How to register R kernel with Jupyter?
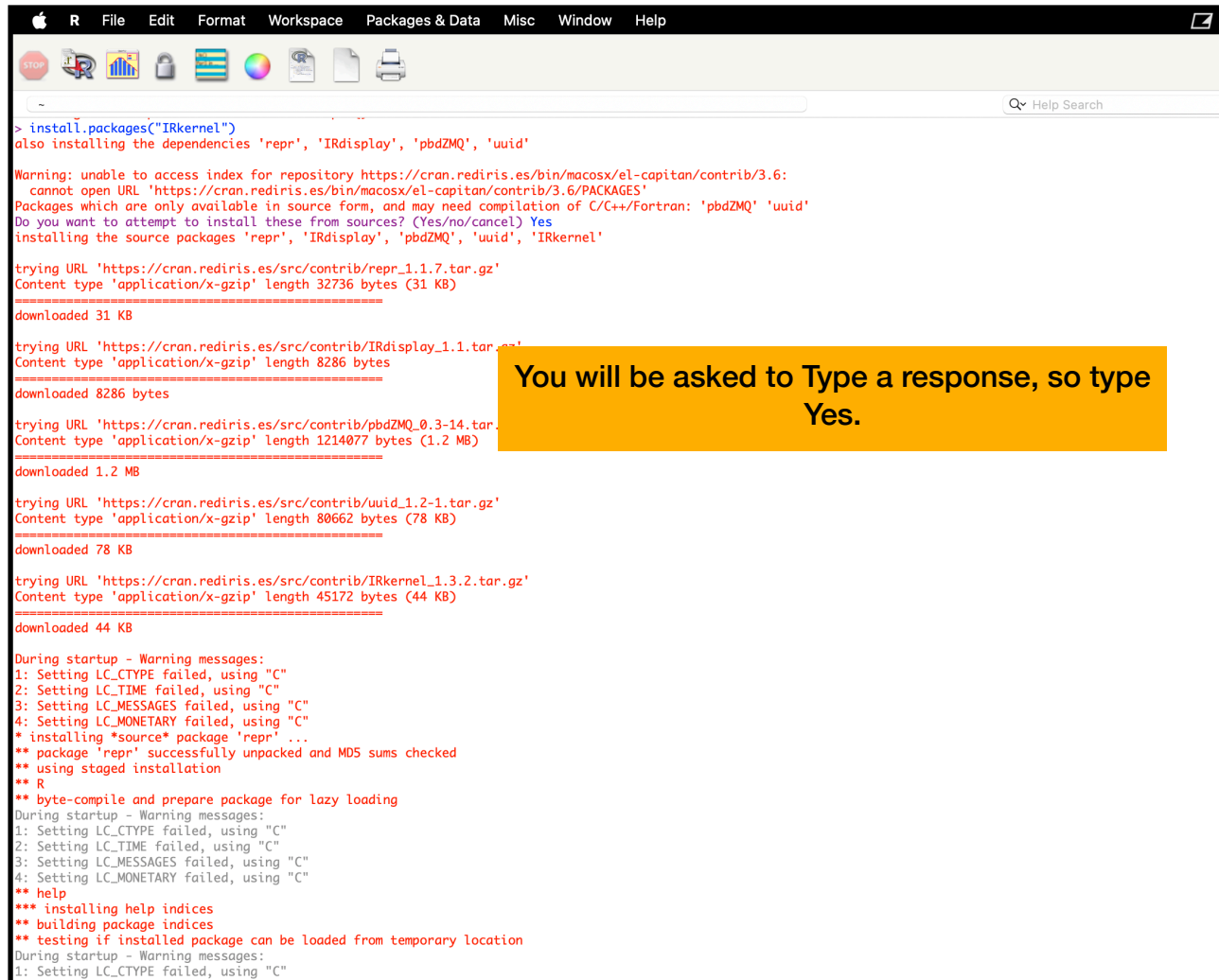
1. Open R Console or R Studio and run the following command: install.packages("IRkernel")

```
 R   File   Edit   Format   Workspace   Packages & Data   Misc   Window   Help

                                                                    Q  Help Search
> install.packages("IRkernel")
also installing the dependencies 'repr', 'IRdisplay', 'pbdZMQ', 'uuid'

Warning: unable to access index for repository https://cran.rediris.es/bin/macosx/el-capitan/contrib/3.6:
  cannot open URL 'https://cran.rediris.es/bin/macosx/el-capitan/contrib/3.6/PACKAGES'
Packages which are only available in source form, and may need compilation of C/C++/Fortran: 'pbdZMQ' 'uuid'
Do you want to attempt to install these from sources? (Yes/no/cancel) Yes
installing the source packages 'repr', 'IRdisplay', 'pbdZMQ', 'uuid', 'IRkernel'

trying URL 'https://cran.rediris.es/src/contrib/repr_1.1.7.tar.gz'
Content type 'application/x-gzip' length 32736 bytes (31 KB)
==================================================
downloaded 31 KB

trying URL 'https://cran.rediris.es/src/contrib/IRdisplay_1.1.tar.gz'
Content type 'application/x-gzip' length 8286 bytes
==================================================
downloaded 8286 bytes

trying URL 'https://cran.rediris.es/src/contrib/pbdZMQ_0.3-14.tar
