FATbit®
TECHNOLOGIES

Google Maps API

-Keys Generation Guide-

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What is Google Maps API?

The Google Maps API is a collection of web services and tools from Google that enables developers to integrate mapping functionalities and location-based services into applications.

By using Google's powerful mapping infrastructure, these APIs support features such as embedding interactive maps, retrieving detailed place information, geocoding addresses, and obtaining directions.

FATbit products integrate selected Google Maps APIs to enhance user experience and deliver powerful location-based features. The APIs listed below are commonly used, though not every product requires all of them.

- **Places API:** Delivers location details such as names, addresses, photos, and reviews. Supports place search, address auto-complete, and user location detection (with consent).
- **Maps JavaScript API:** Embeds interactive maps with zoom, location exploration, and custom styles for a richer experience.
- **Geocoding API:** Converts addresses to precise geographic coordinates for accurate map plotting and address identification.
- **Maps Static API:** Generates static map images with custom markers and zoom levels for non-interactive uses like emails or reports.
- **Distance Matrix API:** Calculates travel distances and estimated times between multiple origins and destinations, supporting route optimization and delivery planning.

Integrating these APIs ensures FATbit products always display the most accurate and up-to-date location data, with changes on Google Maps reflected in real time.

Is the Google Maps API free?

The Google Maps API **is not entirely free**. To use any of its services, including Places API, Maps JavaScript API, Geocoding API, Maps Static API, and others, you must link a billing account to your project.

Only then can you access the free usage caps.

- **Essentials tier:** 10,000 free calls per SKU per month.
- **Pro tier:** 5,000 free calls per SKU per month.

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- **Enterprise tier:** 1,000 free calls per SKU per month.

*A **SKU** (Stock Keeping Unit) represents a distinct API or service with its own pricing. For example, the Places API, Maps JavaScript API, and Geocoding API are separate SKUs. The free usage caps apply individually to each SKU and reset monthly, replacing the older $200 credit system.*

These free usage caps reset monthly and replace the older $200 credit system.

Usage beyond the free tier is billed under a **pay-as-you-go** model, with volume discounts applied automatically as your usage grows. You can monitor usage, set budgets, and view billing reports directly in the Google Cloud Console.

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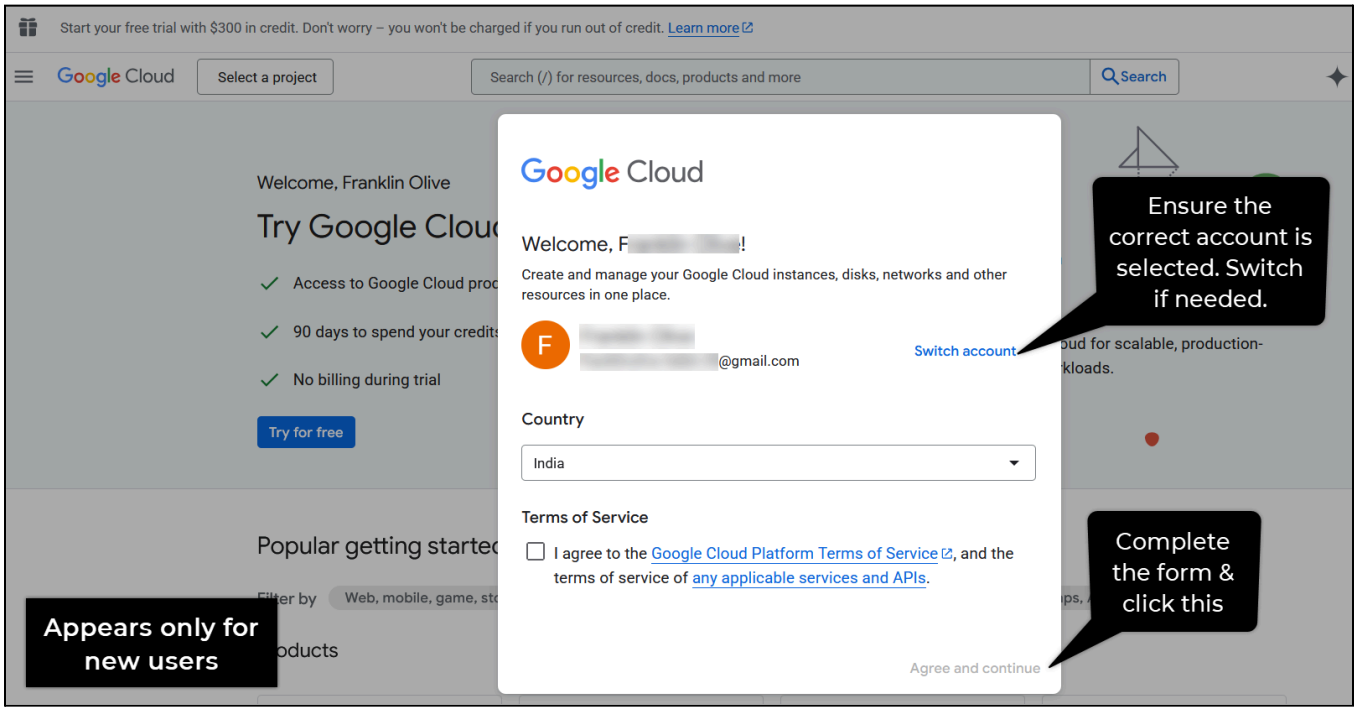
Generate the Google Maps API keys

Follow the steps below to generate Google Maps API keys, which you can use to configure the Google Maps API on your FATbit product.

Step 1: Visit the Google Cloud Console platform

Log in to your Gmail account.

Open a new tab and go to https://console.cloud2.google.com/. If you are **a new user**, the following pop-up will appear.



Before filling out the form, make sure you select the correct Gmail account; if not, switch to the appropriate one (using the **Switch account** button).

Update the following:

- **Country:** Click the field and select the country you are operating from, or select your current location from the dropdown list.
- **I agree to the Google Cloud Platform Terms of Service, and the terms of service of any applicable services and APIs.*:** Check this to accept the terms and conditions and move forward. If you do not check this, you won't be able to use the platform.

Once done, click **Agree and Continue**. The dashboard will appear.

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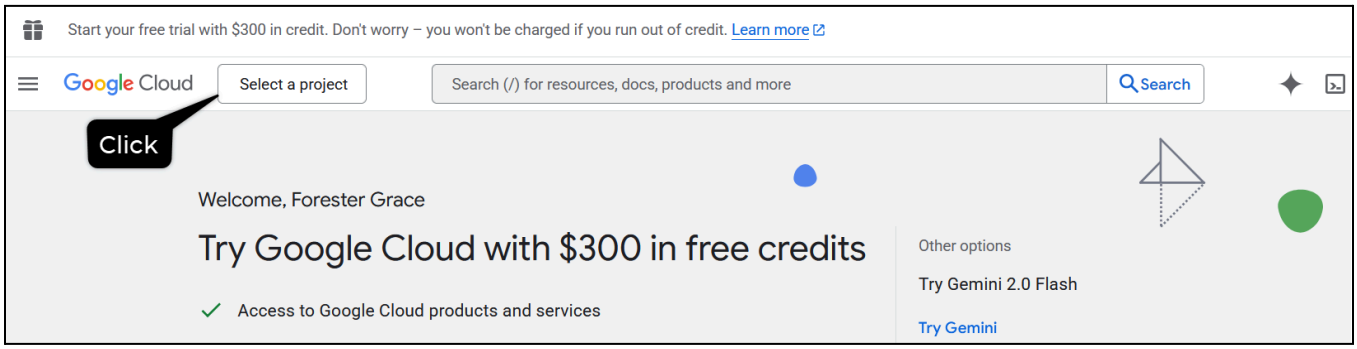
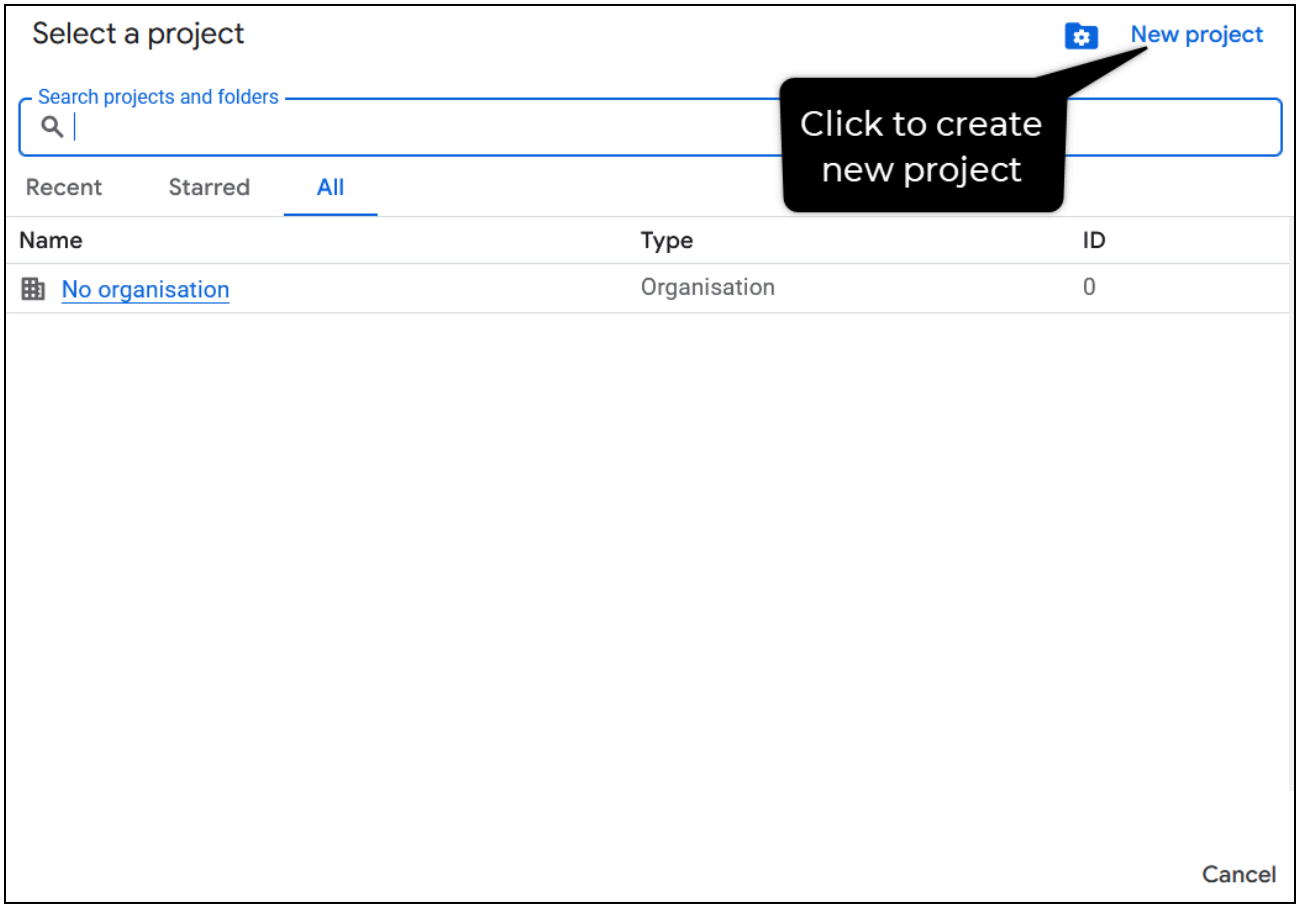
Step 2: Create or select a project

In the upper-left side of the page, click the project selector dropdown.



The **Select a project** pop-up appears, showing existing projects and a search field.



