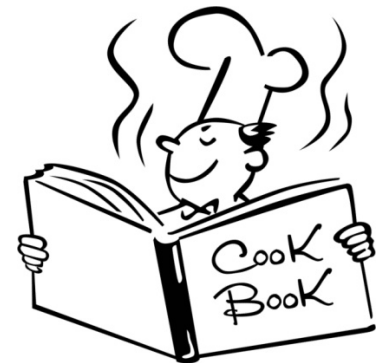


Parse & Validate Unstructured Contact Data

OPENPRISE

Cook Book Series



Recipe Overview

This is a recipe to parse name, company, and address data from unstructured source text, leveraging the Google Places API for address validation and parsing

- Set up Google Places API and get an API key
- Create a Google Places API Data Source
- Create a Contact Information Parsing rule to parse unstructured data

You will need the following:

- Have a Google email account
- A data source with a set of fields that contain one or more of the following: Contact Names, Company Names, and Address

tips

- Add a rule by clicking on an existing rule



and +.

- Put new data into a new data attribute so you can easily compare before vs. after and confirm the rule is doing what it is supposed to do.
- Can't see the open reference data? Check the setting in your Data Catalog:

 ▼

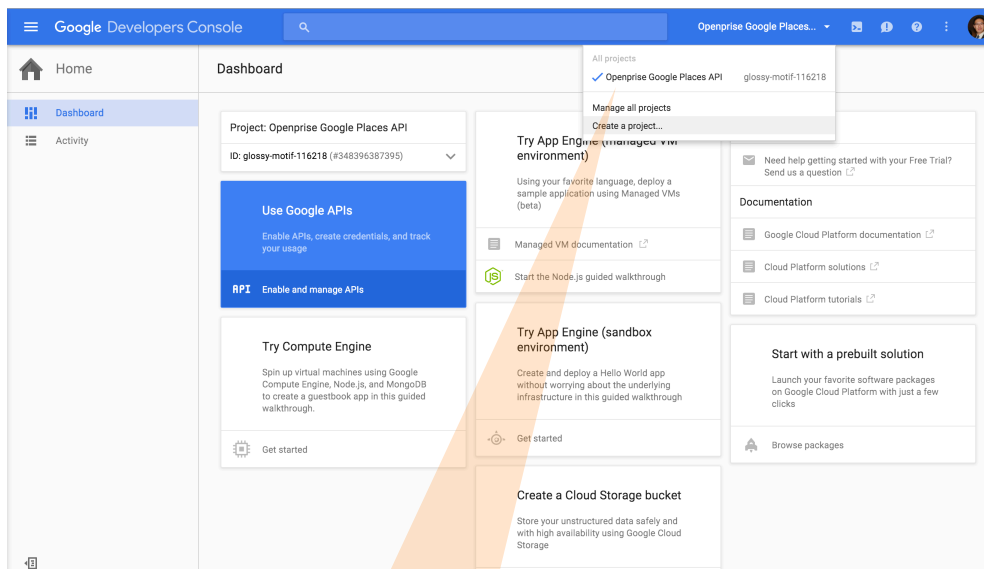
☒ Show open data for Rules, Search, and Analytics

- You can run your Pipeline anytime by pressing the RUN NOW button. To remove all previously processed data within the pipeline, press PURGE first.

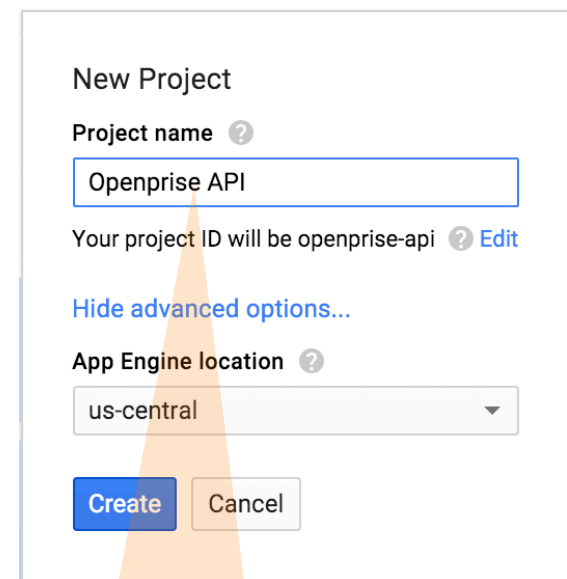


Step 1 : Create Developers Console Project

Go to <https://console.developers.google.com> and login with your existing Google email account if prompted to authenticate.

