Lab Exercise

GEOG 489 Programming for GIS
Lab 0

Get ready for GIS programming

Due: January 27th, 11:59:59 PM
Grading: 1 extra point
Late penalty: No points after the due

Introduction

This lab is to introduce the CyberGISX platform and data repository to every student so that we have everybody on the same page and get ready for the semester.

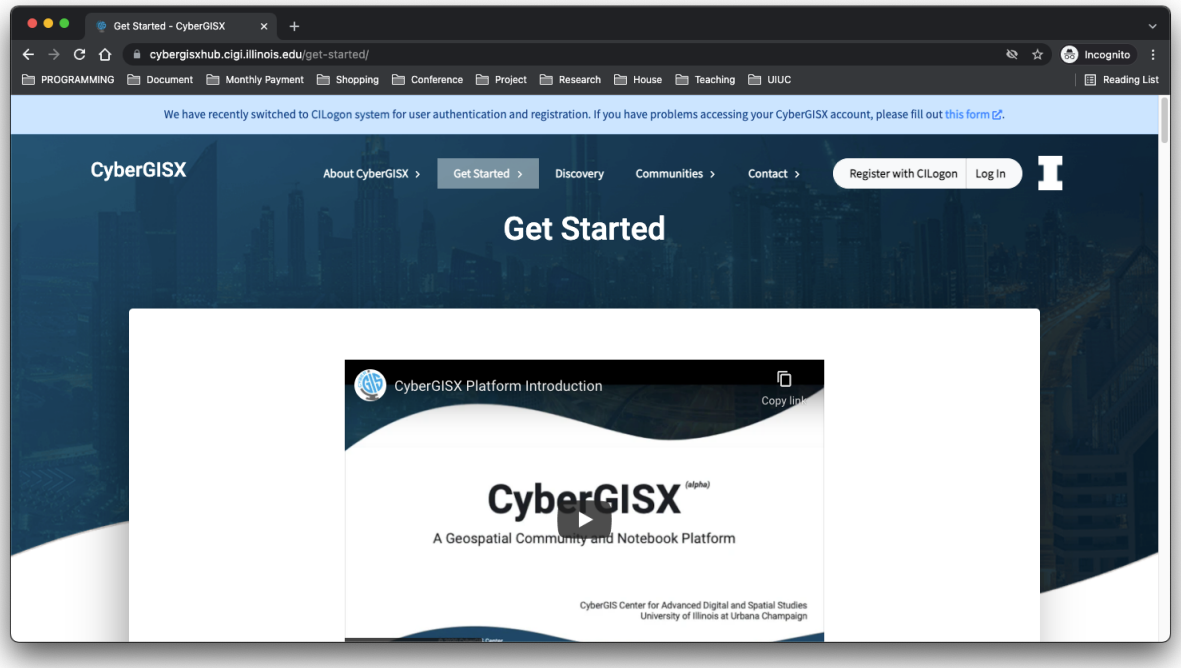
Things to be submitted: **ONE** PDF with two screenshots
ONE Jupyter notebook (*.ipynb).

Tasks

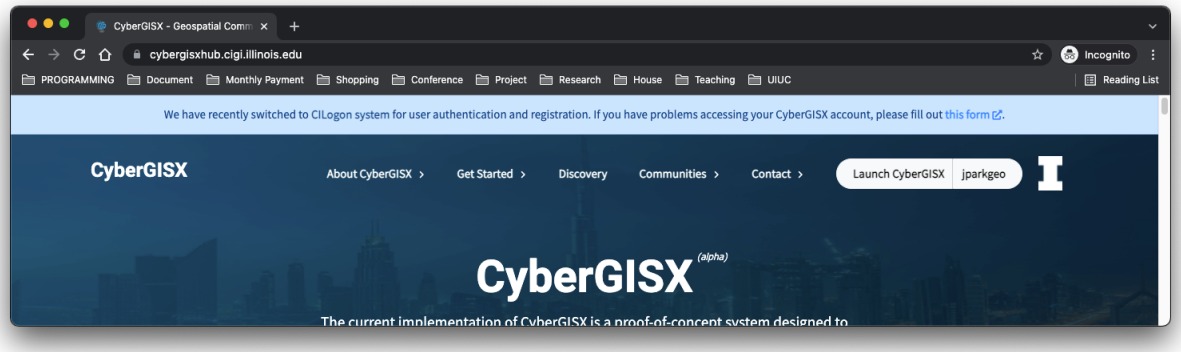
Task 1: Set up Jupyter notebook on the CyberGISX platform.
Note: This task is to check that you have access to CyberGISX platform before the actual lab starts.

