

Step-by-Step: Creating Two Google Maps API Keys

Prerequisites

- Google account
 - Credit card (won't be charged - just for verification)
 - 20 minutes
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PART 1: INITIAL SETUP

Step 1: Go to Google Cloud Console

1. **Open your browser**
 2. **Go to:** <https://console.cloud.google.com/>
 3. **Sign in** with your Google account
 4. **Accept terms** if this is your first time
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Step 2: Create a New Project

1. **Look at the top of the page**
 - You'll see a dropdown that says "Select a project" or shows a project name
 - It's next to the Google Cloud logo
2. **Click that dropdown**
3. **Click "New Project"** (top right of the popup)
4. **Fill in the form:**
 - **Project name:** `Premium App` (or any name you like)
 - **Location:** Leave as "No organization"
5. **Click "CREATE"** (blue button, bottom right)
6. **Wait 10-30 seconds**
 - You'll see a notification in the top right

- "Creating project Premium App..."
 - Then: "Project created"
7. **Click "SELECT PROJECT" in the notification**
- Or click the project dropdown again and select "Premium App"

 **Your project is now created and selected**

Step 3: Enable Billing

Why: Google requires a credit card even for free tier

1. **Look at the left sidebar**
2. **Click the hamburger menu (≡ three horizontal lines, top left)**
3. **Scroll down and click "Billing"**
4. **You'll see one of two things: Option A: "This project has no billing account"**
 - Click "LINK A BILLING ACCOUNT"
 - Then "CREATE BILLING ACCOUNT"
- Option B: "Enable billing for this project"**
 - Click "ENABLE BILLING"
5. **Fill in the billing form:**
 - **Country:** Select your country
 - **Name:** Your name
 - **Address:** Your address
 - **Credit card:** Your card details
6. **Check the box: "I have read and agree to the terms"**
7. **Click "START MY FREE TRIAL" or "SUBMIT AND ENABLE BILLING"**
8. **You should see: "Your billing account is now active"**

 **Billing enabled (you get \$200 FREE per month)**

Step 4: Enable Places API

1. **Click the hamburger menu (\equiv) again**
2. **Go to: APIs & Services → Library**
 - Or search "API Library" in the search bar at top
3. **You'll see a page full of API options**
4. **In the search box, type: Places API**
5. **Click on "Places API"** (should be first result)
 - Icon looks like a map pin
 - Says "Places API" underneath
6. **Click the blue "ENABLE" button**
7. **Wait 5-10 seconds**
 - Page will refresh
 - You'll see "API enabled"
 - Top will say "Places API" with a green checkmark

 **Places API is now enabled**

Step 5: Enable Geocoding API

1. **Click " \leftarrow " (back arrow) at the top**
 - Or click "API Library" in the left sidebar
2. **In the search box, type: Geocoding API**
3. **Click on "Geocoding API"**
 - Icon looks like a location pin with circles
4. **Click the blue "ENABLE" button**
5. **Wait 5-10 seconds**
 - Page will refresh
 - You'll see "API enabled"

 **Geocoding API is now enabled**

PART 2: CREATE KEY 1 (PUBLIC - FOR PLACES AUTOCOMPLETE)

Step 6: Go to Credentials Page

1. **Click the hamburger menu (≡)**
 2. **Go to:** APIs & Services → Credentials
 3. **You'll see a page with tabs:** Credentials, OAuth consent screen, Domain verification
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Step 7: Create the First API Key

1. **Click the "+ CREATE CREDENTIALS" button** (near the top)
 2. **Select "API key"** from the dropdown
 3. **A popup appears:**
 - Shows your API key (starts with `AIzaSy...`)
 - Says "API key created"
 4. **IMMEDIATELY COPY THIS KEY:**
 - Select all the text (highlight it)
 - Copy it (Ctrl+C or Cmd+C)
 - **Paste it somewhere safe:**
 - Notepad (Windows)
 - Notes app (Mac)
 - Text file
 - **Label it:** "KEY 1 - PUBLIC - PLACES"
 5. **DO NOT CLOSE THE POPUP YET**
 6. **Click "RESTRICT KEY"** (blue button in the popup)
 - This takes you to the key editing page
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Step 8: Restrict Key 1 - Set Name

