

# Installation of Anaconda package for python

## Python - Anaconda package

OnStove is written in python, an open source programming language used widely in many applications. Python is a requirement for the OnStove tool to work.

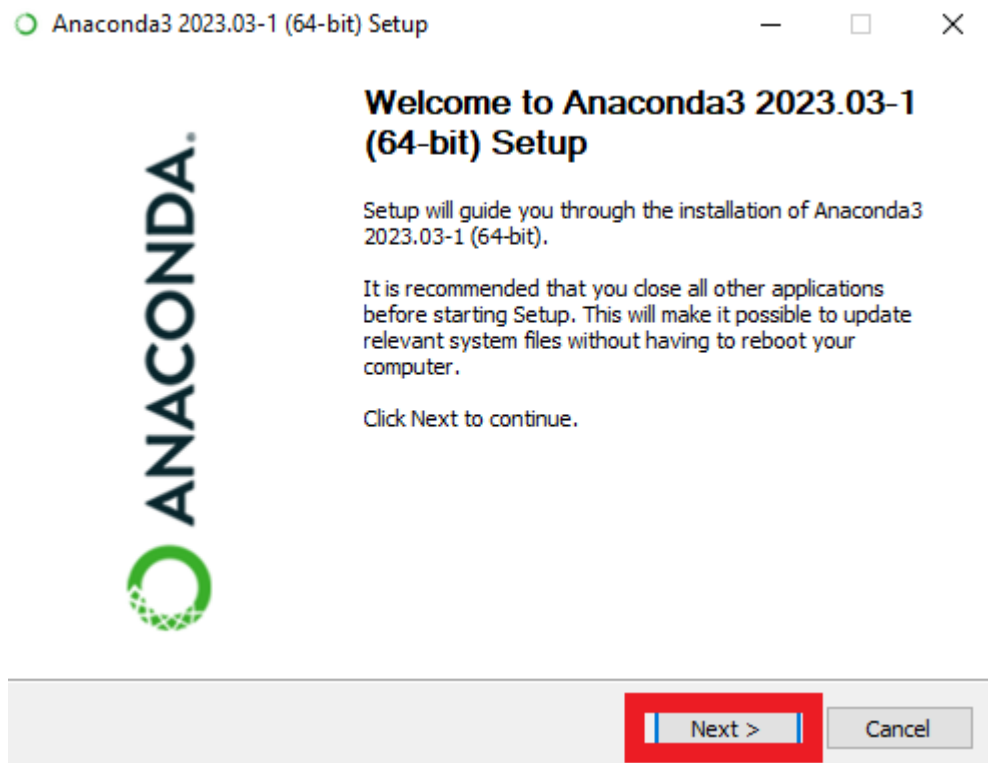
Programming in python usually relies on the usage of pre-defined functions that can be found in the so called modules. In order to work with OnStove, certain modules need to be installed. The easiest way to do so is by installing Anaconda, a package that contains various useful modules. Anaconda includes all the modules required to run OnStove.

To download Anaconda, go to <https://www.anaconda.com/download/> and download version 3.7.

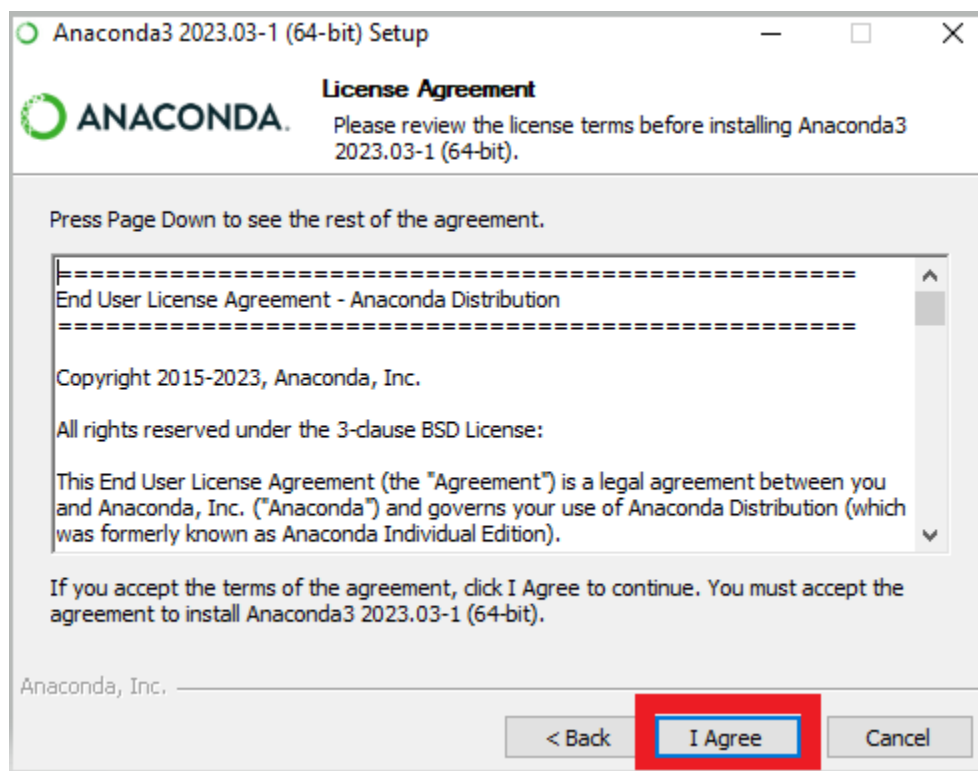
1. Please make sure that you download the version that is compatible with your operating