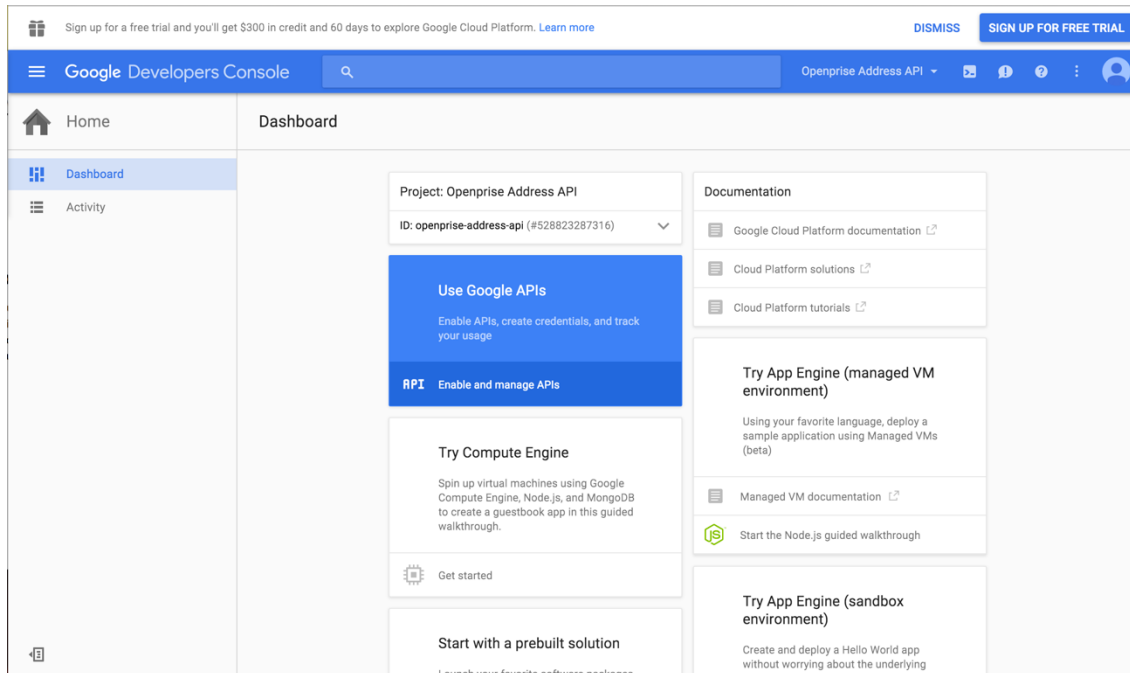


Use the Project dropdown to select “Create a project...” to create a new project for Openprise use.



