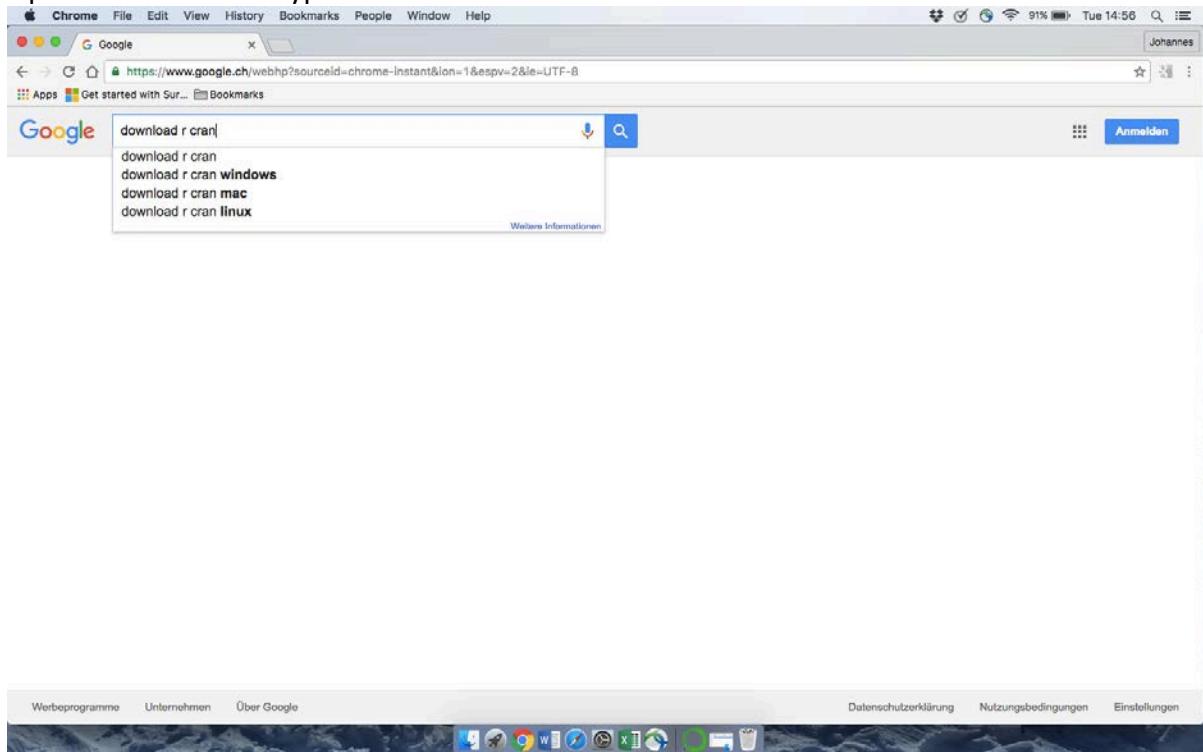
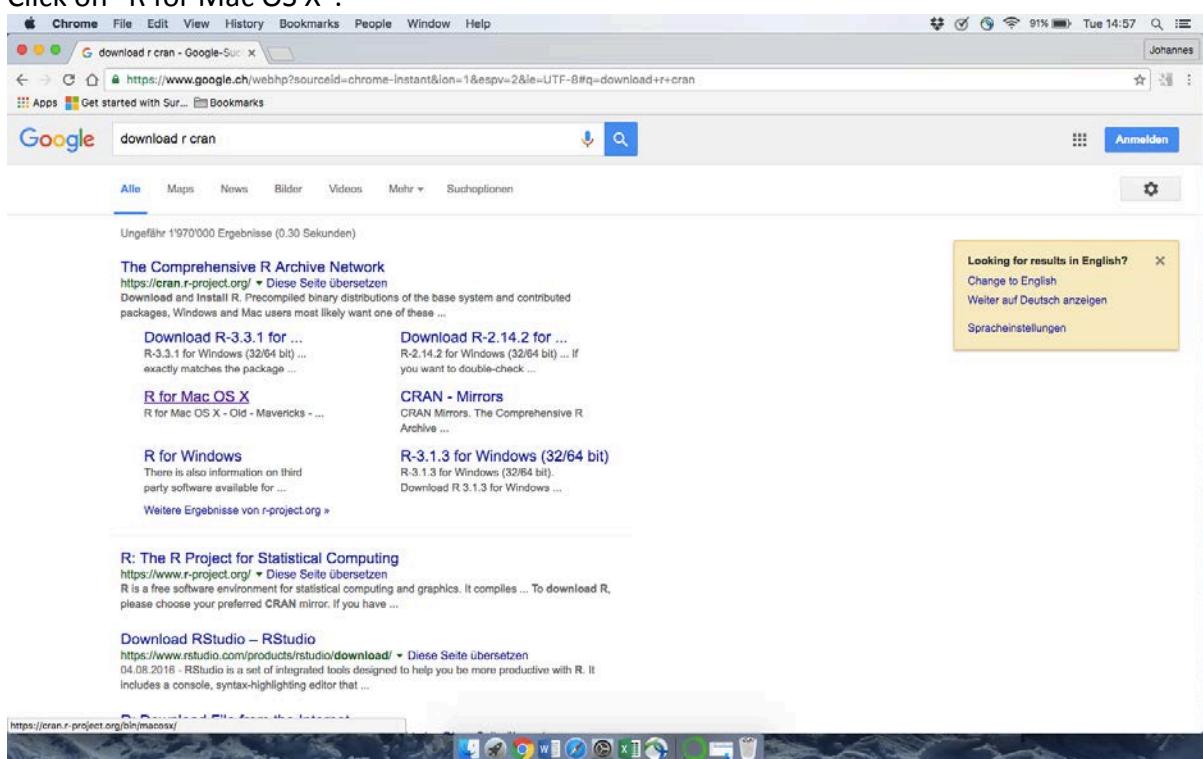


# How to install R on a Mac (Version 3.3.1, September 2016)

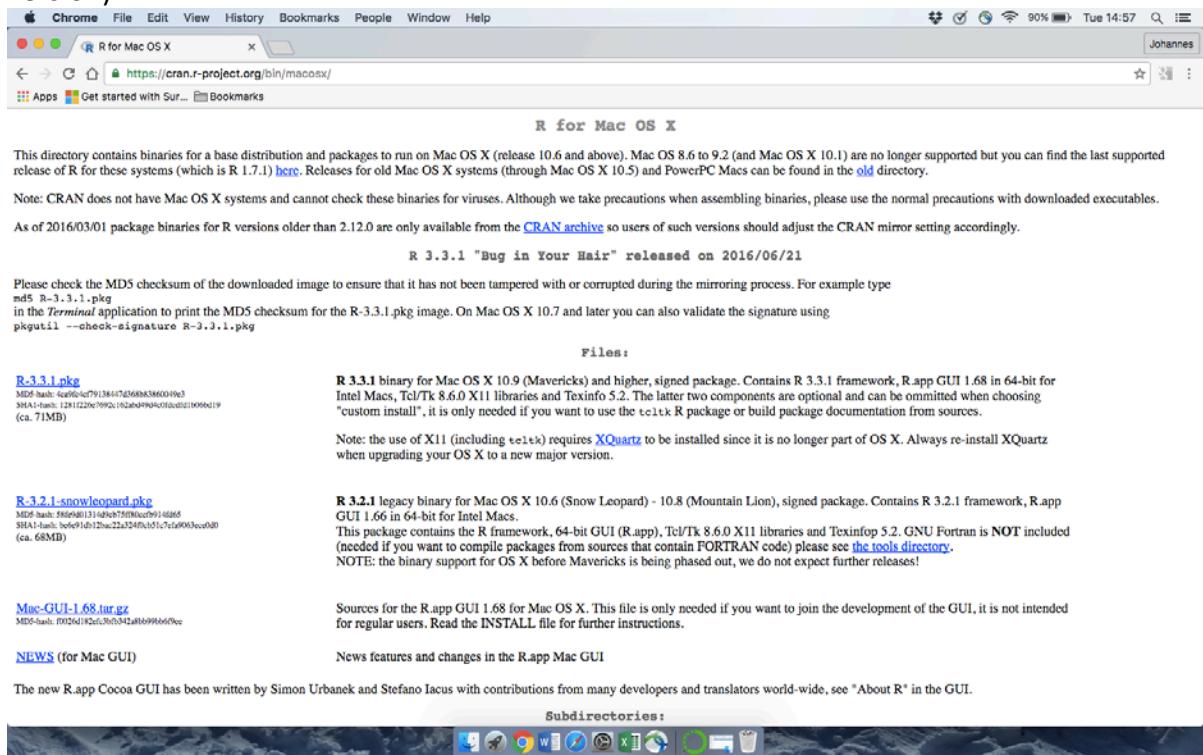
Open a browser and type the search words as shown below.