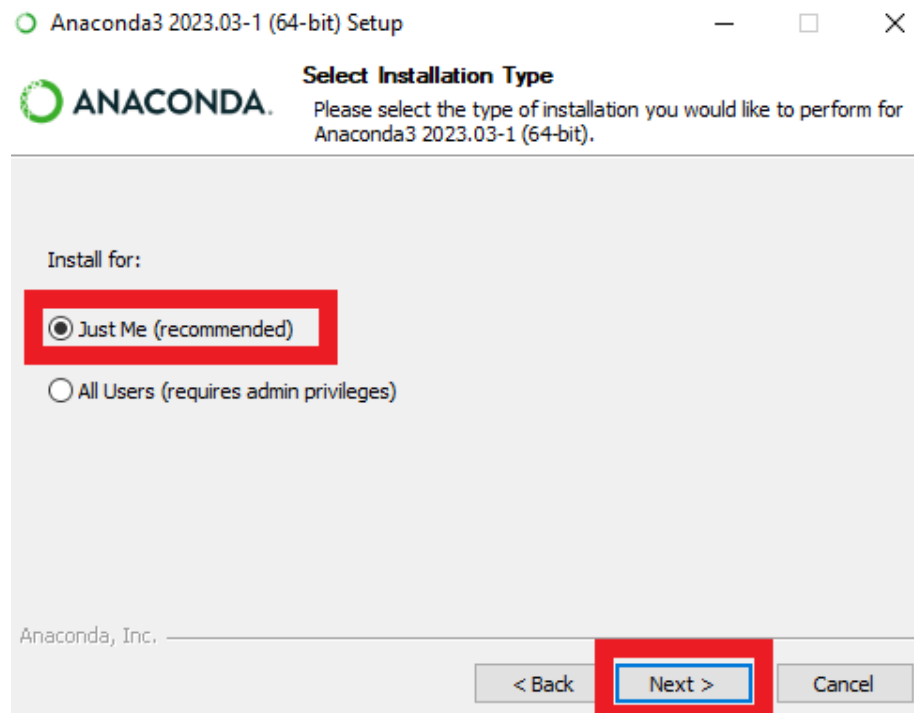
2. Once downloaded, open the installation file and click “Next” to start.



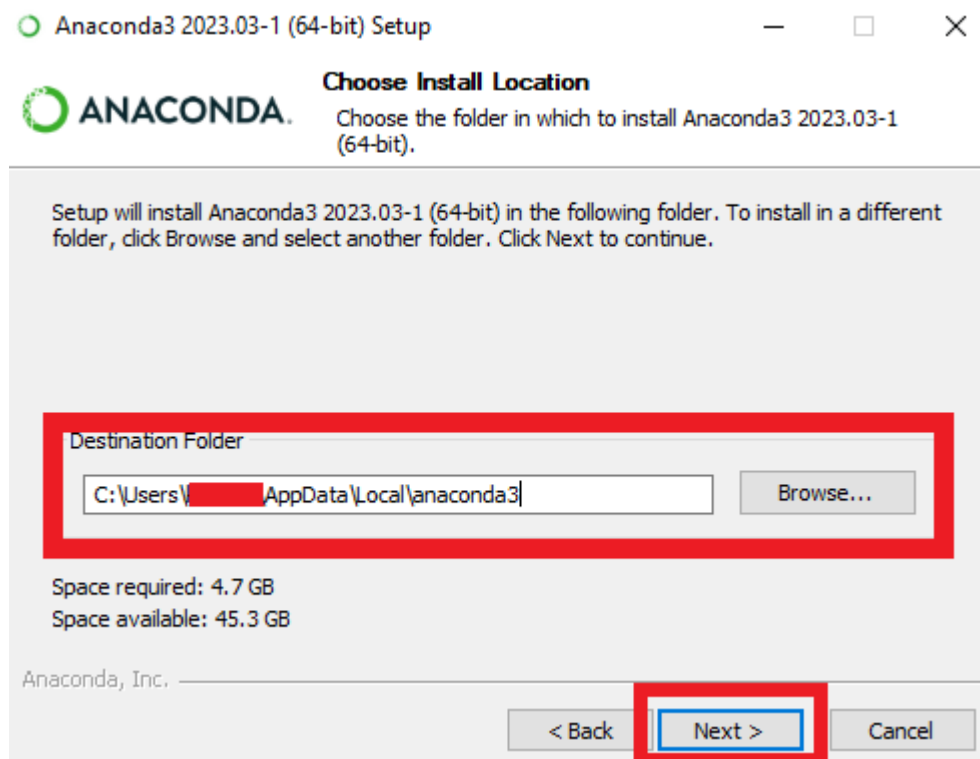
3. First you have to agree to the License Agreement.



