Setup Guide for MBSI Coding Workshops 2021

For the MBSI coding workshops in 2021, we will be using the programming environment JupyterLab to complete worksheets. The following instructions will allow you to gain access and complete material using the Python programming language from your own local computer.

Installing Anaconda

Anaconda is a data science toolkit that allows you to easily install and access thousands of open-source packages and libraries. Installing Anaconda will mean that you can use Python on your computer and provides a simple way of accessing JupyterLab locally.

Follow the steps below to install Anaconda for free:

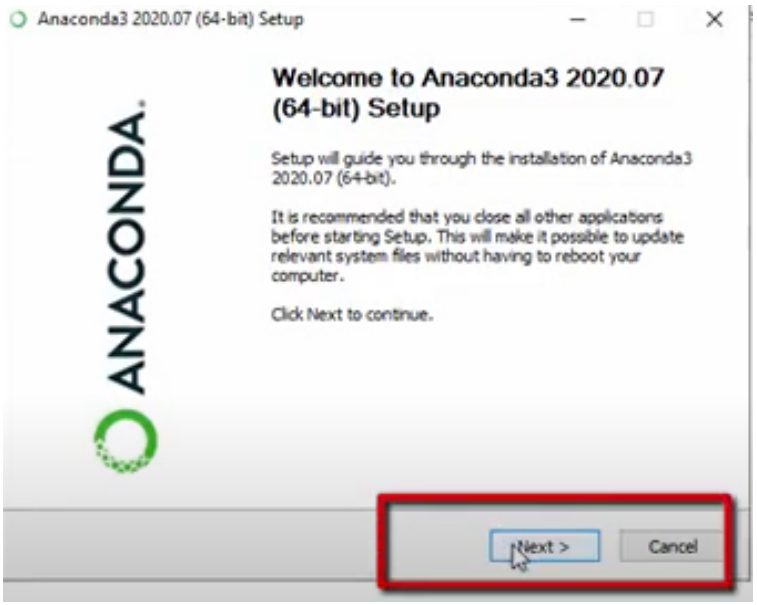
1. Open this link in a new tab: https://www.anaconda.com/products/individual.
2. Click "Download".
3. You should see the following:

   Click on the appropriate installer for your operating system (if you are a Windows user, you will most likely need the 64-bit installer. For Mac users, choose the graphical installer).

   Allow some time for the file to download, it may take a while.

4. After the installer has downloaded, run the .exe file to begin the setup.

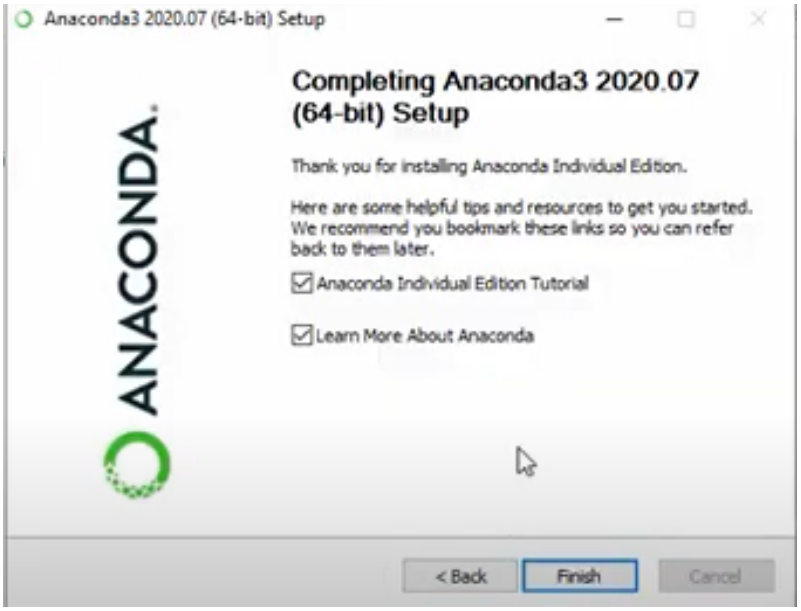
5. You should now see the following:



Run through the setup process, keeping all of the default settings (keep clicking next without changing anything until Anaconda is installed).

