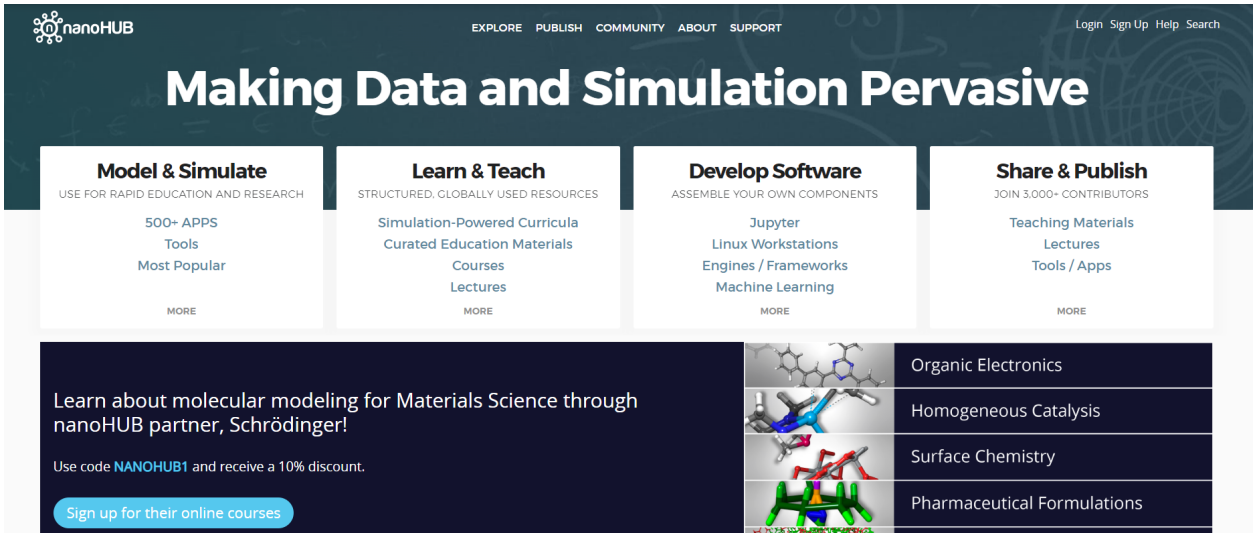
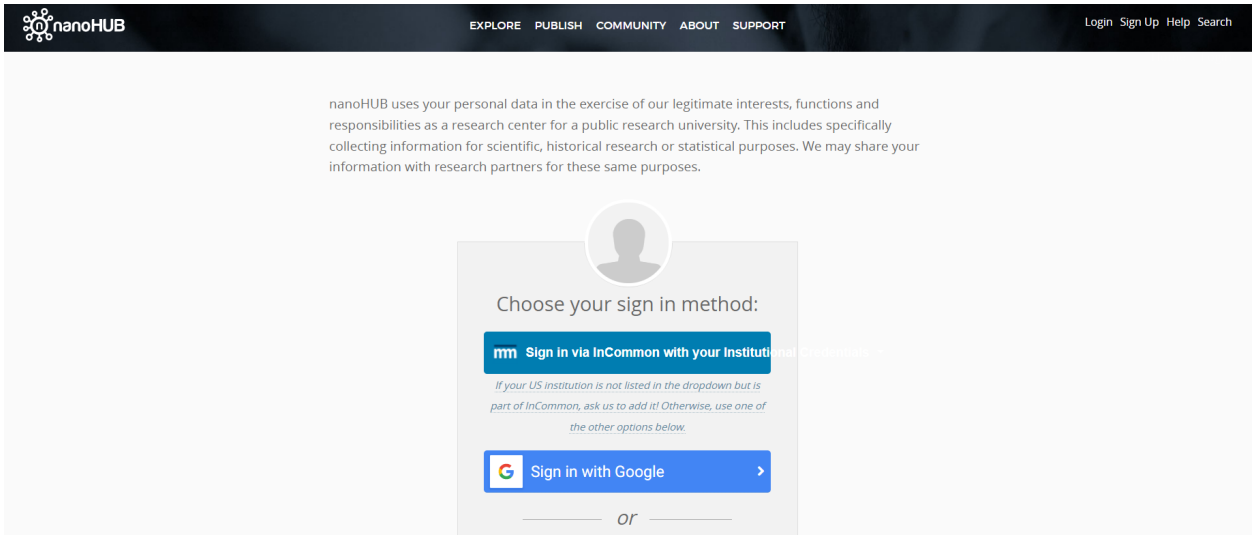
To Create an account on nanoHUB:

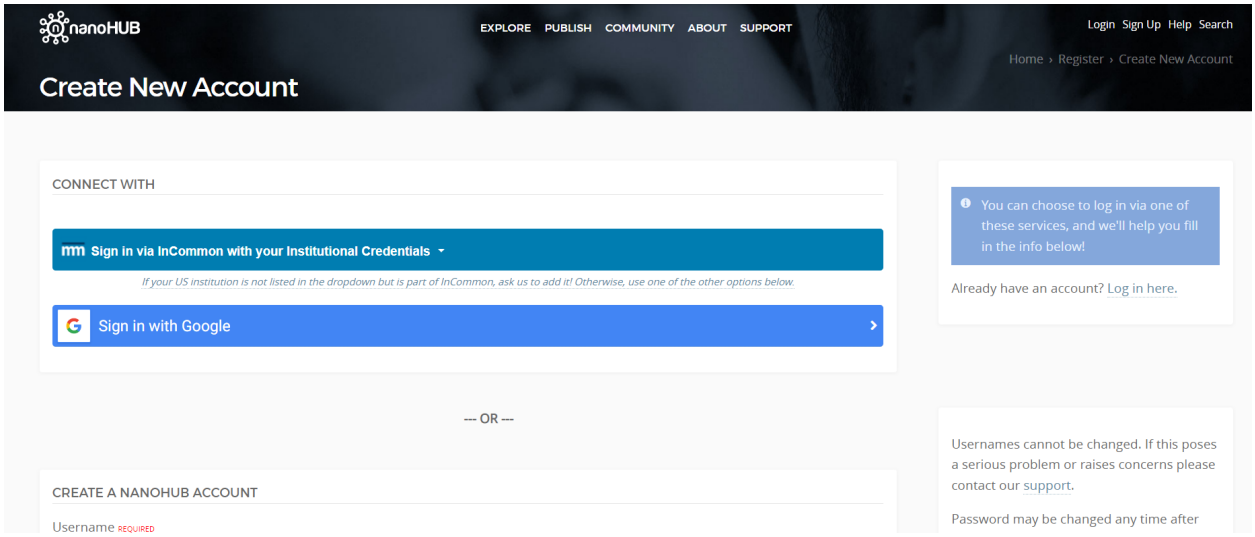
1. Go to nanoHUB.org



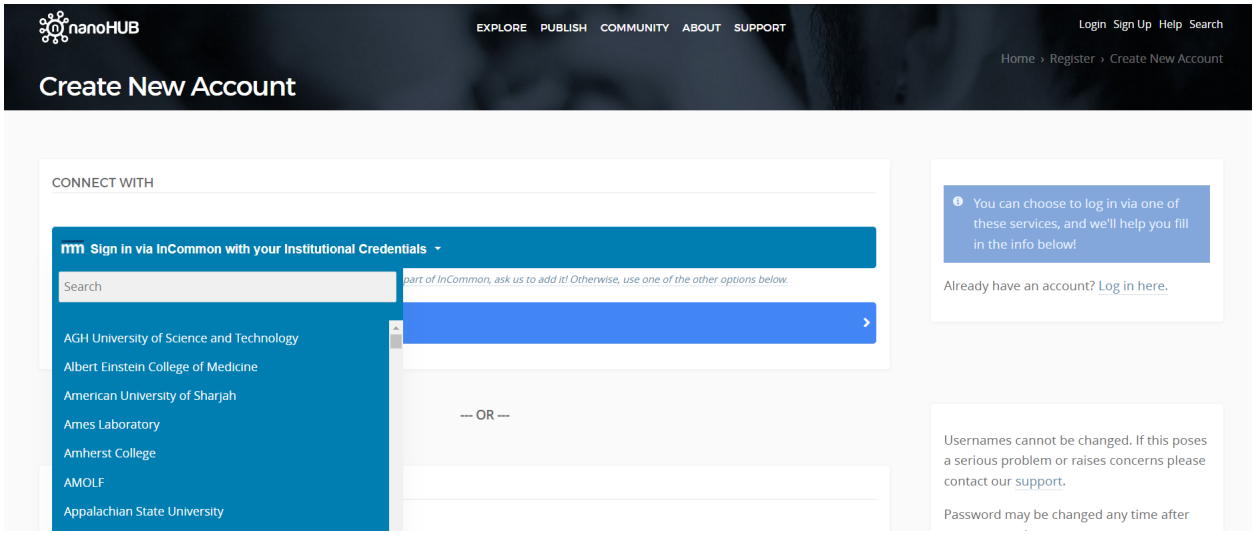
2. Click on log in



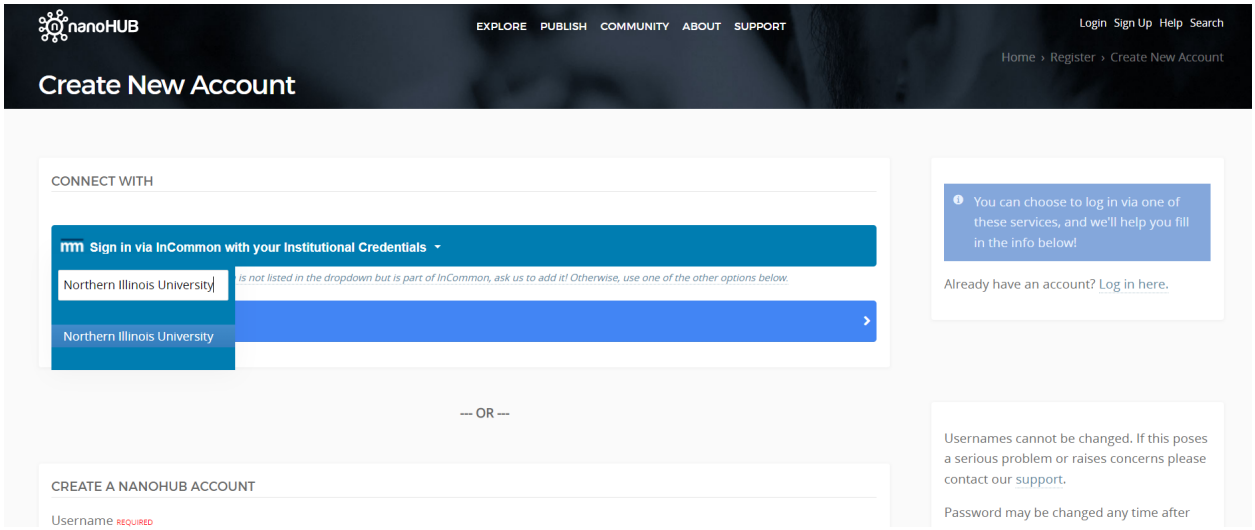
3. Scroll down where it says create an account, and click on it



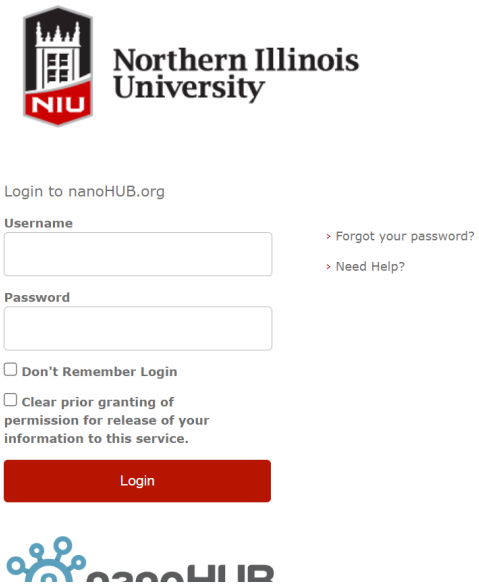
4. Click on the first box that says “Sign in via InCommon with your Institutional Credentials”