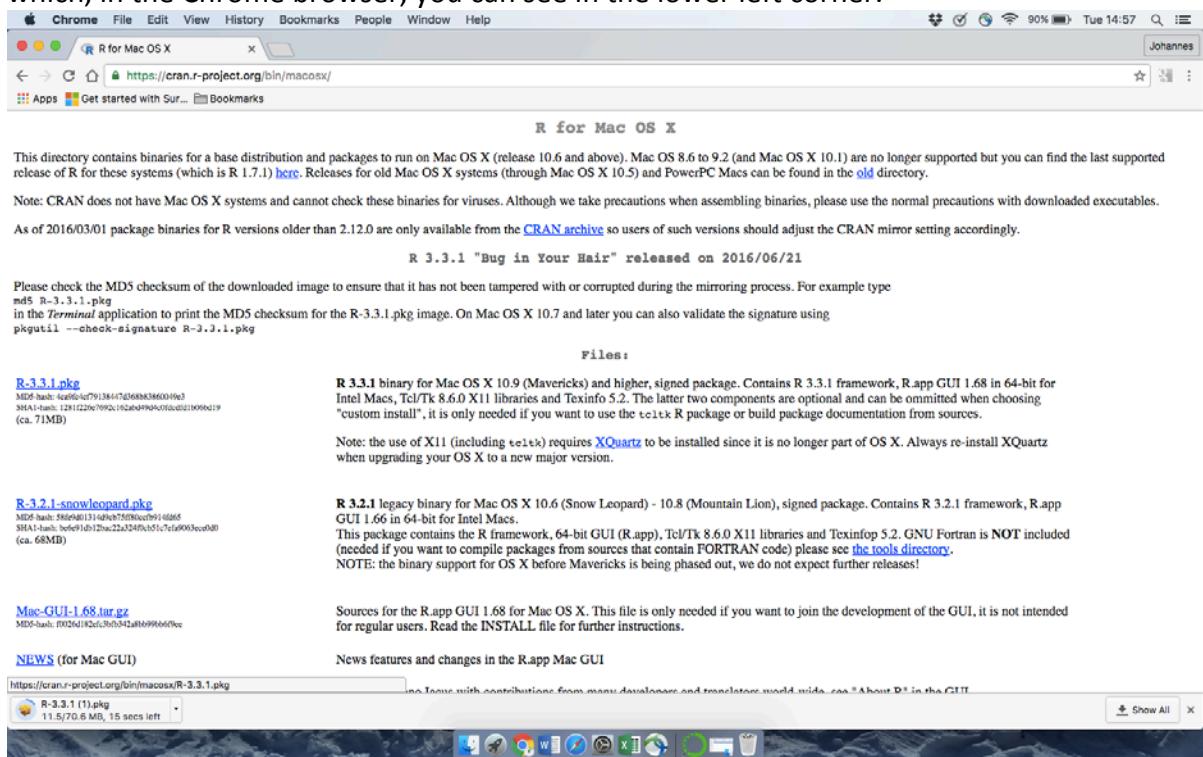
Click on “R for Mac OS X”.



Click on R-3.3.1.pkg (unless you have an old Mac, in which case you go to the Snowleopard version).



Once you have clicked on R-3.3.1.pkg, the installation files get downloaded to your machine, which, in the Chrome browser, you can see in the lower left corner.



You get a warning that these files may be harmful. Don't worry and choose "keep".

The screenshot shows a Mac OS X desktop with a browser window open to the CRAN mirror for Mac OS X. The URL is <https://cran.r-project.org/bin/macosx/>. The page displays various R package binaries for Mac OS X. A prominent warning message at the top reads:

This directory contains binaries for a base distribution and packages to run on Mac OS X (release 10.6 and above). Mac OS 8.6 to 9.2 (and Mac OS X 10.1) are no longer supported but you can find the last supported release of R for these systems (which is R 1.7.1) [here](#). Releases for old Mac OS X systems (through Mac OS X 10.5) and PowerPC Macs can be found in the [old](#) directory.

Note: CRAN does not have Mac OS X systems and cannot check these binaries for viruses. Although we take precautions when assembling binaries, please use the normal precautions with downloaded executables.

As of 2016/03/01 package binaries for R versions older than 2.12.0 are only available from the [CRAN archive](#) so users of such versions should adjust the CRAN mirror setting accordingly.

**R 3.3.1 "Bug in Your Hair" released on 2016/06/21**

Please check the MD5 checksum of the downloaded image to ensure that it has not been tampered with or corrupted during the mirroring process. For example type

```
md5 R-3.3.1.pkg
```

in the Terminal application to print the MD5 checksum for the R-3.3.1.pkg image. On Mac OS X 10.7 and later you can also validate the signature using

```
pgutil --check-signature R-3.3.1.pkg
```

**Files:**

**R-3.3.1.pkg**  
MD5 hash: 58d6a801314fb75f00cc0910d65  
SHA1 hash: 1281f226e7992c152a499a0f0a0510909d19  
(ca. 71MB)

**R-3.2.1-snowleopard.pkg**  
MD5 hash: 58d6a801314fb75f00cc0910d65  
SHA1 hash: be9f1d12ba22a324f0cb51cf1a003cc0d0  
(ca. 68MB)

**Mac-GUI-1.68.tar.gz**  
MD5 hash: f022ed182dc3bf3a21a8699b6f9ec

**NEWS (for Mac GUI)**  
Sources for the R.app GUI 1.68 for Mac OS X. This file is only needed if you want to join the development of the GUI, it is not intended for regular users. Read the INSTALL file for further instructions.

**News features and changes in the R.app Mac GUI**

The browser window has a warning bar at the top:

This type of file can harm your computer. Do you want to keep R-3.3.1 (1).pkg anyway? Discard Keep

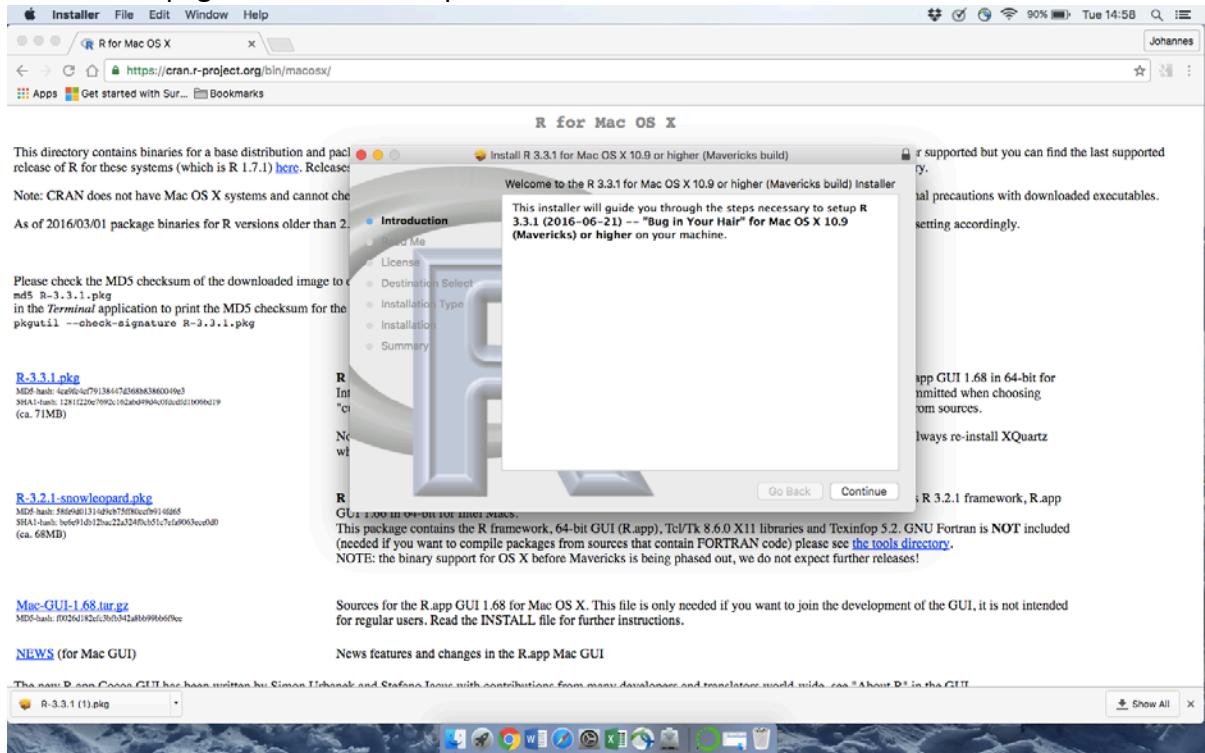
Show All X

It then looks like this.

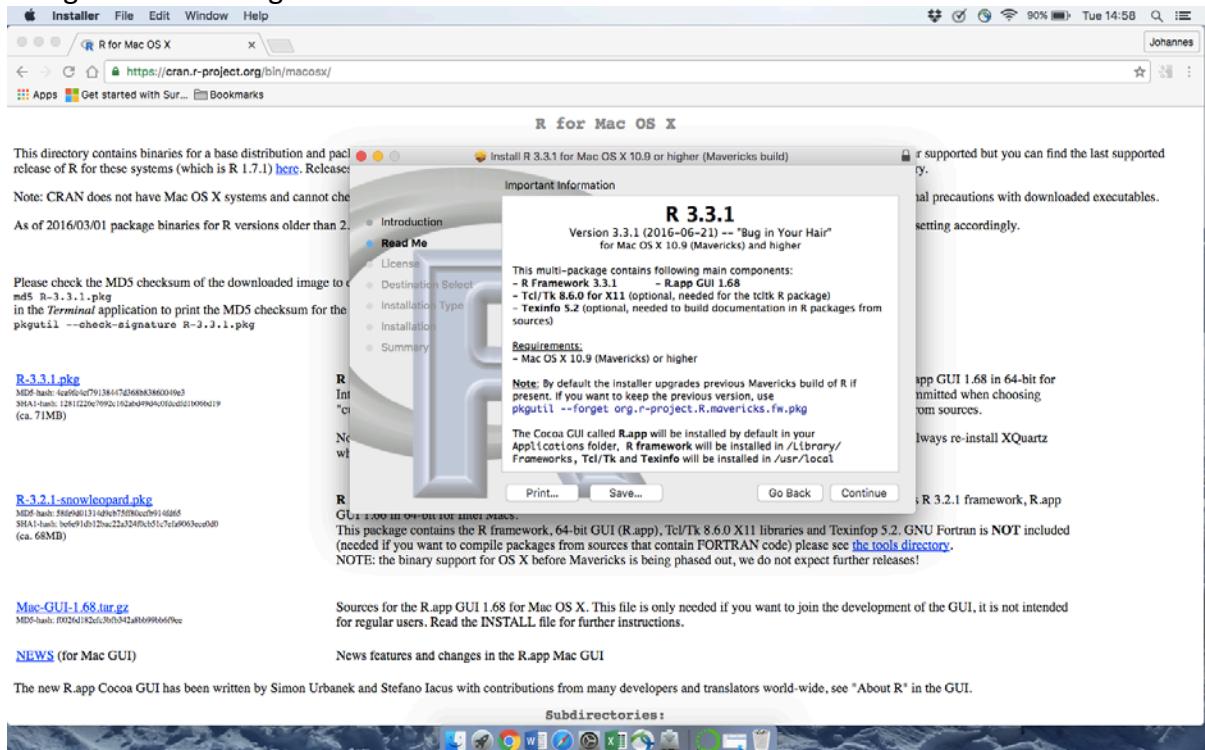
The screenshot shows the same Mac OS X desktop and browser window as the previous one, but the warning message has been accepted. The warning bar is now gone, and the page content is fully visible.

