

HƯỚNG DẪN TÍCH HỢP R VÀO JUPYTER NOTEBOOK TRÊN MACOS

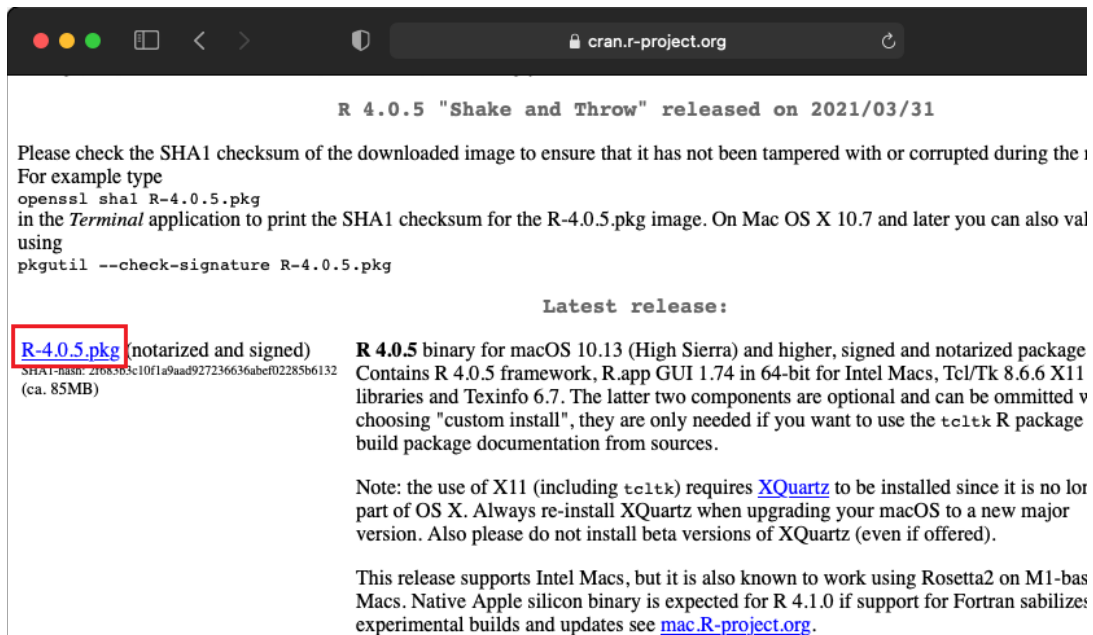
Yêu cầu: Đã cài đặt Python 3 và Jupyter Notebook.

1. TẢI VÀ CÀI ĐẶT R

- Truy cập vào đường dẫn sau:

<https://cran.r-project.org/bin/macosx/>

- Chọn phiên bản download:

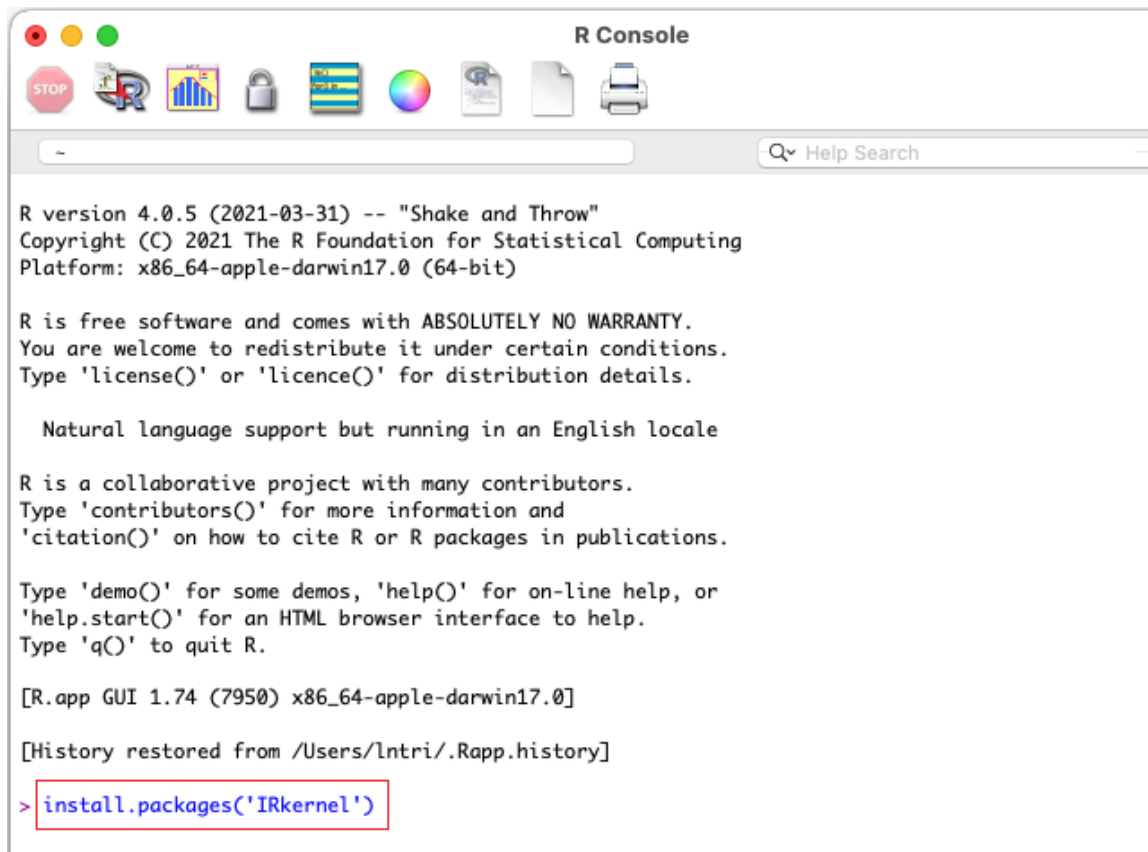


- Cài đặt: Thực hiện cài đặt theo mặc định của ứng dụng cho đến khi kết thúc.

2. CÀI ĐẶT THƯ VIỆN ĐỂ TÍCH HỢP VÀO JUPYTER NOTEBOOK

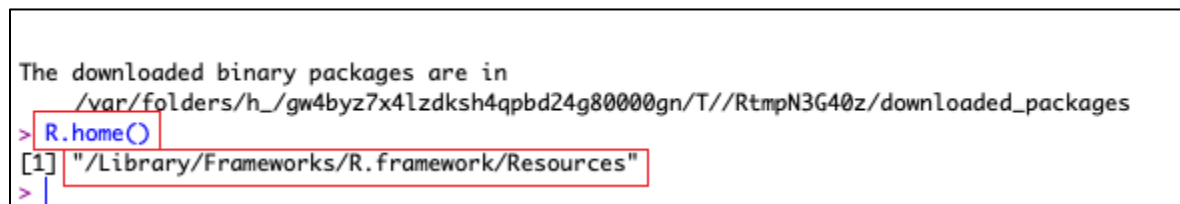
- Mở ứng dụng R
- Trong R Console, gõ lệnh:

```
install.packages('IRkernel')
```



- Vẫn tại màn hình R Terminal, gõ tiếp lệnh `R.home()` để xác định đường dẫn gốc của R:

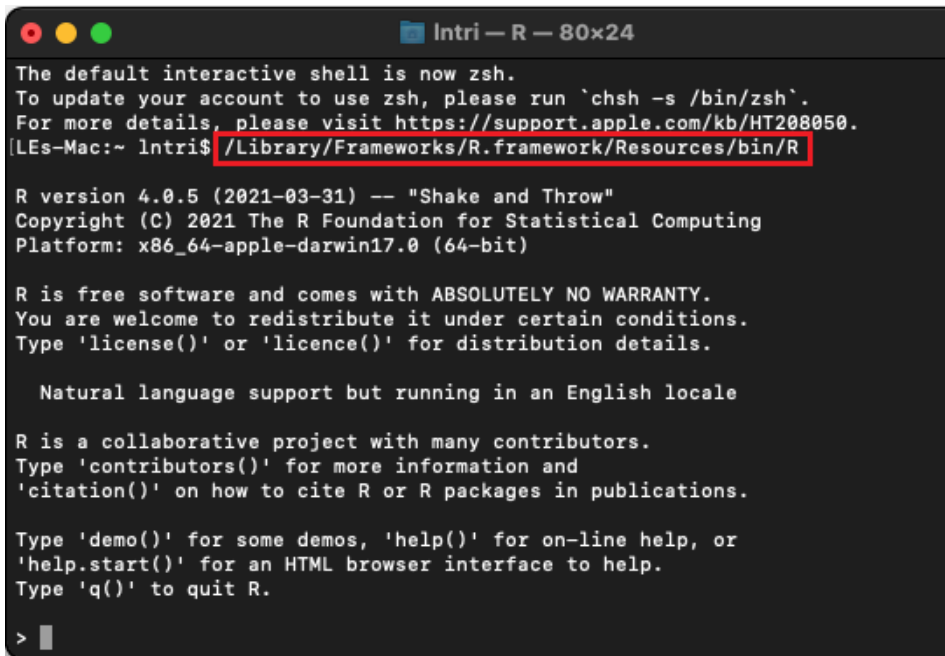
```
R.home()
```



- Sử dụng đường dẫn hiển thị phía trên và thêm vào phía sau của đường dẫn **/bin/R** để có đường dẫn đầy đủ như sau:

```
/Library/Frameworks/R.framework/Resources/bin/R
```

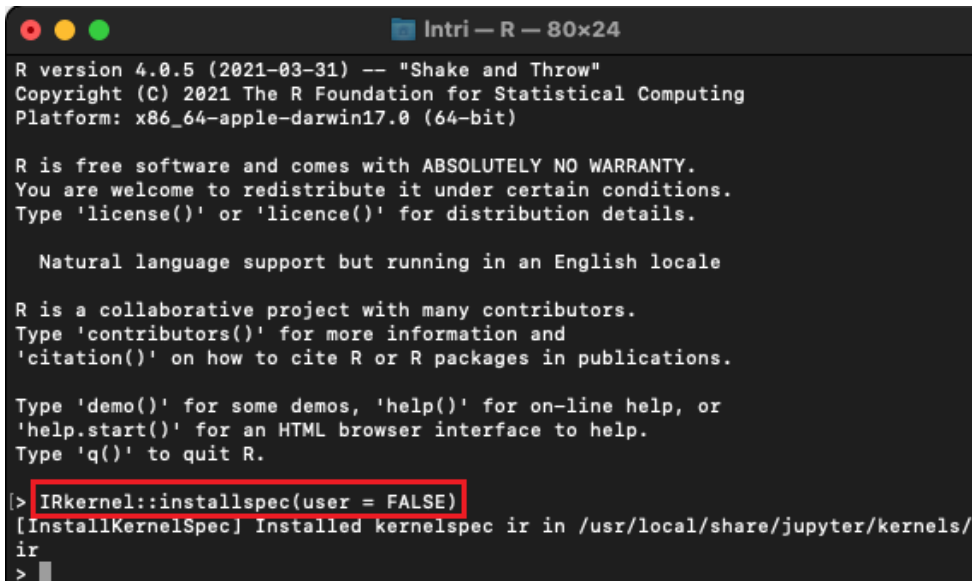
- Copy đường dẫn trên vào Terminal của MacOS và Enter:

A screenshot of a macOS Terminal window titled "Intri — R — 80x24". The window shows the default interactive shell (zsh) and the R version 4.0.5 (2021-03-31) -- "Shake and Throw". The prompt is "LEs-Mac:~ Intri\$". A red box highlights the path "/Library/Frameworks/R.framework/Resources/bin/R" which is the command being entered.

```
The default interactive shell is now zsh.  
To update your account to use zsh, please run `chsh -s /bin/zsh`.  
For more details, please visit https://support.apple.com/kb/HT208050.  
LEs-Mac:~ Intri$ /Library/Frameworks/R.framework/Resources/bin/R  
  
R version 4.0.5 (2021-03-31) -- "Shake and Throw"  
Copyright (C) 2021 The R Foundation for Statistical Computing  
Platform: x86_64-apple-darwin17.0 (64-bit)  
  
R is free software and comes with ABSOLUTELY NO WARRANTY.  
You are welcome to redistribute it under certain conditions.  
Type 'license()' or 'licence()' for distribution details.  
  
Natural language support but running in an English locale  
  
R is a collaborative project with many contributors.  
Type 'contributors()' for more information and  
'citation()' on how to cite R or R packages in publications.  
  
Type 'demo()' for some demos, 'help()' for on-line help, or  
'help.start()' for an HTML browser interface to help.  
Type 'q()' to quit R.  
> |
```

- Gõ tiếp lệnh sau vào màn hình Terminal:

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

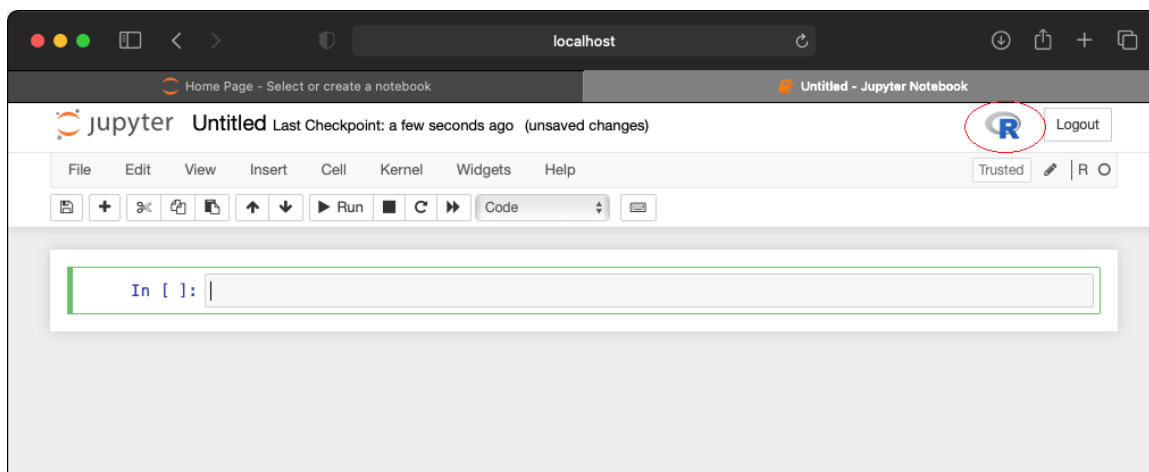
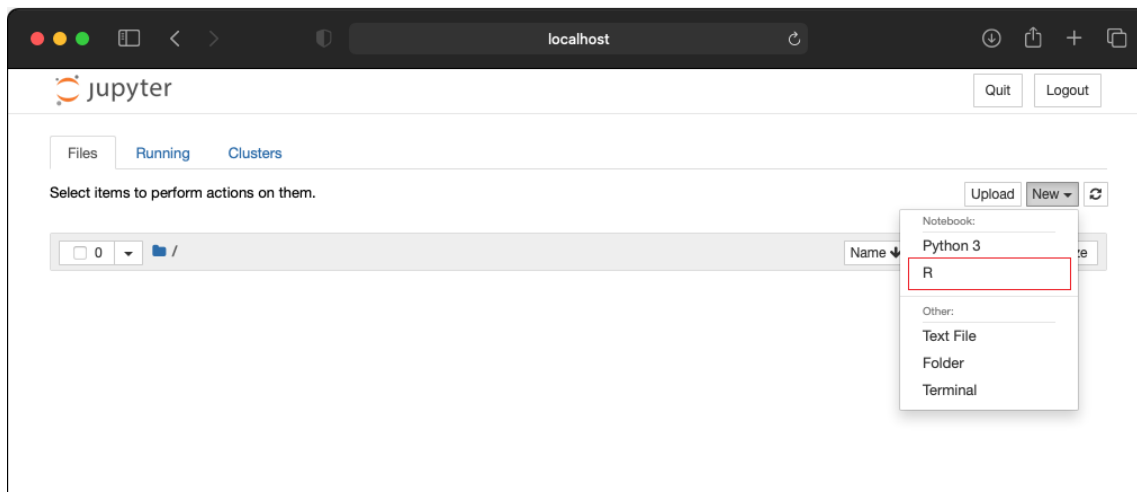
A screenshot of a macOS Terminal window titled "Intri — R — 80x24". The window shows the R version 4.0.5 (2021-03-31) -- "Shake and Throw". The prompt is ">". A red box highlights the command "IRkernel::installspec(user = FALSE)" which is being entered.

```
R version 4.0.5 (2021-03-31) -- "Shake and Throw"  
Copyright (C) 2021 The R Foundation for Statistical Computing  
Platform: x86_64-apple-darwin17.0 (64-bit)  
  
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Type 'demo()' for some demos, 'help()' for on-line help, or  
'help.start()' for an HTML browser interface to help.  
Type 'q()' to quit R.  
> IRkernel::installspec(user = FALSE)  
[InstallKernelSpec] Installed kernelspec ir in /usr/local/share/jupyter/kernels/  
ir  
> |
```

Lưu ý: Nếu lệnh này gõ trực tiếp trong R Console sẽ bị lỗi như sau:

```
> 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
```

- Mở Jupyter Notebook để kiểm tra:



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