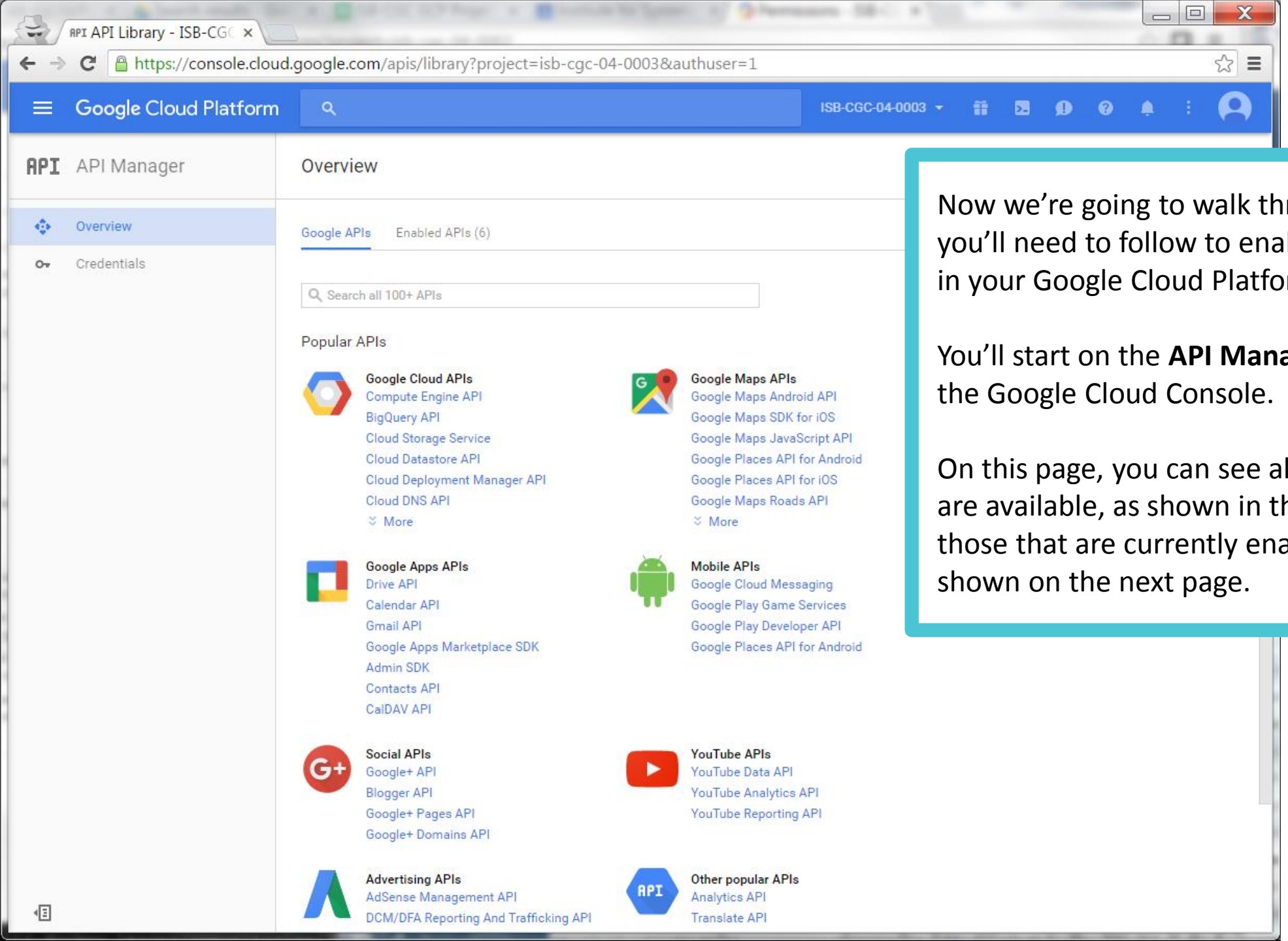
How to Enable APIs for your GCP Project

(in less than 5 minutes)