The page content is identical to the first screenshot, displaying the R package binaries and the warning message about potentially harmful files.

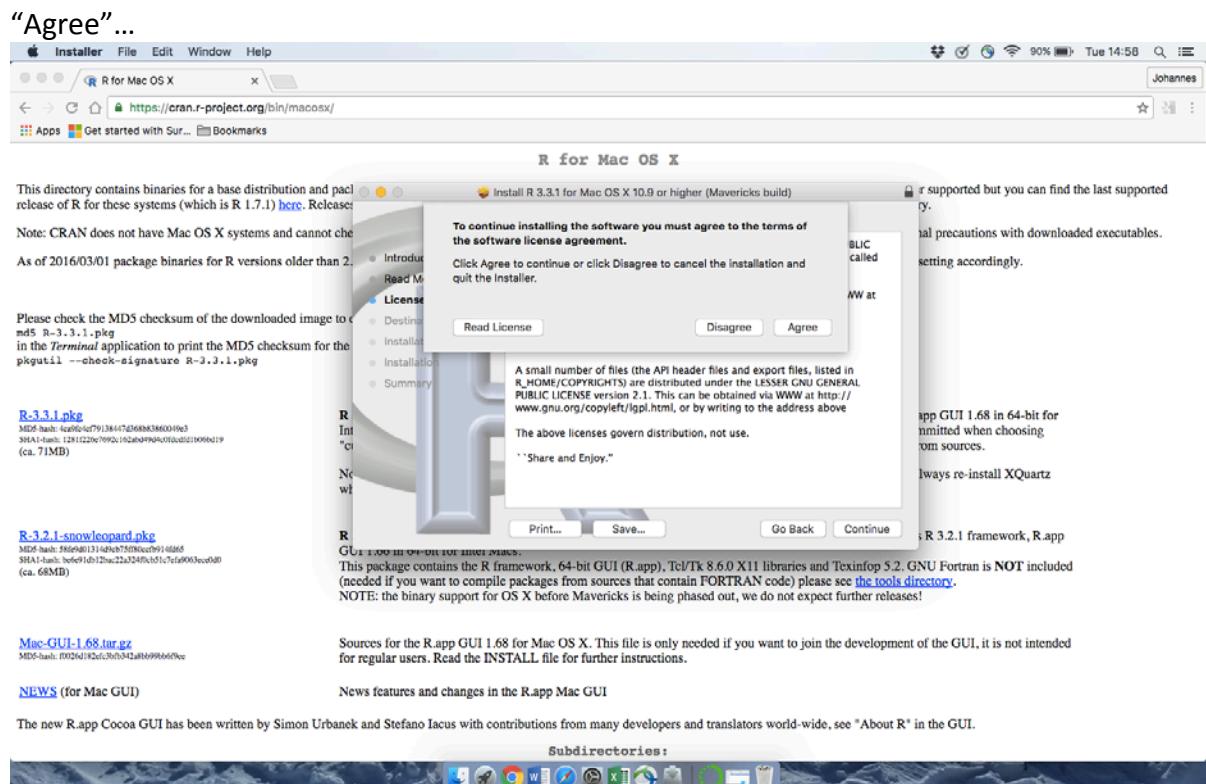
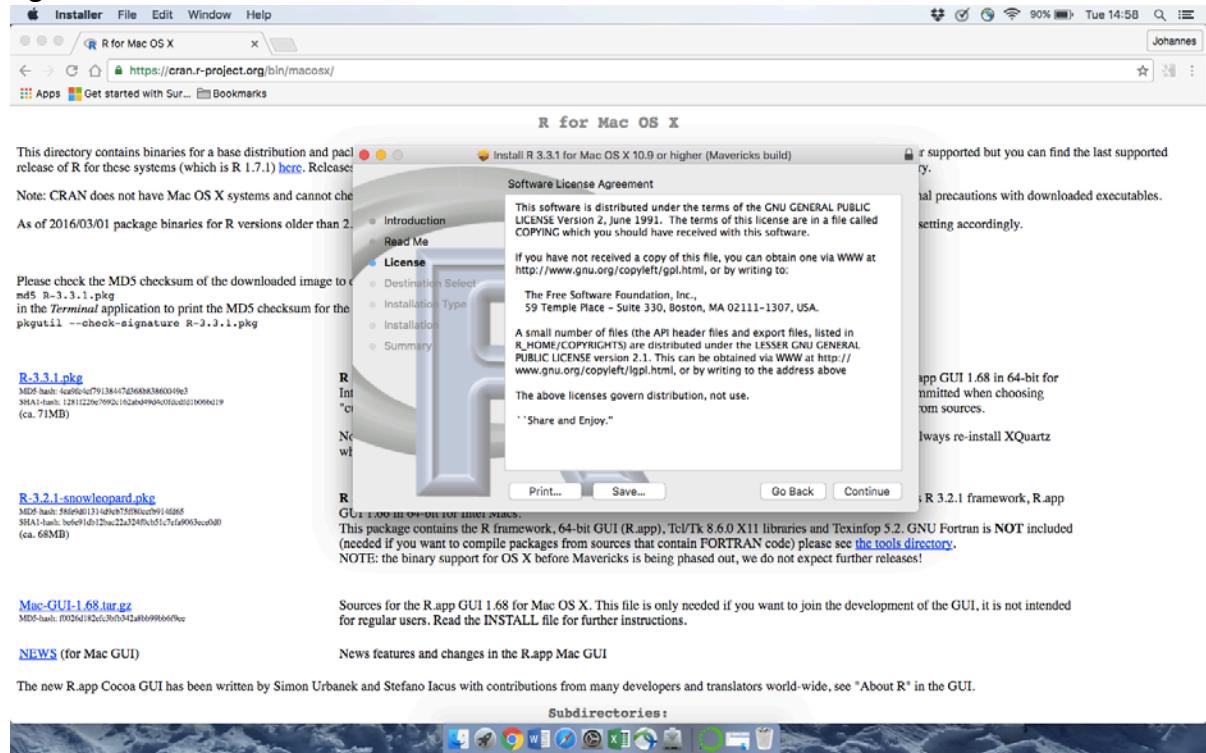
Click on the pkg file and choose Open.



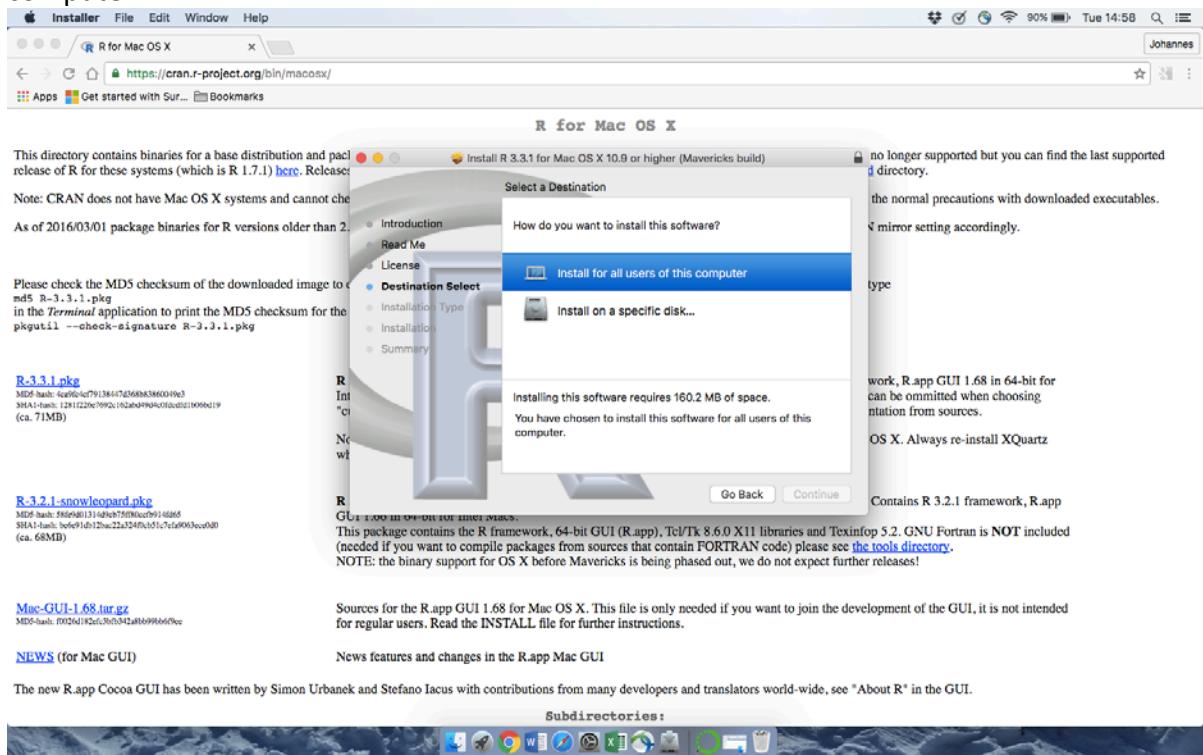
You get the following screen. Choose “continue”.



