Installing Jupyter Notebook linked to your R version

1. Install Python relying on “conda”

Conda is an open source package management system and environment management system that runs on Windows, macOS, and Linux.

https://docs.conda.io/projects/conda/en/latest/

Two ways to proceed

1a **Anaconda** (> 5 Go)

A downloadable, free, open source, high-performance and optimized Python distribution. Anaconda includes conda, conda-build, Python, and 100+ automatically installed, open source scientific packages and their dependencies that have been tested to work well together, including SciPy, NumPy and many others. It also **includes the Jupyter Notebook**.

1b **Miniconda** (~ 1 Go)

A free minimal installer for conda. Miniconda is a small, bootstrap version of Anaconda that includes only conda, Python, the packages they depend on and a small number of other useful packages, including pip, zlib and a few others. **Jupyter Notebook will need to be installed after by using conda within the miniconda console**.

Anaconda or Miniconda ?

https://docs.conda.io/projects/conda/en/latest/user-guide/install/download.html#anaconda-or-miniconda

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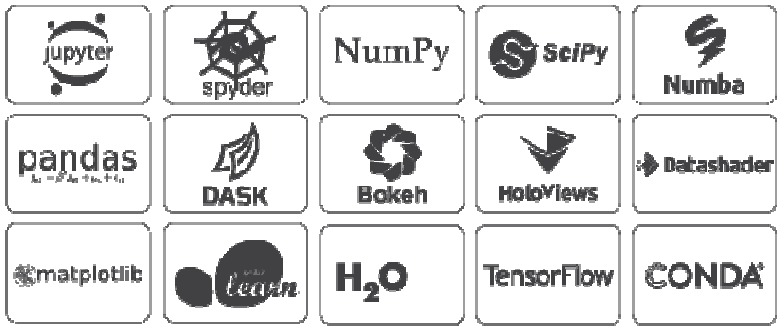
1a. Install Anaconda (> 5 Go)



Anaconda Distribution

Windows | macOS | Linux

https://www.anaconda.com/distribution/

… and follow the setup instructions

In the advanced options, I personally like to choose "**Add Anaconda to my PATH environment**" as I think it makes life easier.

See ANACONDA.DOCUMENTATION https://docs.anaconda.com/anaconda/install/

Go to the step 2

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1b. Install Miniconda (~ 1 Go)

Miniconda Distribution

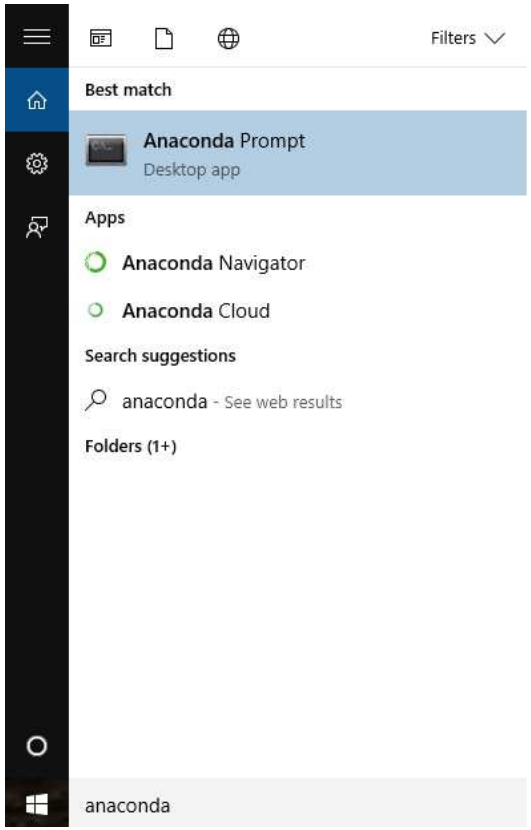
https://docs.conda.io/en/latest/miniconda.html

… and follow the setup instructions

In the advanced options, I personally like to choose "**Add Anaconda to my PATH environment**" as I think it makes life easier.

Installing Jupyter Notebook linked to your R version

1b. Install Jupyter Notebook relying on conda



Windows : Search for the Miniconda Prompt in your computer, then open it
macOS : Open a terminal shell

In the prompt type

```
conda install jupyter
```

Installing Jupyter Notebook linked to your R version

IRkernel

2. Open R and install the necessary packages

Open up R

Warnings : 1 - under R-Gui or command-line but not RStudio!

