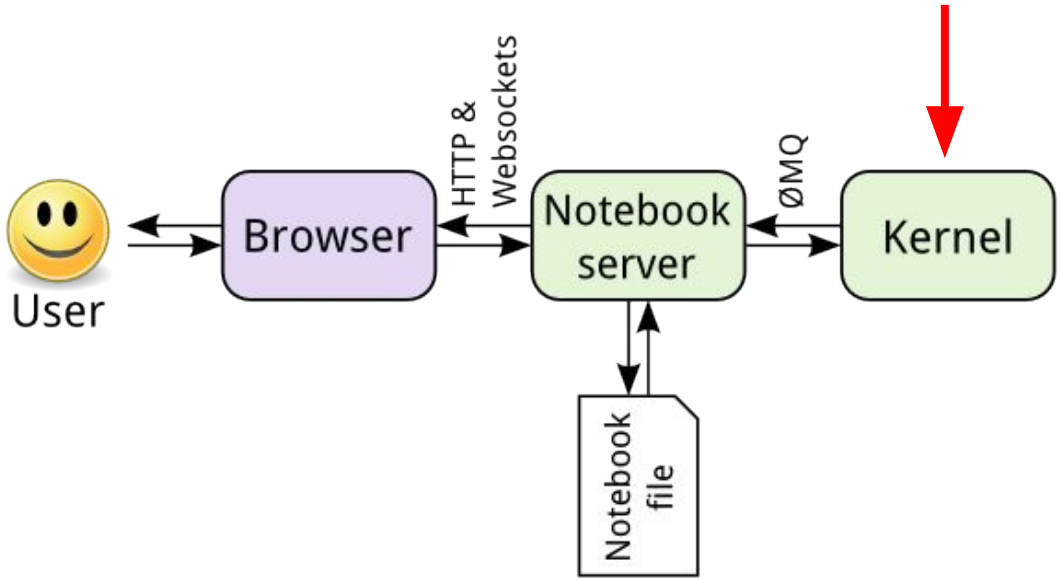
Kernels

What is the kernel

A **kernel** provides programming language support in Jupyter. IPython is the default kernel. Additional kernels include R, Julia, and many more.

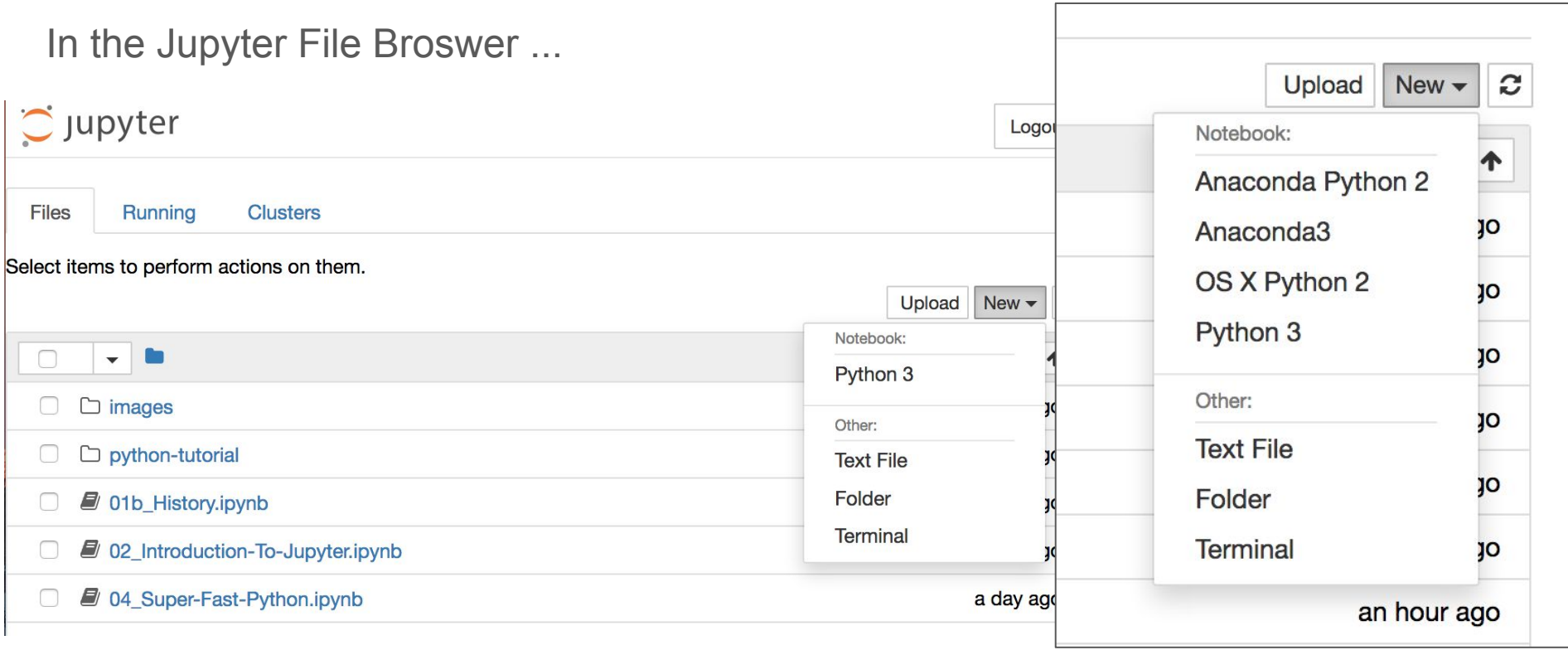
Fun fact: Jupyter was named after **JU**lia **PY**Thon and **R** once the old IPython notebook started supporting other languages

Under the Covers



Selecting a Kernel

In the Jupyter File Broswer ...