brought to you by

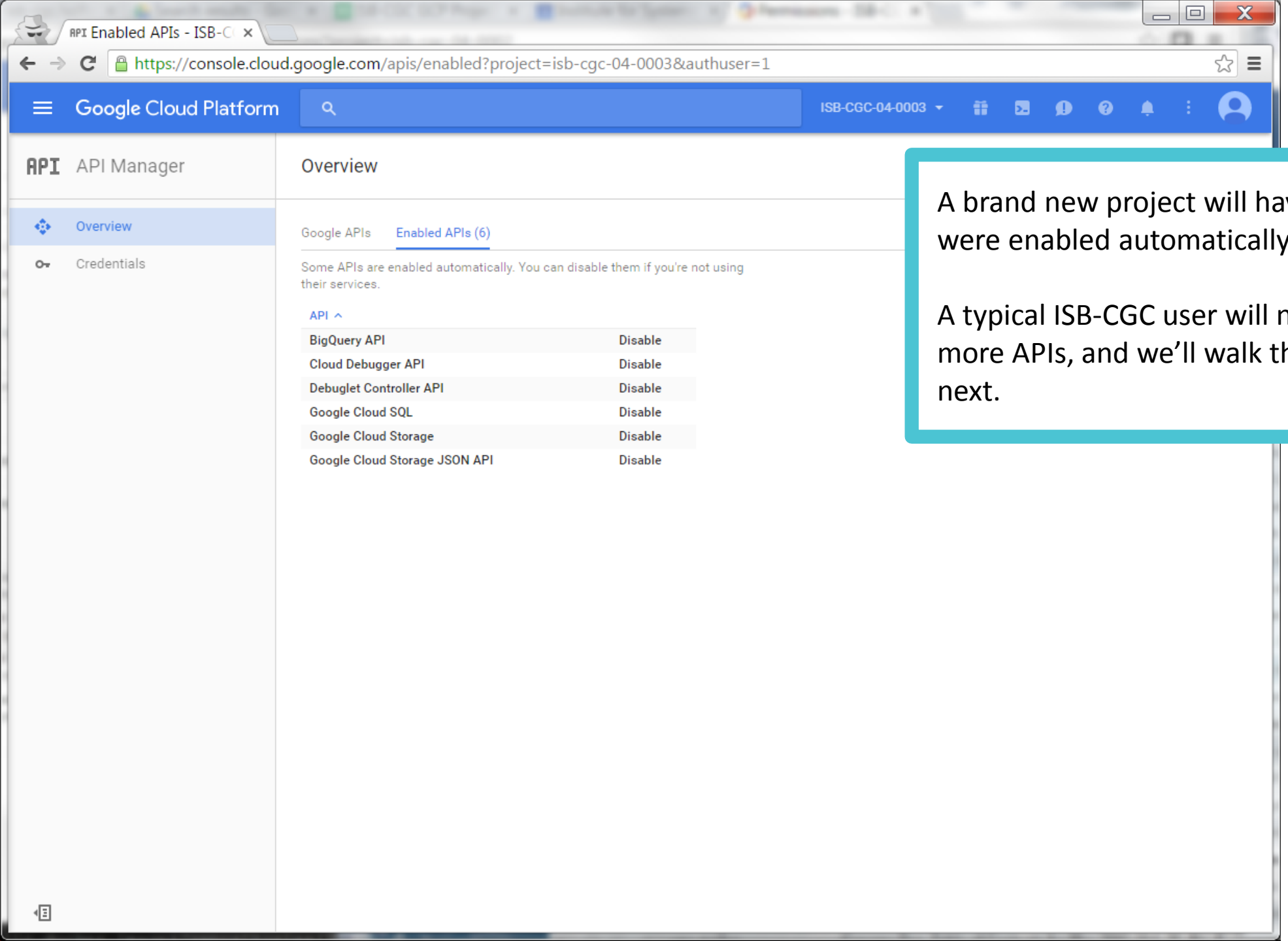
The ISB Cancer Genomics Cloud



Now we're going to walk through the simple steps you'll need to follow to enable a few additional APIs in your Google Cloud Platform project.

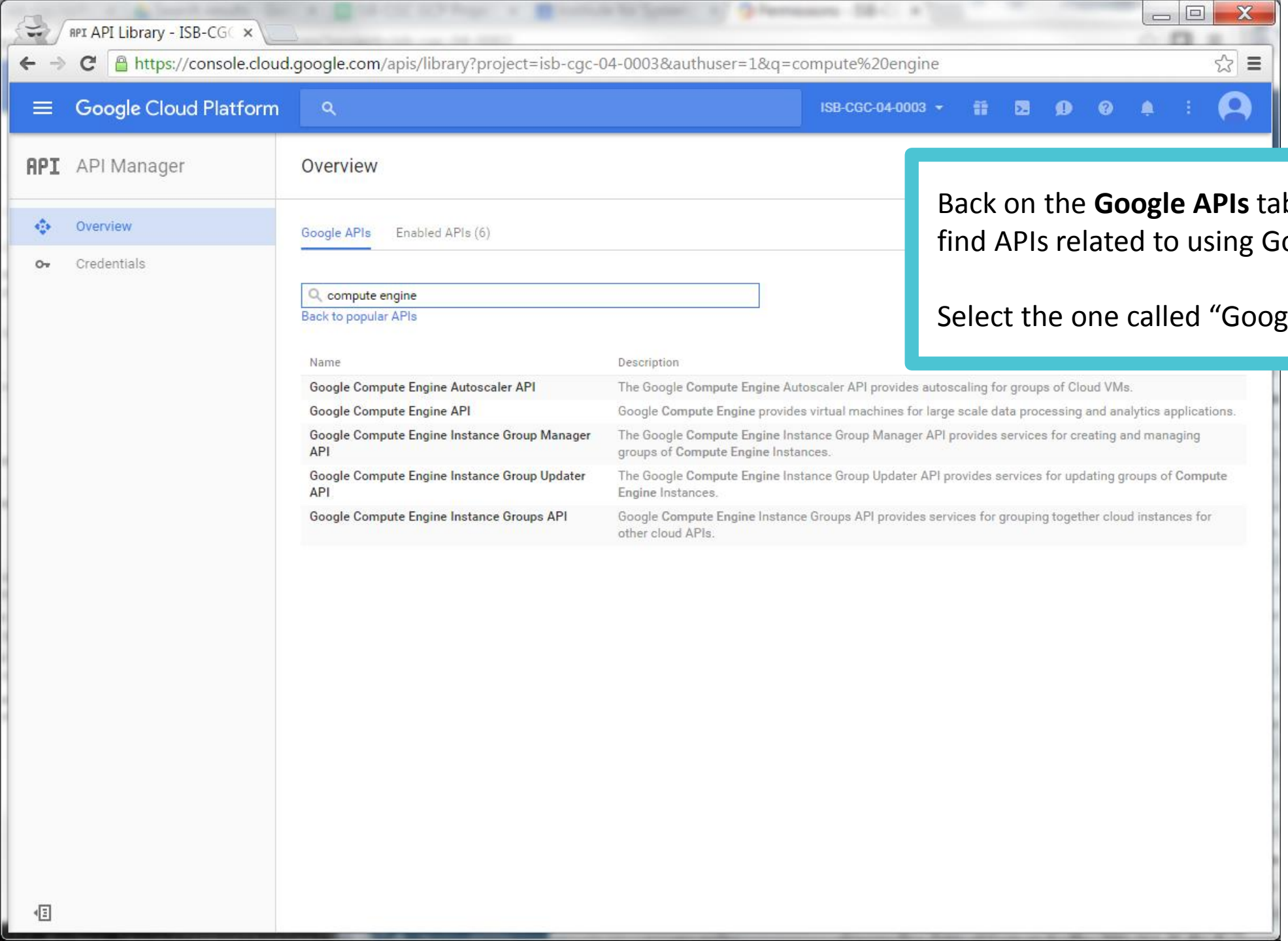
You'll start on the **API Manager** Overview page of the Google Cloud Console.