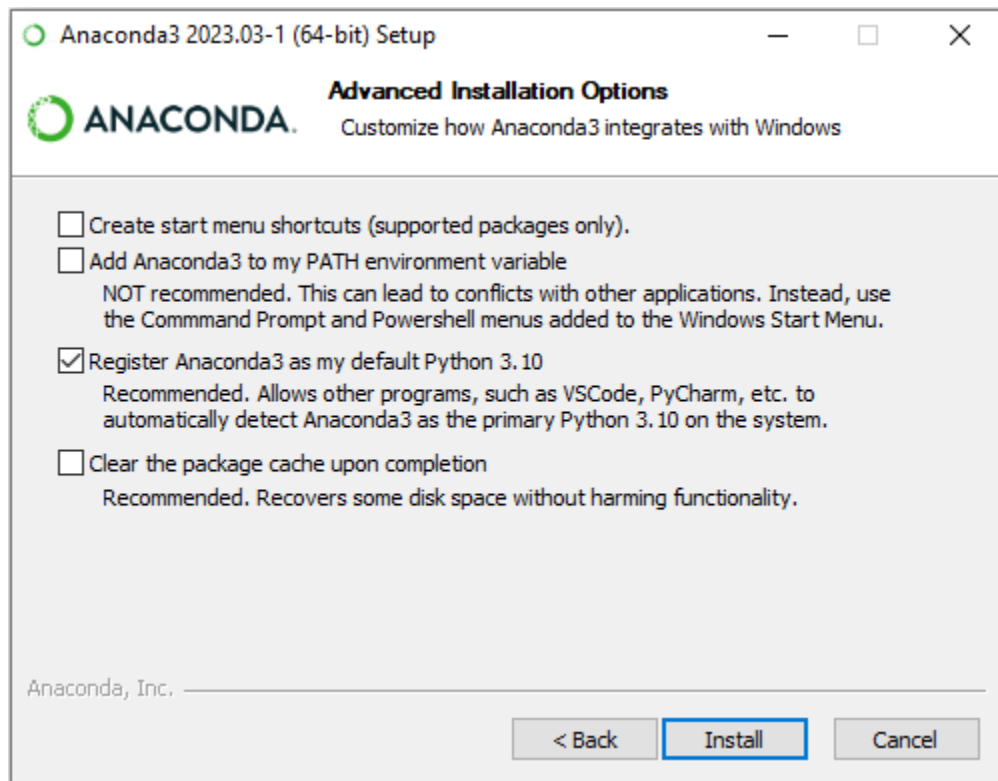
- Next, select to install Anaconda for “Just Me” and click “Next”.



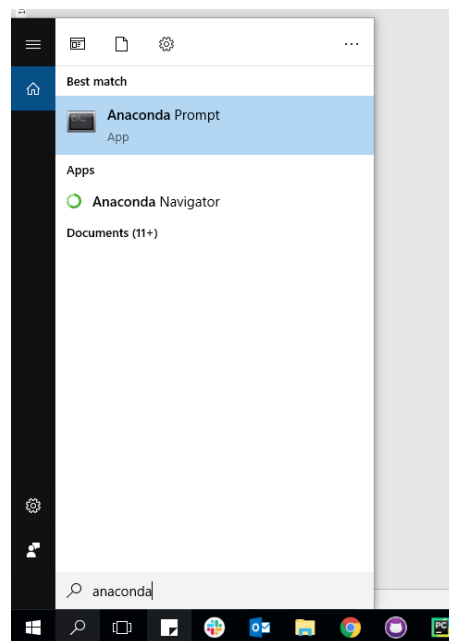
- Select the location where to install Anaconda on your computer and click “Next”.



6. Select “Register Anaconda3 as my default Python 3.10”, the rest you can leave unchecked and click “Install”.



7. After the installation you can use the Anaconda command line (search for “Anaconda Prompt”) to open the anaconda prompt.



