

Sign up for a Google Cloud Platform Account and API key

Google's "Google Cloud Platform" (GCP) is Google's cloud provider, much like Amazon's "Amazon Web Services" (AWS) and Microsoft's "Azure" cloud offerings.

GCP provides access to a very large number of "Application Programming Interfaces" (APIs).

Among those offerings and relevant for our course in particular is Google Maps for Android.

Google Maps for mobile usage is actually [offered as a free service].

However, use of the GCP requires a billing account (because eventually Google wants to charge for their non-free services). Unfortunately, your `email@vt.edu` accounts do not qualify as a billing account.

As a result there are two options available to make use of the free Google Maps for Android Services.

Option 1: Use Dr Atkinson's API Key

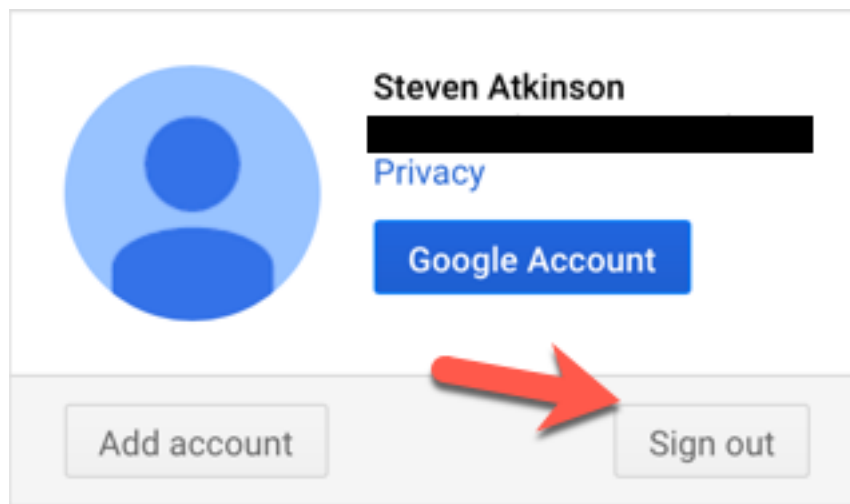
AIzaSyDSR-GaTnvEfPfAWCv-6yH285wwBdzCv5c

Option 2: Create a fresh Google account and request an API Key

Create a new google account or use an existing personal Google account.

Sign out of any google accounts.

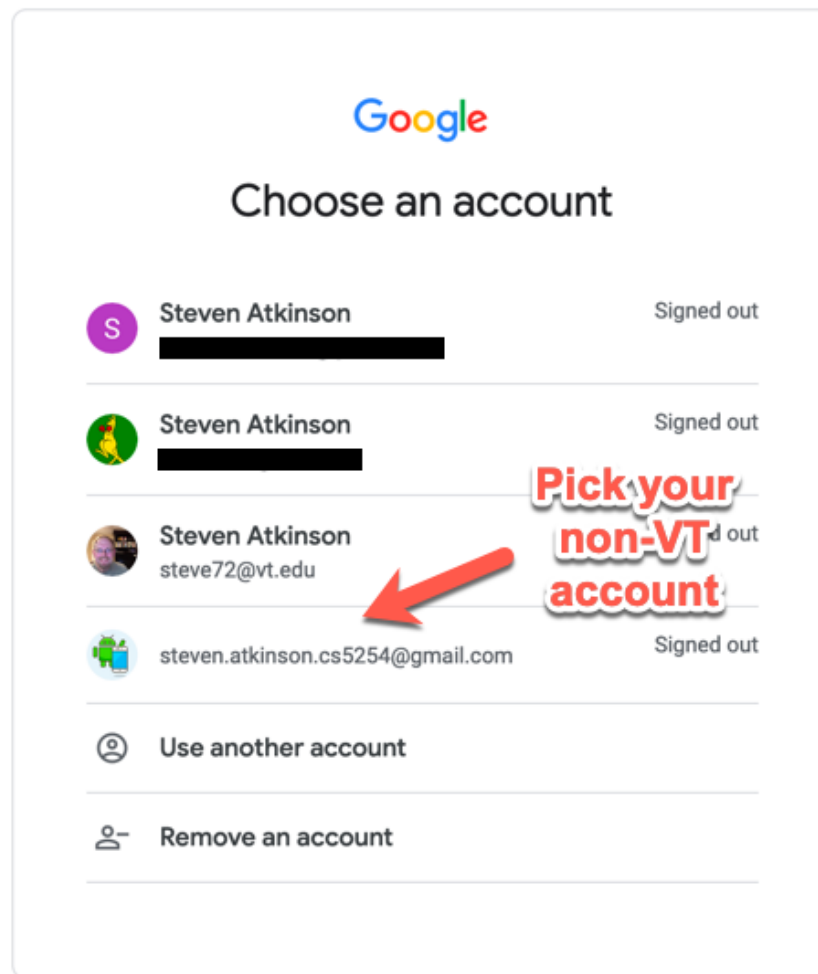
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Make a request for a new android API key.