Regardless of whether you already have projects or are a new user, you must create a new project for each type of API key you generate for Google services.

Each API key is always associated with a specific project, as Google Cloud organizes all resources within "projects." Creating a separate project for every key ensures that usage, quotas, and credentials are tracked accurately.

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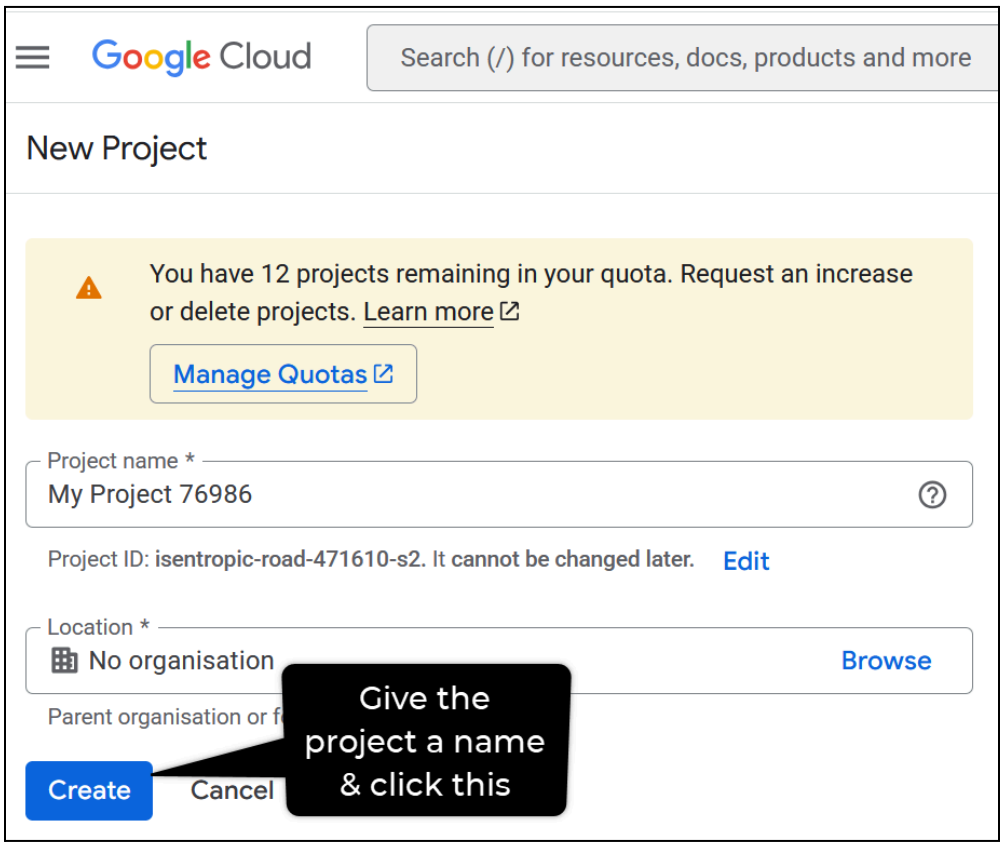
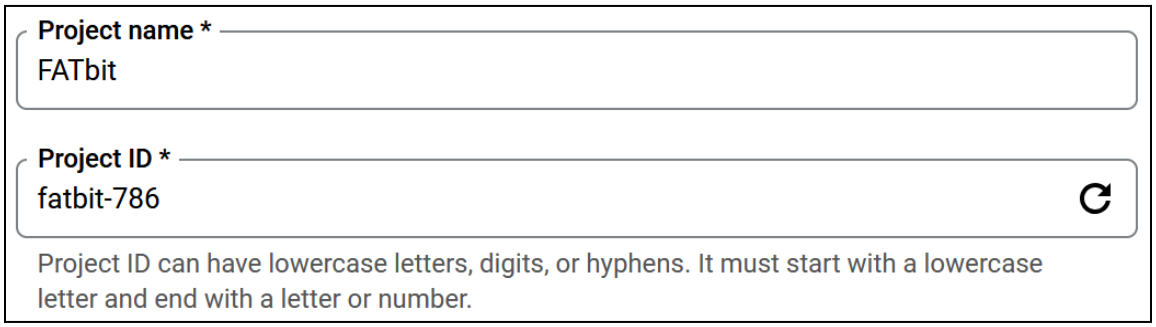
Click **New project.** This will direct you to the **New Project** page.



Update the following:

- **Project name*:** Enter a descriptive name for your project. This name is for your reference only; it can be edited later and does not affect any APIs.
    - **Project ID*:** Upon entering a project name, the console automatically generates a unique Project ID, which appears below the name field. To modify it, click **Edit** and provide a new ID. The project ID must:



Once created, the Project ID is permanent and cannot be changed.

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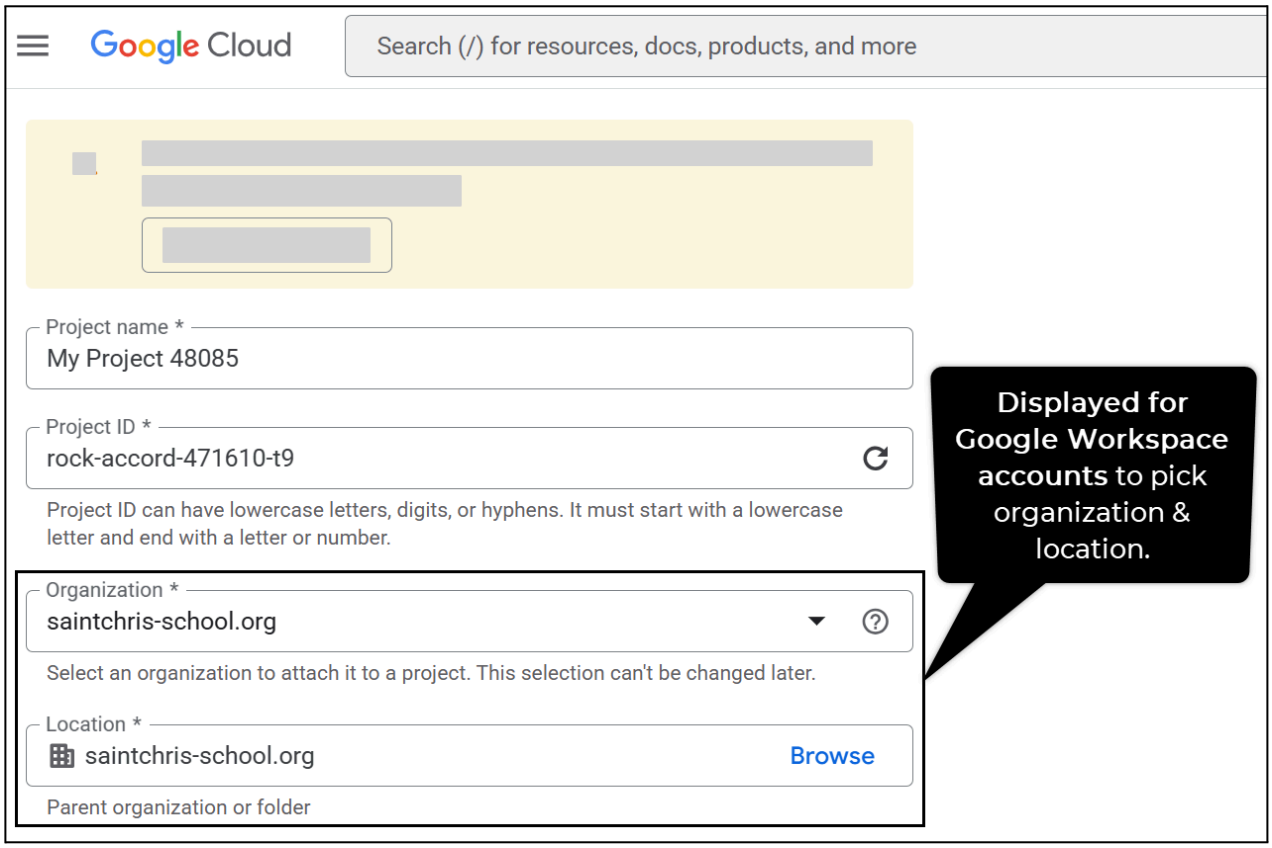
- **Organization*:** If your account is linked to a Google Workspace or Cloud Identity domain, the Organization dropdown appears, allowing you to select under which organizational root the project will be created.

  The organization serves as the root node in Google Cloud's resource hierarchy and provides centralized management of resources.

  *If your account is not part of such a domain, **this option may not appear**, and the project defaults to "No organization."*



- **Location*:** If applicable, select a folder or organization as your project's parent. If no specific parent is available, leave it as Default or select No organization to place the project at the top of the resource hierarchy.

  This field appears only when organization options are available; it is hidden if none exist.

Click **Create**.

Upon successful project creation, the notifications panel will display a confirmation message.

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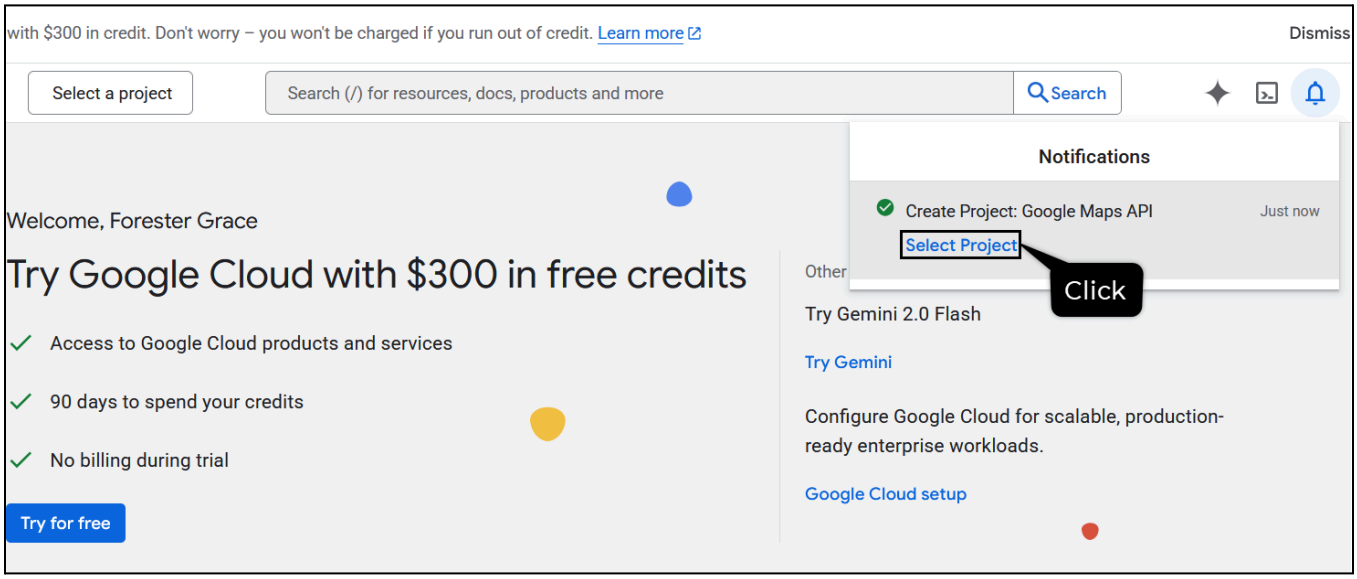
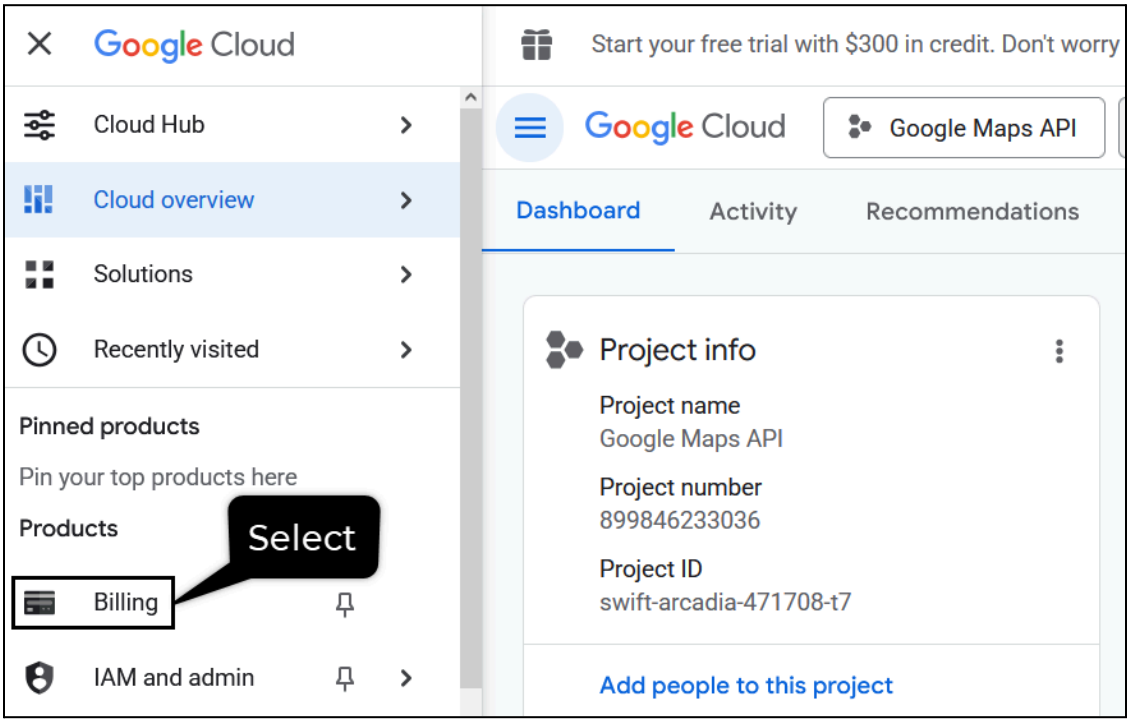


