Oct 20, 2021

🌐 Terra Registration - Linking GCP Credits to the Terra Platform

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protocol .

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This Terra registration protocol provides step-by-step guidance to register and activate a Google account as well enable Google Cloud free credits ($300) to use with the Terra platform. Terra runs using the Google Cloud Platform (GCP) as a backend for analysis and data storage. Compute costs are routed through the linked Google account. This is why you must link your Terra billing project to the Google Cloud Platform.

The registration process includes two parts, activating the GCP and linking the Google credits to the Terra platform. Upon creating the Terra account, GCP will be activated. This will allow your billing project on Terra to be connected to the Google cloud credits in order to run the desired analysis in Terra workspace.

https://support.terra.bio/hc/en-us/articles/360034677651-Account-setup-and-exploring-Terra

For technical assistance, please contact: **TOAST@cdc.gov**

ONT, Nanopore, SARS-CoV-2, MinION, GridION, PromethION, MK1C, Pangolin, Genomics, Analysis, Virology, Bioinformatics, RNA, DNA, Clear Labs, Covid, Computational Biology, Sequencing, Clear Labs, Hamilton, Terra

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Setup Terra and Google Cloud Accounts

1 To set up and link google account to Terra follow the instructions from the links below.

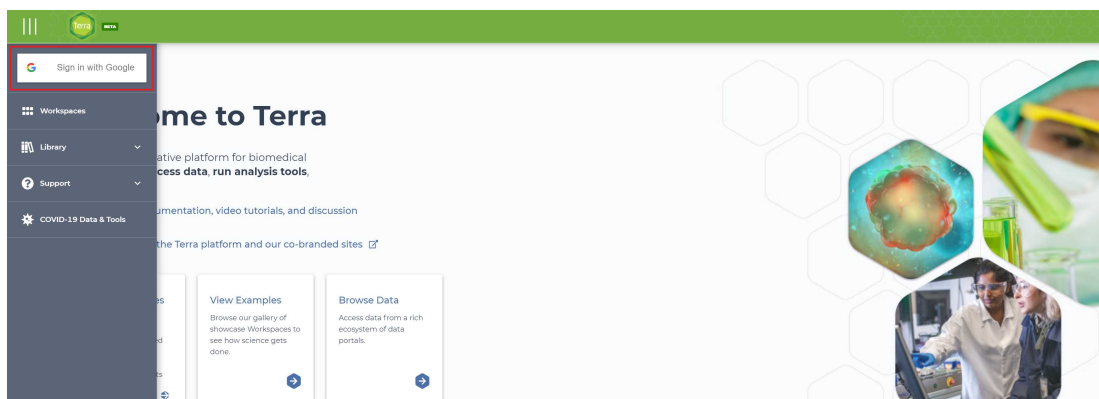**For detailed step-by-step instructions scroll down to Step 2.**

The Terra platform registration requires a Google account. If you have a Google account you can sign in using the Terra login page:
https://app.terra.bio/
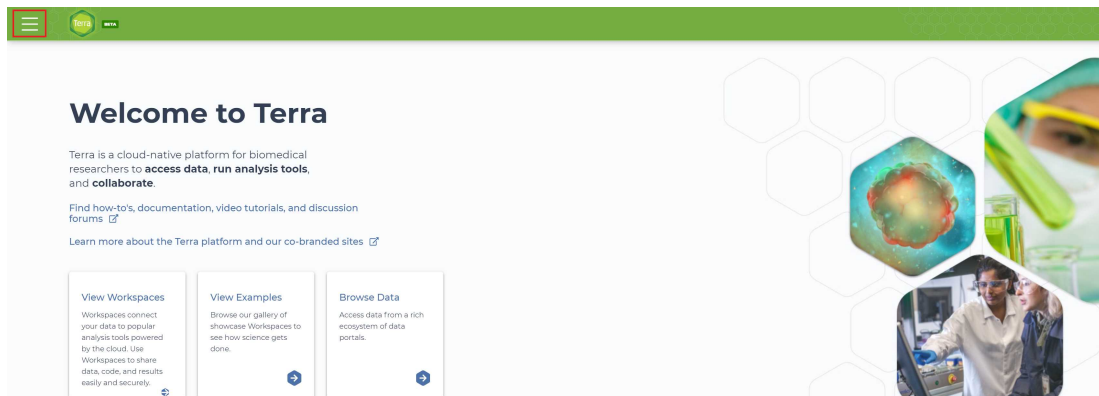
Welcome page for Terra.bio

Click on the three parallel lines in the top left-hand corner and click the 'Sign in with Google' button.

