

Supplementary Material for HYDRAFloods Module 2

Generating a Google Earth Engine Authorization Token

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Prepared for “Observing and Modelling Surface Water in a Changing World” at ITC
Quartile 3 2022-2023



USAID
FROM THE AMERICAN PEOPLE



Step 1: Run the cell that says ee.Authenticate()

Step 2: Click the blue link as shown in the image below

```
# Trigger the authentication flow.
ee.Authenticate()

# Initialize the library.
ee.Initialize()
```

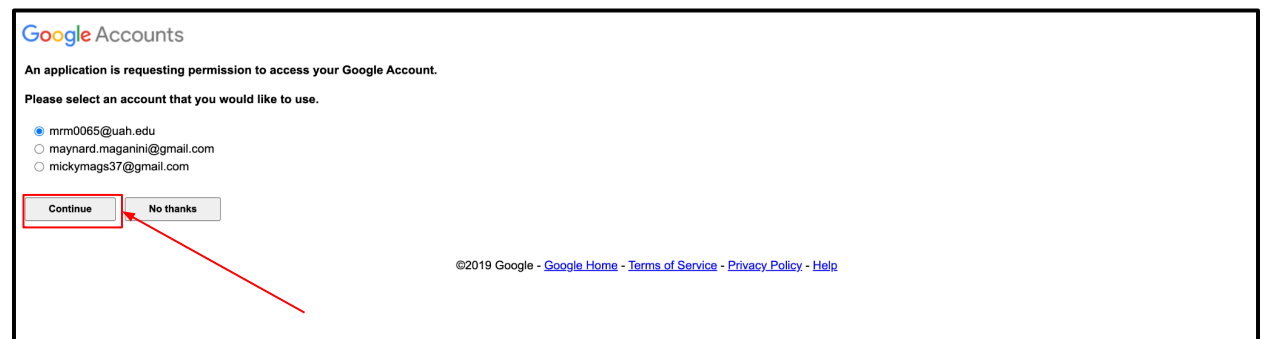
... To authorize access needed by Earth Engine, open the following URL in a web browser and follow the instructions. If the web browser does not start automatically, click the link below.

https://code.earthengine.google.com/client-auth?scopes=https%3A%2F%2Fwww.googleapis.com/auth/earthengine%20https%3A%2F%2Fwww.googleapis.com/auth/devstorage.read_only

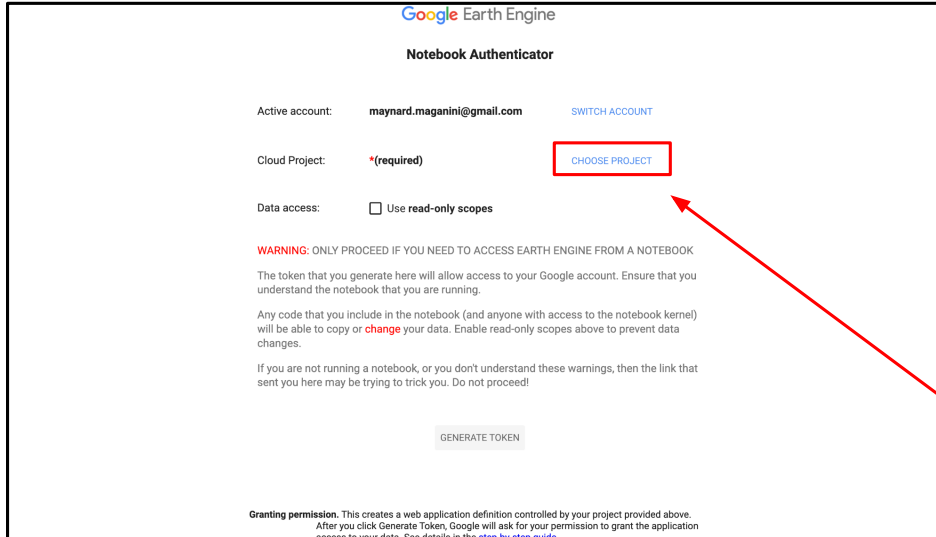
The authorization workflow will generate a code, which you should paste in the box below.

