

# Como criar um equipamento usando Fracttal Hub? – Centro de ayuda

 [help.fracttal.com/hc/pt-pt/articles/37609623465229-Como-criar-um-equipamento-usando-Fracttal-Hub](https://help.fracttal.com/hc/pt-pt/articles/37609623465229-Como-criar-um-equipamento-usando-Fracttal-Hub)

A integração com Fracttal Hub facilita a incorporação controlada de novos equipamentos na plataforma, garantindo que os dados sigam uma estrutura padronizada. Este guia explica como configurar um fluxo seguro para criar equipamentos no Fracttal One utilizando uma folha de cálculo como origem de dados.

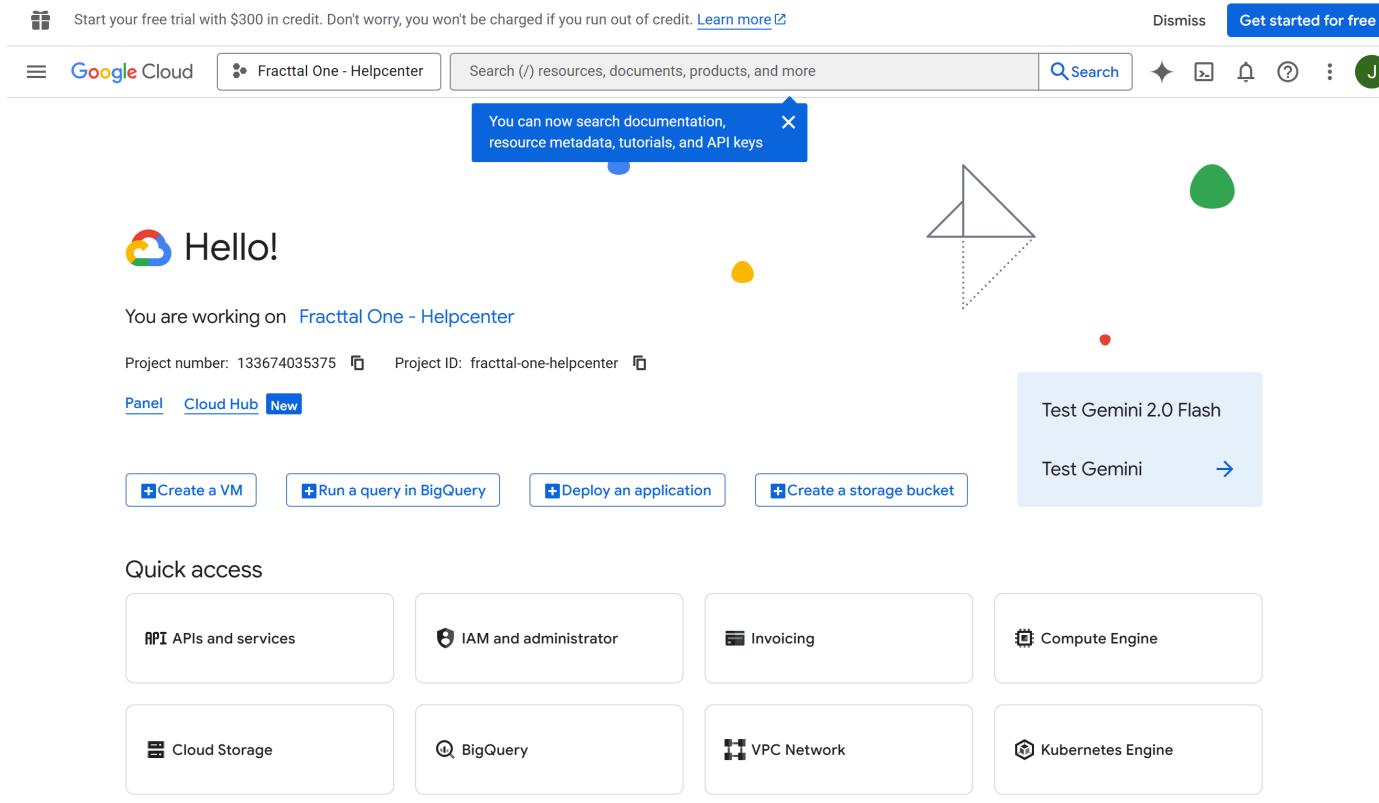
A conexão será estabelecida utilizando uma **Conta de Serviço** (Service Account) da Google Cloud Platform, que é o método recomendado para integrações de servidor a servidor, garantindo segurança e autonomia.

## Etapa 1: Configuração na Google Cloud Platform (GCP)

O primeiro passo é criar as credenciais necessárias na plataforma do Google para permitir que o Fracttal One acceda à sua folha de forma segura.

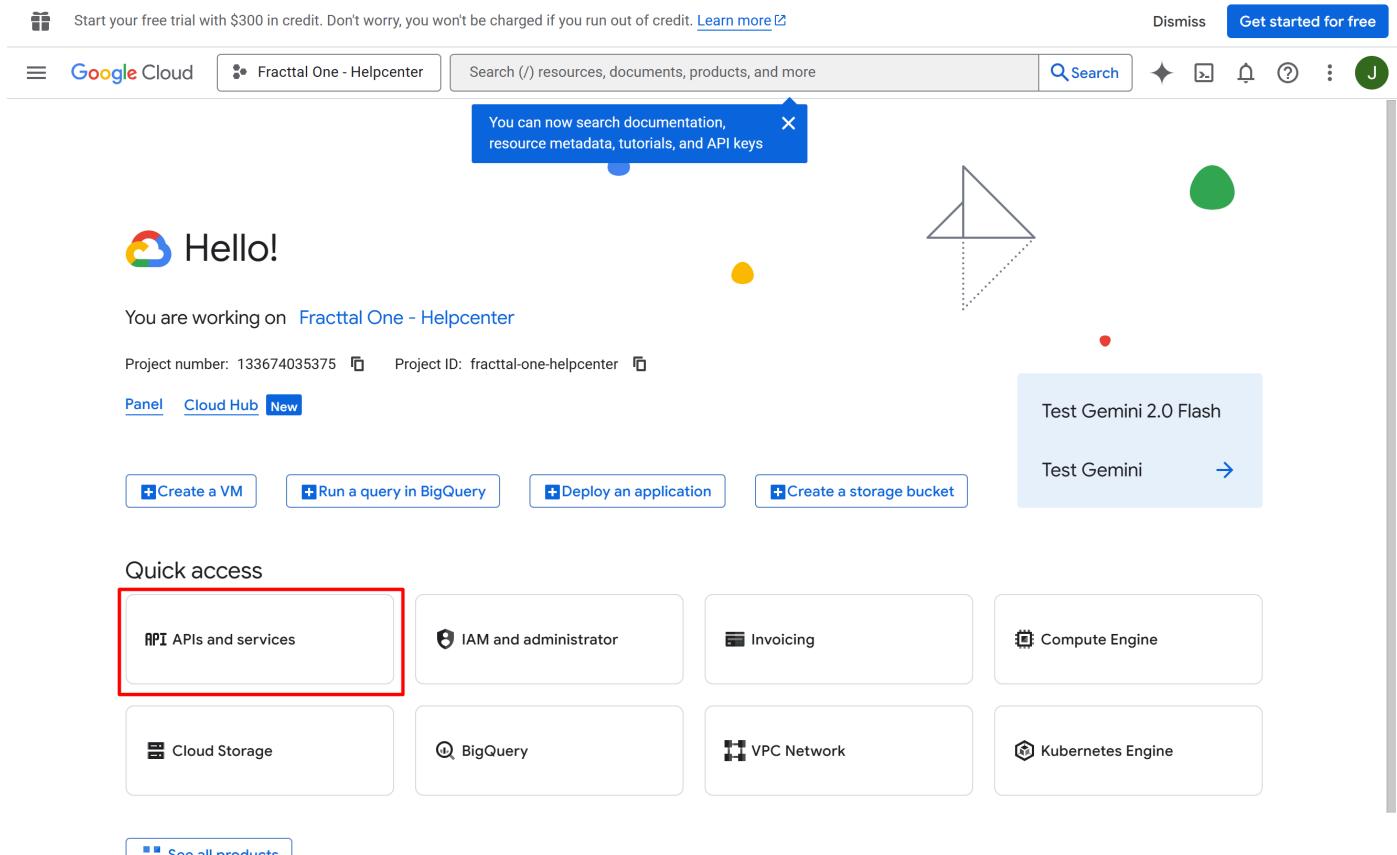
### 1.1. Aceda à conta de serviço

Aceda à Consola da Google Cloud Platform.



