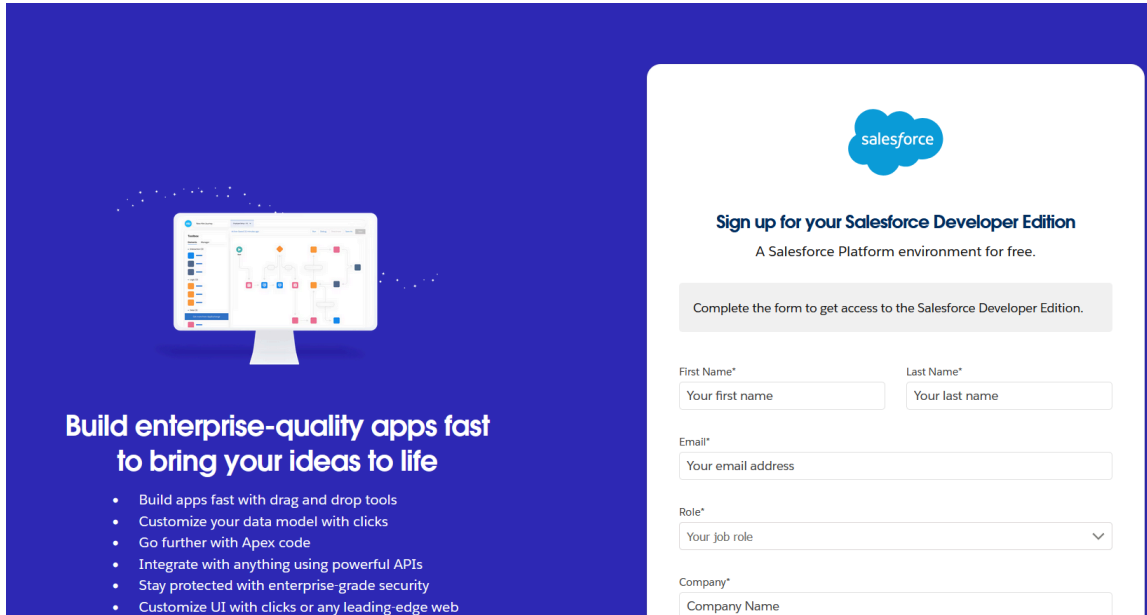


Create your development account on Salesforce

1. Go to <https://developer.salesforce.com/signup>:

The image shows the Salesforce Developer Edition signup page. On the left, there's a blue background with a white monitor icon displaying a Salesforce interface. Below the icon, the text reads "Build enterprise-quality apps fast to bring your ideas to life". To the right of the icon is a bulleted list of features: "Build apps fast with drag and drop tools", "Customize your data model with clicks", "Go further with Apex code", "Integrate with anything using powerful APIs", "Stay protected with enterprise-grade security", and "Customize UI with clicks or any leading-edge web". On the right side of the page, there's a white box with the Salesforce logo at the top. Below the logo, it says "Sign up for your Salesforce Developer Edition" and "A Salesforce Platform environment for free." There's a grey button that says "Complete the form to get access to the Salesforce Developer Edition." Below this, there are input fields for "First Name*", "Last Name*", "Email*", "Role*" (a dropdown menu), and "Company*" (a text field).

Build enterprise-quality apps fast to bring your ideas to life

- Build apps fast with drag and drop tools
- Customize your data model with clicks
- Go further with Apex code
- Integrate with anything using powerful APIs
- Stay protected with enterprise-grade security
- Customize UI with clicks or any leading-edge web

Sign up for your Salesforce Developer Edition
A Salesforce Platform environment for free.

Complete the form to get access to the Salesforce Developer Edition.

