

Google API Key

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API: What is it?

API (or Application Programming Interface) is a software intermediary that allows two applications to talk to each other. Each time you use an app like Facebook, send an instant message, or check the weather on your phone, you're using an API.

Google API

Google requires an API key to perform geocoding and to produce heatmaps in Google Maps.

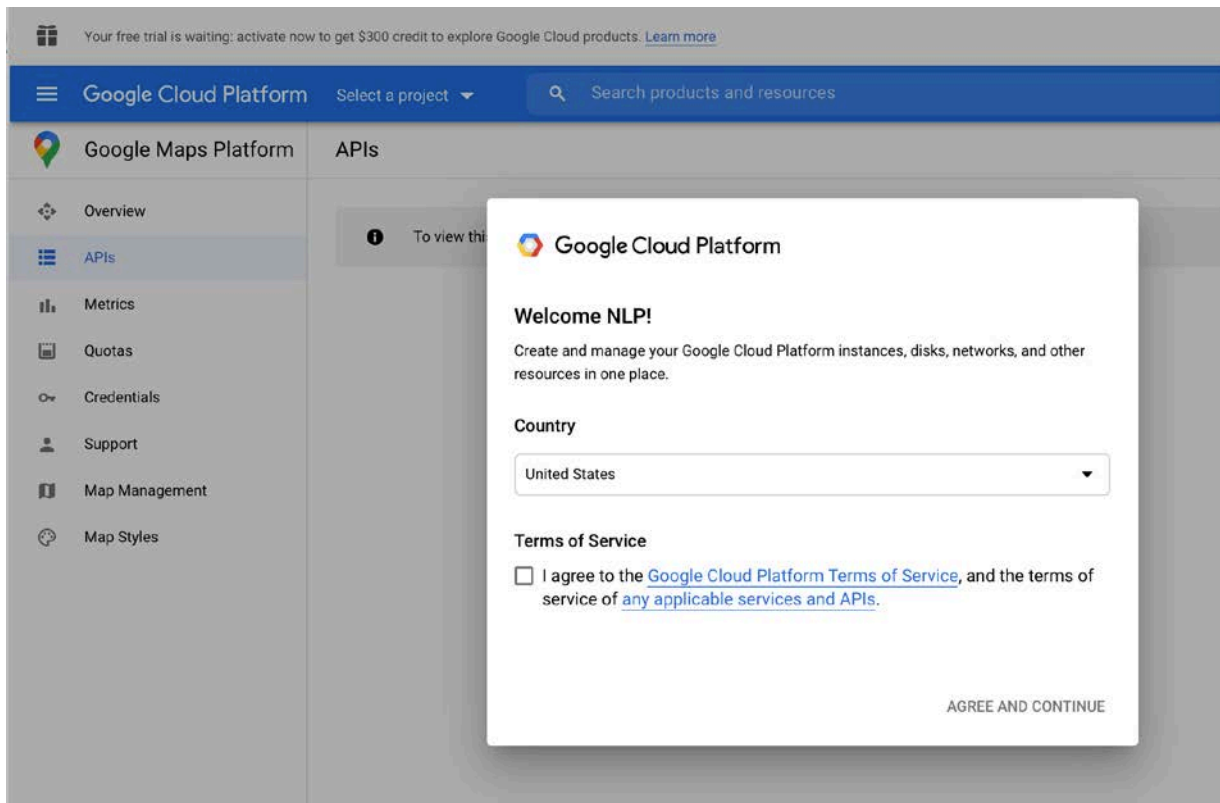
How do you get a Google API key?

This process involves rectifying the API settings, enabling the APIs, obtaining API keys, and adding billing information.

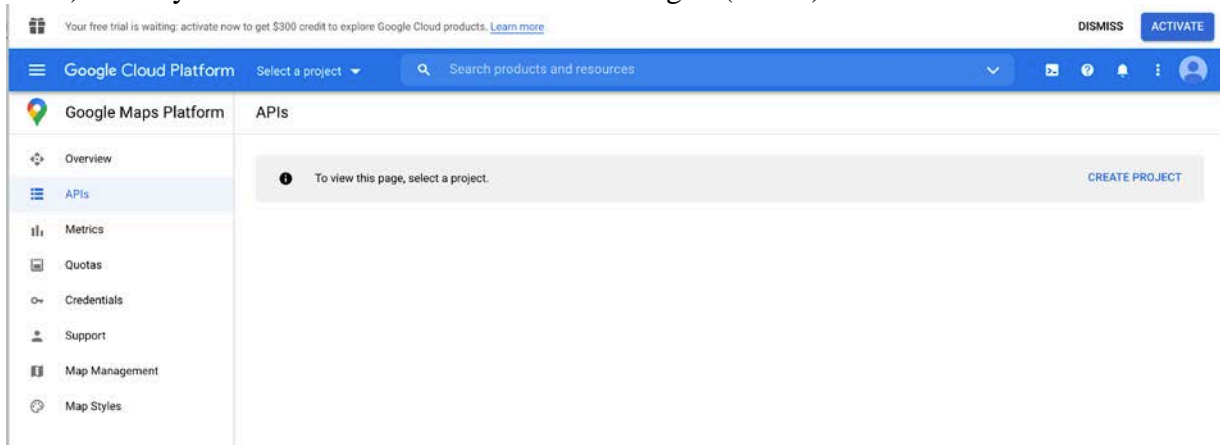
Rectifying API settings so heatmap displays correctly

