

# Lesson 0: Introduction and Set-up

# Why am I taking this course?





you on  
your computer



Bitbucket

the internet

# What will we be doing today?

A LOT of initial set-up

Install packages (`dplyr` and `ggplot2`)

## What will we be doing (most) other days?

Learn a new statistical test

Practice plotting as is appropriate for the test

Make an R Markdown document to summarize the lesson

**Initial Set-up**

# Configuring Git

A screenshot of a macOS terminal window. The title bar shows three colored window control buttons (red, yellow, green) on the left, a home icon followed by the text 'pagepiccinini — -bash — 80x24' in the center, and a close button on the right. The terminal content shows the output of a 'git --version' command. The text is as follows:

```
Last login: Wed Feb  3 14:35:57 on ttys000
[Pages-MacBook-Pro:~ pagepiccinini$ git --version
git version 2.5.4 (Apple Git-61)
Pages-MacBook-Pro:~ pagepiccinini$
```

`git --version`

**Windows:** Go the executable “git-bash” in your git folder

# Configuring Git



```
Julia@Bootphon MINGW64 /  
$ git --version  
git version 2.7.0.windows.2  
  
Julia@Bootphon MINGW64 /  
$
```

`git --version`

**Windows:** Go the executable “git-bash” in your git folder

# Configuring Git

A terminal window titled 'pagepiccinini — -bash — 80x24' with standard macOS window controls (red, yellow, green buttons). The terminal shows the following text:

```
Last login: Wed Feb  3 14:35:57 on ttys000
[Pages-MacBook-Pro:~ pagepiccinini$ git --version
git version 2.5.4 (Apple Git-61)
[Pages-MacBook-Pro:~ pagepiccinini$ git config --list
user.email=page.piccinini@gmail.com
user.name=Page Piccinini
Pages-MacBook-Pro:~ pagepiccinini$
```

`git config --list`

`git config --global user.name "YOUR NAME"`

`git config --global user.email "YOUR EMAIL"`

`git config --list`

**Windows:** Go the executable “git-bash” in your git folder



# Configuring Git



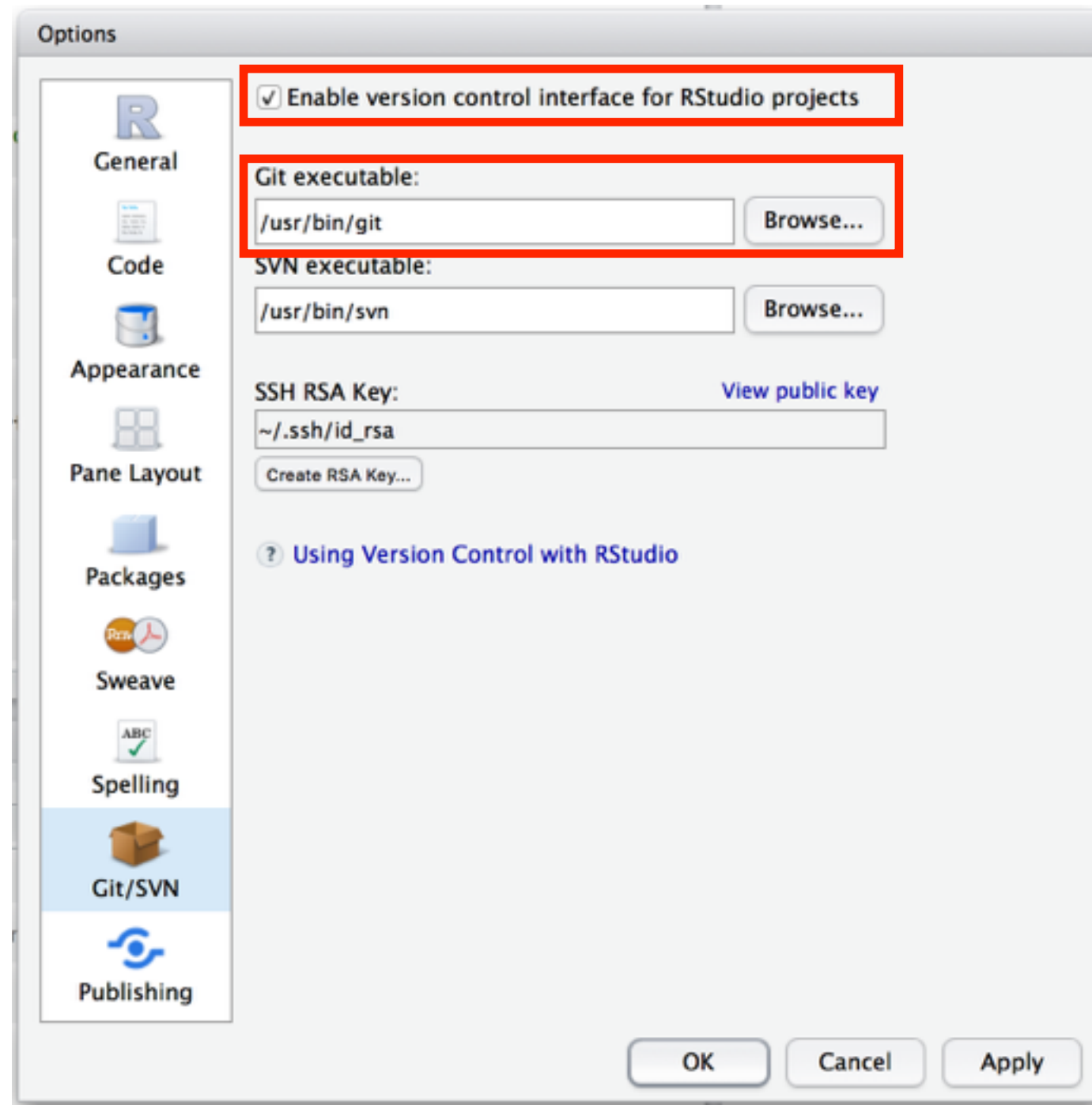
```
Julia@Bootphon MINGW64 /  
$ git config --list  
core.symlinks=false  
core.autocrlf=true  
color.diff=auto  
color.status=auto  
color.branch=auto  
color.interact=  
help.format=html  
http.sslcainfo=  
ndle.crt  
diff.astextplain.textconv=astextplain  
rebase.autosquash=true  
user.name=Julia C  
user.email=
```

`git config --list`

```
git config --global user.name "YOUR NAME"  
git config --global user.email "YOUR EMAIL"  
git config --list
```