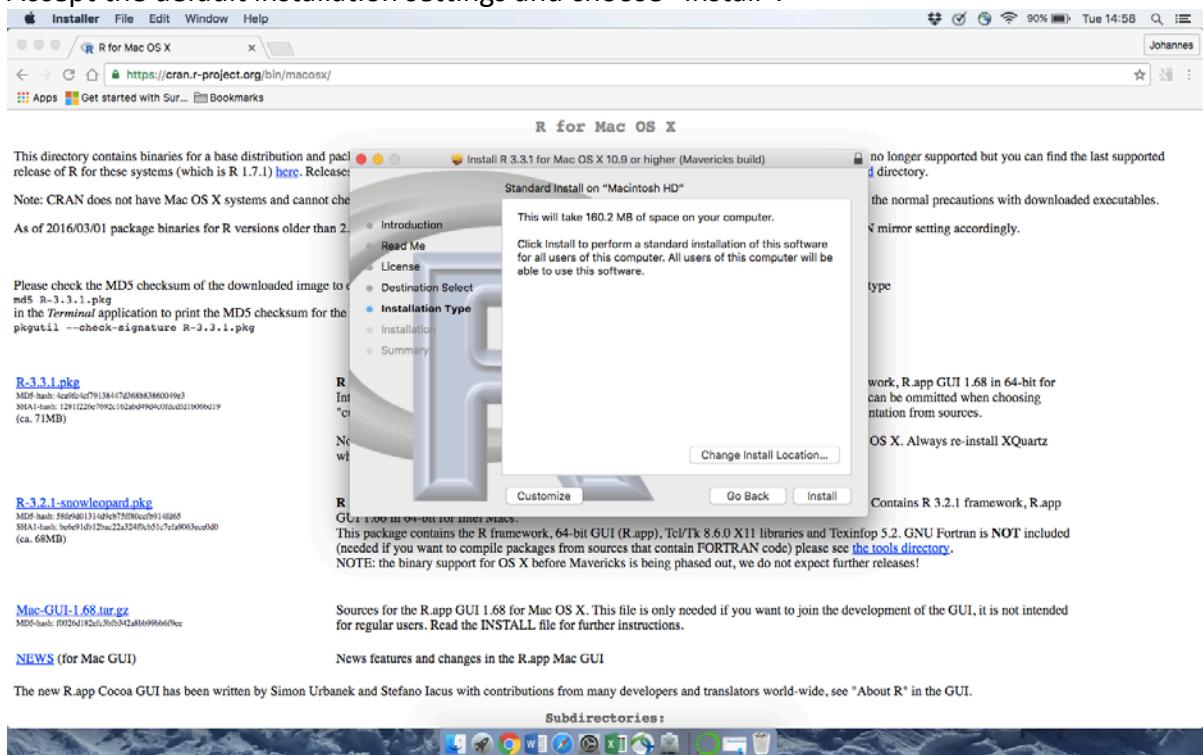
## Again “Continue”.



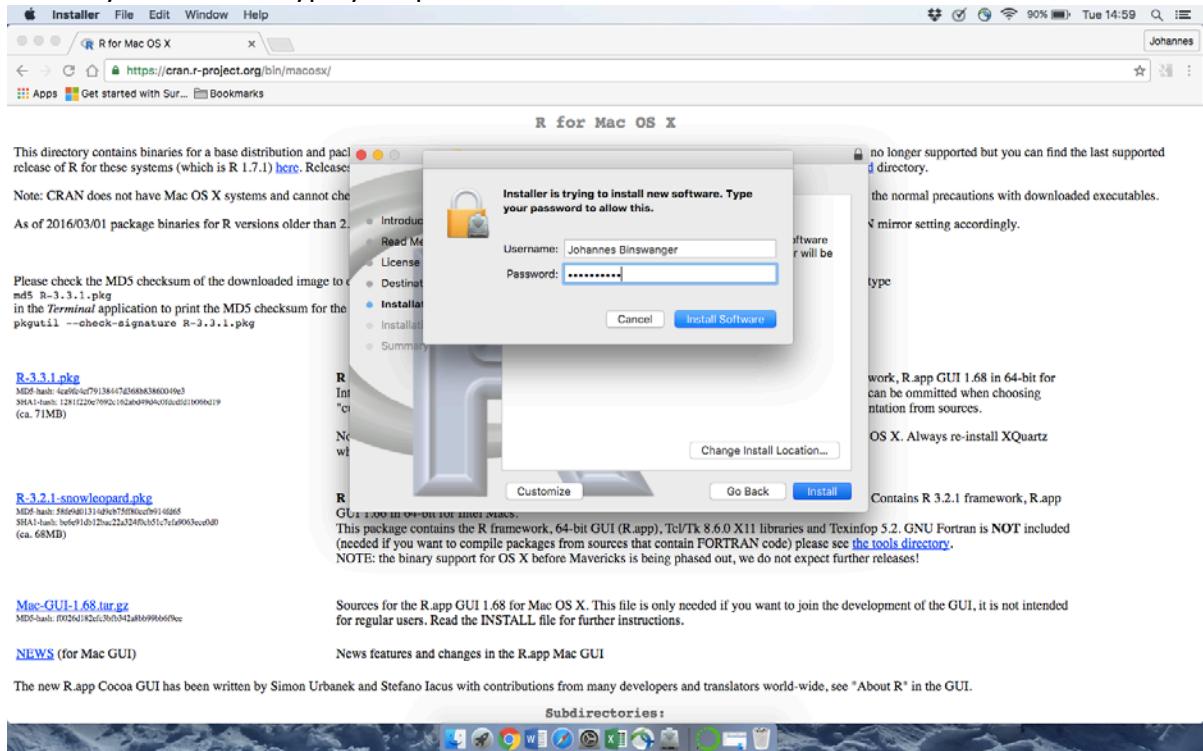
If you don't have any good reasons for not doing so, choose "Install for all users of this computer".



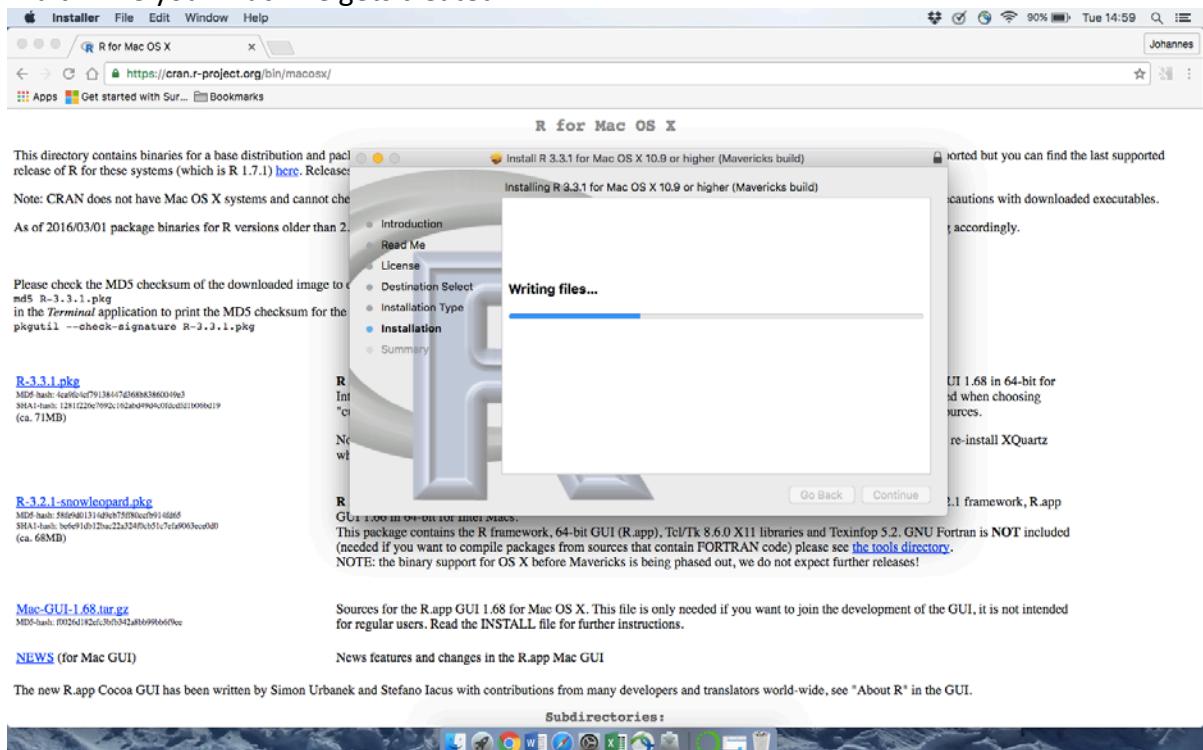
Accept the default installation settings and choose "Install".



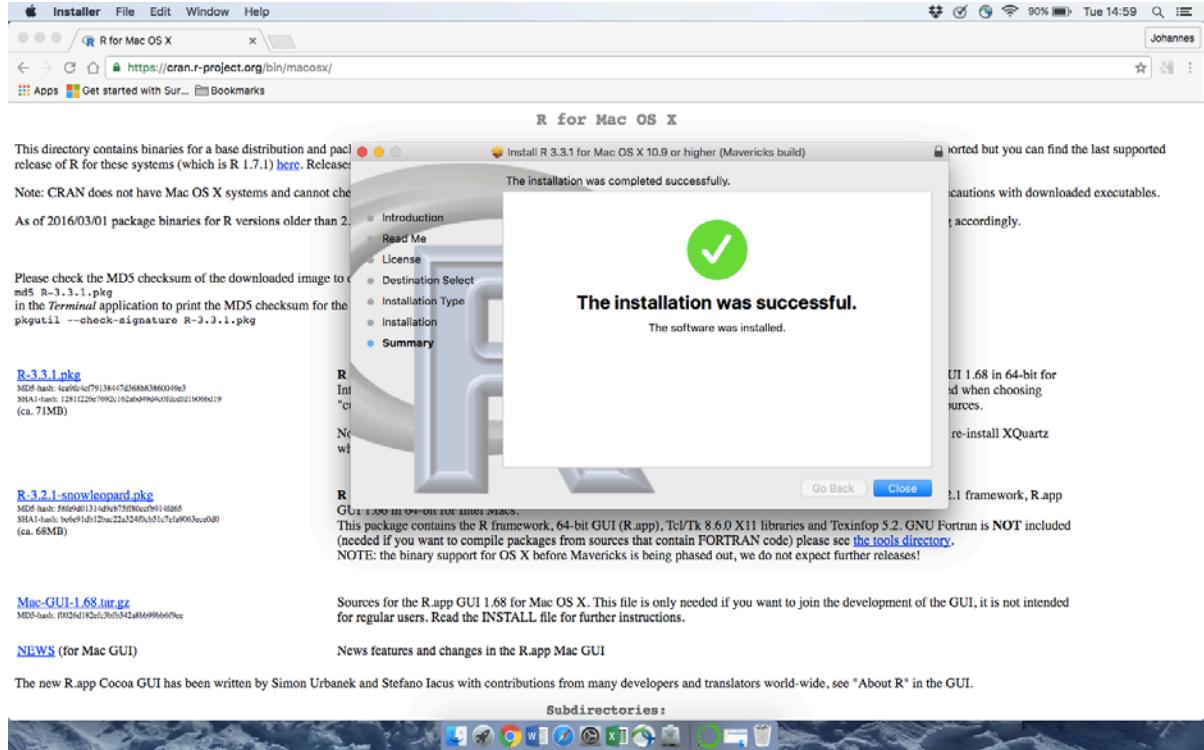
## You may be asked to type your password.