Click **Select project** within this notification to immediately switch to your new project.

Step 3: Update your billing information

Before creating the API key and activating the required APIs from the Google API library, you need to add a billing method to this project.

From the expanded navigation menu, select **Billing**.



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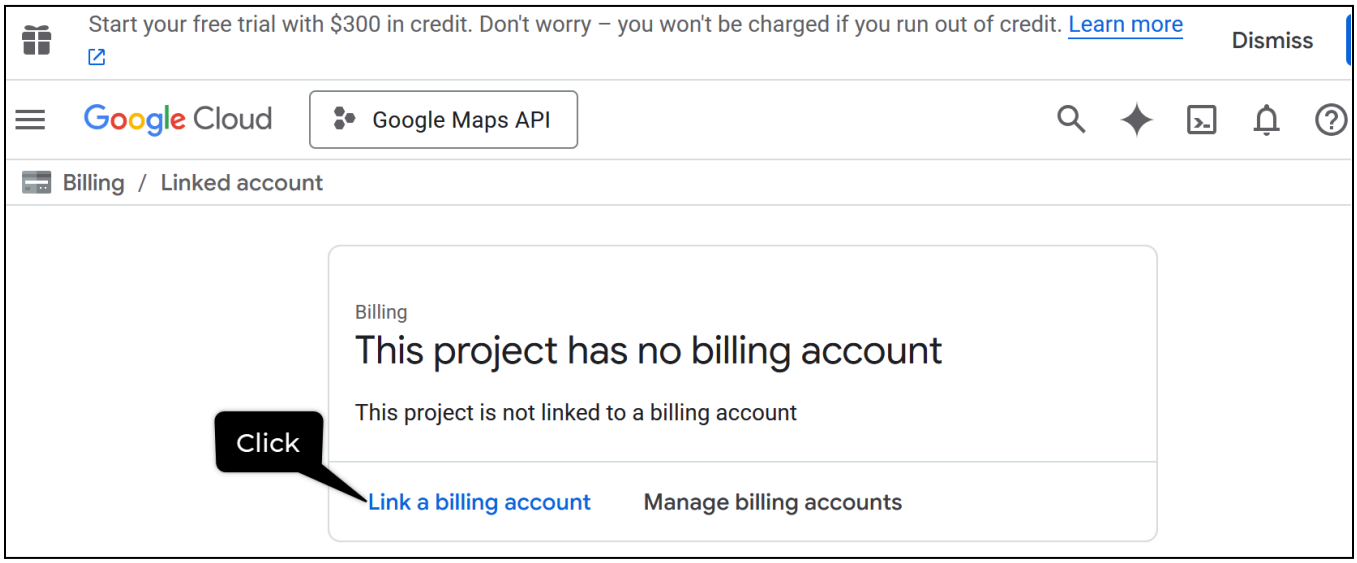
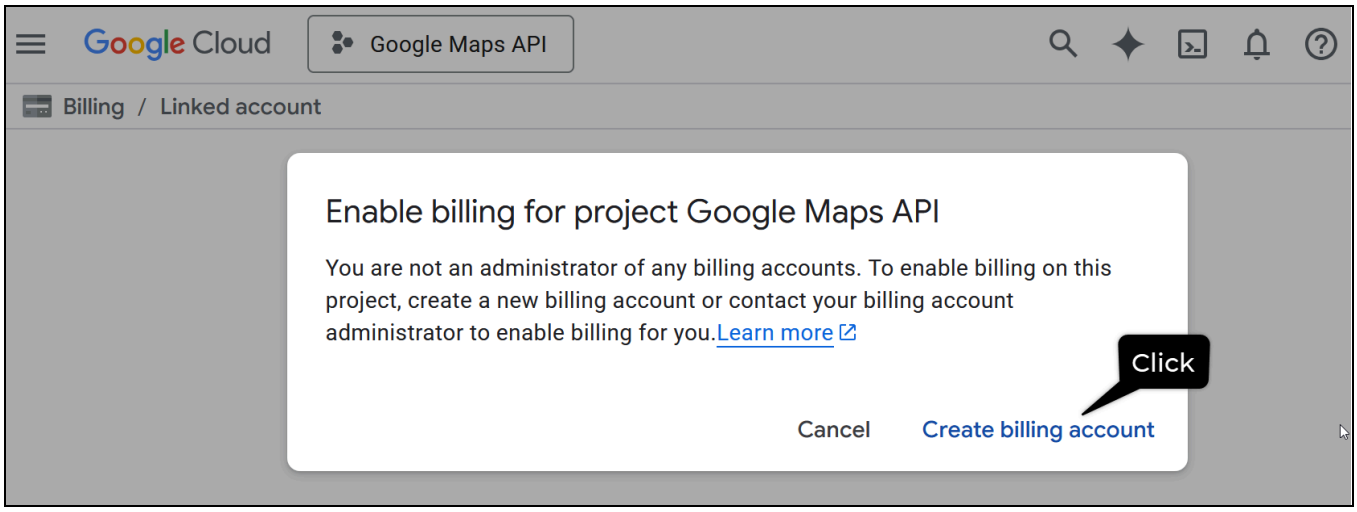
This will direct you to the **Billing** page. Click **Link a billing account.**



A pop-up will appear. Click **Create billing account.**



This will take you to the page where you can confirm your account details and add your billing information.

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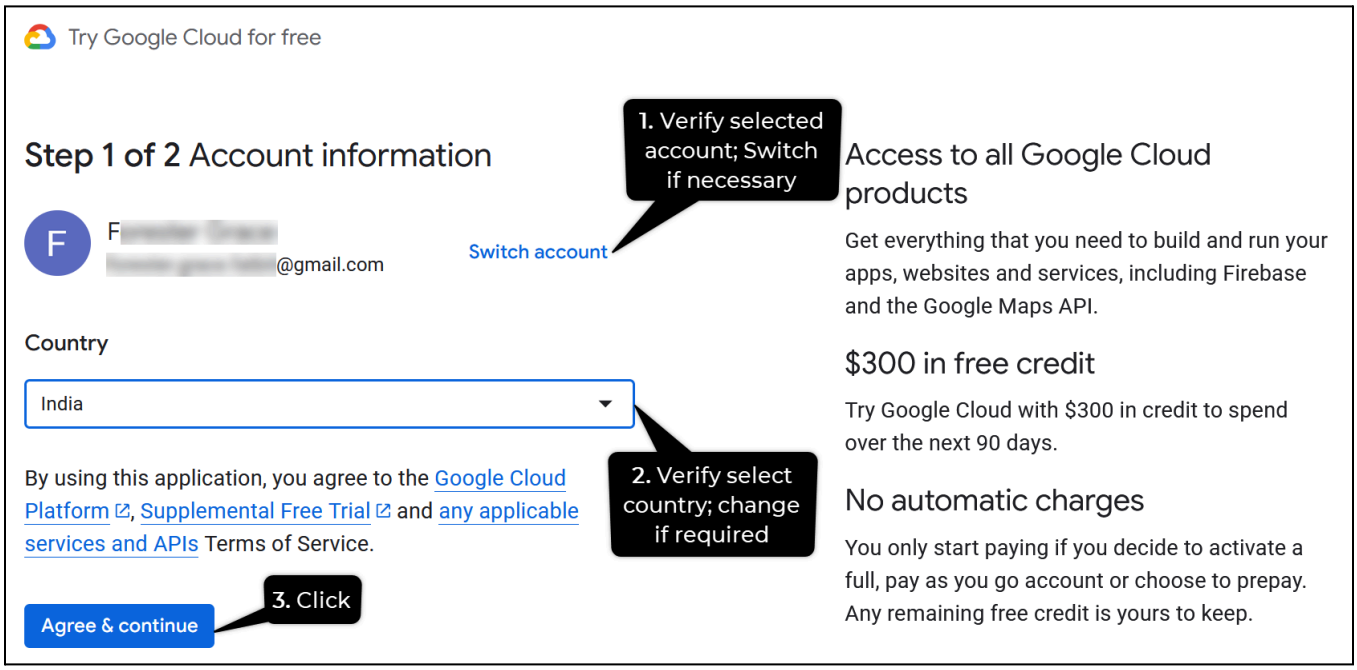

- Ensure the correct Gmail account is selected. If it is not, switch to the appropriate account using the **Switch account** button.
- Verify the selected country and update it if necessary.

Click **Agree & Continue** to proceed to the next step.