First Name*
Your first name

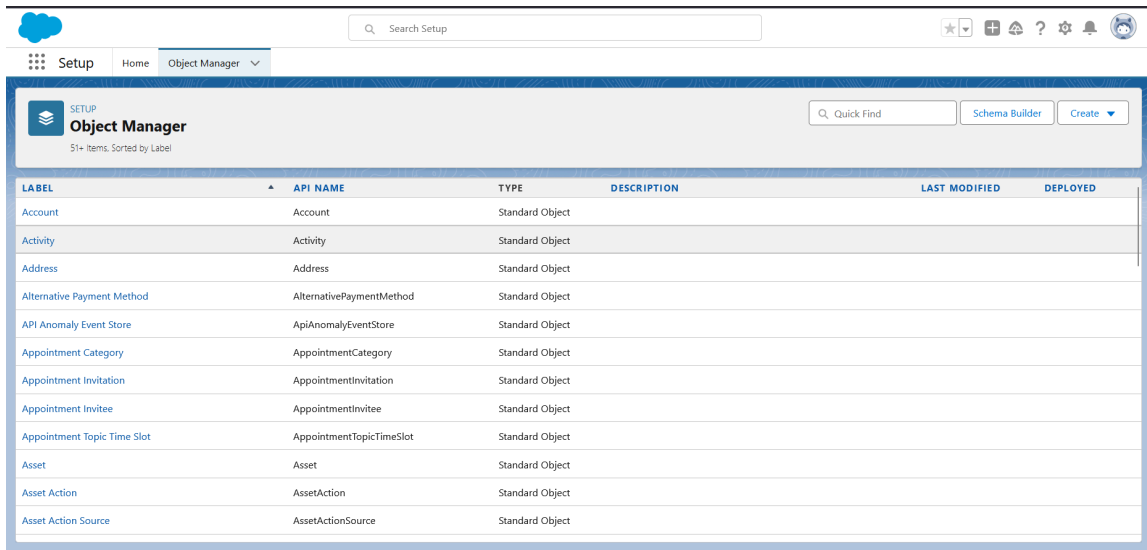
Last Name*
Your last name

Email*
Your email address

Role*
Your job role

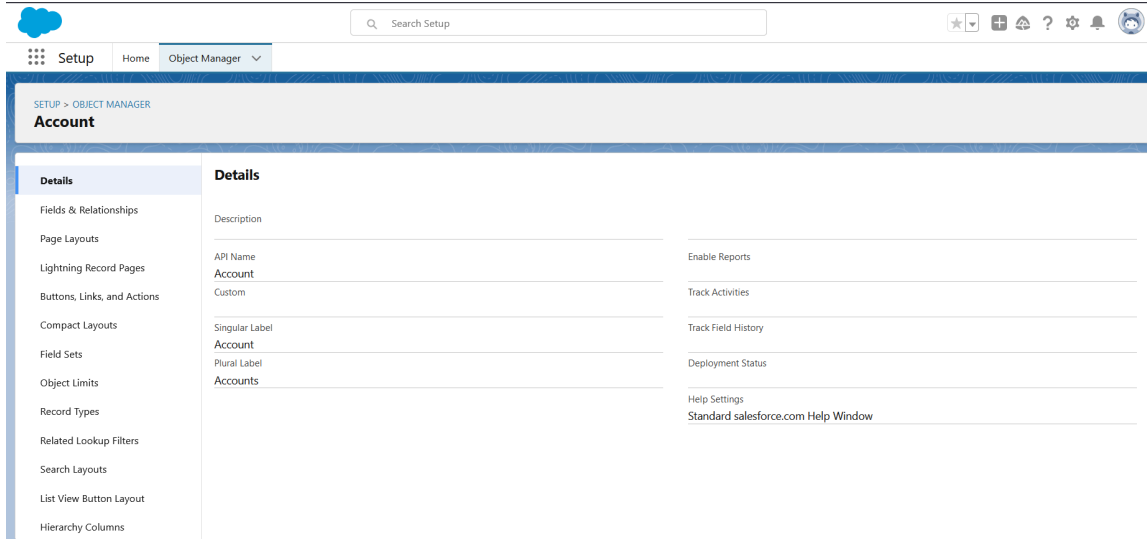
Company*
Company Name

2. Fill the form and click the button Sign me Up to create your DEV account.
3. To explore Salesforce data catalog, after the successful login, go to [https://\[YOUR-INSTANCE\]-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/home](https://[YOUR-INSTANCE]-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/home), my case is <https://ymservices-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/home>.

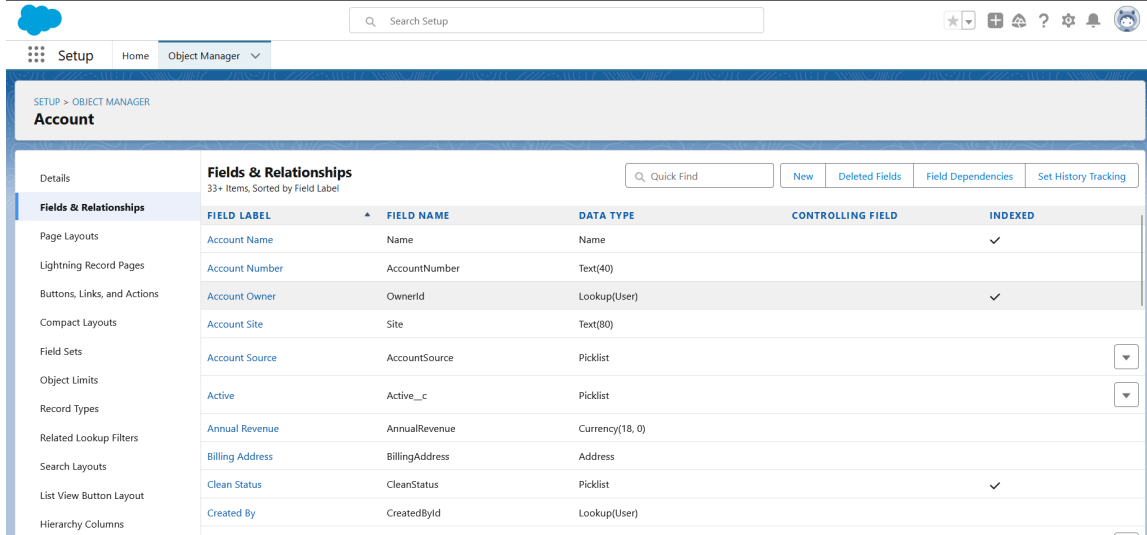
The image is a screenshot of the Salesforce Object Manager interface. At the top, there's a navigation bar with "Setup", "Home", and "Object Manager" tabs. Below the tabs, there's a search bar and a "Quick Find" button. The main content area shows a list of objects. The first object is "Account". The table has columns for "LABEL", "API NAME", "TYPE", "DESCRIPTION", "LAST MODIFIED", and "DEPLOYED".

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Account	Account	Standard Object			
Activity	Activity	Standard Object			
Address	Address	Standard Object			
Alternative Payment Method	AlternativePaymentMethod	Standard Object			
API Anomaly Event Store	ApiAnomalyEventStore	Standard Object			
Appointment Category	AppointmentCategory	Standard Object			
Appointment Invitation	AppointmentInvitation	Standard Object			
Appointment Invitee	AppointmentInvitee	Standard Object			
Appointment Topic Time Slot	AppointmentTopicTimeSlot	Standard Object			
Asset	Asset	Standard Object			
Asset Action	AssetAction	Standard Object			
Asset Action Source	AssetActionSource	Standard Object			

4. Click the Account Label to go to the Account data object details (the API Name is Account):



5. Go to the Fields & Relationships tab to see the Account fields:



6. We will consume Account data in your sample.

Configure the OAuth credentials

To consume the Salesforce API you must configure the OAuth credentials:

1. Go to [https://\[YOUR SALESFORCE INSTANCE\].lightning.force.com/lightning/setup/NavigationMenus/home](https://[YOUR SALESFORCE INSTANCE].lightning.force.com/lightning/setup/NavigationMenus/home).
2. Click the button New Connected App:

The screenshot shows the Salesforce Lightning Experience App Manager interface. The left sidebar contains navigation links for Setup, Home, Object Manager, and various tools. The main content area displays a table of installed apps. The 'New Connected App' button is circled in red.

App Name	Developer Name	Description	Last Modified	App Type	Visible
1 All Tabs	AllTabSet		11/7/2024, 11:47 AM	Classic	
2 Analytics Studio	Insights	Build CRM Analytics dashboards and apps	11/7/2024, 11:47 AM	Classic	✓
3 App Launcher	AppLauncher	App Launcher tabs	11/7/2024, 11:47 AM	Classic	✓
4 Automation	FlowsApp	Automate business processes and repetitive tasks.	11/7/2024, 11:50 AM	Lightning	✓
5 Bolt Solutions	LightningBolt	Discover and manage business solutions designed for your industry.	11/7/2024, 11:47 AM	Lightning	✓

3. Select Create a Connected App and click the button Continue:

The screenshot shows the 'Create a Connected App' dialog box. The 'Create a Connected App' option is circled in red, and the 'Continue' button is also circled in red.