Enter a name for the “Project name” field. For example: Openprise API

Step 2 : Enable APIs



Use Google APIs

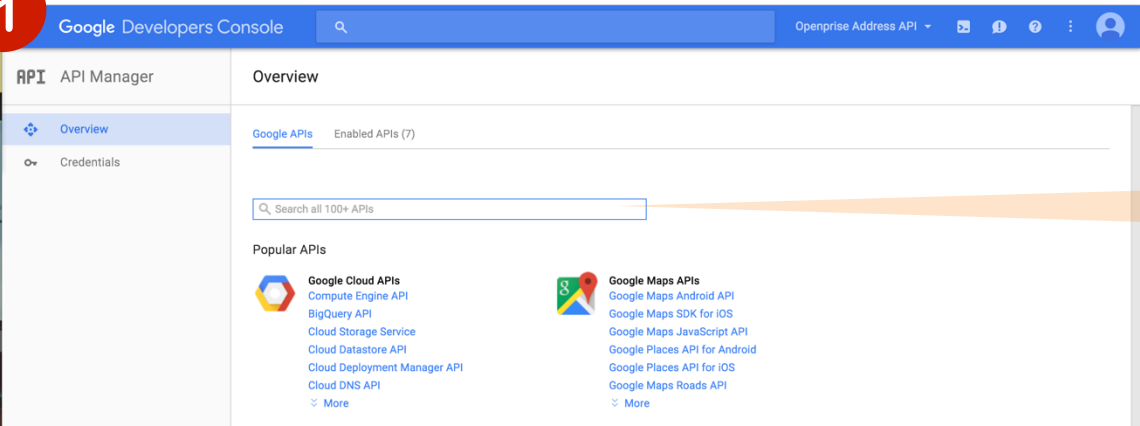
Enable APIs, create credentials, and track your usage

API Enable and manage APIs

Click on “Enable and manage APIs” to enable Google Places API for this project.

Step 3 : Find Google Places API to Enable

1



Google Developers Console

API Manager

Overview

Google APIs Enabled APIs (7)

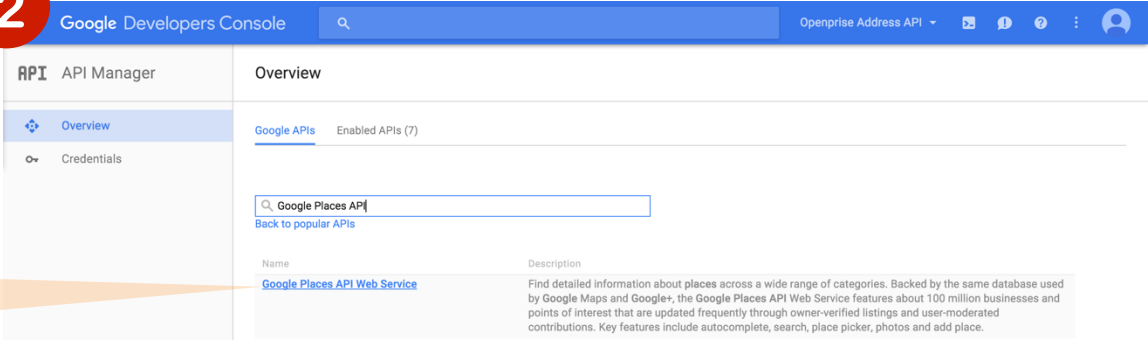
Search all 100+ APIs

Popular APIs

- Google Cloud APIs
 - Compute Engine API
 - BigQuery API
 - Cloud Storage Service
 - Cloud Datastore API
 - Cloud Deployment Manager API
 - Cloud DNS API
 - More
- Google Maps APIs
 - Google Maps Android API
 - Google Maps SDK for iOS
 - Google Maps JavaScript API
 - Google Places API for Android
 - Google Places API for iOS
 - Google Maps Roads API
 - More

Type "Google Places API" in the search field to find the API quickly.

2



Google Developers Console

API Manager

Overview

Google APIs Enabled APIs (7)