The screenshot shows the Google Cloud Platform (GCP) interface. At the top, there is a navigation bar with the Google Cloud logo, a search bar containing 'Fracttal One - Helpcenter', and a 'Get started for free' button. A search result for 'Fracttal One - Helpcenter' is displayed. A blue callout box in the center says 'You can now search documentation, resource metadata, tutorials, and API keys'. Below the search bar, the text 'Hello!' and 'You are working on Fracttal One - Helpcenter' is shown. The project number '133674035375' and ID 'fracttal-one-helpcenter' are listed. The 'Cloud Hub' tab is selected. A sidebar on the right shows 'Test Gemini 2.0 Flash' and 'Test Gemini'. At the bottom, there are sections for 'Quick access' with links to 'API APIs and services', 'IAM and administrator', 'Invoicing', 'Compute Engine', 'Cloud Storage', 'BigQuery', 'VPC Network', and 'Kubernetes Engine'. A 'See all products' button is at the very bottom.

No menu de navegação, vá a **APIs e serviços > Credenciais**.



The screenshot shows the Google Cloud Platform (GCP) dashboard. At the top, there is a banner with a 'Start your free trial with \$300 in credit. Don't worry, you won't be charged if you run out of credit. [Learn more](#)' message and a 'Dismiss' button. Below the banner, the navigation bar includes the 'Google Cloud' logo, a search bar with the placeholder 'Search (/) resources, documents, products, and more', and a 'Search' button. To the right of the search bar are several icons: a star, a document, a bell, a question mark, and a user profile with the letter 'J'.

The main content area starts with a 'Hello!' greeting and a message: 'You can now search documentation, resource metadata, tutorials, and API keys'. Below this, it says 'You are working on Fracttal One - Helpcenter' and shows 'Project number: 133674035375' and 'Project ID: fracttal-one-helpcenter'. The navigation tabs are 'Panel', 'Cloud Hub' (which is selected), and 'New'. There are four buttons for quick actions: '+Create a VM', '+Run a query in BigQuery', '+Deploy an application', and '+Create a storage bucket'. To the right, there are two cards: 'Test Gemini 2.0 Flash' and 'Test Gemini' with an arrow icon. The 'Quick access' section contains eight boxes: 'API APIs and services' (which is highlighted with a red box), 'IAM and administrator', 'Invoicing', 'Compute Engine', 'Cloud Storage', 'BigQuery', 'VPC Network', and 'Kubernetes Engine'. At the bottom of this section is a 'See all products' button.

Clique em **+** CRIAR CREDENCIAIS e selecione a opção **Conta de serviço**.

Start your free trial with \$300 in credit. Don't worry, you won't be charged if you run out of credit. [Learn more](#)

Dismiss [Get started for free](#)

Google Cloud Fractal One - Helpcenter Search (/) resources, documents, products, and more [Search](#) ⋮ J

API APIs and services ⋮ Credentials [+ Create credentials](#) ⋮ Delete Restore deleted credentials

Enabled APIs and Services ⋮ Library ⋮ Credentials ⋮ ←

OAuth Permission Screen ⋮ Page usage agreements

Create credentials to a ⋮ Remember ⋮ API Key Identify your project using a simple API key to check quota and access ⋮ OAuth client ID Requests user permission so the application can access that user's data ⋮ Service account Uses bot accounts to enable app-level authentication between servers. ⋮ Configure consent screen

API Keys ⋮ Name Help me choose ⋮ Actions

No API key to display

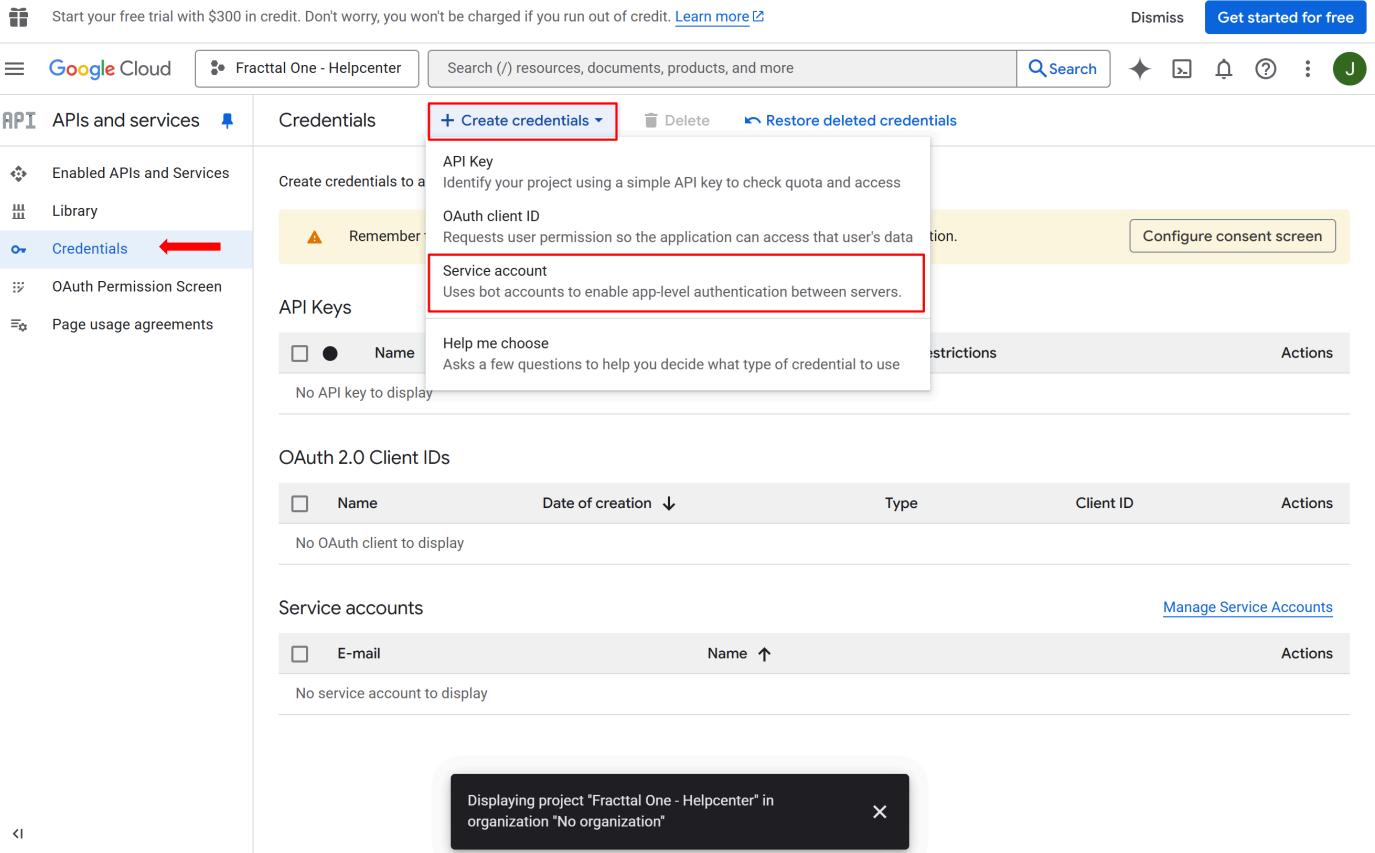
OAuth 2.0 Client IDs ⋮ Name Date of creation Type Client ID Actions

