

Downloading and Installing R and Rstudio

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What is R?

- Statistical Software
- Open Source
- Syntax based

What is R?

- Scientific Calculator
- Syntax Editor
- Programming Language

Why use R?

Advantages

- Flexibility
- Ability to do best practice
- Time efficiency

Disadvantages

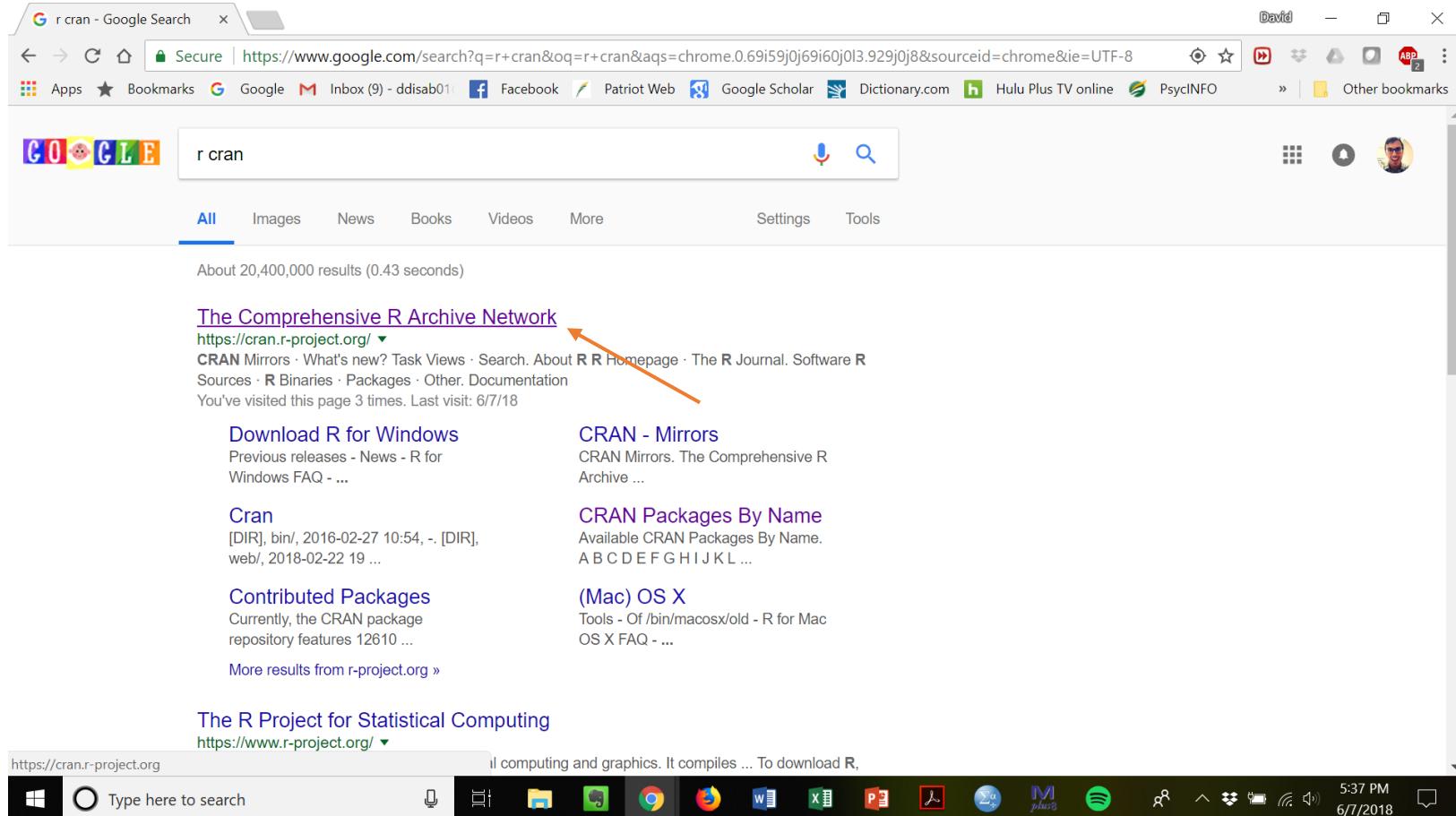
- Steep learning curve
- Requires learning programming
- Questionable accuracy of results

Don't be an R snob!



Downloading R

1



Downloading R

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The Comprehensive R Archive Network

Download and Install R

Precompiled binary distributions of the base system and contributed packages. **Windows and Mac** users most likely want one of these versions of R:

- [Download R for Linux](#)
- [Download R for \(Mac\) OS X](#)
- [Download R for Windows](#)

R is part of many Linux distributions, you should check with your Linux package management system in addition to the link above.

Source Code for all Platforms

Windows and Mac users most likely want to download the precompiled binaries listed in the upper box, not the source code. The sources have to be compiled before you can use them. If you do not know what this means, you probably do not want to do it!

- The latest release (2018-04-23, Joy in Playing) [R-3.5.0.tar.gz](#), read [what's new](#) in the latest version.
- Sources of [R alpha and beta releases](#) (daily snapshots, created only in time periods before a planned release).
- Daily snapshots of current patched and development versions are [available here](#). Please read about [new features and bug fixes](#) before filing corresponding feature requests or bug reports.
- Source code of older versions of R is [available here](#).
- Contributed extension [packages](#)

Questions About R

- If you have questions about R like how to download and install the software, or what the license terms are, please read our [answers to frequently asked questions](#) before you send an email.

What are R and CRAN?

R is 'GNU S', a freely available language and environment for statistical computing and graphics which provides a wide variety of statistical and graphical techniques: linear and nonlinear modelling, statistical tests, time series analysis, classification, clustering, etc. Please consult the [R project homepage](#) for further information.

CRAN is a network of ftp and web servers around the world that store identical, up-to-date, versions of code and documentation for R. Please use the CRAN [mirror](#) nearest to you to minimize network load.

Submitting to CRAN

To "submit" a package to CRAN, check that your submission meets the [CRAN Repository Policy](#) and then use the [web form](#).

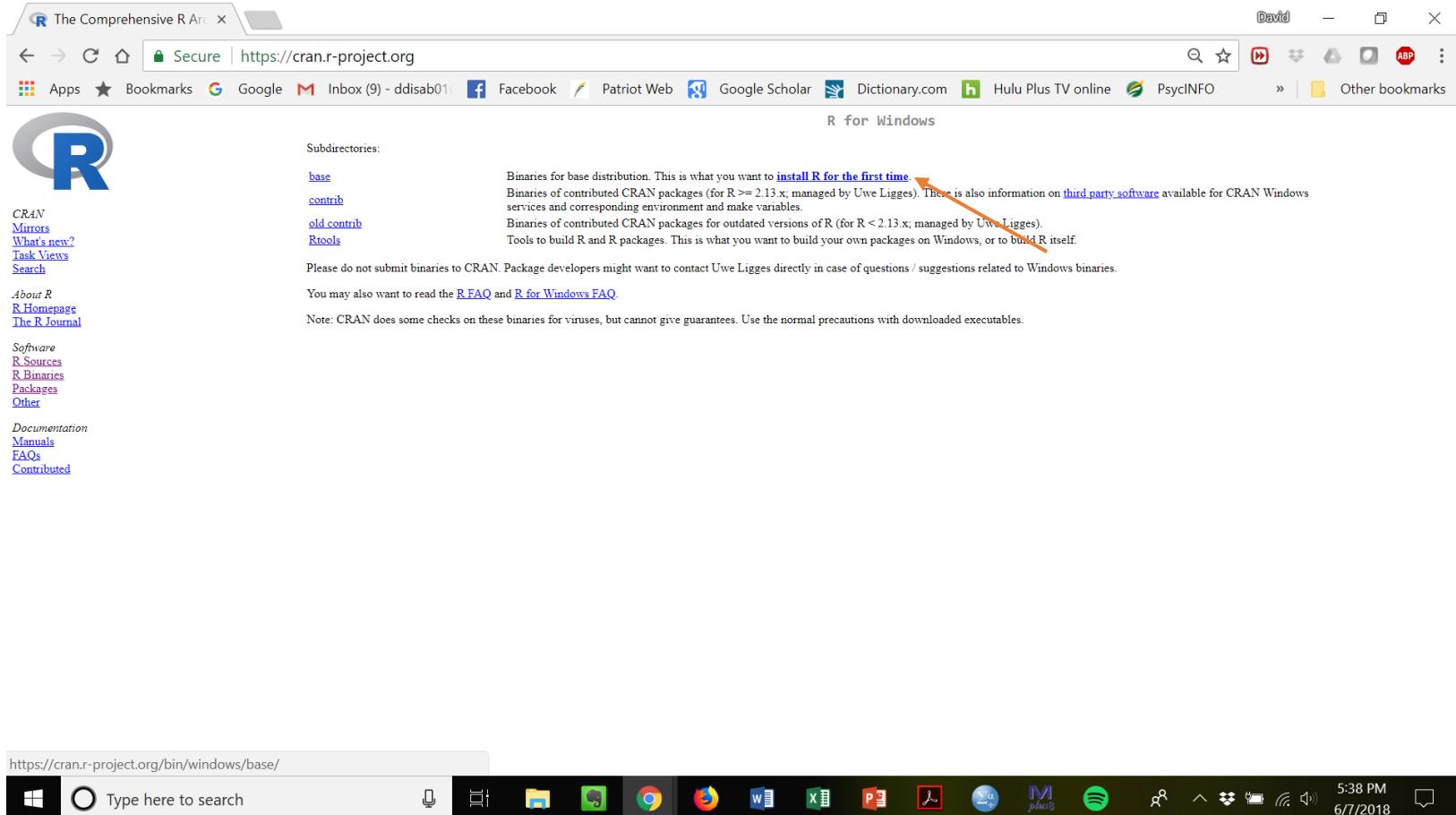
If this fails, upload to [ftp://CRAN.R-project.org/incoming/](#) and send an email to CRAN-submissions@R-project.org following the policy. Please do not attach submissions to emails, because this will clutter up the mailboxes of half a dozen people.

Note that we generally do not accept submissions of precompiled binaries due to security reasons. All binary distribution listed above are compiled by selected maintainers, who are in charge for all binaries of their platform, respectively.

5:37 PM
6/7/2018

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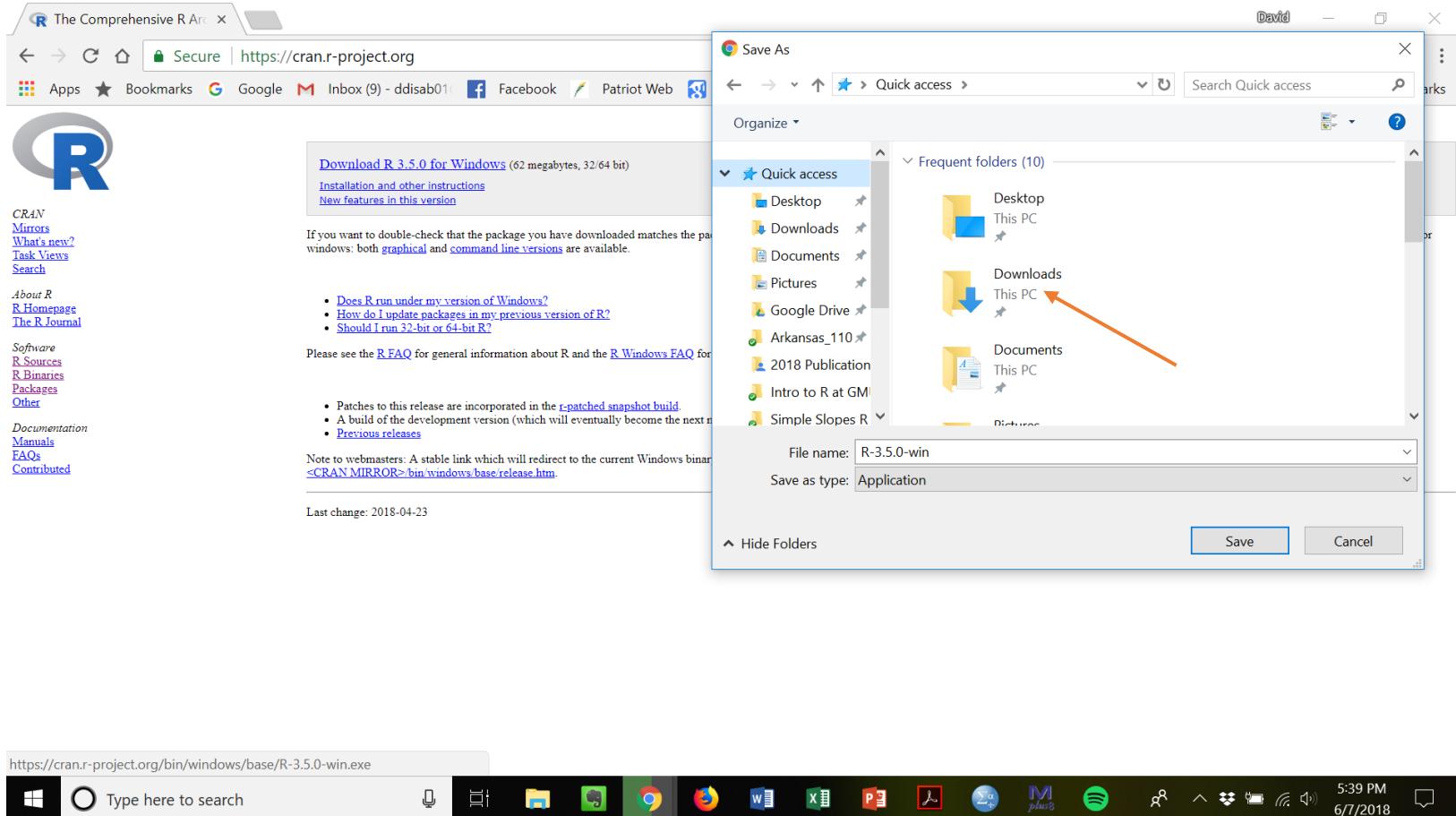
Downloading R

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The screenshot shows a Microsoft Edge browser window with the URL <https://cran.r-project.org>. The page displays the CRAN logo and navigation links for CRAN, Mirrors, What's new?, Task Views, and Search. On the right, there is a large callout box for "R-3.5.0 for Windows (32/64 bit)". Inside this box, a blue link "Download R 3.5.0 for Windows" is highlighted with a red arrow pointing to it. Below this link are "Installation and other instructions" and "New features in this version". A note about double-checking the package is present, along with a "Frequently asked questions" section containing links to R run under Windows, updating packages, and running 32-bit or 64-bit R. Further down, there is a "Software" section with links to R Sources, R Binaries, Packages, and Other. A "Documentation" section includes links to Manuals, FAQs, and Contributed. At the bottom, a note for webmasters and the last change date (2018-04-23) are shown. The browser's address bar at the bottom contains the URL <https://cran.r-project.org/bin/windows/base/R-3.5.0-win.exe>. The taskbar at the very bottom shows various pinned icons.