Follow the subsequent steps:

- 1) Head to <https://cloud.google.com/maps-platform/> and click Get Started.
- 2) As long as you are signed in on your Google Account, you should be greeted with Fig. 1 (below). Choose your *Country*, agree to the *Terms of Service* and click *AGREE AND CONTINUE*



3) Now you should see the screen as seen in Fig. 2 (below)



4) Click on *CREATE PROJECT* (in blue on right hand side)

5) The page should load and show you Fig. 3 (below); now, choose a Project name and click the blue button *CREATE*.

Your free trial is waiting: activate now to get \$300 credit to explore Google Cloud products. [Learn more](#)

Google Cloud Platform

New Project

You have 12 projects remaining in your quota. Request an increase or delete projects. [Learn more](#)
[MANAGE QUOTAS](#)

Project name * ?

Project ID: nlp-suite-project1. It cannot be changed later. [EDIT](#)

Location * [BROWSE](#)

Parent organization or folder

[CREATE](#) [CANCEL](#)

6) After clicking *CREATE*, you will come to this page (Figure 4, below)

Your free trial is waiting: activate now to get \$300 credit to explore Google Cloud products. [Learn more](#) [DISMISS](#) [ACTIVATE](#)

Google Cloud Platform NLP-Suite-project1

Google Maps Platform Maps APIs and Services

Overview
APIs
Metrics
Quotas
Credentials
Support
Map Management
Map Styles

Browse the [Marketplace](#) to find and use Maps APIs and services.

 Geolocation API Google Location data from cell towers and WiFi nodes.	 Maps SDK for Android Google Maps for your native Android app.	 Roads API Google Snap-to-road functionality to accurately trace GPS breadcrumbs.	 Places API Google Get detailed information about 100 million places.
 Maps JavaScript API Google Maps for your website.	 Maps Embed API Google Make places easily discoverable with interactive Google Maps.	 Time Zone API Google Time zone data for anywhere in the world.	 Distance Matrix API Google Travel time and distance for multiple destinations.
 Maps SDK for iOS Google Maps for your native iOS app.	 Maps Elevation API Google Elevation data for any point in the	 Directions API Google Directions between multiple	 Maps Static API Google Simple, embeddable map image

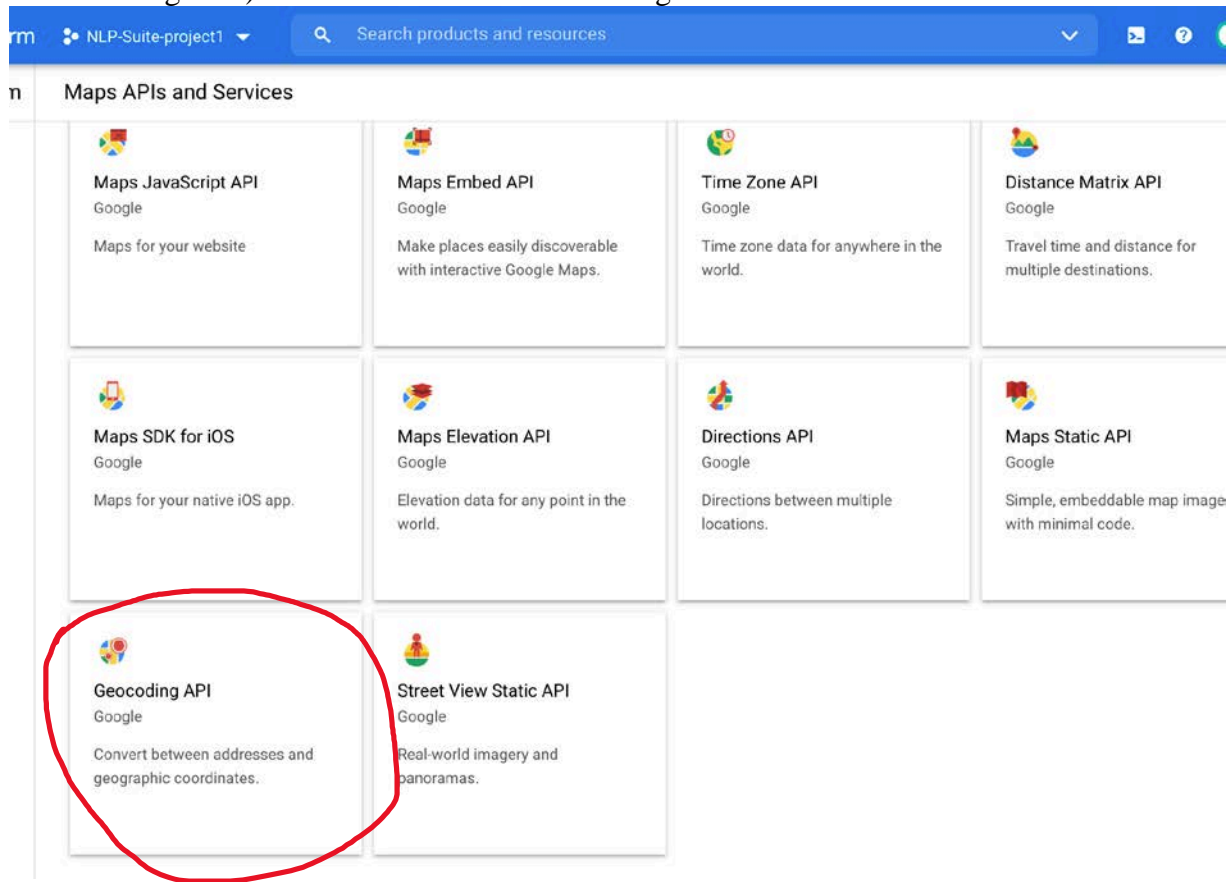
7) Now follow the steps below to enable APIs

