How to Set up R

Step 1: Download R

1. **Go to the R website**: Open your internet browser and type cran.r-project.org.
2. Look for a button or link that says **Download R**.

Step 2: Choose Your Computer Type

- If you're using a **Mac**, click on the option for **macOS**.
- If you're using a different type of computer, like a **Windows** one, click on **Windows**.

Step 3: Install R

For Mac:

- After downloading, click on the file (it's usually in your "Downloads" folder). It will look something like `R-<version>.pkg`.
- Follow the steps on the screen, clicking "Continue" or "Next" until it says **Installation Complete**.

For Windows:

- Click on the downloaded file (it will look like `R-<version>-win.exe`).
- Follow the steps, clicking "Next" a bunch of times until it's done.

Step 4: Open R

- On both Mac and Windows, once R is installed, you can find it in your **Applications** folder (on Mac) or by searching for it in the **Start Menu** (on Windows).
- Click it to open!

Optional: Get RStudio (Makes R Easier to Use)

RStudio is like the super-cool playground for R. It organizes everything for you:

1. Go to rstudio.com and download **RStudio Desktop (Free)**.
2. Install it the same way you did R.

What's Different Between Mac and Windows?

1. **Installation File**: Macs use `.pkg` files; Windows uses `.exe` files. They both do the same thing, just look different.

2. **Menu Layout**: On Macs, you'll find R in the top-left corner where the Apple menu is. On Windows, it's in the taskbar or Start Menu.
3. **Shortcut Keys**: Some keys are different on Macs. For example:
   - On Mac, use `Cmd + Enter` to run code.
   - On Windows, use `Ctrl + Enter`.

Things to Remember:

- Both Macs and Windows can run the same R code (*usually, there are small differences like using backslashes for non-Macs*). You're just choosing the right version for your computer!
- If you get confused, ask for help. It's normal to feel a little stuck the first time.

Troubleshooting R

1. Trouble Downloading R

Problem:

- "I don't know which version to download!"
- **Mac**: Confusion over Intel vs. Apple Silicon.
- **Windows**: Unsure about 32-bit vs. 64-bit.

Fix:

- **Mac**:
  - If you have a newer Mac (2020 or later), you likely have **Apple Silicon (M1/M2)**. Download the version labeled for it.
  - If unsure, download the **Intel version**—it works on all Macs.
- **Windows**: Most modern PCs are **64-bit**. Download the 64-bit version.

2. Can't Install R

Problem:

- The file won't open, or the installation doesn't complete.
- **Mac**: "R.pkg can't be opened because it is from an unidentified developer."
- **Windows**: "Error during installation."

Fix:

- **Mac**:
  - Go to **System Preferences > Security & Privacy**.
  - Under the **General** tab, find the message about the blocked app and click **Open Anyway**.

- **Windows**:
  - Make sure you have admin privileges to install software.
  - Right-click the `.exe` file and choose **Run as Administrator**.

3. R Works, But RStudio Won't Open

Problem: RStudio crashes or shows a blank screen.

Fix:

- Make sure **R** is installed first. RStudio doesn't work without R.
- Update RStudio to the latest version.

4. Can't Run Code

Problem: "I type code, but nothing happens!"

Fix:

- Make sure you're typing your code in the **Script Editor** (top-left in RStudio), not the Console.
- Use the right shortcut to run the code:
  - **Mac**: `Cmd + Enter`.
  - **Windows**: `Ctrl + Enter`.

5. Can't Install Packages

Problem: "I tried to install a package, but it says 'permission denied' or 'not available for this version of R.'"

Fix:

- Update R to the latest version. Sometimes older R versions don't support newer packages.
- Restart RStudio and try again.

Mac: Use this command to fix permission issues:
Copy code
```
install.packages("package_name", lib = "~/R/library")
```

- **Windows**: Right-click RStudio and select **Run as Administrator**, then try installing again.

6. RStudio Displays Weird Text

Problem: "RStudio menus or output text look weird or squished."

Fix:

- **Mac**: Adjust the scaling. Go to **RStudio > Preferences > Appearance** and try a different font size or zoom level.
- **Windows**: Right-click the RStudio shortcut, go to **Properties > Compatibility**, and enable **Override high DPI scaling behavior**.

7. Can't Find RStudio After Installing

Problem: "I installed RStudio, but I can't find it!"

Fix:

- **Mac**: Check the **Applications** folder or search for it using Spotlight (`Cmd + Space`).
- **Windows**: Look for RStudio in the **Start Menu** or search for it in the search bar.

8. Errors with M1/M2 Macs

Problem: Some R packages don't install or fail with weird errors on M1/M2 Macs.

Fix:

Run this command in R to ensure compatibility:
Copy code
```
install.packages("package_name", type = "binary")
```

General Tips for Troubleshooting

- **Restart**: Restart RStudio and your computer. Many problems are resolved this way!
- **Search for Errors**: If you see an error message, copy-paste it into Google. The R community is huge, and chances are someone else has had the same problem.
- **Ask for Help**: Professors, TAs, or forums like [Stack Overflow](#) are great resources.
- For data sets, make sure you aren't working with a numbers file; it should say "csv" on the file.