No OAuth client to display

Service accounts ⋮ E-mail Name Actions

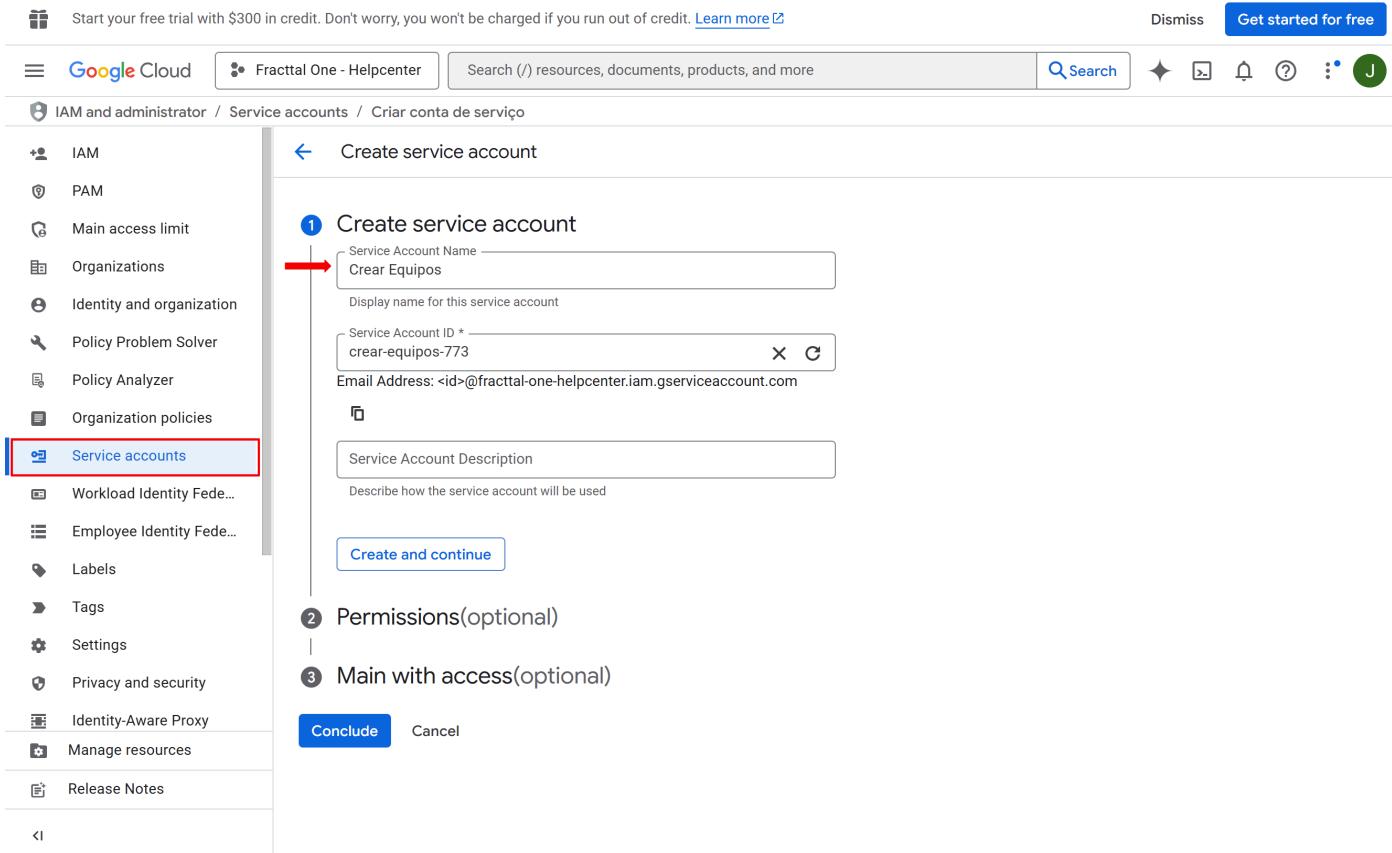
No service account to display

Displaying project "Fractal One - Helpcenter" in organization "No organization" ×



Preencha os seguintes campos:

- **Nome da conta de serviço:** Atribua um nome descritivo.
- **ID da conta de serviço:** Geralmente é gerado automaticamente a partir do nome.



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IAM and administrator / Service accounts / Criar conta de serviço

**Create service account**

1 Create service account

Service Account Name  Display name for this service account

Service Account ID \*  x C

Email Address: <id>@fracttal-one-helpcenter.iam.gserviceaccount.com

Service Account Description Describe how the service account will be used

**Create and continue**

2 Permissions(optional)

3 Main with access(optional)

**Conclude** Cancel

Service accounts

- IAM
- PAM
- Main access limit
- Organizations
- Identity and organization
- Policy Problem Solver
- Policy Analyzer
- Organization policies
- Service accounts**
- Workload Identity Fede...
- Employee Identity Fede...
- Labels
- Tags
- Settings
- Privacy and security
- Identity-Aware Proxy
- Manage resources
- Release Notes

Clique em "Concluído" para finalizar a criação da credencial.

Uma vez criada, será necessário habilitá-la para que possa ser utilizada nos processos de integração.

## 1.2. Gerar a Chave de Acesso (JSON)

- Na tela de **Credenciais**, localize a conta de serviço recém-criada e clique no seu endereço de e-mail.
- Vá para a aba **CHAVES**.
- Clique em **ADICIONAR CHAVE** e selecione **Criar nova chave**.

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Google Cloud Fractal One - Helpcenter Search (/) resources, documents, products, and more

IAM and administrator / Service accounts / Conta de serviço: 103039734183100900089 / Chaves

IAM PAM Main access limit Organizations Identity and organization Policy Problem Solver Policy Analyzer Organization policies Service accounts Workload Identity Fede... Employee Identity Fede... Labels Tags Settings Privacy and security Identity-Aware Proxy Manage resources Release Notes

**Create Teams**

Details Permissions **Keys** Metric Records Main with access

**Keys**

⚠ Service account keys can pose a security risk if compromised. We recommend that you avoid downloading service account keys. Instead, use [Workload Identity Federation](#). [Learn more about the best way to authenticate service accounts in Google Cloud](#).

ⓘ Google automatically disables service account keys discovered in public repositories. This behavior can be customized using the "iam.serviceAccountKeyExposureResponse" organization policy. [Learn more](#)

Add a new key pair or upload a public key certificate of the existing pair.

Block service account key creation using [organization policies](#). [Learn more about configuring organization policies for service accounts](#)

Add key 

Key	Date of creation	Expiration date
78df830c67e266e185b2a202cae908b7a57cc47	1 de jul. de 2025	31 de dez. de 9999

Escolha o tipo **JSON** (recomendado) e clique em **CRIAR**.

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Create private key for "Create Equipment"

A file containing the private key is downloaded. Store the file safely because this key cannot be recovered if lost.

Key type  **JSON** Recommended  P12 For backward compatibility using code with P12 format

To create

Type	Status	Key	Date of creation	Expiration date
Ativo	78df830c67e266e185b2a202cae908b7a57cc47	1 de jul. de 2025	31 de dez. de 9999	

Um arquivo `.json` será baixado automaticamente para o seu computador. Guarde-o em um local seguro, pois contém as credenciais de acesso e será necessário na Etapa 3.

## Etapa 2: Preparação da folha do Google Sheets

---

Agora preparamos a folha que servirá como fonte de dados.

Abra a sua folha do Google Sheets.

### Estrutura dos cabeçalhos:

Na primeira linha, certifique-se de que os nomes das colunas coincidam exatamente com os parâmetros requeridos pela API do Fracttal para a criação de ativos. Os campos obrigatórios são:

- `code`: Código único do ativo.
- `id_type_item`: ID numérico do tipo de ativo (por exemplo: `2` para Equipamentos, de acordo com a documentação da API).
- `field_1`: Corresponde ao **Nome** do ativo.

<code>code</code>	<code>id_type_item</code>	<code>field_1</code>
<b>HUB-001</b>	<b>2</b>	<b>CAMIONETA SUV</b>

### Partilhar a folha:

É crucial conceder permissão de acesso à Conta de Serviço que criamos.

Na GCP, copie o e-mail da sua conta de serviço.

Start your free trial with \$300 in credit. Don't worry, you won't be charged if you run out of credit. [Learn more](#)

Dismiss Get started for free

Google Cloud Fractal One - Helpcenter Search (/) resources, documents, products, and more

IAM and administrator / Service accounts / Conta de serviço: 103039734183100900089

IAM PAM Main access limit Organizations Identity and organization Policy Problem Solver Policy Analyzer Organization policies Service accounts Workload Identity Fede... Employee Identity Fede... Labels Tags Settings Privacy and security Identity-Aware Proxy Manage resources Release Notes

**Create Teams**

**Details** Permissions Keys Metric Records Main with access

**Service Account Details**

Name: Crear Equipos Save

Description Save

E-mail: **crear-equipos@fracttal-one-helpcenter.iam.gserviceaccount.com**

Unique ID: 103039734183100900089

**Service Account Status**

Deactivating your account allows you to preserve your policies without having to delete your account.

Activated

[Disable service account](#)

**Advanced settings**

- Volte à folha de cálculo, clique em **Partilhar**.
- Cole o e-mail no campo de partilha.
- Atribua a permissão de **Editor**.
- Clique em **Enviar/Partilhar**.