1. Visit https://cybergisxhub.cigi.illinois.edu/.

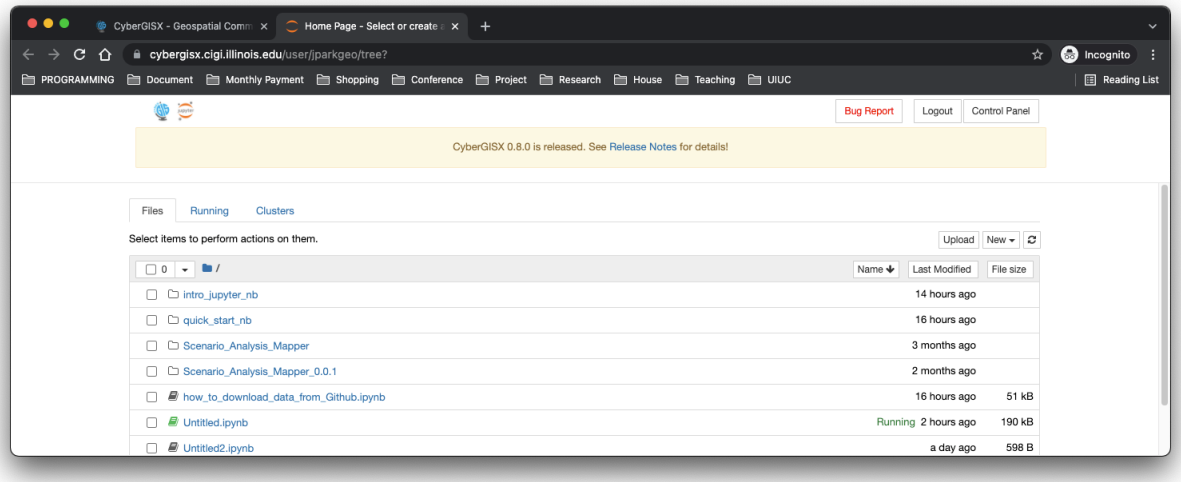
2. Click Get Started -> Quick Guide on the menu. This will direct you to the following window. Follow the registration task described on the webpage. The video is a bit outdated but will also give you an understanding of CyberGISX platform.



3. Once you finish the registration task, you should be able to log in to the platform. Once you log in, TAKE A SCREENSHOT and paste it on an empty document for future submission.
   Note: The screenshot should include your username as shown below.



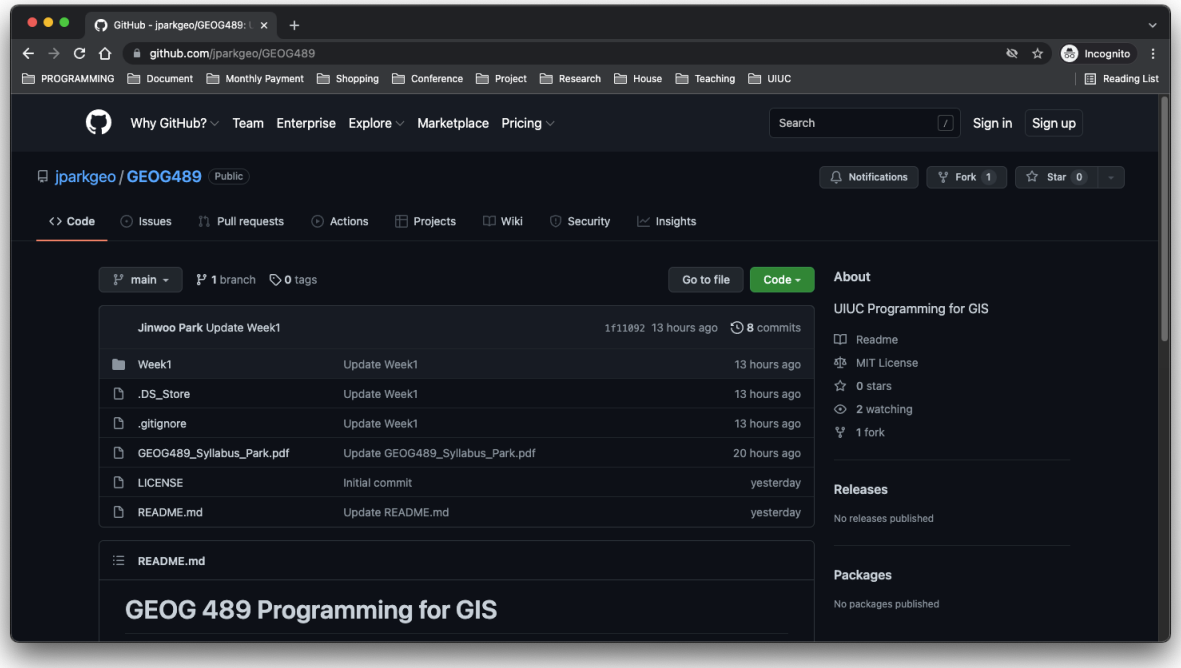
4. Launch CyberGISX by clicking ‘Launch CyberGISX’ on the menu. This will bring you to the Jupyter Notebook environment as shown below. TAKE A SCREENSHOT and paste it to the empty document you created in the previous step.