Note: It may take some time after you click “install”.

6. After the installation is complete, click “Next” and you should get to this stage:



7. Uncheck both boxes and click “Finish”.

You have now successfully installed Anaconda!

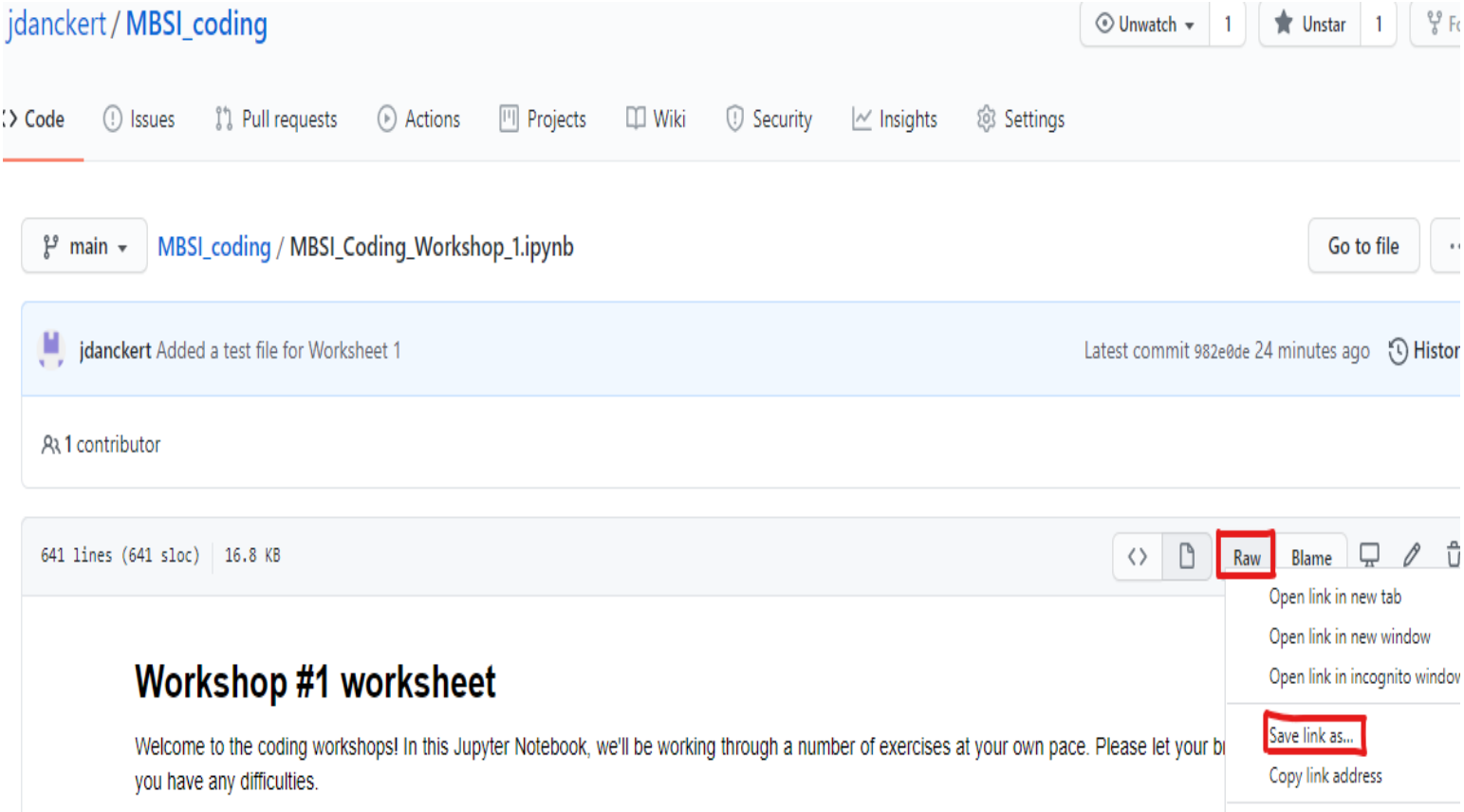
Downloading Worksheets

The worksheets will be available for download on GitHub from the following link: https://github.com/jdanckert/MBSI_coding

New worksheets and answers for the previous week will be made available here before each workshop.

