Practical Pol-SAR Python

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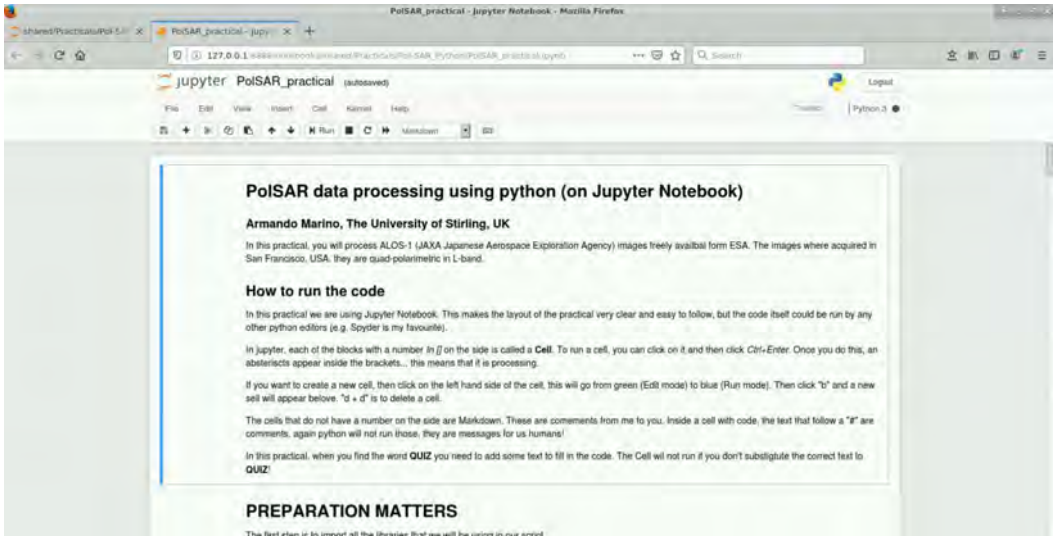
Running Jupyther Notebook on the VM

The first step once you are on the Vm is to open a Jypyther Notebook session. You will this as an icon on the desktop  .

Jupyter will open in a browser. Once it is open, navigate to the folder where the script files are stored (in my case this is Shared/Practicals/Pol-SAR_Python)

The file PolSAR_practical.ipynb is the code with the practical, where you have to fill in parts of the script where the word “QUIZ” appears. The file PolSAR_practical_solutions.ipynb contains the solutions. My suggestion is that you first try to solve all the QUIZZES yourself and if you get stuck you can look at the solutions.

Clicking on the file will open the script.



There are several instructions in the Markdown part of the code (i.e. blue Cells) that explains how to run it. The instruction are inside the green Cells that have an In[] on the left side. To run a Cell, click on the Cell and press Ctrl+Enter (or Shift+Enter). To make sure you are defining all the variables at the right time, you should run cells in their sequence.

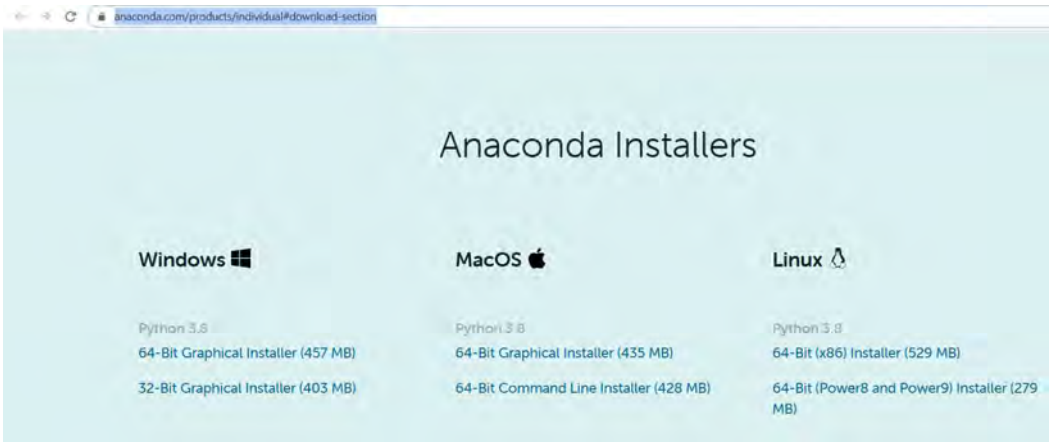
If there is an error in the Cell, this will appear in red underneath, as in the following figure where I tried to run a later Cell without running the previous Cell.

If you get stuck during the practical, please have a look at the Solutions file and see if they make sense. If something does not make sense or you want to know more, please let me know contacting me directly during the practical.

Running python code at home

In order to run python at home you will need to install it on your machine. My suggestion is to use the *Anaconda* installer, since this makes things very easy (also when you need to install future libraries using *conda*).

https://www.anaconda.com/products/individual#download-section



My suggestion is to choose the latest version (e.g. 3.8) and not the 2.7 version, which is not compatible with the latest 3.x versions.

Once Python is installed you need an editor (to type and run the code). You can either use the Jupyter Notebook (as in the practical) or the Spyder editor. You find both in the Anaconda installation. Although I find Jupyter better for teaching, you may want to use Spyder for developing projects, since it allows a more agile way of debugging the code. You can convert code from Jupyter- to Spyder-format very easily when you save the code.