Google Places API

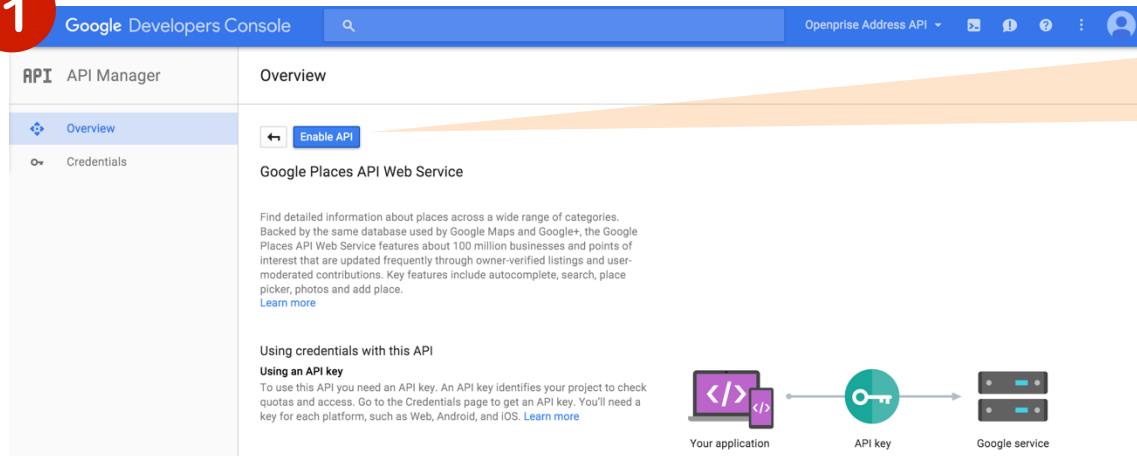
Back to popular APIs

Name	Description
Google Places API Web Service	Find detailed information about places across a wide range of categories. Backed by the same database used by Google Maps and Google+, the Google Places API Web Service features about 100 million businesses and points of interest that are updated frequently through owner-verified listings and user-moderated contributions. Key features include autocomplete, search, place picker, photos and add place.

Click on "Google Places API Web Service" search result to enable this particular API for this project.

Step 4 : Enable Google Places API

1



Click on “Enable API” to enable the Google Places API Web Service for this project. Once enabled, you will be prompted to create a credential prior to using this API.

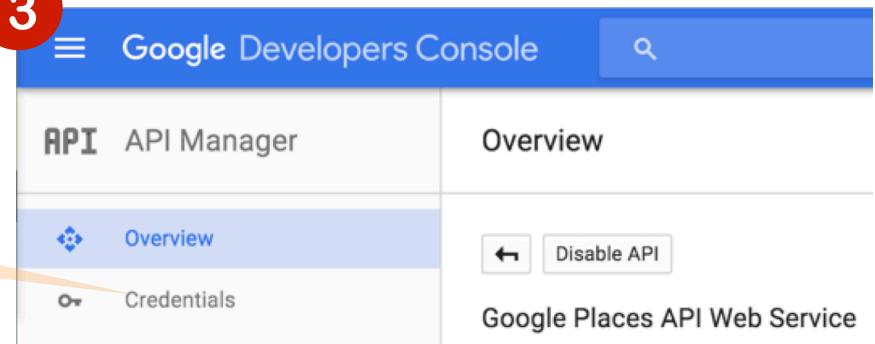
Ignore this message. Do not use the “Go to Credentials” button in this warning message.

2

⚠ This API is enabled, but you can't use it in your project until you create credentials. Click "Go to Credentials" to do this now (strongly recommended).

Go to Credentials

3



Click on “Credentials” in the left-hand navigation panel instead to create credentials for use with this project.

Step 5 : Create API Key Credential

1

APIs
Credentials

You need credentials to access APIs. [Enable the APIs you plan to use](#) and then create the credentials they require. Depending on the API, you need an API key, a service account, or an OAuth 2.0 client ID. [Refer to the API documentation](#) for details.

New credentials ▾

- API key
- OAuth client ID
- Service account key
- Help me choose

Use the “New credentials” button to create a new credential and pick “API key” as the credential to create

2

Create a new key

You need an API key to call certain Google APIs. The API key identifies your project. Also, it is used to enforce quotas and handle billing, so keep it safe.

Server key Browser key Android key iOS key

Create a “Server key” for use with this project. Openprise requires a server key to connect to your Google Developer’s account.

3

Create server API key

This key should be kept secret on your server

Every API request is generated by software running on a machine that you control. Per-user limits will be enforced using the address found in each request’s userIp parameter, if specified. If the userIp parameter is missing, your machine’s IP address will be used instead. [Learn more](#)

Name

Server key 1

Accept requests from these server IP addresses (Optional)

Examples: 192.168.0.1, 172.16.0.0/12, 2001:db8::1 or 2001:db8::/64

IP address

Create Cancel

Enter any name for the name of the API key.

4

API key

Here is your API key

AIzaSyA...iTjhDc

OK

Your API key is now created. Copy the API key from this screen to use during Data Source creation.