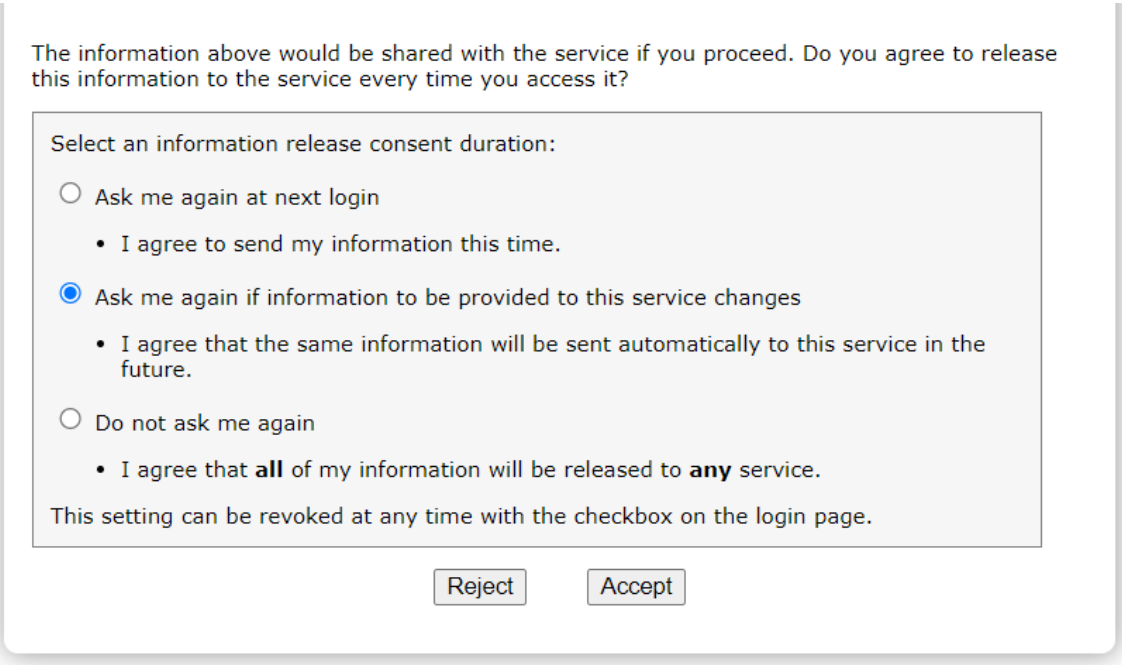
5. Type “Northern Illinois University” into the search bar



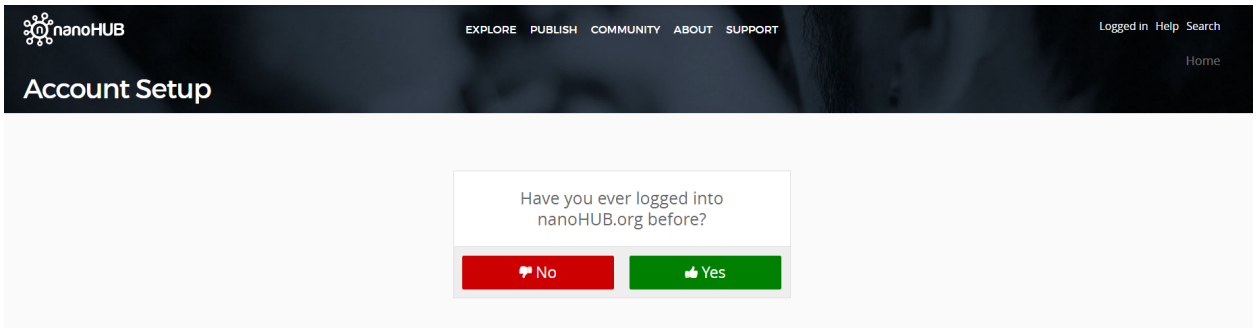
6. Click on the option that appears



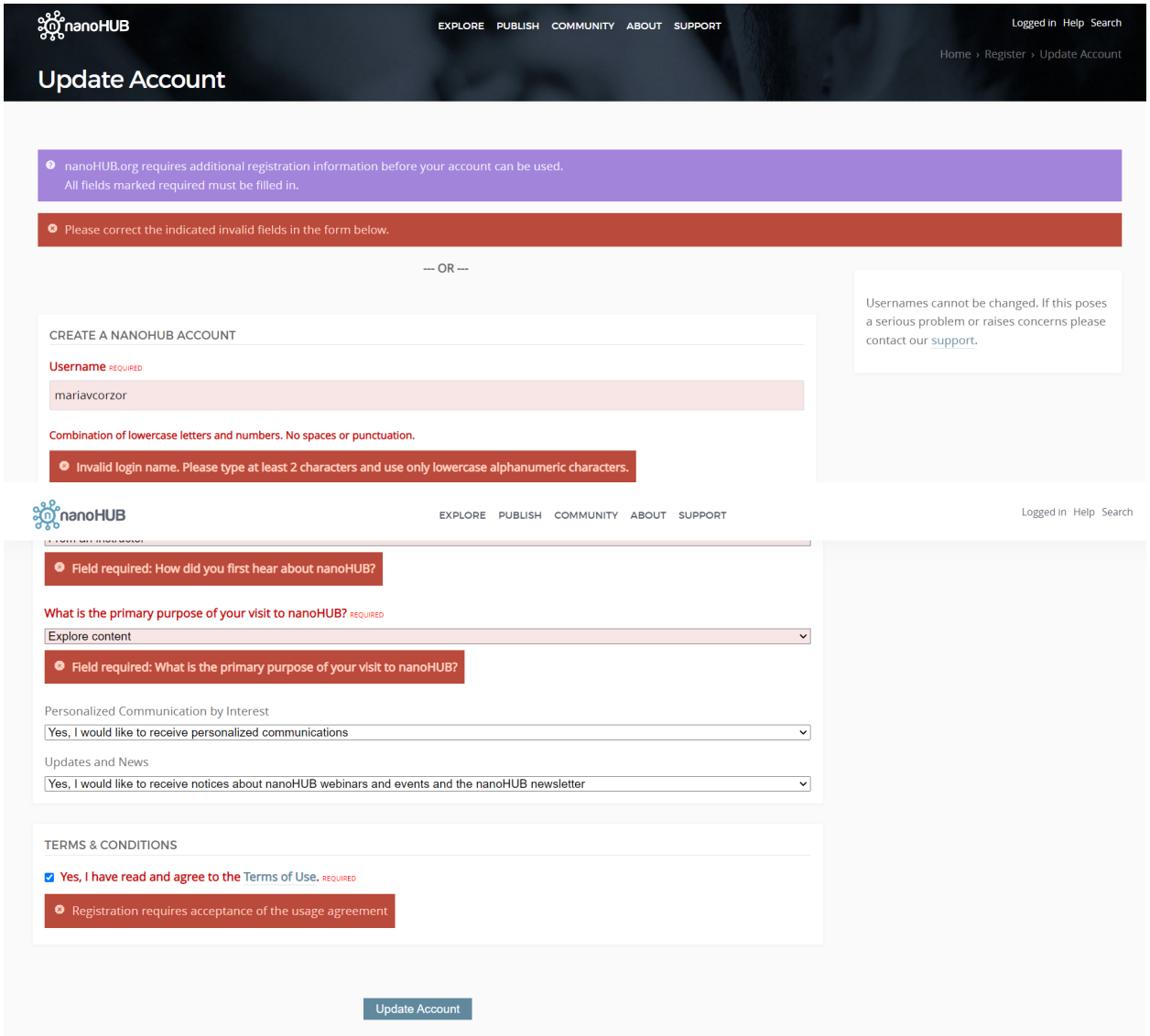
7. Type your Zid into the username and your MyNIU password into the password
8. Click login



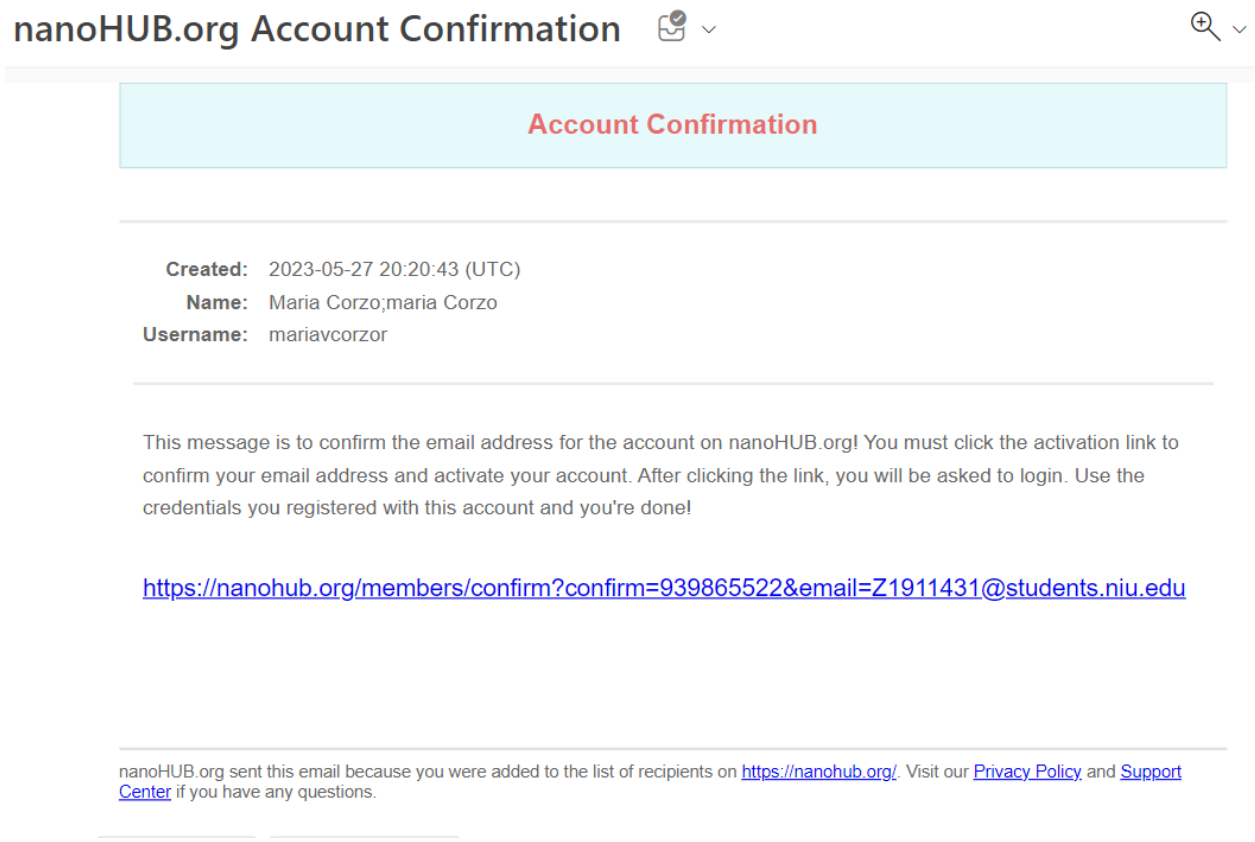
9. Select any of the options from the information release consent duration, and then click Accept