Enter verification code:

Step 3: Select the google account (the same google account you are using with Google Earth Engine), then select “Continue”.



Step 4: Click the “Choose Project” Text as shown below



Google Earth Engine

Notebook Authenticator

Active account: maynard.maganini@gmail.com SWITCH ACCOUNT

Cloud Project: *(required) CHOOSE PROJECT

Data access: ☐ Use read-only scopes

WARNING: ONLY PROCEED IF YOU NEED TO ACCESS EARTH ENGINE FROM A NOTEBOOK

The token that you generate here will allow access to your Google account. Ensure that you understand the notebook that you are running.

Any code that you include in the notebook (and anyone with access to the notebook kernel) will be able to copy or **change** your data. Enable read-only scopes above to prevent data changes.

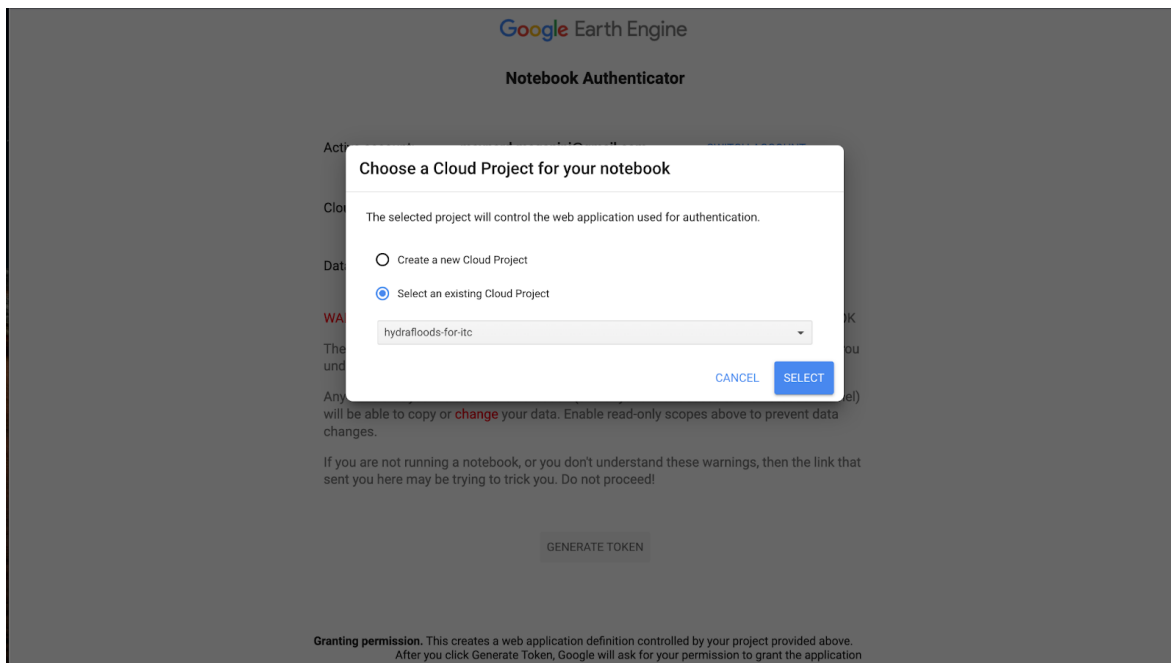
If you are not running a notebook, or you don't understand these warnings, then the link that sent you here may be trying to trick you. Do not proceed!

GENERATE TOKEN

Granting permission. This creates a web application definition controlled by your project provided above. After you click Generate Token, Google will ask for your permission to grant the application access to your data. See details in the [app-credentials guide](#).

Step 5: Select the “hydraflooding-for-itc” project as shown below

- Click the circle next to “Select an existing Cloud Project”
- Click “Select a Cloud Project”
- Type in “hydraflooding”
- Click on “hydraflooding-for-itc”
- Click the blue “Select” button towards the bottom right of the popup panel



Google Earth Engine

Notebook Authenticator

Choose a Cloud Project for your notebook

The selected project will control the web application used for authentication.