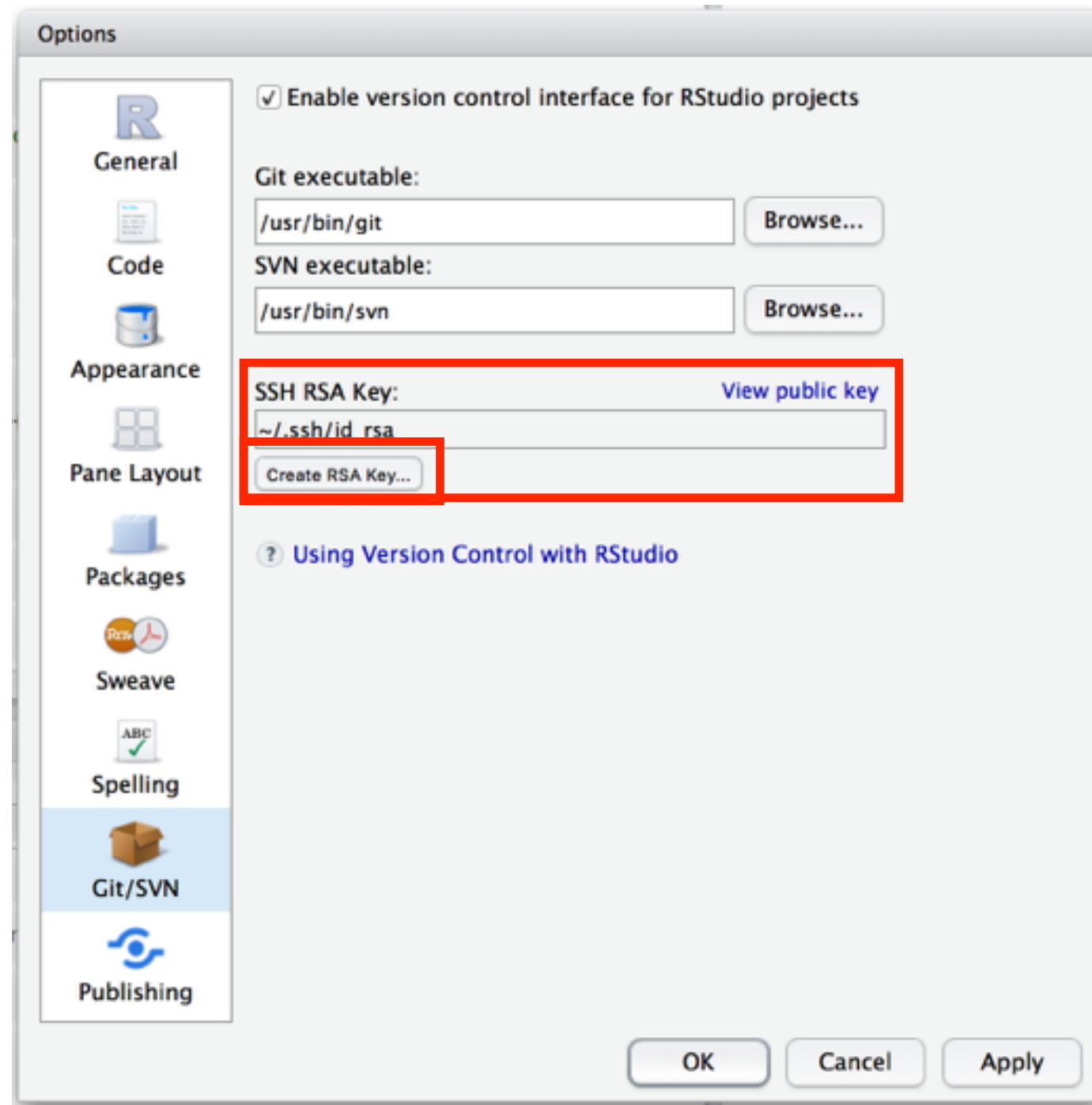
**Windows:** Go the executable “git-bash” in your git folder

# Linking Git to RStudio



**Mac:** RStudio —> Preferences —> Git/SVN  
**Windows:** Tools —> Global Options... —> Git/SVN

# Getting an SSH RSA Key in RStudio



**Mac:** RStudio —> Preferences —> Git/SVN  
**Windows:** Tools —> Global Options... —> Git/SVN

# Getting an SSH RSA Key in RStudio

```
$ ssh-keygen -t rsa -b 4096 -C "your_email@example.com"  
# Creates a new ssh key, using the provided email as a label  
Generating public/private rsa key pair.
```

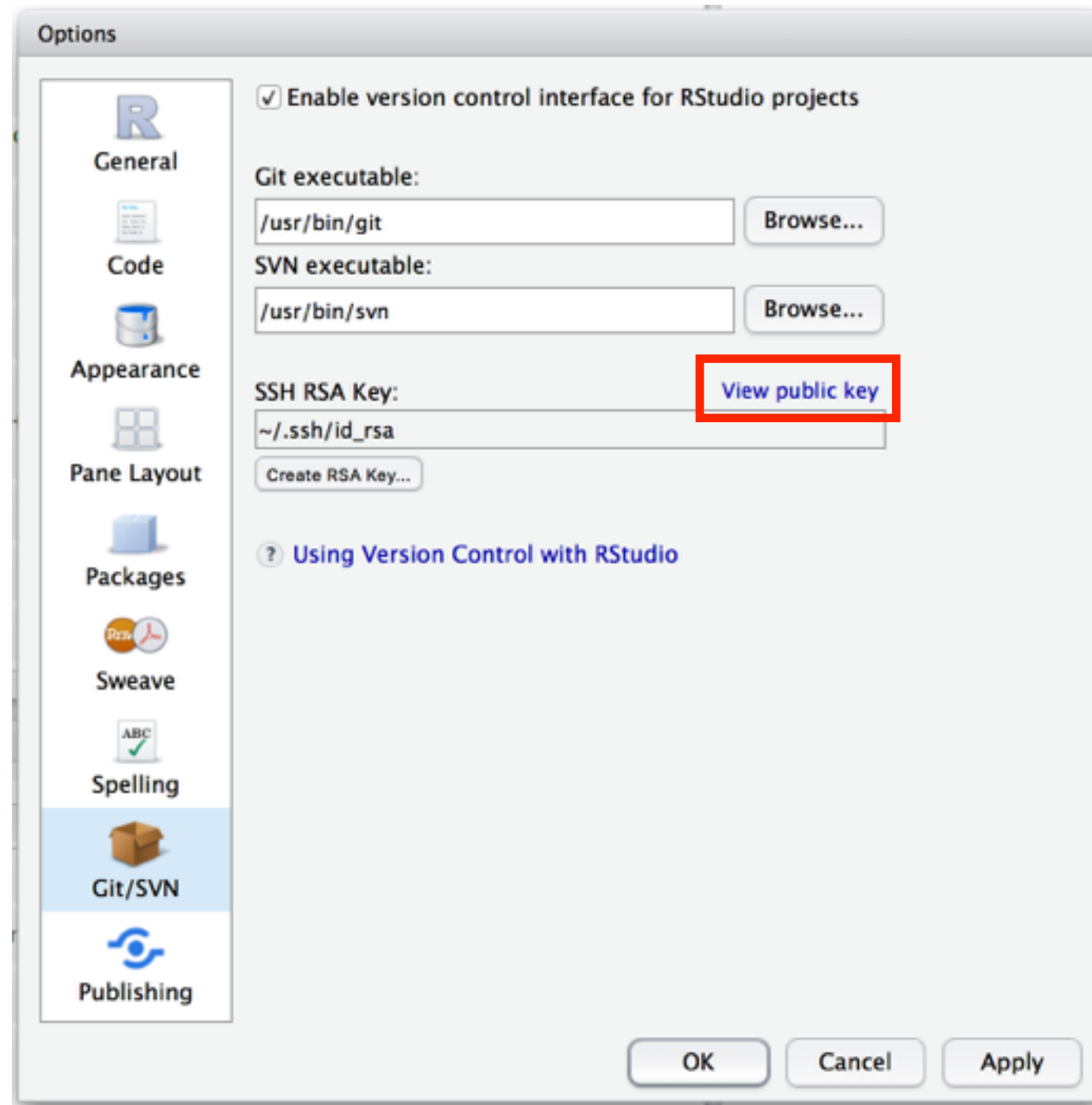
```
Enter a file in which to save the key (/Users/you/.ssh/id_rsa): [Press enter]
```

```
Enter passphrase (empty for no passphrase): [Type a passphrase]  
Enter same passphrase again: [Type passphrase again]
```

