The database should have no errors.

Click on the *RPA_API4*. You should see the following:



The host is configured to run on a computer installed with RPA. If no installation is available, change *host* to LOOPBACK. It should now look as follows:

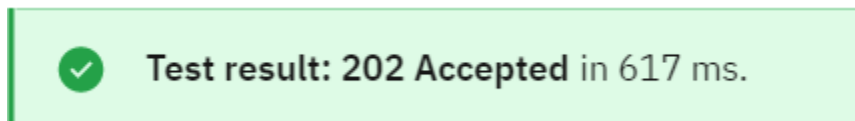
The screenshot shows a configuration window titled "RPA_API4" with a sub-header "Account 1". The main area is titled "POST /run" and contains a description: "Populate the target fields in RPA_API4". Below this, there are five input fields, each with a dropdown menu labeled "abc" and a text input field:

Field	Value
api_key	123456
script	sales_lead_automation_API
host	LOOPBACK
unlockMachine	False
RequestBody	{ } (JSON) Parsed JSON

Press the play button and continue:



After a moment you should see:



This verifies that the API is working.

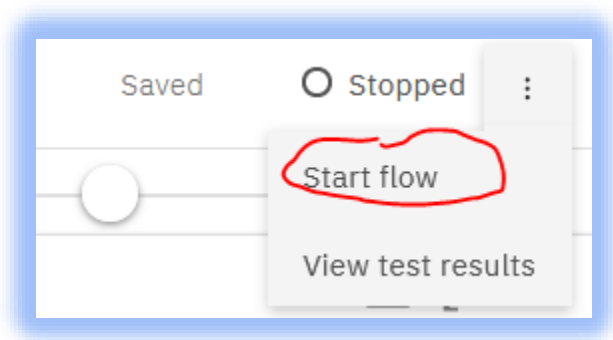
Note that unless you have RPA installed and have set the host to the address of an RPA agent, you will not see the bot running. To see an example bot run, view the following video:

https://youtu.be/1K_Zja-okQg

All the errors in the flow have now been fixed, so we can now run the entire flow.

[Run the App Connect Flow](#)

Choose *Start flow* under the vertical ellipsis at the top right of the flow











The flow will run. It will perform the following:

1. Read a document from Cloudant
2. Invoke the RPA bot using the document as bot parameters
3. The bot fills in a web form using the passed in parameters.
4. Once executed, the bots pass back the results where they are written to Cloudant
5. If there are several Cloudant documents, the process repeats from step 1

[View App Connect Logs](#)

To view the result, select the Logs  icon. After a few minutes you should see the following:

IBM App Connect



Logs (5)

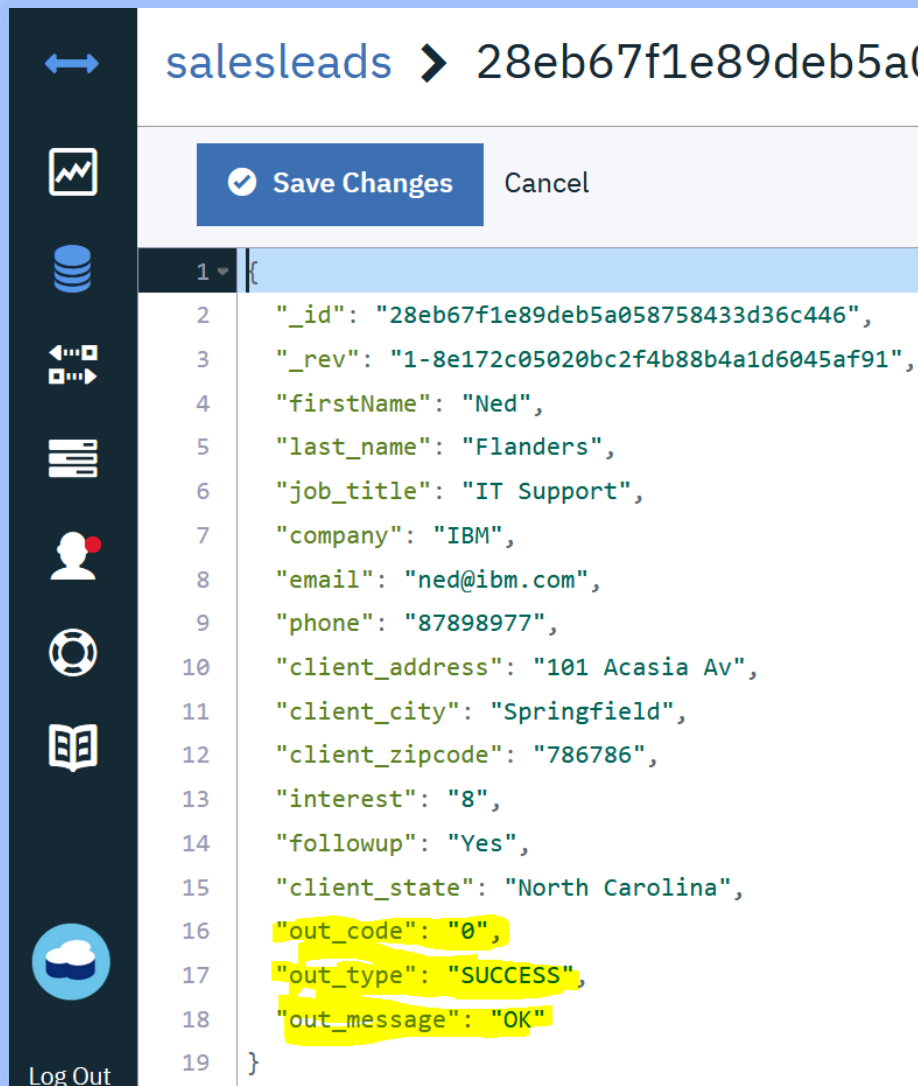
	Event time (UTC)	Message
✓	2021-04-28 14:16:05.700	Flow SalesLeadsRPA completed successfully.
✓	2021-04-28 14:16:05.667	Processing complete
✓	2021-04-28 14:09:08.983	Successfully created API "RPA_API4".
✓	2021-04-28 14:04:40.732	Successfully created API "RPA_API".
✓	2021-04-28 14:01:08.959	Successfully deleted API "SalesLeadsAPI".


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View Processing Result in Cloudant

To view the processing results in Cloudant, go back to your Cloudant database and open the document you created earlier. The processing results of the bot have been appended. This indicates that the bot successfully added data to the JK Automation web site.



Go back into App Connect *Dashboard* , Within the SalesLeadsRPA vertical ellipses menu, select *Stop*.

Congratulations. You have completed the RPA with App Connect lab!

THIS COMPLETES THIS HANDS-ON STANDARD LAB