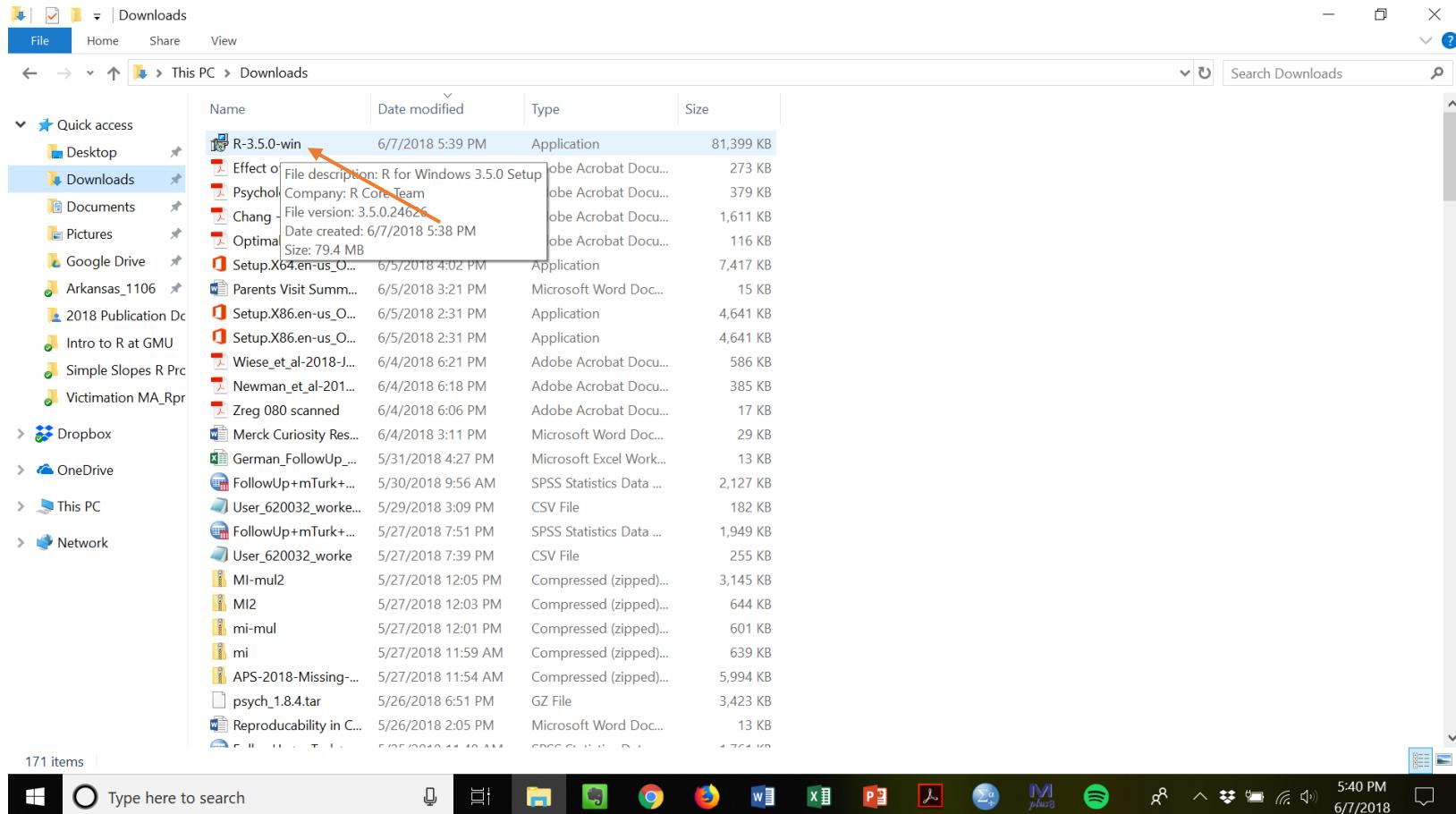
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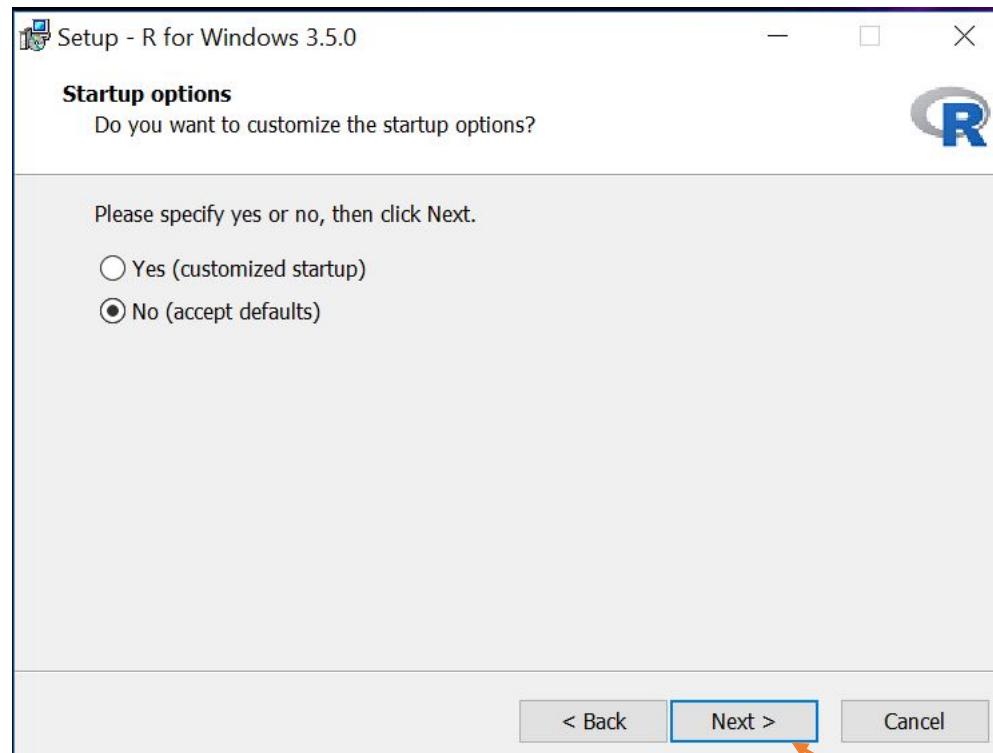
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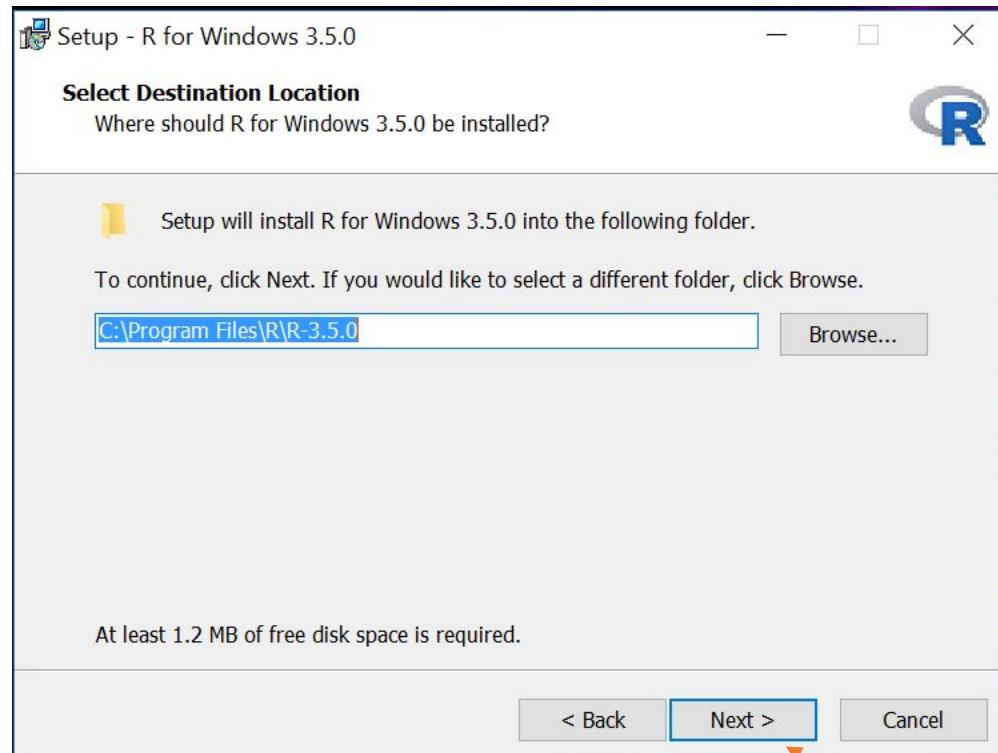
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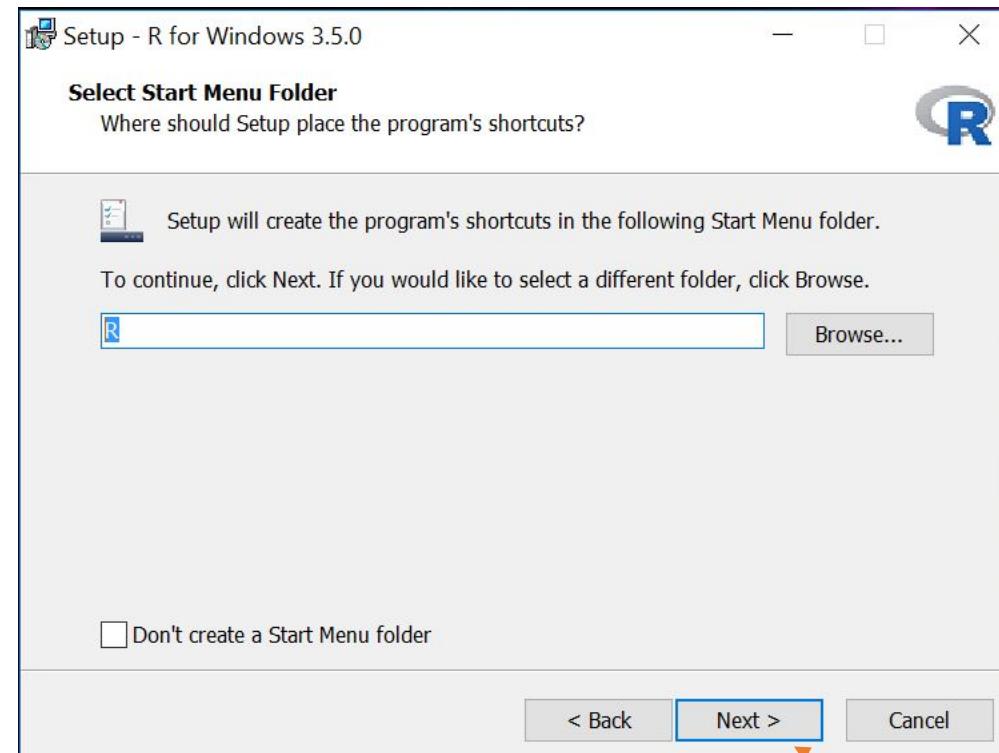
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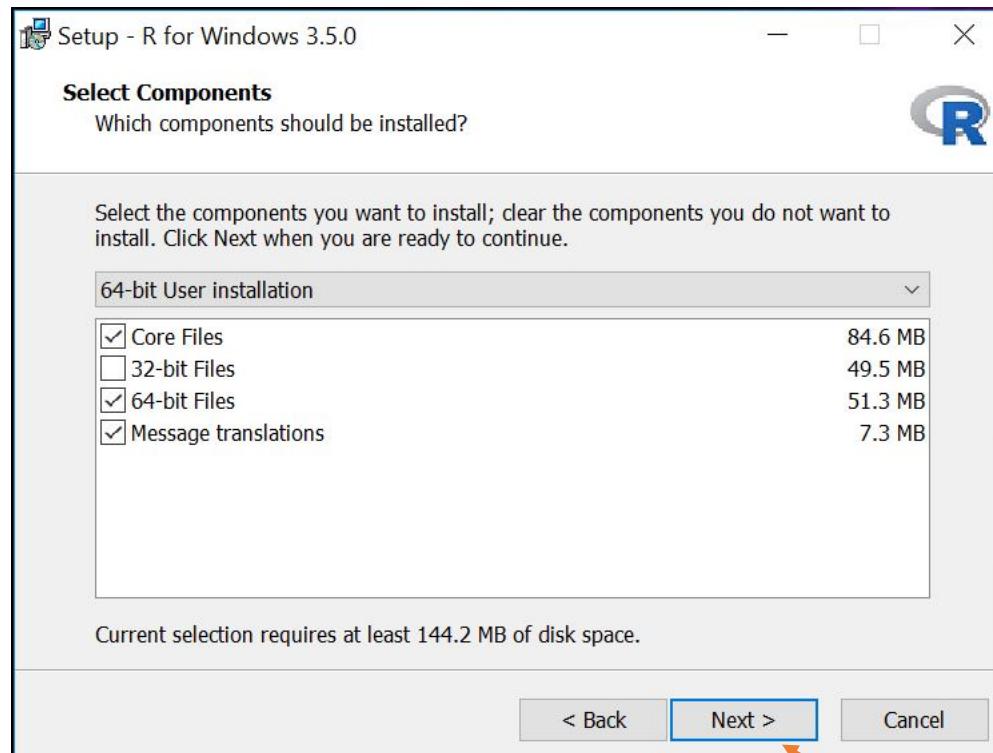
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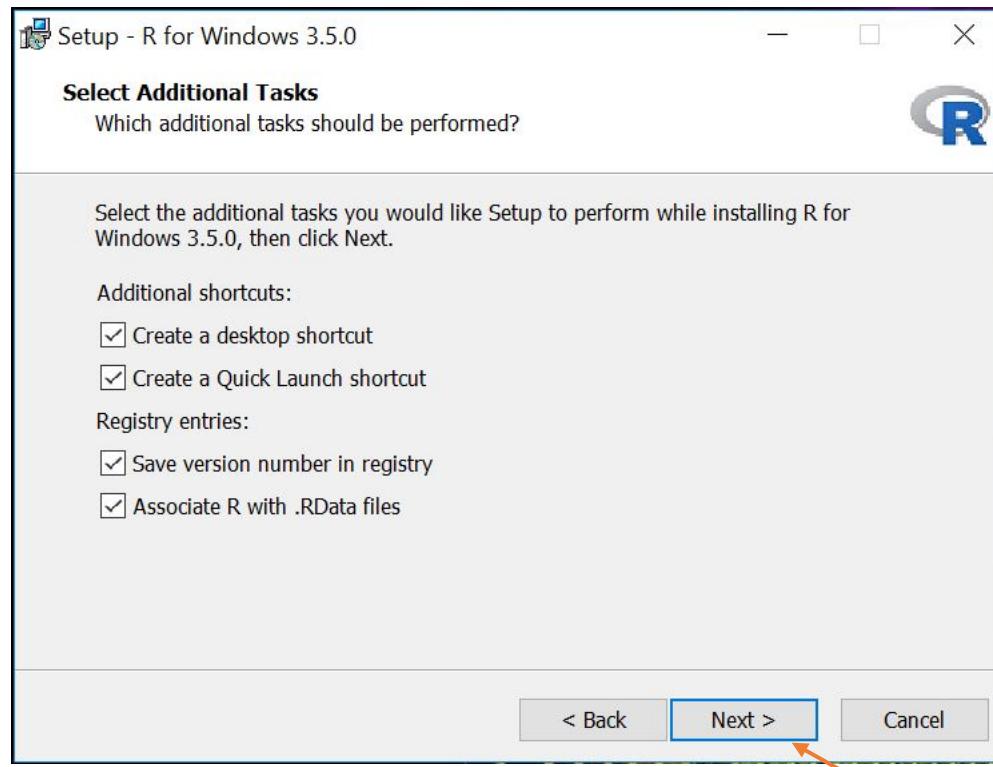