2 - it's important that these next commands are done from within the version of R that you want to link to Jupyter

and enter :

```
R> install.packages(c('repr', 'IRdisplay', 'evaluate', 'crayon', 'pbdZMQ', 'devtools', 'uuid', 'digest'))
R> devtools::install_github('IRkernel/IRkernel')
R> IRkernel::installspec()
```

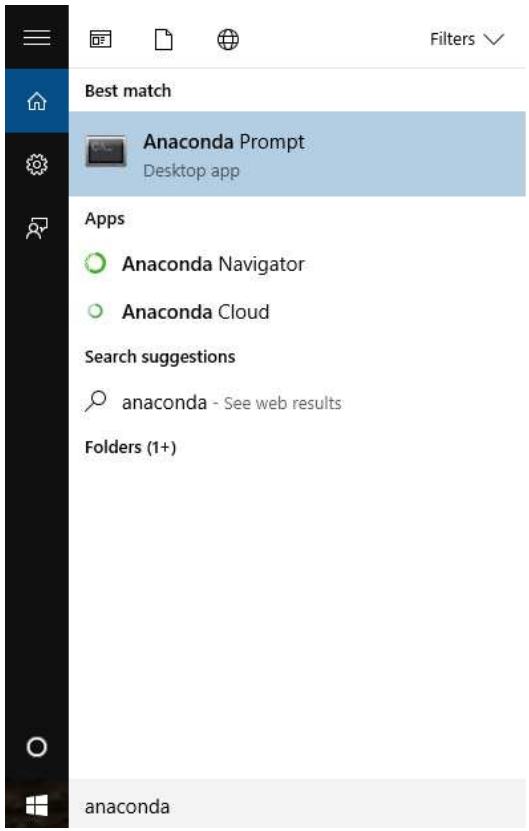
You must see a message like this (e.g. under Windows)

[InstallKernelSpec] Installed kernelspec ir in C:\Users\user\AppData\Roaming\jupyter\kernels\ir

See also http://richpauloo.com/2018-05-16-Installing-the-R-kernel-in-Jupyter-Lab/
https://bence.ferdinandy.com/2018/11/22/fastest-way-to-set-up-r-with-jupyter-on-windows/

Changing the default Jupyter notebook working directory

Windows : Search for the Anaconda/Miniconda Prompt in your computer, then open it
macOS : Open a terminal shell



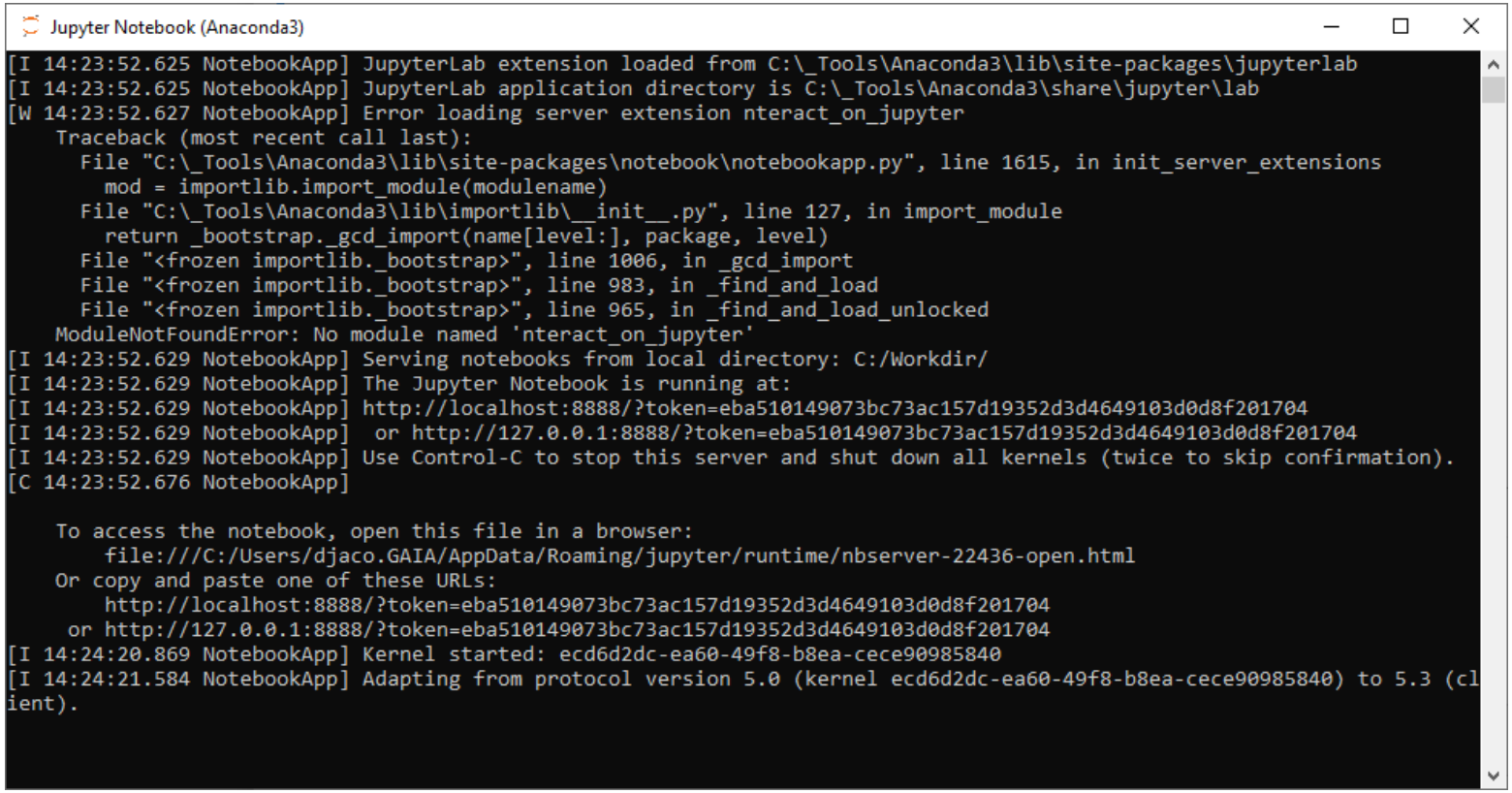
In the prompt type (Windows)

```
jupyter notebook -notebook-dir=C:\Workdir
```