F 2

Return to the spreadsheet, click Share

Share

Share with people and groups

crear-equipos@fracttal-one-helpcenter.iam.gserviceaccount.com

Restricted • Only people added can open with this link

Assign the Editor permission

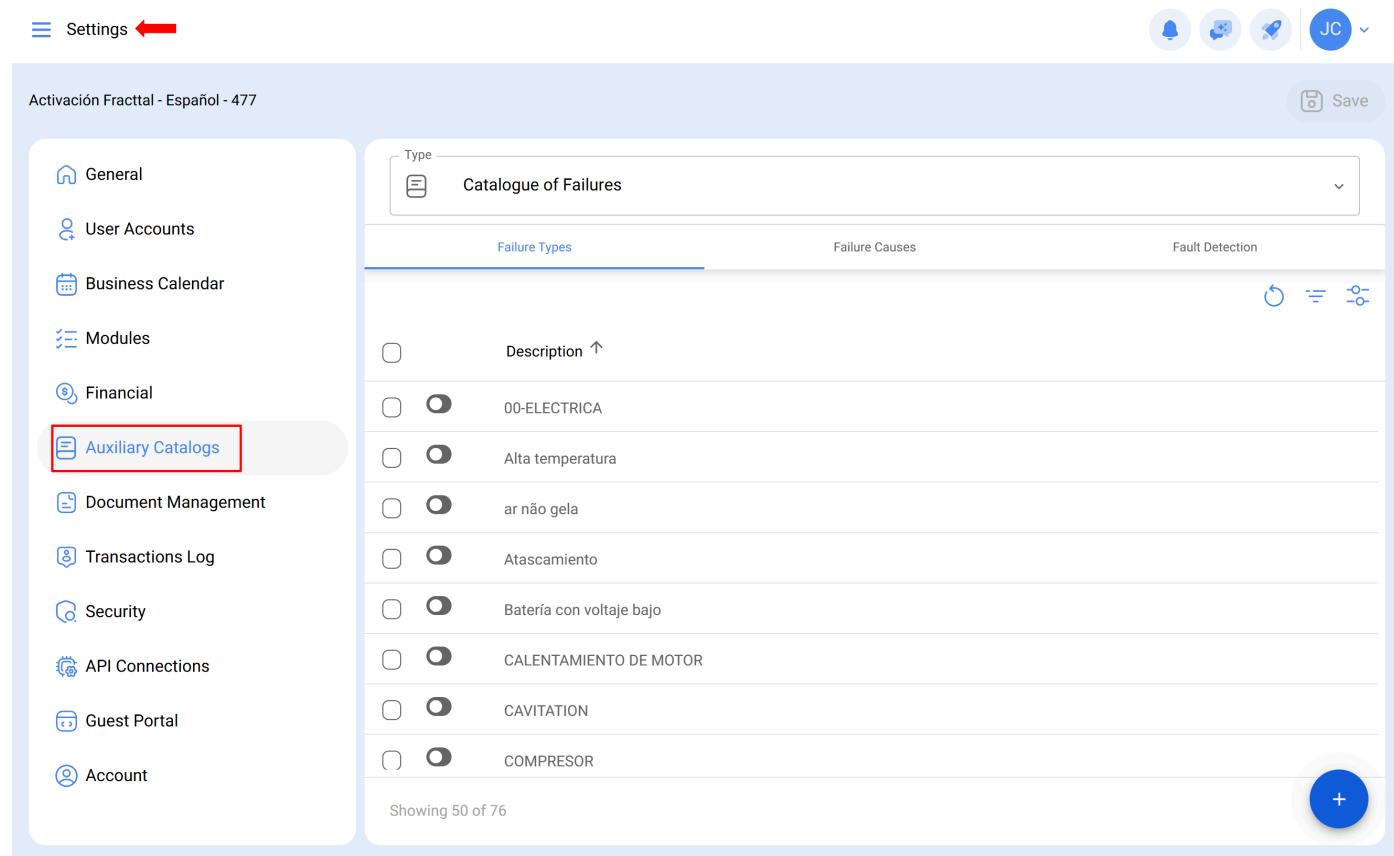
Editor

Send

## Etapa 3: Configuração da conexão no Fracttal One

Com as credenciais e a folha prontas, configuraremos a ponte de comunicação dentro do Fracttal One.

No Fracttal One, navegue até **Configuração > Catálogos Auxiliares**.



Activación Fracttal - Español - 477

Settings ← JC

Type: Catalogue of Failures

Failure Types	Failure Causes	Fault Detection
<input type="checkbox"/> Description ↑		
<input type="checkbox"/> <input checked="" type="radio"/> 00-ELECTRICA		
<input type="checkbox"/> <input checked="" type="radio"/> Alta temperatura		
<input type="checkbox"/> <input checked="" type="radio"/> ar não gela		
<input type="checkbox"/> <input checked="" type="radio"/> Atascamiento		
<input type="checkbox"/> <input checked="" type="radio"/> Batería con voltaje bajo		
<input type="checkbox"/> <input checked="" type="radio"/> CALENTAMIENTO DE MOTOR		
<input type="checkbox"/> <input checked="" type="radio"/> CAVITATION		
<input type="checkbox"/> <input checked="" type="radio"/> COMPRESOR		

Showing 50 of 76

+

- No seletor de catálogos, escolha **Conexões**.
- Clique no ícone + para adicionar uma nova conexão.

- [General](#)
- [User Accounts](#)
- [Business Calendar](#)
- [Modules](#)
- [Financial](#)
- [Auxiliary Catalogs](#)
- [Document Management](#)
- [Transactions Log](#)
- [Security](#)
- [API Connections](#)
- [Guest Portal](#)
- [Account](#)

Type  Connections

	Type
<input type="checkbox"/>	AFJ CONEXION GOOGLE SHEET
<input type="checkbox"/>	AFJ - Notificaciones 09.06.2025
<input type="checkbox"/>	Conexion con GoogleSheet Fabian
<input type="checkbox"/>	Conexion google sheet
<input type="checkbox"/>	Conexión Google Sheet
<input type="checkbox"/>	CONEXIÓN GOOGLE SHEET FERNANDO
<input type="checkbox"/>	Demo WhatsApp
<input type="checkbox"/>	Integración googlesheet Imènec
<input type="checkbox"/>	Proyecto ICS

Showing 11 of 11



## Configure os seguintes campos:

- [General](#)
- [User Accounts](#)
- [Business Calendar](#)
- [Modules](#)
- [Financial](#)
- [Auxiliary Catalogs](#)
- [Document Management](#)
- [Transactions Log](#)
- [Security](#)
- [API Connections](#)
- [Guest Portal](#)
- [Account](#)

Type  Connections

	Type	
<input type="checkbox"/>	AFJ CONEXION GOOGLE SHEET	Type  Google Sheet (Service Account)
<input type="checkbox"/>	AFJ - Notificaciones 09.06.2025	Type  WhatsApp
<input type="checkbox"/>	Conexion con GoogleSheet Fabian	Type  Google Sheet (Service Account)
<input type="checkbox"/>	Conexion google sheet	Type  Google Sheet (Service Account)
<input type="checkbox"/>	Conexión Google Sheet	Type  Google Sheet (Service Account)
<input type="checkbox"/>	CONEXIÓN GOOGLE SHEET FERNANDO	Type  Google Sheet (Service Account)
<input type="checkbox"/>	Demo WhatsApp	Type  WhatsApp
<input type="checkbox"/>	Integración googlesheet Imènec	Type  Google Sheet (Service Account)
<input type="checkbox"/>	Proyecto ICS	Type  Google Sheet (Service Account)

Showing 11 of 11



- **Tipo:** Selecione **Google Sheet (Service Account)**.
- **Descrição:** Insira um nome claro para esta conexão, por exemplo, **CRIAR EQUIPAS**.

### Complete as credenciais:

Abra o arquivo **.json** baixado na Etapa **1.2** e copie e cole o conteúdo de cada campo no formulário do Fracttal One:

The screenshot shows the Fracttal One 'Connections' settings page. On the left, a sidebar lists various modules: General, User Accounts, Business Calendar, Modules, Financial, Auxiliary Catalogs (which is selected and highlighted in blue), Document Management, Transactions Log, Security, API Connections, Guest Portal, and Account. The main area shows a list of connections, including 'AFJ CONEXION GOOGLE SHEET', 'AFJ - Notificaciones 09.06.2025', 'Conexion con GoogleSheet Fabian', 'Conexion google sheet', 'Conexión Google Sheet', 'CONEXIÓN GOOGLE SHEET FERNANDO', 'Demo WhatsApp', 'Integración googlesheet Imènec', and 'Proyecto ICS'. Below the list, it says 'Showing 11 of 11'. On the right, a configuration form for a connection is displayed. The 'private\_key' field is marked with a red border and an error message: 'must have required property 'private\_key''. The 'client\_email' field is also marked with a red border and an error message: 'must have required property 'client\_email''. The 'client\_id' field is marked with a red border and an error message: 'must have required property 'client\_id''. The 'client\_x509\_cert\_url' field is marked with a red border and an error message: 'must have required property 'client\_x509\_cert\_url''. Below these, there are fields for 'auth\_uri' (set to 'https://accounts.google.com/o/oauth2/auth'), 'token\_uri' (set to 'https://oauth2.googleapis.com/token'), and 'auth\_provider\_x509\_cert\_url' (set to 'https://www.googleapis.com/oauth2/v1/certs').

- **private\_key**
- **client\_email**
- **client\_id**
- **client\_x509\_cert\_url**
- ...e os demais campos requeridos.

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General

User Accounts

Business Calendar

Modules

Financial

**Auxiliary Catalogs**

Document Management

Transactions Log

Security

API Connections

Guest Portal

Account

Type

Connections

Description ↑

AFJ CONEXION GOOGLE SHEET

AFJ - Notificaciones 09.06.2025

Conexion con GoogleSheet Fabian

Conexion google sheet

Conexion Google Sheet

CONEXIÓN GOOGLE SHEET FERNANDO

Demo WhatsApp

Integración googlesheet Imènec

Proyecto ICS

Showing 11 of 11

project\_id \*

private\_key\_id \*

private\_key \*

client\_email \*

client\_id \*

client\_x509\_cert\_url \*

auth\_uri

token\_uri

auth\_provider\_x509\_cert\_url

Clique em **Guardar**.