To download the worksheet for this week:

- Click on "MBSI_Coding_Workshop_1.ipynb"
- Right click on "Raw" (refer to image below)
- Click "Save link as..."
- **Save the file in a location that you will be able to find easily** (I recommend creating a new folder called MBSI Coding Workshops)

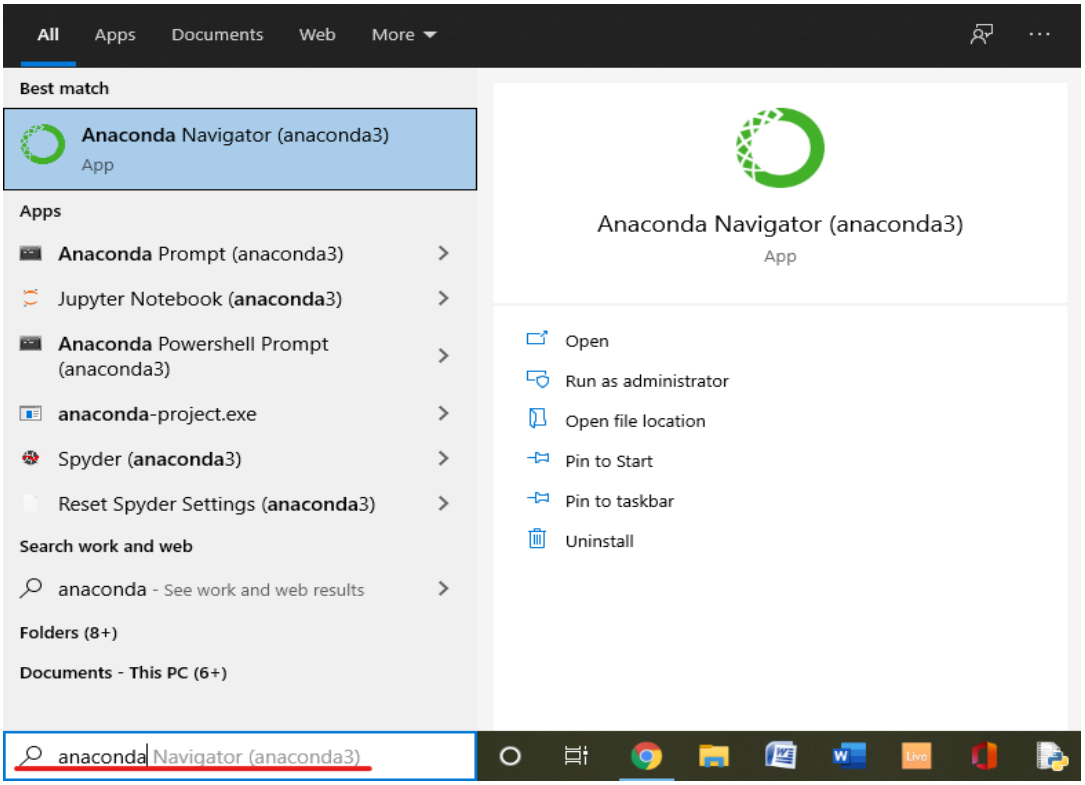


Accessing JupyterLab

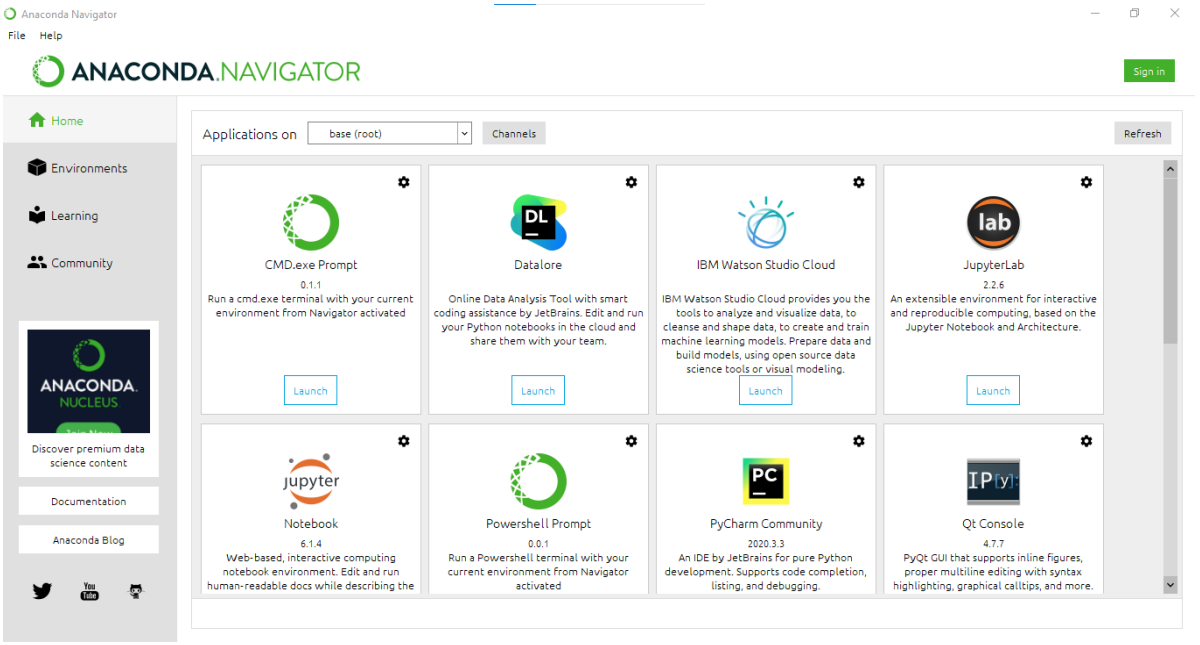
