

# How to create and link a Google Maps API key to your account

**Disclaimer:** Google requires you to create a billing account in order to get the free \$200 USD credit per month. It is essentially impossible to exceed this limit on your own so it is unlikely you will ever get billed.

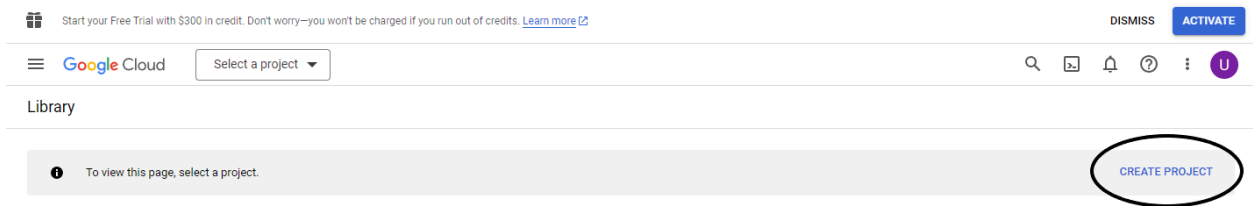
There will be steps shown at the end of this tutorial that will help prevent ever going over the free tier, but ultimately if you decide to use your own API key, the responsibility of managing your billing is on you. GeoHub is not responsible for any costs you incur using your own key.

**Step 1:** Visit the [Google Cloud API Library](#)

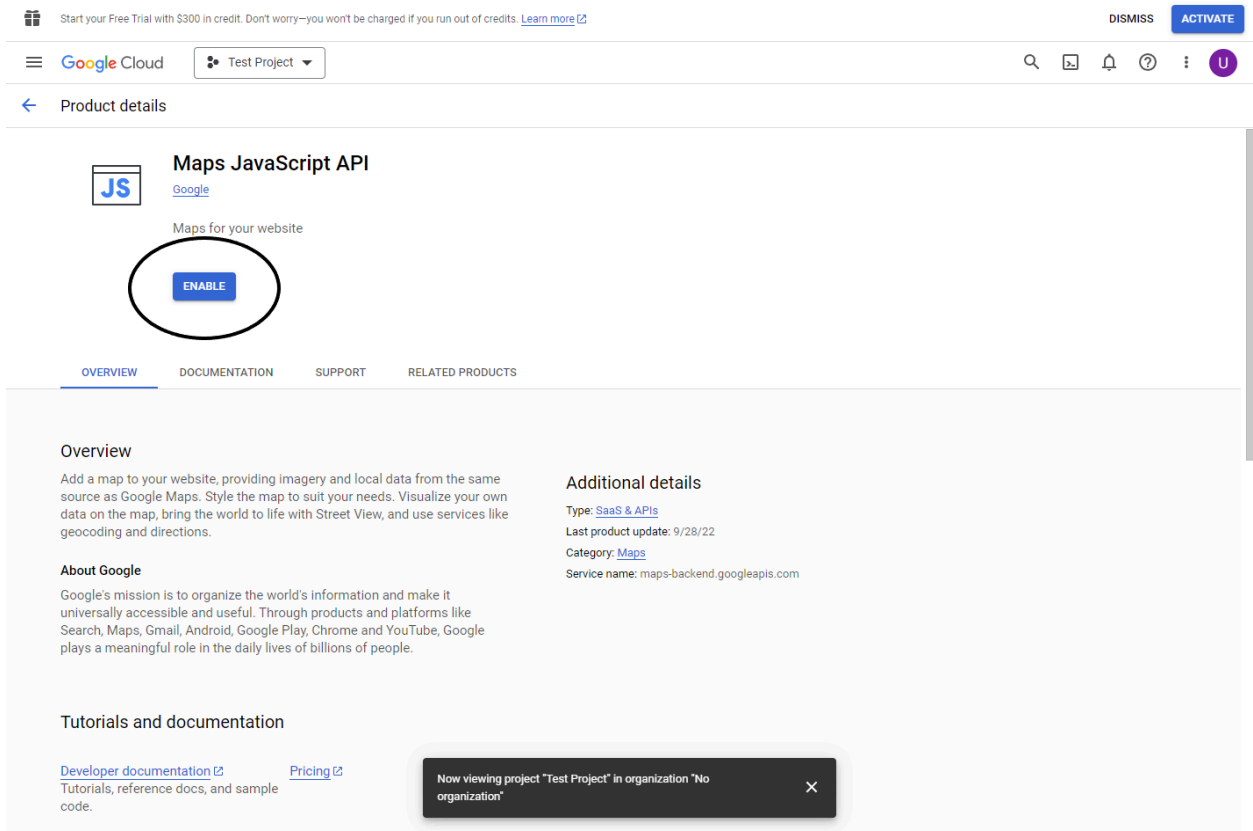
**Step 2:** Click on “Maps JavaScript API”

The screenshot shows the Google Cloud API Library interface. At the top, there is a navigation bar with the Google Cloud logo, a 'Select a project' dropdown, and utility icons for search, help, and user profile. Below the navigation bar, a banner reads 'Welcome to the API Library' with a search bar. The main content area is divided into two sections: 'Maps' and 'Machine learning'. The 'Maps' section contains four API cards: 'Maps SDK for Android', 'Maps SDK for iOS', 'Maps JavaScript API' (circled in black), and 'Places API'. The 'Machine learning' section contains four API cards: 'Dialogflow API', 'Cloud Vision API', 'Cloud Natural Language API', and 'Cloud Speech-to-Text API'. A 'Filter' sidebar is visible on the left, and 'VIEW ALL' links are present for both sections.

**Step 3:** Create a new project (If you already have an existing project, you can skip this step). Click on “Create Project” and give your project a name. Then click “Create”.