## Etapa 4: Criar o fluxo no Automatizador (Fractal Hub)

Finalmente, criaremos o fluxo de automação que lerá os dados e criará os ativos.

Vá ao menu principal e selecione **Automatizador > Fractal Hub**.



Catalogs

Warehouses

Work Management

Monitoring

Dispatcher



Business Intelligence

Cloud Disk

Requests

Online help

[Support](#) [Create ticket](#)

Type

Connections

 Description ↑

Type

 AFJ CONEXION GOOGLE SHEET

Google Sheet (Service Account)

 AFJ - Notificaciones 09.06.2025

WhatsApp

 Conexion con GoogleSheet Fabian

Google Sheet (Service Account)

 Conexion google sheet

Google Sheet (Service Account)

 Conexion Google Sheet

Google Sheet (Service Account)

 CONEXIÓN GOOGLE SHEET FERNANDO

Google Sheet (Service Account)

 Demo WhatsApp

WhatsApp

 Integración googlesheet Imènec

Google Sheet (Service Account)

 Proyecto LCS

Google Sheet (Service Account)

Showing 11 of 11



Clique no ícone + para criar um novo fluxo.

Fracttal Hub

Search...

<input type="checkbox"/>	Enabled	Description	Last Date	Trigger
<input type="checkbox"/>	Yes	Notificación de nuevas órdenes de servicio de WhatsApp (P...	2025-05-29 16:57	Event
<input type="checkbox"/>	Yes	actualización de horometro	2024-11-22 18:15	Schedule
<input type="checkbox"/>	Yes	AFJ. 09.06.2025. Conex. Wpp	2025-06-09 09:57	Event
<input type="checkbox"/>	Yes	Lecturas fuera de Rango (Range)	2023-03-22 17:51	Event
<input type="checkbox"/>	Yes	Consulta subtaeas Fracttal Fabian	2024-12-18 20:26	Manual
<input type="checkbox"/>	Yes	Projeto LCS 1212	2024-12-12 18:12	Manual
<input type="checkbox"/>	Yes	Lecturas fuera de rango	2023-03-22 17:51	Event
<input type="checkbox"/>	Yes	webnar 2024	2024-12-17 23:06	Manual
<input type="checkbox"/>	Yes	Notificación de nuevas órdenes de servicio de WhatsApp (E...	2025-05-23 22:20	Event
<input type="checkbox"/>	No	Comunicación Fracttal One	2024-09-05 21:53	Event
<input type="checkbox"/>	Yes	BODEGAS FAC - MEDIDORES	2025-01-20 16:56	Manual

Showing 14 of 14



## Atribua um nome ao fluxo.

Fractal Hub

Enabled

Required Information

- Source configuration cannot be empty
- Target connection settings cannot be empty
- Mapping to destination configuration cannot be empty

Flow

Execution history

Event queue

Flow settings

Description: Crear Equipos

```
graph LR; Source[Source: Trigger, Source] --> Filter[Filter: Select One]; Filter --> Target[Target: Connection, Settings]
```

