Installing Jupyter Notebook and configuring it to work with R

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X-code command line tools installation:

First, we have to install Xcode Command Line Tools which is a self-contained package for software developers who wish to build Mac apps using UNIX-style commands.

Step 1: Install the X-code command line tools

Open up the Terminal and type:

```
bash
xcode-select --install
```

Check installation with:

```
bash
xcode-select -p
```

If the terminal responds with a path to “CommandLineTools,” then you’re good to go.

Step 2: Paste this into your Terminal to install the Homebrew package manager

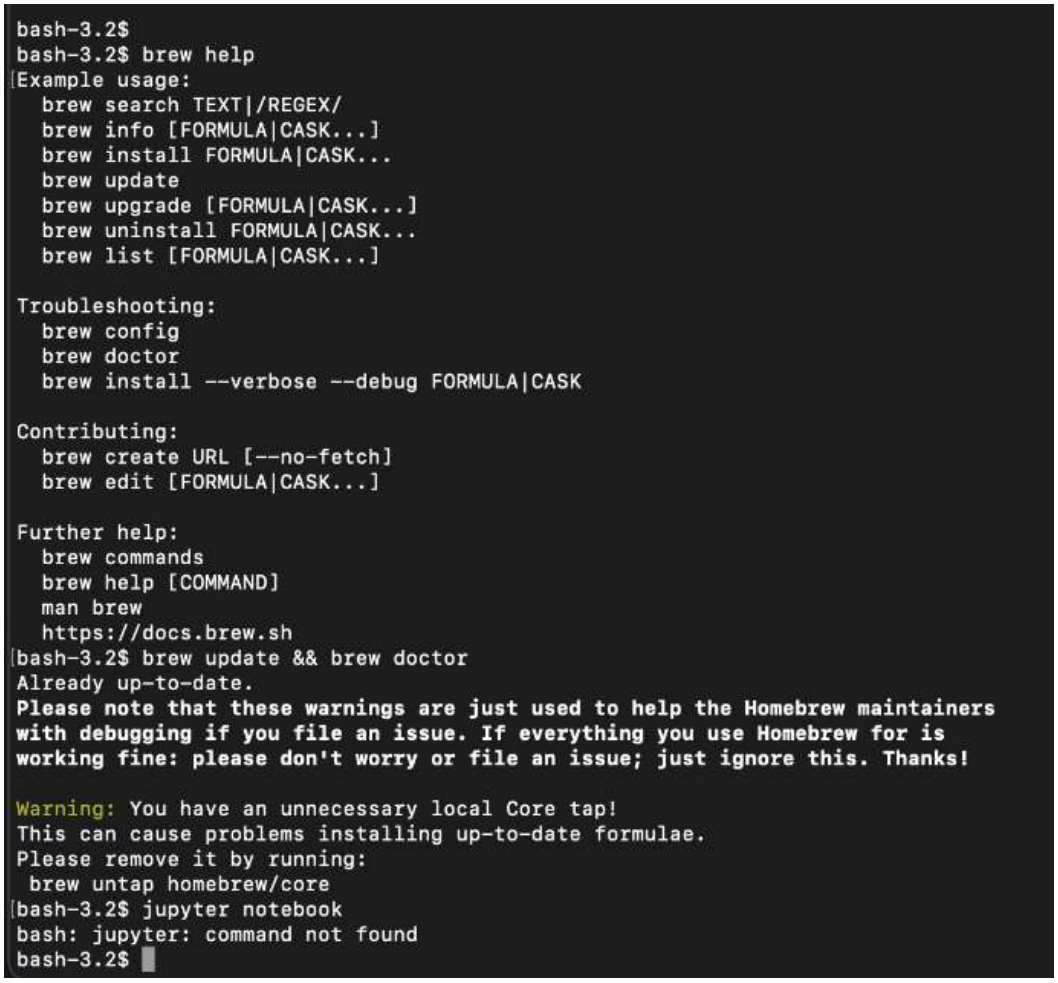
```
bash
/usr/bin/ruby -e "$(curl -fsSL
https://raw.githubusercontent.com/Homebrew/install/master/install)"
```

Step 3. Check installation

After installation is finished you can check everything went all right by running:

```
bash
brew update && brew doctor
```

The result should look like this:



Installing Python and Jupyter:

Jupyter is a piece of software that allows us to create and edit special documents called “Jupyter Notebooks” using a web browser. Jupyter Notebooks contain computer code (e.g. python, R) and rich text elements (paragraph, equations, figures, links, etc.). The main advantage of Jupyter Notebooks is that they allow us to create human-readable documents that include the analysis description, executable code, and the results (figures, tables, etc.).