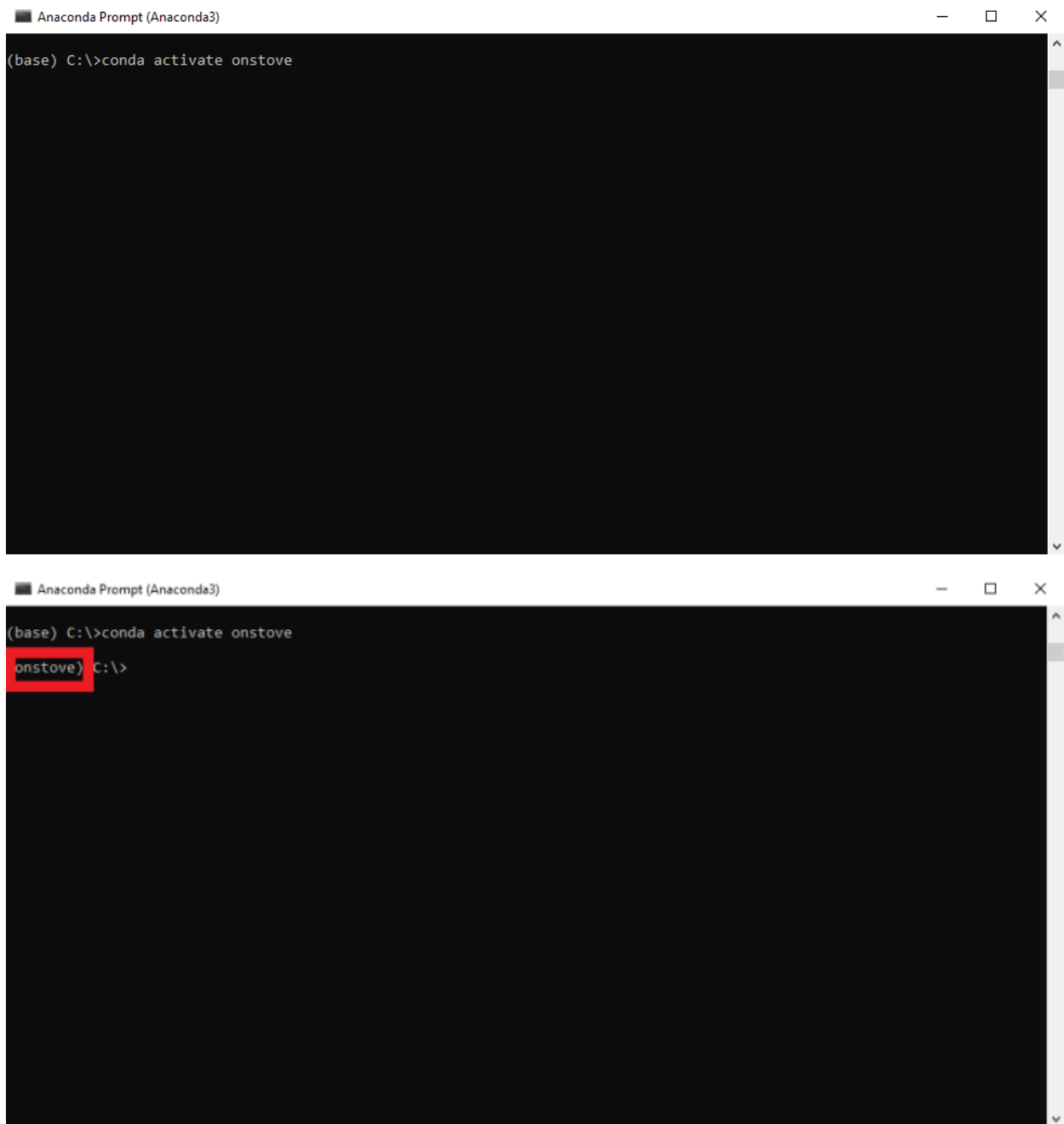
8. In order for OnStove to work correctly on your computer you will have to install it. Do this by simply typing **conda create -n onstove -c conda-forge onstove** in the anaconda prompt, then press Enter. This will install OnStove (this may take some time). At a certain point anaconda will list the packages that are needed for installation and ask you to confirm, press **y** to confirm.

```
Anaconda Prompt (Anaconda3)
(base) C:\>conda create -n onstove -c conda-forge onstove
```

```
Anaconda Prompt (Anaconda3)
typing_utils      conda-forge/noarch::typing_utils-0.1.0-pyhd8ed1ab_0 None
tzdata            conda-forge/noarch::tzdata-2023c-h71feb2d_0 None
ucrt              conda-forge/win-64::ucrt-10.0.22621.0-h57928b3_0 None
unicodedata2      conda-forge/win-64::unicodedata2-15.0.0-py310h8d17308_0 None
urllib3           conda-forge/noarch::urllib3-2.0.3-pyhd8ed1ab_0 None
vc                conda-forge/win-64::vc-14.3-hb25d44b_16 None
vc14_runtime      conda-forge/win-64::vc14_runtime-14.34.31931-h5081d32_16 None
vs2015_runtime    conda-forge/win-64::vs2015_runtime-14.34.31931-hed1258a_16 None
wcwidth           conda-forge/noarch::wcwidth-0.2.6-pyhd8ed1ab_0 None
webencodings      conda-forge/noarch::webencodings-0.5.1-py_1 None
websocket-client  conda-forge/noarch::websocket-client-1.5.2-pyhd8ed1ab_0 None
wheel             conda-forge/noarch::wheel-0.40.0-pyhd8ed1ab_0 None
win_inet_pton     conda-forge/noarch::win_inet_pton-1.1.0-pyhd8ed1ab_6 None
winpty            conda-forge/win-64::winpty-0.4.3-4 None
xerces-c          conda-forge/win-64::xerces-c-3.2.4-h63175ca_2 None
xorg-libxau       conda-forge/win-64::xorg-libxau-1.0.11-hcd874cb_0 None
xorg-libxdmcp     conda-forge/win-64::xorg-libxdmcp-1.1.3-hcd874cb_0 None
xyzservices       conda-forge/noarch::xyzservices-2023.5.0-pyhd8ed1ab_1 None
xz               conda-forge/win-64::xz-5.2.6-h8d14728_0 None
yaml              conda-forge/win-64::yaml-0.2.5-h8ffe710_2 None
zeromq            conda-forge/win-64::zeromq-4.3.4-h0e60522_1 None
zfp               conda-forge/win-64::zfp-1.0.0-h63175ca_3 None
zipp              conda-forge/noarch::zipp-3.15.0-pyhd8ed1ab_0 None
zlib              conda-forge/win-64::zlib-1.2.13-hcfcfb64_4 None
zlib-ng           conda-forge/win-64::zlib-ng-2.0.7-hcfcfb64_0 None
zstd              conda-forge/win-64::zstd-1.5.2-h12be248_6 None

Proceed ([y]/n)? y
```

9. Once the installation is finished you type **conda activate onstove** . Note that the **(base)** in the beginning of the line of the prompt changes to **(onstove)**. This means that OnStove is active and you now have access to the tool.