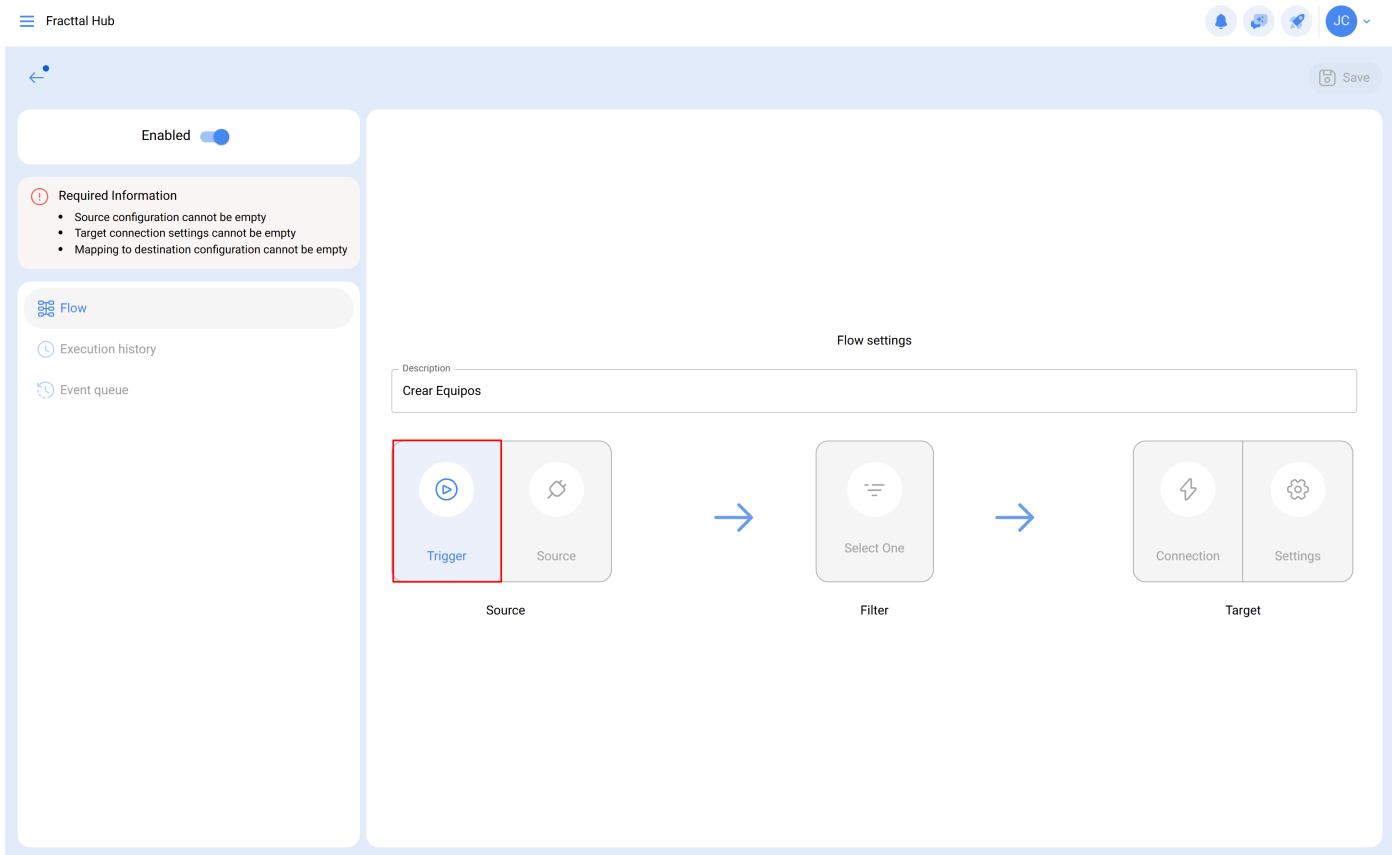
Source

Filter

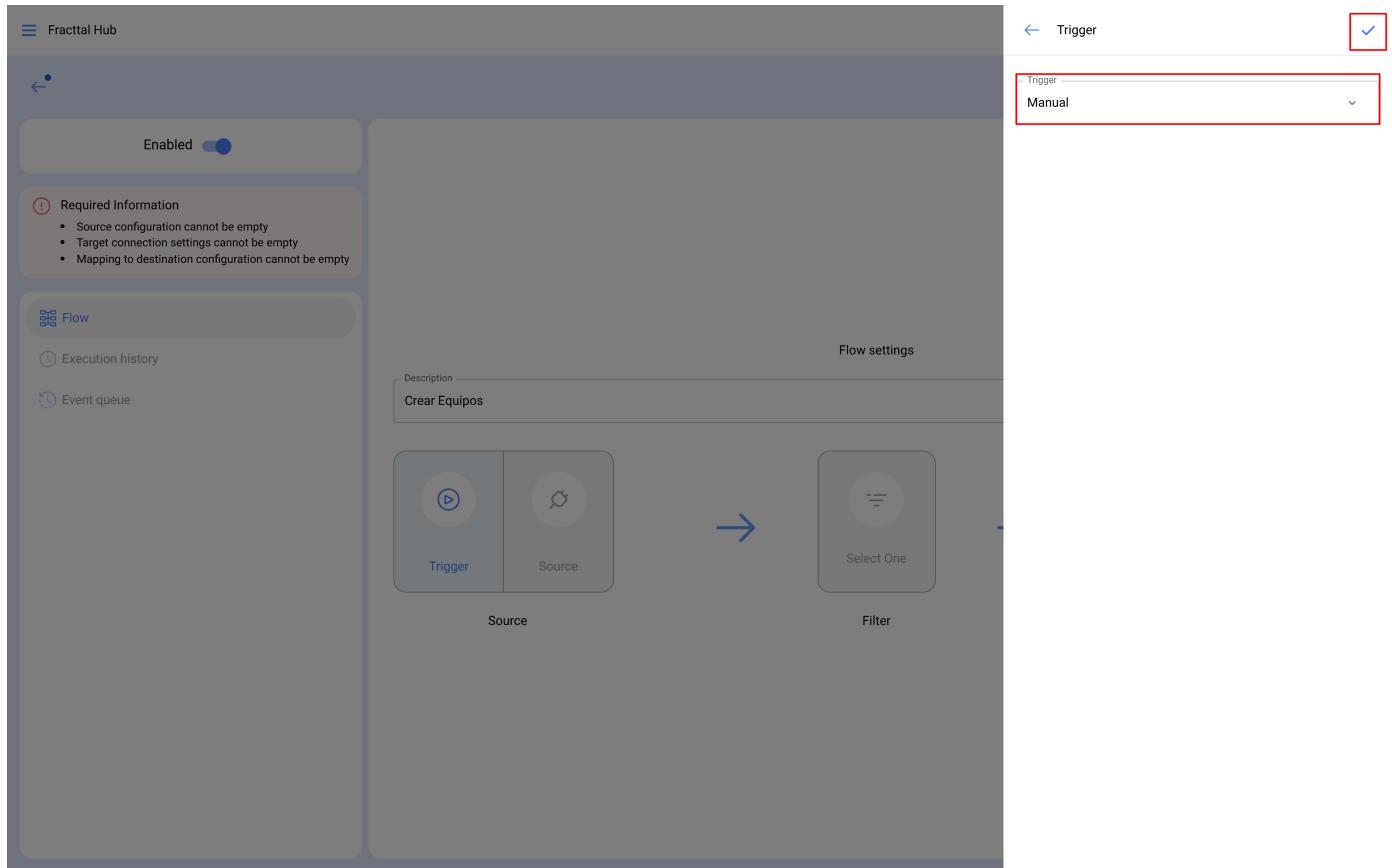
Target

## 4.1. Configurar a Fonte (Source)

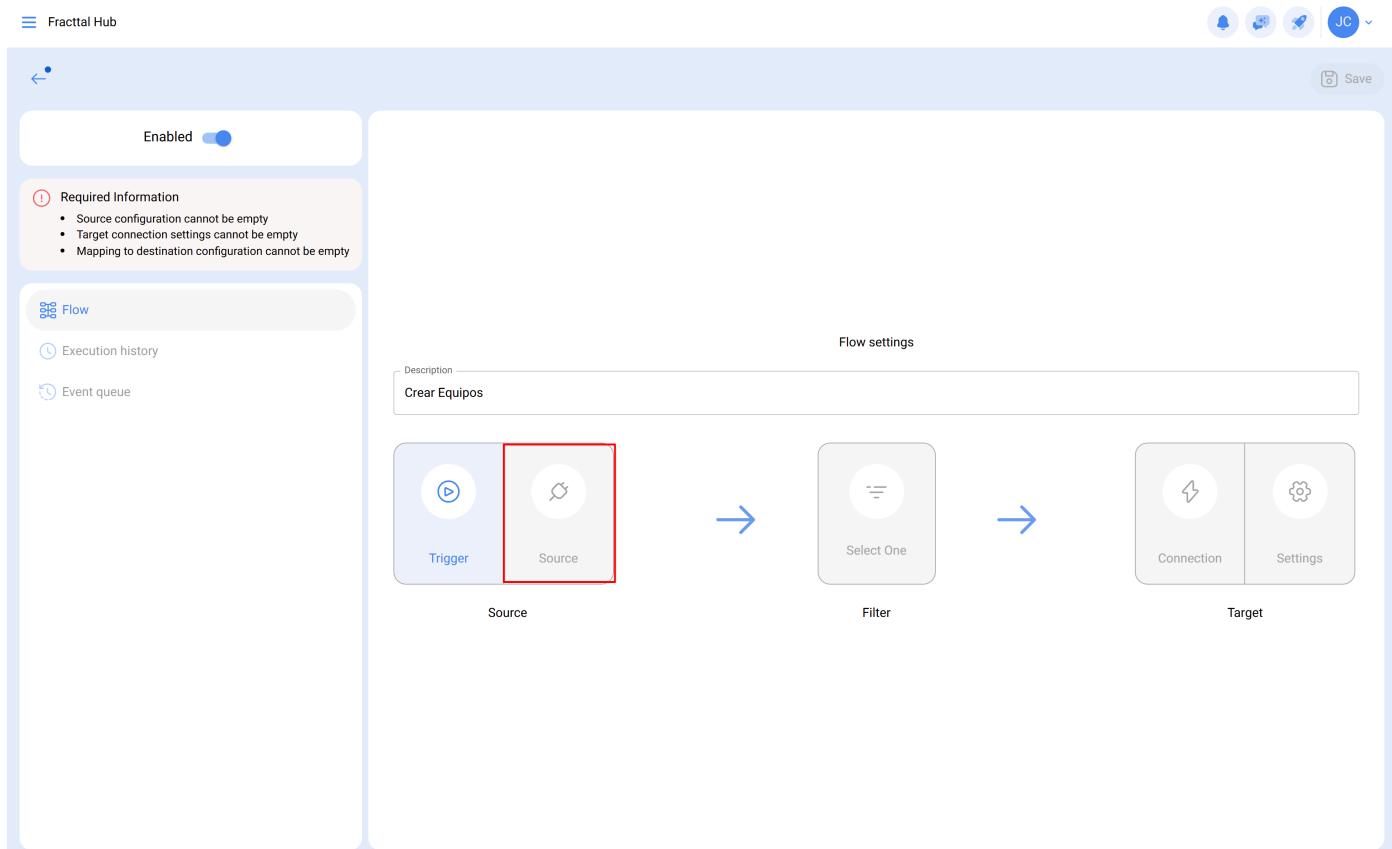
### Ativador



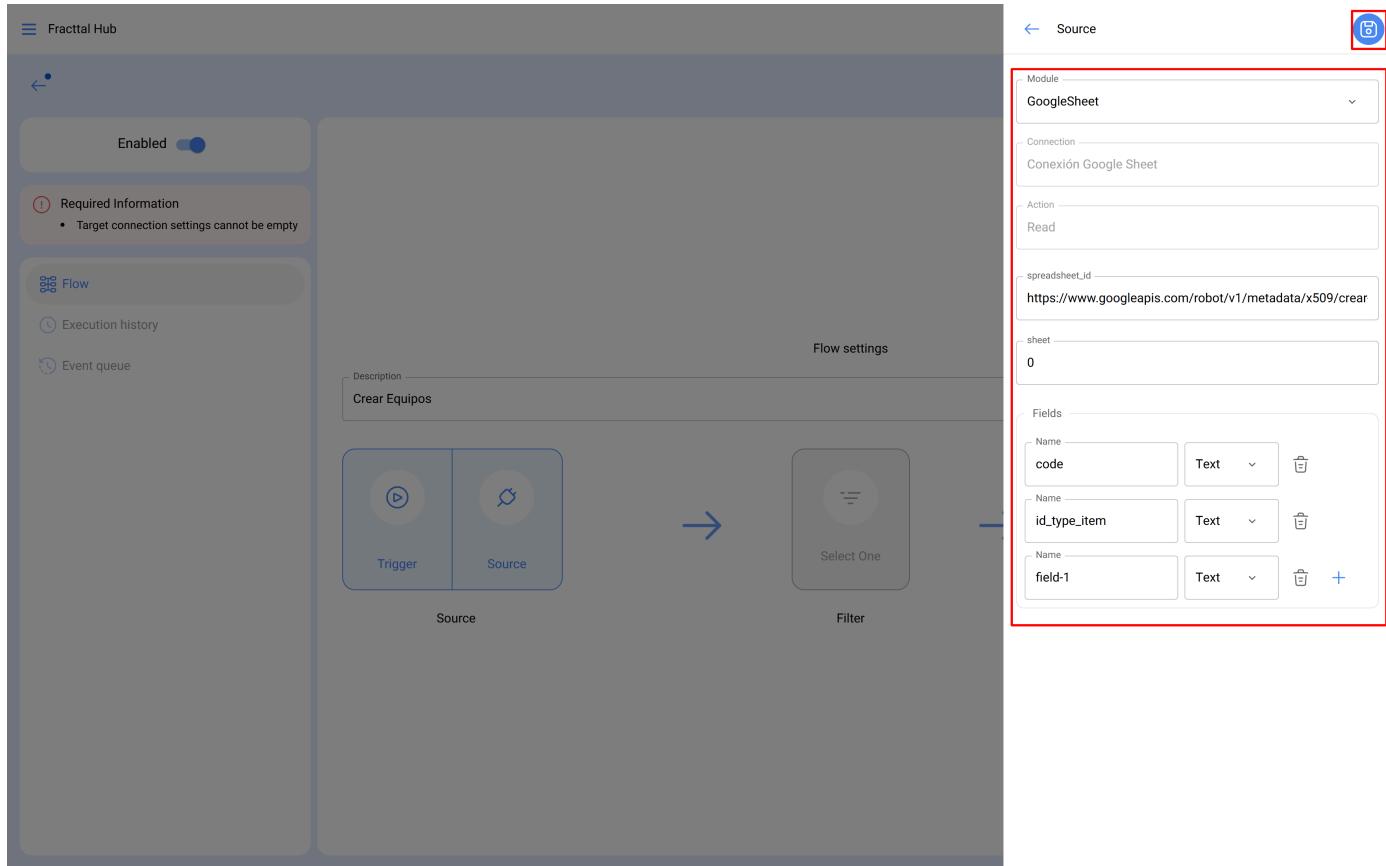
Para este exemplo, selecione **Manual**. Isto permite-lhe executar o fluxo quando desejar.