On this page, you can see all of the 100+ APIs that are available, as shown in this screen-shot, or just those that are currently enabled for your project as shown on the next page.



A brand new project will have only a few APIs that were enabled automatically.

A typical ISB-CGC user will need to enable a few more APIs, and we'll walk through that process next.



Back on the **Google APIs** tab, use the search box to find APIs related to using Google Compute Engine.

Select the one called “Google Compute Engine API”

API Google Compute En

https://console.cloud.google.com/apis/api/compute_component/overview?project=isb-cgc-04-0003&authuser=1

Google Cloud Platform

ISB-CGC-04-0003

API API Manager

Overview

Credentials

Overview

Enable

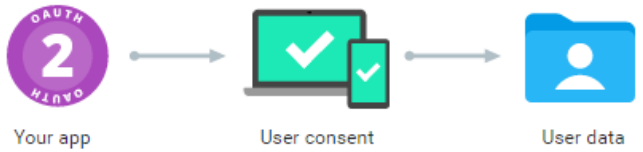
Google Compute Engine API

Google Compute Engine provides virtual machines for large scale data processing and analytics applications.
Learn more
Try this API in APIs Explorer

Using credentials with this API

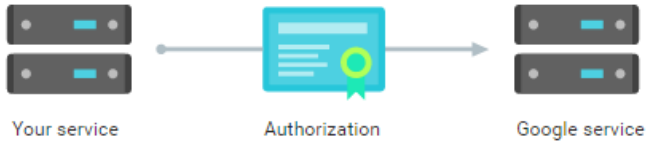
Accessing user data with OAuth 2.0

You can access user data with this API. On the Credentials page, create an OAuth 2.0 client ID. A client ID requests user consent so that your app can access user data. Include that client ID when making your API call to Google. Learn more



Server-to-server interaction

You can use this API to perform server-to-server interaction, for example between a web application and a Google service. You'll need a service account, which enables app-level authentication. You'll also need a service account key, which is used to authorize your API call to Google. Learn more



If by chance it had already been enabled, this page would prompt you to Disable it if that's what you want.

Since it has not been enabled for this project, we see the blue Enable button. Click **Enable**.

API Google Compute En

https://console.cloud.google.com/apis/api/compute_component/overview?project=isb-cgc-04-0003&authuser=1

Google Cloud Platform

ISB-CGC-04-0003

API API Manager

Overview

Credentials

Overview

Enabling

Google Compute Engine API

Google Compute Engine provides virtual machines for large scale data processing and analytics applications.
Learn more
Try this API in APIs Explorer