Create a Connected App

Connected Apps support plugins other than OAuth 2.0.

Create an External Client App

External Client Apps support only OAuth 2.0 plugins.

Cancel Continue

4. Fill the form according these options (use your email on Contact Email) and click the button save:

Setup

Home

Object Manager

Lightning Usage

Optimizer

Sales Cloud Everywhere

ADMINISTRATION

> Users

> Data

> Email

PLATFORM TOOLS

> Subscription Management

> Apps

App Manager

AppExchange Marketplace

> Connected Apps

Connected Apps OAuth Usage

Manage Connected Apps

> External Client Apps

> Lightning Bolt

> Mobile Apps

> Packaging

SETUP

App Manager

Connected App Name

IRIS-Interop

Save

Cancel

Help for this Page

Basic Information

Connected App Name

IRISInterop

API Name

IRISInterop

Contact Email

yurimerx@gmail.com

Contact Phone

Logo Image URL

Upload logo image or Choose one of our sample logos

Icon URL

Choose one of our sample logos

Info URL

Description

API (Enable OAuth Settings)

Enable OAuth Settings

Setup

Home

Object Manager

Lightning Usage

Optimizer

Sales Cloud Everywhere

ADMINISTRATION

> Users

> Data

> Email

PLATFORM TOOLS

> Subscription Management

> Apps

App Manager

AppExchange Marketplace

> Connected Apps

Connected Apps OAuth Usage

Manage Connected Apps

> External Client Apps

> Lightning Bolt

> Mobile Apps

SETUP

App Manager

API (Enable OAuth Settings)

Enable OAuth Settings

Enable for Device Flow

Callback URL

https://www.salesforce.com

Use digital signatures

Selected OAuth Scopes

Available OAuth Scopes

Access Analytics REST API Charts Geodata resources (eclair_api)

Access Analytics REST API resources (wave_api)

Access Connect REST API resources (chatter_api)

Access Einstein GPT services (einstein_gpt_api)

Access Headless Forgot Password API (forgot_password)

Access Headless Passwordless Login API (pwdless_login_api)

Access Headless Registration API (user_registration_api)

Access Interaction API resources (interaction_api)

Access Lightning applications (lightning)

Access Visualforce applications (visualforce)

Selected OAuth Scopes

Full access (full)

Add

Remove

Require Proof Key for Code Exchange (PKCE) Extension for Supported Authorization Flows

SETUP

App Manager

Manage Data Cloud profile data (cdp_profile_api)

Require Proof Key for Code Exchange (PKCE) Extension for Supported Authorization Flows

Require Secret for Web Server Flow

Require Secret for Refresh Token Flow

Enable Client Credentials Flow

Enable Authorization Code and Credentials Flow

Require user credentials in the POST body for Authorization Code and Credentials Flow

Enable Token Exchange Flow

Enable Refresh Token Rotation

Issue JSON Web Token (JWT)-based access tokens for named users

Introspect All Tokens

Configure ID Token

Enable Asset Tokens

Enable Single Logout

Canvas App Settings

Canvas ☐

[Save](#) [Cancel](#)

App Manager

New Connected App

Changes can take up to 10 minutes to take effect. Deleting a parent org also deletes all connected apps with OAuth settings enabled.

[Continue](#) [Cancel](#)

- After 10 to 15 minutes click the button Continue and now click the button Manage Consumer Details:

Manage Connected Apps

Connected App Name: **IRISInterop**

[Back to List: Custom Apps](#) [Edit](#) [Delete](#) [Manage](#) [Migrate to External Client App](#)

Changes can take up to 10 minutes to take effect. Deleting a parent org also deletes all connected apps with OAuth settings enabled.

Version	1.0
API Name	IRISInterop
Created Date	12/25/2024, 6:26 PM
By	Yuri Gomes
Contact Email	yurimaru@gmail.com
Contact Phone	
Last Modified Date	12/25/2024, 6:26 PM
By	Yuri Gomes
Description	
Info URL	

API (Enable OAuth Settings)

[Manage Consumer Details](#)

Consumer Key and Secret:

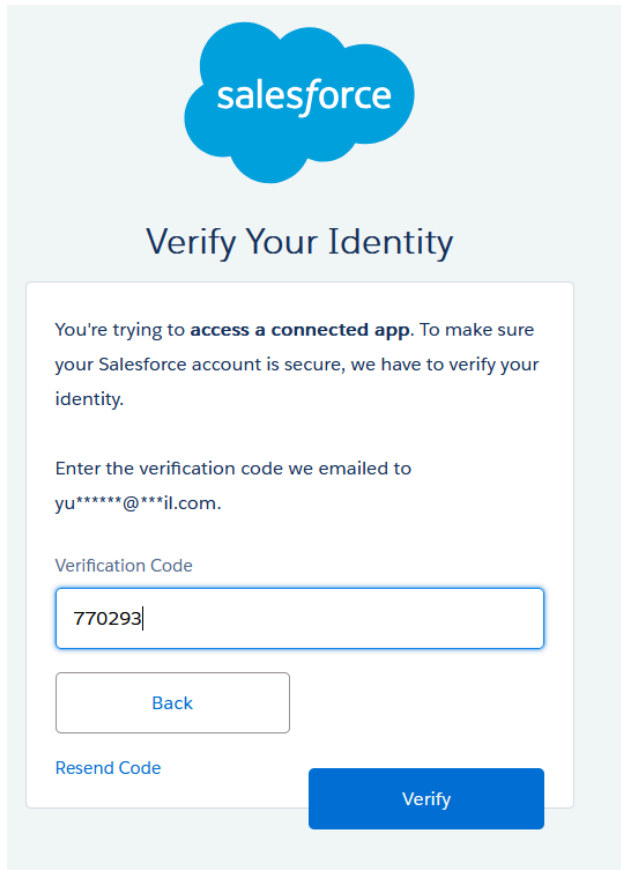
Selected OAuth Scopes: Full access (full)

Callback URL: https://www.salesforce.com

Enable for Device Flow: ☐

Require Proof Key for Code Exchange: ☐

- You must validate your identity (check your email to get the verification code):



salesforce

Verify Your Identity

You're trying to **access a connected app**. To make sure your Salesforce account is secure, we have to verify your identity.

