Running Jupyter Notebooks using Binder

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Why use Jupyter Notebooks?

Reproducible Research. Can annotate code. Notebooks can be shared easily among researchers.

Jupyter = Julia, Python, R but there are 100’s more languages supported.

Tutorials in the Cloud

Our tutorials are found on the github site:

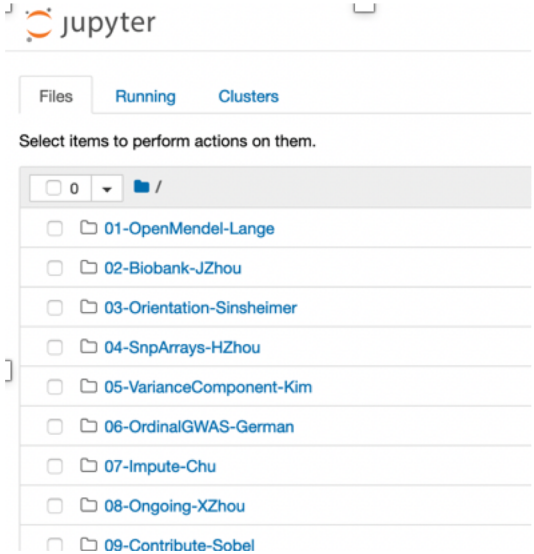
https://github.com/OpenMendel/ASHG-OpenMendelWorkshop-2020-Oct

To run them without having to install Julia locally, we created a cloud version using Binder. Click on the icon:

launch binder

You should then see:

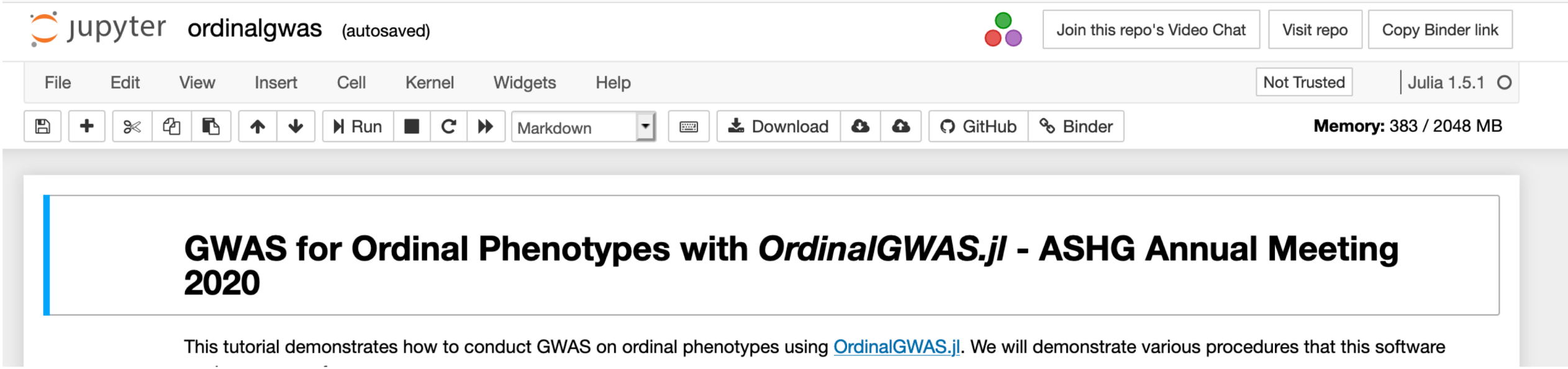
and then active directories:



Opening a Jupyter Notebook

Click on the directory for the tutorial you wish to run.

Then click on the ipynb file. You will then see something like:



Executing a Command in the Jupyter Notebook

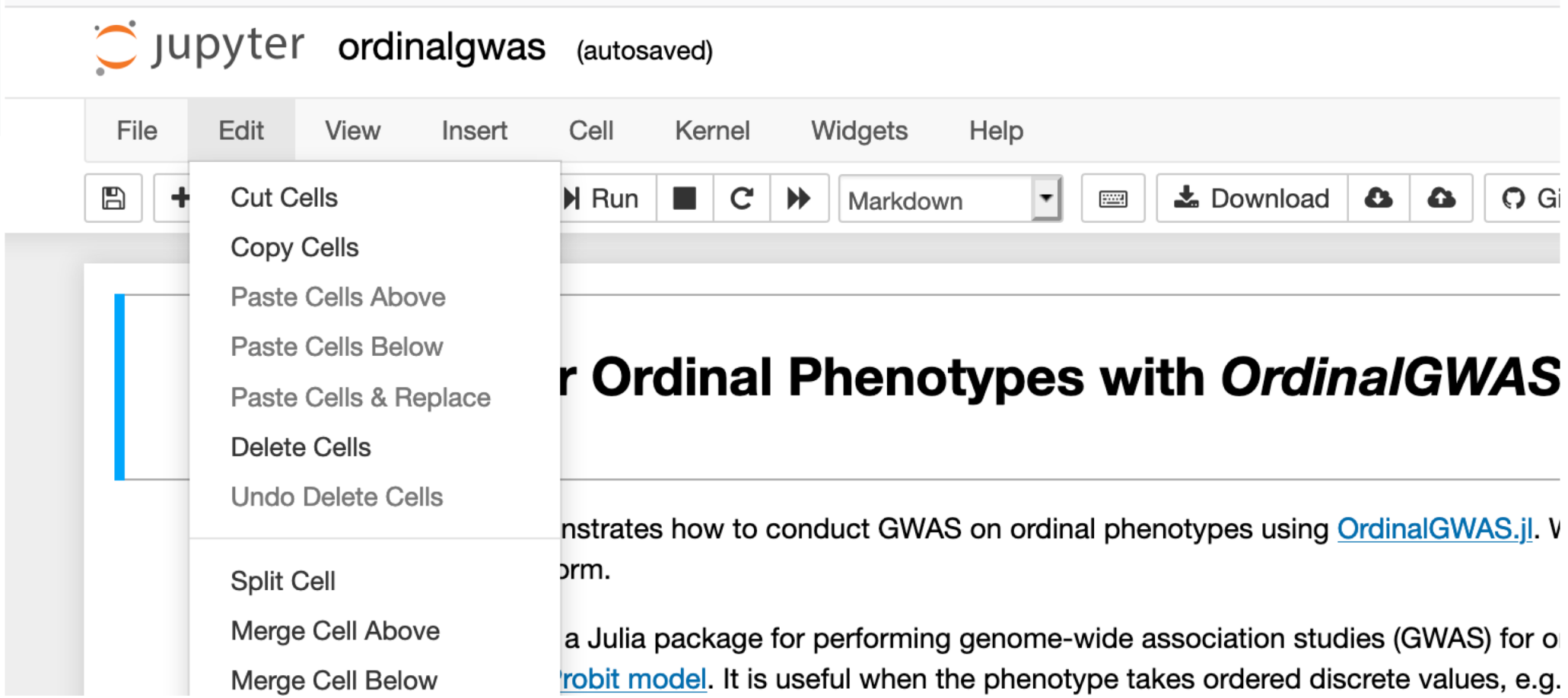
To execute a command put cursor within a cell and press SHIFT-RETURN

```
In [ ]: # for use in this tutorial
        using CSV, OrdinalGWAS, SnpArrays
```