Enabling APIs

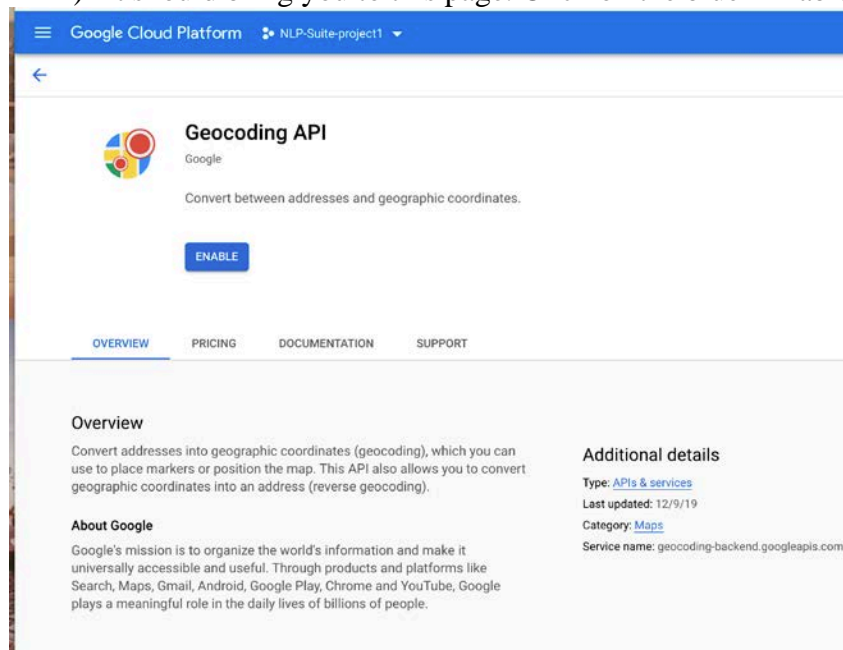
We need to enable the following APIs:
Maps JavaScript API and Geocoding API

Geocoding API

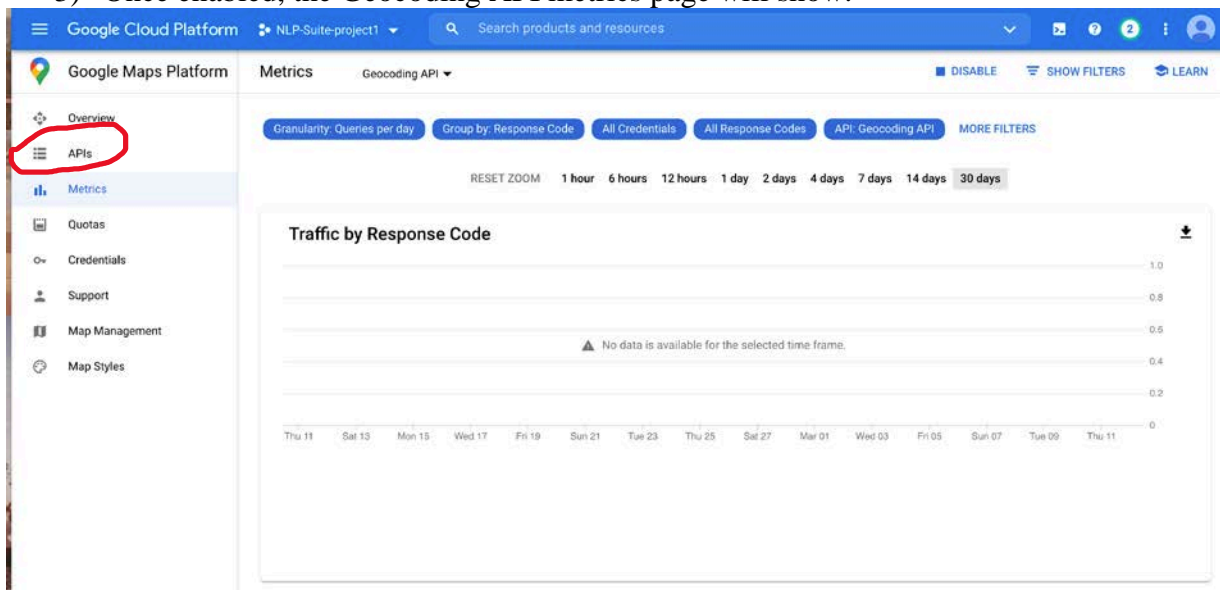
- 1) Click on the Geocoding API (should be found at the bottom of the page we left off on in Figure 4). The API is circled in red in Figure 5 below.