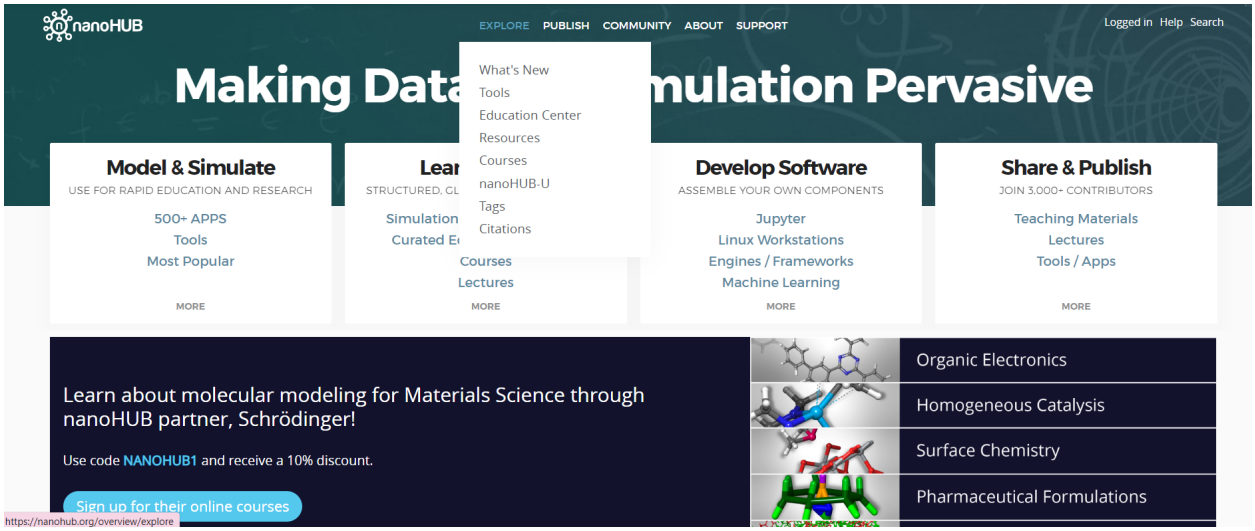
10. Select yes or no

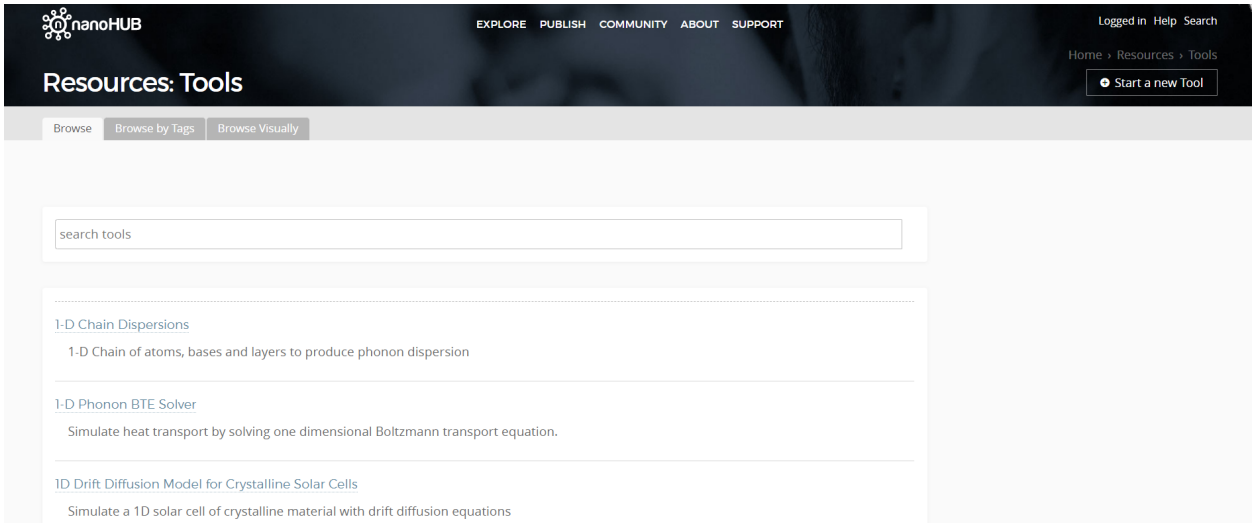


11. Fill out the required information, start by changing your username then once all the required information is filled out click on update account
12. You will receive an Account Confirmation email to your student account, click on the link in the email to confirm your account

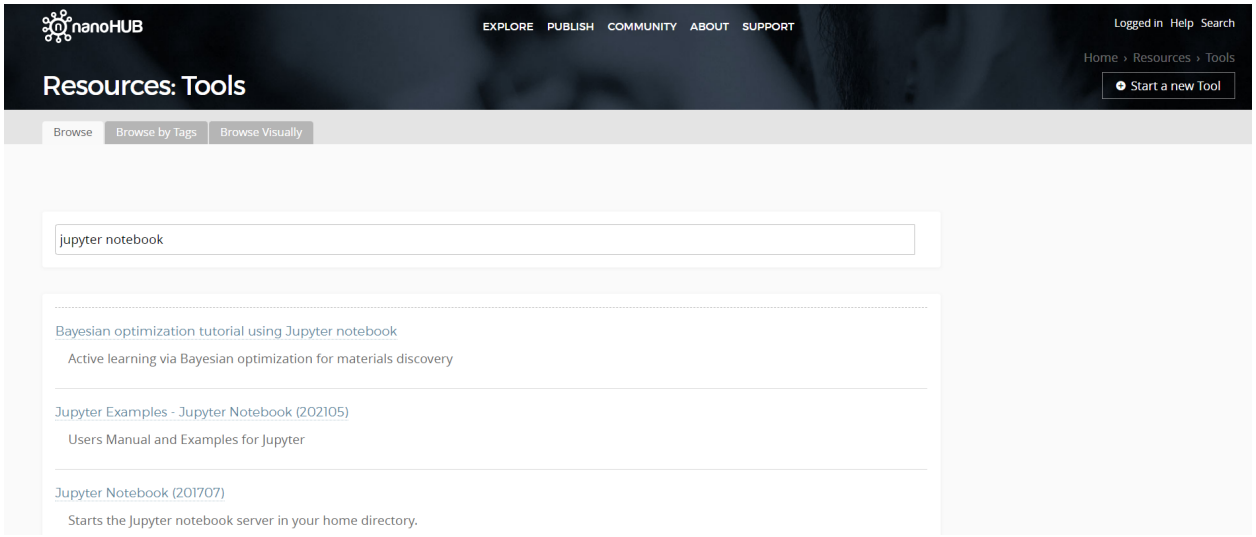


13. Now you have an account in nanoHub where you can access Jupyter Notebook, to find it hover mouse over Explore to open the drop down menu, then click on tools.

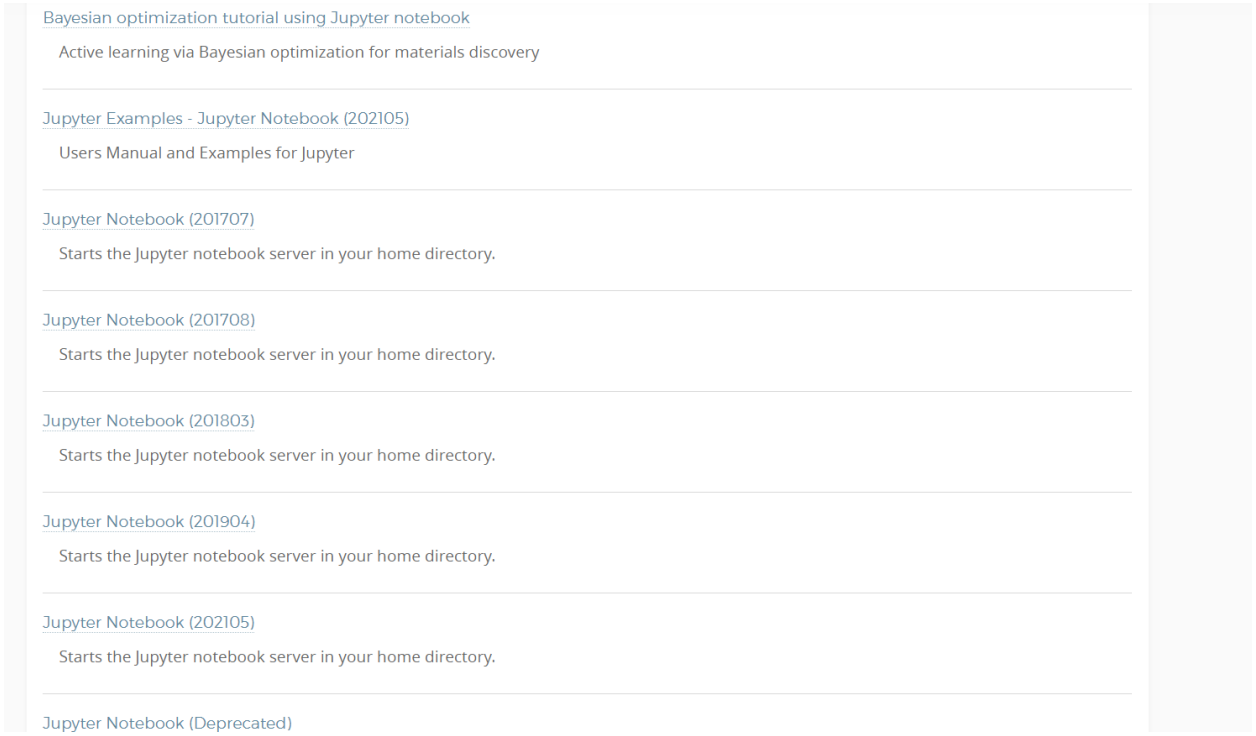




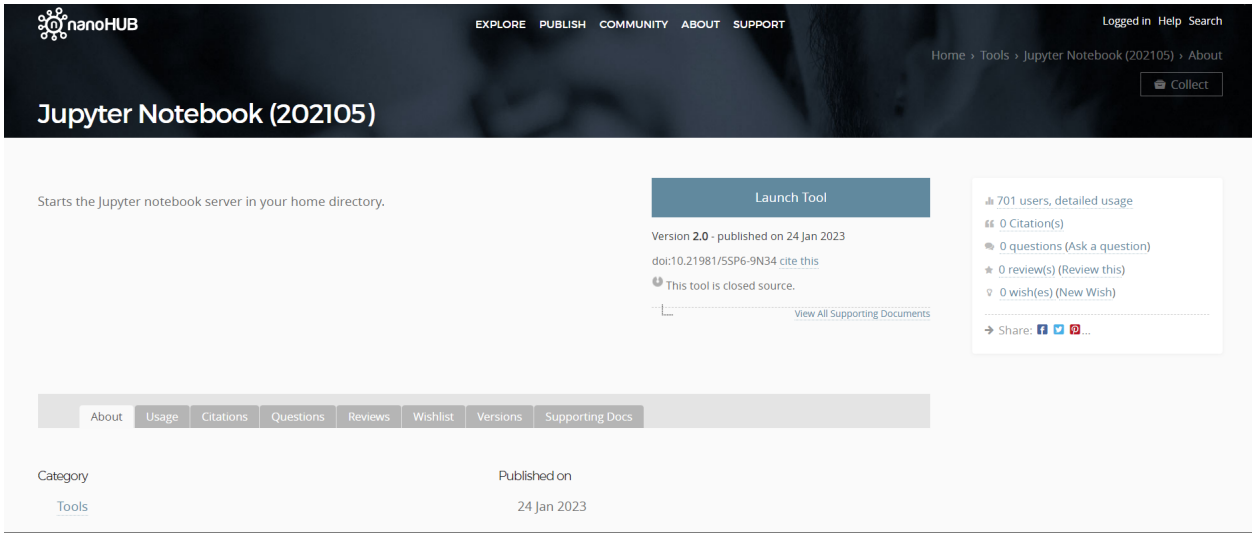
14. Search jupyter notebook on search bar