A star denotes an actively running code cell:

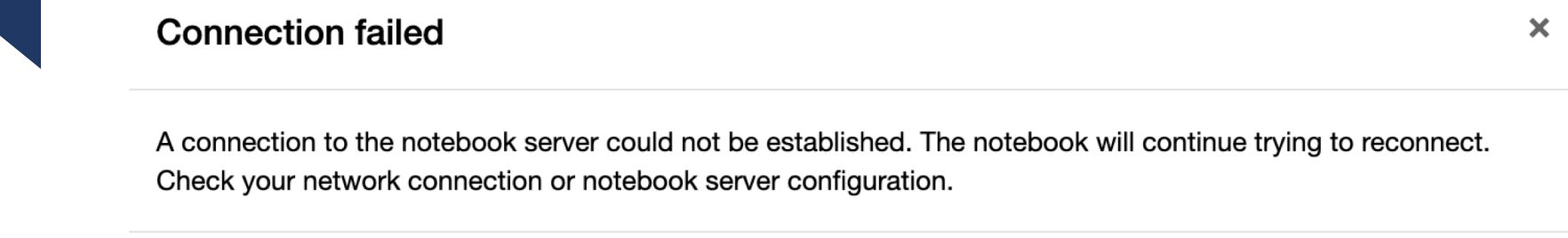
```
In [*]: # for use in this tutorial
        using CSV, OrdinalGWAS, SnpArrays
```

Drop Down Menus Provide Many Useful Commands:

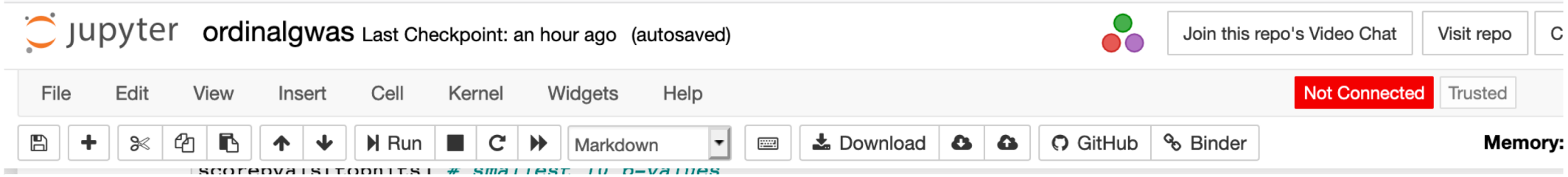


Important: The Cloud Kernel will stop Working if the Jupyter Notebook is Inactive

Each tutorial is designed run in a few minutes. If you pause, you might see this:



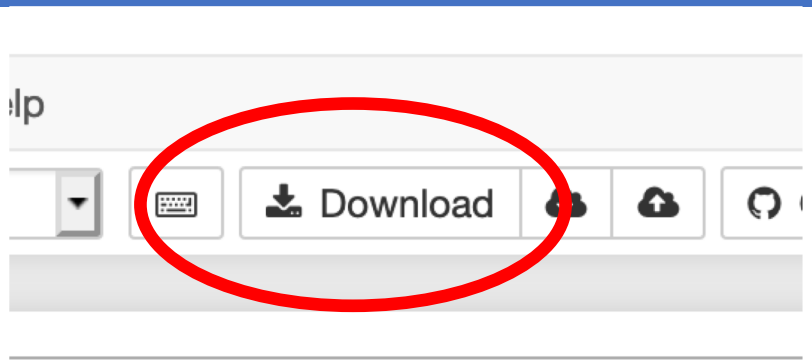
Or:



You will need to relaunch Binder and you will have lost your work. **This will not occur when you run Julia and Jupyter notebooks from your local environment**.

When Finished Running a Tutorial

You can download your work



Or print it by going to the file tab and selecting **print preview**

To close go to the file tab and select **close and halt**