Terra.bio welcome page with selection panel open.

If you do not have Google email you can set up a Google account with a non-Google email. The steps to do this are described in the following link: https://support.terra.bio/hc/en-us/articles/360029186611
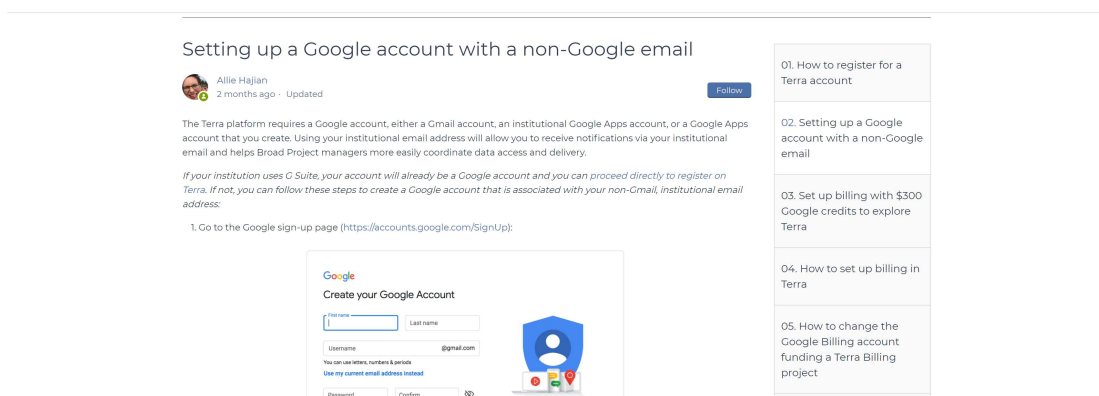
The Terra platform uses Google Cloud to run workflows and store data. The following documentation will describe how to set up a Google Cloud account: https://support.terra.bio/hc/en-us/articles/360046295092

To link your Terra platform account with your Google Cloud account follow the instructions provided in the following link: https://support.terra.bio/hc/en-us/articles/360026182251-How-to-set-up-billing-in-Terra

Scroll down to Section 3 titled "Create a Terra Billing Project" and follow the instructions. **It is important to note that the name you give to your Terra Billing Project must be unique across all Google Billing Projects.** If the name provided is not unique, it won't immediately throw an error, but instead will not complete the process of associating the Google Billing account with the Terra Billing Project. If this occurs cancel the process and set up a new Terra Billing Project.

2 Setting up the Google Cloud Platform (GCP) free credits to use in Terra

If you already have a google account, login using that. If not follow the instructions to create new a account.

Note: If you want to use your work/organization email, you can definitely set up your account using that.
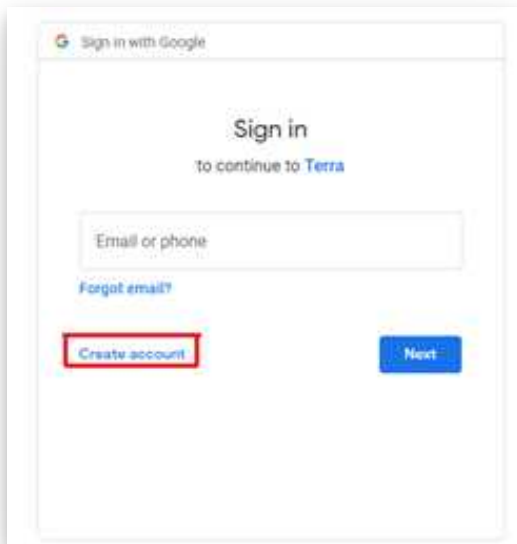

Once you create your google account, you will be redirected to the Terra registration page, click "Register" and it will then land you on the Terra welcome page.

