**Jupiter magics**

You may have used the %quickref Jupyter magic in the last screen. Magics are special Jupyter commands that always start with %. They enable you to access Jupyter-specific functionality, without Python executing your commands.

Some useful magics are:

* %run -- allows you to run an external Python script. Any variables in the script will be stored in the current kernel session.
* %edit -- opens a file editor. Any code you type into the editor will be executed by Jupyter when you exit the editor.
* %debug -- if there's an error in any of your code, running %debug afterwards will open an interactive debugger you can use to trace the error.
* %history -- shows you the last few commands you ran.
* %save -- saves the last few commands you ran to a file.
* %who -- print all the variables in the session.
* %reset -- resets the session, and removes all stored variables.

You can see a full list of magics [here](http://ipython.readthedocs.org/en/stable/interactive/magics.html).

You can use the %run, %who, and %debug magics to iteratively develop scripts with Jupyter console. Have your favorite editor open, and start writing a Python script. In a separate shell, open Jupyter console. As you get to checkpoints in your script where you want to test it out, use the %run magic to run the script. Check the values of the variables using the %who magic. If you see any errors, debug them with the %debug magic. If you want to clear the session, use %reset.

Instructions

* Create a Python script using nano.
  + Add in whatever code you want, but make sure you add at least one print statement, and at least one variable definition.
* Open the Jupyter console by typing ipython.
* Use the %run magic to run the file you created.
* Use the %who magic to verify that the variable you defined exists.
* Exit Jupyter console by typing exit.