<https://help.github.com/articles/generating-a-new-ssh-key/>

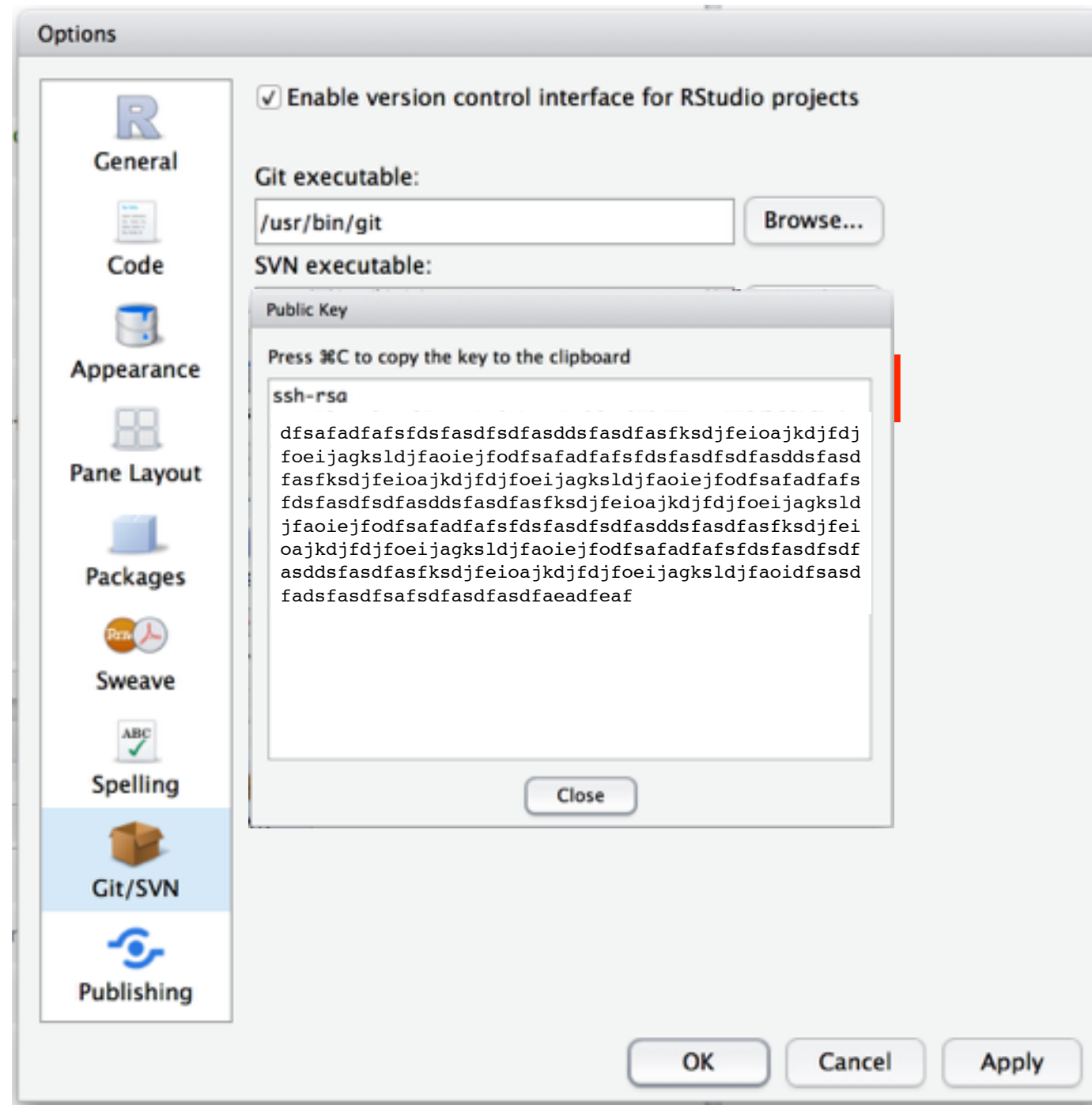
**Windows:** Go the executable “git-bash” in your git folder

