

Install R, RStudio, and Quarto (Mac) — Interactive Checklist Form

Objective

This guide explains, step by step, how to install:

- R
- RStudio
- Quarto
- A simple test project to confirm everything is working

Review Information

Name

Date

Overall Comments

Save for Review

Export for Review

Before You Start

You need:

- A Mac computer
- Internet access
- Permission to install software

It is a good idea to close unnecessary programs before starting.

Completed

Step 1 — Download R for Mac

1. Open your web browser.
2. Go to <https://cran.r-project.org>.
3. Click **Download R for macOS**.
4. Download the latest `.pkg` installer for macOS.
5. Wait for the file to finish downloading.

Completed

Step 2 — Install R on Mac

1. Open the downloaded R `.pkg` installer.
2. Click **Continue** through the installation steps.
3. Click **Install**.
4. Enter your Mac password if asked.
5. Wait for installation to complete.
6. Click **Close** when finished.

Completed

Step 3 — Verify R Installation

1. Open **Terminal**.
 - Open **Finder**
 - Go to **Applications > Utilities**
 - Open **Terminal**
2. Type:

```
R --version
```

3. Press **Return**.

You should see something like:

```
R version 4.x.x
```

4. You can also test by opening **RStudio** later and typing:

```
version
```

Completed

Step 4 — If R Does Not Work

If R is not found:

1. Close Terminal.
2. Install R again from CRAN.
3. Open a new Terminal window.
4. Test again with:

```
R --version
```

Completed

Step 5 — Download RStudio for Mac

1. Open your web browser.
2. Go to <https://posit.co/download/rstudio-desktop/>.
3. Download the **RStudio Desktop** installer for macOS.
4. Wait for the file to download.

Completed

Step 6 — Install RStudio on Mac

1. Open the downloaded RStudio file.
2. Drag **RStudio** into the **Applications** folder.
3. Open **Applications**.
4. Double-click **RStudio**.
5. If macOS shows a security message, click **Open**.

Completed

Step 7 — Download Quarto for Mac

1. Open your web browser.
2. Go to <https://quarto.org/docs/get-started/>.
3. Download the Quarto installer for macOS.
4. Wait for the **.pkg** file to download.

Completed

Step 8 — Install Quarto on Mac

1. Open the downloaded Quarto installer.
2. Click **Continue** through the installation steps.
3. Click **Install**.
4. Enter your Mac password if asked.
5. Wait for installation to complete.
6. Click **Close**.

Completed

Step 9 — Verify Quarto Installation

1. Open **Terminal**.
2. Type:

```
quarto --version
```

3. Press **Return**.

You should see something like:

```
1.x.x
```

4. If the command is not found, close Terminal, reopen it, and test again.

Completed

Step 10 — Open RStudio and Confirm It Starts

1. Open **RStudio**.
2. Wait for the program to finish loading.
3. Confirm that the Console panel appears.
4. In the Console, type:

```
version
```

5. Press **Return**.

Completed

Step 11 — Create a Working Folder

1. In Finder, create or choose a folder for your work.

Example:

```
/Users/YourName/Documents/R-Projects
```

2. Open **RStudio**.
3. Use **File > New Project** or **File > Open File...** later when needed.

Completed

Step 12 — Create a Test Quarto File

1. In RStudio, click:

```
File > New File > Quarto Document
```

2. Choose **HTML**.
3. Save the file as:

```
test-quarto-mac.qmd
```

4. Replace the content with:

```
---  
title: "My First Quarto Report"  
format: html  
---  
  
# Hello Yahya  
  
R, RStudio, and Quarto are working on Mac.
```

Completed

Step 13 — Render the Test File

1. In RStudio, open `test-quarto-mac.qmd`.
2. Click the **Render** button.
3. Wait for the HTML output to open.

Expected result:

A web page appears showing the title and the message.

Completed

Step 14 — Install Common R Packages

In the RStudio Console, type:

```
install.packages("tidyverse")
install.packages("ggplot2")
install.packages("readxl")
```

Press **Return** after each line, or paste all lines together.

Completed

Step 15 — Check Installed Packages

In the RStudio Console, type:

```
installed.packages()[, "Package"]
```

Look for packages such as:

- tidyverse
- ggplot2
- readxl

Completed

Step 16 — Automatic Environment Check

This section displays the detected R version and Quarto version **when this QMD file is rendered successfully**.

If this section renders correctly, then R is installed and Quarto is available to render the document.

```
cat("R detected: ", R.version.string, "\n", sep = "")
```

R detected: R version 4.5.2 (2025-10-31)

```
quarto_path <- Sys.which("quarto")
if (nzchar(quarto_path)) {
  cat("Quarto executable: ", quarto_path, "\n", sep = "")
} else {
  cat("Quarto executable: Not found in PATH\n")
}
```

Quarto executable: /usr/local/bin/quarto

```
quarto_version <- tryCatch(
  system2("quarto", "--version", stdout = TRUE, stderr = TRUE),
  error = function(e) paste("Could not run quarto --version:", conditionMessage(e))
)
cat("Quarto version check:\n")
```

Quarto version check:

```
cat(paste(quarto_version, collapse = "\n"))
```

1.7.30

Completed

Step 17 — Useful Mac Notes

- On Mac, you can use **Terminal** to test both `R --version` and `quarto --version`.
- If RStudio does not immediately see the tools, restart RStudio.
- If Terminal does not see the new installation, close and reopen Terminal.
- Quarto is often installed system-wide and works automatically with RStudio.

Completed

Troubleshooting

Problem 1 — R not recognized

Fix:

- Reinstall R from CRAN
- Open a new Terminal window
- Test again with `R --version`

Problem 2 — quarto not recognized

Fix:

- Reinstall Quarto from quarto.org
- Close and reopen Terminal
- Test again with `quarto --version`

Problem 3 — RStudio opens but cannot render

Fix:

- Confirm Quarto is installed
- Restart RStudio
- Open the QMD file again
- Try **Render** one more time

Problem 4 — Package installation fails

Try again in the RStudio Console with:

```
install.packages("tidyverse")
```

Then repeat for the other packages.

Completed

Summary

You have now completed the following:

- Installed R on Mac
- Installed RStudio
- Installed Quarto
- Verified R and Quarto
- Created and rendered a test QMD file
- Installed common R packages

Completed

Next Suggested Step

Create a second Quarto file and add:

- One heading
- One paragraph
- One R code chunk
- One simple plot

Then render it to HTML.

Completed