☐ Create a new Cloud Project

☒ Select an existing Cloud Project

hydraflooding-for-itc

CANCEL SELECT

GENERATE TOKEN

Granting permission. This creates a web application definition controlled by your project provided above. After you click Generate Token, Google will ask for your permission to grant the application access to your data. See details in the [app-credentials guide](#).

4/1AWtgzh7ypP1kt4RsNpgF5hTTmD0MCajKMeB9etfrA7gUiIM2TVTWH8c4SFM

Step 6: Click the blue “Generate Token” button shown by the black arrow in the image below.

Google Earth Engine

Notebook Authenticator

Active account: **maynard.maganini@gmail.com** [SWITCH ACCOUNT](#)

Cloud Project: **hydraflooding-for-its** [CHOOSE PROJECT](#)

Data access: ☐ Use read-only scopes

WARNING: ONLY PROCEED IF YOU NEED TO ACCESS EARTH ENGINE FROM A NOTEBOOK

The token that you generate here will allow access to your Google account. Ensure that you understand the notebook that you are running.

Any code that you include in the notebook (and anyone with access to the notebook kernel) will be able to copy or **change** your data. Enable read-only scopes above to prevent data changes.

If you are not running a notebook, or you don't understand these warnings, then the link that sent you here may be trying to trick you. Do not proceed!

Note: Project **hydraflooding-for-its** has already been set up for notebook authentication by **mrm0065@uah.edu**. Continue only if **mrm0065@uah.edu** is a collaborator that you know.

GENERATE TOKEN

Step 7: Click the Google Account that you have registered in Google Earth Engine, as shown by the red arrow in the image below.

Sign in with Google

Choose an account

to continue to

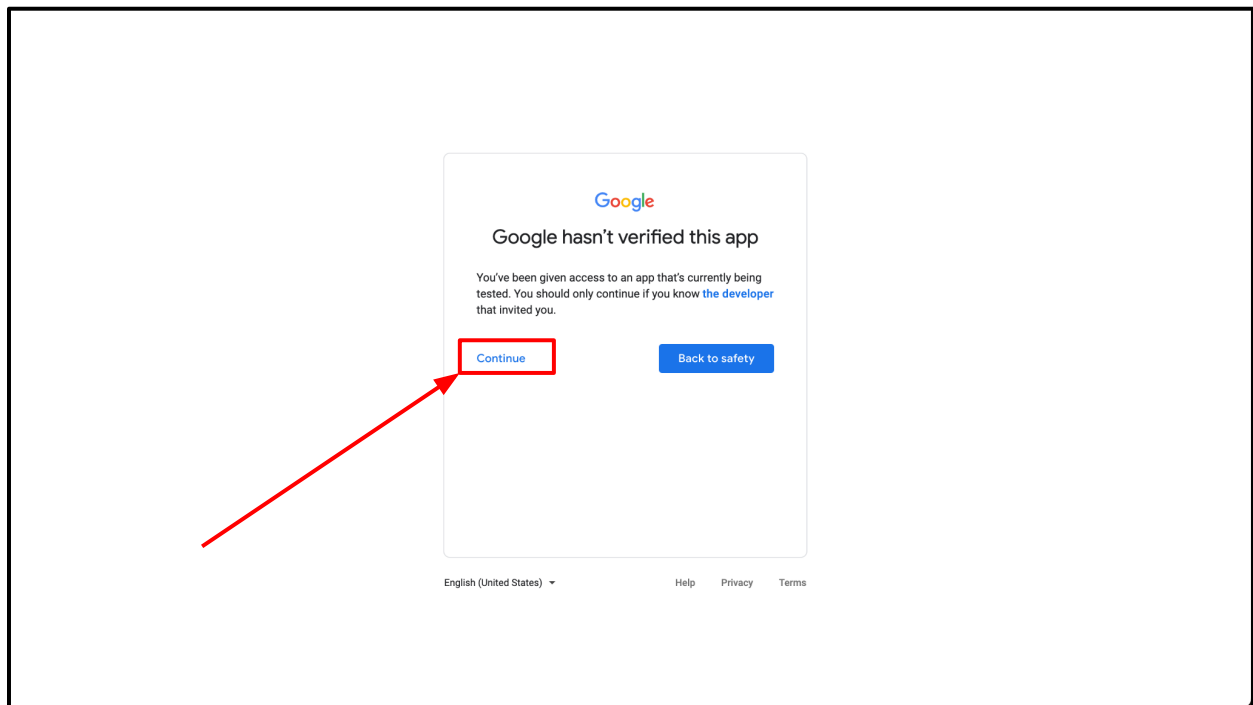
Earth Engine Notebook Client - **mrm0065@uah.edu**