Using credentials with this API

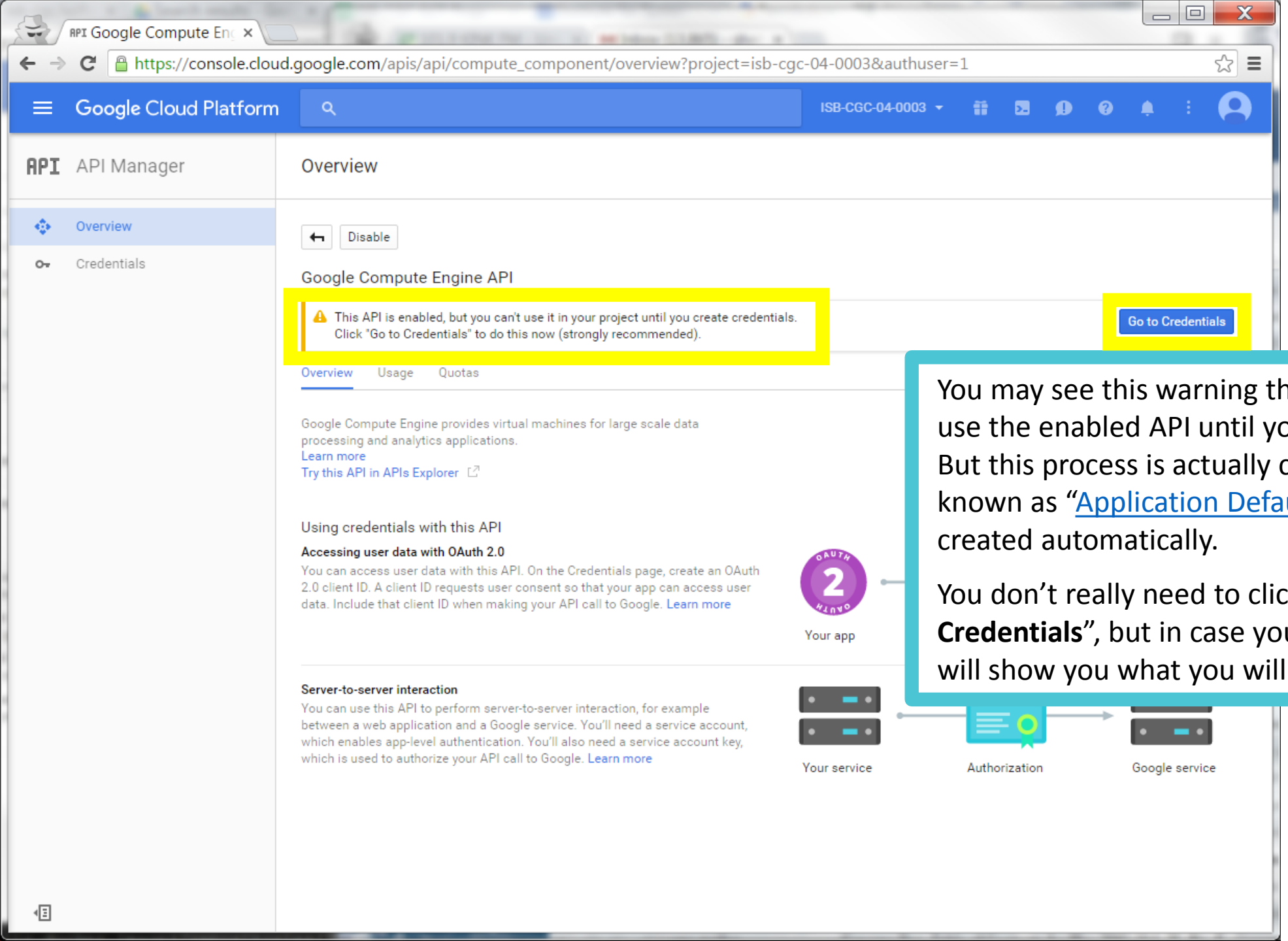
Accessing user data with OAuth 2.0

You can access user data with this API. On the Credentials page, create an OAuth 2.0 client ID. A client ID requests user consent so that your app can access user data. Include that client ID when making your API call to Google. Learn more

Server-to-server interaction

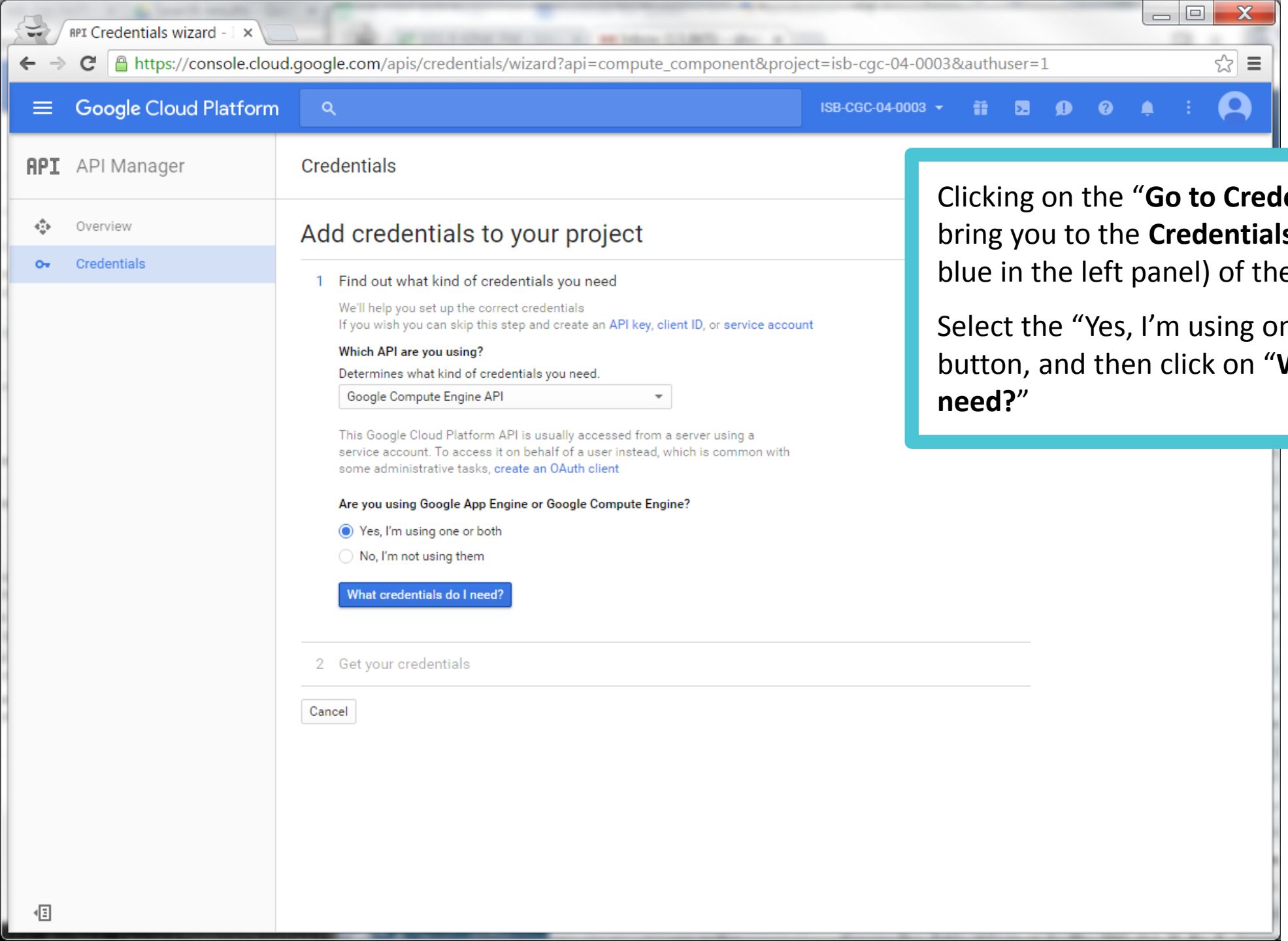
You can use this API to perform server-to-server interaction, for example between a web application and a Google service. You'll need a service account, which enables app-level authentication. You'll also need a service account key, which is used to authorize your API call to Google. Learn more