15. Scroll down to find Jupyter Notebook (202105), the newest version.

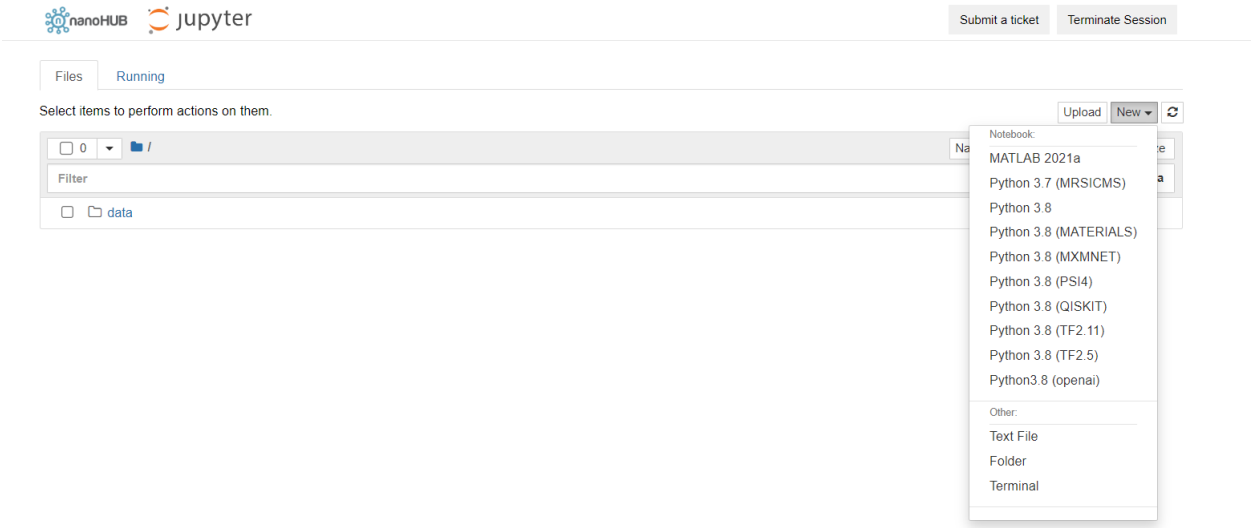


16. Click on Jupyter Notebook (202105)

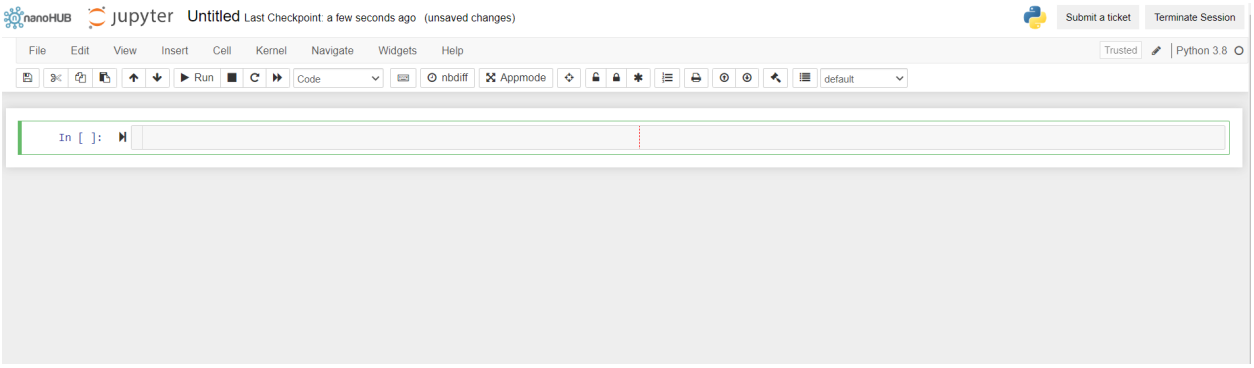


17. Click on Launch Tool, and it will redirect you to the following page

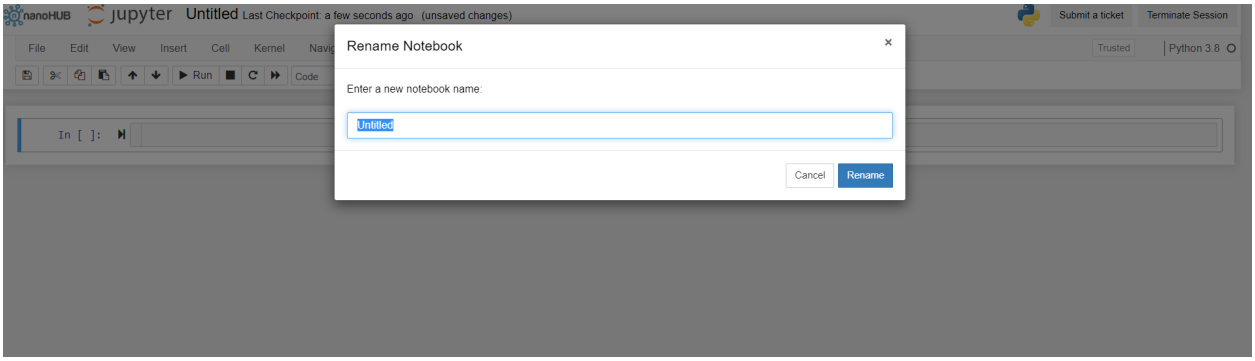
18. To create a new file click on New



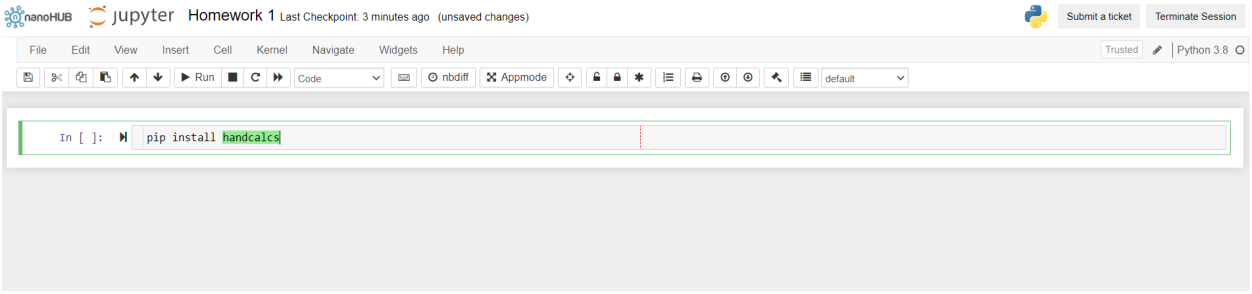
19. Then click on Python 3.8



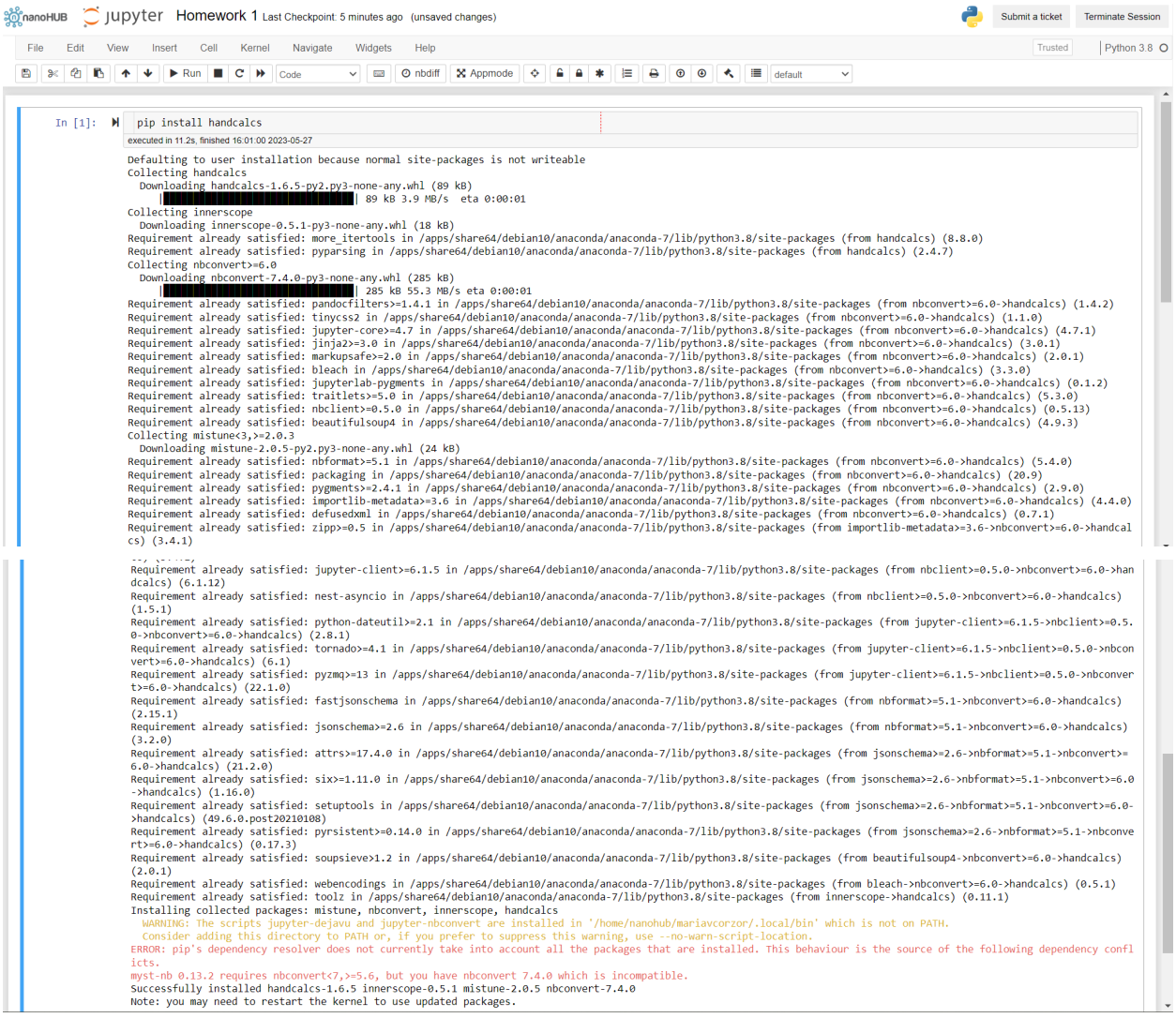
20. You can rename this notebook by clicking on Untitled, then typing on the new pop-up bar and clicking rename.



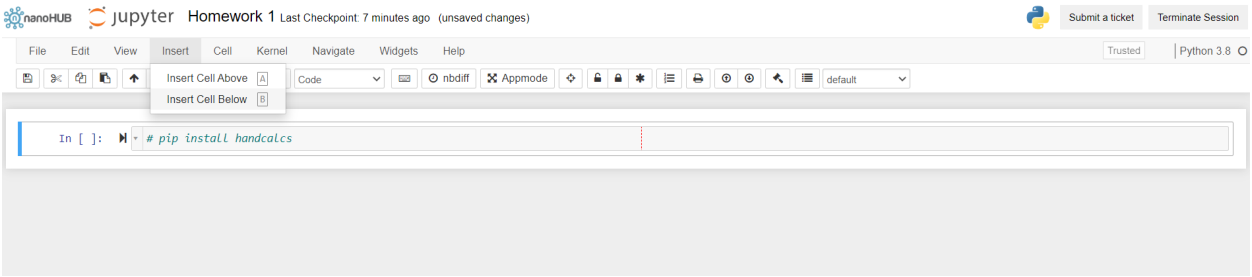
21. To use Handcalcs, you must download the library onto the Jupyter system, to do this type : “pip install handcalcs” and either click run on the menu above or the arrow next to the bar



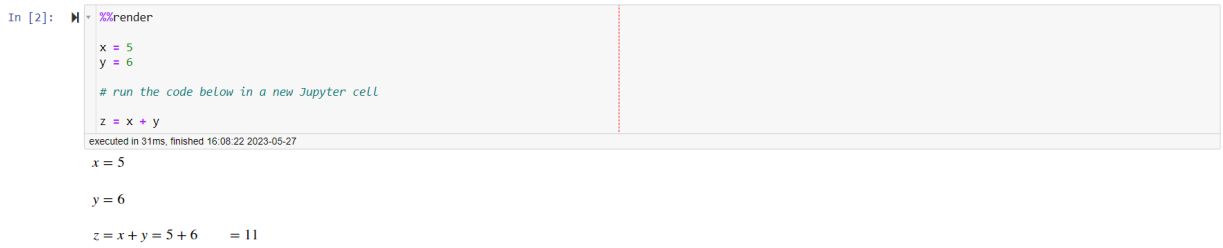
22. This will run the command and download the library, which will look like the following:



23. This only needs to be done once, and afterwards refresh the page
24. To add another cell, click on insert and then cell below or on the downward arrow next to the printer in the menu