Enter the verification code we emailed to **yu*****@***il.com**.

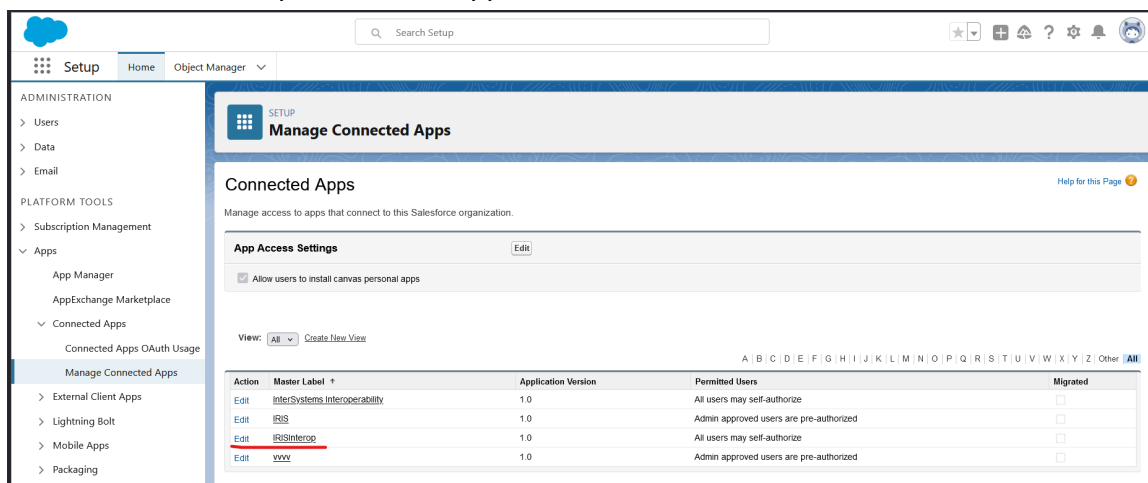
Verification Code

[Back](#)

[Resend Code](#)

[Verify](#)

7. Copy the consumer key and consumer secret to use later.
8. Now it is required to edit a few oauth policies.
9. Go to [https://\[your salesforce instance\].lightning.force.com/lightning/setup/ConnectedApplication/home](https://[your salesforce instance].lightning.force.com/lightning/setup/ConnectedApplication/home) and click Edit link for the IRISInterop connected application.



Setup | Home | Object Manager

Manage Connected Apps

Connected Apps

Manage access to apps that connect to this Salesforce organization.

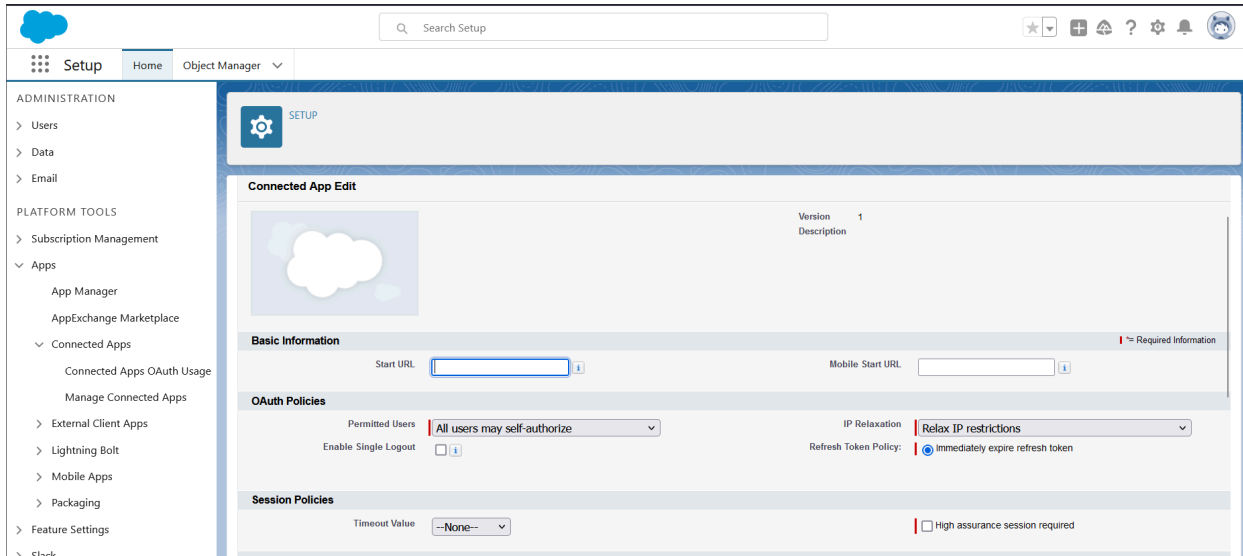
App Access Settings [Edit](#)

☒ Allow users to install canvas personal apps

View: [All](#) [Create New View](#)

Action	Master Label	Application Version	Permitted Users	Migrated
Edit	InterSystems Interoperability	1.0	All users may self-authorize	<input type="checkbox"/>
Edit	IRIS	1.0	Admin approved users are pre-authorized	<input type="checkbox"/>
Edit	IRISInterop	1.0	All users may self-authorize	<input type="checkbox"/>
Edit	xxxx	1.0	Admin approved users are pre-authorized	<input type="checkbox"/>

10. On OAuth Policies section select the options and click save button on bottom:
 - a. Permitted Users: All users may self-authorize
 - b. IP Relaxation: Relax IP restrictions



11. Now we are prepared to consume the Salesforce APIs.

Test the consumption of the Salesforce API on Postman

1. If you don't have Postman download it on <https://www.postman.com/downloads/>.
2. After starting your Postman, we will test the login API to get a new token.
3. Create a POST call like this:
 - a. grant_type: password
 - b. client_id: your consumer key
 - c. client_secret: your consumer secret
 - d. username: your username (you use to access your Salesforce instance web interface)
 - e. password: your user password (you use to access your Salesforce instance web interface)

Salesforce dev yuri / OAuth

POST <https://ymsservices-dev-ed.develop.my.salesforce.com/services/oauth2/token> Send

