**Creating an environment to run specific versions of python packages**

Some functionalities only work in certain versions of python, because the creators haven’t updated them as fast as python has been updated. You can get around this problem by running your code in an **environment**, which is kind of like a subdivision of your computer that preserves specific versions of specific packages. To set up an environment for this class:

1. Open Anaconda Prompt (you can do this by searching for it in your search bar).
2. If you are working in the department computer lab, change to your own user directory by typing this and hitting enter:

cd C:\Users\yourusername

1. Check what environments you already have, and which one is currently active (the active one will have a star next to it):

conda info **--**envs

1. Create an environment called HWR582 with Python version 3.6.2:

conda create **--**name HWR582 python=3.6.2

1. Make sure this environment is active:

activate HWR582

1. Check to see what packages & versions this environment has:

conda list

1. You will need the following packages & versions:

Python 3.6.2

FloPy 3.2.6

NumPy 1.13.1   
Matplotlib 2.0.2

Jupyter 1.0.0

statsmodels 0.8.0

1. If any of these are already installed but have a different version, uninstall them:

conda uninstall package\_name

1. Now install the correct version:

conda install package\_name=package\_version

So for each of the necessary packages (do these one at a time):

conda install numpy=1.13.1

conda install matplotlib=2.0.2

conda install jupyter=1.0.0

FloPy is a little different because you need to find the old version in the python package index instead of in anaconda:

pip install flopy==3.2.8

1. Check that all the packages are properly installed:

conda list

1. From now on, activate the HWR582 environment BEFORE you start up Jupyter.
2. Note: You can also export an environment as a file, then copy it to a new computer and install it there. To export:

conda env export > environment.yml

To import:

conda env create -f environment.yml