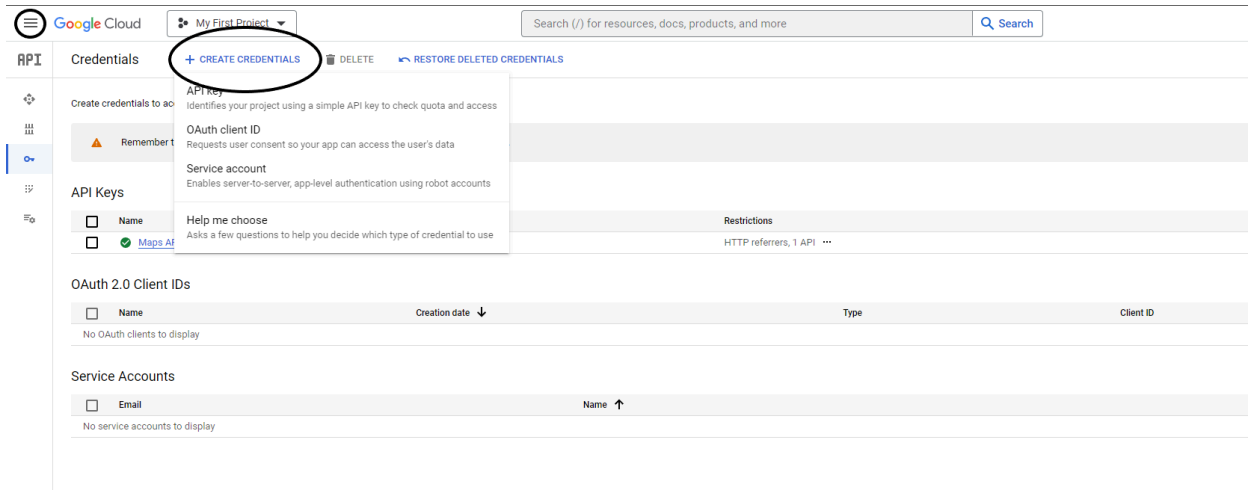
**Step 4:** Click “Enable” to enable the Maps JavaScript API in your new project



**Step 5:** You may now be asked to verify your account information and enter a payment method

**Step 6:** Click on the navigation menu in the top left, hover over APIs & Services until you see the popup and then click “Credentials”.

Once on the Credentials page, click on the button “Create Credentials” and choose “API key”



**Step 7:** Once the key is created, click on it to go to the edit page. Here you can add a restriction on the key so that only GeoHub can use your key. This way, if someone else gets a hold of the API key, they will not be able to use it. Note though, that if you share the key with someone, they can use it as their own custom key on GeoHub and it will use your credits. So only share the key with others you trust and monitor your usage even more if multiple people are using your key.

To restrict the key you want to first select “Websites” as your application restriction. Then you want to add: \*geohub.gg as a website restriction. Then under API restrictions, select “Restrict key” and restrict the key to only be able to use the “Maps JavaScript API”. Lastly, click “Save”.

Name \*  
Maps API Key

## Key restrictions

Restricting where and for which APIs this key can be used helps prevent unauthorized use. [Learn more](#)


### Set an application restriction

Application restrictions limit an API key's usage to specific websites, IP addresses, Android applications, or iOS applications. You can set one application restriction per key.

- None
- Websites
- IP addresses
- Android apps
- iOS apps

### Website restrictions

Restrict key usage requests to the specified websites.

 If left blank, your API key will accept requests from any website.

 ADD

 Filter	Enter property name or value	
<input type="checkbox"/>	Status	Website
<input type="checkbox"/>		*geohub.gg

### API restrictions

API restrictions specify the enabled APIs that this key can call

- Don't restrict key  
This key can call any API
- Restrict key

1 API

### Selected APIs:

Maps JavaScript API

Note: It may take up to 5 minutes for settings to take effect

**SAVE** CANCEL

**Step 8:** Finally, you have to create your billing account. Click on the navigation menu and click “Billing”. You should be automatically asked to set up your billing account.

After this step is complete, your key should be ready to use! If you did not already copy it, go back to the Credentials page and copy your key. Then paste it into your account settings on GeoHub and save your changes. Now you just have to refresh the page and all future games will use your own API key.

### **Tips to help ensure you don't go over the free limit**

#### **Tip 1: Set a daily quota**

- Search for “Quotas” and click the one that says “Google Maps Platform”.
- Then in the dropdown select “Maps JavaScript API”.
- Then you want to go to the section that says “Map loads” and click the down arrow.
- This will show you a chart of how many API calls you are making with your key each day.
- At the time of writing, you get 28,500 calls per day for free. That would mean to be on the safe side you don't want to ever exceed 900 calls per day.
- Since you likely won't even get near that on any given day, it would be wise to set the “Map loads per day” quota to around 600.
- You can change it at your own discretion but 600 map loads is still 200+ games each day!

#### **Tip 2: Set a budget alert**

- This is more of a backup in case you somehow exceed the free tier. You can set an alert that will email you before costs get too crazy. But if you follow Tip 1 by setting an appropriate daily quota, you should be okay. This is just another layer of safety.
- Search for “Budgets & alerts” or find it under Billing on the navigation menu.
- Create a new budget (You likely want to set it to \$1 since budgets seem to only work after the free tier is used up).
- Ensure that “Email alerts to billing admins and users” is checked.

#### **Tip 3: Monitor your usage regularly**

- You can view your current bill at any point by going to the “Billing” section on the sidebar.
- The free tier is \$200 USD each month, so you want to make sure you are below that.
- It is also important to keep in mind that Billing and Quota figures are sometimes not up to date, and can be slightly inaccurate. So if you don't want to risk going over the free tier, make sure to give yourself a good margin.