Now you need to activate the Google Cloud Platform (GCP) to add credits to your Terra account, to do this go to google console here: https://console.cloud.google.com/ make sure you log in with the Terra user id that you just created, that will land you here, go ahead and click "Activate" (see on right corner of the page)
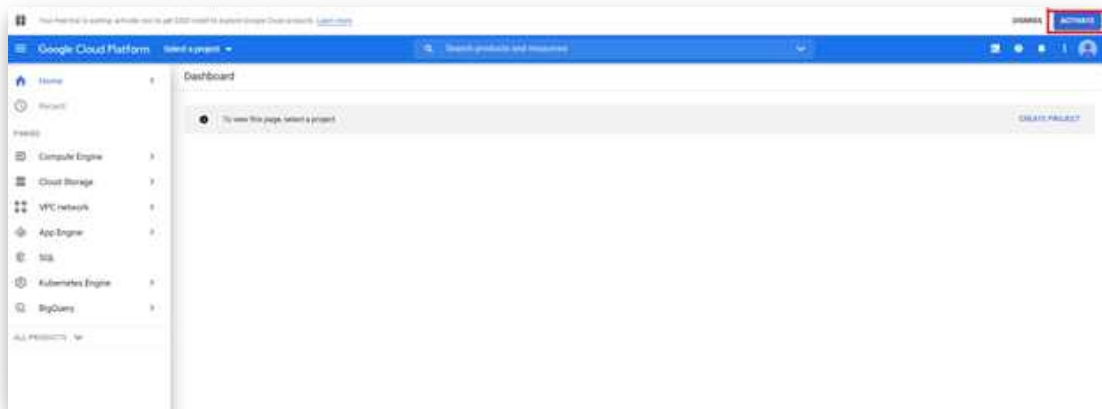
You will be asked to Accept the Terms and Payment Information Verification, where you will provide the account type as "Individual"/"Business" and payment Method. **You won't be charged until you enable autopayment after free credits.**
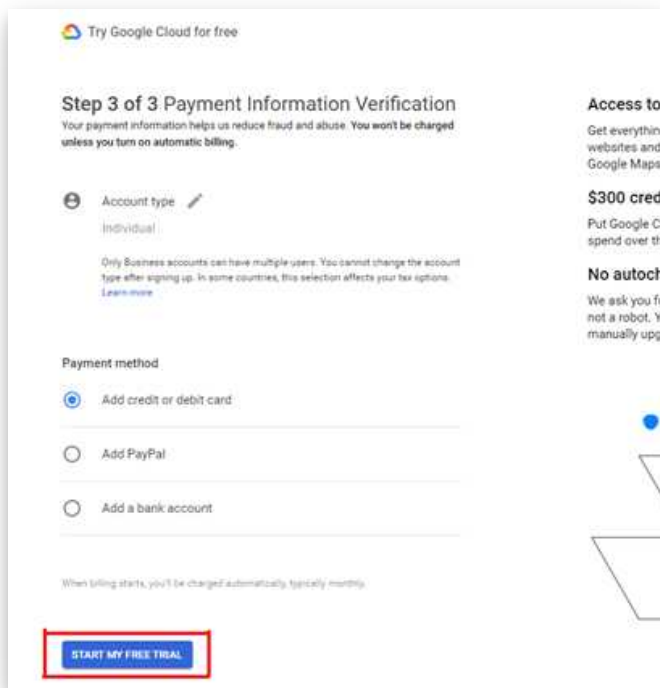
Then you will be directed to the google cloud platform home page. You can check the status of this activation, from the left side menu by select Billing and "My Billing Account".
(you can use link to reach directly to billing page,
**https://console.cloud.google.com/billing**)
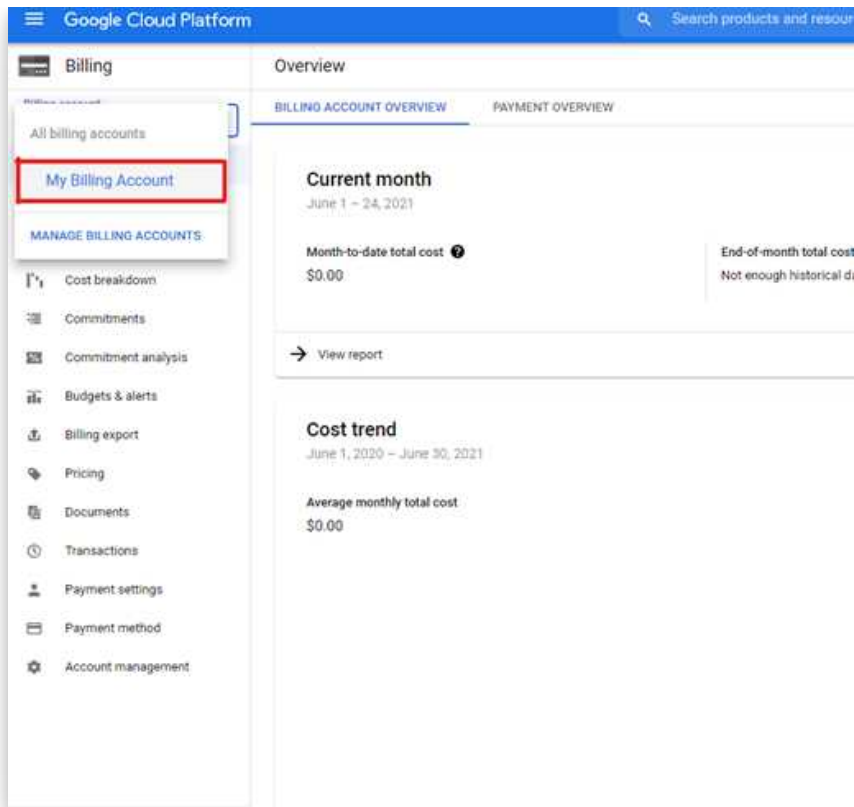
On the "My Billing Account" Page you will see your status as "Active" .