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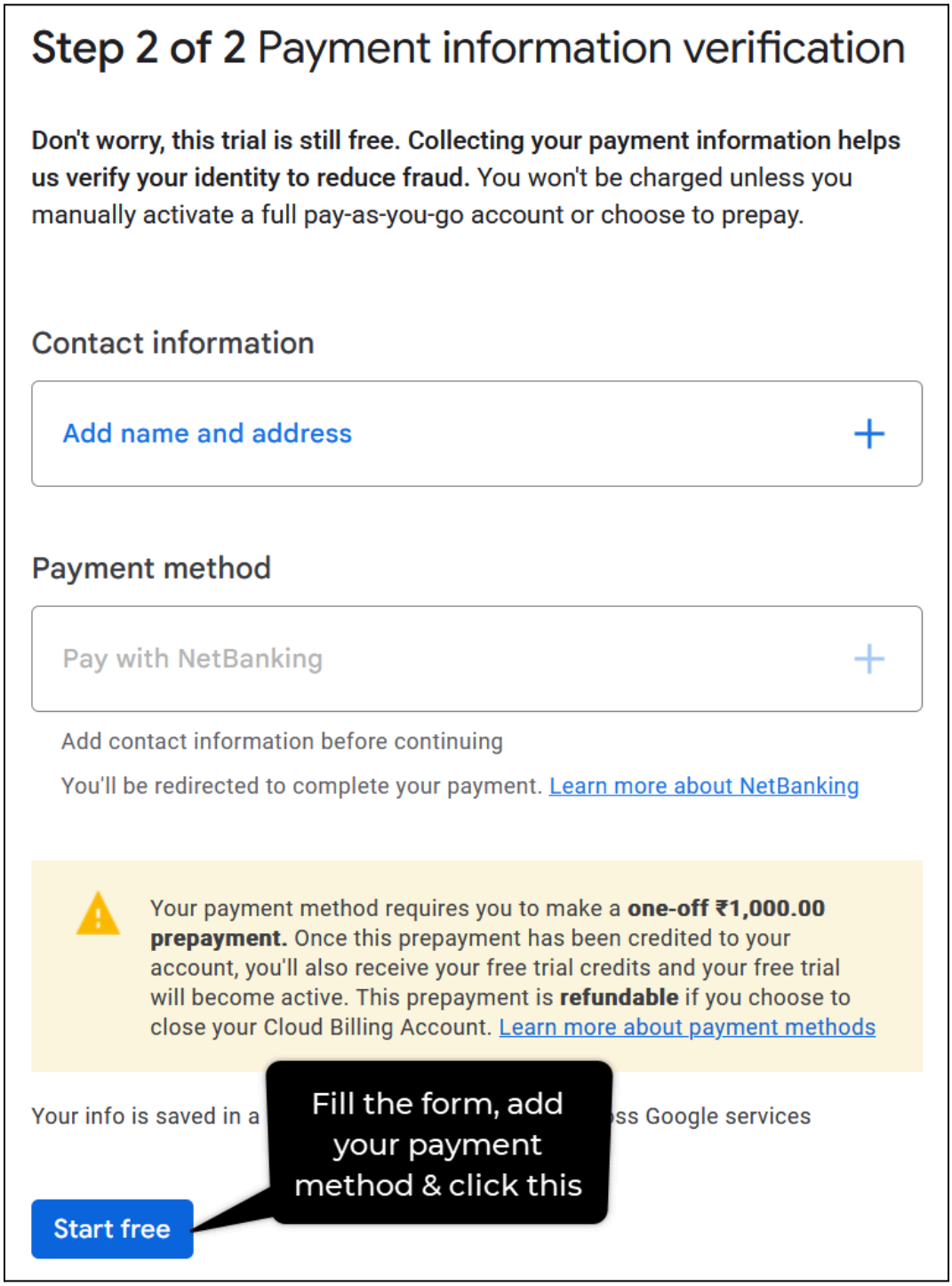

Add your name and address, then link a payment method. Follow the prompts to complete the process accordingly.

Once done, click **Start free/Submit**.

*You can come back to the **Billing** page to review and update your payment information in the future.*

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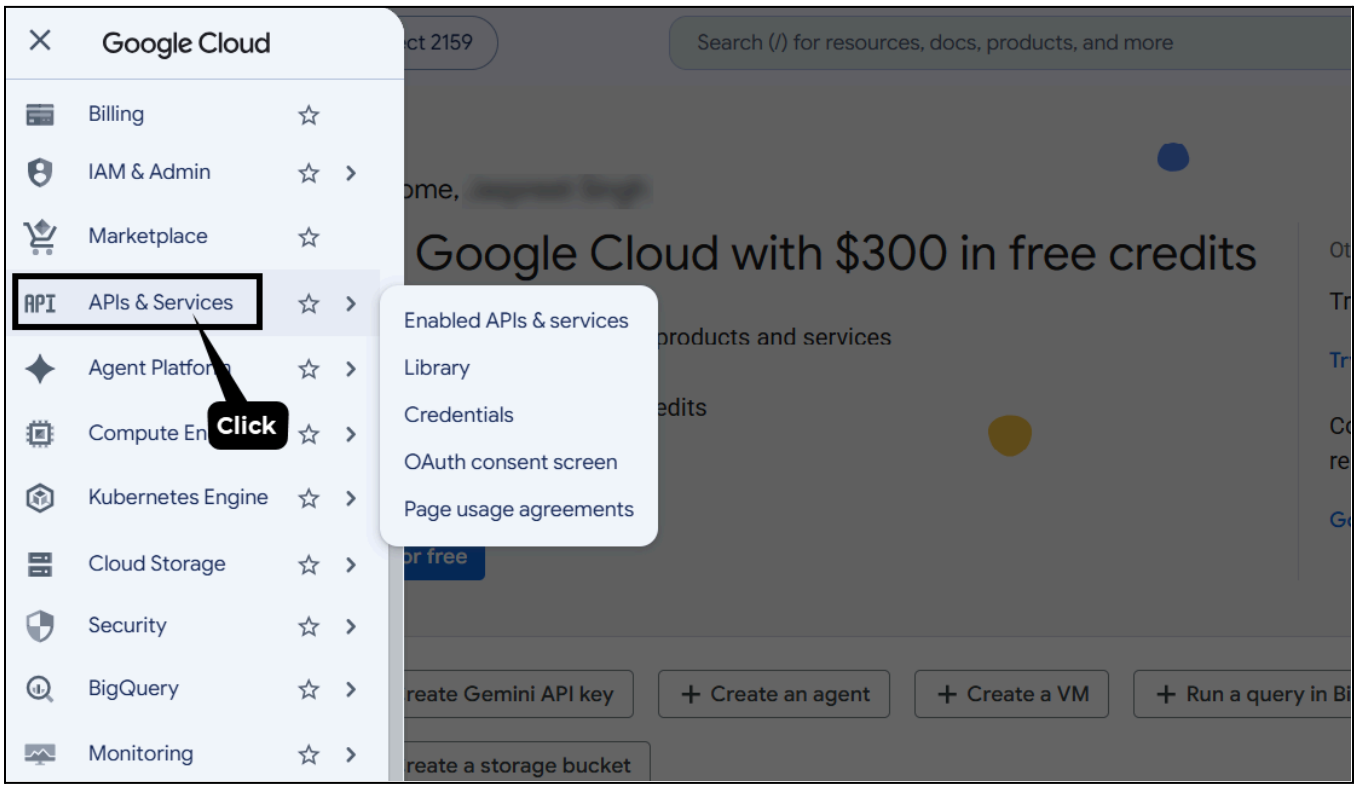
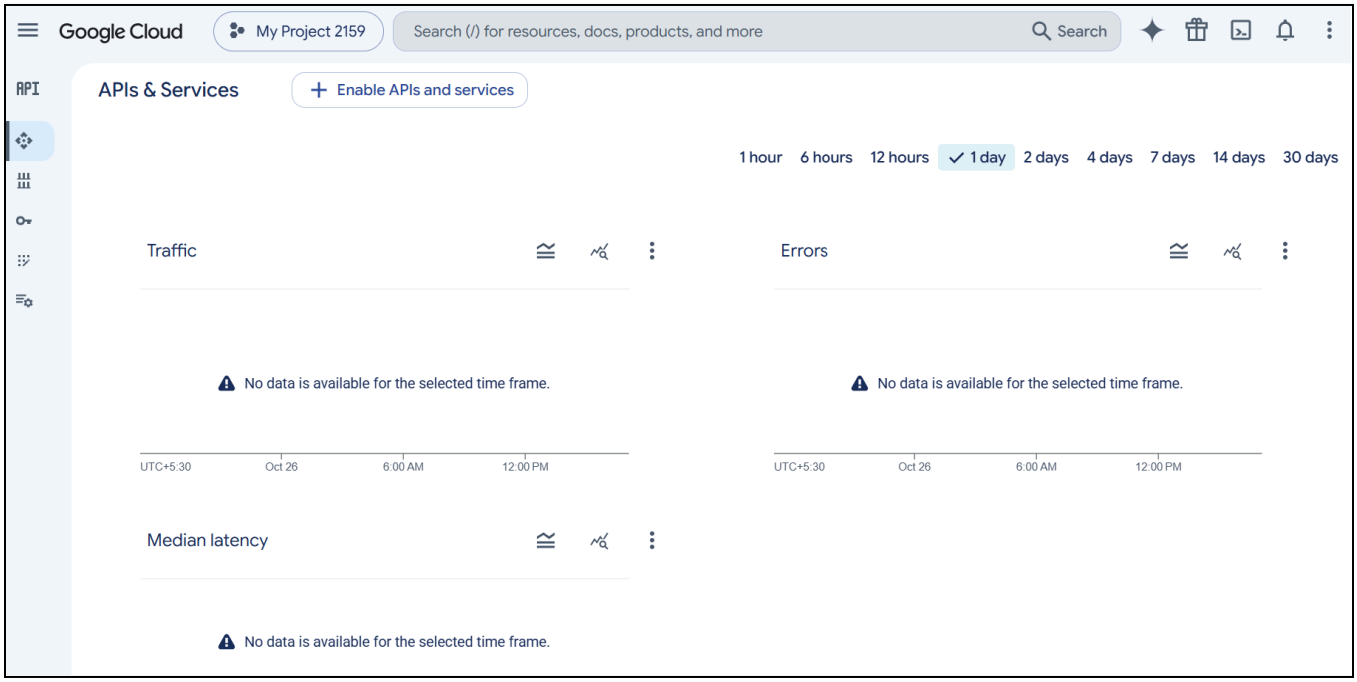
Step 4: Go to API & services

Click ☰ in the upper-left corner of the page, and select **APIs and services.**



This will direct you to the **Enabled APIs and services** page.



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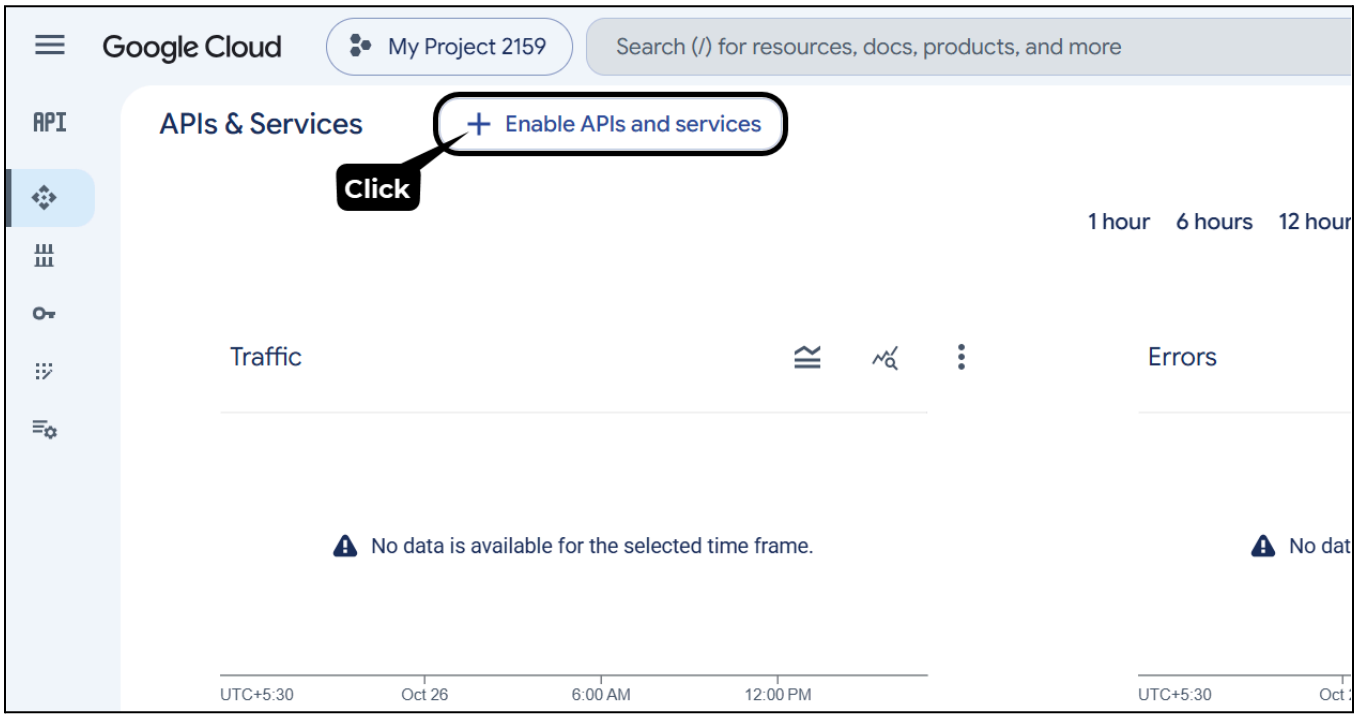
Points to note