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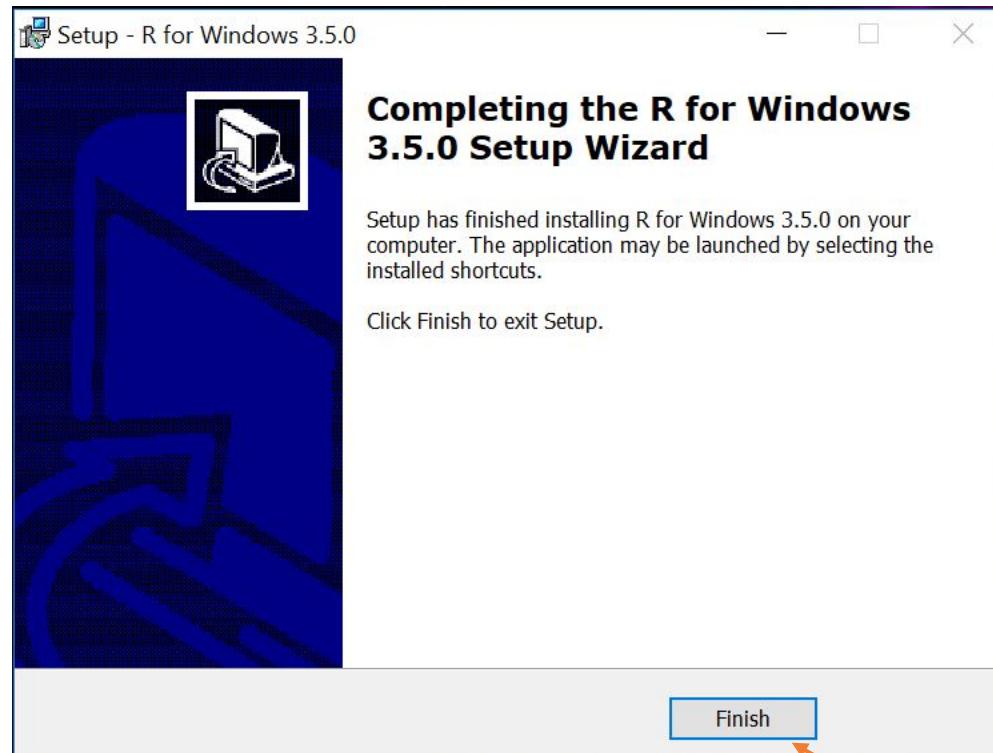
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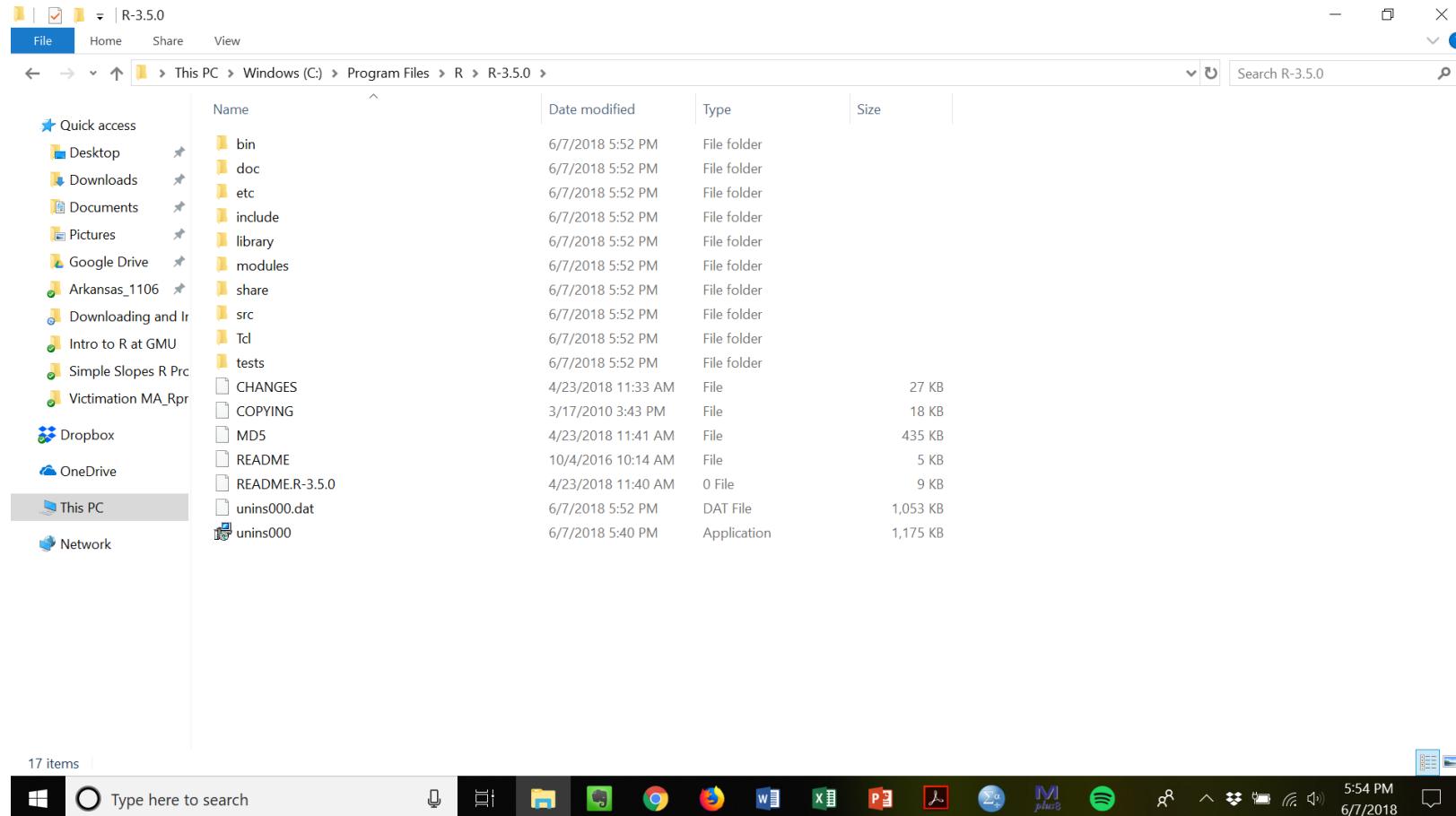
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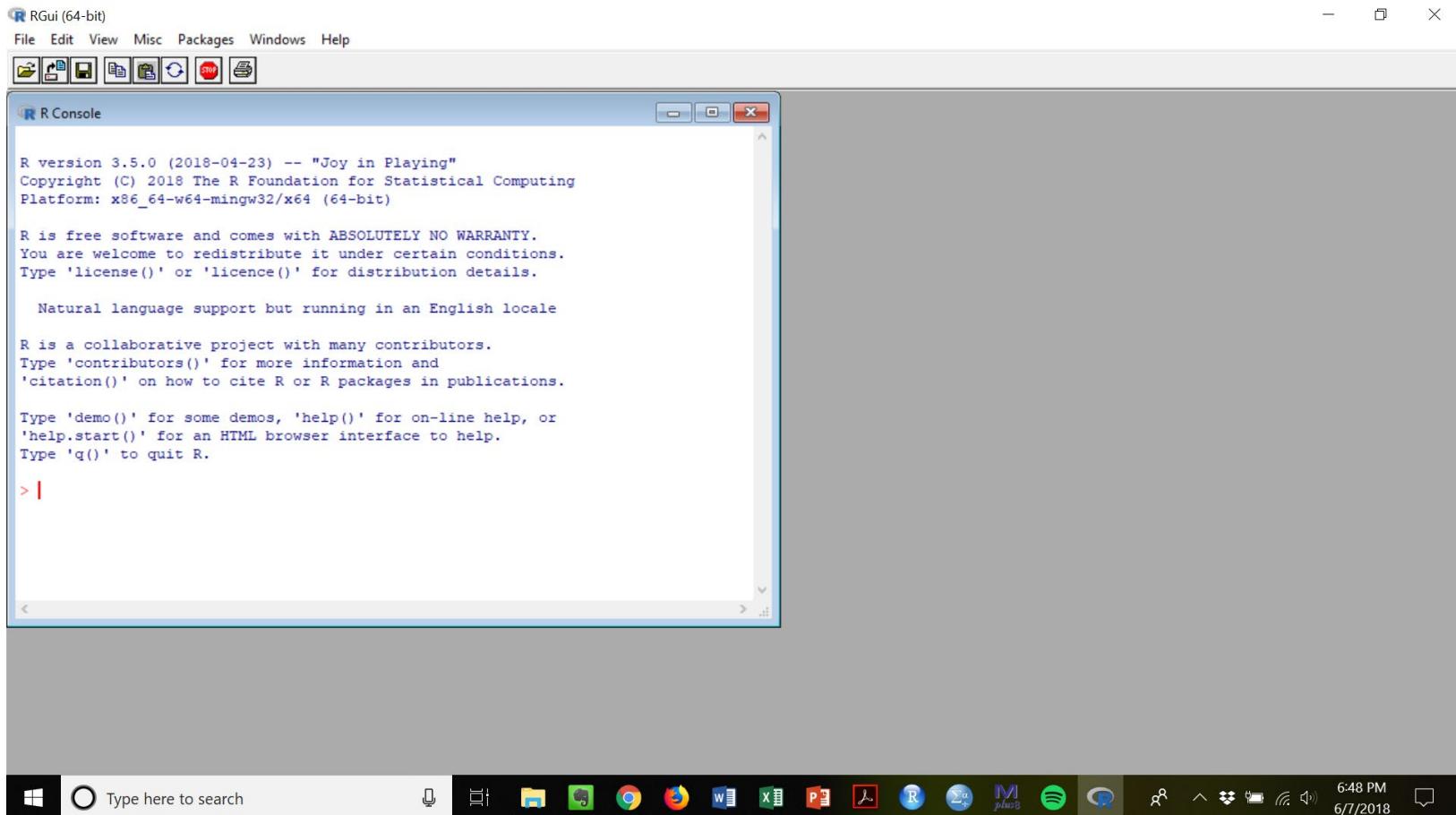
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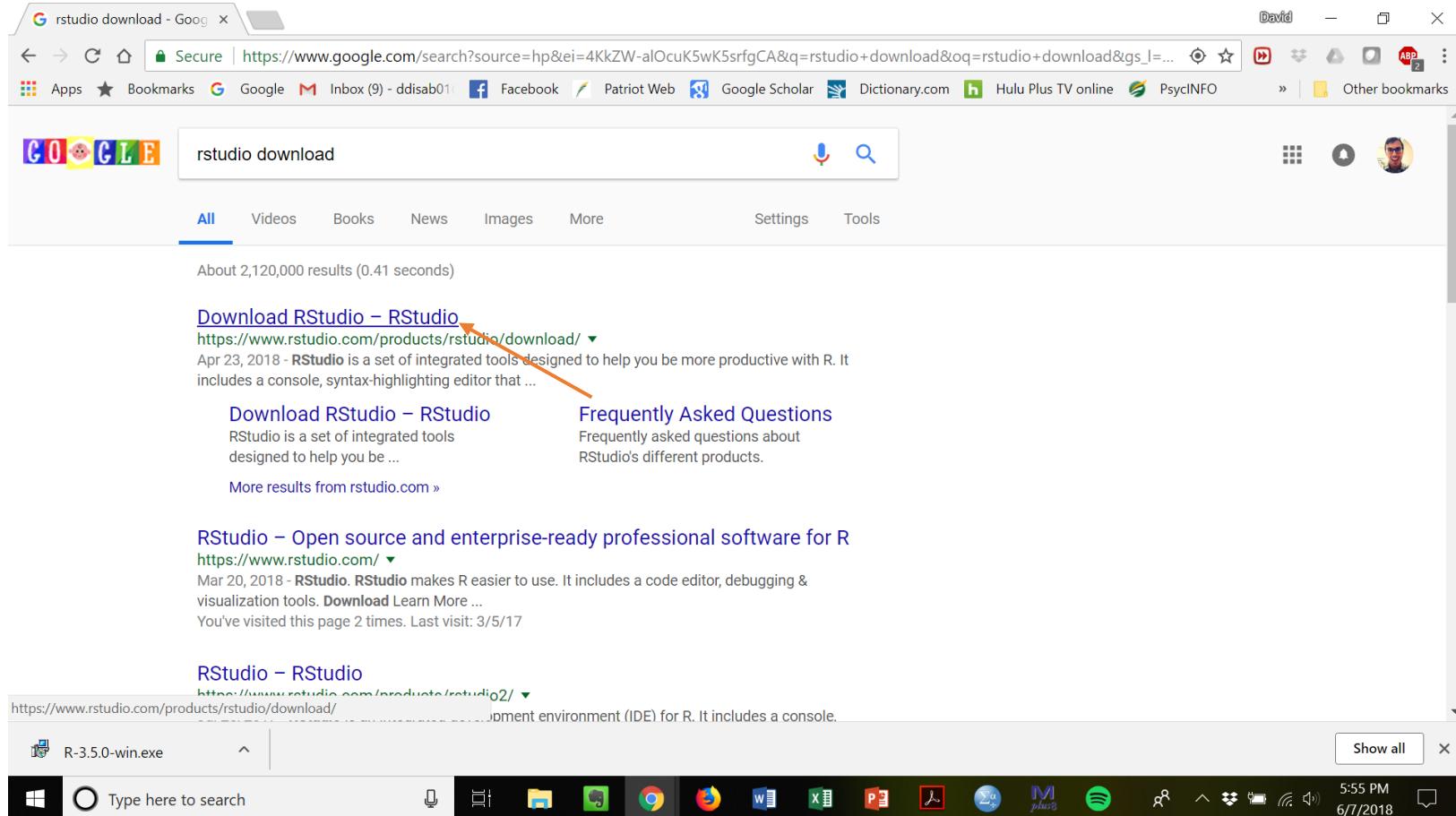
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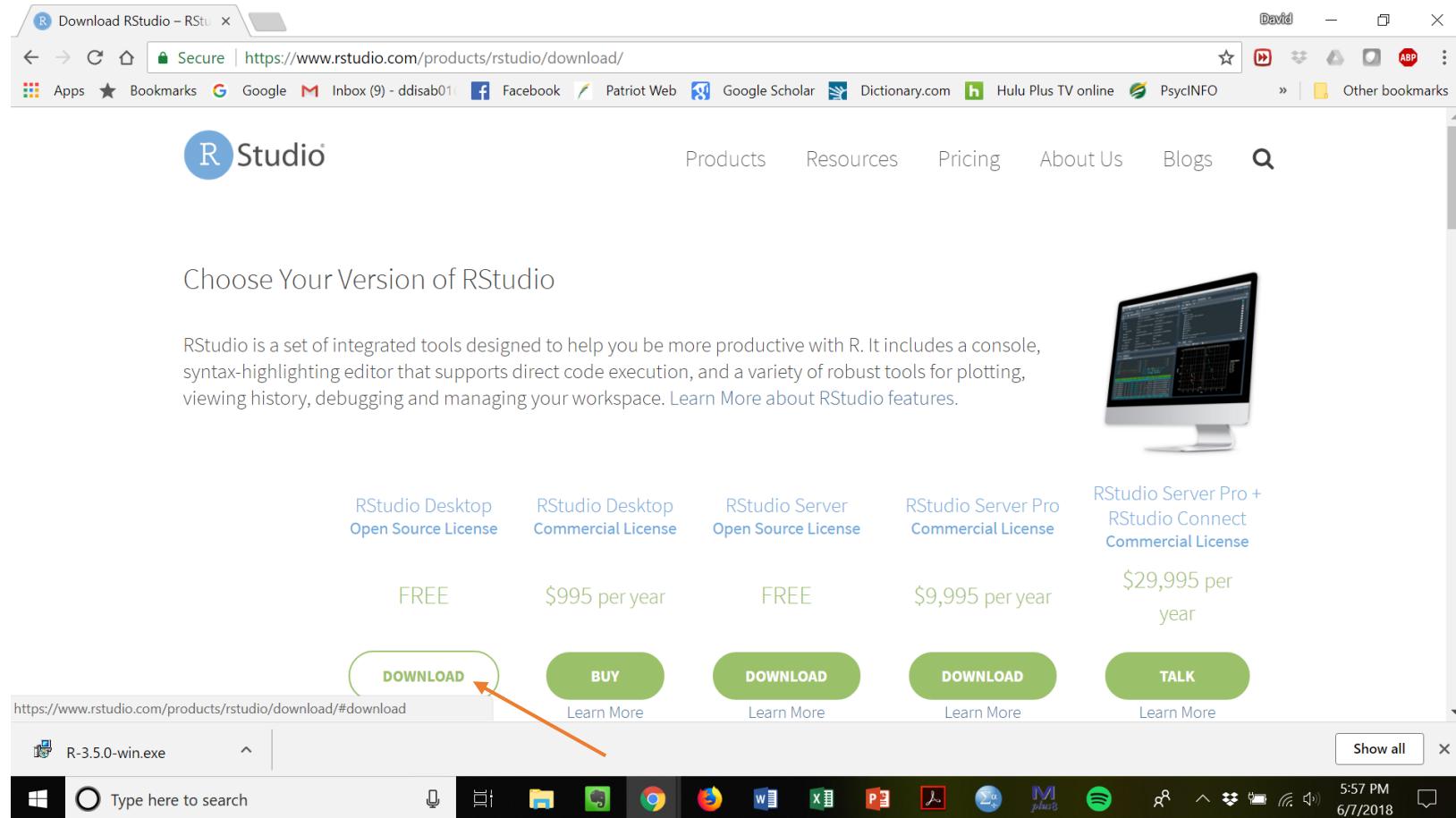
Downloading Rstudio