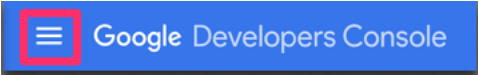
Step 6 : Create Billing Account (Optional)

Google Places API Web Service enforces a default limit of 1,000 requests per 24 hour period. It can be increased to 150,000 requests per 24 hour period if a user verifies identity through enabling a billing account. This does not mean you will be automatically charged for usage. You can set daily quota limit to control spent.

For more information on Google Places API Web Service usage limits:

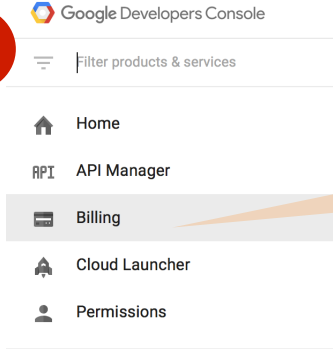
https://developers.google.com/places/web-service/usage?hl=en_US

1



Click on the “burger menu” icon in the top left corner of the Google Developers Console

2



Click on “Billing” to access the billing page

3

Enable billing for project “Openprise Address API”

You are not an administrator of any billing accounts. To enable billing on this project, create a new billing account or contact your billing account administrator to enable billing for you. [Learn more](#)

Create billing account Cancel

Billing Accounts

Add a billing account to access the full set of services and increased usage limits. [Learn more](#)

Add billing account

If this is the first project you created in the Developers Console, you will be prompted with this and you can click on “create billing account directly.”

If you have other projects or billing accounts, you can just “Add billing account” to create a new one.

Step 6 : Create Billing Account (Continued)

Google is offering a \$300 credit as a free trial currently (as of December 2015) and adding a billing account enables you to utilize this offer.

4

Country: United States

Currency: USD

Account type: ☒ Business ☐ Individual

Name and address

Business name

Name

Address line 1

Address line 2

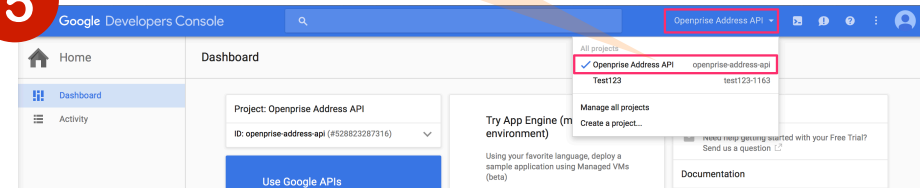
City

State

ZIP code

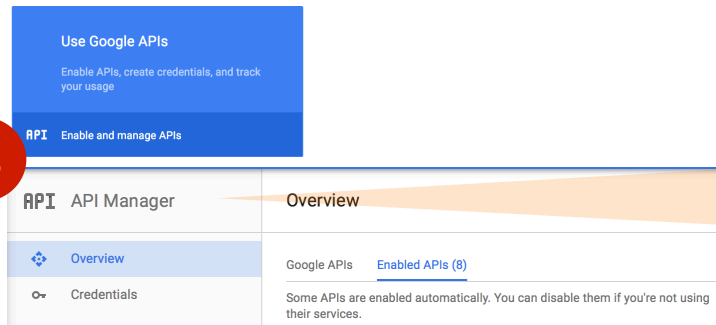
Fill out the billing form and create the billing account. After creation, the Home page will be shown.

5



Make sure you are selecting the project that we have created for Openprise earlier

6



Go back to the enabled Google Places API Web Service page via "Enable and Manage APIs" then click on "Enabled APIs" and click on "Google Places API Web Service"

Step 6 : Create Billing Account (Continued)

Google is offering a \$300 credit as a free trial currently (as of December 2015) and adding a billing account enables you to utilize this offer.

7

← Disable API

Google Places API Web Service

Overview Usage **Quotas**

Billing status

This API is limited by the free quota shown below. **Enable billing** to receive a higher quota.

Quota summary

Daily quota resets at midnight Pacific Time (PT).