- When you create a new Google Cloud project, some APIs are automatically enabled to ensure the project and Console work correctly.
    - **Foundational APIs:** Core APIs such as Cloud Resource Manager, IAM, and Service Usage are automatically enabled in every new project to support essential project operations and management features.
    - **Default APIs:** APIs required for a selected product, quickstart, or template (for example, Maps Platform or Firebase) are pre-enabled automatically so that the product functions correctly without manual activation.
    - **Billing-related APIs:** When a billing account is linked, APIs such as Cloud Billing and Cloud Billing Budget are enabled automatically to provide billing access, cost reporting, and budget features.
- These automatic activations do not generate charges until the APIs are actually used beyond any free quotas.

Step 5: Enable the required Google APIs

At the top of the page, click **+Enable APIs and Services.**



This will direct you to the **API Library** page.

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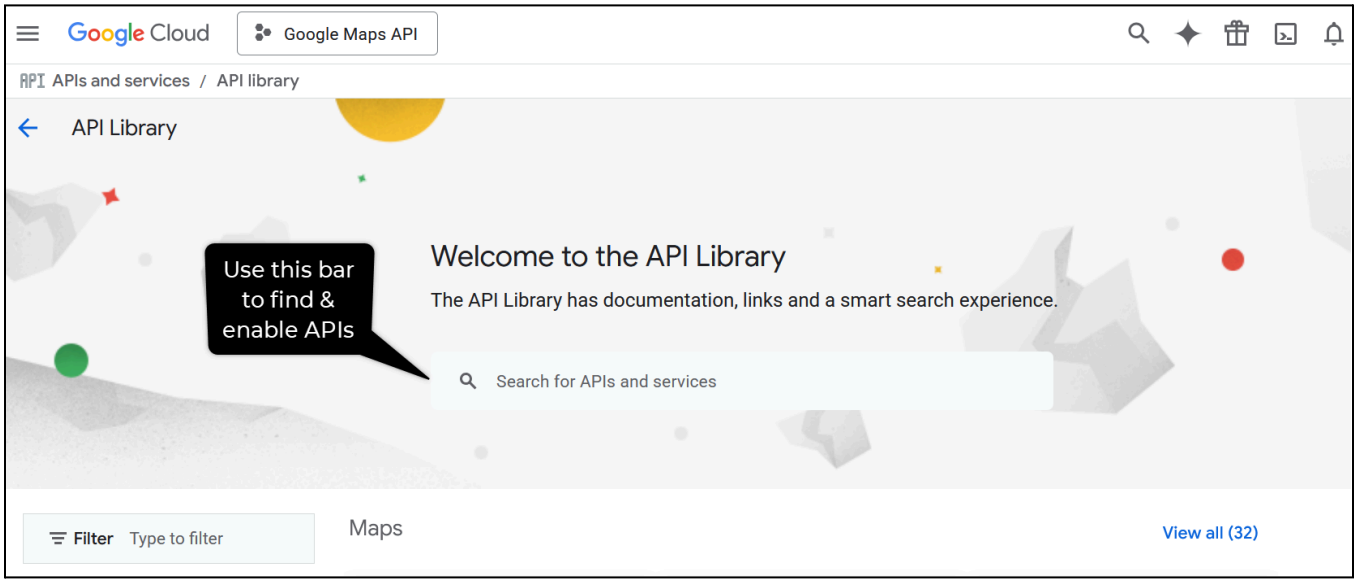
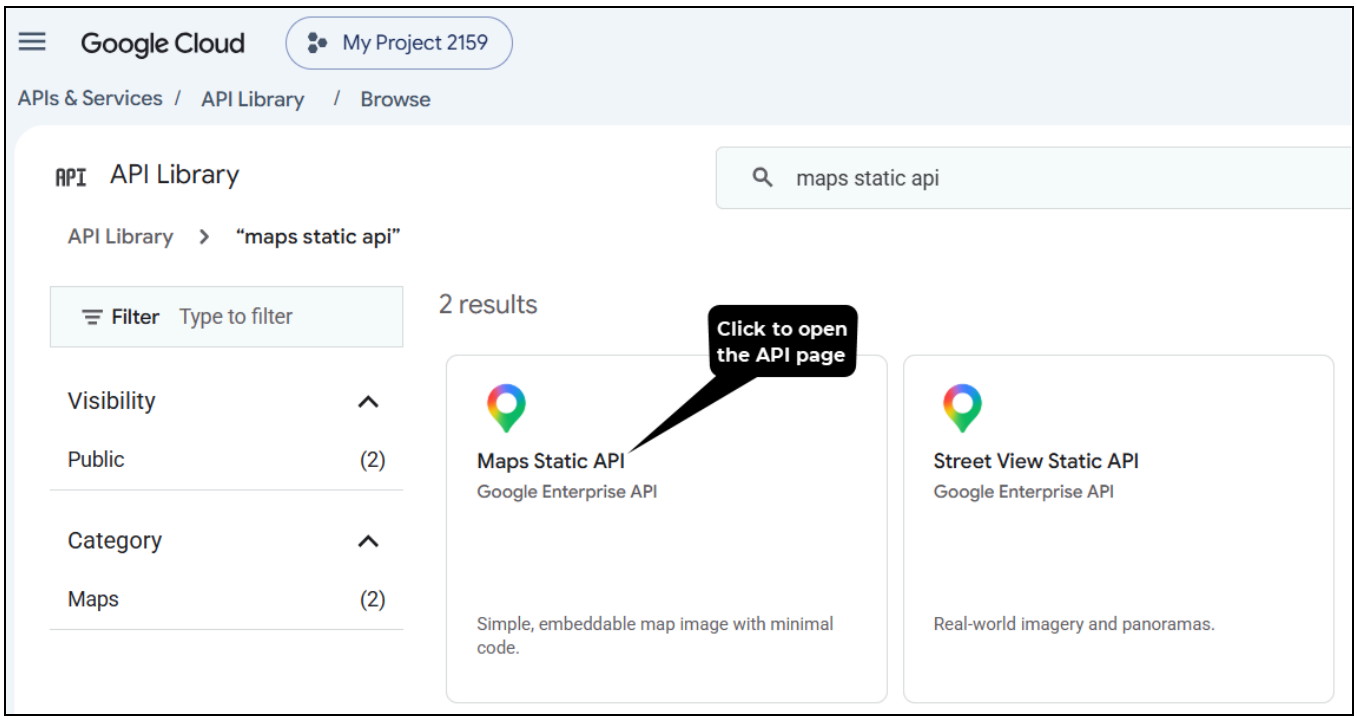


Type the API name in the search field to find it.

A list of results will appear (example image shared below).



Select the exact API (refer to the **names listed in the table below**) to open its page (example image shared below).

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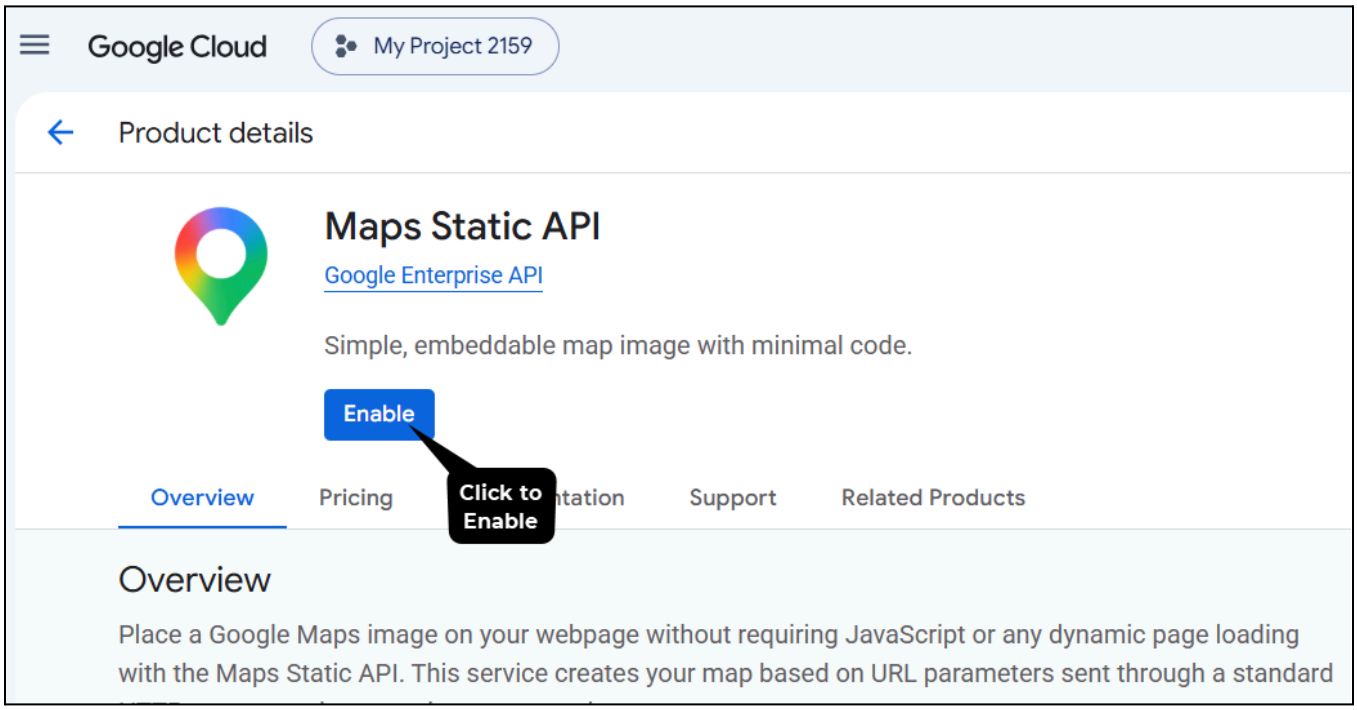

Click **Enable** to activate it.