**Fonte:**

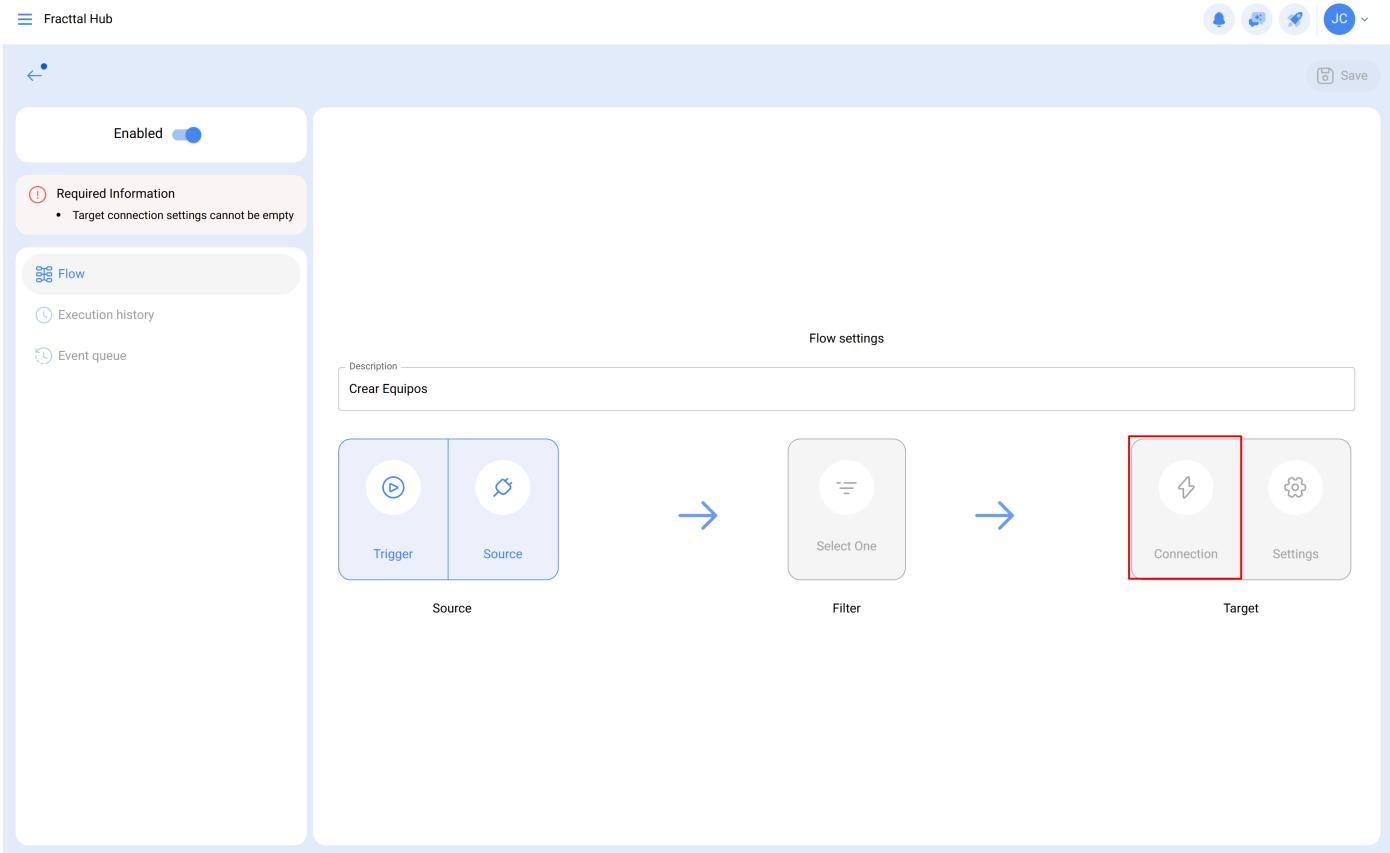


- **Módulo:** Selecione **GoogleSheet**.
- **Conexão:** Selecione a conexão criada na Etapa 3 (**CRIAR EQUIPAS**).
- **Ação:** Selecione **Ler**.
- **spreadsheet\_id:** Cole o ID da sua folha. Pode encontrá-lo na URL (o código longo entre **/d/** e **/edit**).
- **sheet:** Insira **0** para ler a primeira aba (a numeração começa em 0).
- **Campos:** Adicione os nomes dos cabeçalhos da sua folha (**code**, **id\_type\_item**, **field\_1**).