Free quota	1,000 requests/day
Total quota	1,000 requests/day
Remaining	1,000 requests/day 100% of total

Now click on “Quota” to see the current quota. And then click on “Enable billing” to link the created Billing Account to this project

8

Now from the “Choose account” dropdown, pick the billing account you created to link to this project.

Set the billing account for project “Openprise Address API”

Billing account ?

My Billing Account

Choose account

Set account

Cancel

Step 7 : Set Quota Limit (Optional)

Openprise may use more than 1 API call for each processed record. If there are overcharge concerns, Google Developers Console allows users to set quota limit on the APIs.

1

← Disable API

Google Places API Web Service

Overview Usage Quotas

Billing status
This API is limited by the total quota shown below. [Apply for higher quota](#)

Quota summary
Daily quota resets at midnight Pacific Time (PT).

Free quota	1,000 requests/day
Total quota	150,000 requests/day
Remaining	150,000 requests/day 100% of total

On the Google Places API Web Service page, the Quota section shows the existing quota limits and usage. Next to “Total quota”, you can edit the Total Quota for the API

2

Total quota limit

Maximum: 150,000

requests/day

Save

Cancel

Set an appropriate limit for your usage

Step 8 : Google Places API Data Source

Data Source

Info

Data source name *
Openprise Google Places API

Data source description
Data source description

Data source administrators *
Admin QA

Source technology and data format *
Google Places API

Authentication Information for Google Places API

Google email
rey.ong@openprisetech.com ✓

API key
***** ✓

Buttons: Save, Test Authentication, Close

Annotations:

- Make sure you authenticate using the email account and API key you created in Step 5 of this cookbook. You can use "Test Authentication" to verify that the authentication works before "Save".
- Save the data source

Need more help creating a Data Source? Check out the tutorial videos on Openprise website's Resource page: <http://openprisetech.com/resources>

Step 9 : Contact Information Parsing Rule

IF this happens

Input Data Sources

Contact Information Testing

SELECT DATA

All new data

Use the Contact Information Parsing rule template to parse out contact names, company names, and addresses from a set of fields

Select as many fields that contain Contact Information. In this particular sample, there are 5 lines that may contain contact names, company names and address.

Choose what information to parse out. Google Places Data Source that was created in Step 8.

Contact Information Parsing

Add all attributes that may contain contact information (people names, company name and/or address). Please order the attributes in sequential order for processing to increase parsing and validation accuracy.

ADD ANOTHER FIELD

Attribute1	1ST LINE OF NAME & ADDRESS	×
Attribute2	2ND LINE OF NAME & ADDRESS	×
Attribute3	3RD LINE OF NAME & ADDRESS	×
Attribute4	4TH LINE OF NAME & ADDRESS	×
Attribute5	5TH LINE OF NAME & ADDRESS	×

- ☒ Parse out contact names [Show output attribute names](#)
- ☒ Parse out company name [Show output attribute names](#)
- ☒ Parse out address [Show output attribute names](#)

Google Places data source [Google Places API EK1217](#)

No. of address to retrieve [2](#)

(Note:- This controls the number of full address fields that we return from Google Places API)

No. of address to parse [2](#)

(Note:- This controls the number of addresses that will be parsed into address components like street number, street, city, state, country, etc...)

Show advanced configuration

Use the advanced configurations if you want to fine tune the results

Advanced configurations

For better parsing accuracy, street suffix keywords and company name keywords are required.

Company keywords are stored in [Reference - Company Name Clean Up](#)

Values are stored in [Company Name Keywords](#)

Street suffix alias/keywords are stored in [Reference - Street Suffix Abbreviations](#)

Values are stored in [Alias](#)

Show less

Person Names Parsed From A Set of Fields

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
	1ST LINE OF NAME & ADDRESS ▲ [MC]	2ND LINE OF NAME & ADDRESS [MC]	3RD LINE OF NAME & ADDRESS [MC]	4TH LINE OF NAME & ADDRESS [MC]	5TH LINE OF NAME & ADDRESS [MC]	6TH LINE OF NAME & ADDRESS [MC]	7TH LINE OF NAME & ADDRESS [MC]	OP_Salutation1 [MC]	OP_First_Name1 [MC]	OP_Middle_Name1 [MC]	OP_Last_Name1 [MC]	OP_Suffix1 [MC]	OP_Full_Name1 [MC]	OP_Salutation2 [MC]	OP_First_Name2 [MC]	OP_Middle_Name2 [MC]	OP_Last_Name2 [MC]	OP_Suffix2 [MC]	OP_Full_Name2 [MC]
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Company / Organization Names Parsed From A Set of Fields