Enabling the API should take less than a minute…



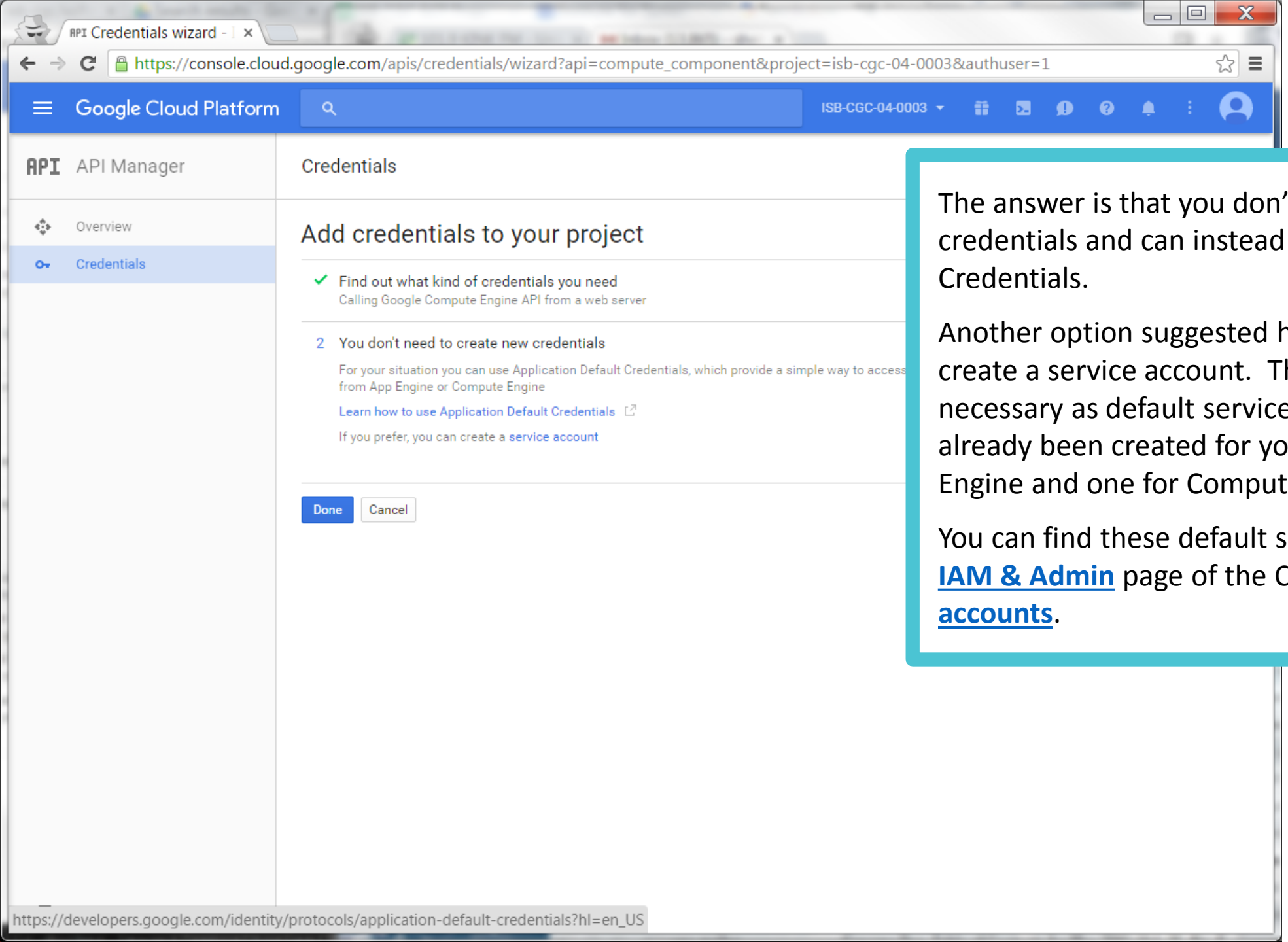
You may see this warning that you won't be able to use the enabled API until you create credentials. But this process is actually changing and credentials known as "Application Default Credentials" are now created automatically.

You don't really need to click on the "**Go to Credentials**", but in case you do the next few slides will show you what you will (or would) see.



Clicking on the "**Go to Credentials**" button, will bring you to the **Credentials** portion (highlighted in blue in the left panel) of the API Manager page.