JupyterLab provides a programming environment that allows you to access, edit and download interactive Python files, which merge code with text. This is where you will learn how to use Python, via the worksheets we provide.

You can now launch JupyterLab using Anaconda by following these steps:

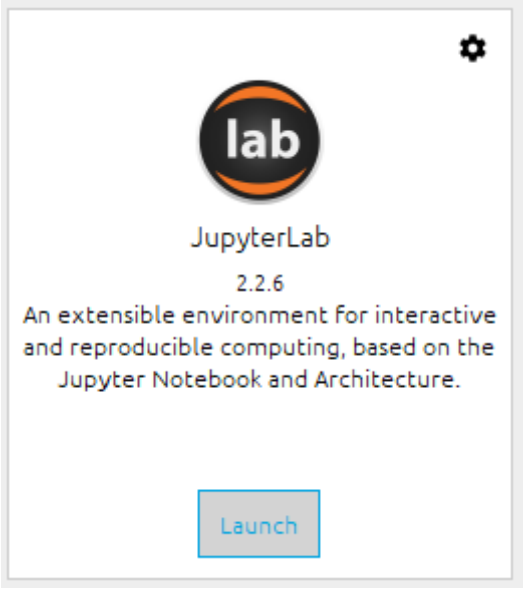
1. Type “anaconda navigator” in the search bar of your computer and click on the Anaconda Navigator app.