1. You're now on the "Edit API key" page
 2. At the very top, find "API key name"
 - Currently says something like: "API key 1"
 3. Click in the text box
 4. Change it to: `Premium App - Places (Public)`
 5. Don't click Save yet - we have more to do
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Step 9: Restrict Key 1 - Application Restrictions

1. Scroll down to "Application restrictions"
2. You'll see 4 radio button options:
 - None
 - HTTP referrers (websites)
 - IP addresses
 - Android apps
 - iOS apps
3. Select: "HTTP referrers (websites)" ← Click this one
4. A new section appears: "Website restrictions"
5. Click "+ ADD AN ITEM"
6. In the text box that appears, type: `localhost:*`
7. Click "+ ADD AN ITEM" again
8. Type: `127.0.0.1:*`
9. Click "+ ADD AN ITEM" again
10. Type: `premium-app.netlify.app/*`
 - Or whatever your Netlify domain will be
 - You can update this later

Your list should now show:

localhost:
127.0.0.1:
premium-app.netlify.app/*

Step 10: Restrict Key 1 - API Restrictions

1. Scroll down further to "API restrictions"
2. You'll see 2 radio button options:
 - Don't restrict key
 - Restrict key
3. Select: "Restrict key" ← Click this one
4. A dropdown appears that says "Select APIs"
5. Click the dropdown
6. You'll see a long list of APIs
7. Scroll down and find "Places API"
8. Click the checkbox next to "Places API" 
 - Should see a blue checkmark
9. Make sure ONLY Places API is checked
 - Scroll through to verify
 - Especially make sure "Geocoding API" is NOT checked 
10. Click anywhere outside the dropdown to close it

You should see:

API restrictions: Restrict key
Selected APIs: Places API

Step 11: Save Key 1

1. Scroll to the bottom of the page

2. **Click "SAVE" (blue button)**
3. **Wait 5-10 seconds**
4. **You'll see a notification:**
 - "API key updated"
 - Or "API key saved successfully"
5. **IMPORTANT:** Wait 5 minutes for restrictions to take effect

 **KEY 1 IS NOW CREATED AND SECURED!**

PART 3: CREATE KEY 2 (SECRET - FOR GEOCODING)

Step 12: Create the Second API Key

1. **You're still on the Credentials page**
 - If not: Go to APIs & Services → Credentials
2. **Click "+ CREATE CREDENTIALS" again (at the top)**
3. **Select "API key"**
4. **Another popup appears with a new key**
5. **IMMEDIATELY COPY THIS KEY:**
 - It's different from Key 1!
 - Starts with **AIzaSy...** but has different characters
 - Copy it (Ctrl+C or Cmd+C)
 - **Paste it somewhere safe**
 - **Label it: "KEY 2 - SECRET - GEOCODING"**
6. **Click "RESTRICT KEY" in the popup**

Step 13: Restrict Key 2 - Set Name

1. **You're now on the edit page for the second key**
2. **At the top, change "API key name" to: **Premium App - Geocoding (Secret)****
3. **Don't click Save yet**

Step 14: Restrict Key 2 - Application Restrictions

1. **Scroll to "Application restrictions"**
2. **Select: "None"** ← This is different from Key 1!
 - Click the "None" radio button
 - This is because Key 2 will be used server-side (in Netlify functions)
 - Server-side calls don't have domains

Your selection should show:

Application restrictions: None

Step 15: Restrict Key 2 - API Restrictions

1. **Scroll down to "API restrictions"**
2. **Select: "Restrict key"**
3. **Click the dropdown "Select APIs"**
4. **Find "Geocoding API" in the list**
5. **Click the checkbox next to "Geocoding API" **
6. **Make sure ONLY Geocoding API is checked**
 - Especially make sure "Places API" is NOT checked 
7. **Click outside the dropdown to close it**

You should see:

API restrictions: Restrict key
Selected APIs: Geocoding API

Step 16: Save Key 2

1. **Scroll to the bottom**
2. **Click "SAVE" (blue button)**
3. **Wait 5-10 seconds**
4. **You'll see "API key updated"**
5. **IMPORTANT:** Wait 5 minutes for restrictions to take effect

 **KEY 2 IS NOW CREATED AND SECURED!**

PART 4: VERIFY YOUR KEYS

Step 17: Check Your Credentials Page

1. **Go to:** APIs & Services → Credentials
2. **Under "API Keys" section,** you should see:

Premium App - Places (Public)
Premium App - Geocoding (Secret)

3. **You should have both keys saved in your notes:**

KEY 1 - PUBLIC - PLACES:
AIzaSyA... (your actual key 1)

KEY 2 - SECRET - GEOCODING:
AIzaSyB... (your actual key 2)

 **Both keys created successfully!**

QUICK REFERENCE

Key 1 (Public - Places)

- **Name:** Premium App - Places (Public)
- **Use for:** Autocomplete widget in HTML
- **Restrictions:**
 - Application: HTTP referrers (websites)
 - Domains: localhost:, 127.0.0.1:, premium-app.netlify.app/*
 - API: Places API ONLY
- **Where it goes:** In your `index.html` file (line 722)

Key 2 (Secret - Geocoding)

- **Name:** Premium App - Geocoding (Secret)
 - **Use for:** Address verification via backend
 - **Restrictions:**
 - Application: None (server-side)
 - API: Geocoding API ONLY
 - **Where it goes:** Netlify environment variable (NEVER in code!)
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HOW TO TELL THEM APART

Look at your Credentials page:

Key Name	Application Restrictions	API Restrictions
Premium App - Places (Public)	HTTP referrers	Places API
Premium App - Geocoding (Secret)	None	Geocoding API

CHECKLIST

Before moving on, make sure:

- Both API keys created
 - Both keys copied and saved safely
 - Key 1 restricted to: HTTP referrers + Places API
 - Key 2 restricted to: None + Geocoding API
 - Both keys labeled clearly in your notes
 - Waited 5 minutes for restrictions to activate
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TROUBLESHOOTING

Can't find "CREATE CREDENTIALS" button

Solution:

- Make sure you selected your project (check dropdown at top)
 - Go to: APIs & Services → Credentials
 - Look near the top of the page
 - Should be a blue button with "+ CREATE CREDENTIALS"
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Don't see "HTTP referrers" option

Solution:

- Make sure you're editing Key 1 (Places key)
 - Under "Application restrictions"
 - Should see 4-5 radio button options
 - "HTTP referrers (websites)" should be one of them
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Can't find "Places API" in the dropdown

Solution:

- Make sure Places API is enabled

- Go to: APIs & Services → Library
 - Search "Places API"
 - Should say "Manage" (not "Enable")
 - If says "Enable", click it first
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Restrictions not saving

Solution:

- Scroll all the way to bottom
 - Click "SAVE" button
 - Wait for "API key updated" notification
 - Refresh the page
 - Click the key again to verify settings saved
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Lost track of which key is which

Solution:

- Go to: APIs & Services → Credentials
 - Look at the key names:
 - "Premium App - Places (Public)" = Key 1
 - "Premium App - Geocoding (Secret)" = Key 2
 - Click each one to see restrictions
 - Key 1 should have HTTP referrers
 - Key 2 should have None
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NEXT STEPS

Now that you have both keys:

1. **Use Key 1:** Put in your `index.html` file (line 722)
 2. **Use Key 2:** Add to Netlify environment variables
 3. **Never mix them up!**
 4. **Never commit Key 2 to Git!**
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SAVE THIS TEMPLATE

Keep this in a safe place (NOT in Git):

PROJECT: Premium App

GOOGLE CLOUD PROJECT ID: [your project id]

KEY 1 - PUBLIC - PLACES (for autocomplete):

Name: Premium App - Places (Public)

Key: AlzaSyA _____

Restrictions:

- HTTP referrers: localhost:*, premium-app.netlify.app/*

- API: Places API only

Use: Put in index.html line 722

KEY 2 - SECRET - GEOCODING (for verification):

Name: Premium App - Geocoding (Secret)

Key: AlzaSyB _____

Restrictions:

- Application: None

- API: Geocoding API only

Use: Netlify environment variable

CREATED: [today's date]

YOU'RE DONE!

You now have both API keys properly created and secured! 

Next: Follow the main deployment guide to use these keys.

Remember:

- Key 1 goes in HTML (public, visible)
- Key 2 goes in Netlify env vars (secret, hidden)
- Never commit Key 2 to Git
- Wait 5 minutes after creating before using