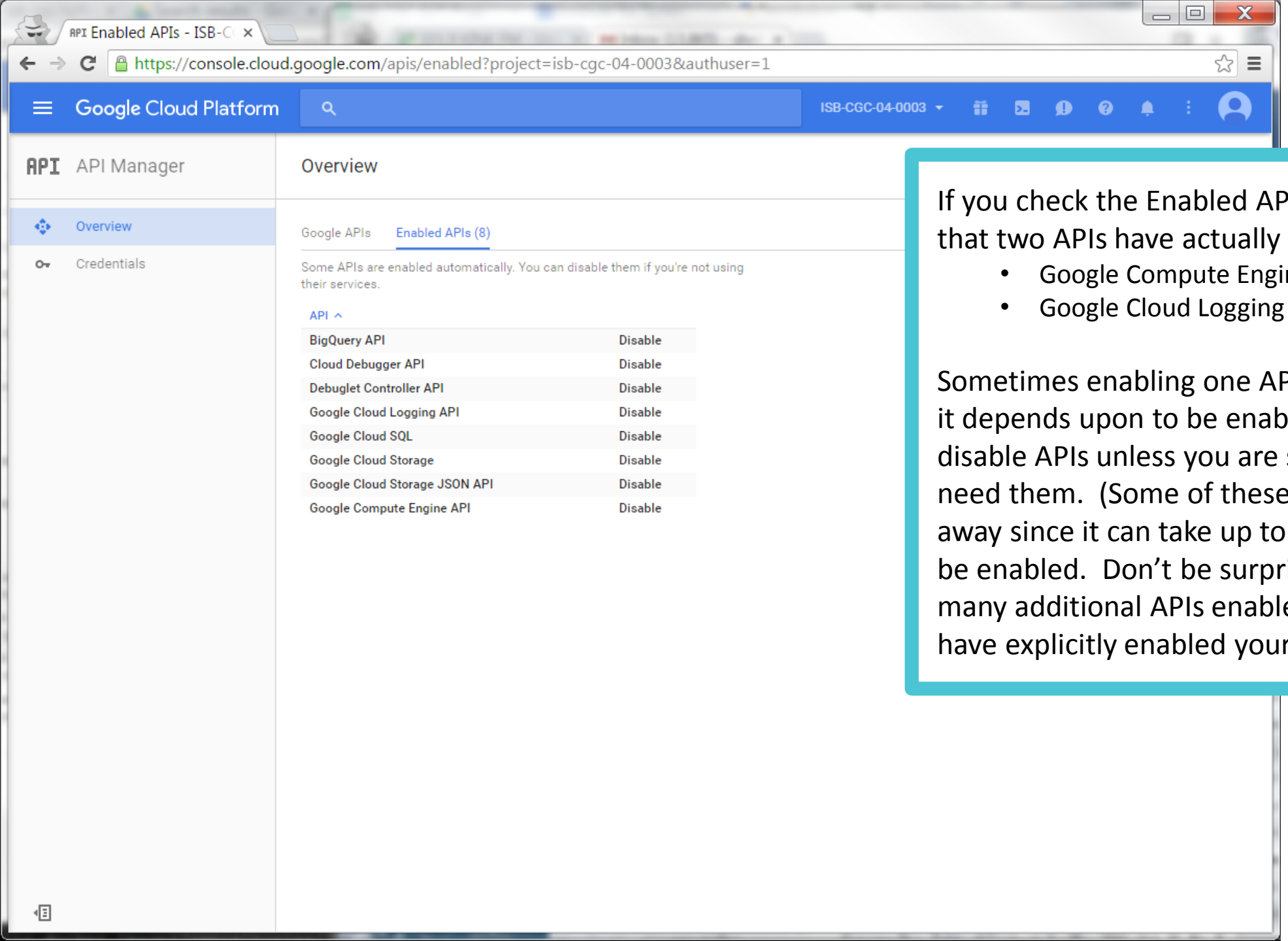
Select the "Yes, I'm using one or both" toggle button, and then click on "**What credentials do I need?**"



The answer is that you don't need to create new credentials and can instead use Application Default Credentials.

Another option suggested here is that you can create a service account. This is also generally *not* necessary as default service accounts will have already been created for your project: one for App Engine and one for Compute Engine.