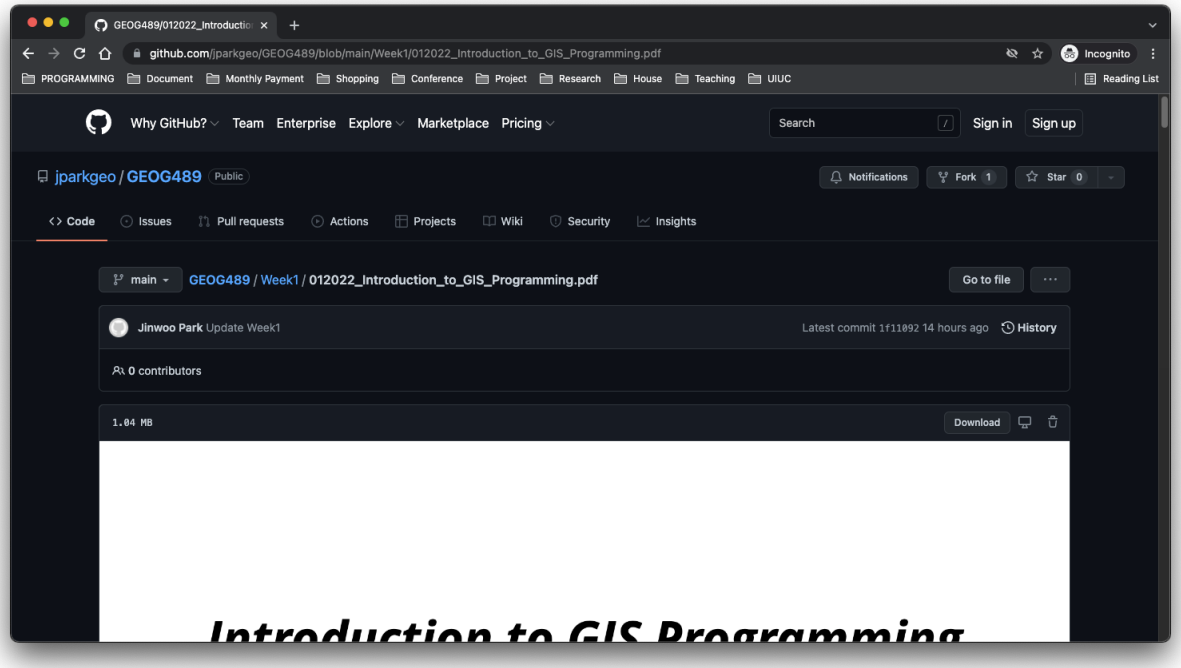
5. Export the documents with two screenshots (one CyberGISX main page and one Jupyter Notebook page) as PDF, and name it as ‘Lab0_[YOUR_NET_ID].pdf’.

Task 2: Accessing data on GitHub.