- 2) It should bring you to this page. Click on the blue “Enable” button.



3) Once enabled, the Geocoding API metrics page will show.



4) Now, we will move on to enabling the Maps JavaScript API.

Maps JavaScript API

- 1) Click on the APIs feature on the left-hand tool bar. It is circled in the above figure in red.
- 2) It will show you a list of additional APIs in the Google Maps Platform.

The screenshot shows the Google Cloud Platform console interface. On the left, the navigation menu includes 'Overview', 'APIs' (circled in red), 'Metrics', 'Quotas', 'Credentials', 'Support', 'Map Management', and 'Map Styles'. The main content area is titled 'APIs'. It features a table with the following data:


API	Requests	Errors
Geocoding API	0	0

Below the table, there is a section titled 'Additional APIs' with the text 'Select an API to view details in Marketplace'. A list of APIs is shown, including 'Maps SDK for Android', 'Directions API', 'Distance Matrix API', 'Maps Elevation API', 'Maps Embed API', 'Geolocation API', 'Maps JavaScript API' (circled in red), 'Roads API', 'Maps SDK for iOS', 'Time Zone API', 'Places API', 'Maps Static API', and 'Street View Static API'.

- 3) Click on “Maps JavaScript API” (circled in red in the above figure). It should bring you to this page as seen in the figure below. Click on the blue “Enable” button.

Google Cloud Platform NLP-Suite-project1

←

 **Maps JavaScript API**
Google
Maps for your website

ENABLE

[OVERVIEW](#) [DOCUMENTATION](#) [SUPPORT](#)

Overview

Add a map to your website, providing imagery and local data from the same source as Google Maps. Style the map to suit your needs. Visualize your own data on the map, bring the world to life with Street View, and use services like geocoding and directions.

About Google

Google's mission is to organize the world's information and make it universally accessible and useful. Through products and platforms like Search, Maps, Gmail, Android, Google Play, Chrome and YouTube, Google plays a meaningful role in the daily lives of billions of people.

Additional details

Type: [APIs & services](#)
Last updated: 12/9/19
Category: [Maps](#)
Service name: maps-backend.googleapis.com

- 4) Once enabled, the Maps JavaScript API metrics page will show. Now, we will move on to obtaining the API keys for both APIs we just enabled.

Google Cloud Platform NLP-Suite-project1 Search products and resources

Google Maps Platform Metrics Maps JavaScript API

[Overview](#) [APIs](#) [Metrics](#) [Quotas](#) [Credentials](#) [Support](#) [Map Management](#) [Map Styles](#)

Metrics Maps JavaScript API

[Granularity: Queries per day](#) [Group by: Response Code](#) [All Credentials](#) [All Response Codes](#) [API: Maps JavaScript API](#) [MORE FILTERS](#)

RESET ZOOM 1 hour 6 hours 12 hours 1 day 2 days 4 days 7 days 14 days 30 days

Traffic by Response Code

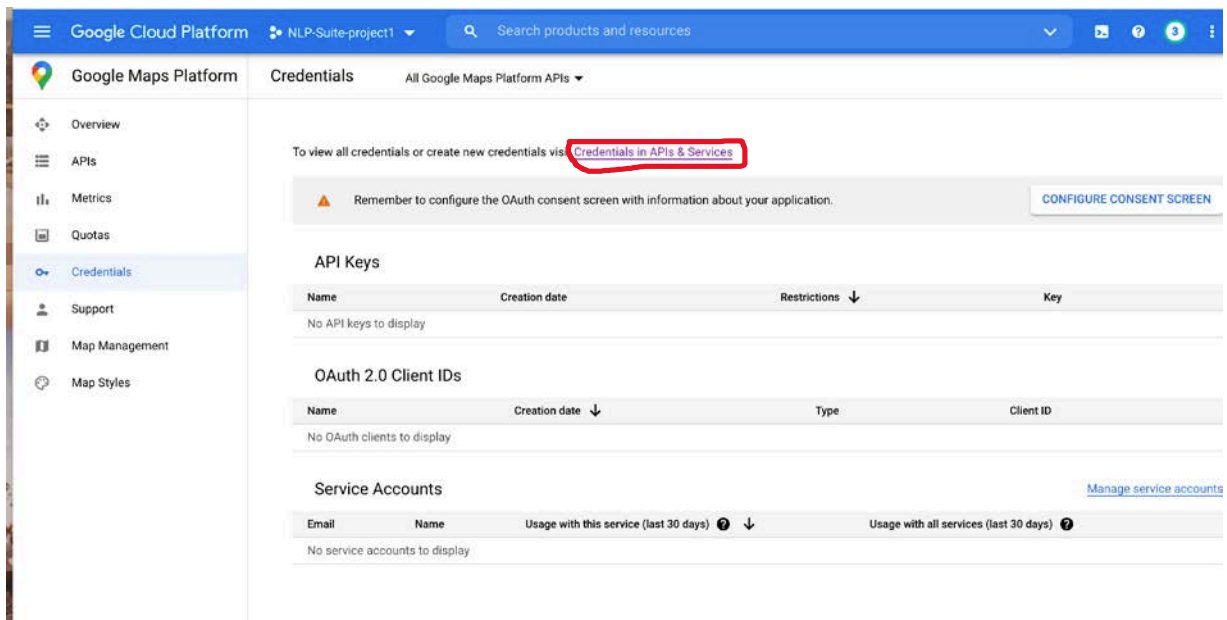
No data is available for the selected time frame.