Content type 'application/x-gzip' length 1214077 bytes (1.2 MB)
==================================================
downloaded 1.2 MB

trying URL 'https://cran.rediris.es/src/contrib/uuid_1.2-1.tar.gz'
Content type 'application/x-gzip' length 80662 bytes (78 KB)
==================================================
downloaded 78 KB

trying URL 'https://cran.rediris.es/src/contrib/IRkernel_1.3.2.tar.gz'
Content type 'application/x-gzip' length 45172 bytes (44 KB)
==================================================
downloaded 44 KB

During startup - Warning messages:
1: Setting LC_CTYPE failed, using "C"
2: Setting LC_TIME failed, using "C"
3: Setting LC_MESSAGES failed, using "C"
4: Setting LC_MONETARY failed, using "C"
* installing *source* package 'repr' ...
** package 'repr' successfully unpacked and MD5 sums checked
** using staged installation
** R
** byte-compile and prepare package for lazy loading
During startup - Warning messages:
1: Setting LC_CTYPE failed, using "C"
2: Setting LC_TIME failed, using "C"
3: Setting LC_MESSAGES failed, using "C"
4: Setting LC_MONETARY failed, using "C"
** help
*** installing help indices
** building package indices
** testing if installed package can be loaded from temporary location
During startup - Warning messages:
1: Setting LC_CTYPE failed, using "C"
```