The image consists of two vertically stacked screenshots of an Anaconda Prompt window. The window title is 'Anaconda Prompt (Anaconda3)'. The first screenshot shows the command prompt at '(base) C:\>' with the command 'conda activate onstove' entered. The second screenshot shows the same window after the command has been executed. The prompt has changed to 'onstove) C:\>', and the text 'onstove)' is highlighted with a red rectangular box.

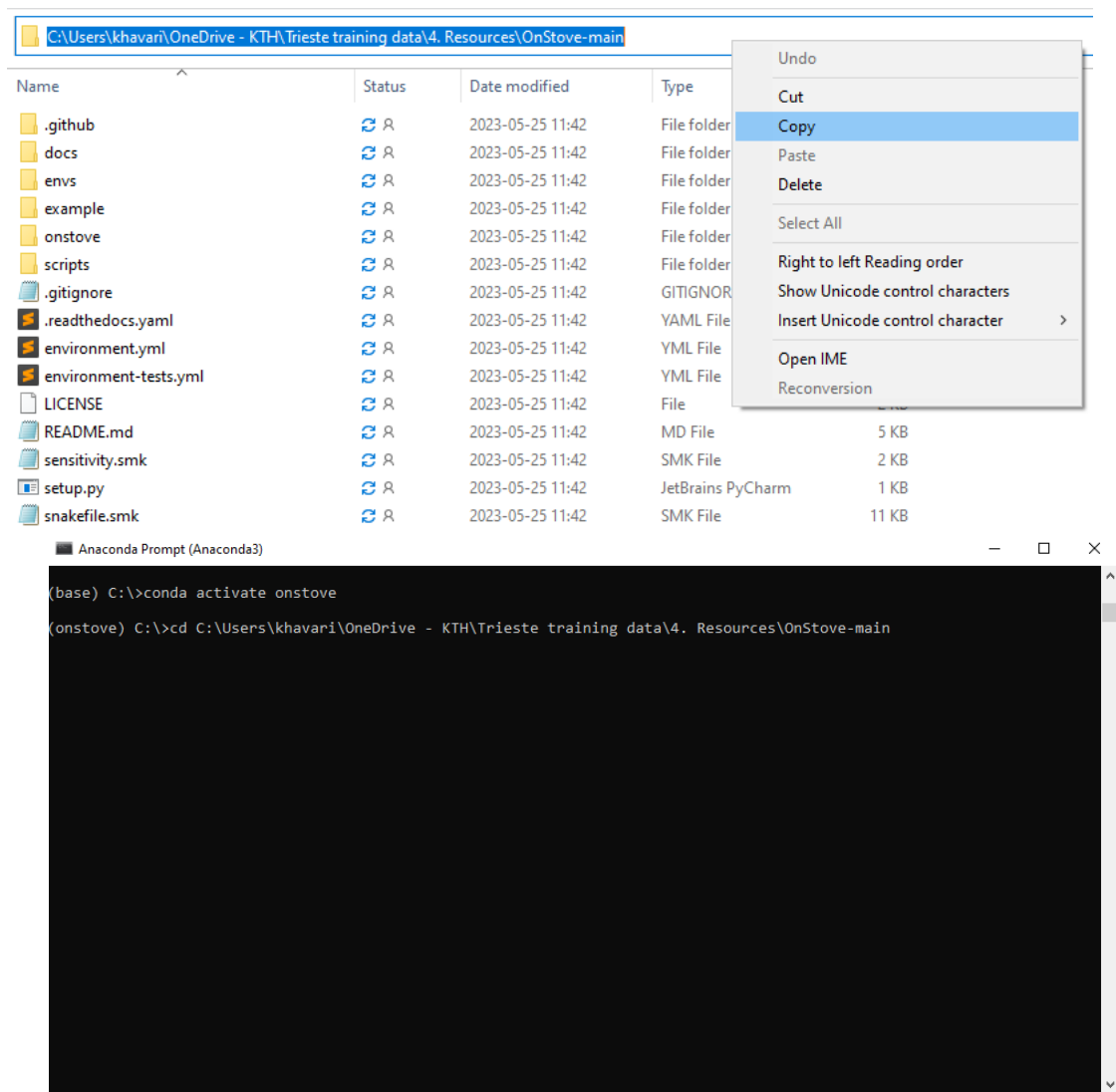
```
(base) C:\>conda activate onstove
```

```
onstove) C:\>
```