# Getting an SSH RSA Key in RStudio



**Mac:** RStudio —> Preferences —> Git/SVN  
**Windows:** Tools —> Global Options... —> Git/SVN

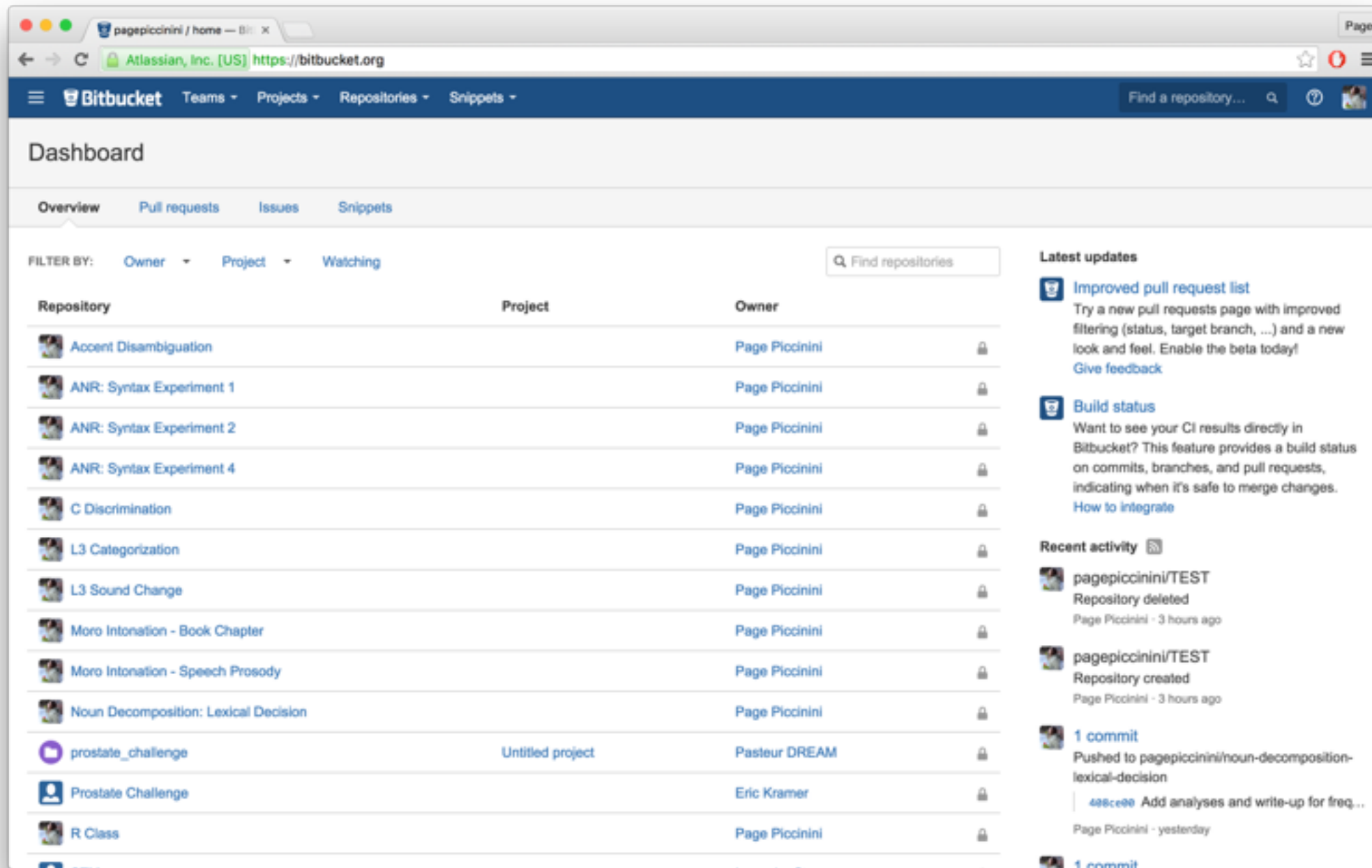
# Getting an SSH RSA Key in RStudio



**Mac:** RStudio —> Preferences —> Git/SVN  
**Windows:** Tools —> Global Options... —> Git/SVN

# Bitbucket *vs.* GitHub

# Getting Your SSH RSA Key on Bitbucket



The screenshot shows the Bitbucket dashboard for user 'pagepiccinini'. The interface includes a navigation bar with 'Teams', 'Projects', 'Repositories', and 'Snippets'. The main content area is titled 'Dashboard' and has tabs for 'Overview', 'Pull requests', 'Issues', and 'Snippets'. Under 'Overview', there are filters for 'Owner', 'Project', and 'Watching'. A table lists repositories, with columns for 'Repository', 'Project', and 'Owner'. The table shows several repositories owned by 'Page Piccinini' and one owned by 'Pasteur DREAM'. On the right, there are sections for 'Latest updates' and 'Recent activity'.

Repository	Project	Owner
Accent Disambiguation		Page Piccinini
ANR: Syntax Experiment 1		Page Piccinini
ANR: Syntax Experiment 2		Page Piccinini
ANR: Syntax Experiment 4		Page Piccinini
C Discrimination		Page Piccinini
L3 Categorization		Page Piccinini
L3 Sound Change		Page Piccinini
Moro Intonation - Book Chapter		Page Piccinini
Moro Intonation - Speech Prosody		Page Piccinini
Noun Decomposition: Lexical Decision		Page Piccinini
prostate_challenge	Untitled project	Pasteur DREAM
Prostate Challenge		Eric Kramer
R Class		Page Piccinini