	A	B	C	D	E	F	G	H
	1ST LINE OF NAME & ADDRESS ▲ [MC]	2ND LINE OF NAME & ADDRESS [MC]	3RD LINE OF NAME & ADDRESS [MC]	4TH LINE OF NAME & ADDRESS [MC]	5TH LINE OF NAME & ADDRESS [MC]	6TH LINE OF NAME & ADDRESS [MC]	7TH LINE OF NAME & ADDRESS [MC]	OP_Company [MC]
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

Addresses Parsed From A Set of Fields

	A	B	C	D	E	F	G	H	I	J	K	L	M
	1ST LINE OF NAME & ADDRESS ▲ [10]	2ND LINE OF NAME & ADDRESS [10]	3RD LINE OF NAME & ADDRESS [10]	4TH LINE OF NAME & ADDRESS [10]	5TH LINE OF NAME & ADDRESS [10]	6TH LINE OF NAME & ADDRESS [10]	7TH LINE OF NAME & ADDRESS [10]	OP_Parsed_Address [10]	OP_ADD1_Street_Number [10]	OP_ADD1_Street_Address [10]	OP_ADD1_State [10]	OP_ADD2_Country [10]	OP_ADD1_Country [10]
1													
2													
3													
4													
5													
6													
7													
8													
9													

Recipe Review

Recommendations

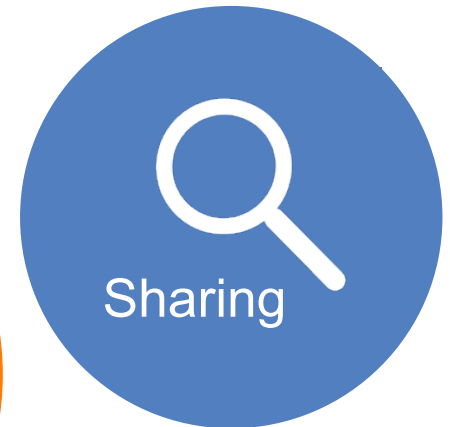
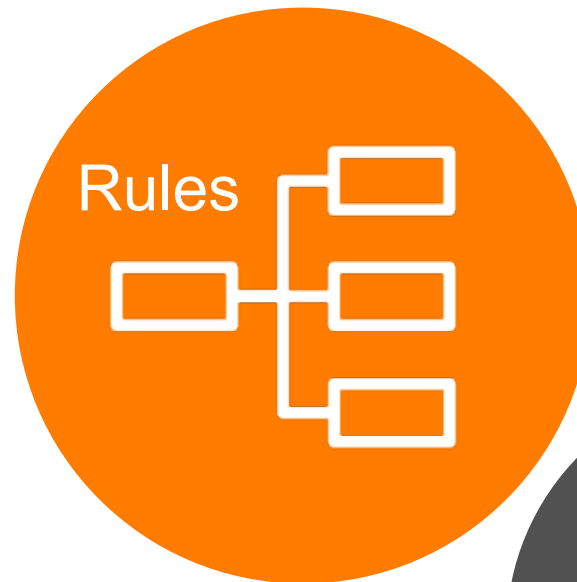
- Remember to add Billing Account to increase the daily quota and take advantage of Google's free trial with \$300.00 credit.
- Fine tune the Contact Information Parsing rule using your own Street Suffix keywords and Organization keywords. Download the Open Data then upload the modified versions as your own.

Want to do more? Try the following on your own:

- Clean and normalize the data after parsing, for example: normalize state and country names, clean up company names
- Infer missing data, for example: infer missing city and state data from postal code data

OPENPRISE

Data Automation For Business Users



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