25. Now you can use the tools available in the Handcalcs library



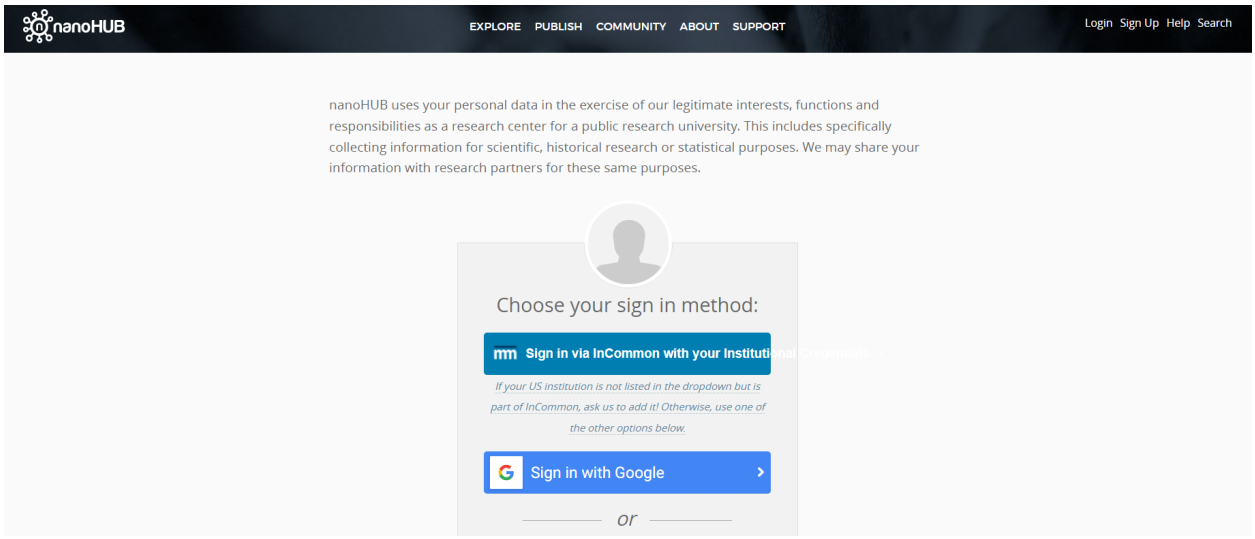
$$x = 5$$

$$y = 6$$

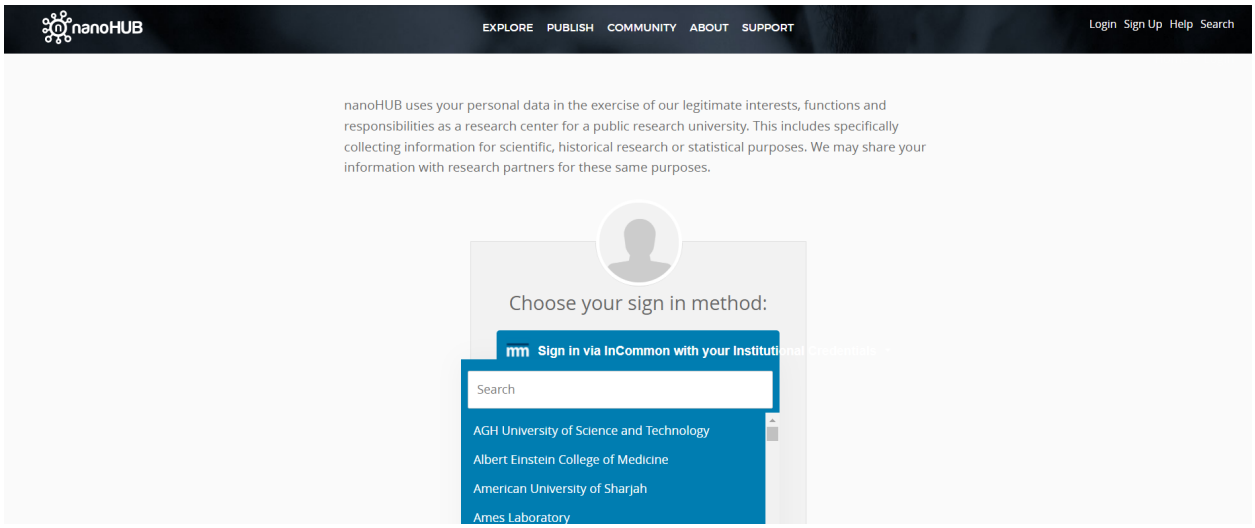
$$z = x + y = 5 + 6 \qquad = 11$$

To log into an already created account:

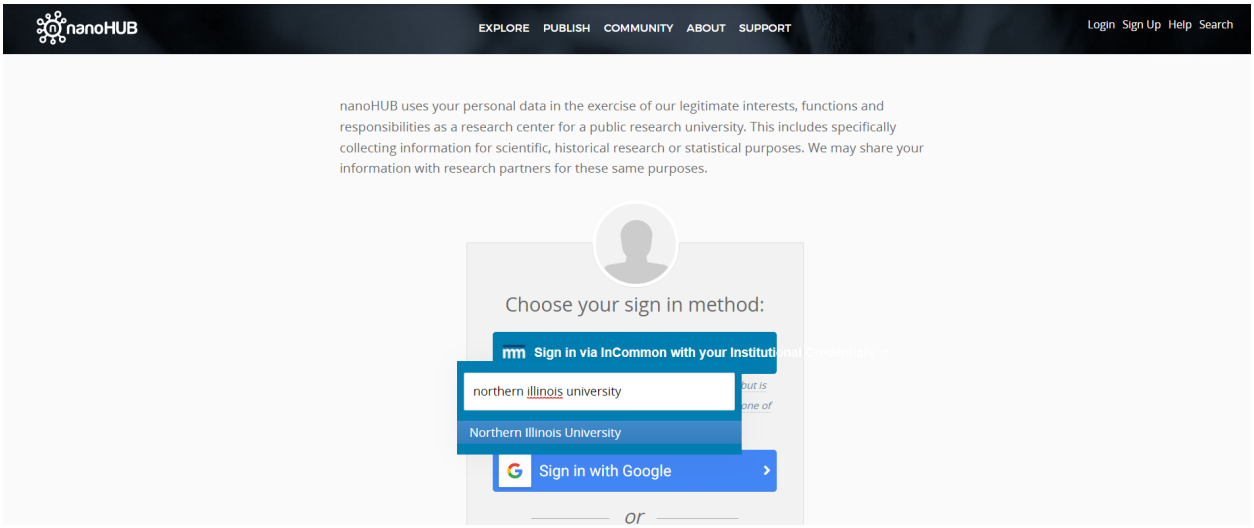
1. Click log in on the nanoHUB.org website



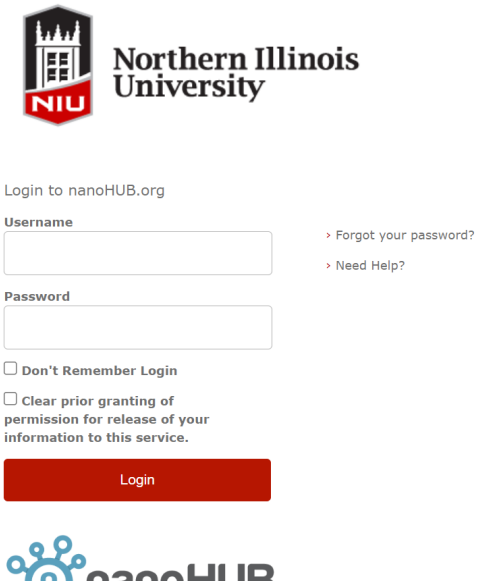
2. Then click on the first box under Choose your sign in method, “Sign in via InCommon with your Institutional Credentials”



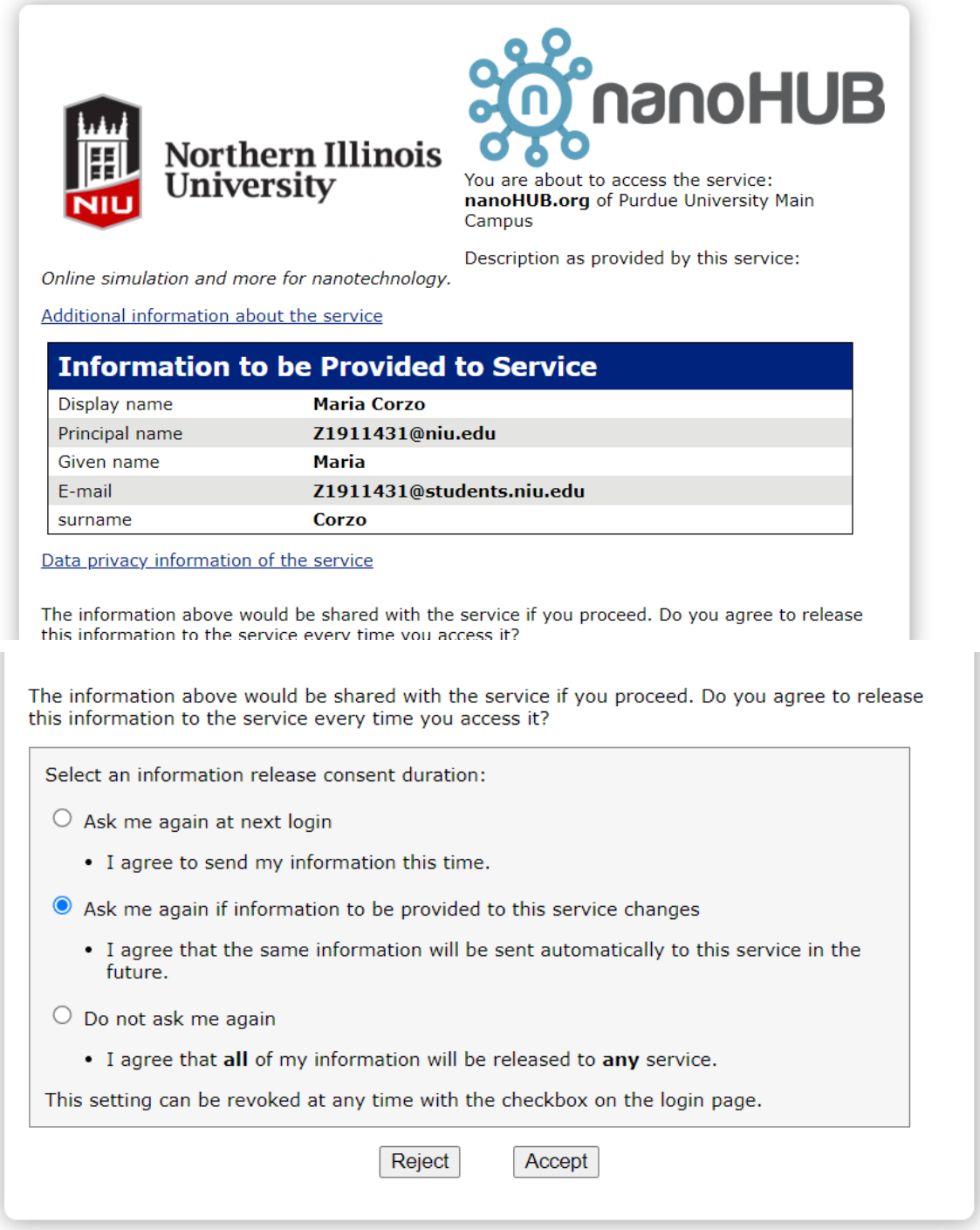
3. Type “Northern Illinois University” into the search bar



4. Click on the option that appears



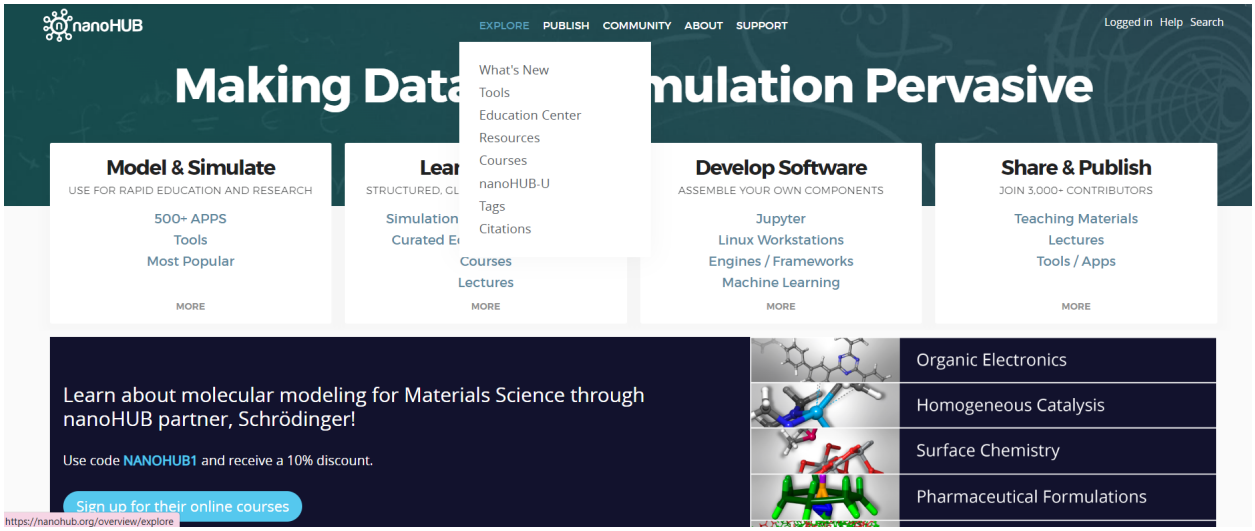
5. Type your Zid into the username and your MyNIU password into the password
6. Click login

