Date: 03-June-2024

Google sheets back-end services

VERSION: 1.1.0

# **Overview**

Google Sheets is a web-based spreadsheets service offered by Google. The Google Sheets data adapter integrates the Sheets APIs with HCL Volt MX Foundry. Under the hood, the data adapter uses [Identity Services](https://opensource.hcltechsw.com/volt-mx-docs/docs/documentation/Foundry/voltmx_foundry_user_guide/Content/Identity.html) and [Integration Services](https://opensource.hcltechsw.com/volt-mx-docs/docs/documentation/Foundry/voltmx_foundry_user_guide/Content/Services.html#integration) to make API calls to Google Sheets. You can use the data adapter to perform CRUD operations in a spreadsheet from an app.

The following sections help you use the Google Sheets back end service:

## **Features**

1. Import, export and format Google Sheets data
2. Control conditional formatting
3. Build and edit charts embedded in a sheet
4. Configure data validation
5. Create and update named and protected ranges
6. Add and adjust filtered views
7. Create and manipulate pivot tables

## **Percentage of re-use:**

70% (Data can be customizable and customer need to implement UI by themselves).

# **Getting Started**

## **Prerequisites**

Before you start using the Google Sheets back-end service, make sure that you have the following:

* A [HCL Foundry](https://manage.hclvoltmx.com/)
* HCL Volt MX Foundry
* A Google account with the following:
  + Authorized Domain of your HCL Volt MX Foundry authentication cloud
  + OAuth Client ID
  + OAuth Client Secret

For more information, refer to the following links:

* [Obtaining the Client ID and Client Secret](#_Obtaining_the_Client)
* [Using OAuth 2.0 to Access Google APIs](https://developers.google.com/identity/protocols/OAuth2)

# **Importing the back-end service**

1. Download the **Google Sheets back-end service** zip file from [HCL Forge](https://marketplace.hclvoltmx.com/).
2. Sign in to the [HCL Foundry](https://manage.hclvoltmx.com/) Console.
3. On the **Foundry Apps** page, click **IMPORT**.
4. On the **Import App** dialog box, drag and drop the zip file that you downloaded earlier. Alternatively, you can **browse** for the zip file on your system.  
   After the zip file is uploaded, the console displays the default **App Name** and **Version**.
5. Click **IMPORT**.

# **Obtaining the Client ID and Client Secret**

To obtain the client ID and client secret from Google, you need to perform the following steps:

## **Authorizing the HCL Volt MX Cloud Domain**

To use the Google APIs in a domain, you need to authorize the domain on the Google Developer Console.

To authorize the HCL Volt MX Cloud domain, follow these steps:

1. Sign in to the [Google Developer Console](https://console.developers.google.com/).
2. From the left pane, select **OAuth consent screen**.
3. Under **Authorized Domains**, in the text box, type **hclvoltmx.net**, and then press Enter.
4. Click **Save**.

## 

## **Obtaining the Callback URL**

1. Sign in to the [HCL Foundry](https://manage.hclvoltmx.com/) Console.
2. Open or Edit the [Identity Service of the component](#_Creating_an_Identity).
3. Under **Provider Details**, for the **Callback URL**, click **Copy**.  
   A screenshot of a computer

   Description automatically generated

[Open](javascript:void(0);)Adding a Redirect URL on Google

1. Sign in to the [Google Developer Console](https://console.developers.google.com/).
2. From the left pane, select **Credentials**.
3. On the **Credentials** page, click **Create credentials**, and then select **OAuth client ID**.
4. Under **Application** type, select **Web application**.
5. Under **Authorized redirect URIs**, in the text box, type the **Callback URL** that you [obtained from HCL Volt MX Foundry](#_Obtaining_the_Callback)
6. Click **Create**.

After you create the credentials, the Google Developer Console displays your **Client ID** and **Client Secret**.

You need to add the Client ID and Client Secret to the [Identity Service of the component](#_Configuring_the_Identity).

# **Configuring the Identity Service**

1. Sign in to the [HCL Foundry](https://manage.hclvoltmx.com/) Console.
2. From the **Foundry Apps** page, select the [app that you imported earlier](#_Importing_the_back-end).
3. Under **Configure Services**, on the **Identity** tab, select the **googlesheetsauth** identity service.  
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   Description automatically generated
4. Under **Client Details**, type the [Client ID and Client Secret that you obtained from Google](#_Creating_an_application).

**Note:**  
If you want to verify the details, click **TEST LOGIN** and sign in by using your Google credentials.

1. Click **Save**.

# **Using the Integration Service**

1. Sign in to the [HCL Foundry](https://manage.hclvoltmx.com/) Console.
2. From the **Foundry Apps** page, select the [app that you imported earlier](#_Importing_the_back-end).
3. Under **Configure Services**, on the **Integration** tab, expand the **voltmxMpGoogleSheets** service.

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1. From the list of operations, select an operation that you want to test.
2. On the **Request Input** tab, enter a **TEST VALUE** or a **DEFAULT VALUE** for the parameters.

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**Note:**

* + To fetch the response onVolt MX Foundry, clear the **Enable pass-through** check box on the **Response Output** tab.  
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  + The **values** parameter must contain comma separated arrays in the following format:  
    [value1, value 2],[value 1, value 2, values 3]

1. Click **SAVE**.

# **Miscellaneous**

* The **values** parameter in the operations that **create**, **update**, or **append** data must contain comma separated arrays in the following format:  
  [value1, value 2],[value 1, value 2, values 3]
* For APIs with POST calls, check the parameter names configured on Volt MX Foundry, as the parameters with the same names in a single request body will be renamed according to the context.

# **Revision History**

App version 1.1.0:

## **Known Issues**

## N/A

## **Limitations**

## N/A