**Latest updates**

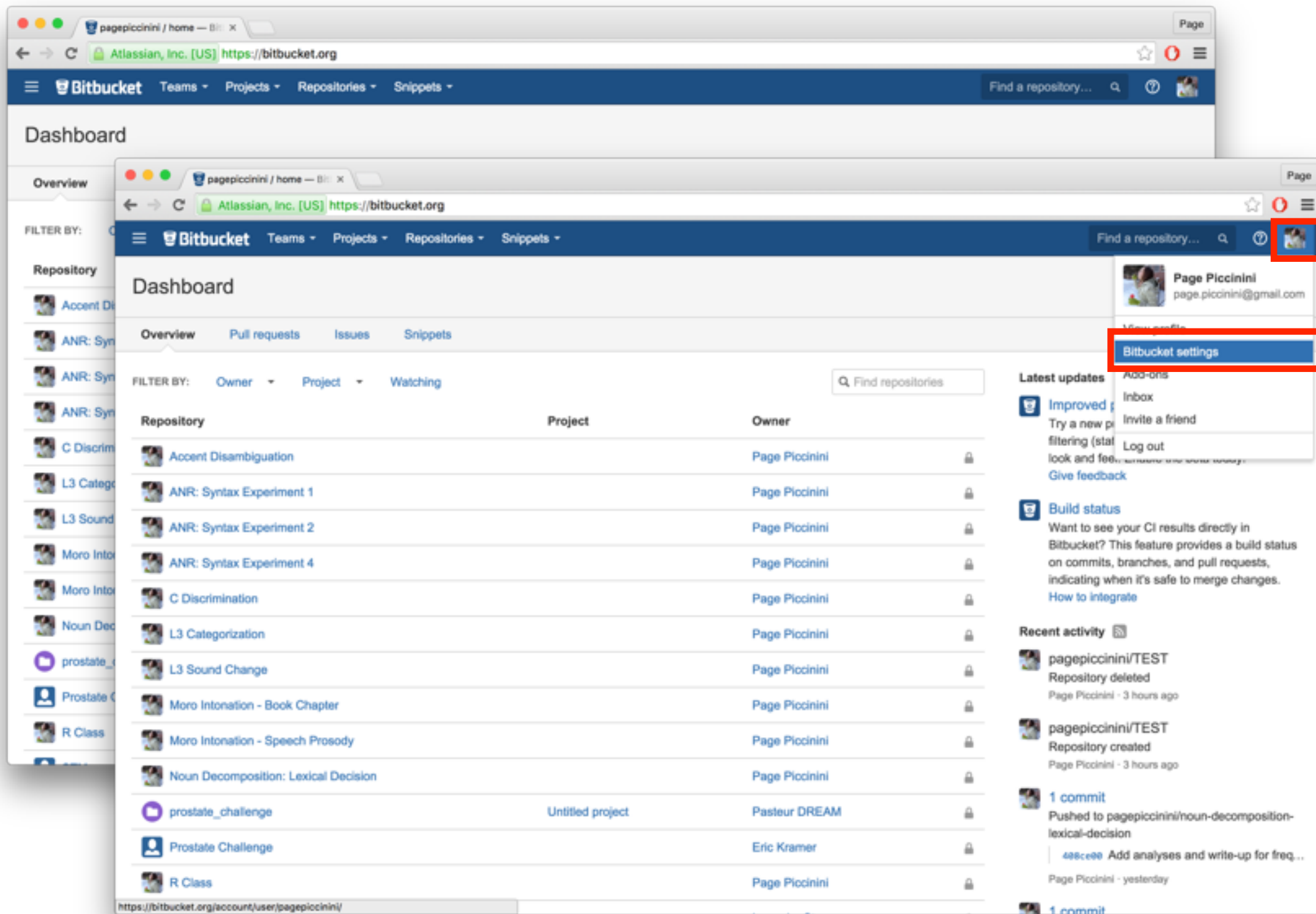
- Improved pull request list**  
Try a new pull requests page with improved filtering (status, target branch, ...) and a new look and feel. Enable the beta today!  
[Give feedback](#)
- Build status**  
Want to see your CI results directly in Bitbucket? This feature provides a build status on commits, branches, and pull requests, indicating when it's safe to merge changes.  
[How to integrate](#)

**Recent activity**

- pagepiccinini/TEST  
Repository deleted  
Page Piccinini - 3 hours ago
- pagepiccinini/TEST  
Repository created  
Page Piccinini - 3 hours ago
- 1 commit**  
Pushed to pagepiccinini/noun-decomposition-lexical-decision  
[488ce80](#) Add analyses and write-up for freq...  
Page Piccinini - yesterday
- 1 commit**



# Getting Your SSH RSA Key on Bitbucket



The screenshot shows the Bitbucket dashboard for user 'Page Piccinini'. The user's profile is visible in the top right corner, and the 'Bitbucket settings' link is highlighted in the user menu. The dashboard lists several repositories owned by the user, including 'Accent Disambiguation', 'ANR: Syntax Experiment 1', 'ANR: Syntax Experiment 2', 'ANR: Syntax Experiment 4', 'C Discrimination', 'L3 Categorization', 'L3 Sound Change', 'Moro Intonation - Book Chapter', 'Moro Intonation - Speech Prosody', 'Noun Decomposition: Lexical Decision', 'prostate\_challenge', 'Prostate Challenge', and 'R Class'. The 'prostate\_challenge' repository is marked as an 'Untitled project'.

**User Profile:** Page Piccinini, page.piccinini@gmail.com

**Bitbucket settings**

**Repositories:**

Repository	Project	Owner
Accent Disambiguation		Page Piccinini
ANR: Syntax Experiment 1		Page Piccinini
ANR: Syntax Experiment 2		Page Piccinini
ANR: Syntax Experiment 4		Page Piccinini
C Discrimination		Page Piccinini
L3 Categorization		Page Piccinini
L3 Sound Change		Page Piccinini
Moro Intonation - Book Chapter		Page Piccinini
Moro Intonation - Speech Prosody		Page Piccinini
Noun Decomposition: Lexical Decision		Page Piccinini
prostate_challenge	Untitled project	Pasteur DREAM
Prostate Challenge		Eric Kramer
R Class		Page Piccinini

# Getting Your SSH RSA Key on Bitbucket

The image shows three overlapping screenshots of the Bitbucket web interface, illustrating the steps to manage SSH keys.

**Top Screenshot:** The Bitbucket Dashboard. The navigation bar includes "Teams", "Projects", "Repositories", and "Snippets". The user profile "Page Piccinini" is visible in the top right.