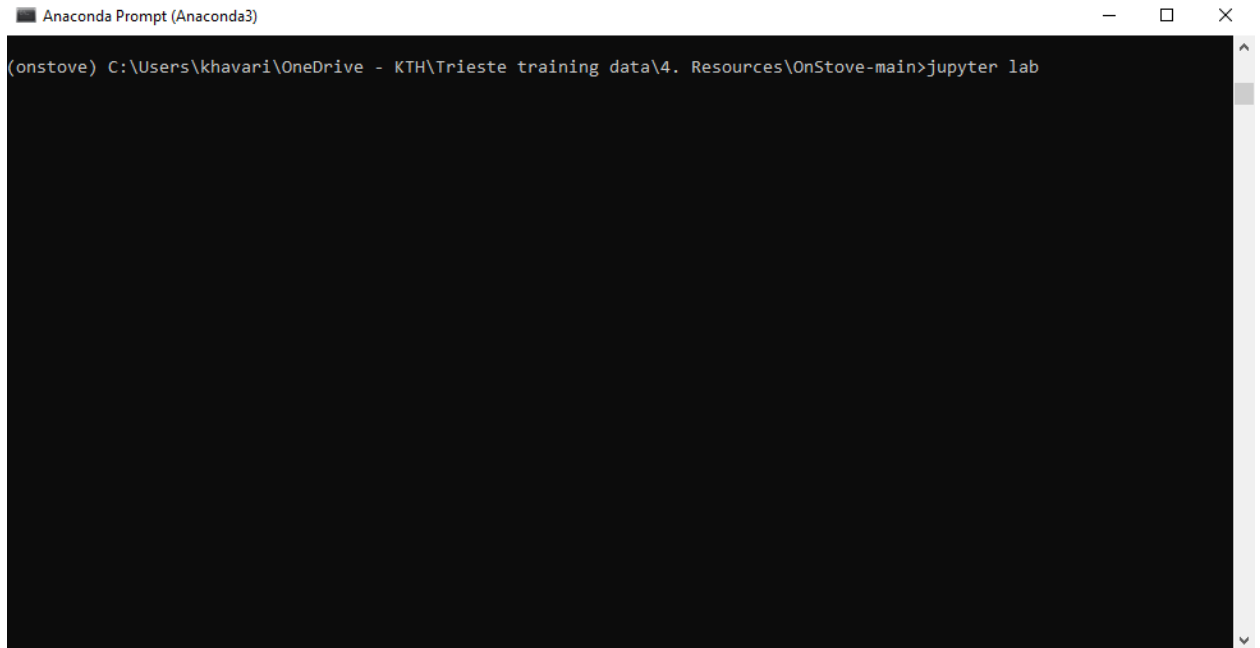
10. The last step needed to run OnStove is a functioning code. For this we will utilize the Jupyter Notebook version of the code available on the official OnStove github repository. Click on the following link to do so: <https://github.com/Open-Source-Spatial-Clean-Cooking-Tool/OnStove/archive/refs/heads/main.zip>. This will download a zipped folder, once the download is finished unzip the folder somewhere on your computer.

OneDrive - KTH > Trieste training data > 4. Resources					
Name	Status	Date modified	Type	Size	
Installation files		2023-05-24 15:18	File folder		
OnStove-main		2023-06-08 15:09	File folder		
OnStove-main.zip		2023-06-08 15:08	Compressed (zipp...	2 515 KB	

11. Open the unzipped folder called **OnStove-main**. Copy the path and paste it in the anaconda prompt with “**cd**” in front of it (**cd PATH**, see images). Lastly press **enter**.



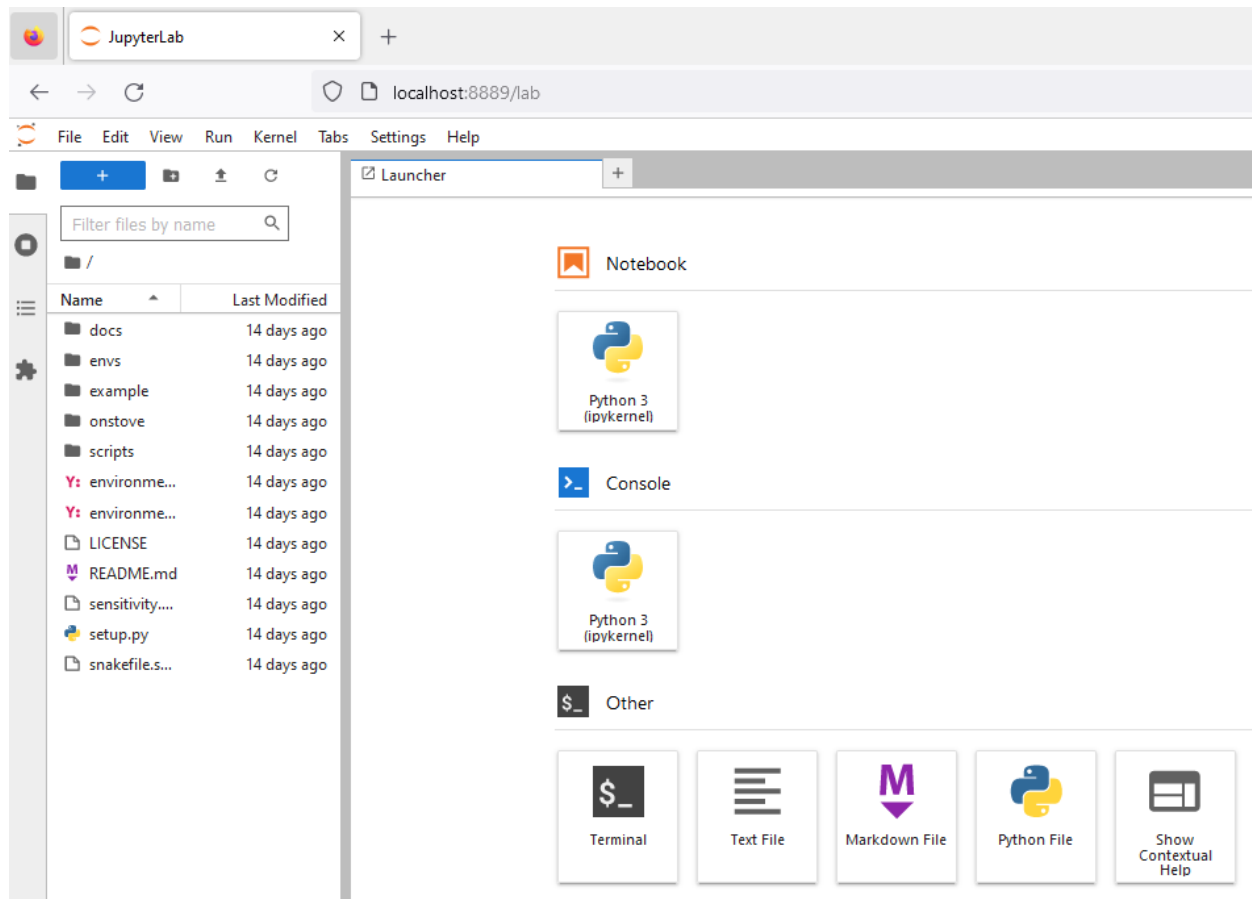
12. Next type “jupyter lab” in anaconda.