Params Authorization Headers (9) Body Scripts Tests Settings Cookies

☐ none ☒ form-data ☐ x-www-form-urlencoded ☐ raw ☐ binary ☐ GraphQL

Key	Value	Description	Bulk Edit
<input checked="" type="checkbox"/> grant_type	Text password		
<input checked="" type="checkbox"/> client_id	Text 3MVG91oqvqJKoEE2IXwHpM4R45ufP3TillydcEJQcqcUejfT_OCZ9M...		
<input checked="" type="checkbox"/> client_secret	Text FCE001A1DCB4F2B194E68BE7DB3AC840E568D4...		
<input checked="" type="checkbox"/> username	Text yurimarx@gmail.com		
<input checked="" type="checkbox"/> password	Text		
Key	Value	Description	

Body Cookies (3) Headers (15) Test Results 200 OK · 410 ms · 883 B Save Response

Pretty Raw Preview Visualize JSON

```

1 {
2   "access_token": "00Dbm000000CTkBV!AQEAQFIMdVSCEIZD1b0axaawBgm5Haci6EN.77fgNvc4zpq4N2HgF1TH0ydwNQN5W9cttWKy0tZMfDYTHS4Fq1S2uov",
3   "instance_url": "https://ymsservices-dev-ed.develop.my.salesforce.com",
4   "id": "https://login.salesforce.com/id/00Dbm000000CTkBV!AQEAQFIMdVSCEIZD1b0axaawBgm5Haci6EN/005bm000007UUVuAAG",
5   "token_type": "Bearer",
6   "issued_at": "1735384130848",
7   "signature": "a04Fbubu0zyH8N+axG3vEptHM6j3DvIH8Ce02IjRig="
8 }

```

4. Copy the access_token to use on Authorization header for all next Salesforce API calls.
5. Now, we will consume the Salesforce Query API to get the current leads. Set your call like this:
 - a. URL: [https://\[your salesforce instance\].my.salesforce.com/services/data/v58.0/query?q=SELECT+Id.+Name+FROM+Lead](https://[your salesforce instance].my.salesforce.com/services/data/v58.0/query?q=SELECT+Id.+Name+FROM+Lead)
 - b. On headers, add the Header Authorization with the value: Bearer [the access_token returned from login service]

GET <https://ymsservices-dev-ed.develop.my.salesforce.com/services/data/v58.0/query?q=SELECT+Id.+Name+FROM+Lead> Send

Params Authorization Headers (10) Body Scripts Tests Settings Cookies

Headers 9 hidden

Key	Value	Description	Bulk Edit	Presets
<input checked="" type="checkbox"/> Authorization	Bearer 00Dbm000000CTkBV!AQEAQFIMdVSCEIZD1b0ax...			
Key	Value	Description		

Body Cookies (3) Headers (15) Test Results 200 OK · 257 ms · 1.08 KB Save Response

Pretty Raw Preview Visualize JSON

```

1 {
2   "totalSize": 23,
3   "done": true,
4   "records": [
5     {
6       "attributes": {
7         "type": "Lead",
8         "url": "/services/data/v58.0/objects/Lead/00Qbm00000834P5EAI"
9       },

```


6. See the records with the leads data.
7. Now we will create an interoperability adapter with a production to allow us to integrate Salesforce data with any other system, service, API or data repository.

About Salesforce API

We will use these API to interoperate with Salesforce:

1. Authentication API to get Authorization token:

```
curl --location
'https://ymsservices-dev-ed.develop.my.salesforce.com/services/oauth2/token' \
--form 'grant_type="password"' \
--form
'client_id="3MVG91oqvijJK.....fT_0CZ9M.80M_THhxS51LKc7IHk2c5qQt63wD_"' \
--form 'client_secret="6B8860E.....B3AC840E568D44837094ADC"' \
--form 'username="yurimarx@gmail.com"' \
--form 'password="*****"'
```

2. Query API: API to find records using the Salesforce Object Query Language (SOQL). It is similar to SQL language:

```
SELECT one or more fields
FROM an object
WHERE filter statements and, optionally, results are ordered
```

Example:

```
SELECT Id, Name
FROM Account
WHERE Name = 'Sandy'
```

A curl sample:

```
curl --location --request GET
'https://ymsservices-dev-ed.develop.my.salesforce.com/services/data/v62.0/query?q=SEL
ECT+Id%2C+Name+FROM+Lead' \
--header 'Authorization: Bearer
00Dbm00000CTkBv!AQEAQFIMdVSCEIZDIb0axaaWBGm5Hacr6EN.77fgNvc4zpq4N22
Hgf1THQydrewNQNM5W9cttWKyOtZMfDYHTS4FqIS2uov'
```

For more details about the language capabilities, check this link:

https://developer.salesforce.com/docs/atlas.en-us.soql_sosl.meta/soql_sosl/sforce_api_calls_soql_select.htm.

3. **Subjects API:** it is an API to execute CRUD operations and describe the Salesforce objects and their metadata. The URL path is `/services/data/salesforce version/subjects/salesforce object/salesforce record id` (not to create). It is required to set the Authorization header with the login token. See the samples:
 - a. Create record: curl
`https://MyDomainName.my.salesforce.com/services/data/v63.0/subjects/Account/
-H "Authorization: Bearer token" -H "Content-Type: application/json" -d
"@newaccount.json".`
 - b. Update record: curl
`https://MyDomainName.my.salesforce.com/services/data/v63.0/subjects/Account/
001D000000INjVe -H "Authorization: Bearer token" -H "Content-Type:
application/json" -d @patchaccount.json -X PATCH`
 - c. Delete record: curl
`https://MyDomainName.my.salesforce.com/services/data/v63.0/subjects/Account/
001D000000INjVe -H "Authorization: Bearer token" -X DELETE`
 - d. Get by Id: curl
`https://MyDomainName.my.salesforce.com/services/data/v63.0/subjects/Account/
001D000000INjVe -H "Authorization: Bearer token" -X GET`
 - e. Get metadata information: curl
`https://MyDomainName.my.salesforce.com/services/data/v63.0/subjects/Account/
-H "Authorization: Bearer token"`