Thu 11 Sat 13 Mon 15 Wed 17 Fri 19 Sun 21 Tue 23 Thu 25 Sat 27 Mar 01 Wed 03 Fri 05 Sun 07 Tue 09 Thu 11

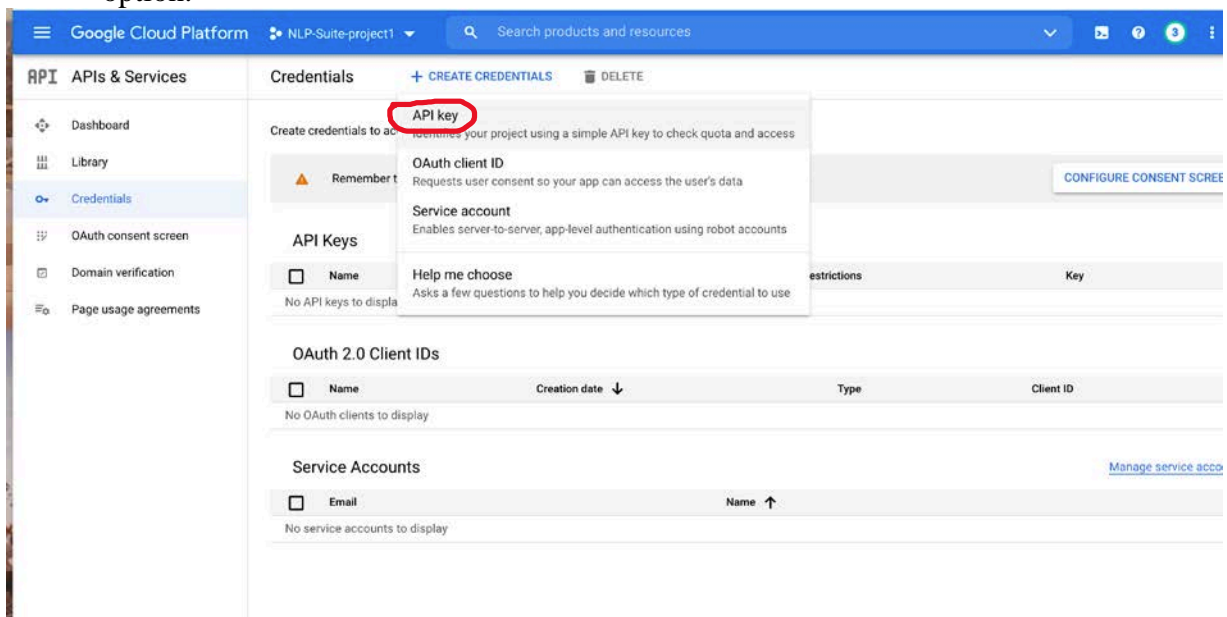
Obtaining API keys

In order to run the Google Maps feature in GIS_main GUI in NLP Suite, we need to have the API keys for both the Maps JavaScript API and the Geocoding API that we just enabled. Follow these steps to obtain these API keys.

