Install Python and the required Python packages

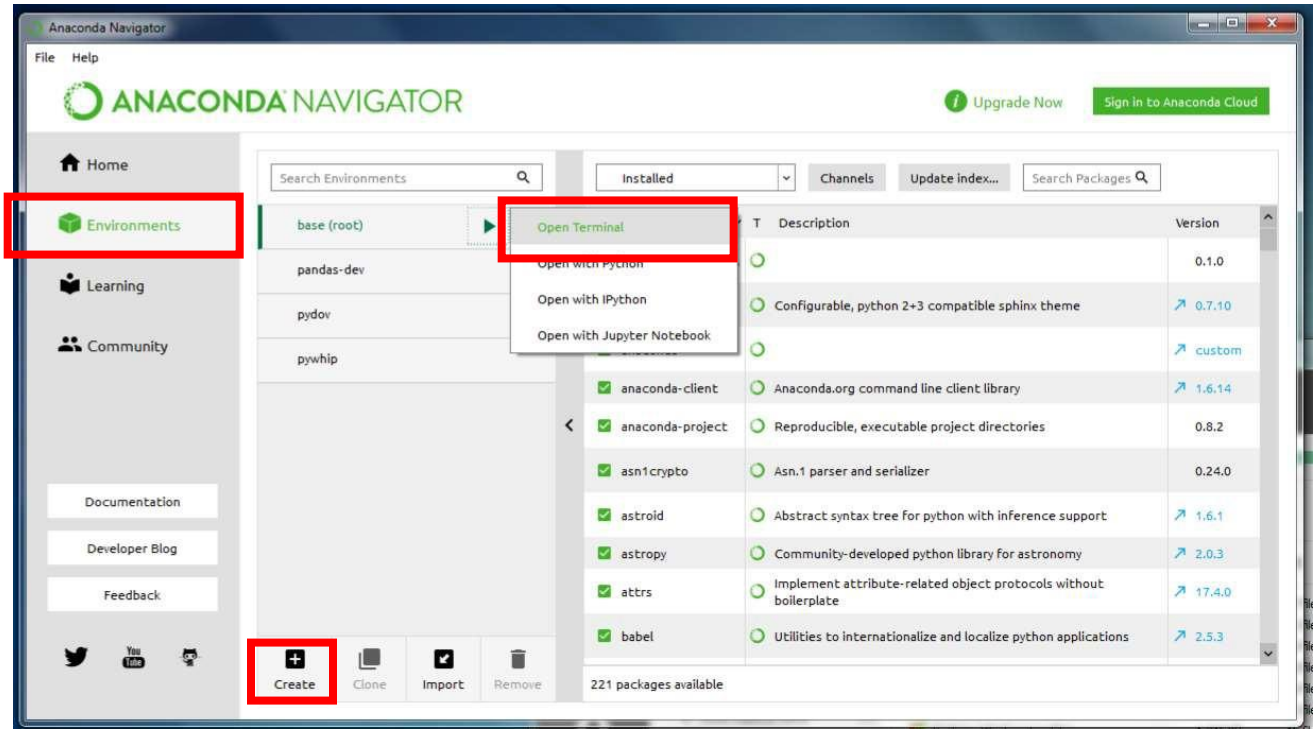
For scientific and data analysis, we recommend using Anaconda (or Miniconda) (https://www.anaconda.com/download/), which provides a Python distribution that includes the scientific libraries (this recommendation applies to all platforms, so for both Windows, Linux and Mac), instead of installing Python as such. After installation, proceed with the setup.

I do not have Anaconda installed yet

For first time users and people not fully confident with using the command line, we advise to install Anaconda, by downloading and installing the Python 3.x version from https://www.anaconda.com/download/. Recent computers will require the 64-Bit installer.

I already have Anaconda installed

When you already have an installation of Anaconda, you have to make sure you are working with the most recent versions. Make sure you have Anaconda3 (on Windows, check Start> Programs> Anaconda3). If not, reinstall Anaconda according to the previous section.
Start the Anaconda Navigator program (for Windows users: Start> Anaconda Navigator) and go to the Environments tab. You should see the *base (root) environment,* click the arrow next to it and click Open terminal, as shown in the following figure:



Type following command + ENTER-button (make sure you have an internet connection):

```
conda update -n root conda
```

and respond with *Yes* by typing y. Packages should be updated after the completion of the command.

Setup after Anaconda installation

Not all packages we will use are provided as default as part of Anaconda. To install them follow the following instructions (see previous figure for more guidance):

- Create a new conda environment to work with (as good practice) by selecting ‘create’ in the Environments tab. Give your environment a name and select the latest Python version

