

Appendix A

Sagemath at LC

There are three ways to use Sagemath at Lewis & Clark:

- Use the SageMathCell <https://sagecell.sagemath.org/>. Here you can type in snippets of code for execution in the cloud. This is handy if you just want to run a short bit of code. The downside is that you cannot save code here for future use, and that it is not easy/feasible to run multiple pieces of code that interact with one another.
- The Jupyter Notebook Server hosted by Watzek Library. This service allows you to create Jupyter notebooks containing both text (mark-down) and code (we use Sagemath, but Python is also an option). You can store code here for future use, and also run larger pieces of code. It is also handy that you can access your code from any internet-connected device. However, you do not have offline access to your code.
- You can also install Sagemath on your personal machine. Among other things, this allows you to run a local version of the Jupyter notebook server and therefore to create notebooks while working offline. The downside, of course, is that your files are only on your personal machine. (Of course, you can upload them to the LC server.)

A.1 Setup a Jupyter Notebook Server account

To get started using the Jupyter Notebook Server you need to set up an account.

1. Using an internet browser, navigate to the **Watzek Library Data Science Server**

<https://datasci.watzek.cloud>

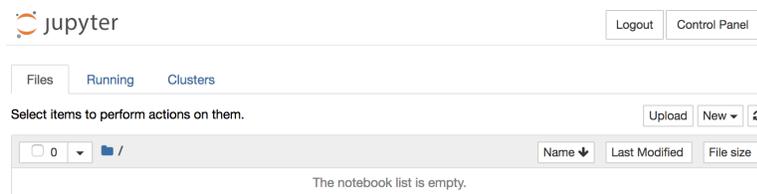
2. Log in using your Lewis & Clark credentials.
3. Select **Jupyter Notebooks**.
4. If this is your first time connecting, you will need to choose a user name and password. (I suggest that you use your usual LC user name, but that you choose a different password. But that's up to you!) You are now all set up!

Note: Once you create your username and password, it takes a minute or so for the database to be updated. Soon, however, you will be able to log in.

A.2 Using the Jupyter Notebook Server

Log in

1. Navigate again to <https://datasci.watzek.cloud>. Sign in with your LC credentials.
2. Select “Jupyter Notebooks” and sign in with your new password.
3. You should see your “Jupyter home page” that looks like this:



Using one of Paul’s notebooks

In order to use one of the notebooks on Paul’s website you should:

1. Download the notebook to your current machine
2. Upload it to your space on the server
3. Open the notebook by clicking on the title. It should open in a new browser tab.

Creating a new notebook

You can create new notebooks by selecting “SageMath 8.1” from the “New” menu. You can also create new folders if you want to organize your files.

Closing a notebook

When you are done working on a notebook, you should:

1. Save the notebook.
2. Close the browser tab that contains the notebook.
3. From your “Jupyter home page”, select the tab “Running”. Shut down the notebook so that it is no longer running.