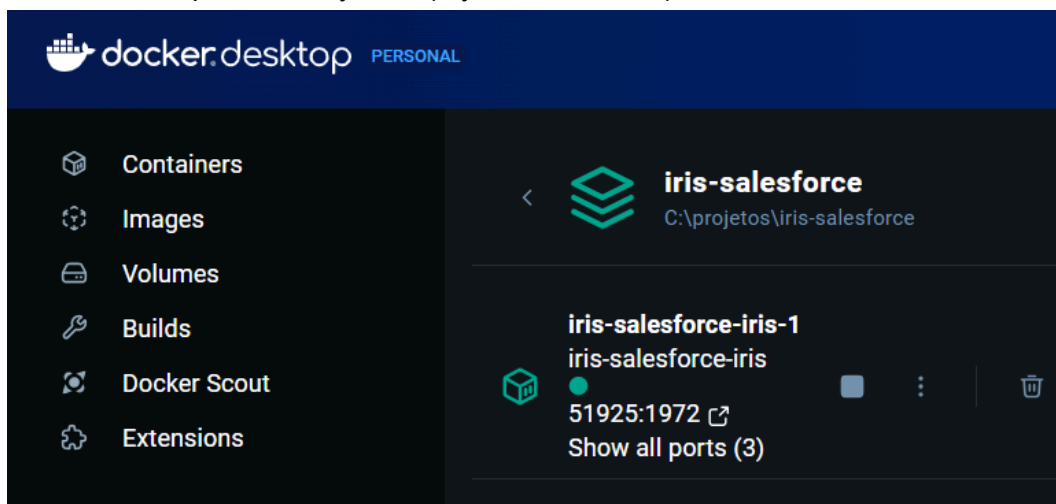
More information about subjects API on

https://developer.salesforce.com/docs/atlas.en-us.api_rest.meta/api_rest/intro_rest.htm.

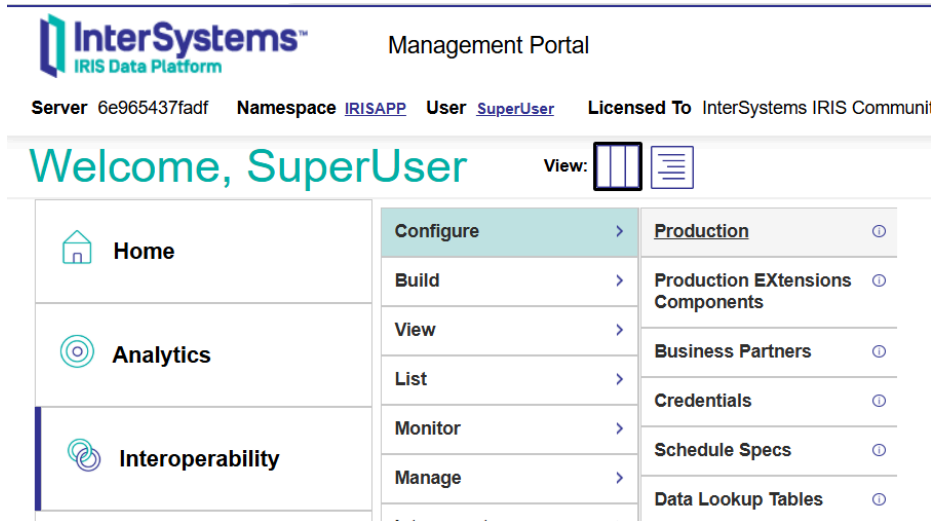
Creating a Production to use the new Operation

Now, to test our Salesforce business operation, we will create a new Production:

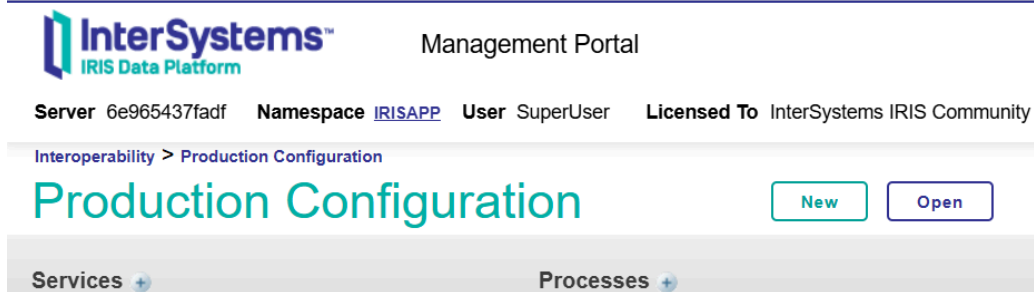
1. Check out the port used by IRIS (my case is 51925):



- Go to the Management Portal
[http://localhost:51926/csp/sys/UtilHome.csp?\\$NAMESPACE=IRISAPP](http://localhost:51926/csp/sys/UtilHome.csp?$NAMESPACE=IRISAPP)
- Go to Interoperability > Configure > Production:



- Click New button:



Open a Production to display its configuration.

- Set the values for the new Production and click OK:

PRODUCTION WIZARD
Create a new Production definition.

Package:

Production Name:

Production Description:

Production Type: ☒ Generic - Create a generic production that can be further configured

Use this form to create a new Production.
For help with any field in this form, hover the cursor over the field name.

Cancel OK

- Go to Settings tab > Development and Debugging section and check the Testing Enabled option and click the Apply button to save:

Production Settings

Settings Queue Log Messages Jobs Actions

Apply ▼ Search:

Alert Notification Manager

Alert Notification Operation

Alert Notification Recipients

Alert Action Window

▼ **Development and Debugging**

Testing Enabled
☒

Log General Trace Events
☐

- Click the Plus button near Operations:

Production Configuration

Start

Stop


Production Stopped


Category: All

[Legend](#)

[Production Settings](#)

[Services](#) 

[Processes](#) 

[Operations](#) 

- Set the values to the new operation (Operation Class is the our SalesforceOperation class):

BUSINESS OPERATION WIZARD

Add a new Business Operation to this Production.

All Operations X12 Output Workflow

Operation Class dc.irissalesforce.SalesforceOperation

Operation Name TestOperation

Display Category

Comment

Enable Now ☒

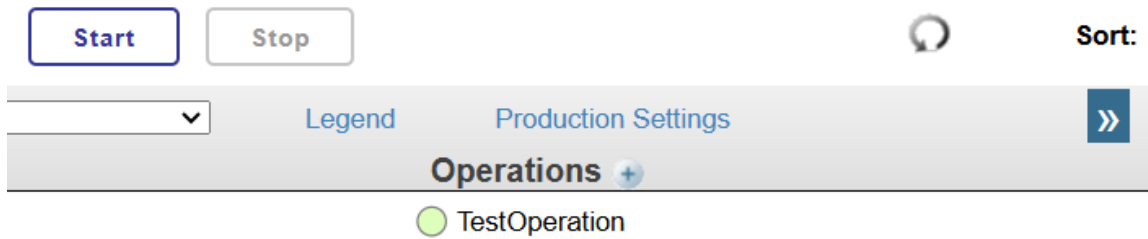
Use this form to add a new business operation to the production.