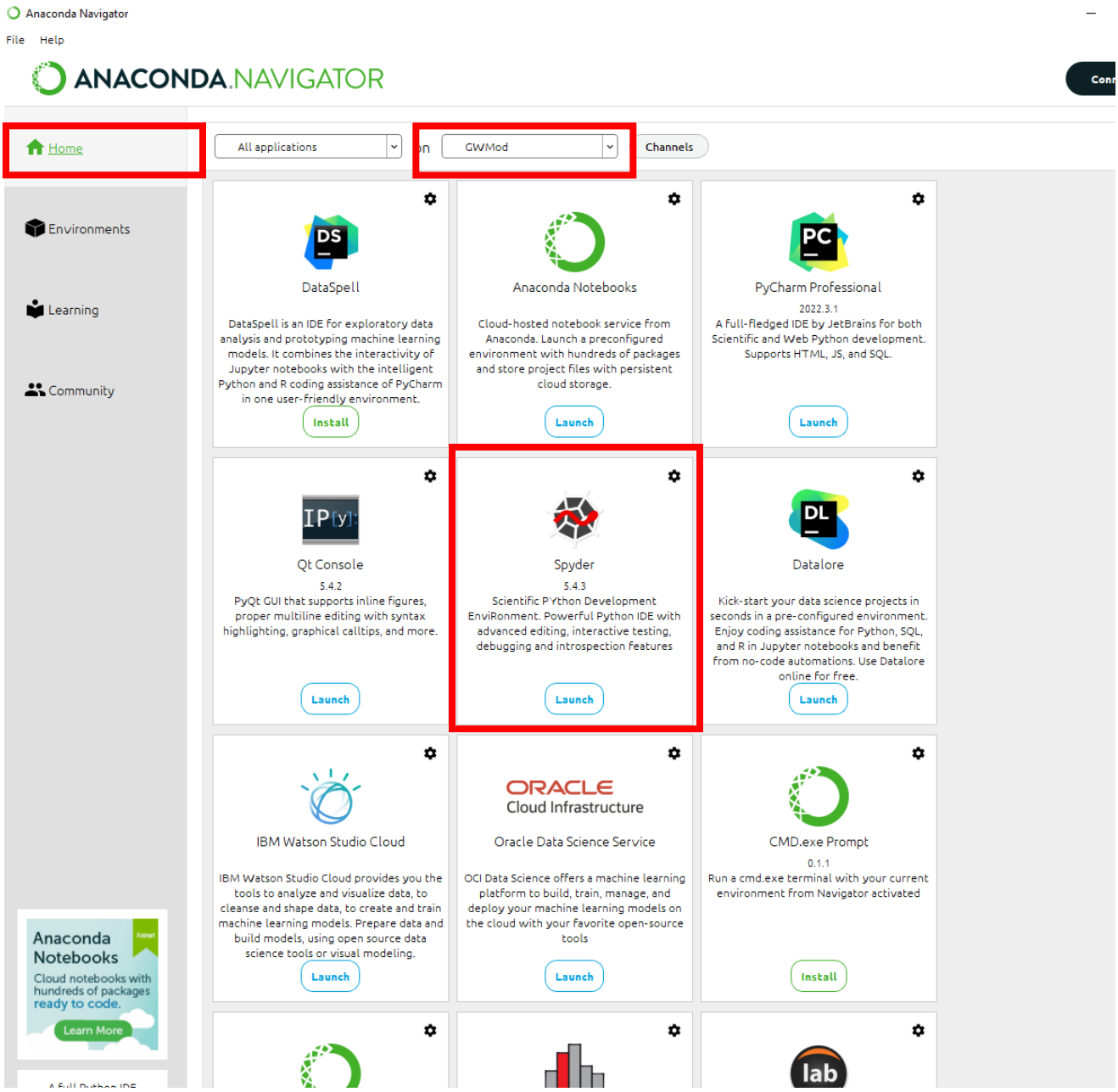
- Next, click the arrow next to your new environment and select ‘open terminal’.

- Type the following commands in the terminal:

```
pip install flopy
pip install numpy
pip install matplotlib
pip install python-math
pip install pandas
```

Getting started

You can now select your environment in the Home tab and launch Spyder. You can use Spyder to run the scripts that are available on Ufora (with minor adjustments). Information on what to adjust to make the scripts work on for you is provided at the start of each script.


Anaconda Navigator
File Help
ANACONDA.NAVIGATOR
Home
All applications
GWMod
Channels
Environments
Learning
Community
DataSpell
DataSpell is an IDE for exploratory data analysis and prototyping machine learning models. It combines the interactivity of Jupyter notebooks with the intelligent Python and R coding assistance of PyCharm in one user-friendly environment.
Install
Anaconda Notebooks
Cloud-hosted notebook service from Anaconda. Launch a preconfigured environment with hundreds of packages and store project files with persistent cloud storage.
Launch
PyCharm Professional
2022.3.1
A full-fledged IDE by JetBrains for both Scientific and Web Python development. Supports HTML, JS, and SQL.
Launch
Qt Console
5.4.2
PyQt GUI that supports inline figures, proper multiline editing with syntax highlighting, graphical calltips, and more.
Launch
Spyder
5.4.3
Scientific PYthon Development EnviRonment. Powerful Python IDE with advanced editing, interactive testing, debugging and introspection features
Launch
Datalore
Kick-start your data science projects in seconds in a pre-configured environment. Enjoy coding assistance for Python, SQL, and R in Jupyter notebooks and benefit from no-code automations. Use Datalore online for free.
Launch
IBM Watson Studio Cloud
IBM Watson Studio Cloud provides you the tools to analyze and visualize data, to cleanse and shape data, to create and train machine learning models. Prepare data and build models, using open source data science tools or visual modeling.
Launch
ORACLE Cloud Infrastructure
Oracle Data Science Service
OCI Data Science offers a machine learning platform to build, train, manage, and deploy your machine learning models on the cloud with your favorite open-source tools
Launch
CMD.exe Prompt
0.1.1
Run a cmd.exe terminal with your current environment from Navigator activated
Install
Anaconda Notebooks
Cloud notebooks with hundreds of packages ready to code.
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