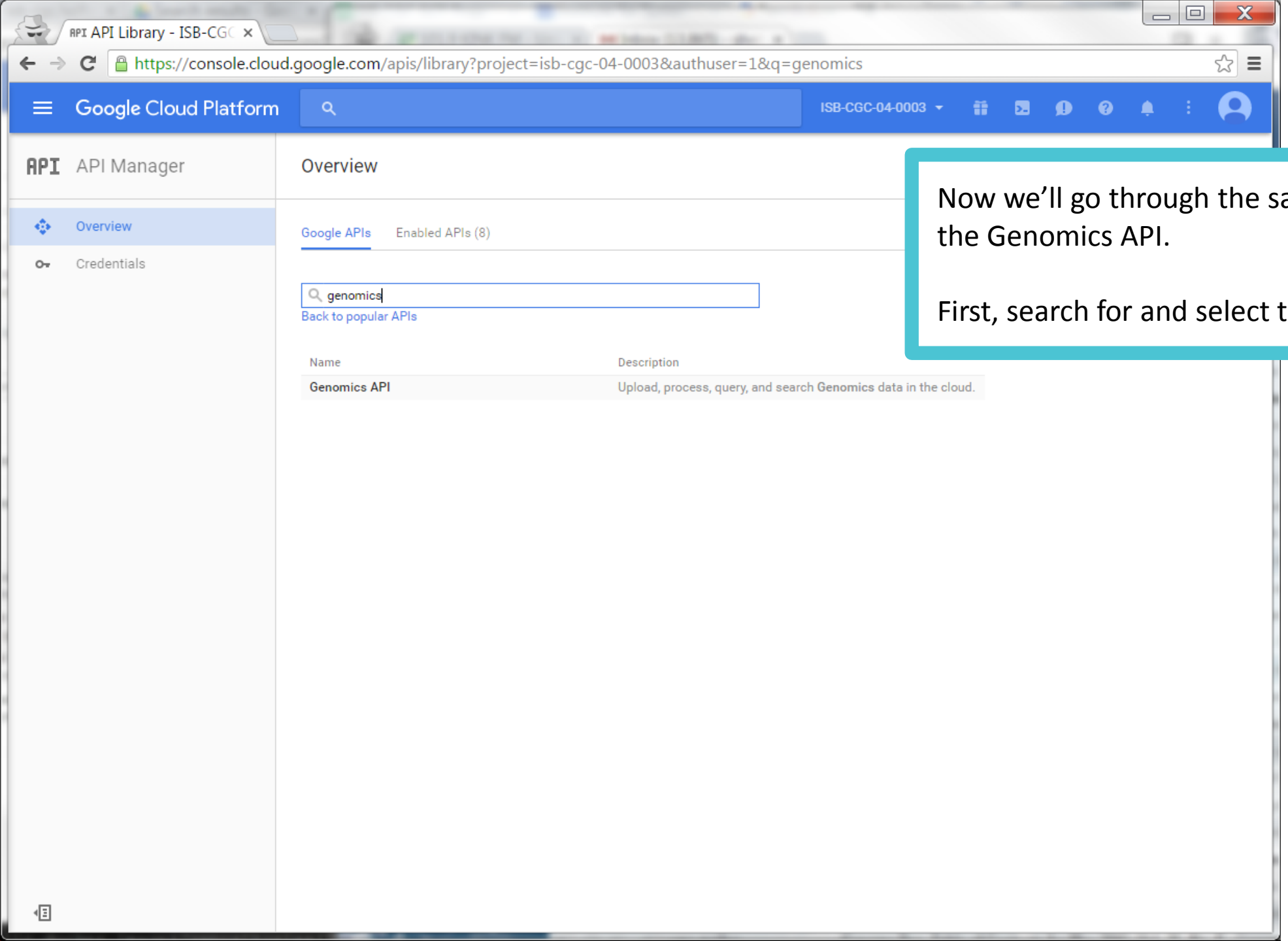
You can find these default service accounts on the **IAM & Admin** page of the Console, under **Service accounts**.



If you check the Enabled APIs page now, you'll see that two APIs have actually been added:

- Google Compute Engine API
- Google Cloud Logging API

Sometimes enabling one API will cause others that it depends upon to be enabled as well. Do not disable APIs unless you are sure that you don't need them. (Some of these may not show up right away since it can take up to a minute for an API to be enabled. Don't be surprised if you later see many additional APIs enabled that you may not have explicitly enabled yourself.)



Now we'll go through the same process to enable the Genomics API.

First, search for and select the **Genomics API**.

API Genomics API - ISB-C

https://console.cloud.google.com/apis/api/genomics/overview?project=isb-cgc-04-0003&authuser=1

Google Cloud Platform

ISB-CGC-04-0003

API API Manager

- Overview
- Credentials

Overview

Enable

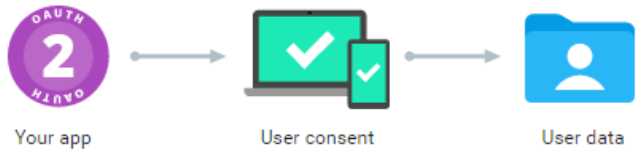
Genomics API

Upload, process, query, and search Genomics data in the cloud.
Learn more
Try this API in APIs Explorer

Using credentials with this API

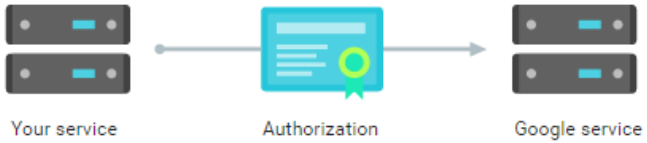
Accessing user data with OAuth 2.0

You can access user data with this API. On the Credentials page, create an OAuth 2.0 client ID. A client ID requests user consent so that your app can access user data. Include that client ID when making your API call to Google. Learn more



Server-to-server interaction

You can use this API to perform server-to-server interaction, for example between a web application and a Google service. You'll need a service account, which enables app-level authentication. You'll also need a service account key, which is used to authorize your API call to Google. Learn more



And then click **Enable**.

API API Manager

Overview
Credentials

Overview

Enabling •••

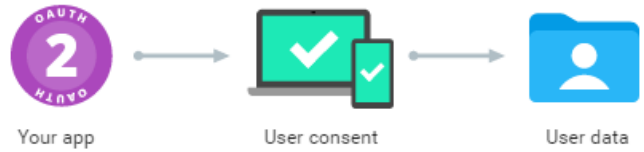
Genomics API

Upload, process, query, and search Genomics data in the cloud.
Learn more
Try this API in APIs Explorer