M Maynard Maganini
maynard.maganini@gmail.com

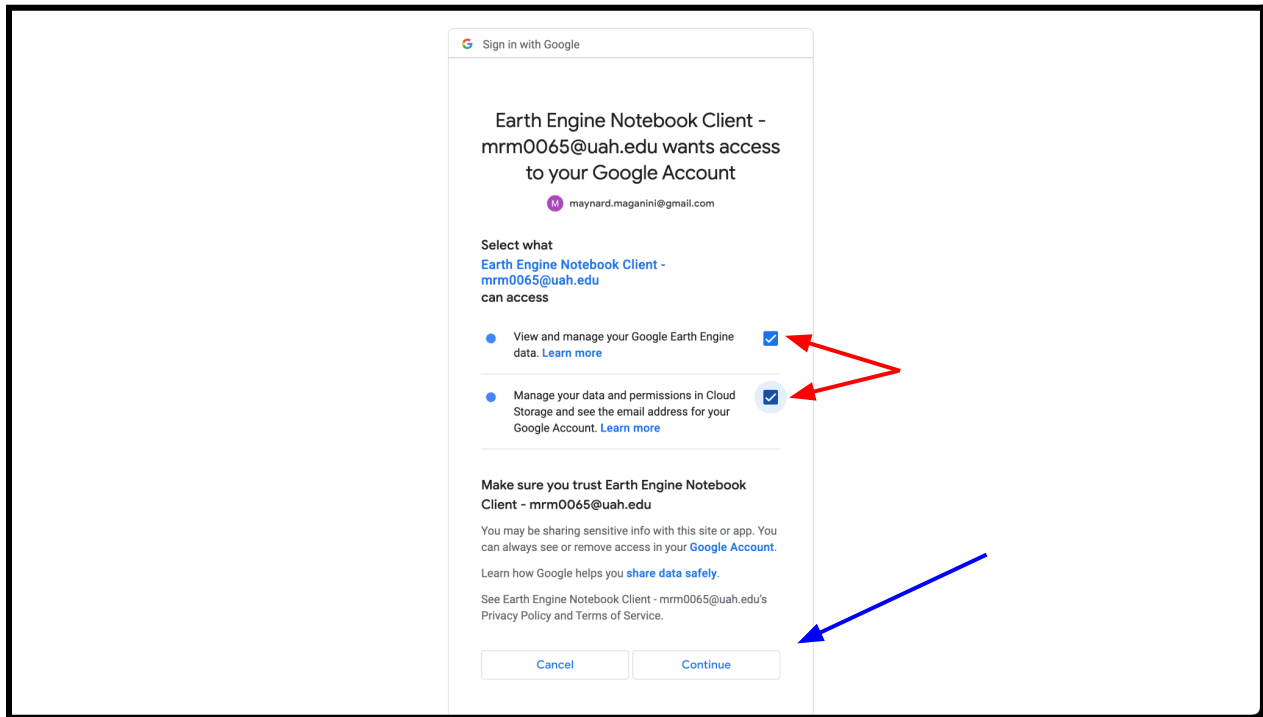
Use another account

English (United States) ▼ Help Privacy Terms

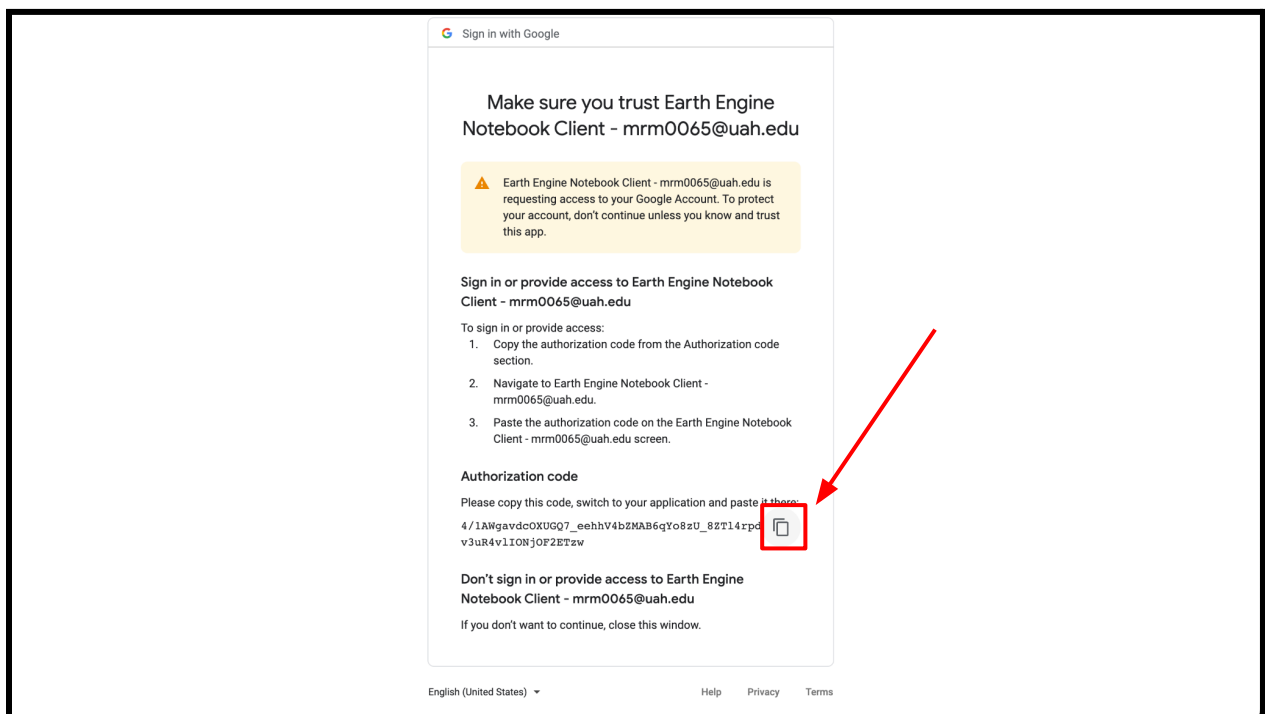
Step 8: Click the blue continue button, as shown by the red arrow below.



Step 9: Click the two boxes shown by the red arrows in the image below. They will now appear with check marks inside them as shown by the image. Then click the “Continue” button shown by the blue arrow in the image below.



Step 10: Copy the Authorization Code by clicking the button indicated by the red arrow in the image below.



Step 11: Paste the authorization code (using Command + V on Mac or Ctrl + V on PC) into the code cell we ran in step 1. IMPORTANT: Click Shift + Enter to run the cell and complete the authorization process. The code cell will now say “successfully saved authorization token” as shown in the image below.

```
[33] # Trigger the authentication flow.
      ee.Authenticate()

      # Initialize the library.
      ee.Initialize()
```

To authorize access needed by Earth Engine, open the following URL in a web browser and follow the instructions. If the web browser d

<https://code.earthengine.google.com/client-auth?scopes=https%3A//www.googleapis.com/auth/earthengine%20https%3A//www.googleapis.c>

The authorization workflow will generate a code, which you should paste in the box below.

Enter verification code: 4/lAWgavdcOXUGQ7_eehhV4bZMAB6qYo8zU_8ZTl4rpdv3uR4vlIONjOF2ETzw

Successfully saved authorization token.

Congrats! You have successfully authenticated Earth Engine. You may return to your Google Colab notebook!