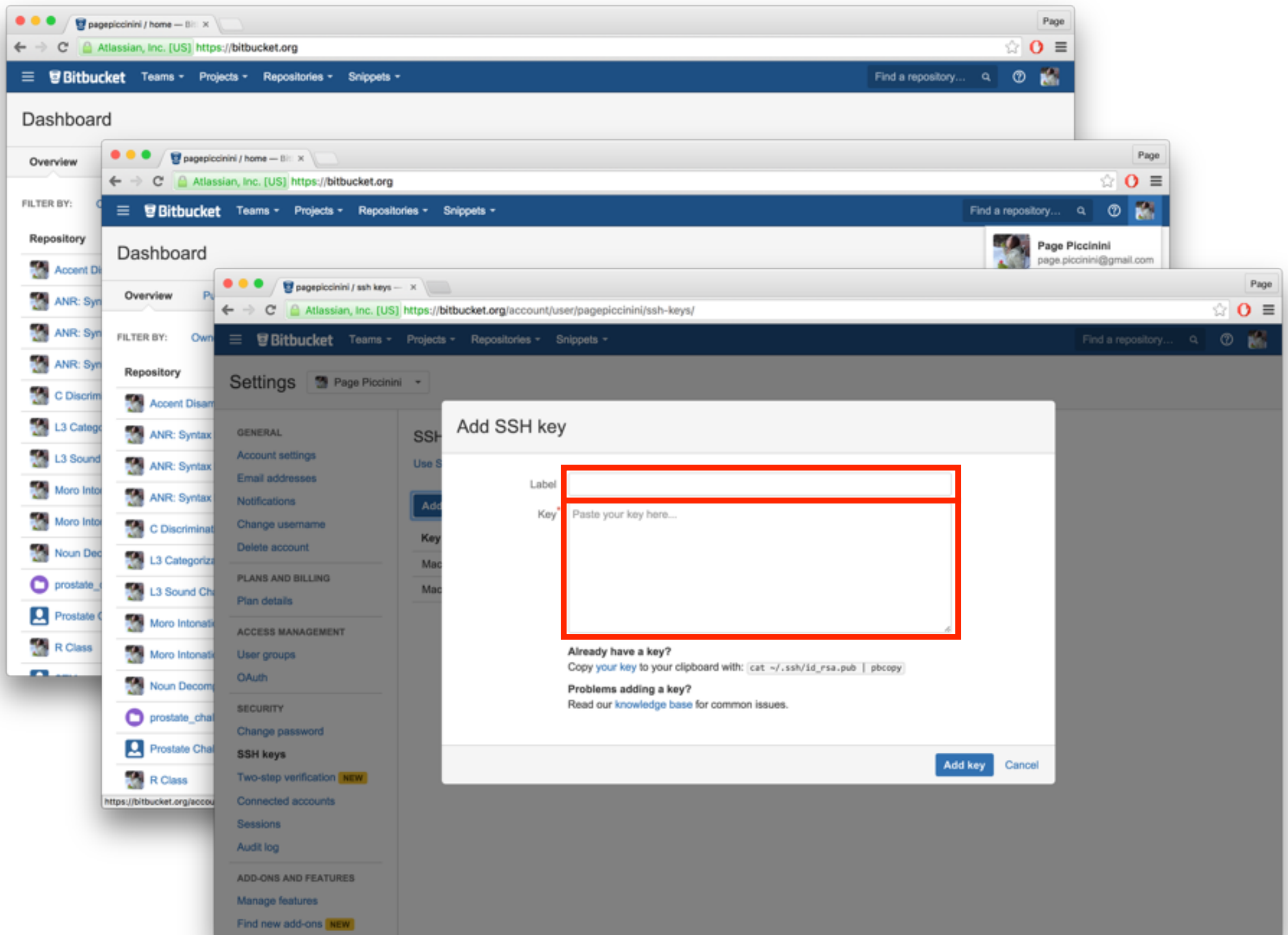
**Middle Screenshot:** The "Settings" page for the user "Page Piccinini". The left sidebar contains a list of settings categories. The "SSH keys" option is highlighted with a red box.

**Bottom Screenshot:** The "SSH keys" settings page. It shows a table of existing SSH keys. A red box highlights the "Add key" button.

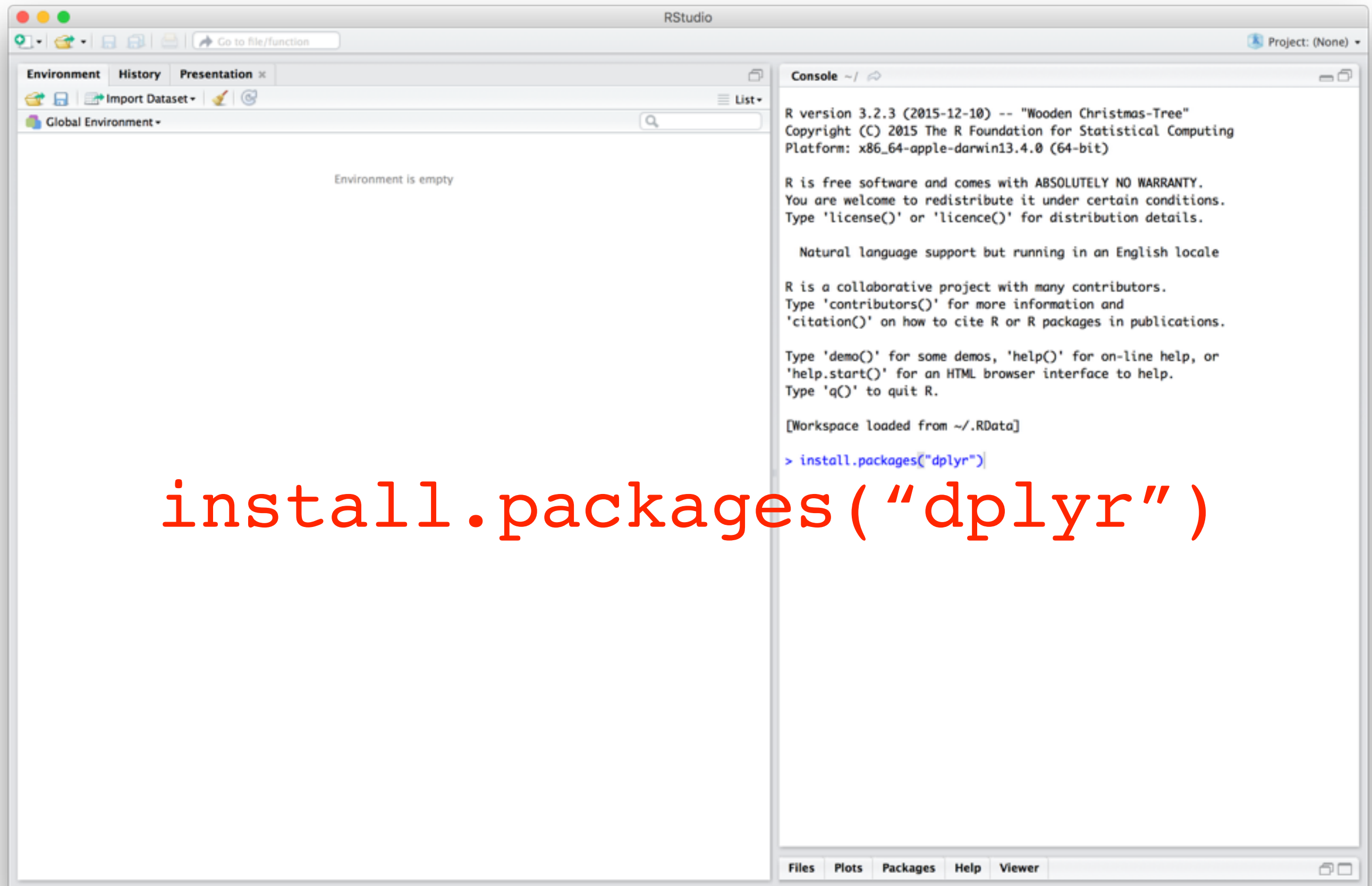
**SSH keys Table:**

Key	Added
MacBook Air - Home	2015-12-08 <a href="#">Edit</a> <a href="#">Delete</a>
MacBook Pro - Work	2015-12-03 <a href="#">Edit</a> <a href="#">Delete</a>

# Getting Your SSH RSA Key on Bitbucket



# Installing Packages in RStudio



# Installing Packages in RStudio

The screenshot shows the RStudio interface with the following components:

- Environment Panel:** Shows "Global Environment" and "Environment is empty".
- Console Panel:** Displays the R startup message and the execution of `install.packages("dplyr")`. A progress table is shown below.
- Bottom Bar:** Includes tabs for Files, Plots, Packages, Help, and Viewer.