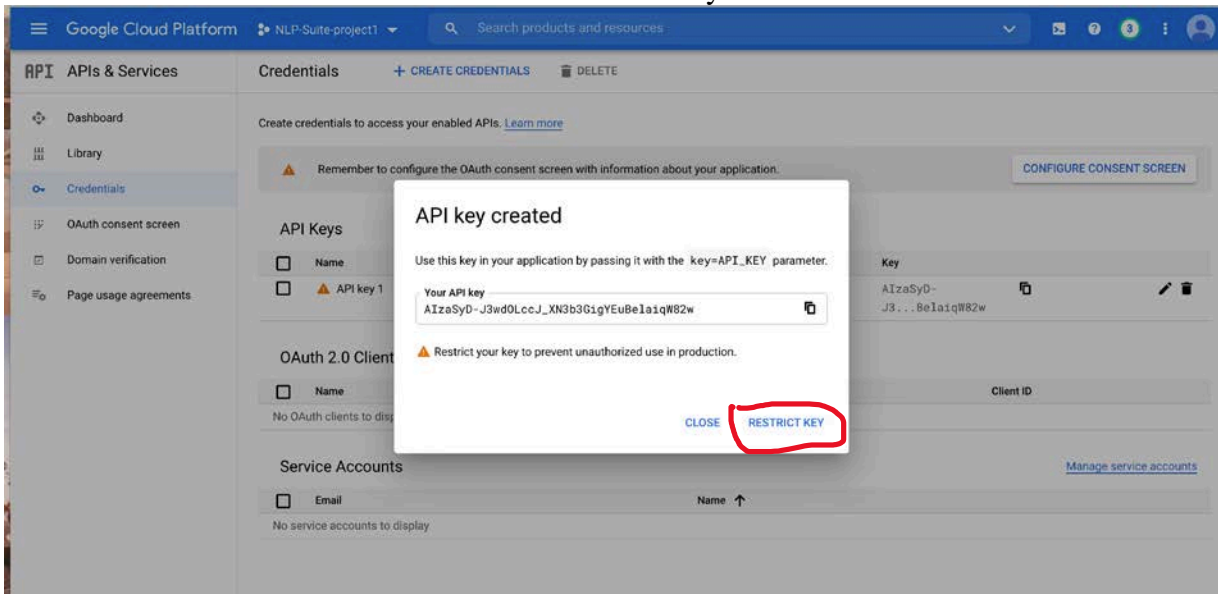
- 1) Starting from the same page we just left off on, click on the “Credentials” tab on the left-hand tool bar. It is circled in red in the above figure for reference.
- 2) It should bring you to this page. Click on “Credentials in APIs & Services.”



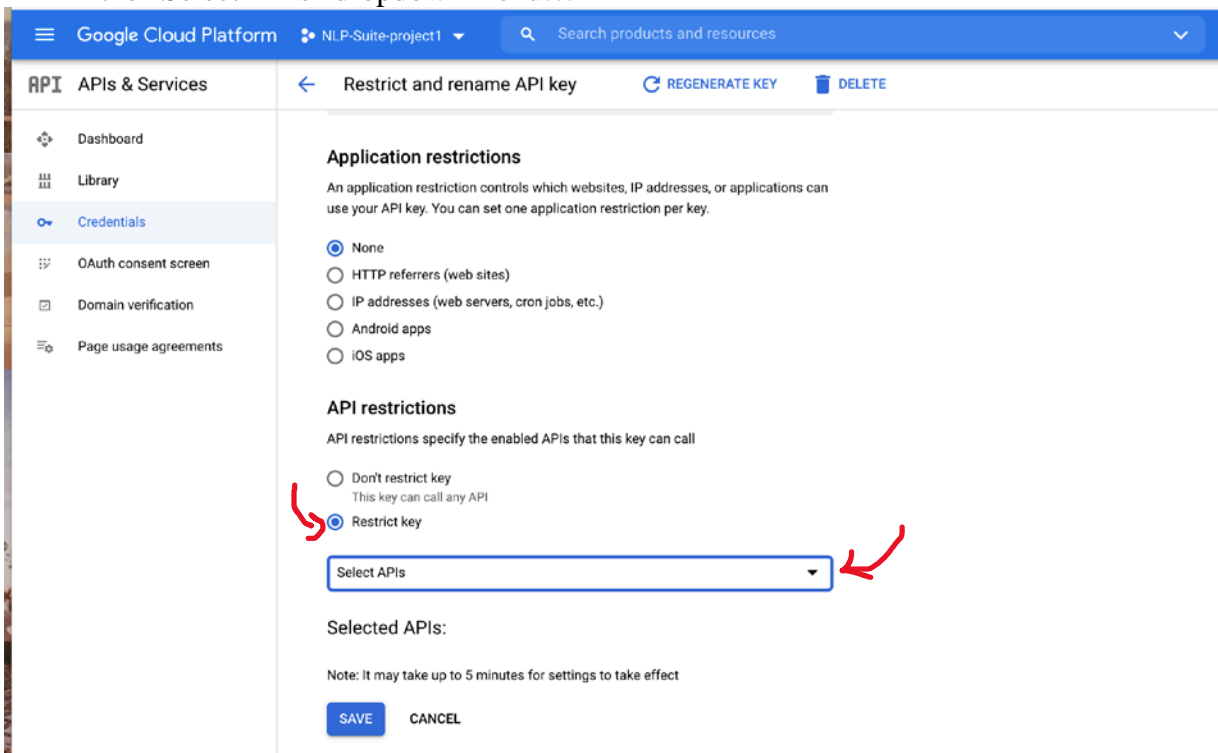
- 3) In the Credentials in APIs & Services page, Click on the **+CREATE CREDENTIALS** seen at the top of the page. A dropdown menu should appear. Click on the “API key” option.