Now let's link your billing account (Terra in this case) on GCP console. On the same page select My Billing Accounts and check the box "My billing Project" which enables to "ADD MEMBER" (you will see this on right side of the page).

Add terra-billing@terra.bio to grant access to the billing account and set the role as "Billing Account User" from the drop down menu. **Don't forget to save the changes**
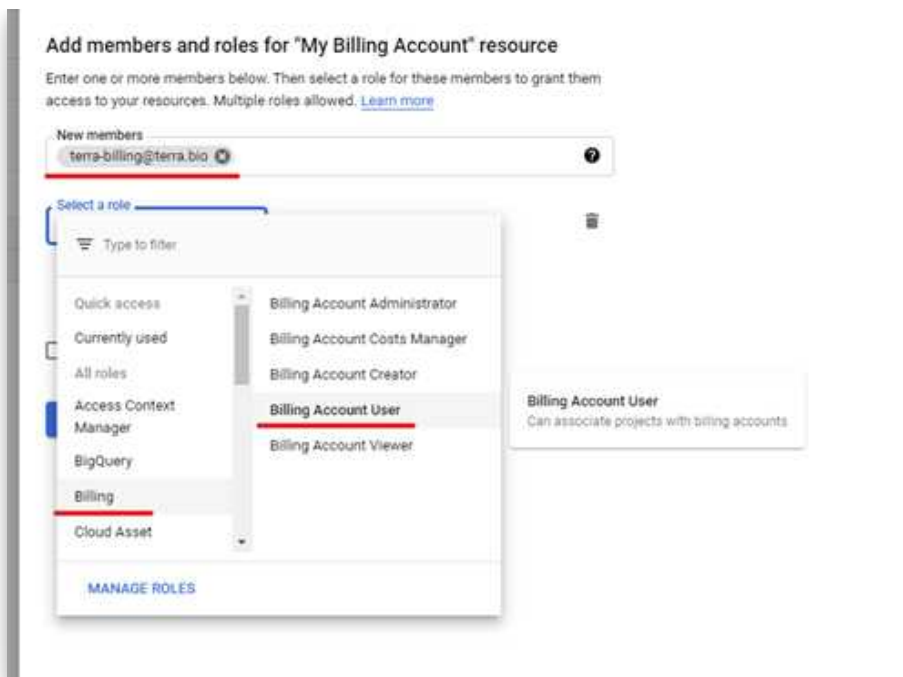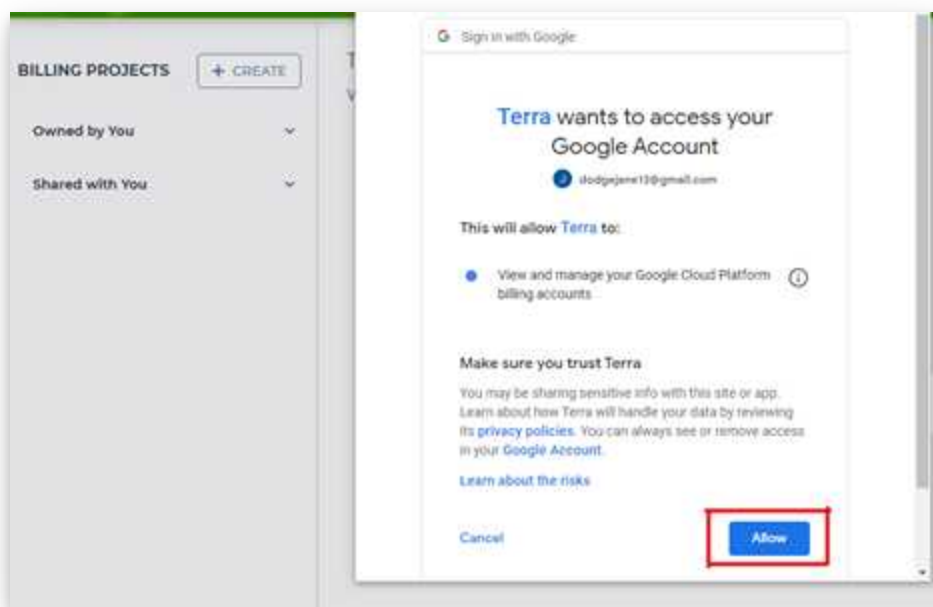
Once you added the credits and linked your GCP billing account, you will now able to create billing project in Terra and start using the credits. Get back to Terra platform, select "Billing" from the to create Projects
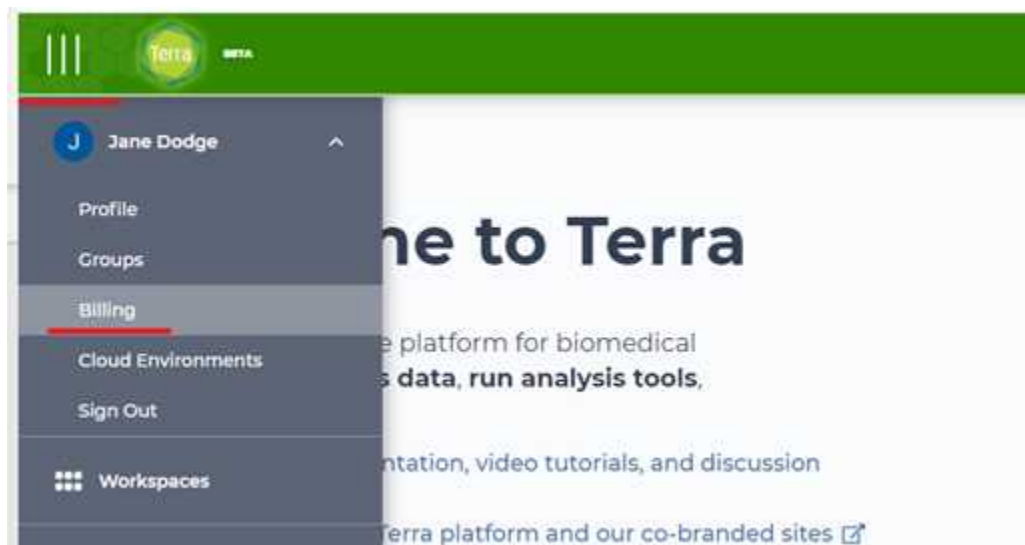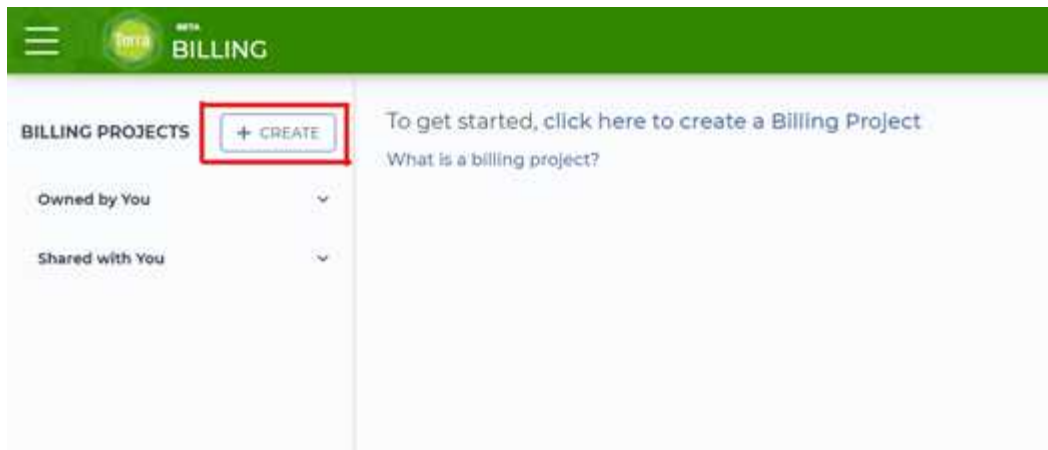