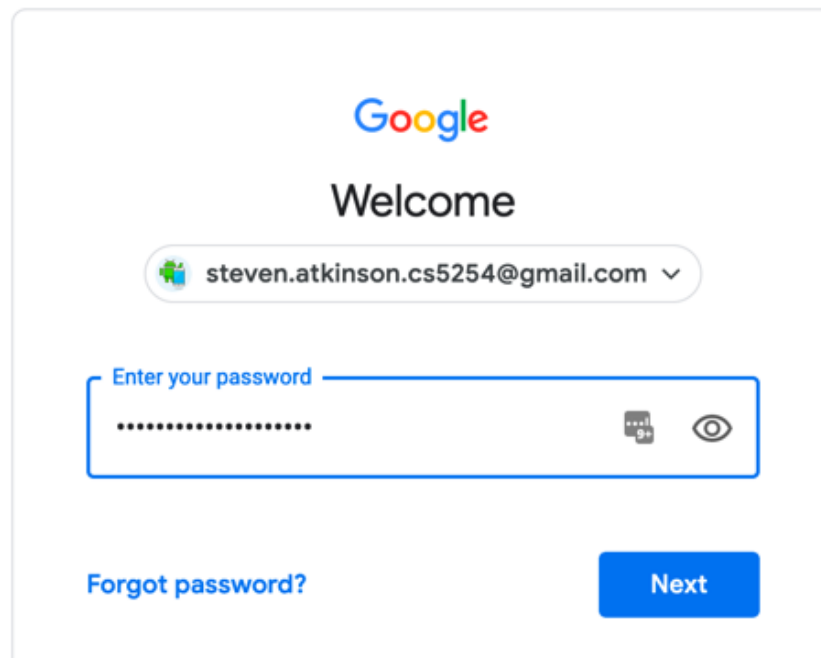
You will be asked to choose an account. Pick your non-VirginiaTech account you just made or are using.

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Enter your password and confirm your account protection method if this is a new account.

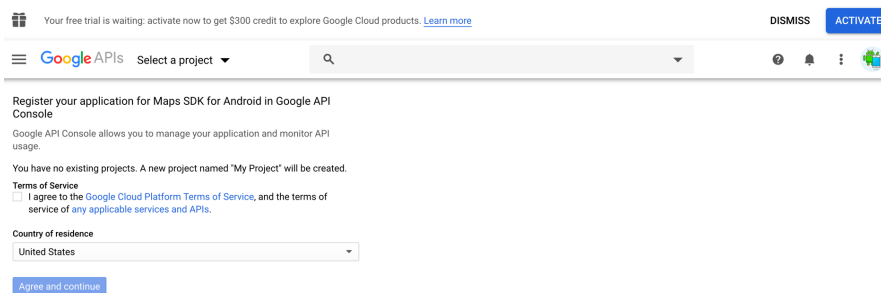
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The image shows a Google sign-in interface. At the top is the Google logo, followed by the word "Welcome". Below this is a rounded rectangle containing a profile icon and the email address "steven.atkinson.cs5254@gmail.com" with a dropdown arrow. Underneath is a password field with the placeholder text "Enter your password" and a series of dots. To the right of the password field are icons for a security key and a toggle to show/hide the password. At the bottom left is a link "Forgot password?" and at the bottom right is a blue "Next" button.