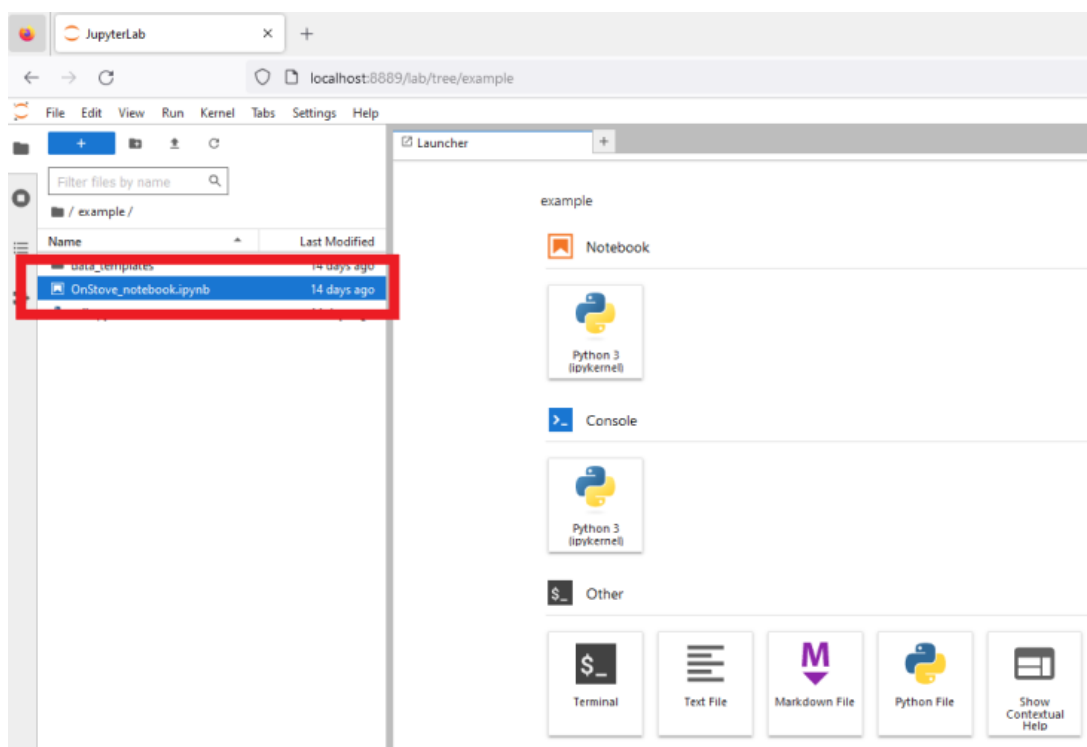
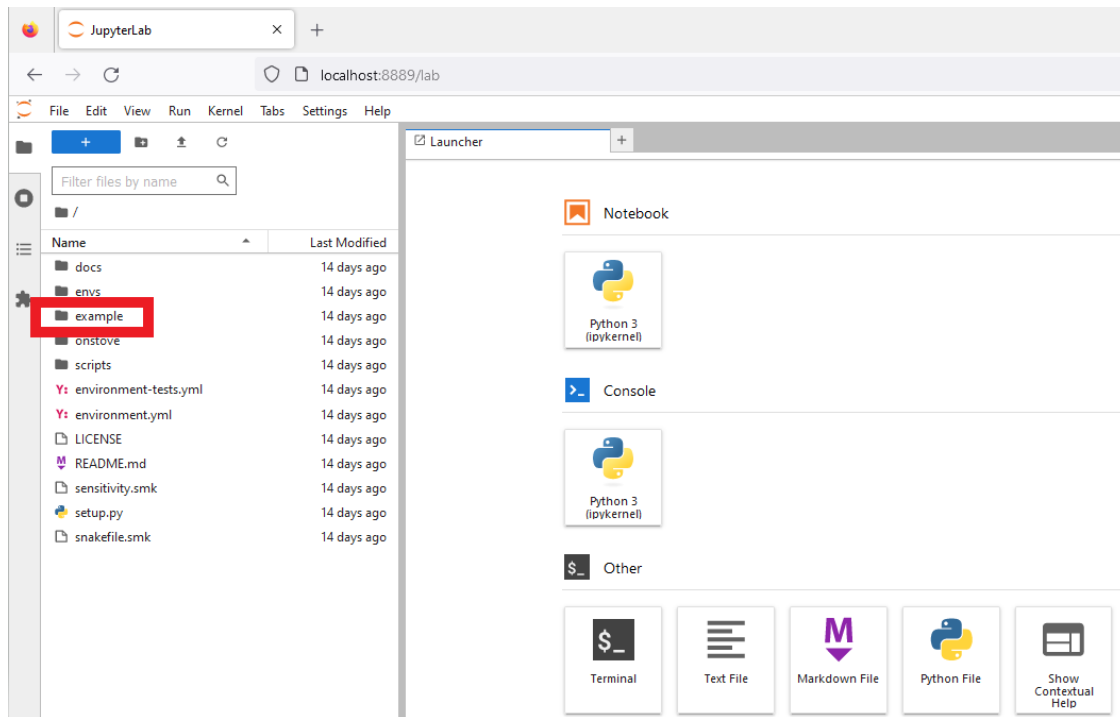
The image shows a screenshot of an Anaconda Prompt terminal window. The title bar at the top reads "Anaconda Prompt (Anaconda3)". The terminal window has a black background with white text. The prompt is "(onstove) C:\Users\khavari\OneDrive - KTH\Trieste training data\4. Resources\OnStove-main>". The command "jupyter lab" has been entered and executed, as indicated by the cursor position at the end of the line. The rest of the terminal area is empty.