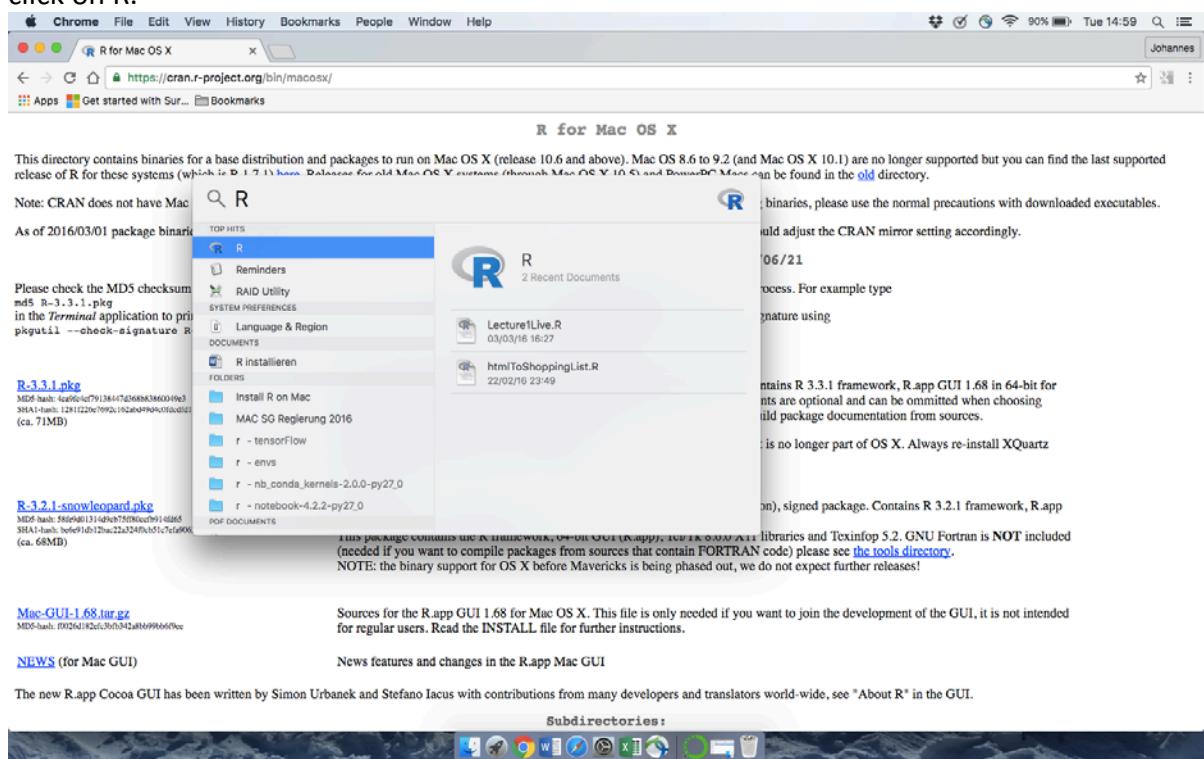
## Wait while your machine gets treated.



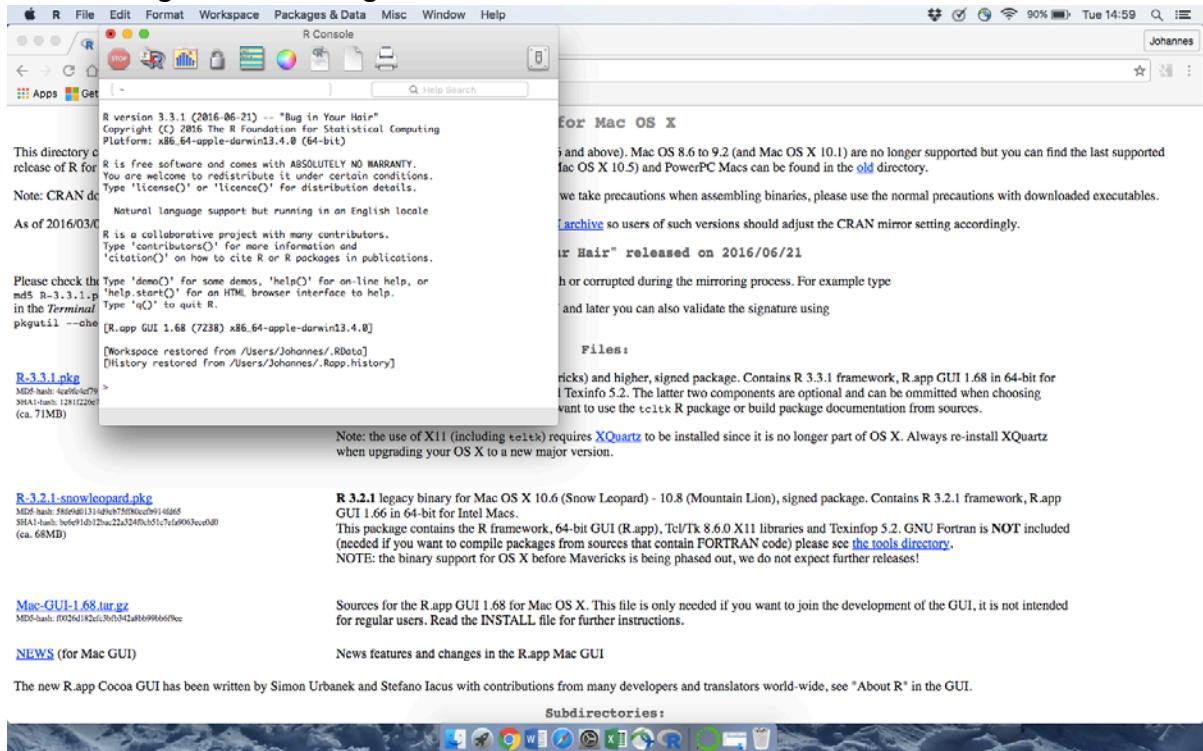
Hopefully, you also get the screen below.



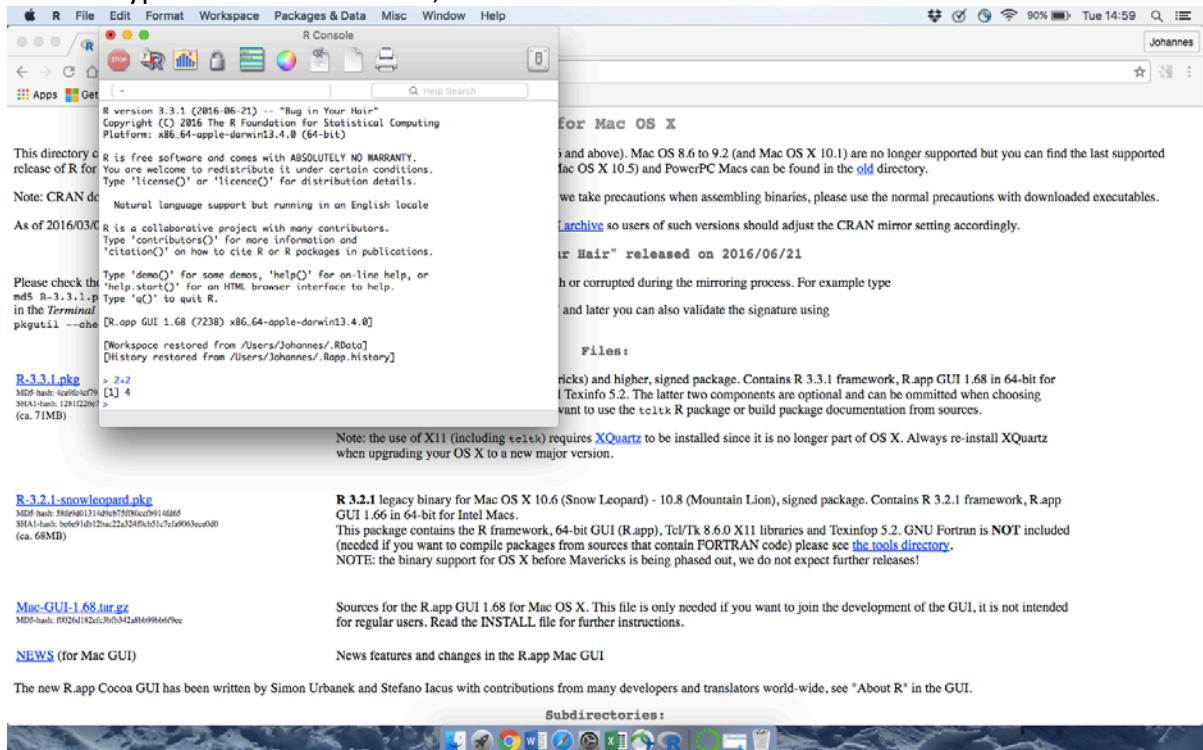
Although we will never directly work with R (to be discussed during the lecture), we'll check whether it's there. Open the finder, type "R", and you should get the screen below. Double click on R.