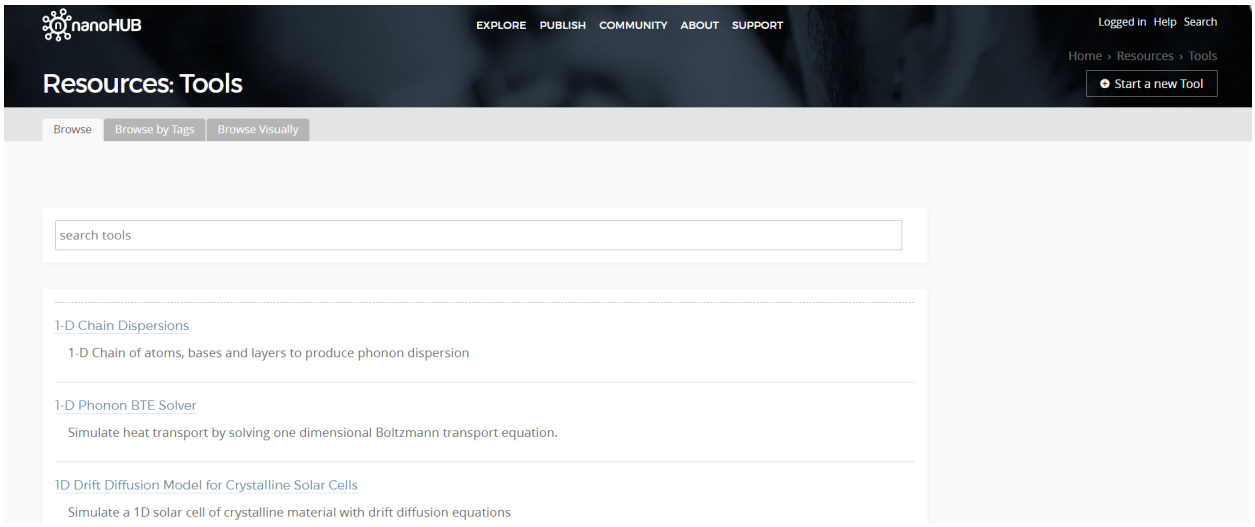


7. Select any of the options from the information release consent duration, and then click Accept

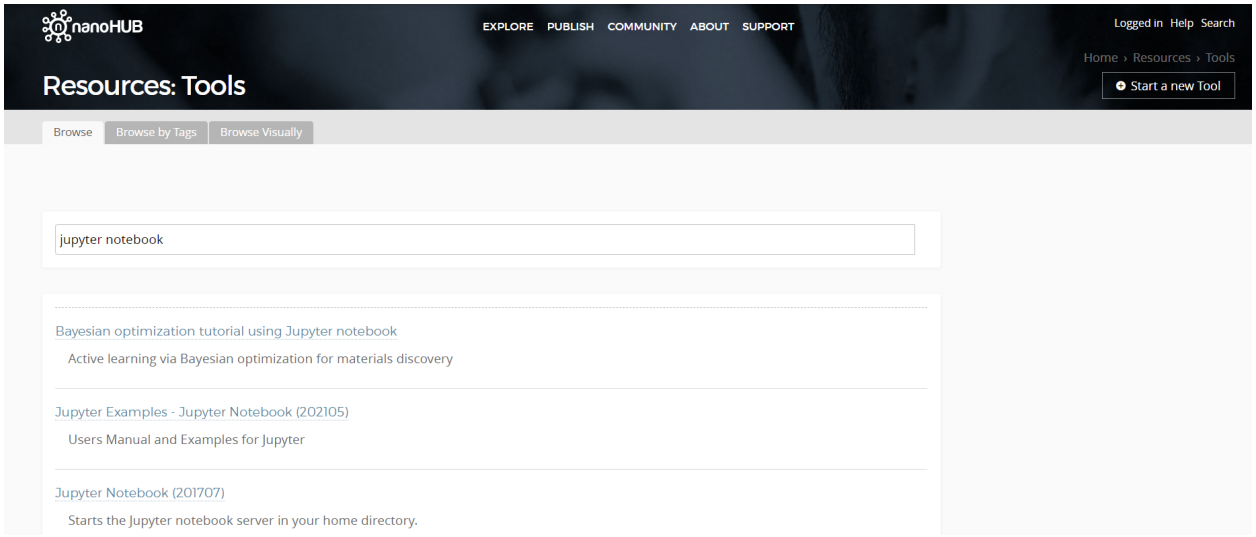
If your have not used nanoHUB before look for Jupyter Notebook by:

1. Hovering your mouse over Explore to open the drop down menu, then click on tools.

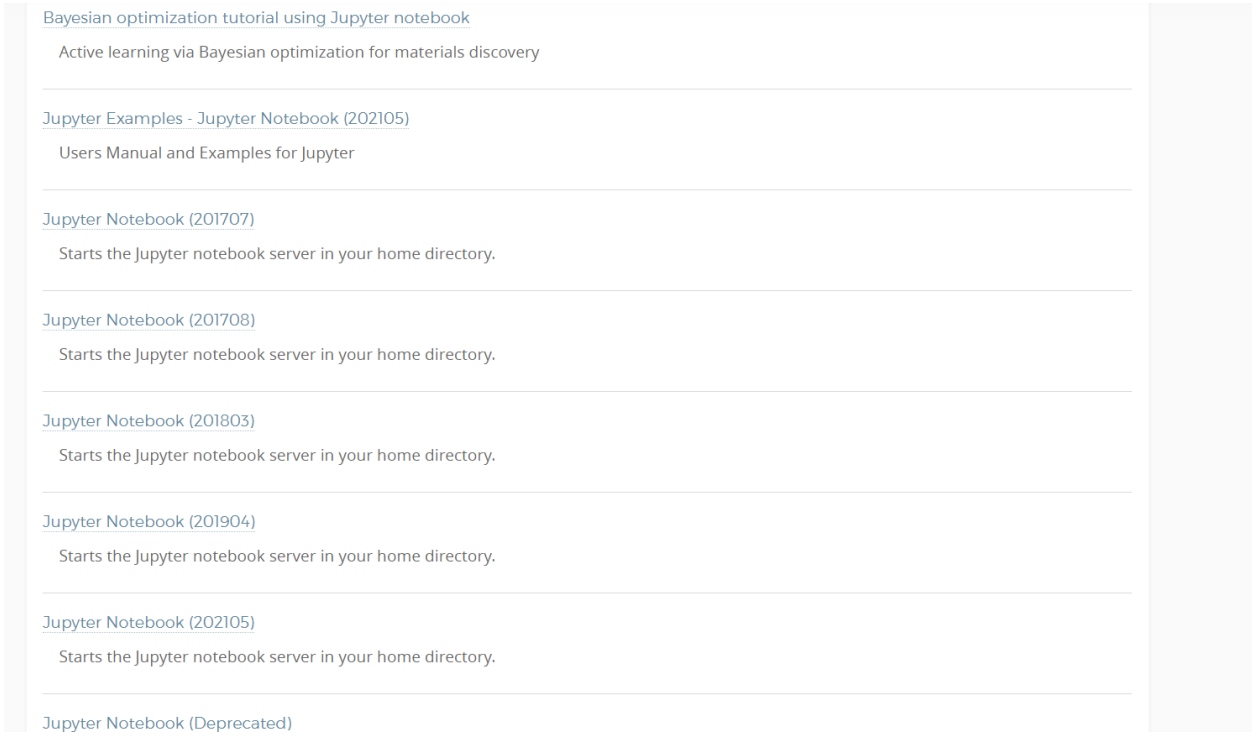




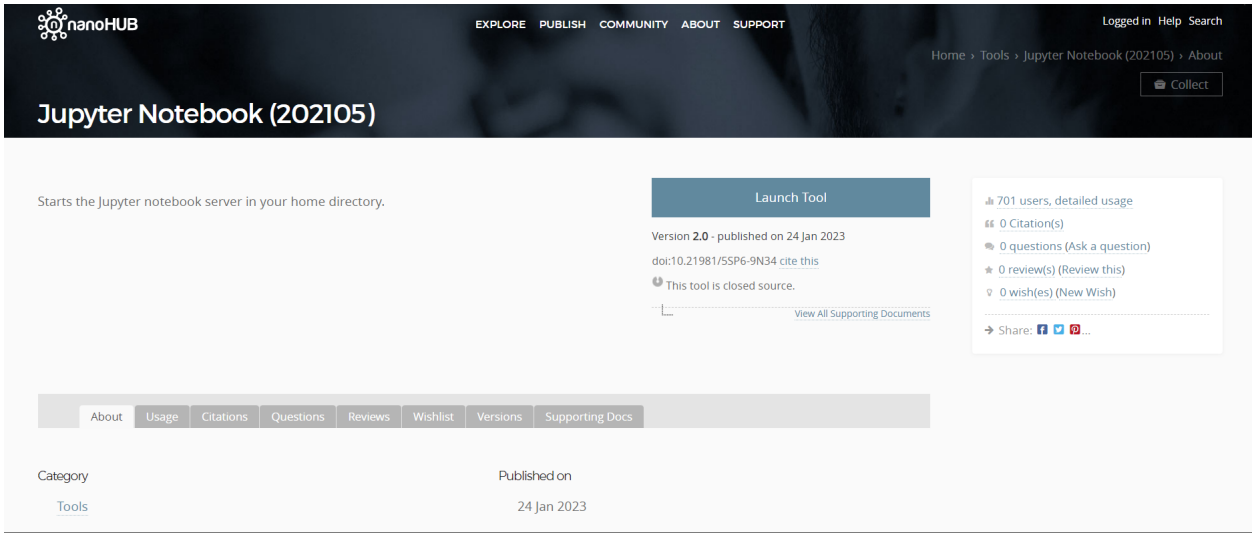
2. Search jupyter notebook on search bar