13. This will open up an instance of jupyter lab on your computer. Note that while it opens up in your web-browser the jupyter lab instance is ran completely offline and does not require an internet connection.

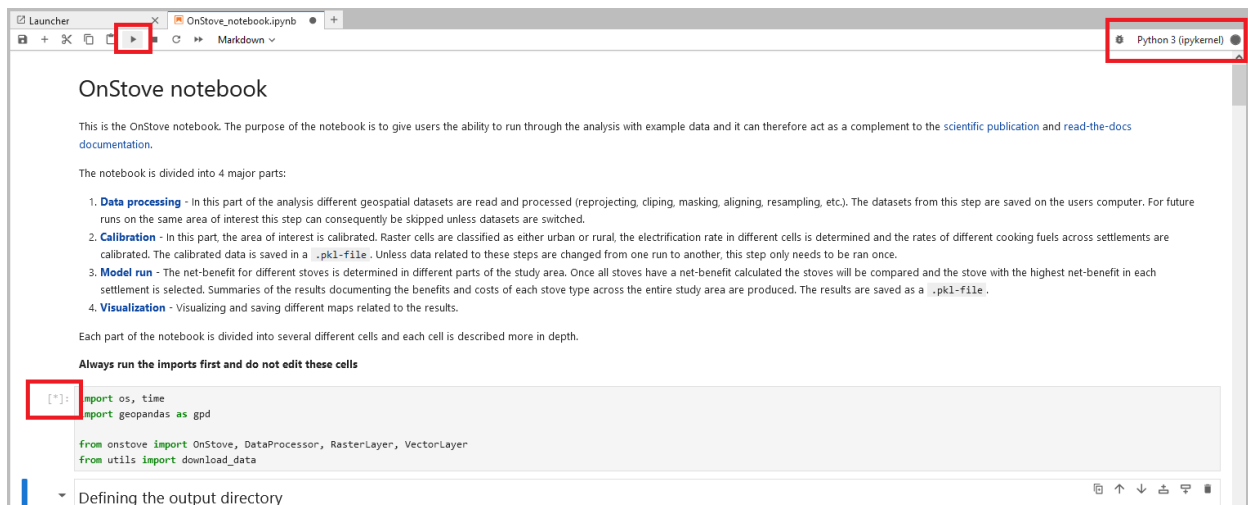




14. If you click on the folder called example (highlighted in the image below) you can start and run OnStove (the .ipynb-file).



15. A jupyter notebook is a version of the code where you can run different parts of it separately from others (you run one cell at time). To run a cell you click on the play button at the top of the screen. While the code is being ran the circle is filled in and there is an asteriks (\*) in the cells that are either running or are in queue. We will look at how to run the Jupyter notebook in the subsequent exercises.



**Note:** If you close the notebook and wish to continue running the code at a later time you can do so by repeating step 7, 9 11, 12, 13, 14 and 15 again in order.