Depending on the FATbit product you are configuring, you may need to enable one or more APIs listed in the table below for Google Maps to work properly:

API name	What it does	Pricing (subject to change)	Applicable products
Maps JavaScript API	Embeds interactive maps for real-time use	**Free tier:** 28,000 map loads/month **After free tier:** $7/1,000 dynamic, $2/1,000 static *$300 free credit for 90 days	All FATbit products
Places API	Location details, autocomplete, and detection	**Free tier:** 1,000 requests/day **After free tier:** Place Search $17/1,000, Place Details $17/1,000, Place Photos $7/1,000, Autocomplete $2.83/1,000 *$300 free credit for 90 days	All FATbit products
Geocoding API	Converts addresses to coordinates	**Free tier:** 40,000 requests/month **After free tier:** $5/1,000 requests *$300 free credit for 90 days	All FATbit products
Maps Static API	Generates non-interactive map images	**Free tier:** 100,000 requests/month **After free tier:** $2/1,000 requests *$300 free credit for 90 days	All FATbit products

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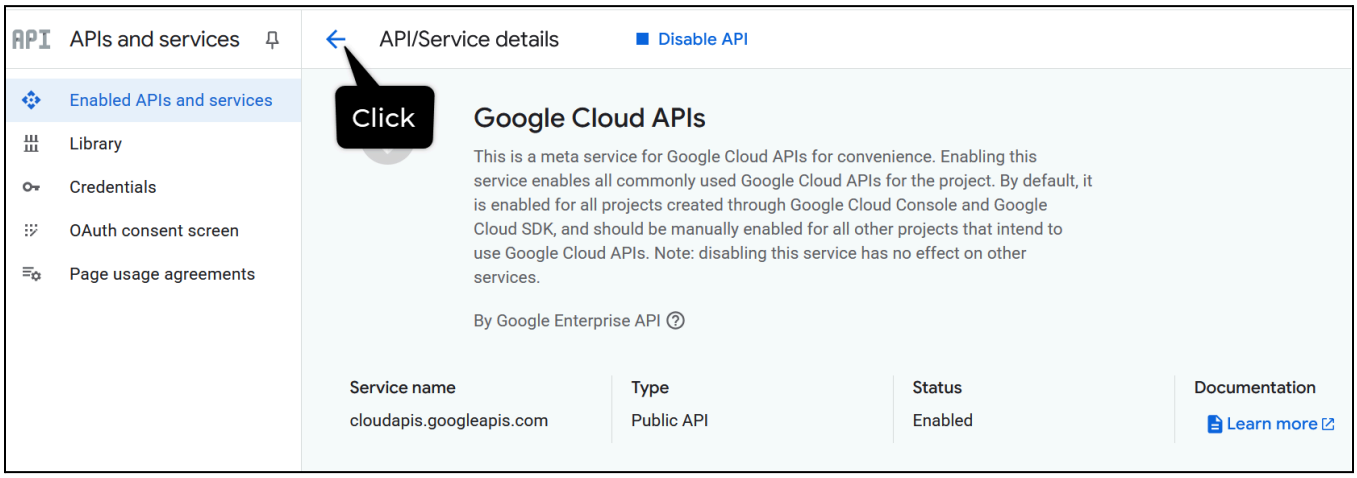
Distance Matrix API	Calculates distance and time between locations	**Free tier:** 100 elements/request, 2,500/day **After free tier:** $5/1,000 elements *$300 free credit for 90 days	Only VivoCabs & Yo!Yumm
For the most accurate and up-to-date pricing details, it's best to check the official Google Maps Platform pricing page.			

Follow the same steps to activate all the applicable APIs as required.

After enabling all required APIs for your FATbit product, return to the **Enabled APIs and services** page by clicking ← , as shown below.



Step 6: Generate the API key under Credentials

In the left-side navigation bar, select **Credentials.**

*The Google Maps API uses API keys for authentication, not user accounts (which require sign-in and consent), so **configuring the OAuth consent screen is not required**.*

Then click **+ Create credentials** and choose **API key** from the dropdown menu to generate your API key.

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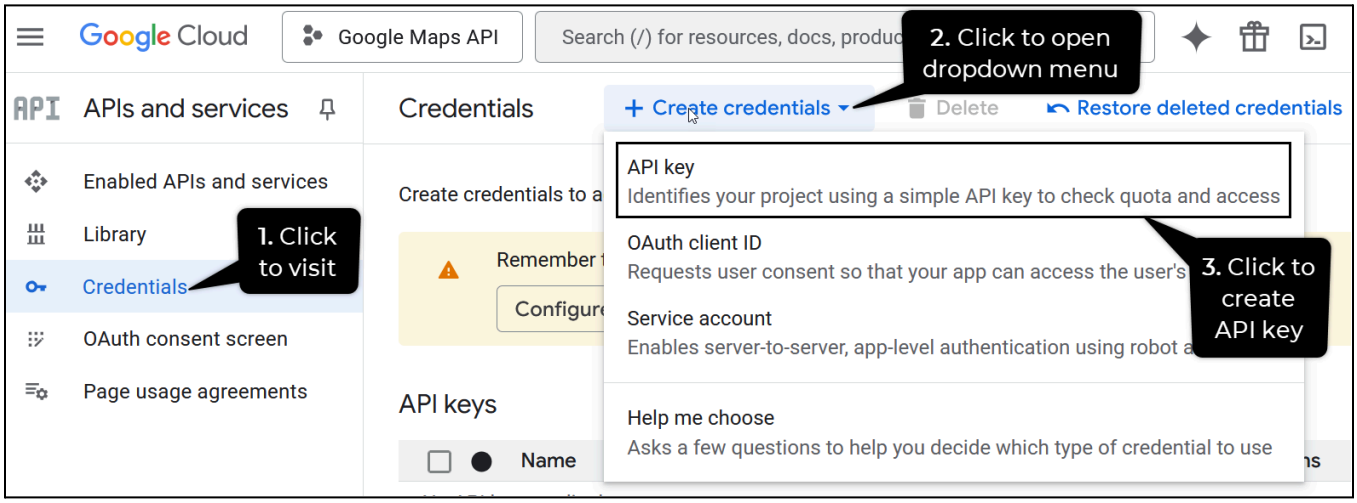
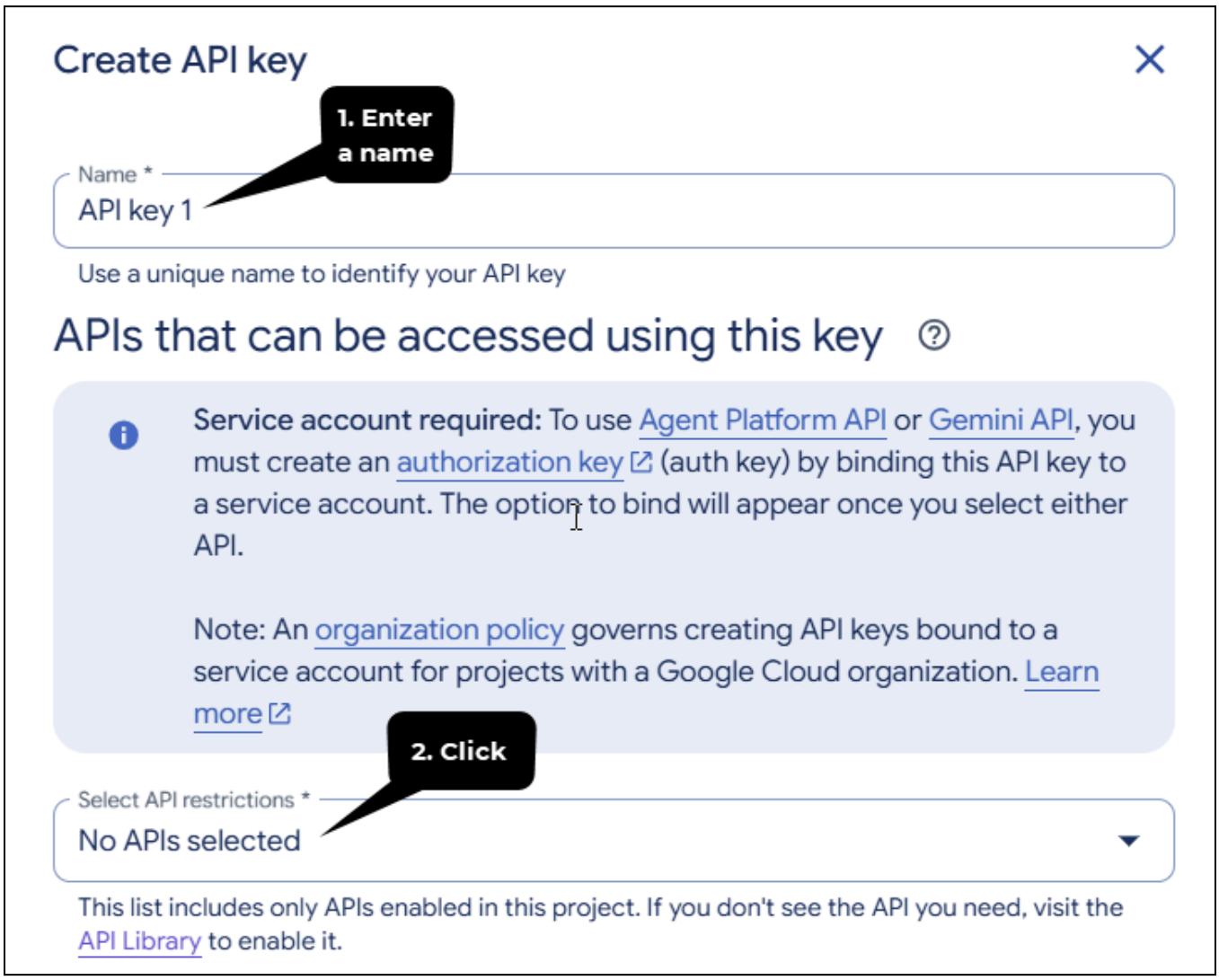


The API key form will appear.



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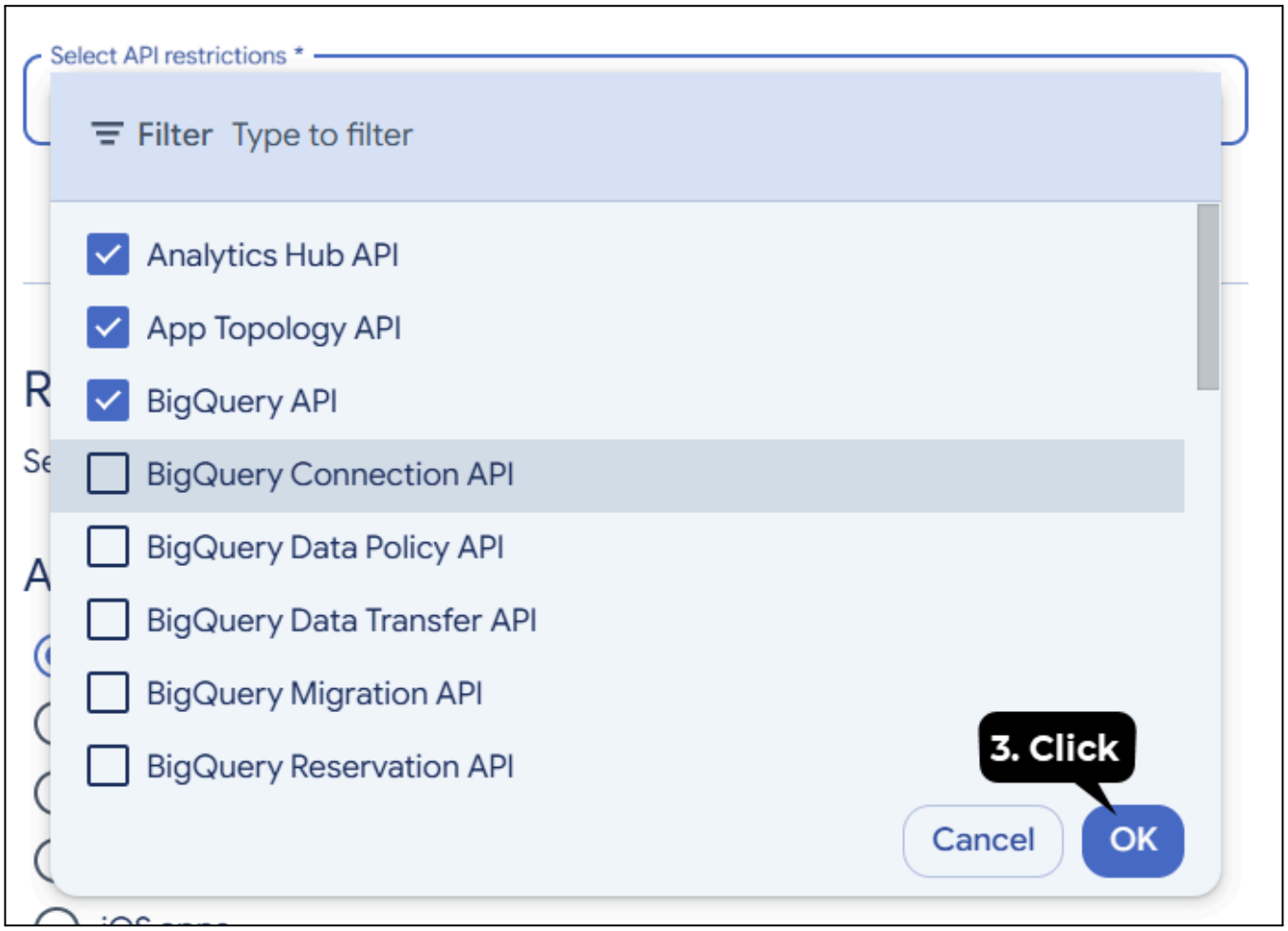
Update the following:

- **Name*:** Enter a descriptive name for your API key.