1



Downloading Rstudio

2



Downloading Rstudio

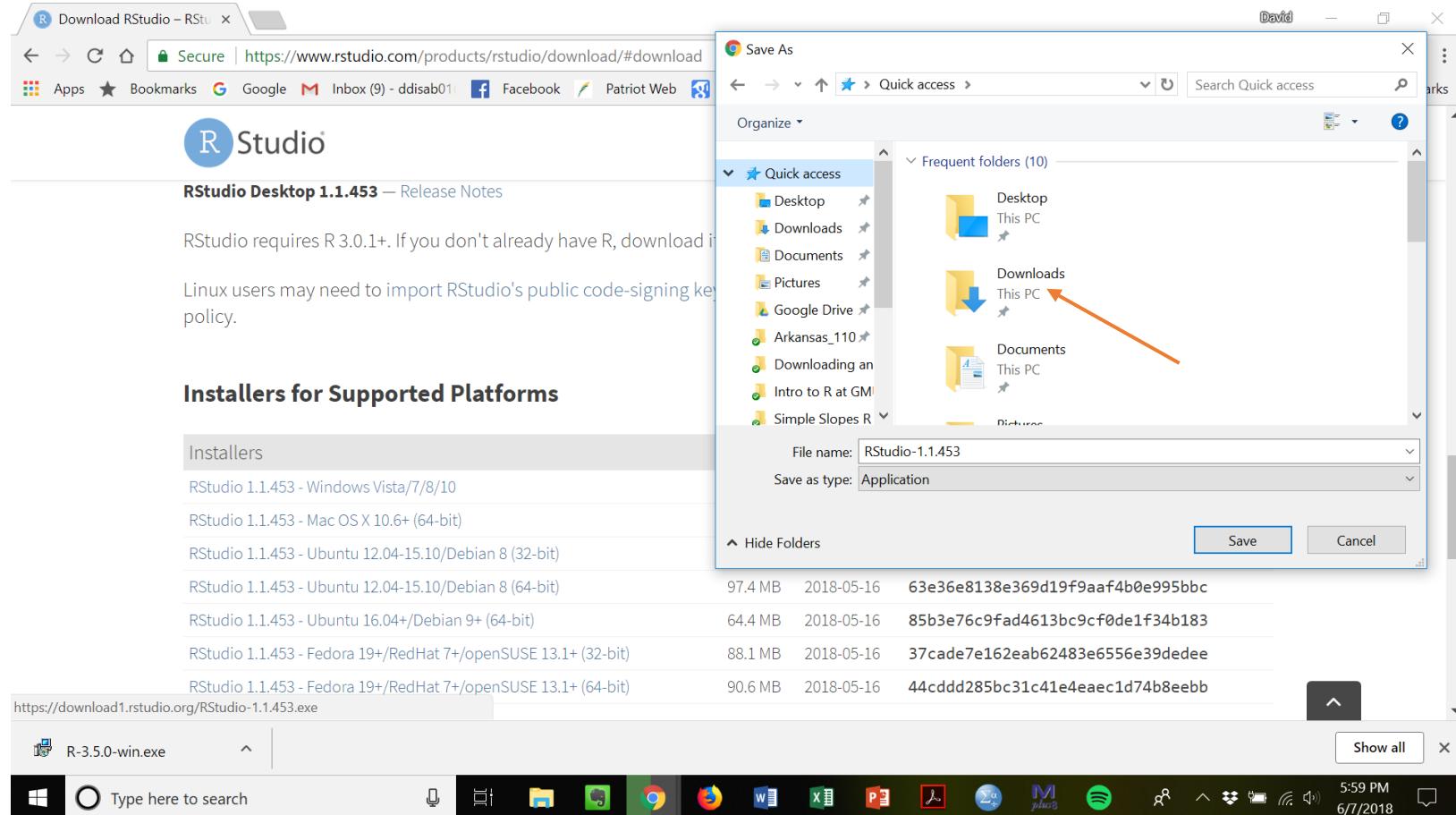
3

The screenshot shows a web browser window titled "Download RStudio - RStudio". The address bar displays the URL <https://www.rstudio.com/products/rstudio/download/#download>. The page content is the RStudio Desktop 1.1.453 release notes. It includes a note about R requirements, a Linux code-signing key import notice, and a section titled "Installers for Supported Platforms". This section lists various installer files with their sizes, dates, and MD5 checksums. An orange arrow points to the first item in the list: "RStudio 1.1.453 - Windows Vista/7/8/10".

Installers	Size	Date	MD5
RStudio 1.1.453 - Windows Vista/7/8/10	85.8 MB	2018-05-16	bf287e385aef53829204023087e98735
RStudio 1.1.453 - Mac OS X 10.6+ (64-bit)	74.5 MB	2018-05-16	00a0088424ed06ac434f7a966f602b9c
RStudio 1.1.453 - Ubuntu 12.04-15.10/Debian 8 (32-bit)	89.3 MB	2018-05-16	6cfdb86770c7b6dbc13e66f4f59c299ce
RStudio 1.1.453 - Ubuntu 12.04-15.10/Debian 8 (64-bit)	97.4 MB	2018-05-16	63e36e8138e369d19f9aaaf4b0e995bbc
RStudio 1.1.453 - Ubuntu 16.04+/Debian 9+ (64-bit)	64.4 MB	2018-05-16	85b3e76c9fad4613bc9cf0de1f34b183
RStudio 1.1.453 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (32-bit)	88.1 MB	2018-05-16	37cade7e162eab62483e6556e39dedee
RStudio 1.1.453 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (64-bit)	90.6 MB	2018-05-16	44cddd285bc31c41e4eaec1d74b8eebb