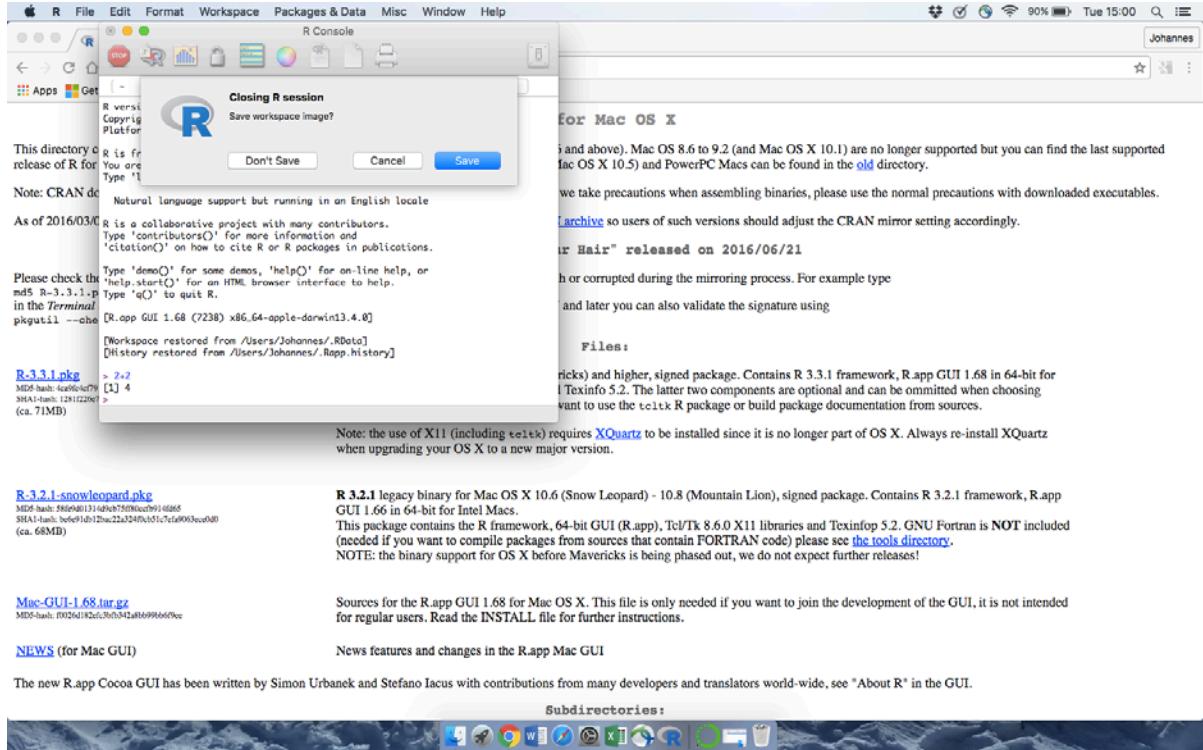
## You should get the following screen.



You can type "2+2" and hit enter, to check whether it works...

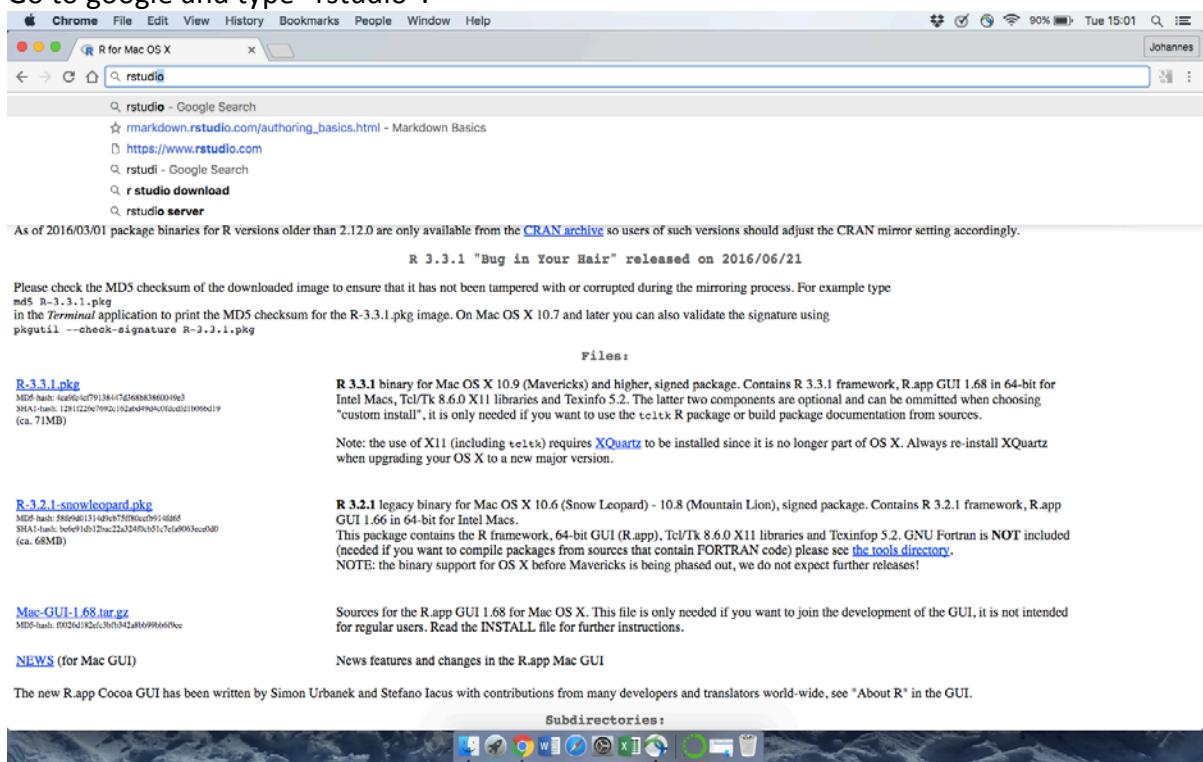


Then quit the program, do not save anything.



We now need to install a second piece of software, namely RStudio. This is the user interface for R (or the “Integrated Development Environment” or IDE in geek language).

Go to google and type “rstudio”.



Click on “Download RStudio”.

The screenshot shows a Google search results page for the query "rstudio". The first result is a link to the RStudio website titled "RStudio – Open source and enterprise-ready professional software for R". Below the link, there is a snippet of text: "RStudio is a set of integrated tools designed to help you be ...". A yellow box highlights this snippet. To the right of the snippet, there is a "Pricing" section with a link to "RStudio team has a Small and Medium Business pricing policy as ...". Further down the page, there are links for "R Packages", "Online Learning", and "Shiny". On the far right, there is a "Spracheinstellungen" (Language settings) panel with options for "Change to English" and "Weiter auf Deutsch anzeigen".

On the resulting screen, scroll down until...

The screenshot shows the RStudio product selection page. At the top, there is a navigation bar with links for "Products", "Resources", "Pricing", "About Us", and "Blog". Below the navigation bar, the heading "Choose Your Version of RStudio" is displayed. A text block below the heading states: "RStudio is a set of integrated tools designed to help you be more productive with R. It includes a console, syntax-highlighting editor that supports direct code execution, as well as tools for plotting, history, debugging and workspace management. [Learn More](#)". Below this text is a table comparing four RStudio products: RStudio Desktop (Free License), RStudio Desktop (Commercial License), RStudio Server (Free License), and RStudio Server Pro (Commercial License). The table lists various features with green checkmarks indicating availability. A yellow box highlights the first row of the table.

|  | RStudio Desktop<br>(Free License) | RStudio Desktop<br>(Commercial License) | RStudio Server<br>(Free License) | RStudio Server Pro<br>(Commercial License) |
|--|-----------------------------------|---|----------------------------------|--|
| Integrated Development Environment for R | ✓                                 | ✓                                       | ✓                                | ✓  |
| Priority support                         | ✓                                 |   | ✓                                | ✓  |
| Access via Web Browser                   |                                   |   | ✓                                | ✓  |
| Enterprise Security and Access Controls  |                                   |   |                                  | ✓  |
| Project Sharing                          |                                   |   |                                  | ✓  |
| Access to Multiple Versions of R         |                                   |   |                                  | ✓  |
| Multiple Concurrent Sessions             |                                   |   |                                  | ✓  |

... until you see this.

The screenshot shows a Mac OS X desktop with a Chrome browser window open to the RStudio download page at <https://www.rstudio.com/products/rstudio/download3/>. The browser's title bar says "Download RStudio - RStudio". The page content includes:

- RStudio Desktop 0.99.903 — Release Notes**: A note stating "RStudio requires R 2.11.1+. If you don't already have R, download it here."
- Installers for Supported Platforms**: A table showing download links for various platforms:

| Platform  | Size    | Date       | MD5 |
|---|---------|------------|-----|
| RStudio 0.99.903 - Windows Vista/7/8/10                         | 77.1 MB | 2016-07-18 |     |
| RStudio 0.99.903 - Mac OS X 10.4+ (64-bit)                      | 60 MB   | 2016-07-18 |     |
| RStudio 0.99.903 - Ubuntu 12.04+/Debian 8+ (32-bit)             | 81.6 MB | 2016-07-18 |     |
| RStudio 0.99.903 - Ubuntu 12.04+/Debian 8+ (64-bit)             | 88.3 MB | 2016-07-18 |     |
| RStudio 0.99.903 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (32-bit) | 81 MB   | 2016-07-18 |     |
| RStudio 0.99.903 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (64-bit) | 81.9 MB | 2016-07-18 |     |
- Zip/Tarballs**: A table showing download links for various platforms:

| Platform  | Size     | Date       | MD5 |
|---|----------|------------|-----|
| RStudio 0.99.903 - Windows Vista/7/8/10                         | 110.6 MB | 2016-07-18 |     |
| RStudio 0.99.903 - Ubuntu 12.04+/Debian 8+ (32-bit)             | 82.3 MB  | 2016-07-18 |     |
| RStudio 0.99.903 - Ubuntu 12.04+/Debian 8+ (64-bit)             | 89.2 MB  | 2016-07-18 |     |
| RStudio 0.99.903 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (32-bit) | 81.6 MB  | 2016-07-18 |     |
| RStudio 0.99.903 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (64-bit) | 82.8 MB  | 2016-07-18 |     |
- Source Code**: A note stating "A tarball containing source code for RStudio v0.99.903 can be downloaded from [here](#)".

Choose the second of the Installers (for Mac OS X). Double-click on it.