  This name is for internal reference only and helps identify the key later. It can be edited at any time.

- **API restrictions*:** Select **Restrict key** to limit the APIs this key can access.

  When you select this option, a field appears below.



Click the field and choose only the APIs your application needs (for example, Maps JavaScript API, Places API, Geocoding API).

This prevents the key from being used for other APIs and improves security.

Click **OK.**

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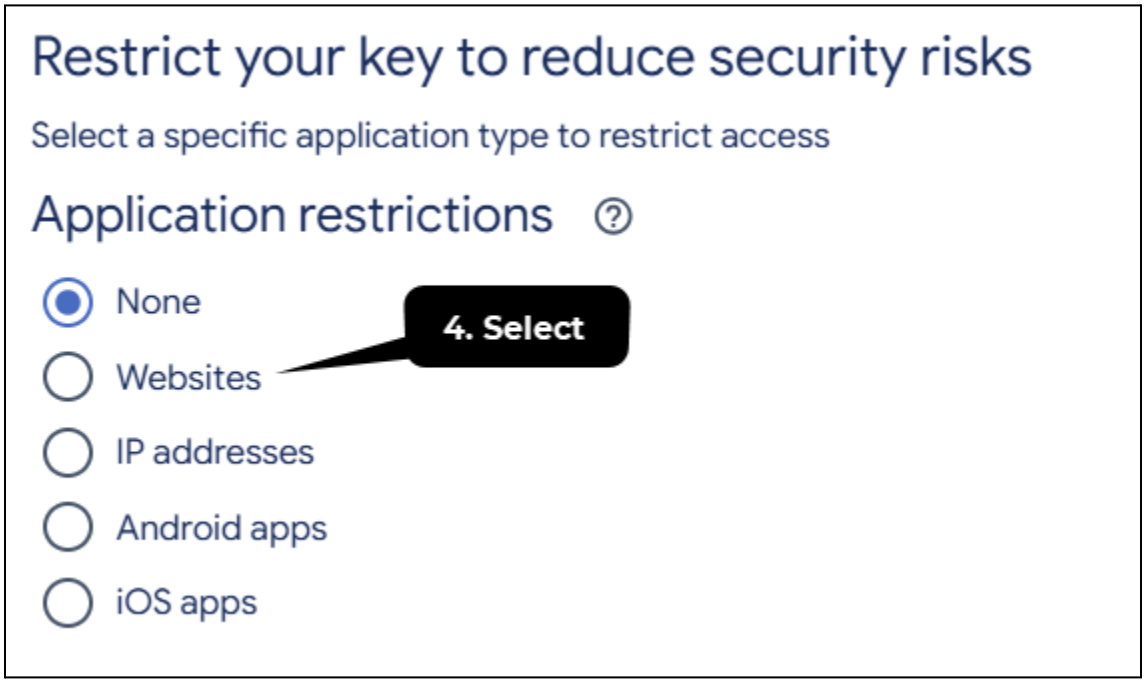

- **Application restrictions:** Select the type of application from which requests will originate. This limits where the key can be used and protects against unauthorized use.

  If your FATbit product includes multiple platforms (for example, a web app plus iOS and Android apps), each platform needs its own API key.

  However, you are only required to configure the web app Google Maps API key for your FATbit product. The keys for mobile apps are managed separately by the app team.

  Contact the FATbit team for support or more information.

  Select **Websites** to restrict the key to specific HTTP referrer domains (for example, `https://example.com/*`).

  When you select this option, a new section appears.

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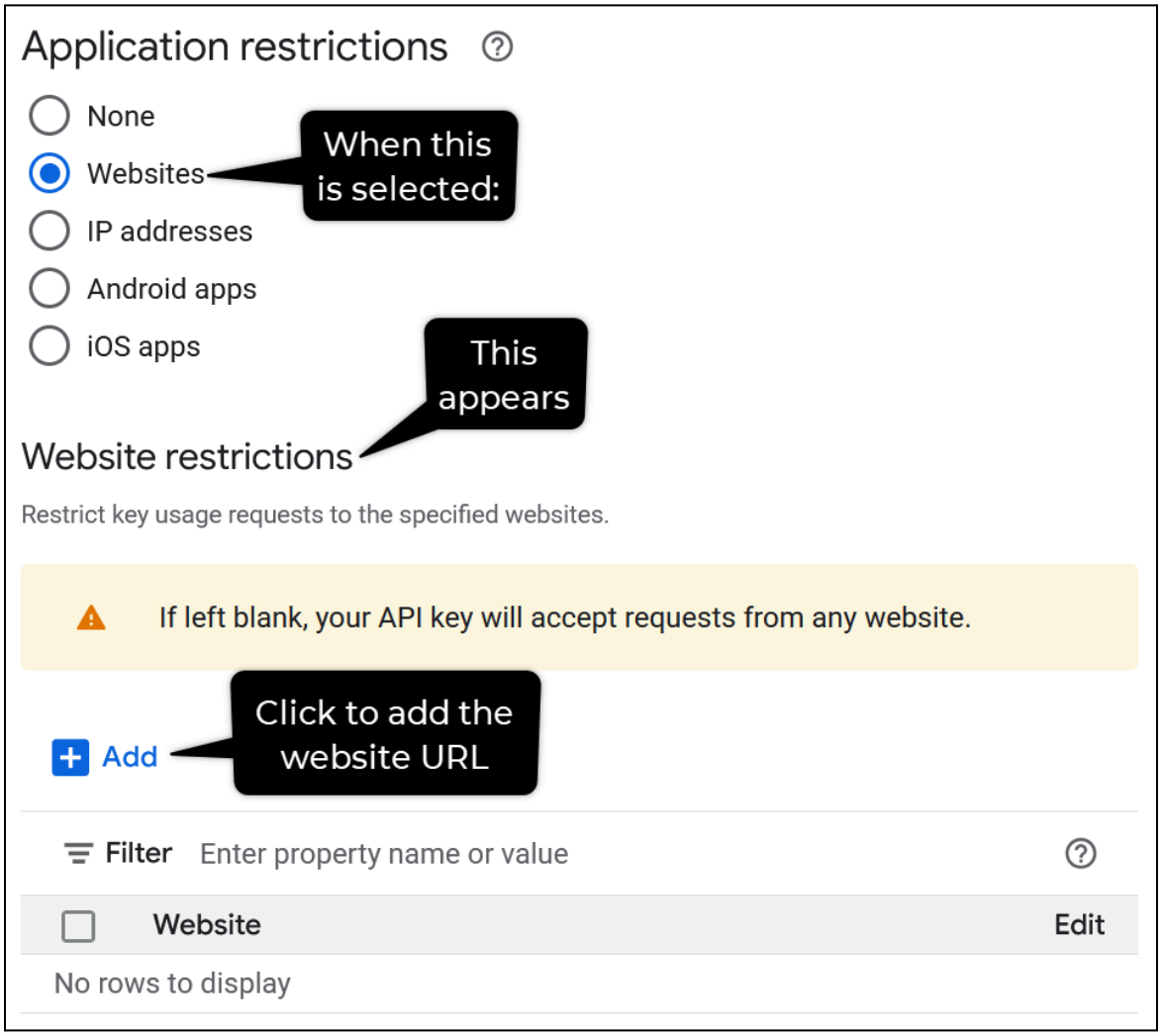
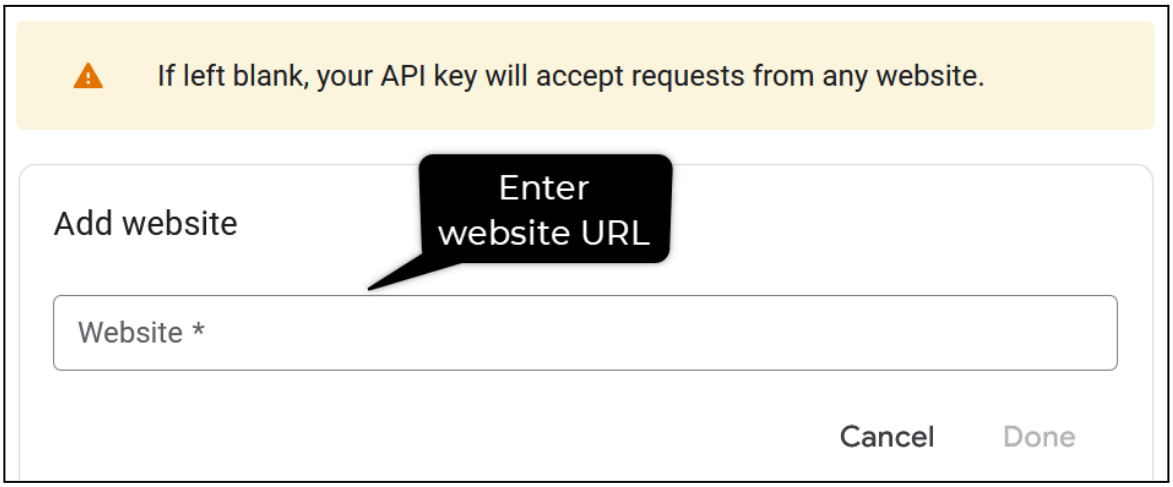


Click **Add** to display a field, then enter the website URL that should be allowed to use this API key.



This ensures only requests from that domain can access the API.