You will be asked to Type a response, so type Yes.

2. Installation will proceed, wait a moment
3. Open R Console or R Studio and run the second command: IRkernel::installspec()

```
> IRkernel::installspec()
Error in IRkernel::installspec() :
  jupyter-client has to be installed but "jupyter kernelspec --version" exited with code 127.
In addition: Warning message:
In system2("jupyter", c("kernelspec", "--version"), FALSE, FALSE) :
  error in running command
>
```

4. Make sure Jupyter is installed. Now help R Console to find the Jupyter path. Open Terminal in your Mac and type:

which jupyter

5. Now type the path you found into the previous R command and run it in

R Console:

Sys.setenv(PATH = paste(Sys.getenv("PATH"), "/opt/anaconda3/bin", sep = ":"))
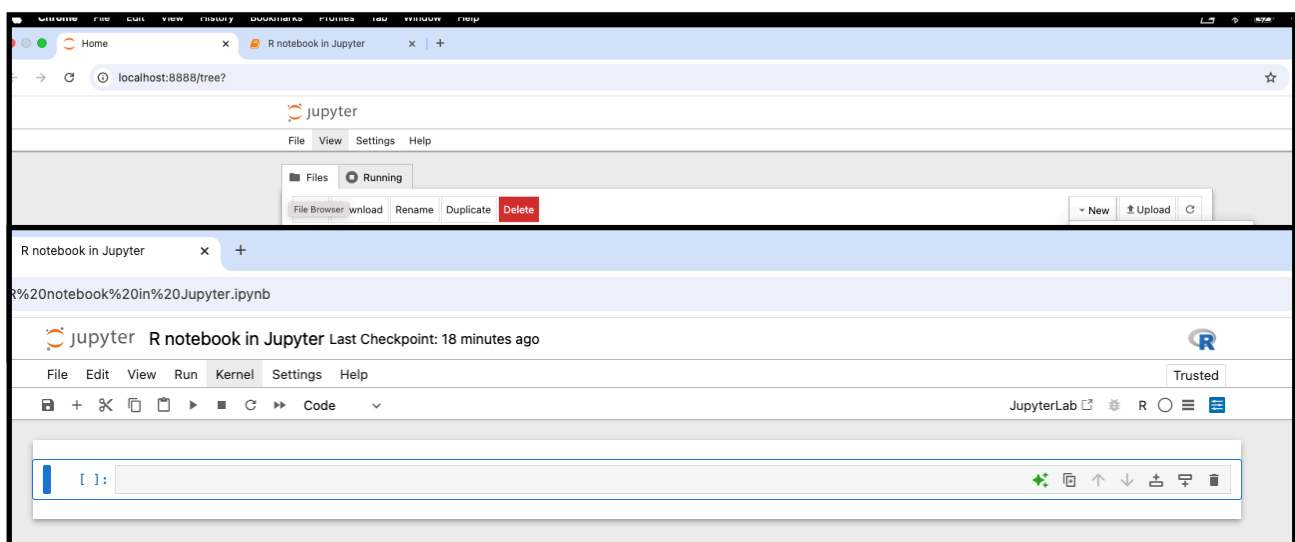IRkernel::installspec()

```
> Sys.setenv(PATH = paste(Sys.getenv("PATH"), "/opt/anaconda3/bin", sep = ":"))
> IRkernel::installspec()
>
```

If no Error the R kernel should be available in Jupyter.

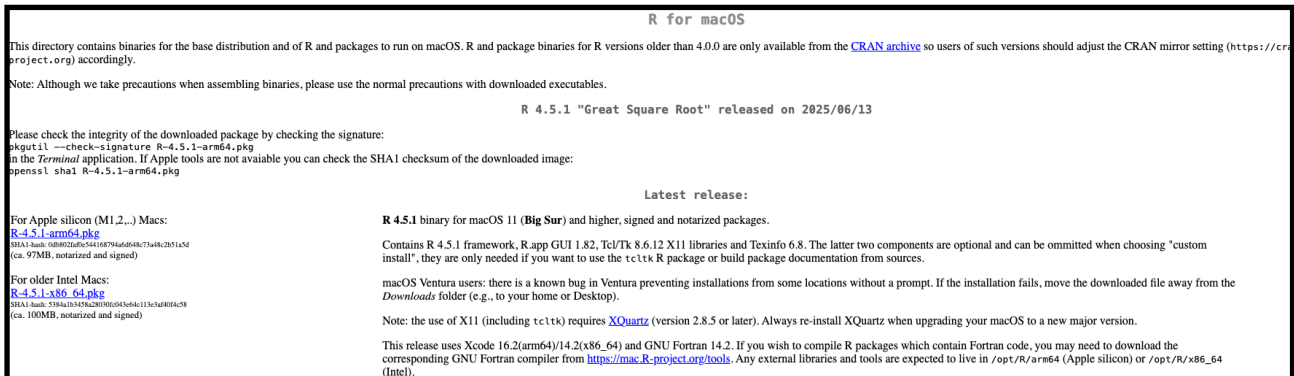6. Close Jupyter. In Mac Terminal open Jupyter via running the following command:

jupyter notebook

When R version is outdated:

1.   Go to: https://cran.r-project.org/bin/macosx/

2.   Download the new version.

3.   Check your R version inside Jupyter
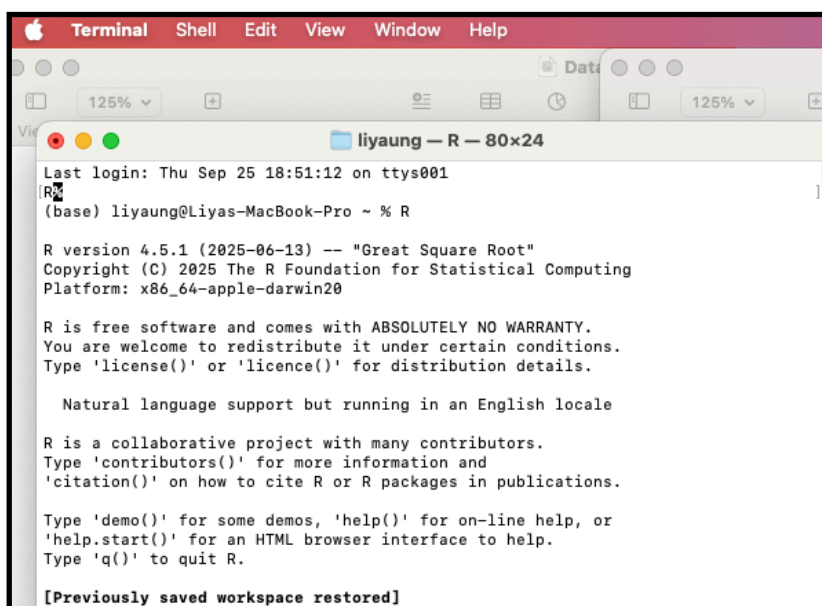
In a Jupyter R cell, run:
```
version
```

If it shows `3.6.x`, then you're hitting the CRAN support cutoff.

- Jupyter just uses whatever R installation IRkernel points to.
- To upgrade, you'll need to update R on your system first (to ≥4.2).
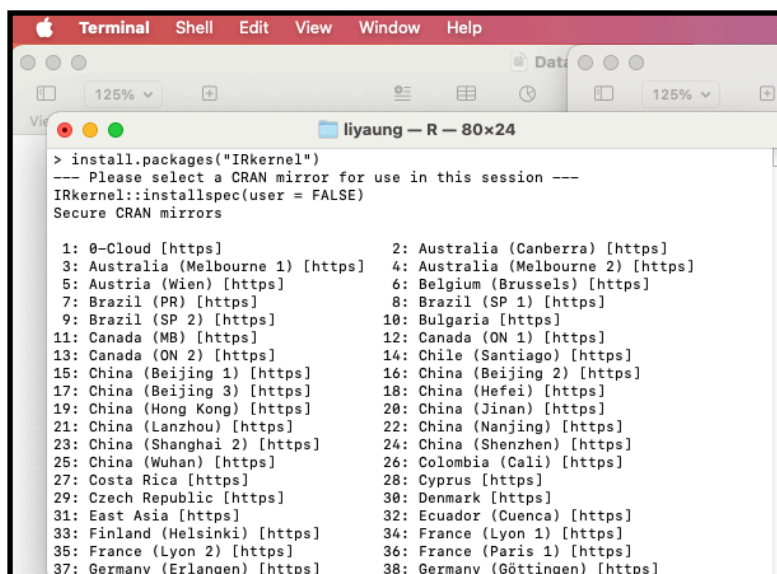
4.   Re-install IRkernel for the new R

Open your **new R f**rom Mac Terminal by running the following command:

R

Then run the following command in Mac Terminal:

```
install.packages("IRkernel")
IRkernel::installspec(user = FALSE)   # register kernel with Jupyter
```


5.   Restart Jupyter → your new R version will appear as a kernel option.
6.   Then install tidyr again

Once your R is ≥4.2, in Jupyter just do:

```
install.packages("tidyr")
library(tidyr)
```

There should be no errors now when installing R packages.