**Console Output:**

```
R version 3.2.3 (2015-12-10) -- "Wooden Christmas-Tree"
Copyright (C) 2015 The R Foundation for Statistical Computing
Platform: x86_64-apple-darwin13.4.0 (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.

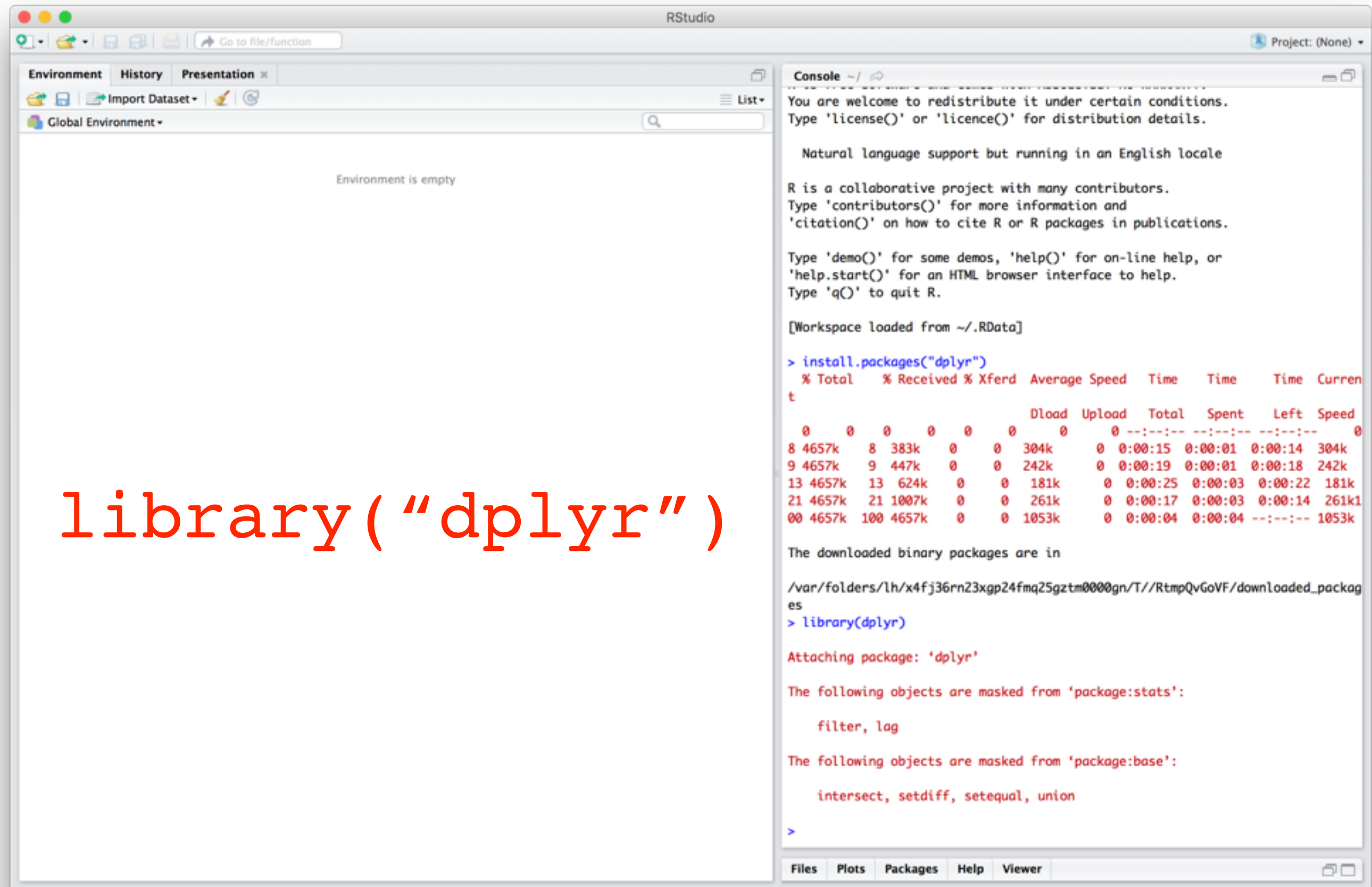
[Workspace loaded from ~/.RData]

> install.packages("dplyr")
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
   t                                 Dload  Upload  Total  Spent    Left  Speed
  0     0     0     0     0     0      0      0  --:--:-- --:--:-- --:--:--    0
  8 4657k   8 383k   0     0  304k      0  0:00:15 0:00:01 0:00:14  304k
  9 4657k   9 447k   0     0  242k      0  0:00:19 0:00:01 0:00:18  242k
 13 4657k  13 624k   0     0  181k      0  0:00:25 0:00:03 0:00:22  181k
 21 4657k  21 1007k   0     0  261k      0  0:00:17 0:00:03 0:00:14  261k
100 4657k 100 4657k   0     0 1053k      0  0:00:04 0:00:04 --:--:-- 1053k

The downloaded binary packages are in
/var/folders/lh/x4fj36rn23xgp24fmq25gztm0000gn/T//RtmpQvGoVF/downloaded_packages
> |
```



# Installing Packages in RStudio



The screenshot shows the RStudio interface with the following components:

- Environment Panel:** Shows "Global Environment" and "Environment is empty".
- Console Panel:** Displays the output of the `install.packages("dplyr")` command. It includes a progress table and status messages.