Using credentials with this API

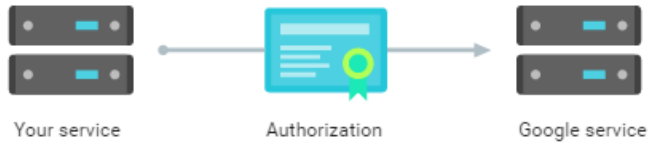
Accessing user data with OAuth 2.0

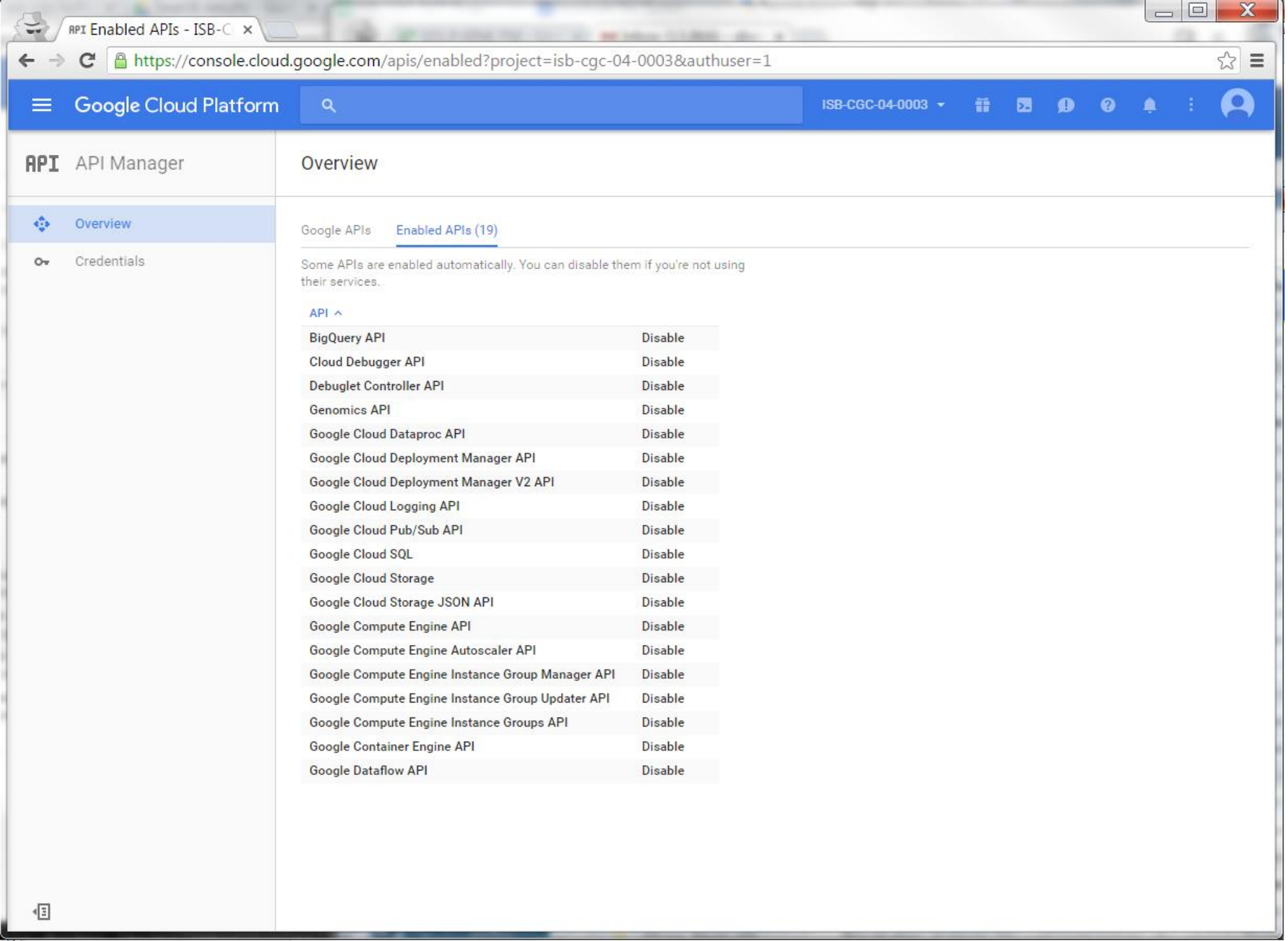
You can access user data with this API. On the Credentials page, create an OAuth 2.0 client ID. A client ID requests user consent so that your app can access user data. Include that client ID when making your API call to Google. Learn more



Server-to-server interaction

You can use this API to perform server-to-server interaction, for example between a web application and a Google service. You'll need a service account, which enables app-level authentication. You'll also need a service account key, which is used to authorize your API call to Google. Learn more




API Enabled APIs - ISB-C
https://console.cloud.google.com/apis/enabled?project=isb-cgc-04-0003&authuser=1
Google Cloud Platform
ISB-CGC-04-0003
API Manager
Overview
Credentials
Overview
Google APIs
Enabled APIs (19)
Some APIs are enabled automatically. You can disable them if you're not using their services.
API
BigQuery API Disable
Cloud Debugger API Disable
Debuglet Controller API Disable
Genomics API Disable
Google Cloud Dataproc API Disable
Google Cloud Deployment Manager API Disable
Google Cloud Deployment Manager V2 API Disable
Google Cloud Logging API Disable
Google Cloud Pub/Sub API Disable
Google Cloud SQL Disable
Google Cloud Storage Disable
Google Cloud Storage JSON API Disable
Google Compute Engine API Disable
Google Compute Engine Autoscaler API Disable
Google Compute Engine Instance Group Manager API Disable
Google Compute Engine Instance Group Updater API Disable
Google Compute Engine Instance Groups API Disable
Google Container Engine API Disable
Google Dataflow API Disable

isb-cgc.org

Institute for Systems Biology

Cancer Genomics Cloud

What Next?

Now that you've enabled the Compute Engine and Genomics APIs, you can launch VMs, run Pipelines, and import/query data in Google Genomics.

The ISB-CGC platform includes an interactive Web App, over a Petabyte of TCGA data in Google Genomics and Cloud Storage, and tutorials and code examples on GitHub to get you started.

Documentation for the ISB-CGC platform and Google Genomics can be found on readthedocs.