Step 4. Install the latest Python version

```
bash
pyenv install 3.x.x
```

Step 5. Install Jupyter

```
bash
brew install jupyter
```

Step 6. Check Jupyter installation

Check if Jupyter was installed correctly with:

```
bash
jupyter notebook
```

Step 6. Configure Jupyter for R

First, install a few more R-related packages with Homebrew:

```
bash
brew install libgit2
```

Install R libraries:

Now we are going to install the required R libraries to allow Jupyter Notebooks compatible with R code.

Step 7. Install R libraries

Open up R within the terminal:

```
bash
r
```

Install the following R libraries (you can download multiple libraries at once):

```
R
install.packages(c(
 'repr',
 'IRdisplay',
 'evaluate',
 'crayon',
 'pbdZMQ',
 'devtools',
 'uuid',
 'digest',
 'git2r'
), dependencies = TRUE)
```

Using devtools::install_github, we can install packages from Github. Use this to install the R package:

```
R
devtools::install_github('IRkernel/IRkernel')
```

Step 8. Make R visible for Jupyter

To install the Interactive R kernel system-wide, use:

```
R
IRkernel::installspec(user = FALSE)
```

`(user = TRUE)` installs the R kernel only for the current user.

Step 9. Open Jupyter Notebook

To open Jupyter notebook, simply open your terminal and type:

```
bash
jupyter notebook
```

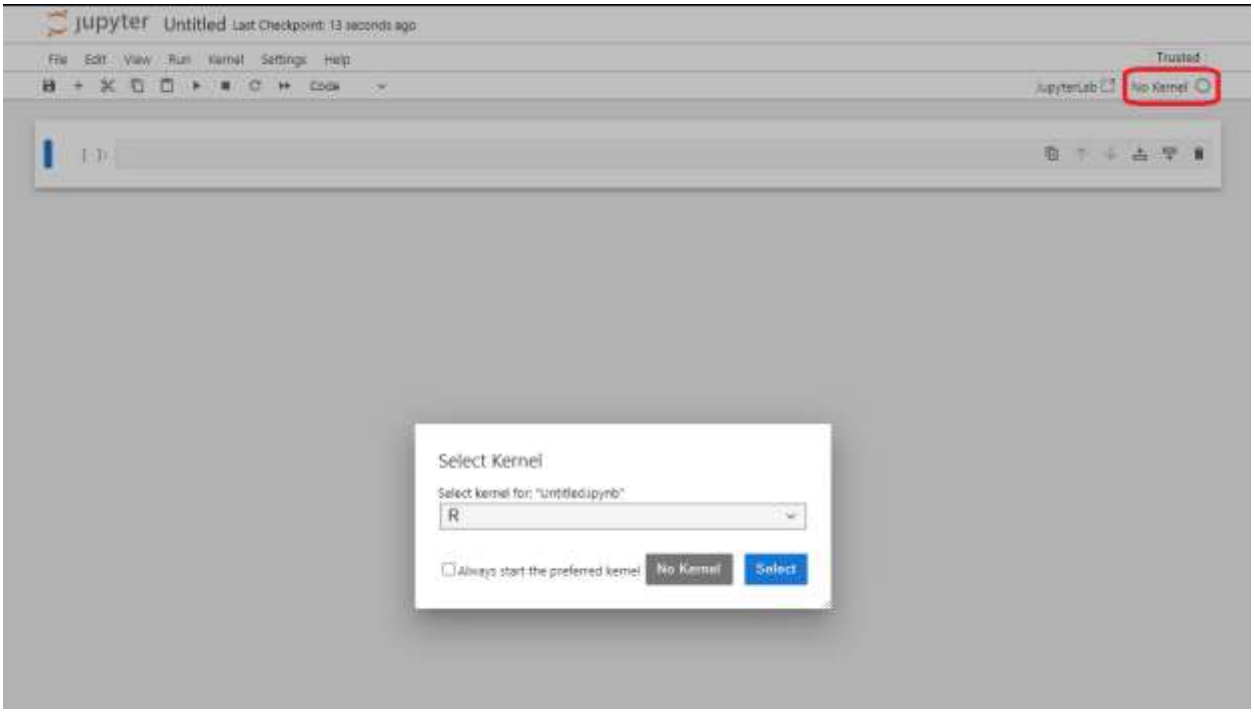
Similarly, to open Jupyterlab, simply open your terminal and type:

```
bash
jupyter lab
```

JupyterLab gives the flexibility to open multiple Jupyter Notebooks at a time, similar to opening multiple tables in a browser. Additionally, it provides 'Table of Contents' which makes it easier to toggle among different sections of the notebook.

Step 10. Use R in Jupyter Notebook

After opening an existing notebook or creating a new one, you can now select the Kernel in the upper right corner. The Kernel used can be seen by the icon in the uppermost right corner, depicted by the logo of either Python or R.


jupyter Untitled Last Checkpoint: 13 seconds ago
File Edit View Run Kernel Settings Help
Code
Trusted
JupyterLab
No Kernel
Select Kernel
Select kernel for: "Untitled.ipynb"
R
Always start the preferred kernel
No Kernel
Select