For help with any setting in this form, hover the cursor over the setting name.

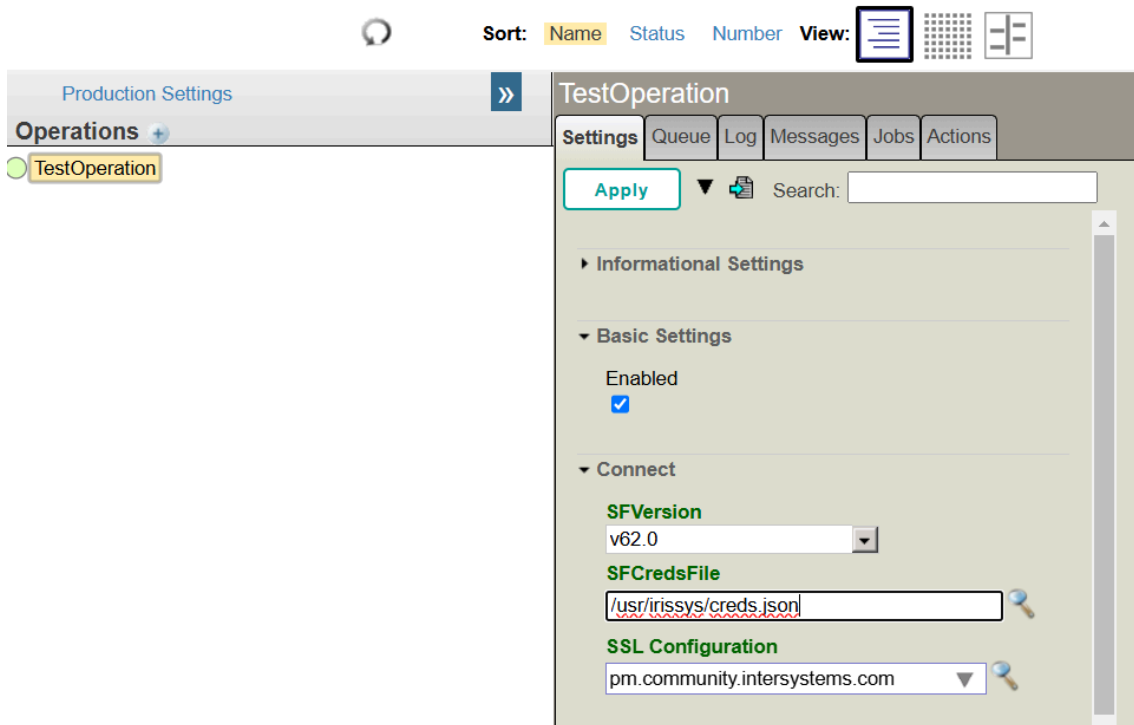
Cancel

OK

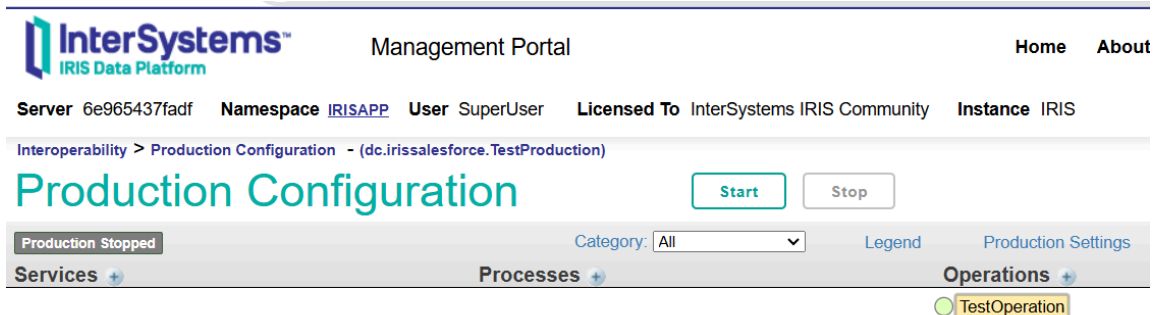
- Now we have TestOperation for our tests:



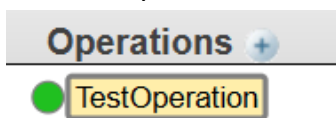
10. Select TestOperation, go to Settings tab > Connect section and set these values:
 - a. SFVersion: v62.0
 - b. SFCredsFile: path for credentials file, my case is /usr/irissys/creds.json
 - c. SSL Configuration: with the SSL configuration, my case is pm.community.intersystems.com
11. Click Apply button to save the TestOperation configuration:



12. Click the production Start button to execute the operation:



13. Now the Operation color is dark green:



14. Select the TestOperation operation and go to the Actions tab. Click the button Test:



15. Set the values to test Create:

Request Type: dc.irissalesforce.CreateMessage

Content:

```
{
  "LastName": "InterSystems",
  "FirstName": "IRIS",
  "Salutation": "Mr.",
  "Title": "Datafabric sales",
  "Company": "InterSystems",
  "MobilePhone": "555555",
  "Email": "test@gmail.com",
  "LeadSource": "Web",
  "Status": "Working - Contacted",
  "Rating": "Warm"
}
```

ClassName: Lead

TESTOPERATION

Production dc.irissalesforce.TestProduction

Request Type: dc.irissalesforce.CreateMessage

Request Details

Content:

```
{
  "LastName": "InterSystems",
  "FirstName": "IRIS",
  "Salutation": "Mr.",
  "Title": "Datafabric sales",
  "Company": "InterSystems",
  "MobilePhone": "555555",
  "Email": "test@gmail.com",
  "LeadSource": "Web",
  "Status": "Working - Contacted",
  "Rating": "Warm"
}
```

ClassName: Lead

Invoke Testing Service

Test Results

CancelOK

16. Click the button Invoke Testing Service and see the results:

TESTOPERATION

Production dc.irissalesforce.TestProduction

Request Type: dc.irissalesforce.CreateMessage

Request Details

Test Results

Session Id: 159 [Visual Trace](#)