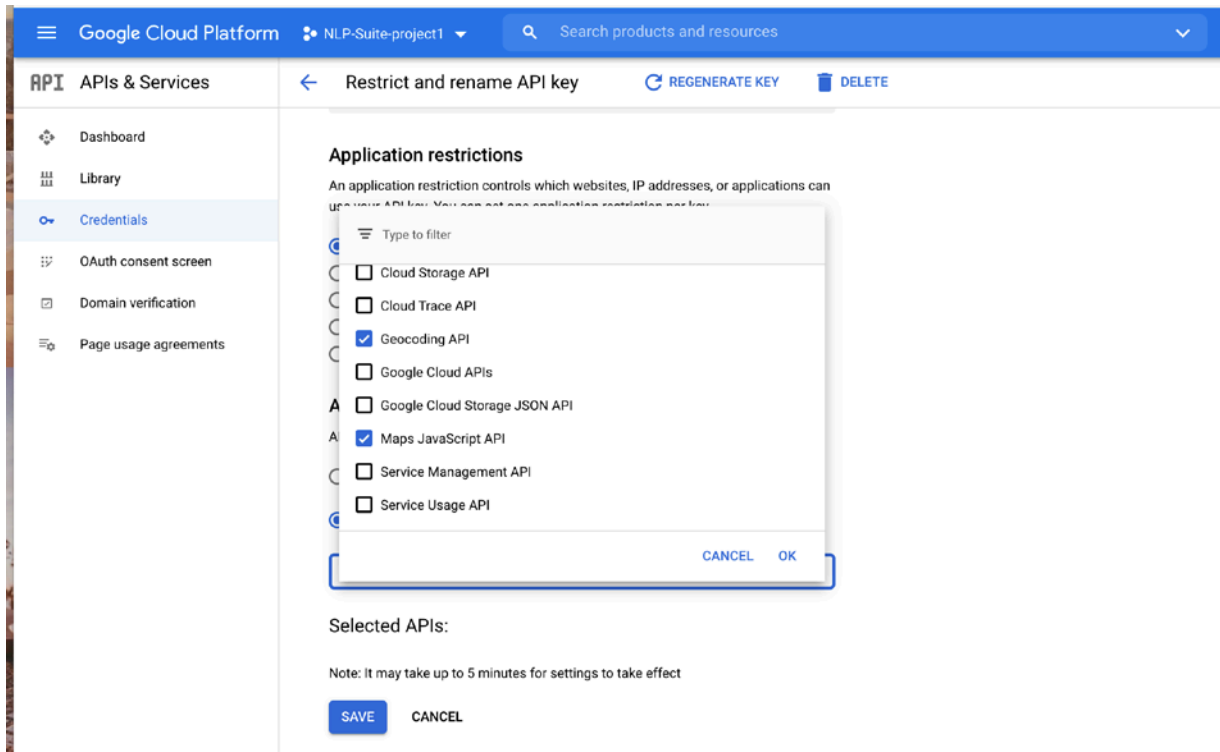
- 4) This pop-up should appear. But don't get too excited yet, first we must restrict the key to the two APIs we need. Click on "Restrict Key."



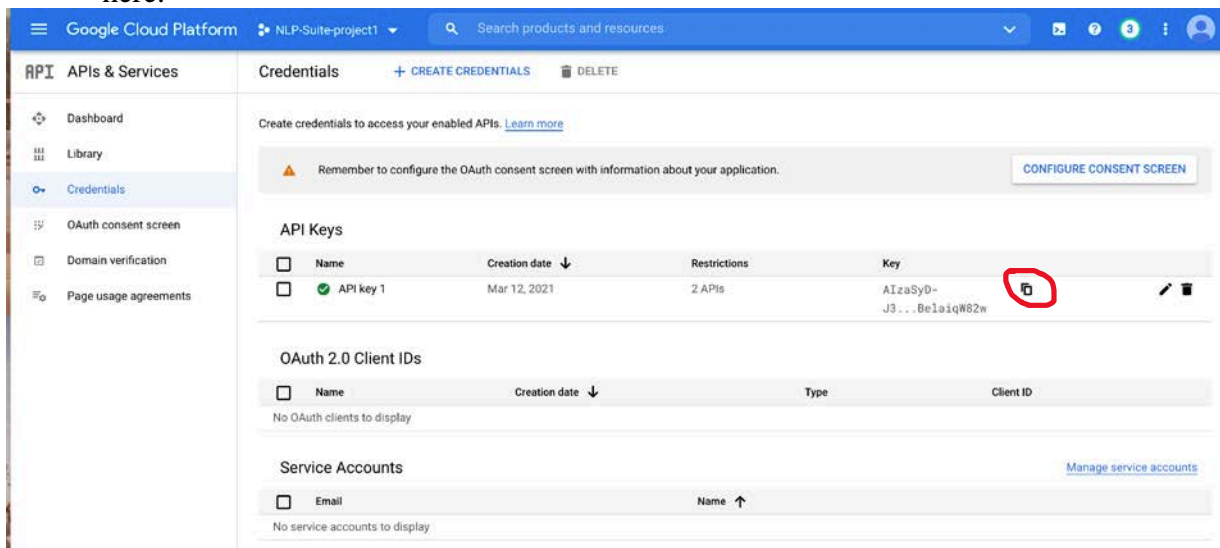
- 5) It should take you to this page. Click the circle next to "Restrict key," then open up the "Select APIs" dropdown menu...