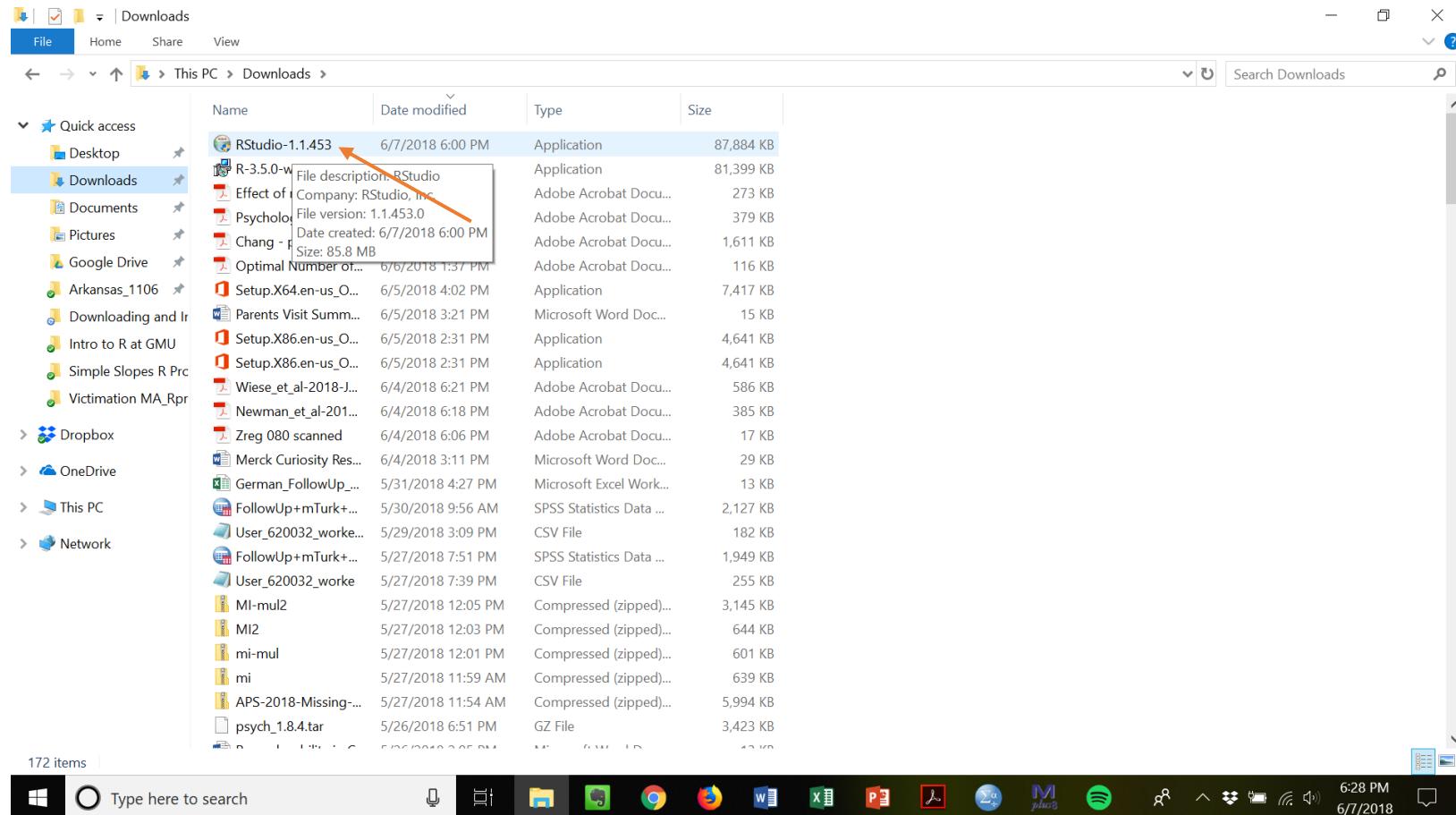
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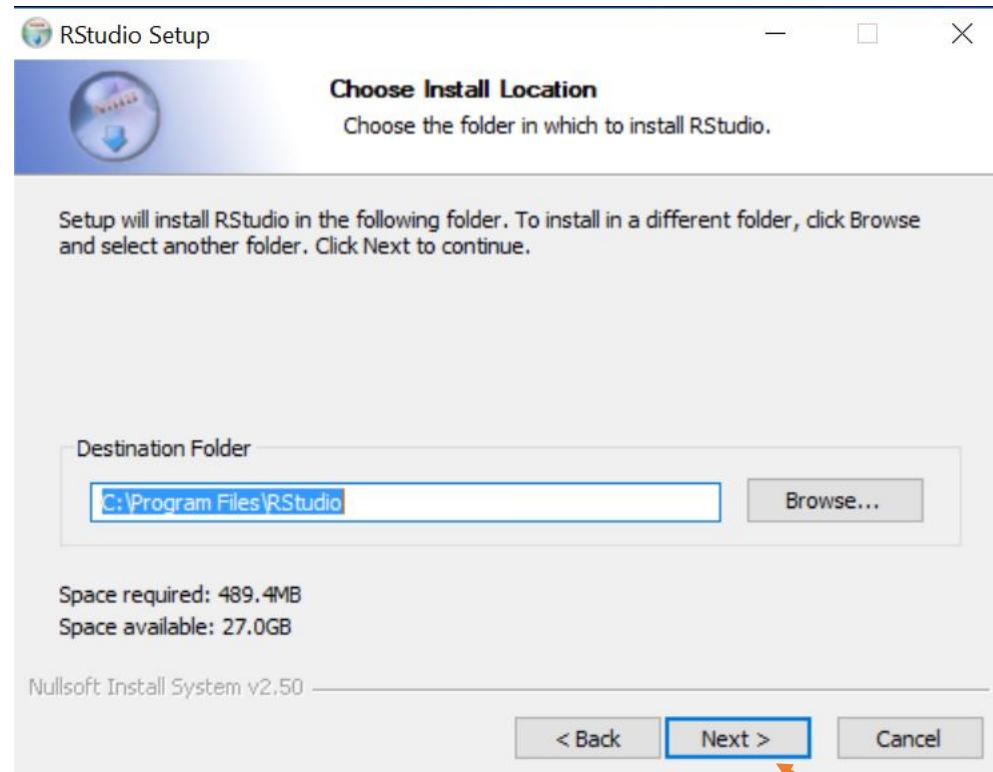
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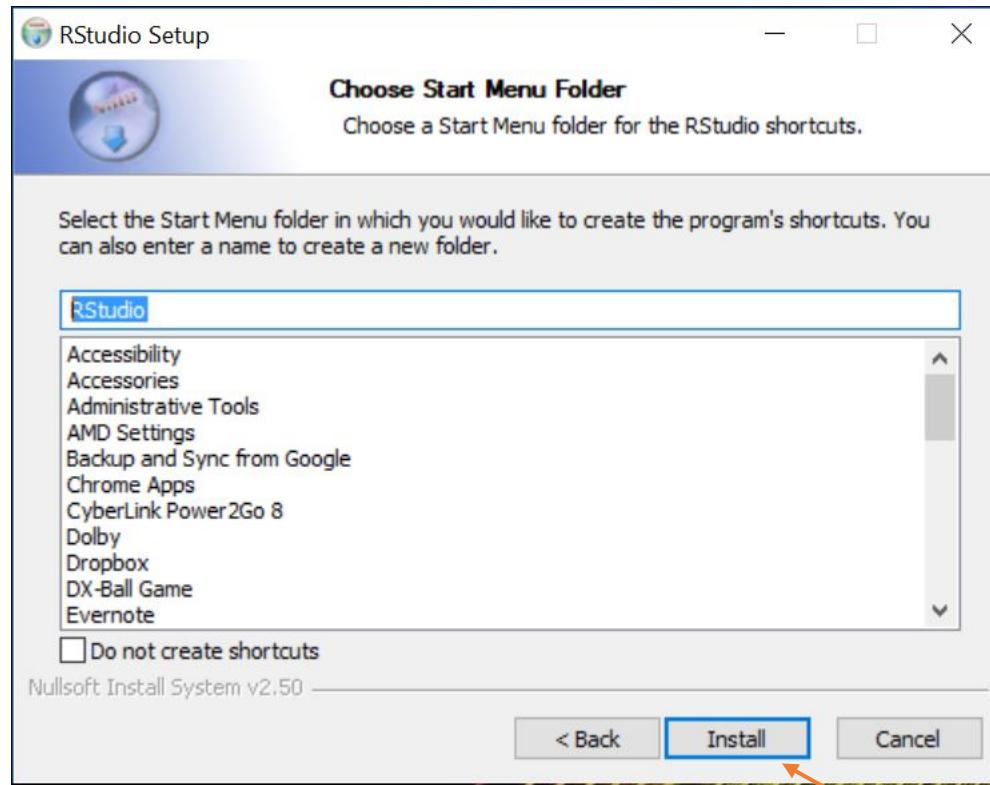
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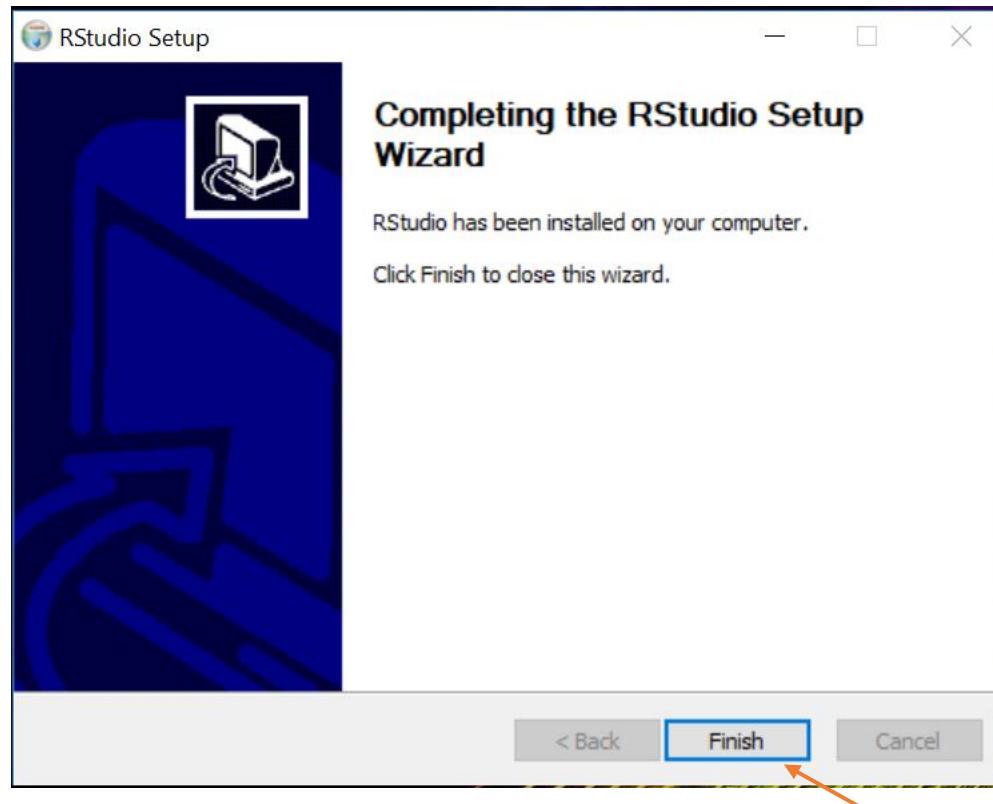
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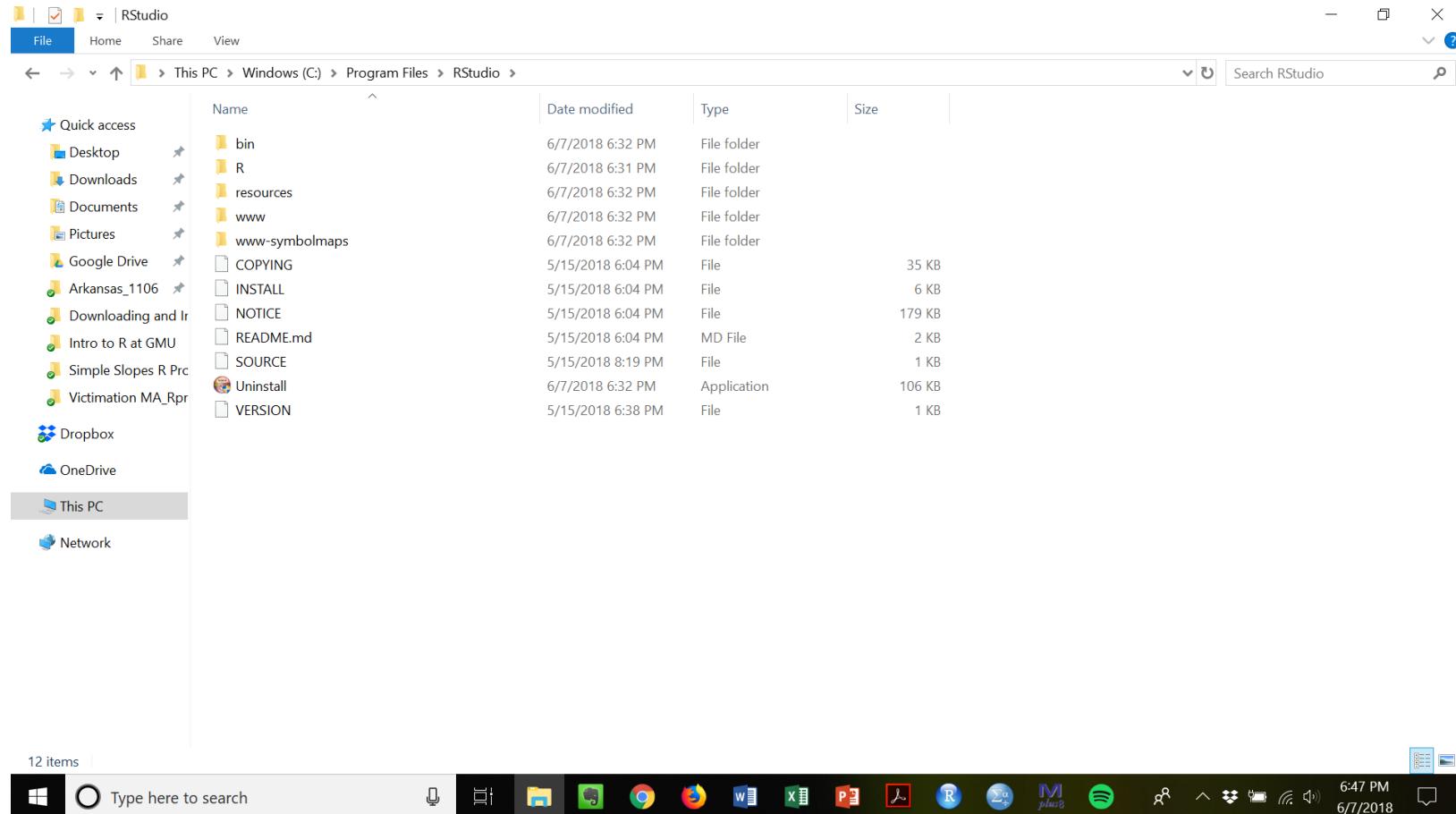
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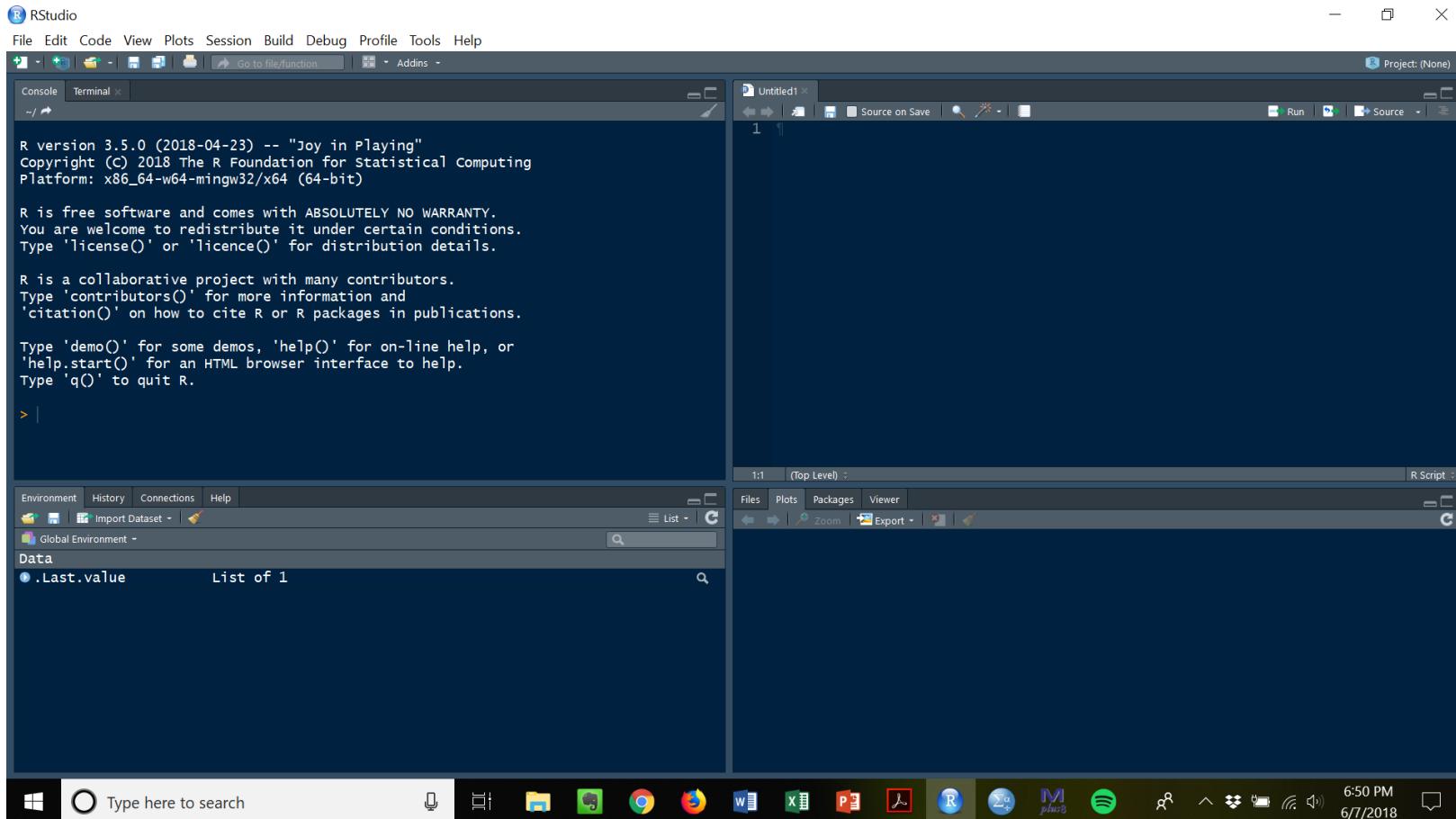
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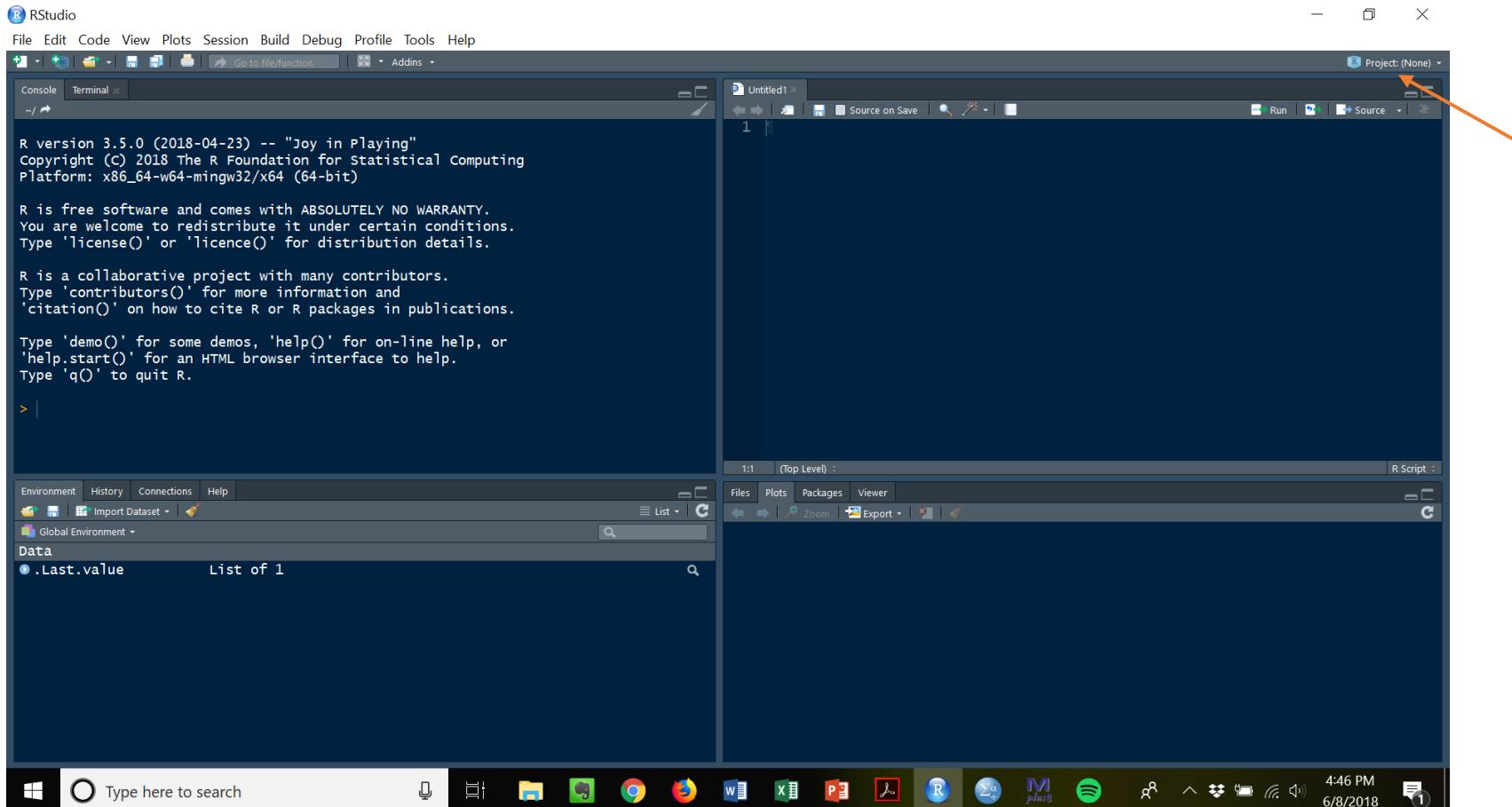
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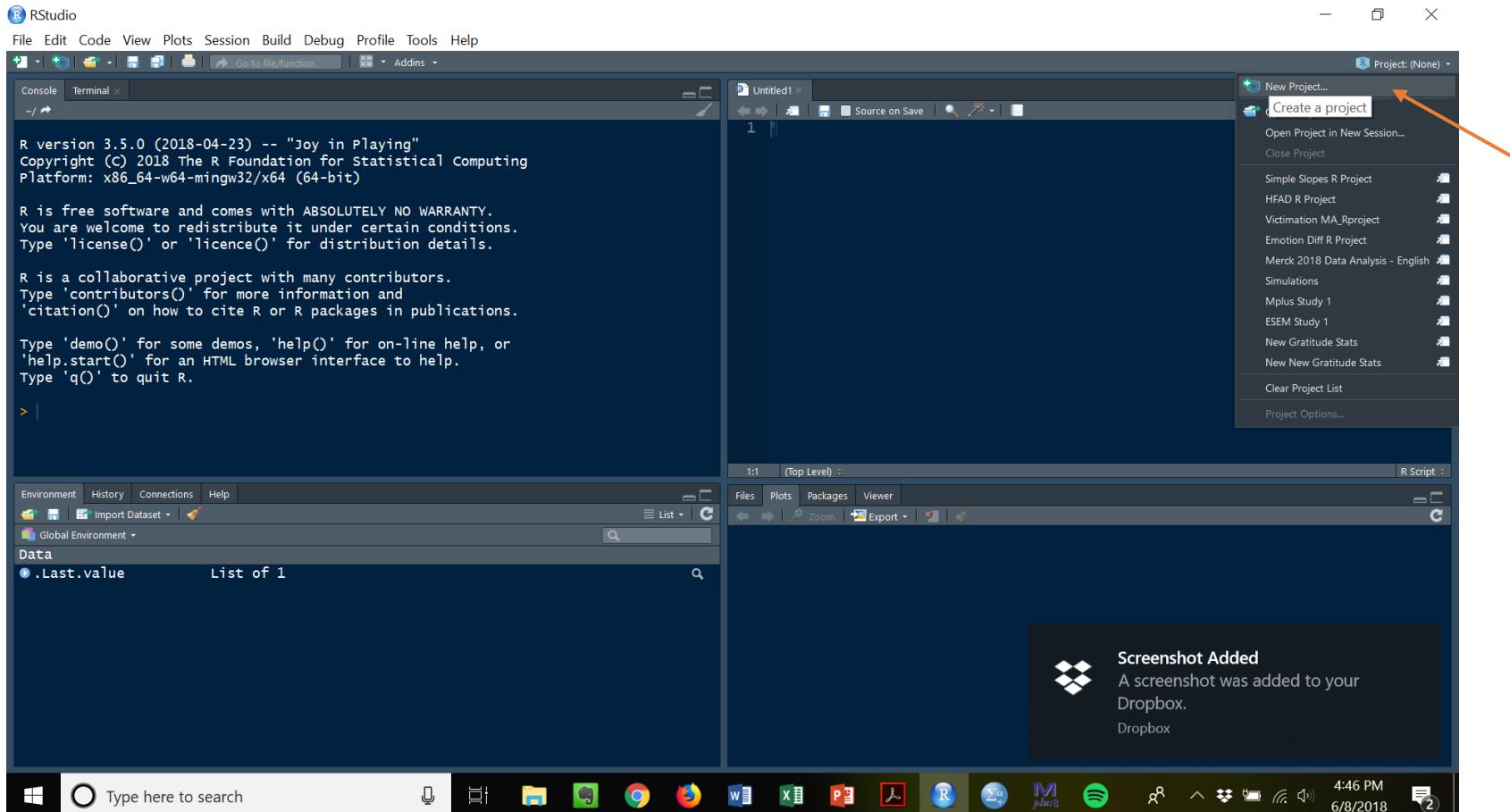
Creating an R project