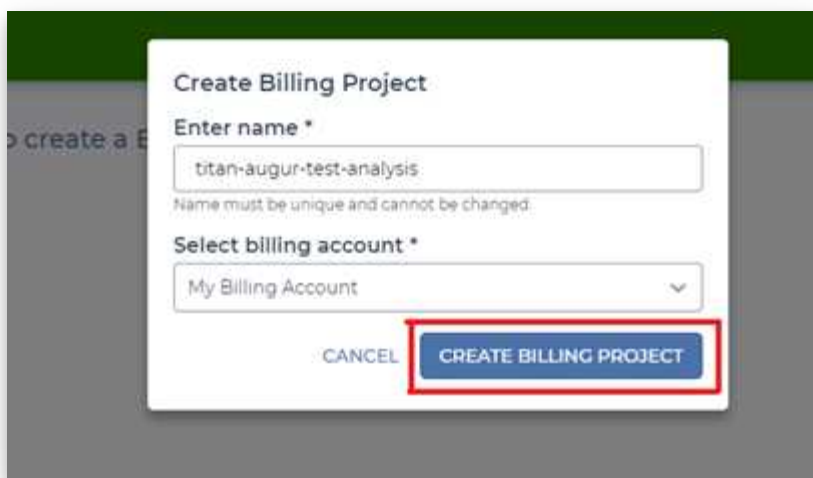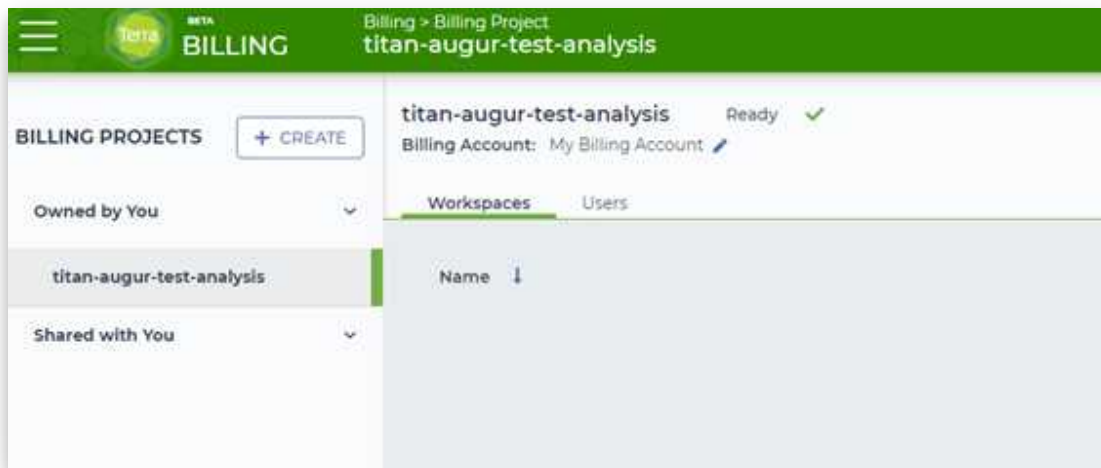
This will redirect to the google account, allow access to Terra

Enter the name of your project and select billing account (that you just created and activated) from the dropdown menu and "Create your Billing Project".

This is how it will look at your finished.

You are all set to create workspaces and run analysis. Good Luck!