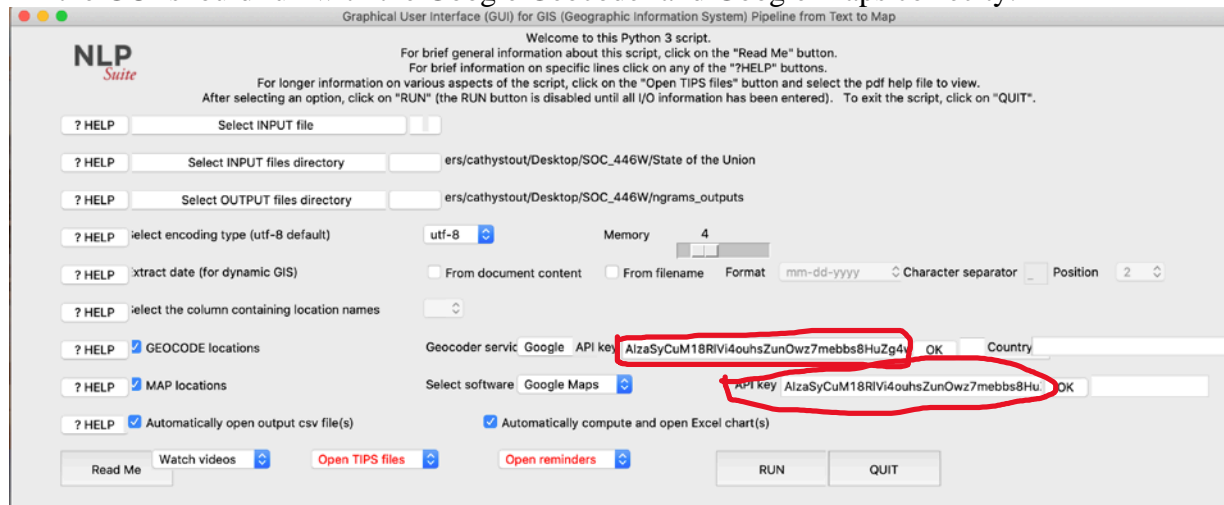
- 6) And select the checkboxes for Geocoding API and Maps JavaScript API. Click OK and then SAVE at the bottom.



- 7) Congrats!! Your API key should be enabled. You can copy it by clicking on this icon here.



- 8) So now, when you're in the GIS_main GUI, you can just paste your API key here and the GUI should run with the Google Geocoder and Google Maps correctly.



Adding Billing information so heatmap displays correctly

The last step for completing this process is inputting your Billing information into Google. While this step is not mandatory, it is recommended. Google offers you a free trial for 90 days and at the end of which, you are manually supposed to upgrade to a premium plan. While fulfilling this billing information process (and starting your 90 days trial plan), you will be charged a small nominal amount to check if you have inputted a valid card and to confirm that you are not a robot. This amount is refunded within 72 hours to your card. As you will see in one of the following screenshots, the billing information process charged INR 1.00 which is equivalent to 1.33 US **cents**.

Steps to complete Billing information:

- 1) At the top of your Google Cloud Console page, there should be a bar that looks like this. Click on the blue ACTIVATE button.

Your free trial is waiting: activate now to get \$300 credit to explore Google Cloud products. [Learn more](#)

DISMISS

ACTIVATE

- 2) It should bring you to the billing page (shown below). Follow the steps and your billing account should be set up! As it states on the righthand side, your card won't be charged after the free trial period is over.

Try Google Cloud Platform for free

Step 1 of 2



NLP Suite
emorynlp suite@gmail.com

[SWITCH ACCOUNT](#)

Country

United States

Terms of Service

☐ I have read and agree to the [Google Cloud Platform Free Trial Terms of Service](#).

Required to continue

CONTINUE

Access to all Cloud Platform Products

Get everything you need to build and run your apps, websites and services, including Firebase and the Google Maps API.

\$300 credit for free

Put Google Cloud to work with \$300 in credit to spend over the next 90 days.

No autocharge after free trial ends

We ask you for your credit card to make sure you are not a robot. You won't be charged unless you manually upgrade to a paid account.



Step 2 of 2

Your payment information helps us reduce fraud and abuse. **You won't be charged unless you turn on automatic billing.**



Account type

Business

Only Business accounts can have multiple users. You cannot change the account type after signing up. In some countries, this selection affects your tax options. [Learn more](#)



Business name

Payment method



Add credit or debit card



Card details



Billing address

When billing starts, you'll be charged automatically, typically monthly.

START MY FREE TRIAL

Further readings: More TIPS files

TIPS_NLP_Google Earth Pro.pdf

TIPS_NLP_Things to do with words NLP approach.pdf