1



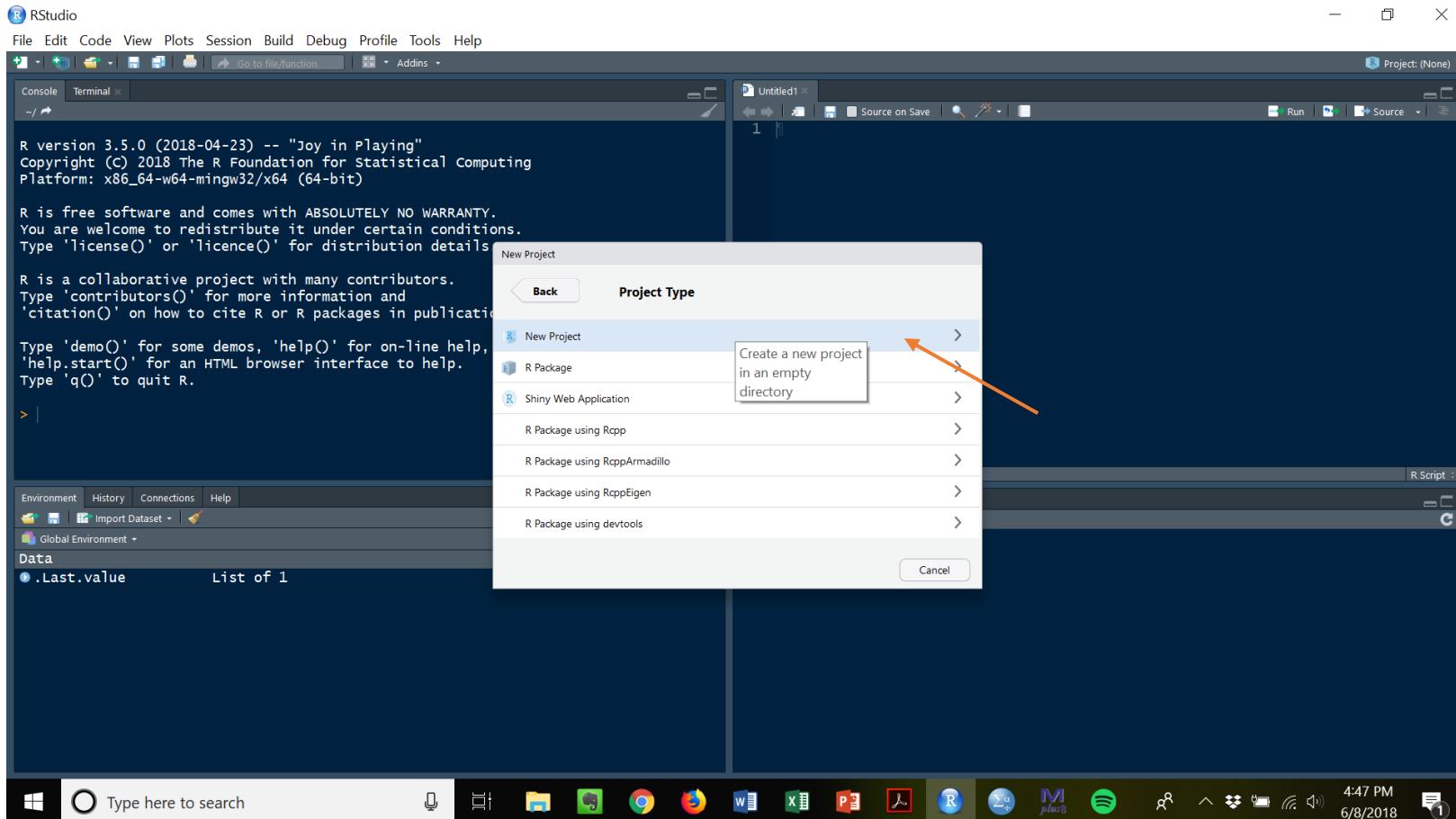
Creating an R project

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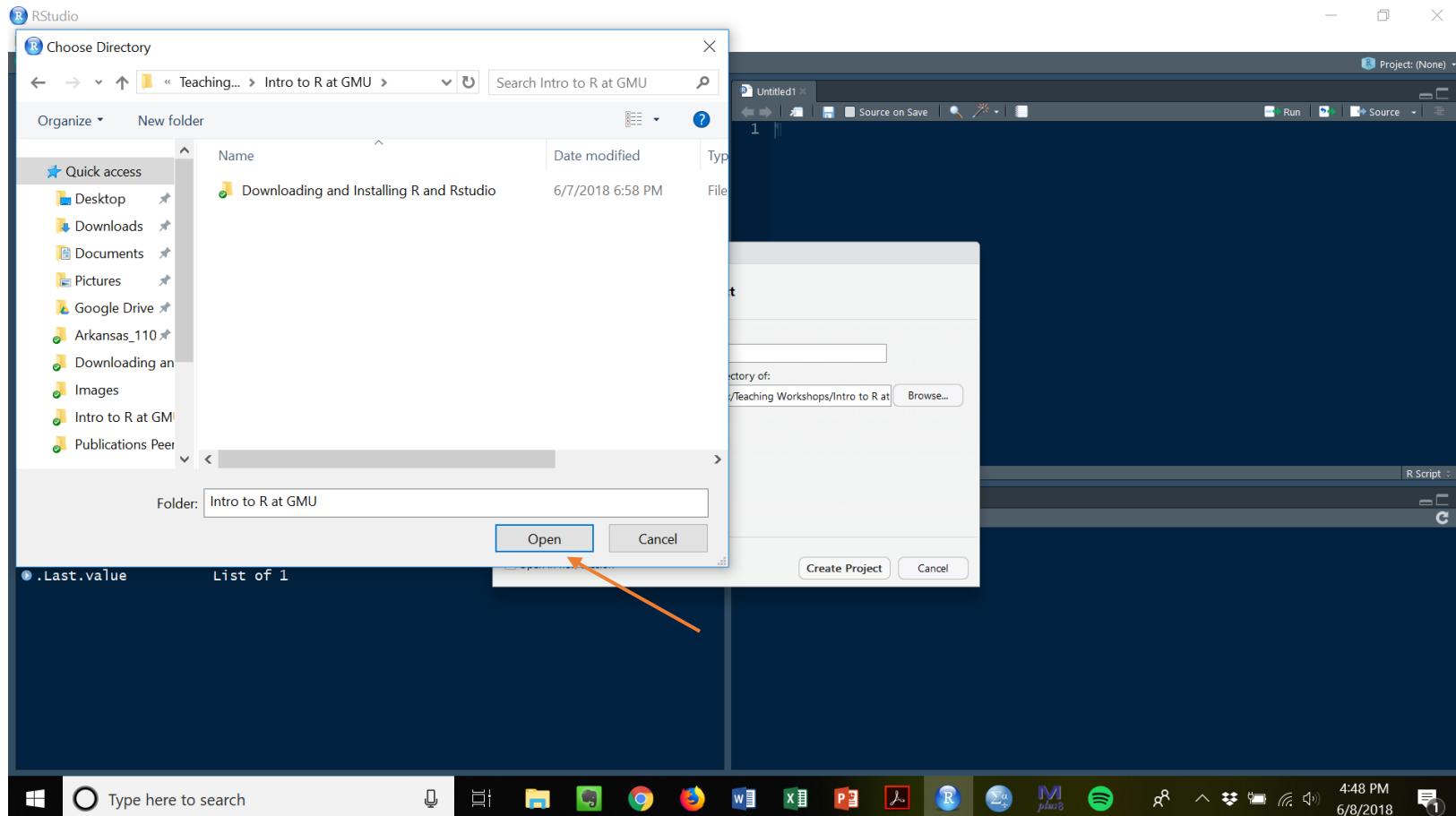
Creating an R project