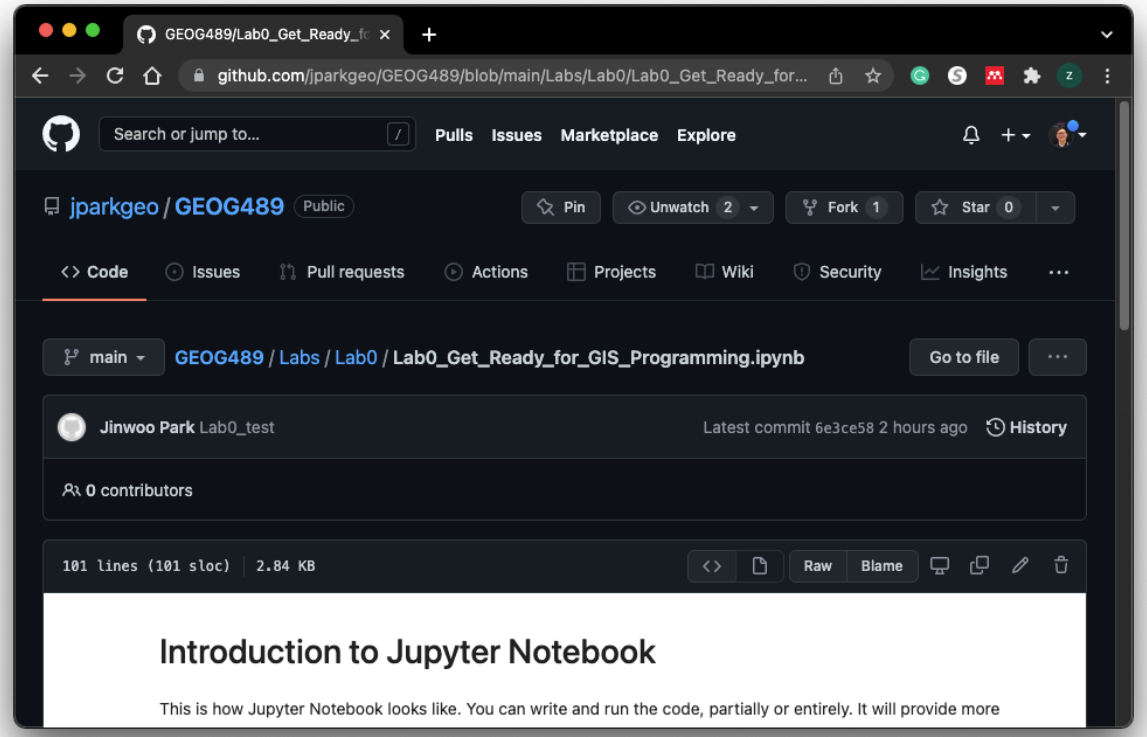
1. Navigate to https://github.com/jparkgeo/GEOG489. You will see the webpage below. **Note: This is the location where the instructor will put all course materials and labs.**



2. Navigate to the ‘Week1’ -> ‘012022_Introduction_to_GIS_Programming.pdf’ to check the PowerPoint we went through today.



3. Come back to the root folder (i.e., jparkgeo/GEOG489) and now navigate to ‘Labs’ -> ‘Lab0’ -> ‘Lab0_Get_Ready_for_GIS_Programming.ipynb’ to check the lab material.



Task3: Interact with a Jupyter notebook.
Note: This task will teach you how you are supposed to download data for the labs. It also covers how you are supposed to save and export your lab for submission.

1. Relaunch CyberGISX (https://cybergisxhub.cigi.illinois.edu/) and create an empty Jupyter notebook.
   Hint: this can be done by clicking New -> Python 3.

2. Copy and paste (or type) the following code into the cell you just created. This will download the lab materials from the GitHub repository to your CyberGISX environment.
   If you want to create a new cell, you can press 'b' on your keyboard or click Insert -> Insert Cell Below on the menu.

   !svn checkout https://github.com/jparkgeo/GEOG489/trunk/Labs/Lab0

```
In [1]: !svn checkout https://github.com/jparkgeo/GEOG489/trunk/Labs/Lab0

        A    Lab0/Lab0_Get_Ready_for_GIS_Programming.ipynb
        Checked out revision 15.
```

3. Navigate to the root folder of your CyberGISX environment. You will see a folder named 'Lab0'. Go inside of the folder and open 'Lab0_Get_Ready_for_GIS_Programming.ipynb'.

4. Finish the tasks described in the notebook and save the notebook in your local directory for submission.
   Name schema: 'Lab0_[YOUR_NET_ID].ipynb'

Done!! Please submit the deliverables to learn.illinois.edu.