Request Sent: 2025-01-16 08:22:13.979

Response Received: 2025-01-16 08:22:15.719

Ens.StreamContainer

<ObjectId>	19
OriginalFilename	
OutputFolder	
OutputFilename	
Type	CF

17. Click the link Visual Trace to see the details of the tests:

VISUAL TRACE

Session ID: 159 [Legend](#) [Printable Version](#) Go to items 1 - 3 Items per page 40 Show events ☒ Show internal items ☐ Apply Filter None

Services	Processes	Operations
EnsLib.Testing Service	EnsLib.Testing Process	TestOperation
[1] 2025-01-16 08:22:13.982 Testing.Request	[2] 2025-01-16 08:22:13.983 CreateMessage	[3] 2025-01-16 08:22:15.716 StreamContainer

Header	Body	Contents
<p><ObjectId> 159</p> <p>Session Id 159</p> <p>TargetConfigName EnsLib.Testing.Process</p> <p>SourceConfigName EnsLib.Testing.Service</p> <p>MessageBodyClassName EnsLib.Testing.Request</p> <p>MessageBodyId 40</p> <p>TimeCreated 2025-01-16 08:22:13.982</p> <p>TimeProcessed 2025-01-16 08:22:15.720</p> <p>Type Request</p> <p>Priority Async</p> <p>SourceBusinessType BusinessService</p> <p>TargetQueueName EnsLib.Testing.Process</p> <p>TargetBusinessType BusinessProcess</p> <p>ReturnQueueName</p> <p>CorrespondingMessageId</p> <p>BusinessProcessId</p> <p>Description</p> <p>Invocation Queue</p> <p>SuperSession</p> <p>Resent</p> <p>Status Completed</p> <p>Is Error? 0</p> <p>ErrorStatus OK</p> <p>Banked 0</p> <p>Resend</p>		

18. Click the [3] step and go to the Contents tab to see the result details:

Session ID: 159 [Legend](#) [Printable Version](#) Go to items 1 - 3 Items per page 40 Show events ☒ Show internal items ☐ Apply Filter None [Previous Page](#) [Next Page](#)

Services	Processes	Operations
EnsLib.Testing Service	EnsLib.Testing Process	TestOperation
[1] 2025-01-16 08:22:13.982 Testing.Request	[2] 2025-01-16 08:22:13.983 CreateMessage	[3] 2025-01-16 08:22:15.716 StreamContainer

Header	Body	Contents
<p>View Full Contents</p> <p>Expand All</p> <pre><?xml version="1.0" ?> <!-- type: Ens.StreamContainer id: 19 --> <StreamContainer xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:s="http://www.w3.org/2001/XMLSchema"> <Stream{"id": "00Qbm00000B4YrDEAV", "success": true, "errors": []}></Stream> <Type>CF</Type> </StreamContainer></pre>		

19. The record was created with success, copy the id, my case is 00Qbm00000B4YrDEAV.

20. Close the Visual Trace and select the Request Type dc.irissalesforce.ByIdMessage and expand the section Request Details:

TESTOPERATION

Production dc.irissalesforce.TestProduction

Request Type:

Request Details

Id:

ClassName:

[Invoke Testing Service](#)

21. Set the values Id with the Id that you copied and ClassName with Lead:

TESTOPERATION

Production dc.irissalesforce.TestProduction

Request Type: dc.irissalesforce.ByIdMessage

Request Details

Id:	00Qbm00000B4YrDEAV
ClassName:	Lead
<button>Invoke Testing Service</button>	

22. Click the button Invoke Testing Service and see the results:

TESTOPERATION

Production dc.irissalesforce.TestProduction

Request Type: dc.irissalesforce.ByIdMessage

Request Details

Id:	00Qbm00000B4YrDEAV
ClassName:	Lead
<button>Invoke Testing Service</button>	

Test Results

Session Id: 162 [Visual Trace](#)
Request Sent: 2025-01-16 08:30:01.020
Response Received: 2025-01-16 08:30:02.071

Ens.StreamContainer

<ObjectId>	20
OriginalFilename	
OutputFolder	
OutputFilename	
Type	CF

23. Click the Visual Trace and select [3] step and see the results on Contents tab:

VISUAL TRACE

Session ID: 162 Legend Printable Version Go to items 1-3 Items per page 40 Show events Show internal items Apply Filter None Previous Page Next Page Previous Session Next Session

Services	Processes	Operations
EnsLib.Testing Service	EnsLib.Testing Process	TestOperation

[1] 2025-01-16 08:30:01.020 Testing Request

[2] 2025-01-16 08:30:01.021 ByIdMessage

[3] 2025-01-16 08:30:02.069 StreamContainer

View Full Contents View Format [Raw]

```
<?xml version="1.0" ?>
<!-- type: Ens.StreamContainer id: 20 -->
<StreamContainer xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:s="http://www.w3.org/2001/XMLSchema">
  <Stream>{
    "attributes":
    {
      "type":"Lead",
      "url":"/services/data/v62.0/subjects/Lead/00Qbm00000B4YrDEAV",
      "Id":"00Qbm00000B4YrDEAV",
      "InterSystems","Title":"DataFabric
sales",
      "Company":"InterSystems",
      "Street":null,
      "City":null,
      "State":null,
      "Postalcode":null,
      "Country":null,
      "Contacted",
      "Industry":null,
      "Rating":"Warm",
      "AnnualRevenue":null,
      "NumberOfEmployees":null,
      "OwnerId":"005b
01-16708:22:14.000+0000",
      "CreatedById":"005bm000007UUVuAAG",
      "LastModifiedDate":"2025-01-
16708:22:14.000+0000",
      "LastModifiedById":"005bm000007UUVuAAG",
      "SystemModstamp":"2025-01-
16708:22:14.000+0000",
      "LastActivityDate":null,
      "LastViewedDate":"2025-01-
16708:22:14.000+0000",
      "LastReferencedDate":"2025-01-
16708:22:14.000+0000",
      "Jigsaw":null,
      "JigsawContactId":null,
      "CleanStatus":"Pending",
      "CompanyDunsNumber":n
    }
  }
</Stream>
</StreamContainer>
```

24. You see the JSON content that you input on previous steps.

25. Test the other message types and enjoy!