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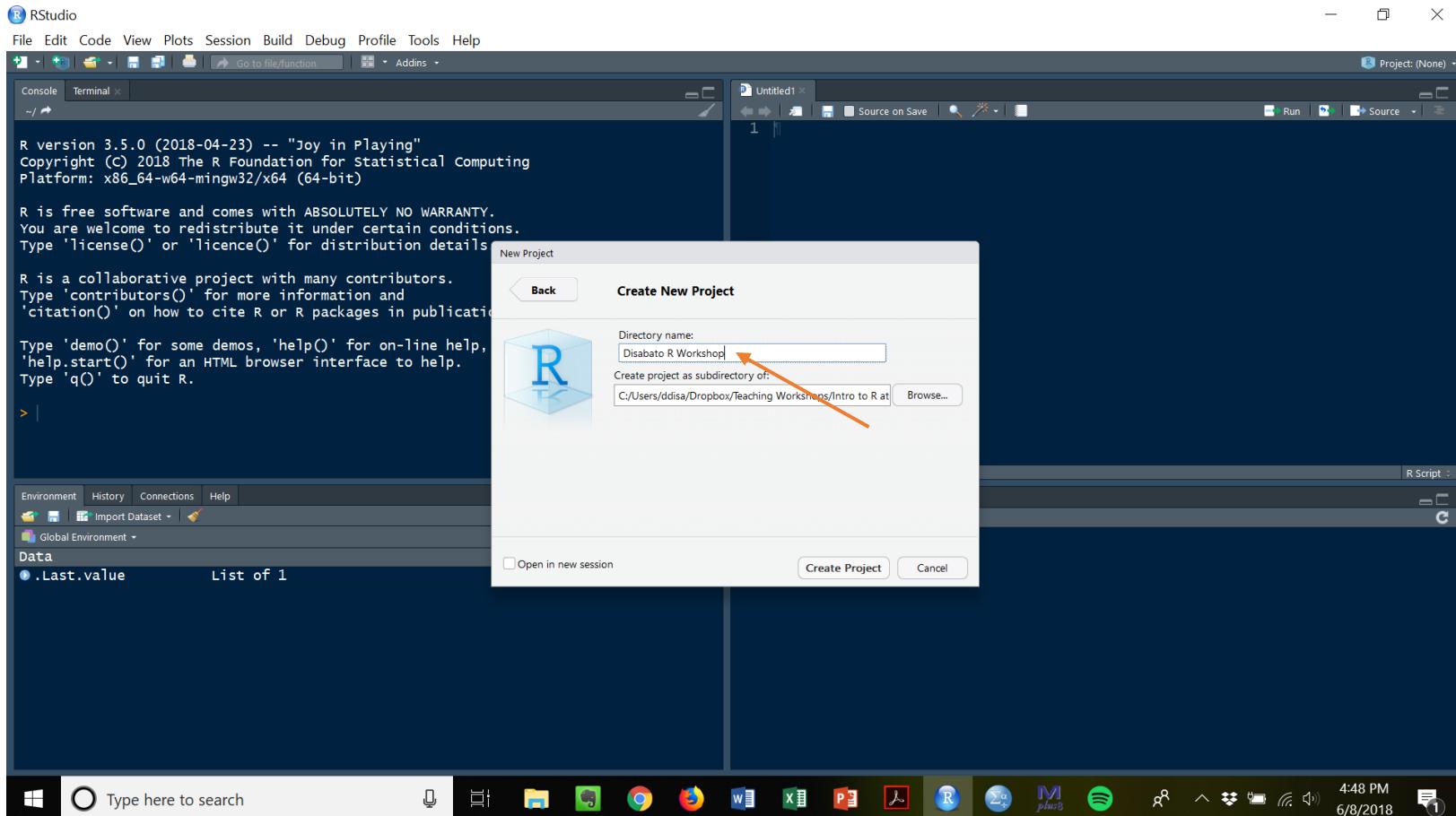
Creating an R project

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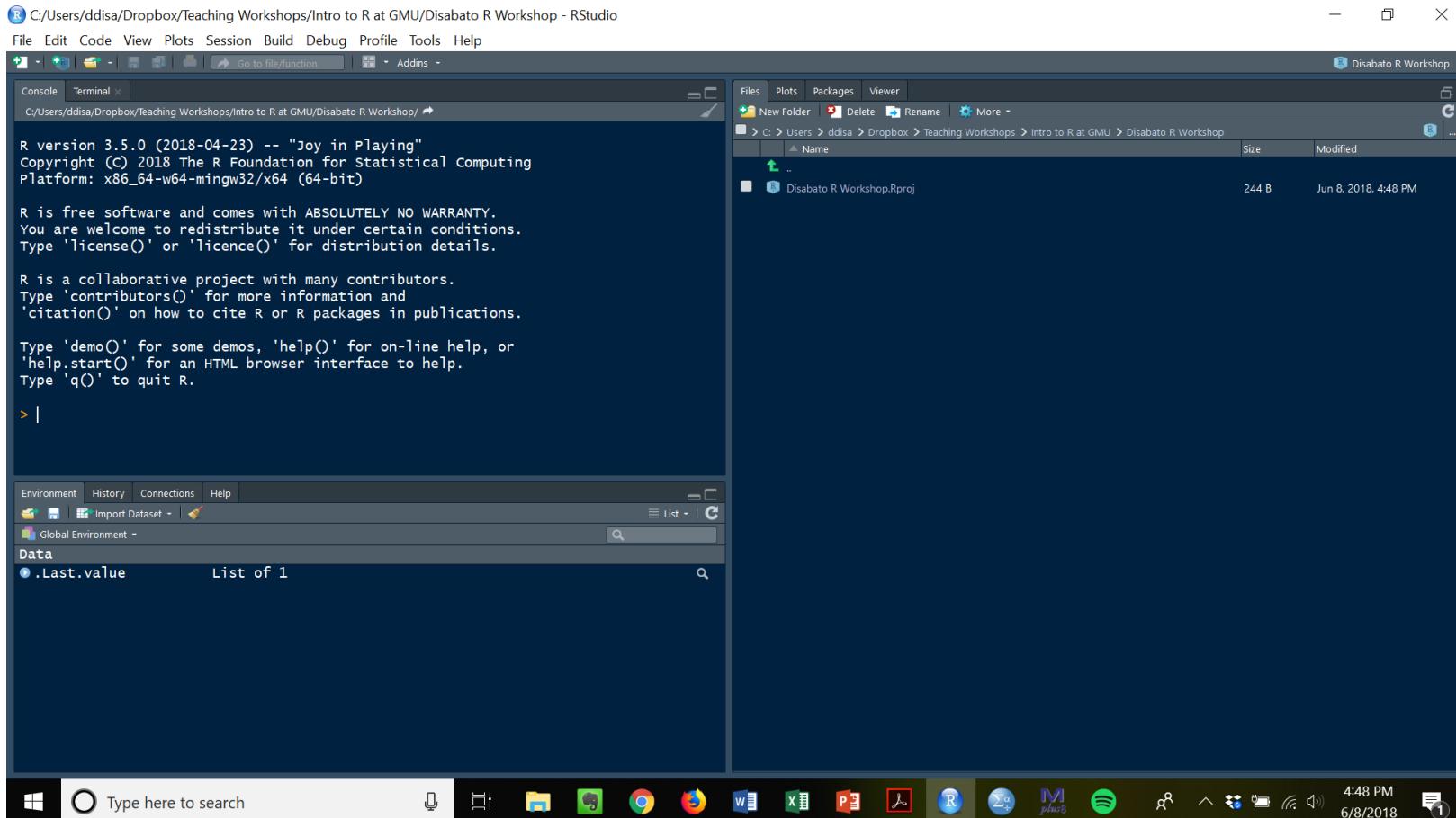
Creating an R project

5



Creating an R project

6



Downloading Rtools

1

A screenshot of a Google search results page titled "rtools - Google Search". The search bar contains "rtools". The results show several links:

- Rtools - CRAN-R**
https://cran.r-project.org/bin/windows/Rtools/ ▾
We recommend that users use the latest release of **Rtools** with the latest release of R. The current version of this file is recorded here: VERSION.txt.
- Rtools installer for Windows - CRAN-R**
https://cran.r-project.org/bin/windows/Rtools/installer.html ▾
An executable installer for the Rtools collection, the MinGW-64 tools, and the ...
- Install Rtools for Windows · stan-dev/rstan Wiki · GitHub**
https://github.com/stan-dev/rstan/wiki/Install-Rtools-for-Windows ▾
Apr 26, 2017 - Introduction. **Rtools** provides a toolchain for Windows platform that work well with R. It mainly includes GNU make, GNU gcc, and other utilities ...
- install.Rtools function | R Documentation**
https://www.rdocumentation.org/packages/installr/versions/0.20.0/.../install.Rtools ▾
Allows the user to choose, download and install - the latest version of **Rtools** for Windows. By default, https://cran.r-project.org/bin/windows/Rtools/ not, it checks ...

An orange arrow points from the text "We recommend that users use the latest release of **Rtools** with the latest release of R." to the link "https://cran.r-project.org/bin/windows/Rtools/".

To the right of the search results, there is a sidebar for "R Tools for Visual Studio". It includes a thumbnail image of the software interface, the text "R Tools for Visual Studio Software", a description of the software, and developer information.

The bottom of the screen shows the Windows taskbar with icons for RStudio-1.1.453.exe and R-3.5.0-win.exe, along with a search bar and system status indicators.

Downloading Rtools

2

The document is a collection of resources for building packages for R under Microsoft Windows, or for building R itself (version 1.9.0 or later). The original collection was put together by Prof. Brian Ripley and Duncan Murdoch; it is currently maintained by Jeroen Ooms.

The authoritative source of information for tools to work with the current release of R is the "R Administration and Installation" manual. In particular, please read the ["Windows Toolset" appendix](#).

Rtools Downloads

Some of the tools are incompatible with obsolete versions of R. We maintain one actively updated version of the tools, and other "frozen" snapshots of them. We recommend that users use the latest release of Rtools with the latest release of R.

The current version of this file is recorded here: [VERSION.txt](#).

Download	R compatibility	Frozen?
Rtools35.exe	R 3.3.x and later	No
Rtools34.exe	R 3.3.x and later	Yes
Rtools33.exe	R 3.2.x to 3.3.x	Yes
Rtools32.exe	R 3.1.x to 3.2.x	Yes
Rtools31.exe	R 3.0.x to 3.1.x	Yes
Rtools30.exe	R >2.15.1 to R 3.0.x	Yes
Rtools215.exe	R >2.14.1 to R 2.15.1	Yes
Rtools214.exe	R 2.13.x or R 2.14.x	Yes
Rtools213.exe	R 2.13.x	Yes
Rtools212.exe	R 2.12.x	Yes
Rtools211.exe	R 2.10.x or R 2.11.x	Yes
Rtools210.exe	R 2.9.x or 2.10.x	Yes
Rtools29.exe	R 2.8.x or R 2.9.x	Yes
Rtools28.exe	R 2.7.x or R 2.8.x	Yes
Rtools27.exe	R 2.6.x or R 2.7.x	Yes
Rtools26.exe	R 2.6.x, R 2.5.x or (untested) earlier	Yes

The change history to the Rtools is [below](#).

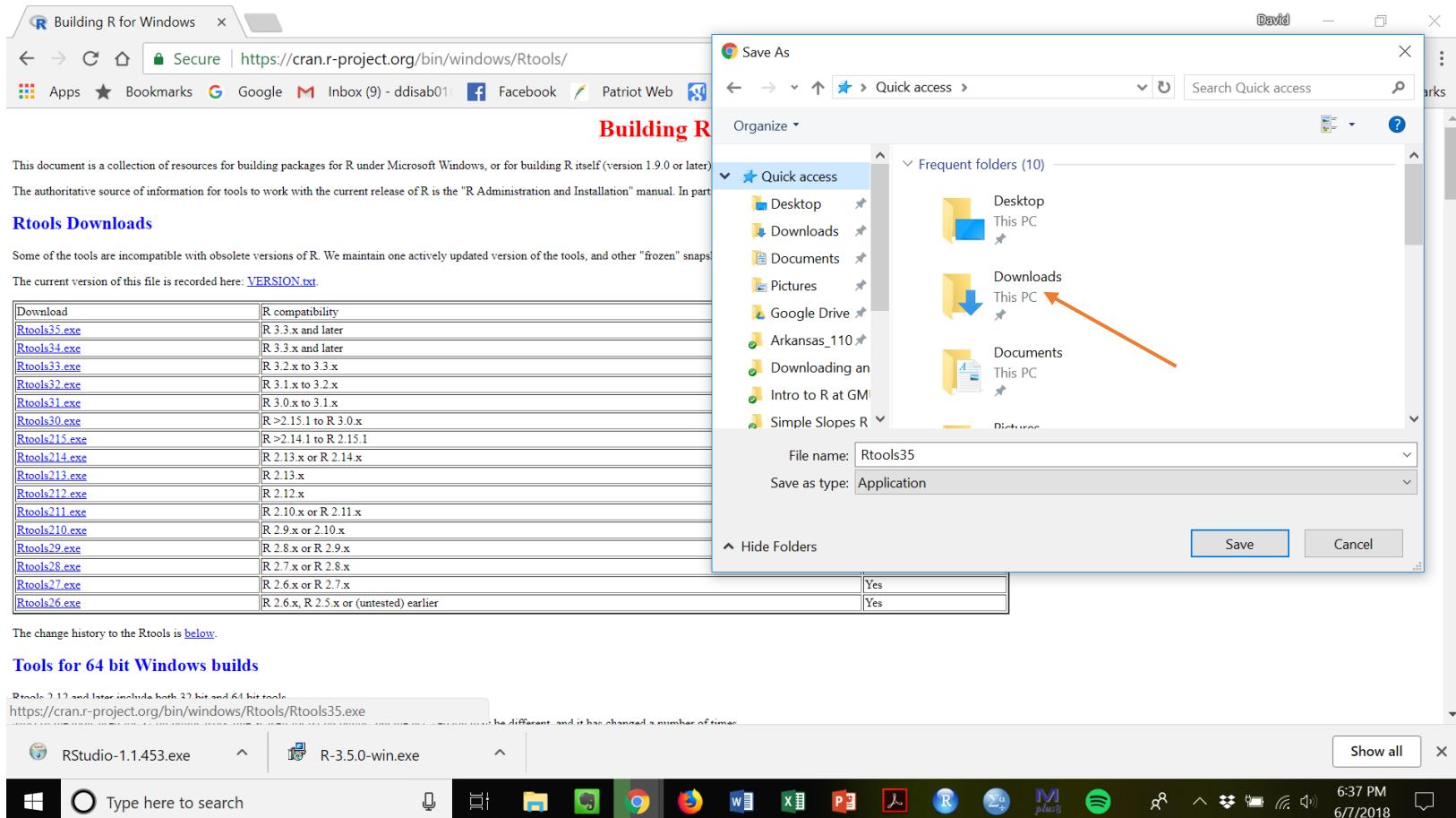
Tools for 64 bit Windows builds

Rtools 2.12 and later include both 32 bit and 64 bit tools.