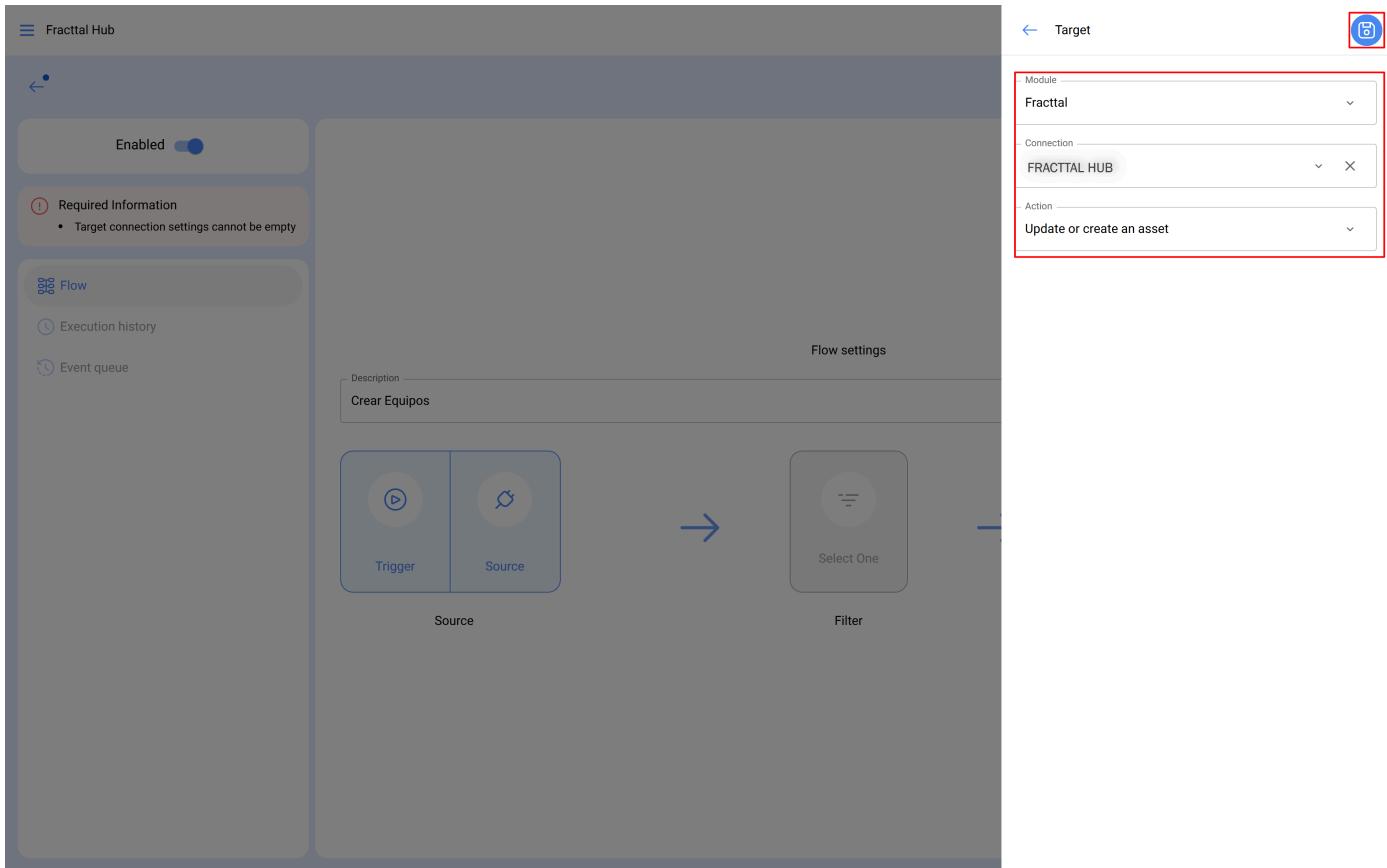


## 4.2. Configurar o Destino (Destination)

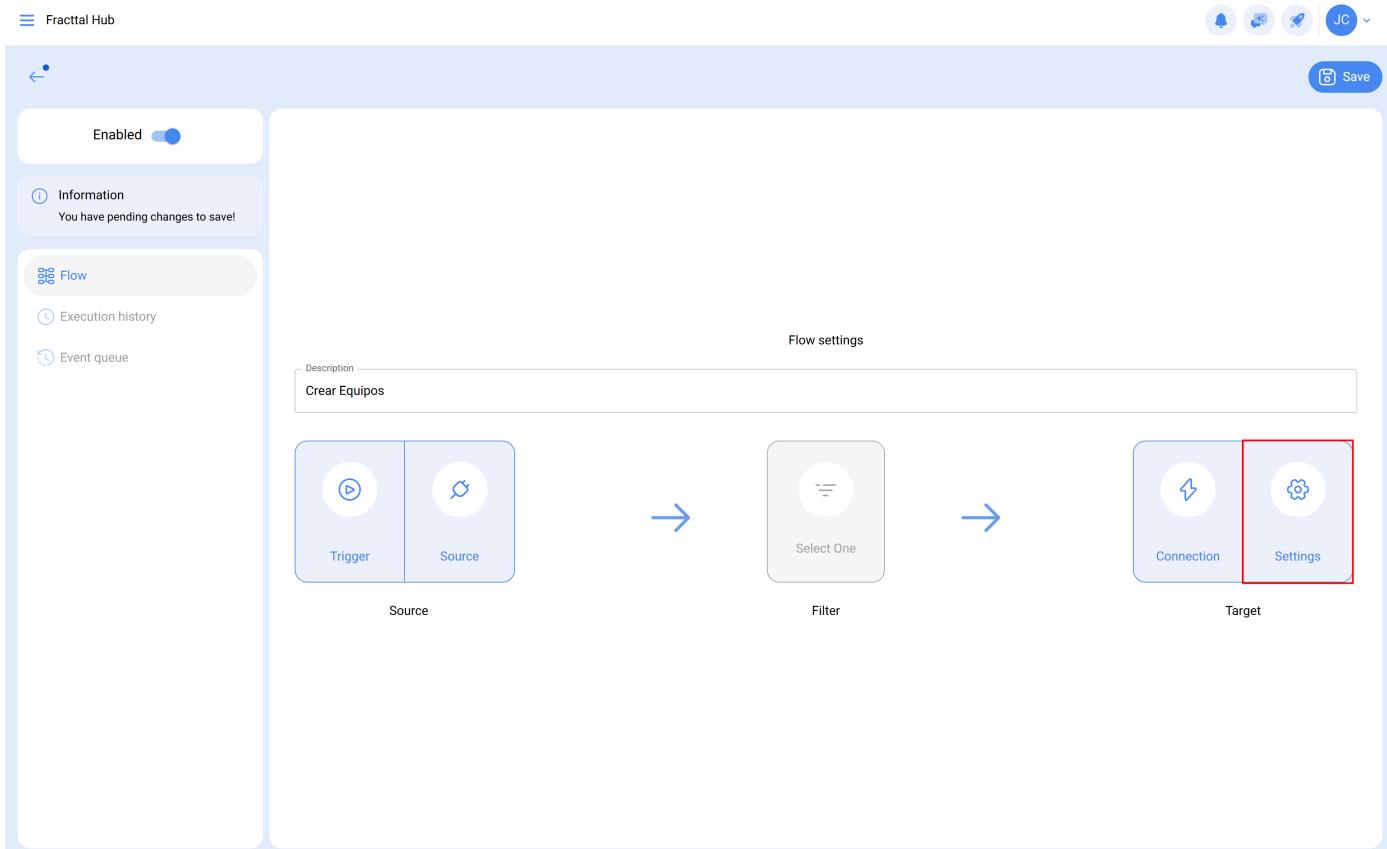
### Conexão:



- **Módulo:** Selecione **Fractal**.
- **Conexão:** Selecione **FRACTTAL HUB**.
- **Ação:** Selecione **Atualizar ou criar um ativo**.



## Configuração



- Clique no ícone de engrenagem (Configuração).
- Mapeie os campos de origem (Google Sheet) com os de destino (API do Fracttal), assegurando-se de que coincidam:

Fracttal Hub

Fields Configuration

Source: Google Sheet → Target: Fracttal API

Source (Fields) Target (Fields)

- code → All -> Object
- id\_type\_item → All -> Object
- field\_1 → All -> Object
- field\_2 → All -> Object
- field\_3 → All -> Object
- field\_4 → All -> Object
- field\_5 → All -> Object
- field\_6 → All -> Object

Flow settings

Description: Crear Equipos

Trigger → Source → Filter

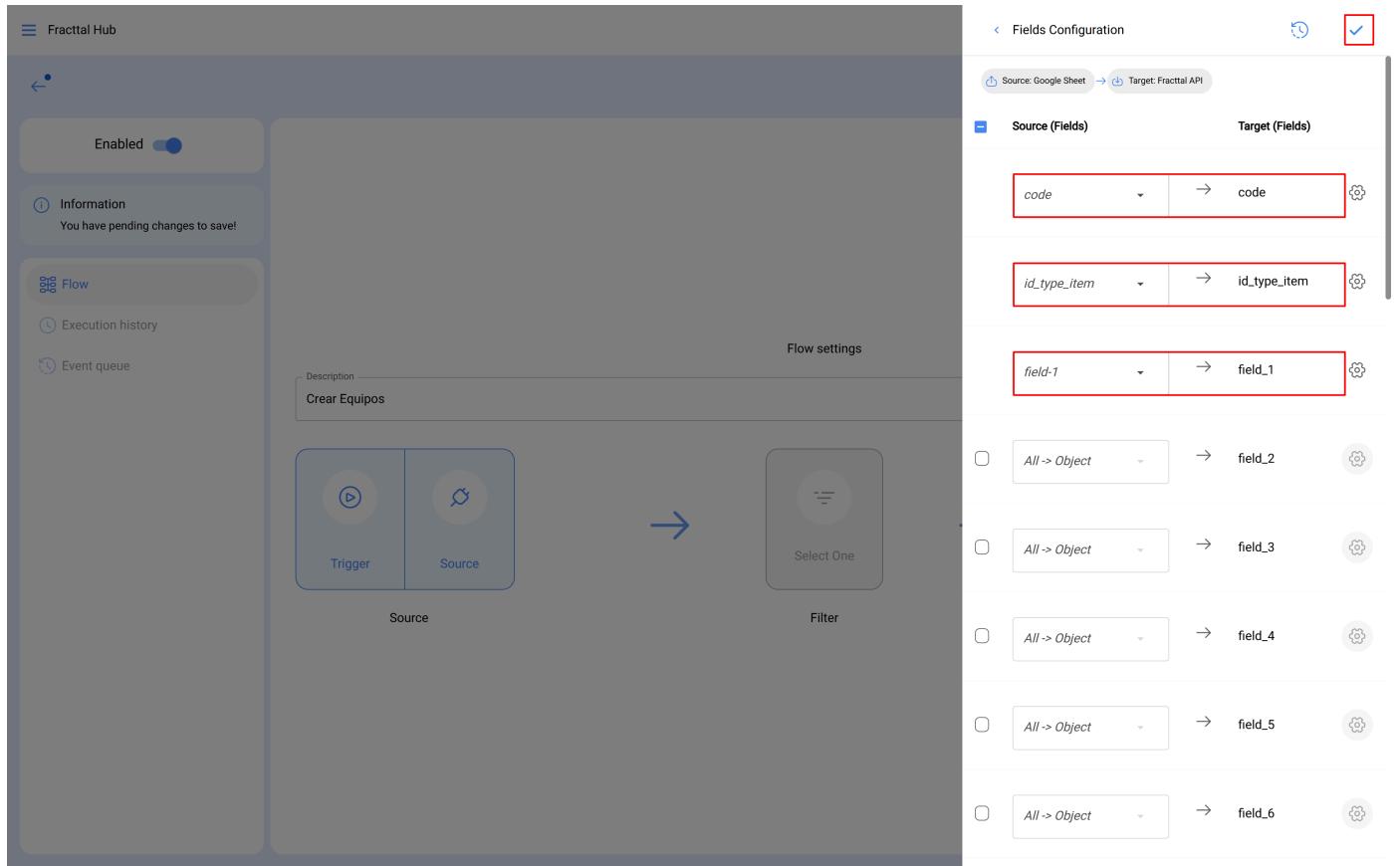
Source

Filter

Information: You have pending changes to save!

Execution history

Event queue



Clique para guardar o mapeamento e depois em **Guardar** no canto superior direito para guardar todo o fluxo.