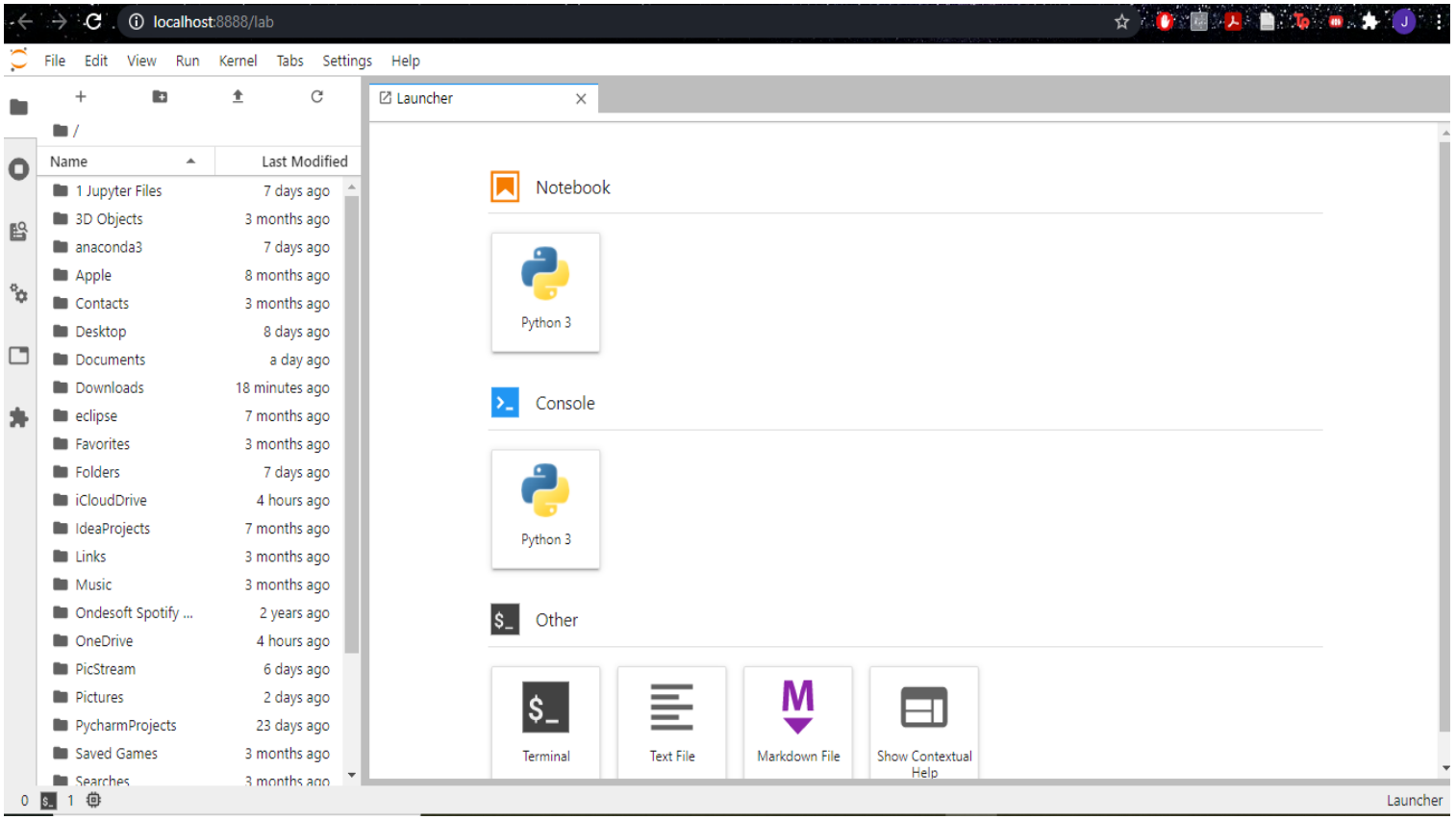
2. Wait for the Anaconda Navigator to open and you should see this screen with the applications that are now available for you to use:



3. Click “launch” on the JupyterLab application. This will open a tab in your default browser that connects you to JupyterLab.