You will arrive on this screen. For now, ignore activating the free trial.

Read and then agree to the terms of service and let them create a new project called "My Project" for you as they describe.



The image shows the Google API Console registration screen. At the top, there is a banner for a free trial with "DISMISS" and "ACTIVATE" buttons. Below the banner is a header with the Google APIs logo, a "Select a project" dropdown, and a search bar. The main content area contains the following text: "Register your application for Maps SDK for Android in Google API Console", "Google API Console allows you to manage your application and monitor API usage.", "You have no existing projects. A new project named 'My Project' will be created.", and "Terms of Service" with a checkbox and a link to the Google Cloud Platform Terms of Service. Below this is a "Country of residence" dropdown menu set to "United States" and an "Agree and continue" button.

It may take a minute but you will then get prompted to create an API key.

Go ahead and click that button!

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The API is enabled

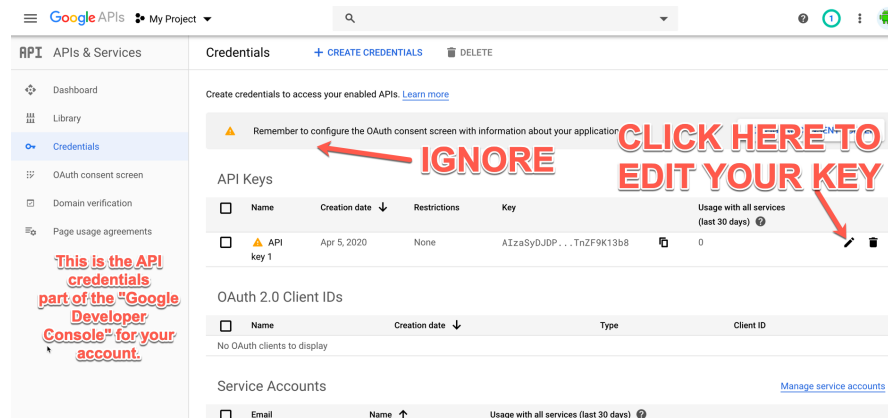
The project has been created and Maps SDK for Android has been enabled.

Next, you'll need to create an API key in order to call the API.

Create API key

You will be taken to the API key section of your Google Developers Console.


We should ignore that warning about consent screens (it is irrelevant for our application) and go ahead to edit our API Key.



We are going to put an API restriction on this key (but not an application restriction). Let's make sure that the API restriction is in place and SAVE.

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Key restrictions

 This key is unrestricted. Restrictions help prevent unauthorized use and quota theft. [Learn more](#)

Use this key in your application by passing it with `key=API_KEY` parameter.

Creation date	April 5, 2020 at 2:01:18 PM GMT-7
Created by	steven.atkinson.cs5254@gmail.com (you)
Total usage (last 30 days)	0

Application restrictions

An application restriction controls which websites, IP addresses, or applications can use your API key. You can set one application restriction per key.

- ☒ None
- ☐ HTTP referrers (web sites)
- ☐ IP addresses (web servers, cron jobs, etc.)
- ☐ Android apps
- ☐ iOS apps

API restrictions

API restrictions specify the enabled APIs that can call

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

Type to filter

☐ Maps SDK for Android

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

SAVE **CANCEL** **Save**

Hit "Restrict Key"

Choose Maps SDK for Android

Your key should now be ready for use. You can copy it to your clipboard and put it into your application.

API Keys

<input type="checkbox"/>	Name	Creation date	Restrictions	Key	Usage with all services (last 30 days)
<input checked="" type="checkbox"/>	API key 1	Apr 5, 2020	Maps SDK for Android	AIzaSyDJDp...TnZF9K13b8	Copy to clipboard ready for use in your code

Our key is green!

Happy Mapping!