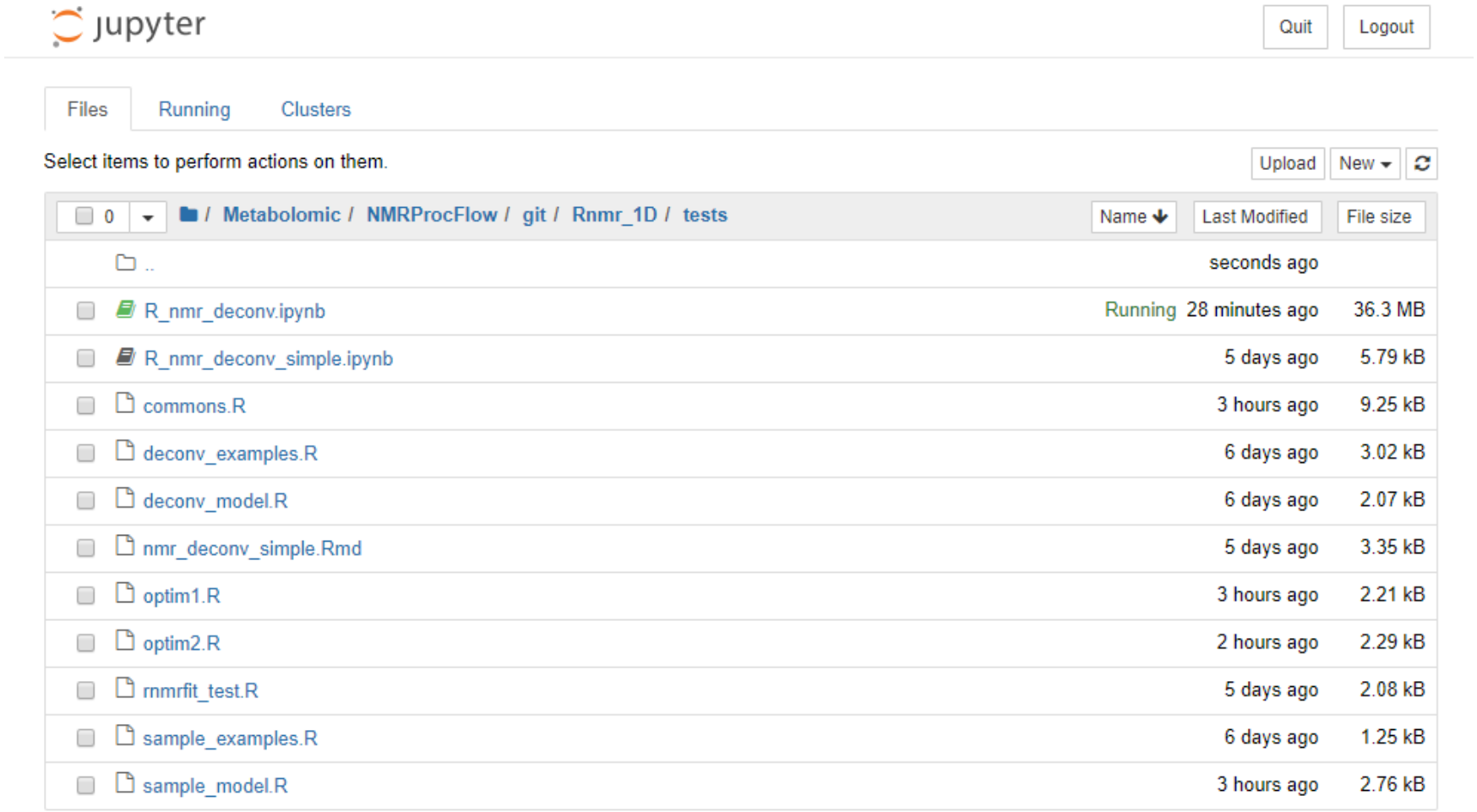
Or (macOS)

```
jupyter notebook -notebook-dir=/workdir
```

Anaconda console (under Windows)



Jupyter Notebook (within your default web browser)



Installing Jupyter Notebook linked to your R version

Another method to setup Jupyter Notebook for R

Without Anaconda and Minconda

https://developers.refinitiv.com/article/setup-jupyter-notebook-r

Jupyter Notebook extensions

https://github.com/ipython-contrib/jupyter_contrib_nbextensions

https://towardsdatascience.com/jupyter-notebook-extensions-517fa69d2231

Mathematics in R Markdown

https://www.calvin.edu/~rpruim/courses/s341/S17/from-class/MathinRmd.html

http://www.math.mcgill.ca/yyang/regression/RMarkdown/example.html