Adding a New Kernel

Instructions will vary from each language but you basically install a package and write a kernel file to your homedir

Python 2

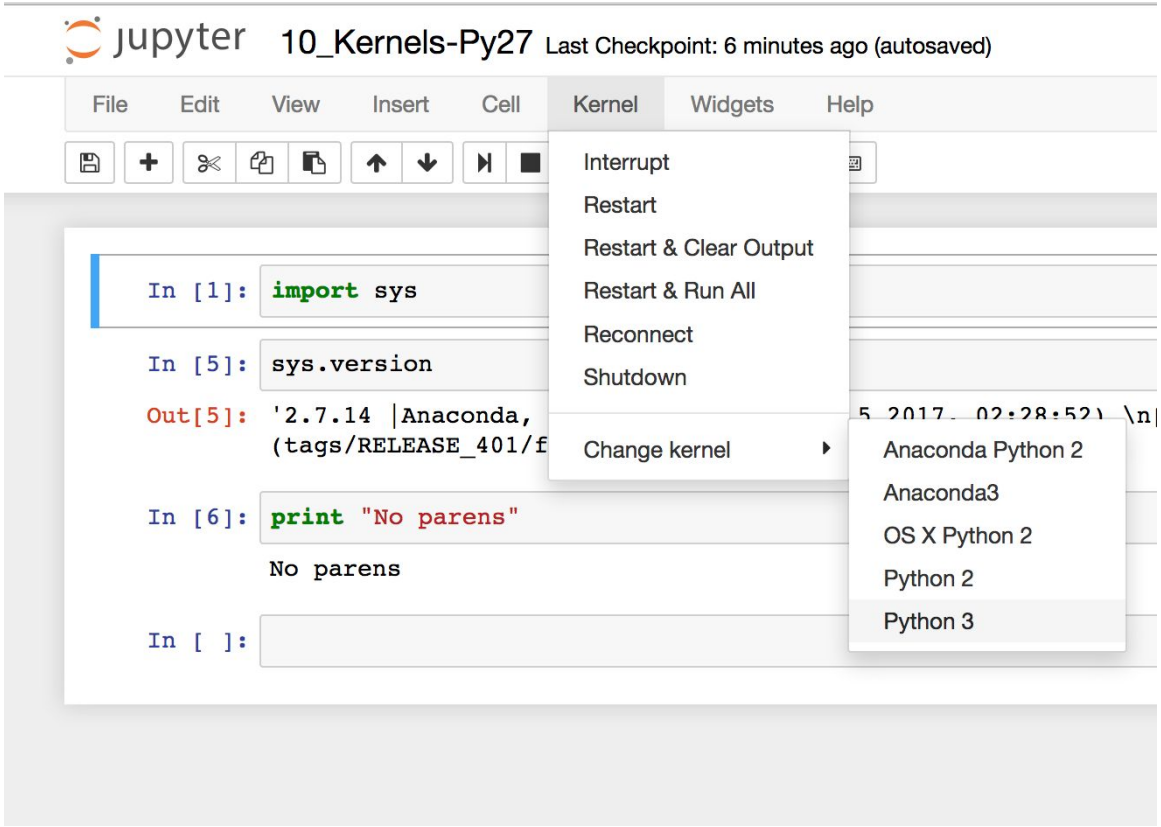
https://ipython.readthedocs.io/en/latest/install/kernel_install.html

```
> conda create -n ipykernel_py2 python=2 ipykernel
> source activate ipykernel_py2 # Windows: remove 'source'
> python -m ipykernel install --user
```

Now restart jupyter and open up notebook 10_Kernels-Py27.ipynb

R

Switching Kernels



Re-run the notebook with a Python 3 kernel

Where do Kernels Live?

Customizing the Kernel Spec

Jupyter Settings

For command line options see

```
> jupyter notebook --help
```

Options can also be set by creating a file named `jupyter_notebook_config.py` in your Jupyter folder (`$HOME/.jupyter`).

To create a jupyter_notebook_config.py file, with all the defaults commented out, you can use the following command line:

```
> jupyter notebook --generate-config
```

Let’s change the Jupyter Default Directory

Edit `.jupyter/jupyter_notebook_config.py`

Change

```
#c.NotebookApp.notebook_dir = ''
```

to

```
c.NotebookApp.notebook_dir = '/'
```

Restart the notebook and notice where you are in the file browser!