**Console Output:**

```
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.

[Workspace loaded from ~/.RData]

> install.packages("dplyr")
 % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
 0         0         0     0      0      0     0      0      0     0
 8 4657k    8 383k    0     0    304k    0 0:00:15 0:00:01 0:00:14 304k
 9 4657k    9 447k    0     0    242k    0 0:00:19 0:00:01 0:00:18 242k
13 4657k   13 624k    0     0    181k    0 0:00:25 0:00:03 0:00:22 181k
21 4657k   21 1007k    0     0    261k    0 0:00:17 0:00:03 0:00:14 261k1
00 4657k  100 4657k    0     0   1053k    0 0:00:04 0:00:04 ---:-- 1053k

The downloaded binary packages are in
/var/folders/lh/x4fj36rn23xgp24fmq25gztm0000gn/T//RtmpQvGoVF/downloaded_packages
> library(dplyr)

Attaching package: 'dplyr'

The following objects are masked from 'package:stats':

  filter, lag

The following objects are masked from 'package:base':

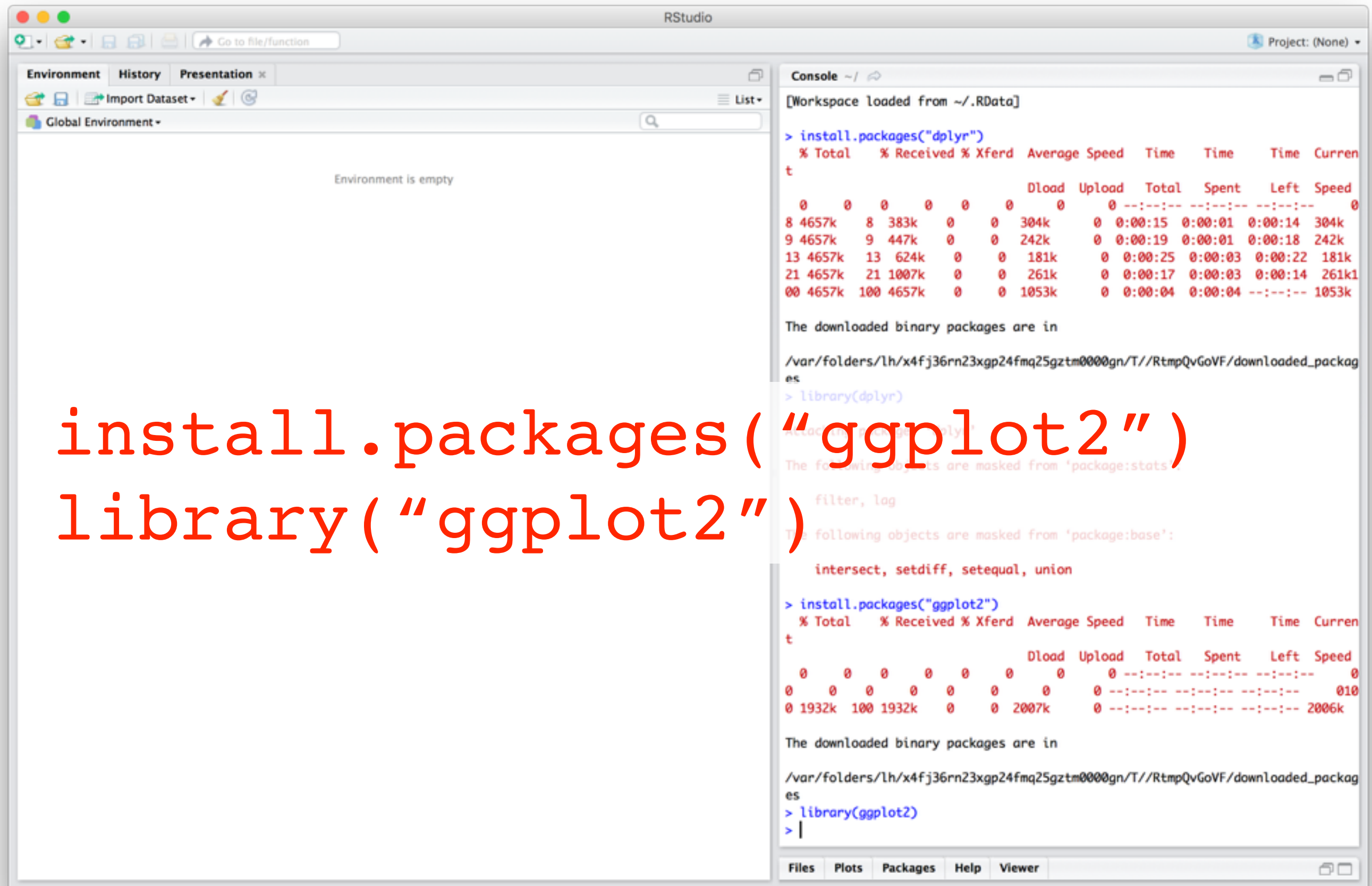
  intersect, setdiff, setequal, union

>
```

**Library Command:**

```
library("dplyr")
```

# Installing Packages in RStudio



The screenshot shows the RStudio interface with the Environment pane on the left (empty) and the Console pane on the right. The Console displays the installation progress for 'dplyr' and 'ggplot2' packages, including a progress table and the final installation path.

```
[Workspace loaded from ~/.RData]

> install.packages("dplyr")
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
t                                 Dload  Upload  Total  Spent    Left     Speed
 0     0     0     0     0     0      0      0  --:--:--  --:--:--  --:--:--    0
 8 4657k    8 383k    0     0 304k      0  0:00:15  0:00:01  0:00:14 304k
 9 4657k    9 447k    0     0 242k      0  0:00:19  0:00:01  0:00:18 242k
13 4657k   13 624k    0     0 181k      0  0:00:25  0:00:03  0:00:22 181k
21 4657k   21 1007k   0     0 261k      0  0:00:17  0:00:03  0:00:14 261k
00 4657k  100 4657k   0     0 1053k      0  0:00:04  0:00:04  --:--:-- 1053k

The downloaded binary packages are in
/var/folders/lh/x4fj36rn23xgp24fmq25gztm0000gn/T//RtmpQvGoVF/downloaded_packages

> library(dplyr)
Attaching package: 'dplyr'

The following objects are masked from 'package:stats':
  filter, lag

The following objects are masked from 'package:base':
  intersect, setdiff, setequal, union

> install.packages("ggplot2")
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
t                                 Dload  Upload  Total  Spent    Left     Speed
 0     0     0     0     0     0      0      0  --:--:--  --:--:--  --:--:--    0
 0     0     0     0     0     0      0      0  --:--:--  --:--:--  --:--:--    0
 0 1932k   100 1932k   0     0 2007k      0  0:00:00  0:00:00  0:00:00 2006k

The downloaded binary packages are in
/var/folders/lh/x4fj36rn23xgp24fmq25gztm0000gn/T//RtmpQvGoVF/downloaded_packages

> library(ggplot2)
> |
```

`install.packages("ggplot2")`  
`library("ggplot2")`

# **Conclusion and Next Steps**



# What did we do today?

A LOT of initial set-up

Installed packages (`dplyr` and `ggplot2`)

# What will we be doing next time?

Practice reading in and manipulating data

Practice making figures

Committing to Git

Make an R Markdown document to summarize the lesson