3. Scroll down to find Jupyter Notebook (202105), the newest version.

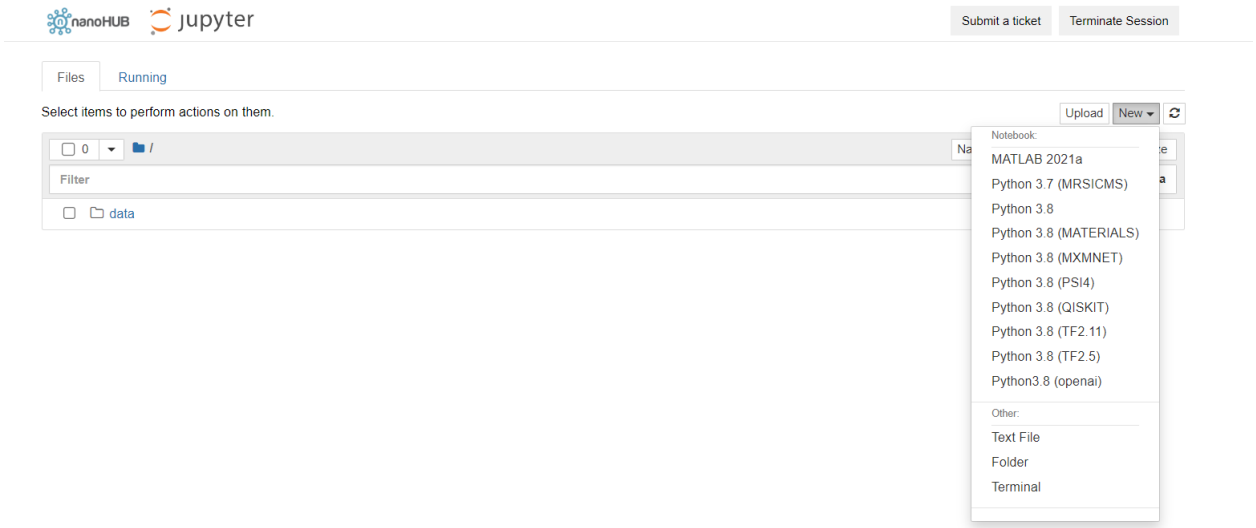


4. Click on Jupyter Notebook (202105)

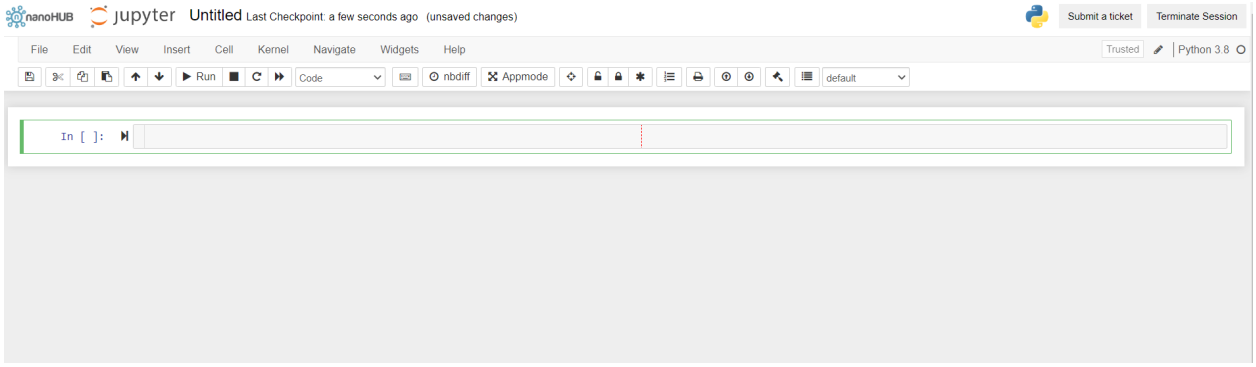


5. Click on Launch Tool, and it will redirect you to the following page

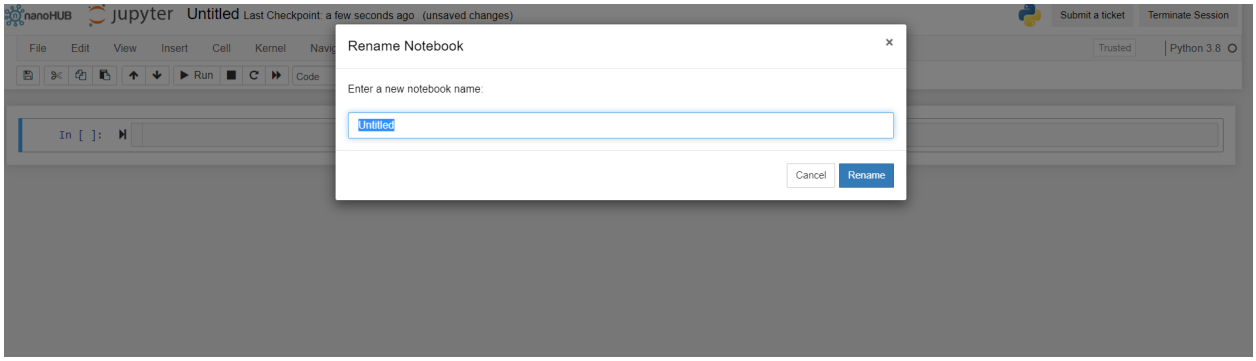
6. To create a new file click on New



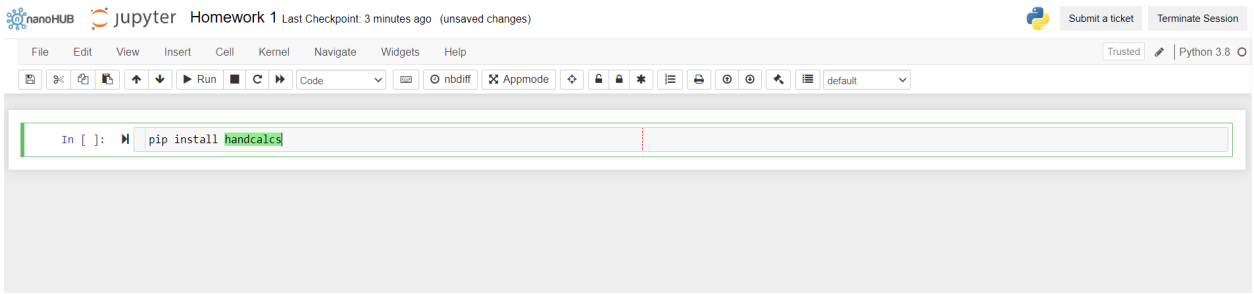
7. Then click on Python 3.8



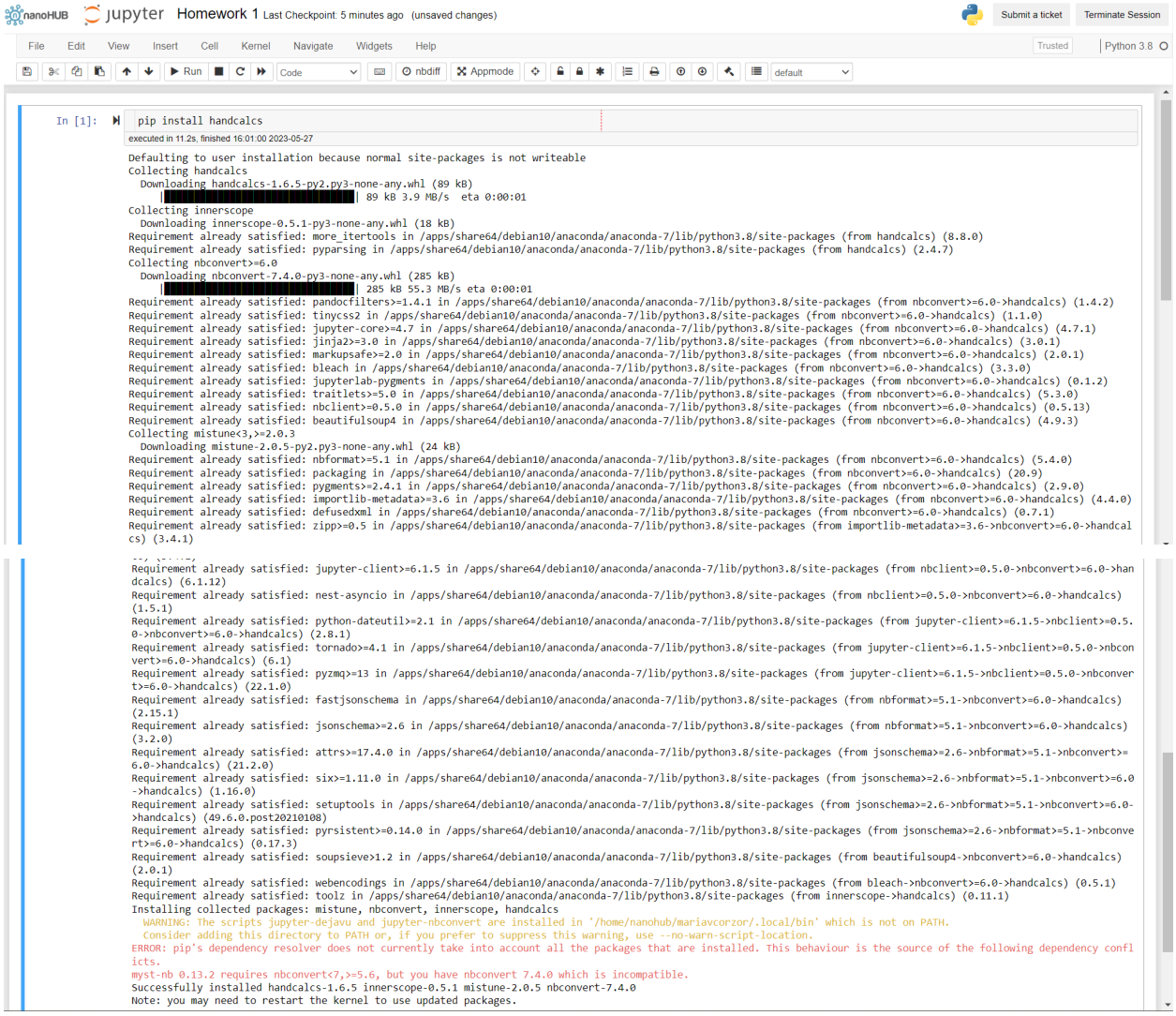
8. You can rename this notebook by clicking on Untitled, then typing on the new pop-up bar and clicking rename.



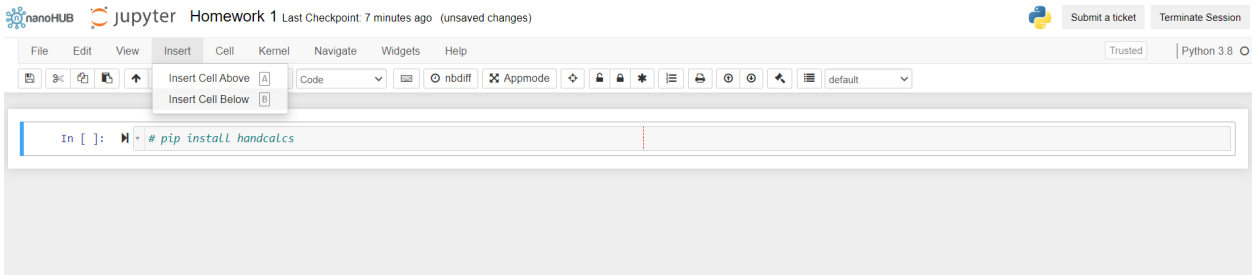
9. To use Handcalcs, you must download the library onto the Jupyter system, to do this type : “pip install handcalcs” and either click run on the menu above or the arrow next to the bar



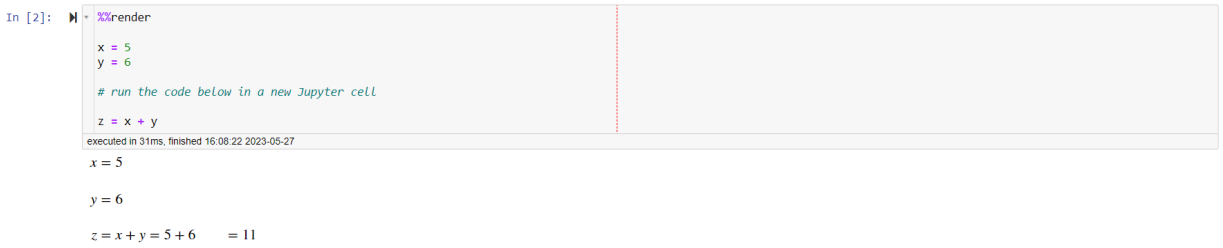
10. This will run the command and download the library, which will look like the following:



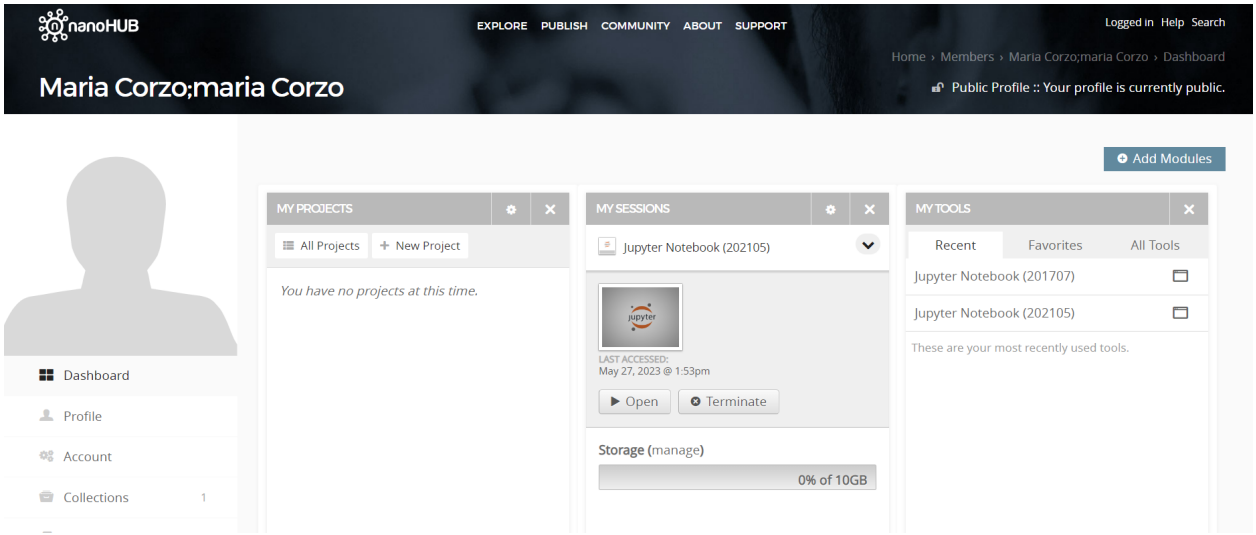
11. This only needs to be done once, and afterwards refresh the page
12. To add another cell, click on insert and then cell below or on the downward arrow next to the printer in the menu



13. Now you can use the tools available in the Handcalcs library

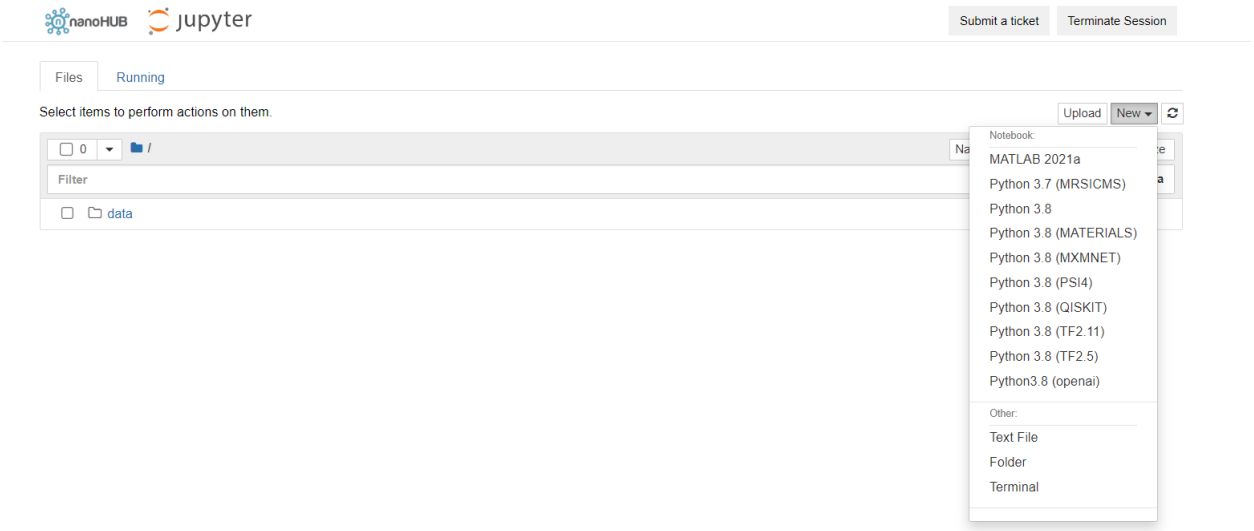


If you have already used nanoHUB for Jupyter you can easily access it on your dashboard under “My Session”

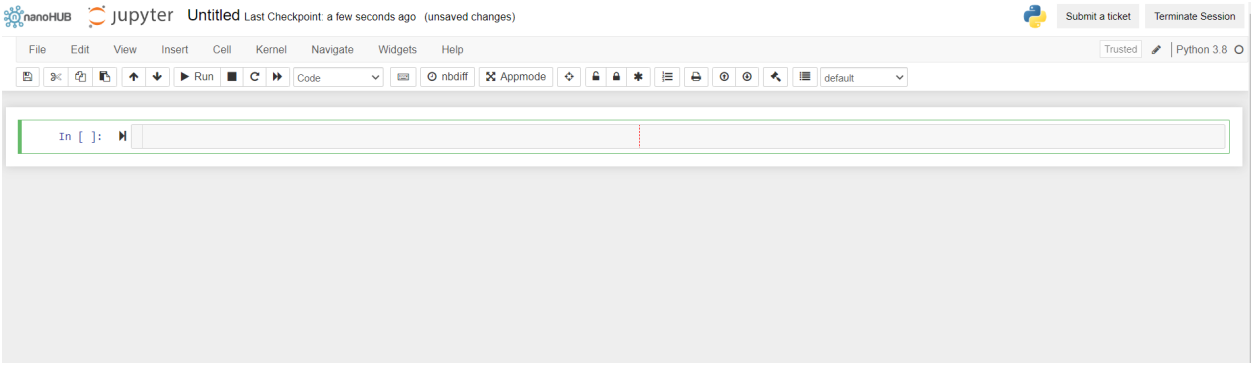


You can open it by clicking on “Open” under Jupyter Notebook, if you have not downloaded the Handcalcs library before this must be done:

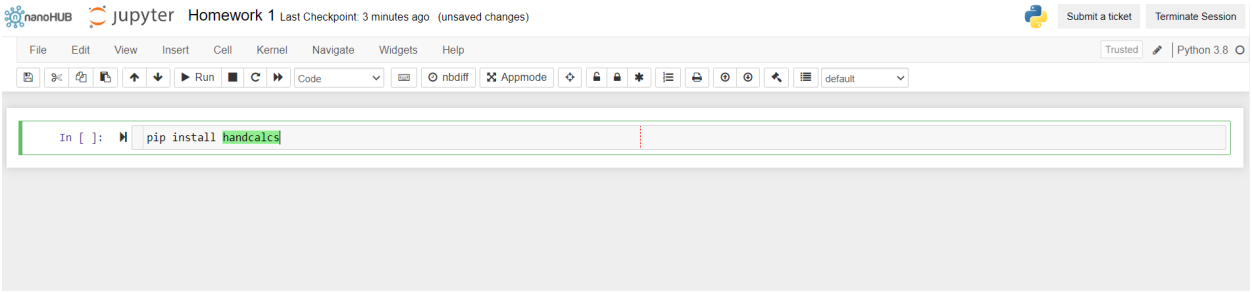
1. Create a new file click on New



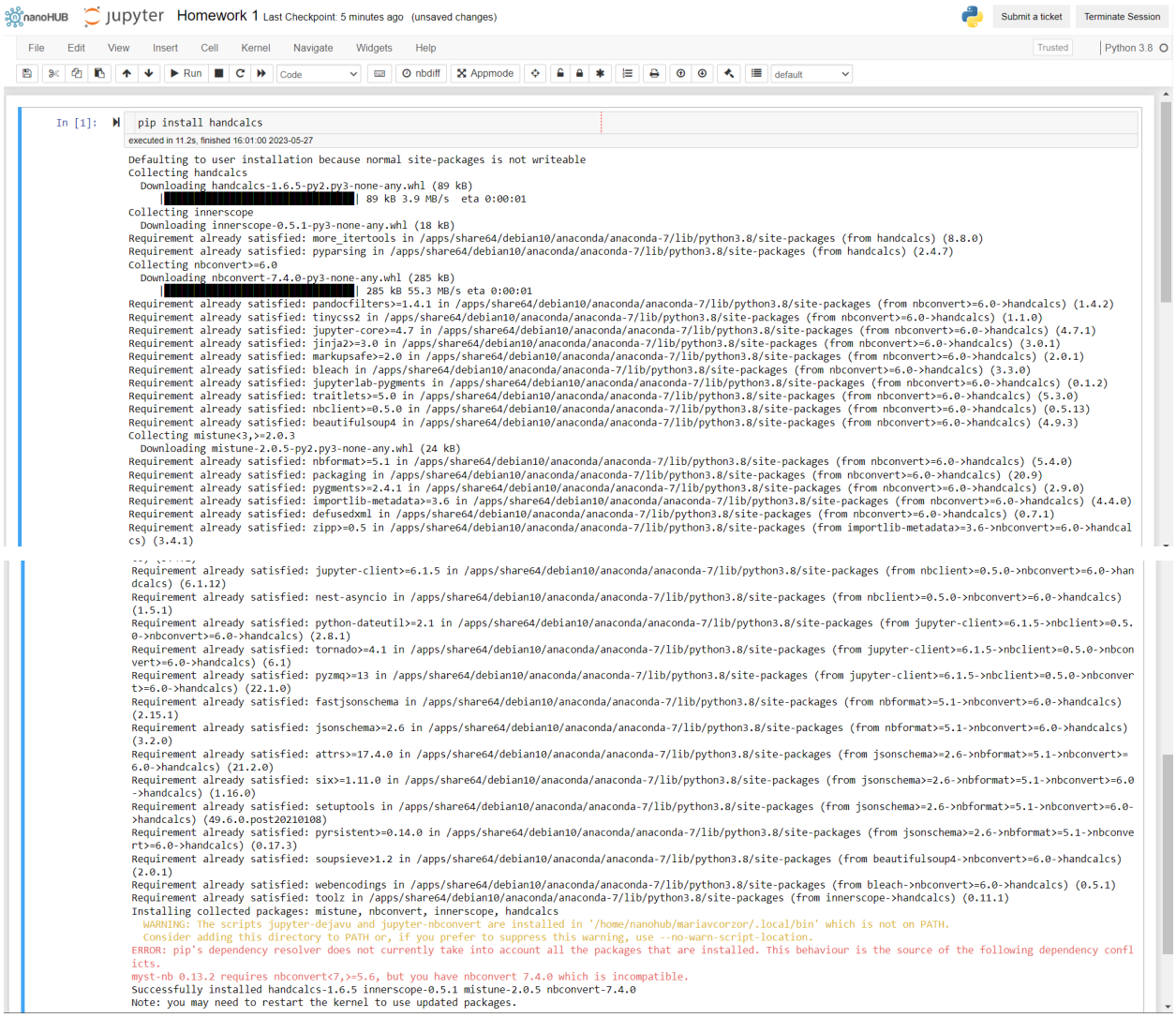
2. Then click on Python 3.8



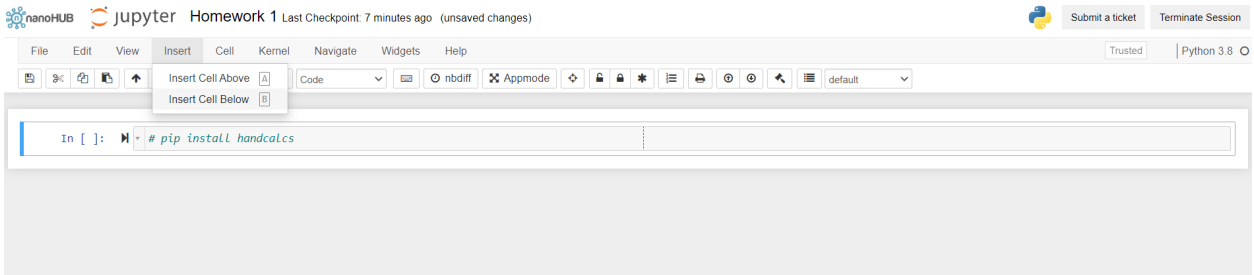
3. To use Handcalcs, you must download the library onto the Jupyter system, to do this type : “pip install handcalcs” and either click run on the menu above or the arrow next to the bar



4. This will run the command and download the library, which will look like the following:



5. This only needs to be done once, and afterwards refresh the page
6. To add another cell, click on insert and then cell below or on the downward arrow next to the printer in the menu



7. Now you can use the tools available in the Handcalcs library

In [2]:

```
%%render

x = 5
y = 6

# run the code below in a new Jupyter cell

z = x + y
```

executed in 31ms, finished 16:08:22 2023-05-27

$$x = 5$$

$$y = 6$$

$$z = x + y = 5 + 6 \qquad = 11$$