Most of the tools used for 32 bit builds work fine as well for 64 bit builds, but the `cc` version may be different, and it has changed a number of times.

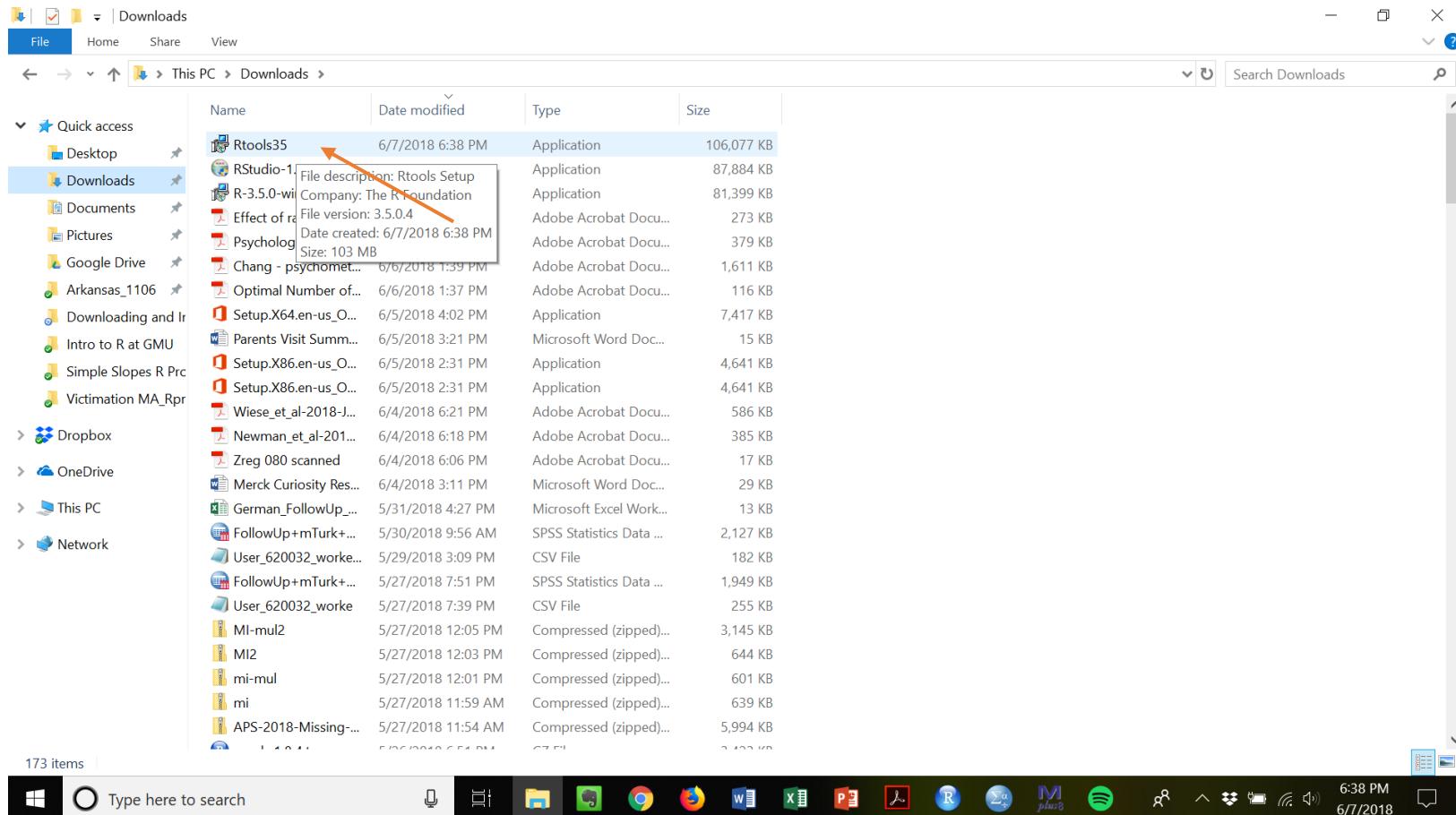
Downloading Rtools

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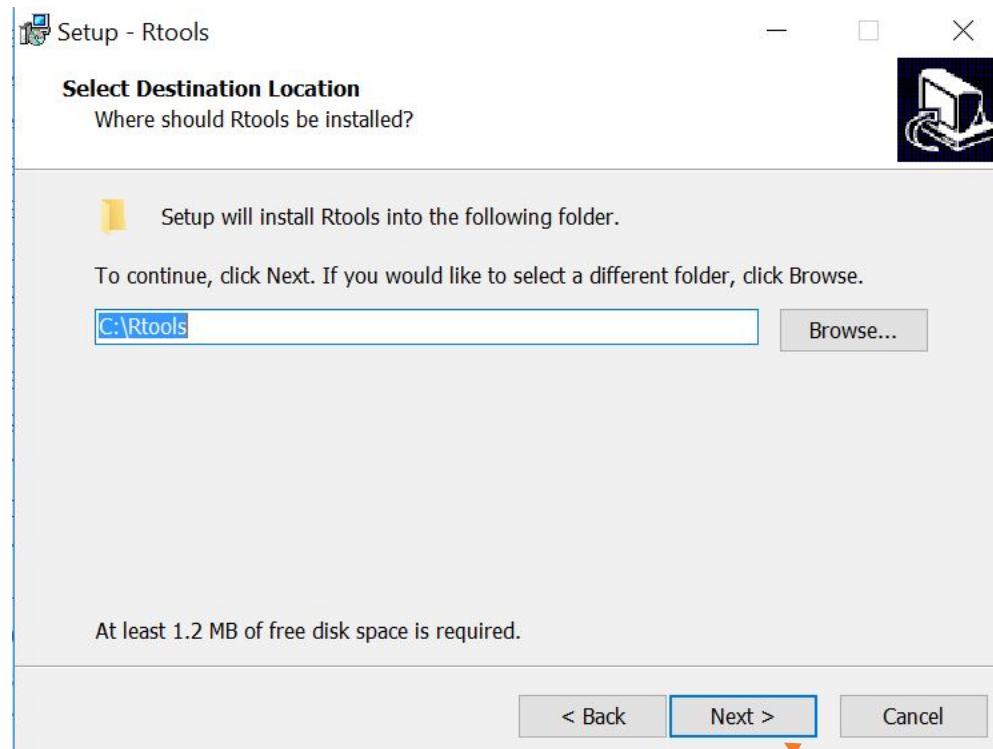
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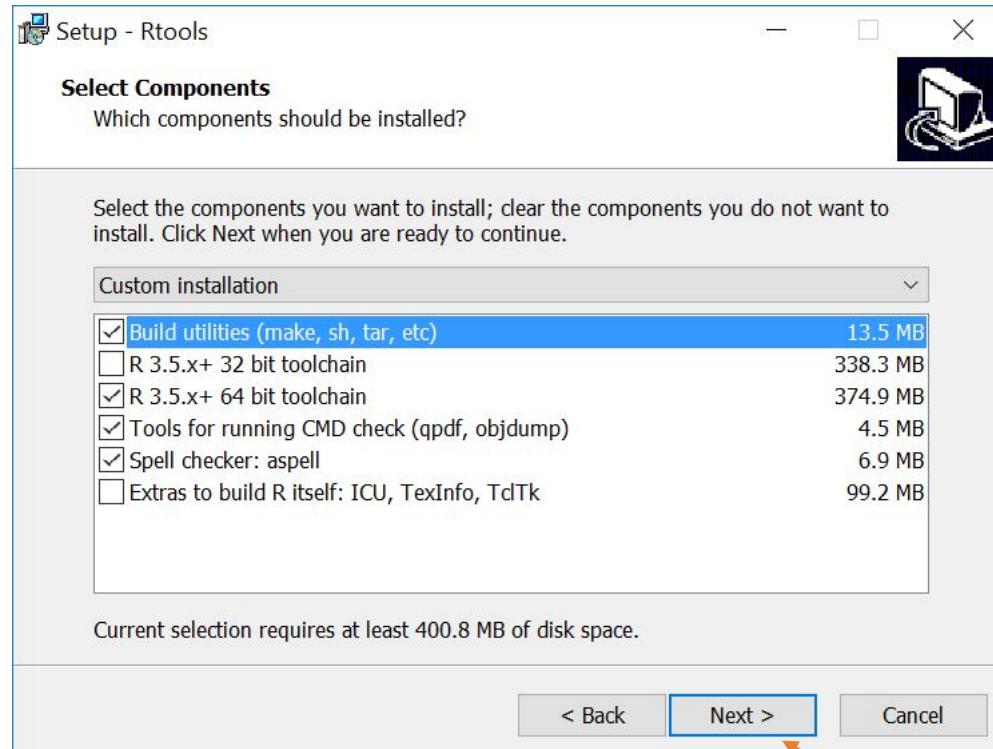
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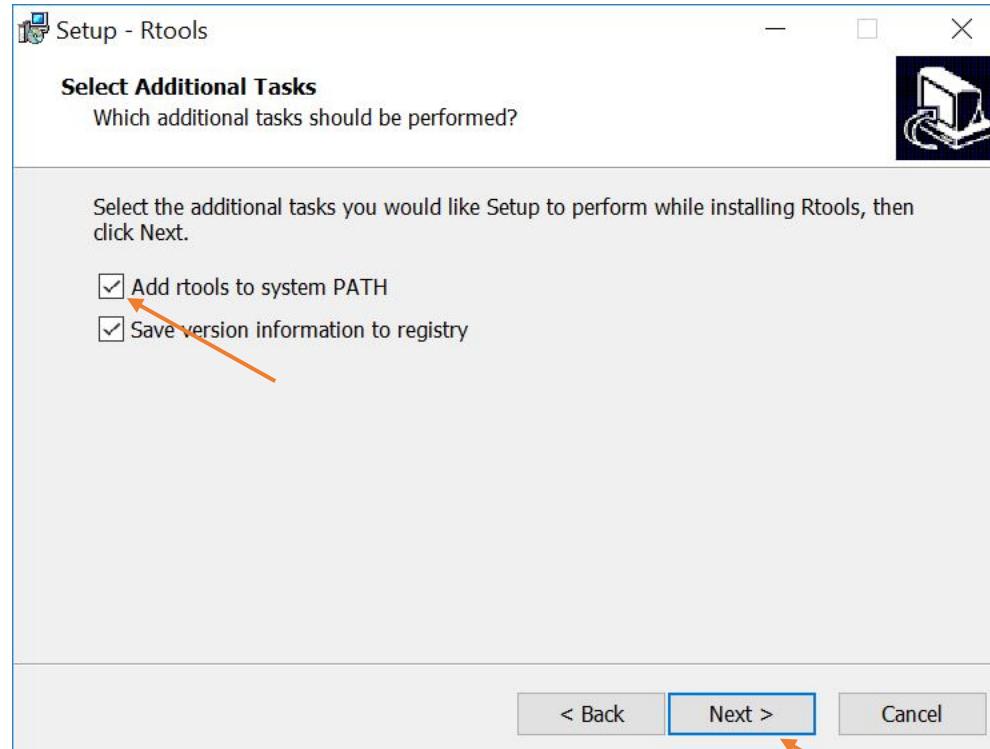
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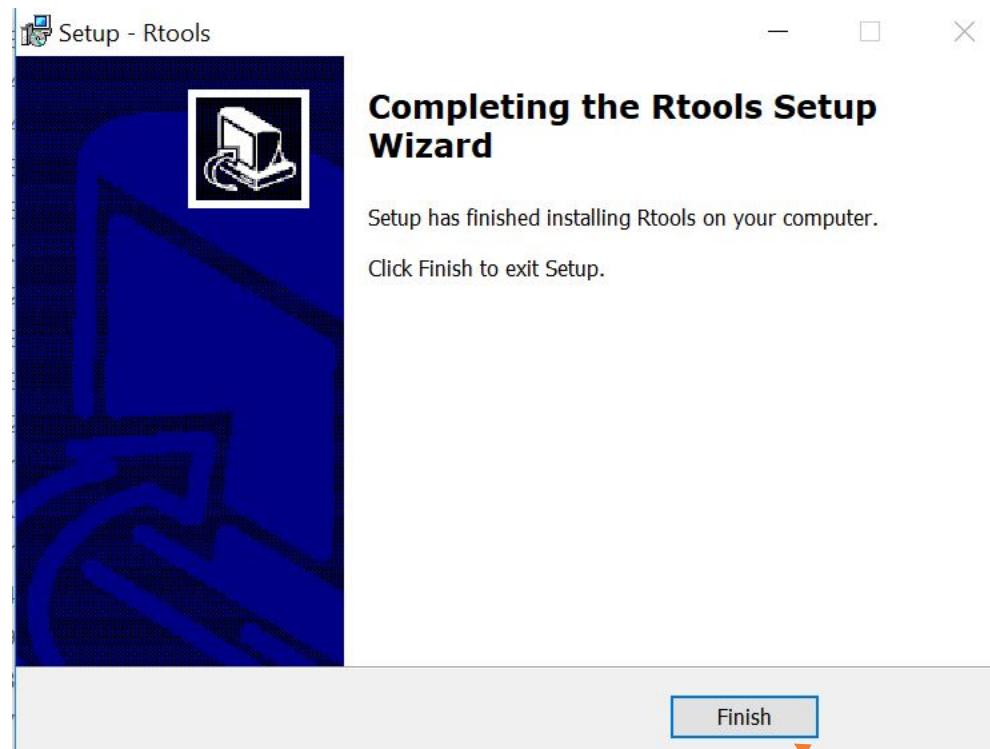
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