4. You should now see a webpage similar to this:

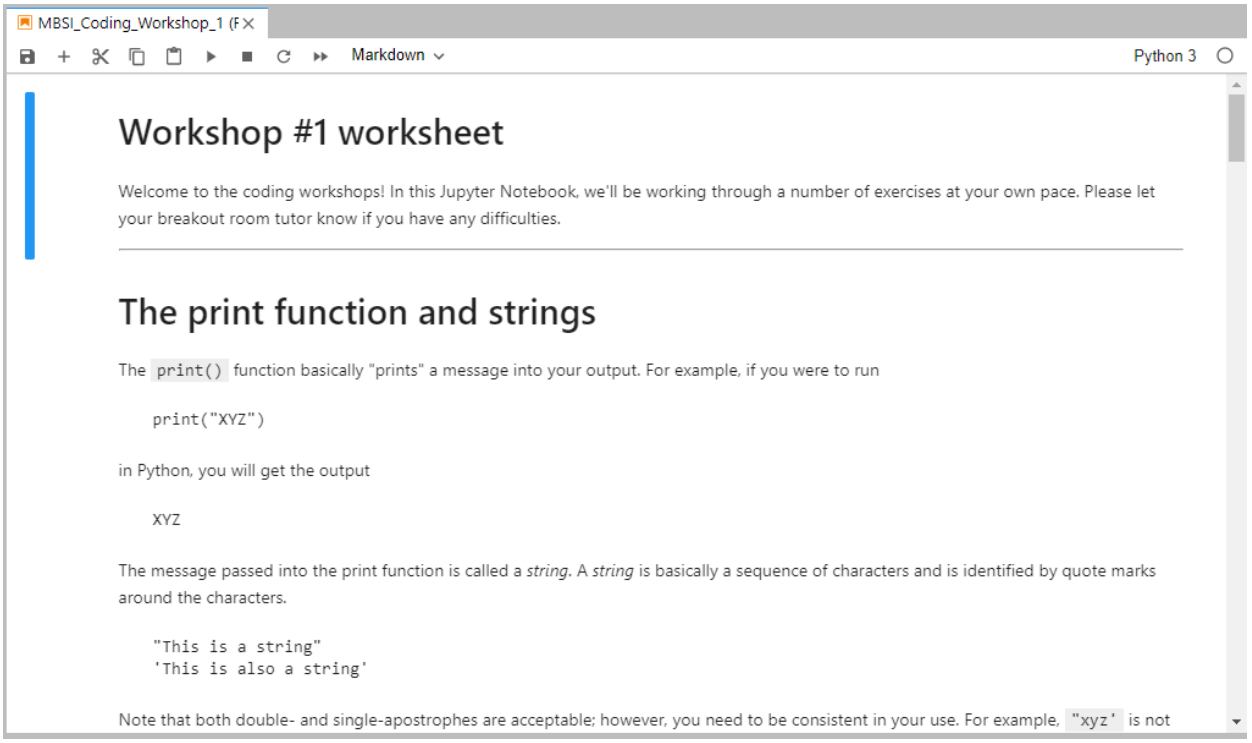


5. In the tab on the left hand side, navigate to the folder where you saved the worksheet file “MBSI_Coding_Workshop_1.ipynb” and double click on the file.

Important Note: Do NOT delete or move the folders you see in this tab as it will apply the changes to your operating system and could cause issues.

Alternatively, you can click the Upload Files button and find the worksheet that way.
However, I recommend going through the folders, as it will be beneficial in future workshops to have the files in the same folder and you won't have to go through this process again.

6. You should now have the worksheet open in JupyterLab and should see the following:



You are now ready to start going through the worksheet! Your tutors will help you with this so please ask any questions if you get stuck.

If you had any issues when completing this setup process, either ask a question in the workshop or send an email to jimmy.danckert@mbsi.org.au.