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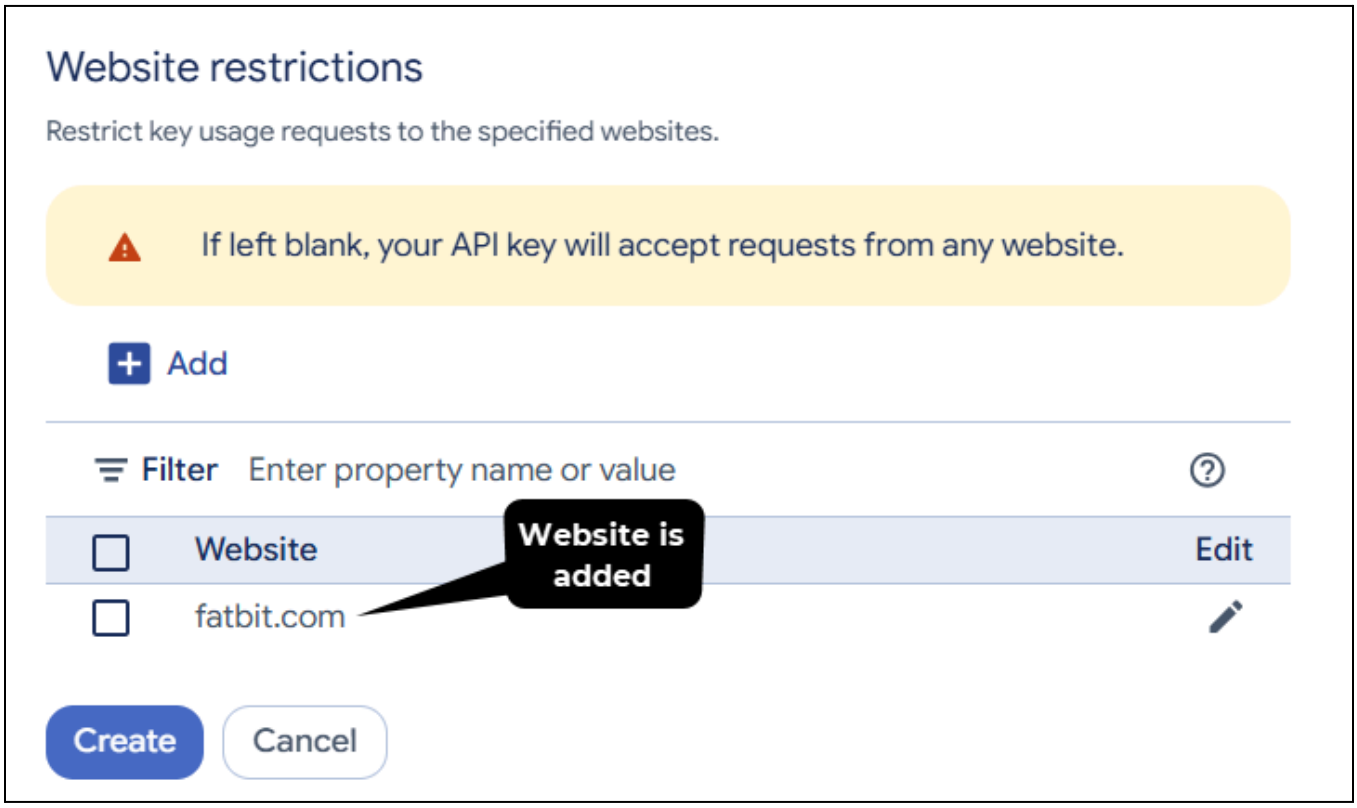
The website will be added to the list section below.



Then, click **Create** to generate the API key with the selected restrictions.

Step 7: Copy the API key

After creation, the new API key appears.

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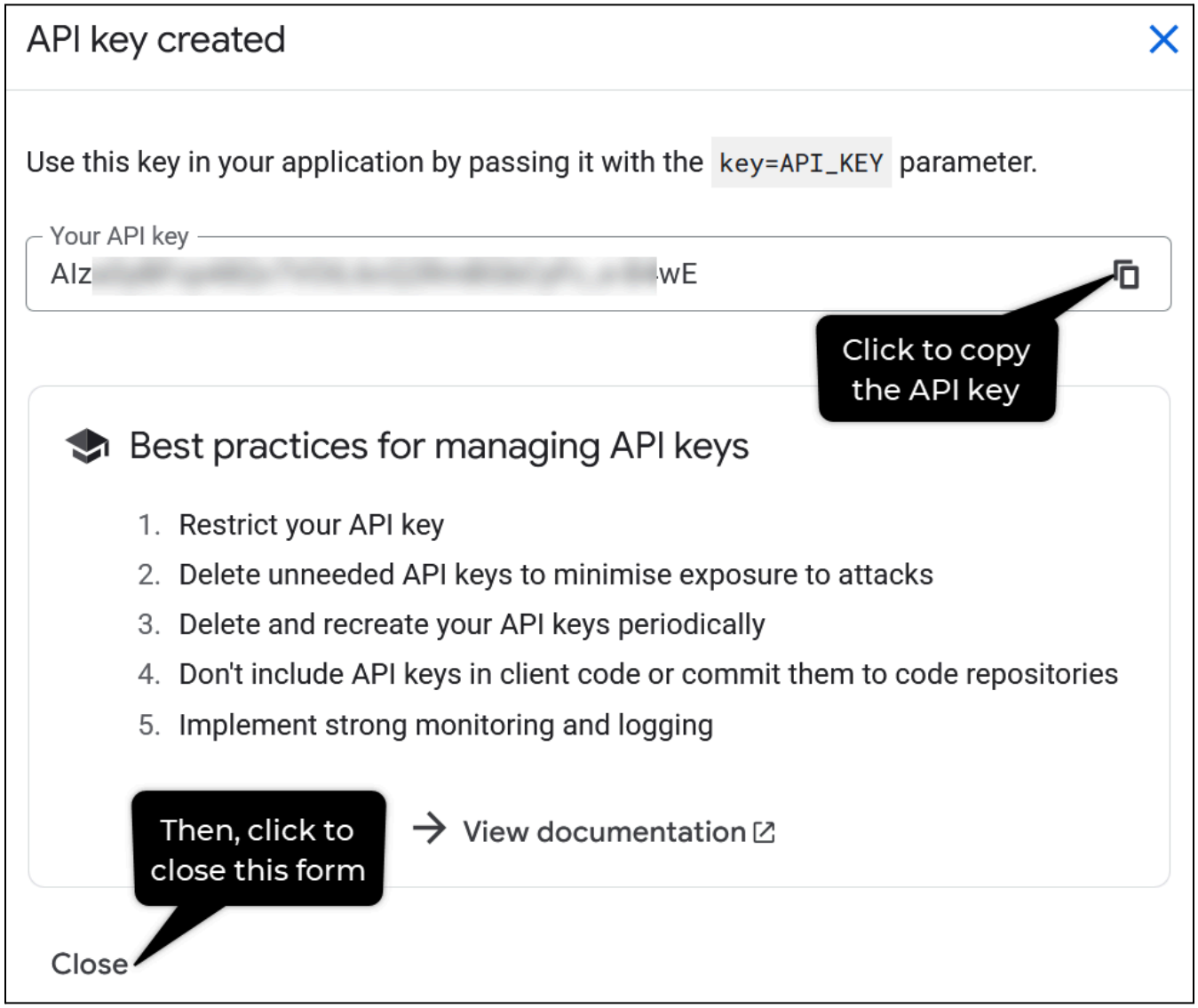

Click beside it to copy the key to your clipboard.

Then, click **Close** to close the form.

The **Credentials** page appears.

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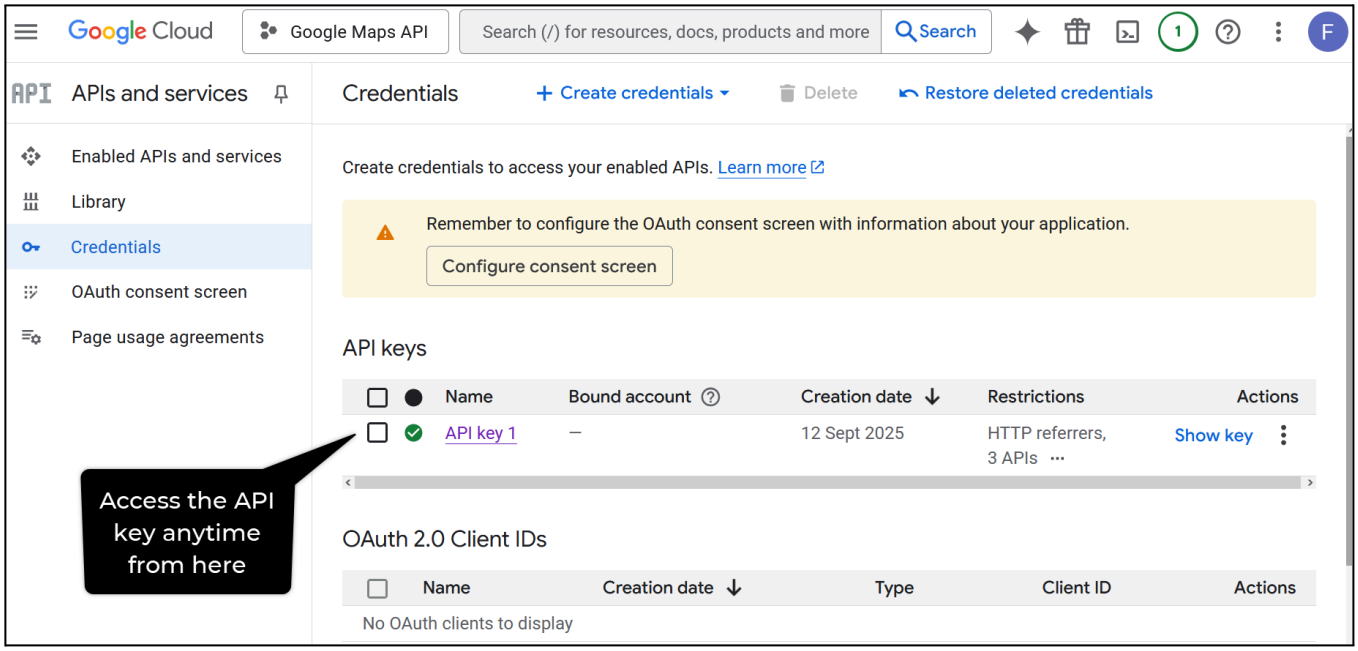
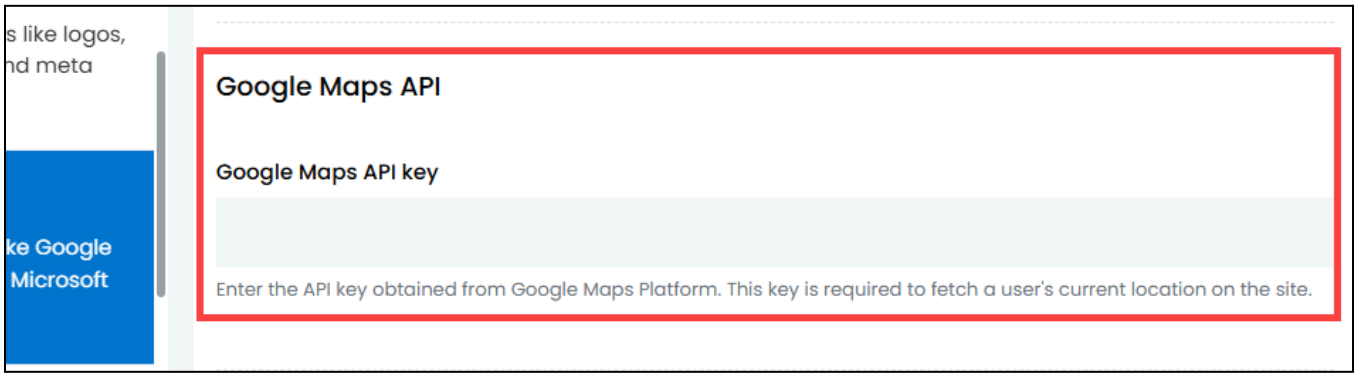


From this page, you can access the API key at any time, edit the key or its restrictions, or delete it and create a new one.

Step 8: Configure Google Maps API on your FATbit Product

After generating the Google Maps API keys, log in to the FATbit (Product Name) Admin Panel and navigate to Settings > System Configuration > Third Party. Scroll to the Google Maps API section.



Update the following:

- **Google Maps API Key:** Enter the generated **Google Maps site key.**

Click **Save.**

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