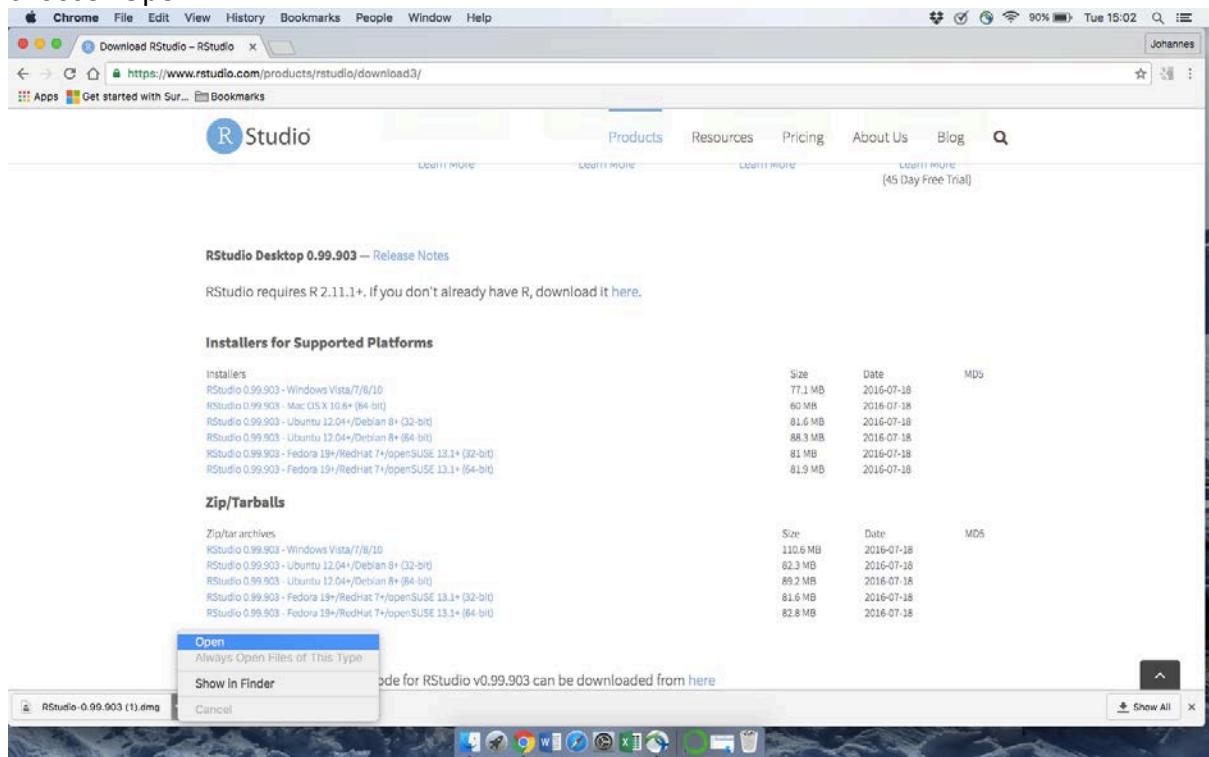
The screenshot shows a Mac OS X desktop with a Chrome browser window open to the RStudio download page at <https://www.rstudio.com/products/rstudio/download3/>. The browser's title bar says "Download RStudio - RStudio". The page content includes:

- RStudio Desktop 0.99.903 — Release Notes**: A note stating "RStudio requires R 2.11.1+. If you don't already have R, download it here."
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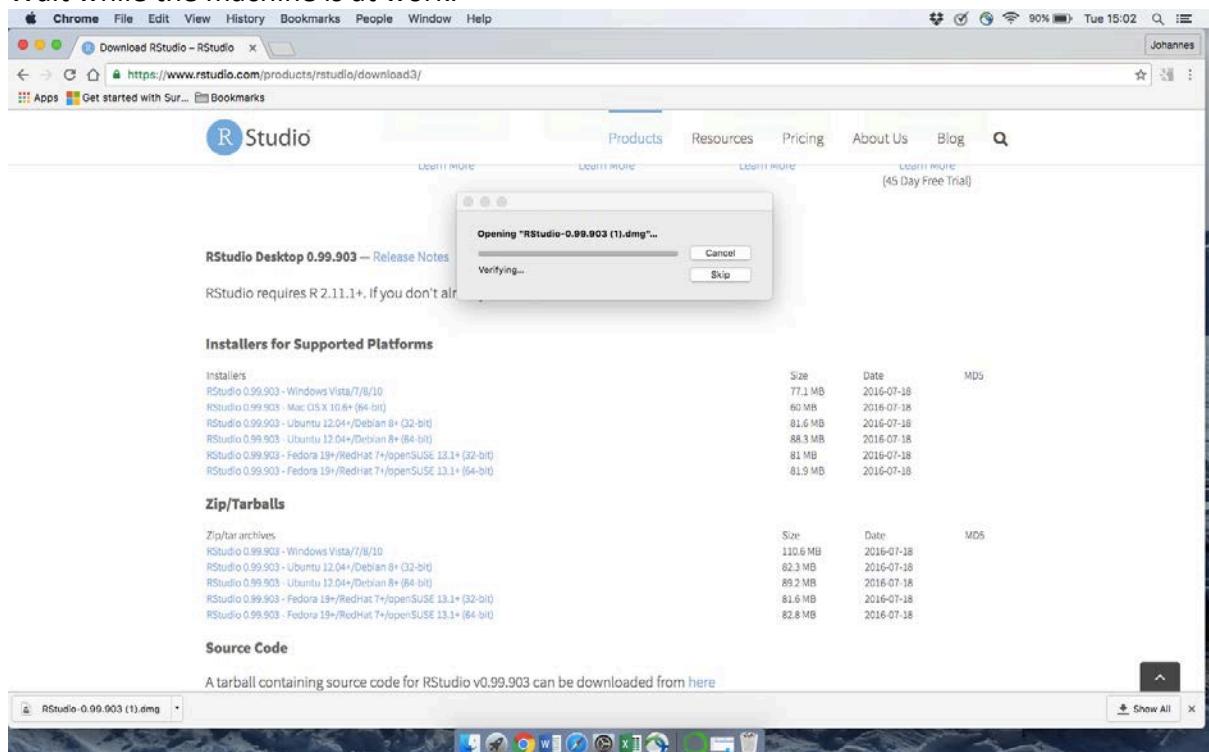
| Platform  | Size    | Date       | MD5 |
|---|---------|------------|-----|
| RStudio 0.99.903 - Windows Vista/7/8/10                         | 77.1 MB | 2016-07-18 |     |
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| RStudio 0.99.903 - Ubuntu 12.04+/Debian 8+ (64-bit)             | 88.3 MB | 2016-07-18 |     |
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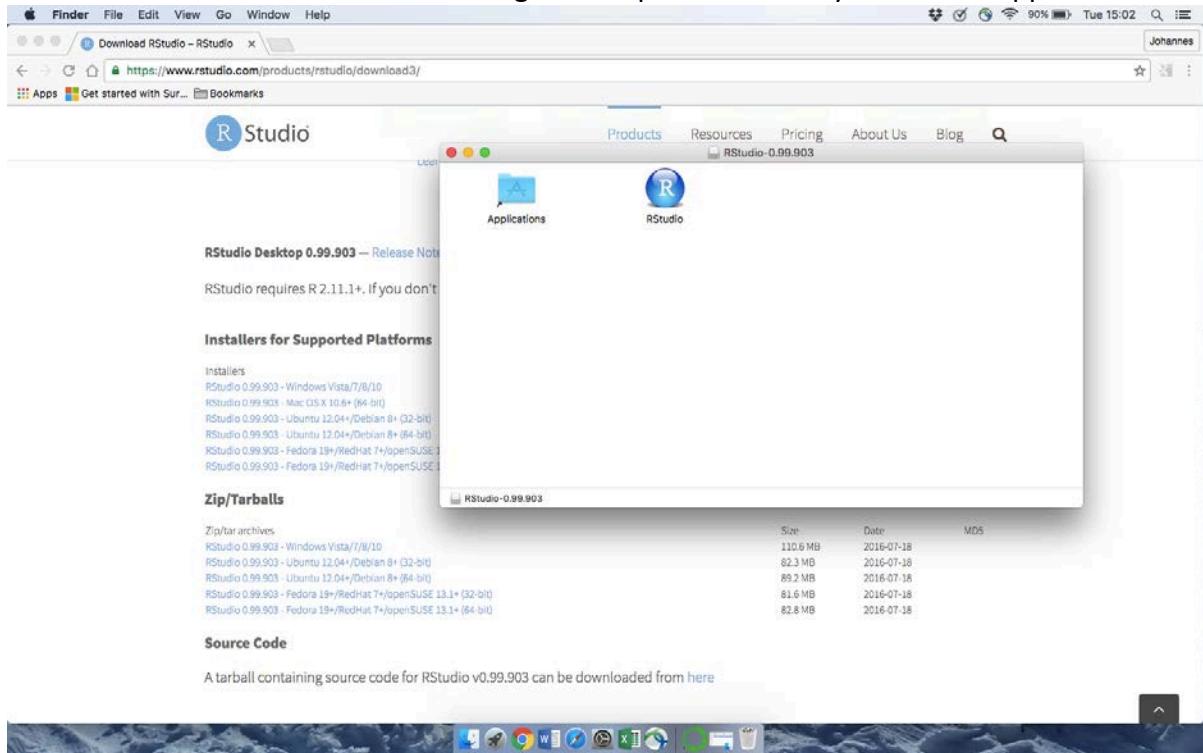
The files get downloaded, in Chrome you get them on the lower left corner. Click on it and choose "Open".



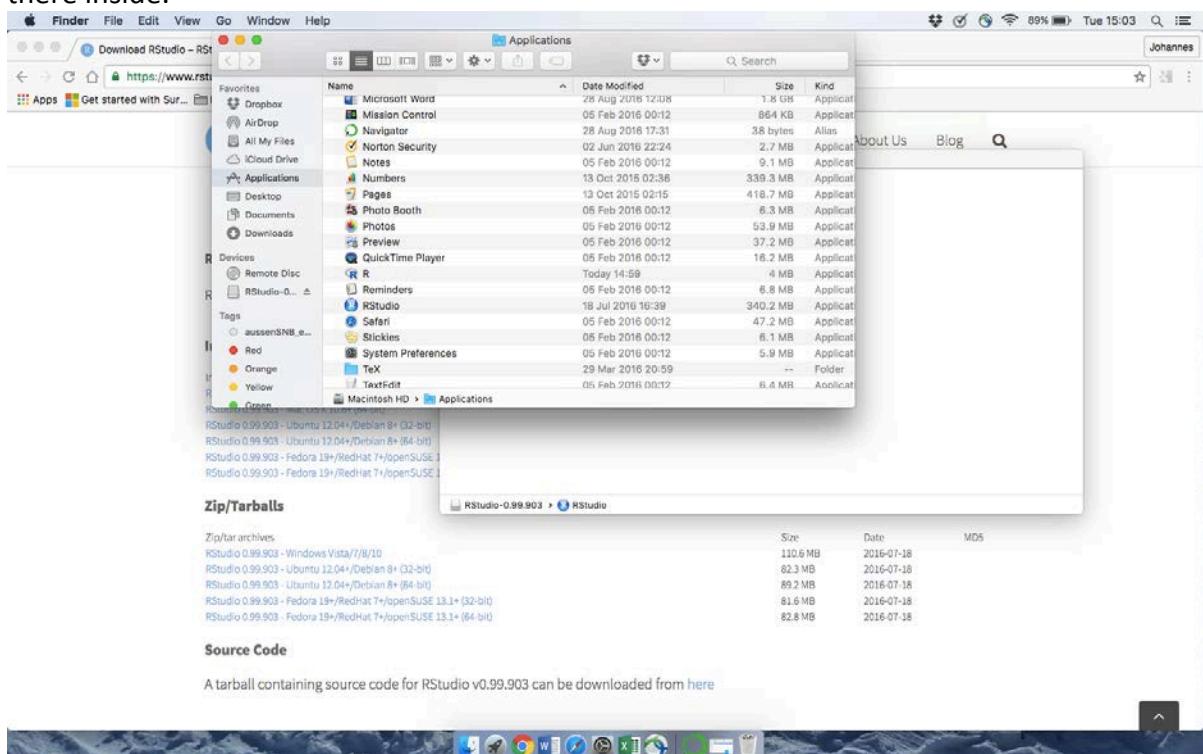
Wait while the machine is at work.



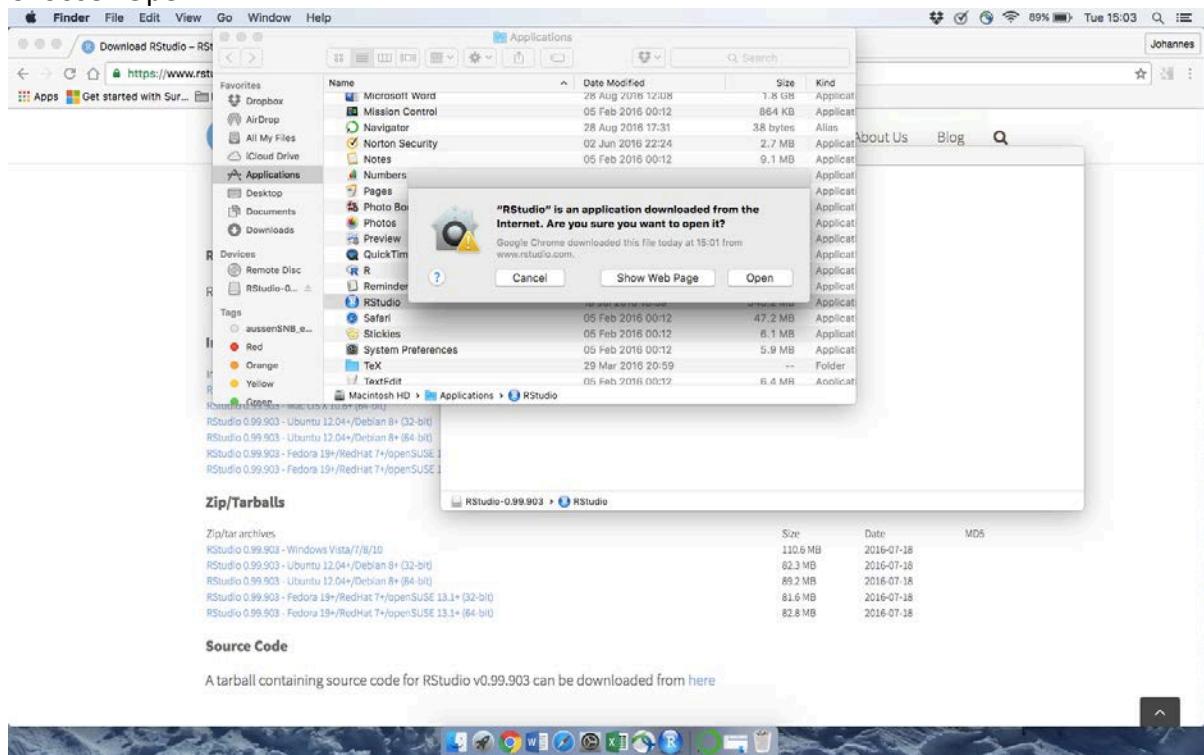
Now it's there. Just one action left: Drag and drop the RStudio symbol into "Applications".



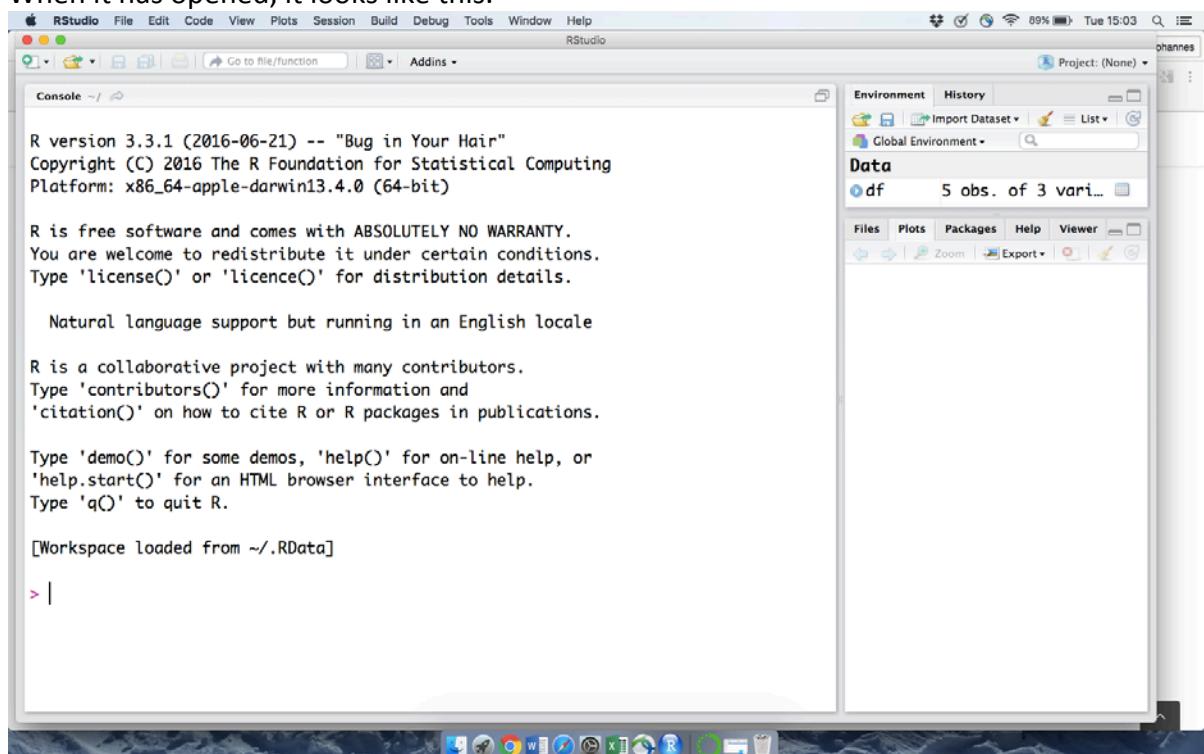
When you have done this, double click on "Applications", and you'll see that RStudio is there inside.



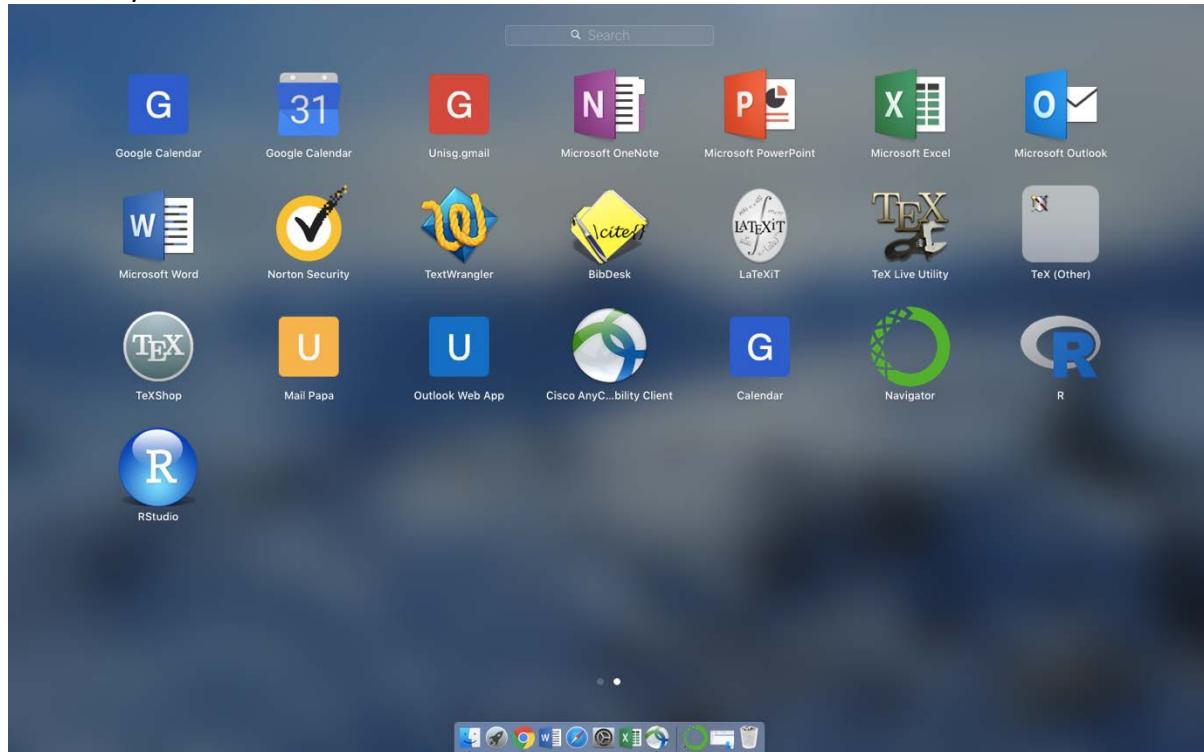
Double-click on RStudio. When you open it the first time, you get a warning message. Choose "Open".



When it has opened, it looks like this.



It is very convenient to pin the program to the dock. Open the launcher and drag the RStudio symbol to the dock.



You can see it on the dock now.



That's it for now. You will get more info in the lecture.