Before we start… < TROUBLESHOOTING > R/ RStudio install & setup

https://datacarpentry.org/R-ecology-lesson/#Setup_instructions

robert.nagy@ed.ac.uk

Before we start… < TROUBLESHOOTING > It's a learning process for each of us..

[Source: unsplash.com]

You could interpret a **Data Carpentry workshop** as a '**guided learning experience**' (think like guided meditation), therefore, if you feel lost or got stuck, worry not, this is absolutely normal and we are here to help you out.

Usually that is absolutely fine if you just pay attention what is happening on the screen, we are demonstrating the same lessons that are fully available online.

Sessions are meant to be interactive and dominantly informal, we are here to help one another.

Before we start… <TROUBLESHOOTING> R (un/)install & setup

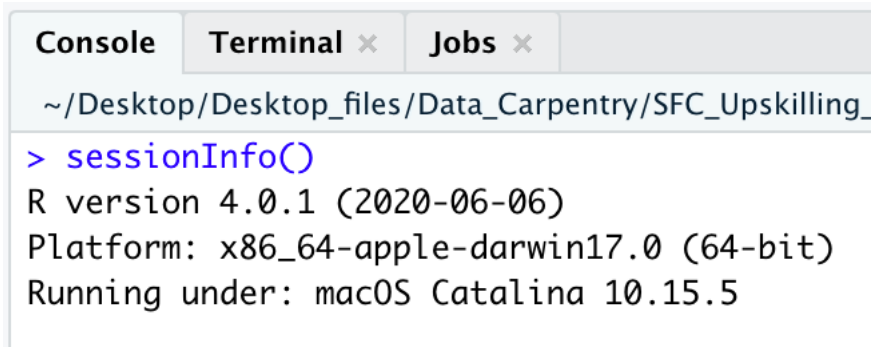
- Go to https://www.r-project.org/
- Go to the download link
- Choose your CRAN mirror nearer to your location (either Bristol or Imperial College London)
- Download the correspondent version depending if you are using Windows Mac or Linux
  - For **Windows** click on **install R for the first time.** Then **download R 4.0.1 for Windows** and follow the installation widget. If you get stuck follow this video tutorial https://www.youtube.com/watch?v=GAGUDL-4aVw
  - Form **Mac** Download **R-4.0.1.pkg** and follow the installation widget. If you get stuck follow this video tutorial https://www.youtube.com/watch?v=EmZqIcKkJMM
  - For **Linux** go on the correspondent subfolder and follow the normal path you do for installing new software. If you are using Ubuntu you can follow this guide https://www.youtube.com/watch?v=kF0-FH-xBiE

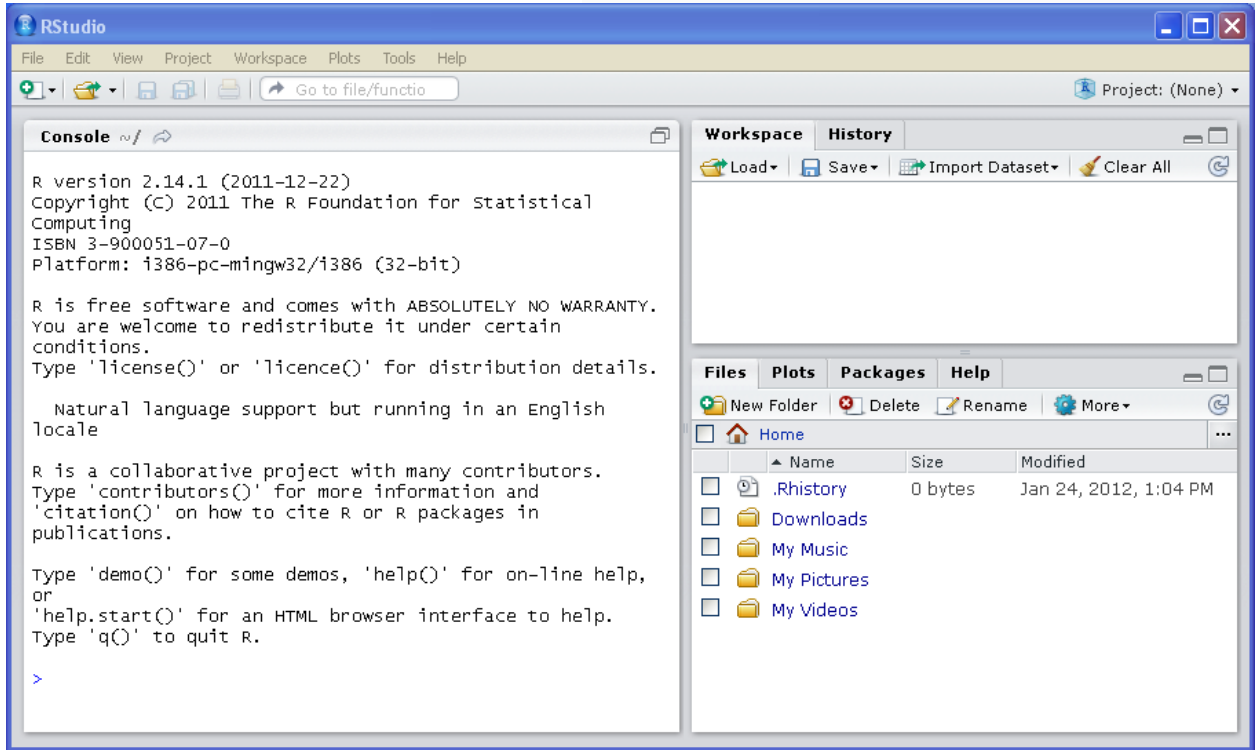
[*Credit to Lucia Michielin*]

+1 Uninstalling earlier R version, visit: https://cran.r-project.org/bin/windows/base/rw-FAQ.html#How-do-I-UNinstall-R_003f

Before we start… < TROUBLESHOOTING > RStudio install & setup

- Once R is installed you can install R studio (R interface)
- Go to www.rstudio.com
- Go in download
- Download the correspondent version depending on your Operating system and install it.
- Open the R studio interface and if it is looking like this
- If you already using R/ RStudio: be sure they are up-to-date!





[*Credit to Lucia Michielin*]

Download and unzip the data to a preferred working directory

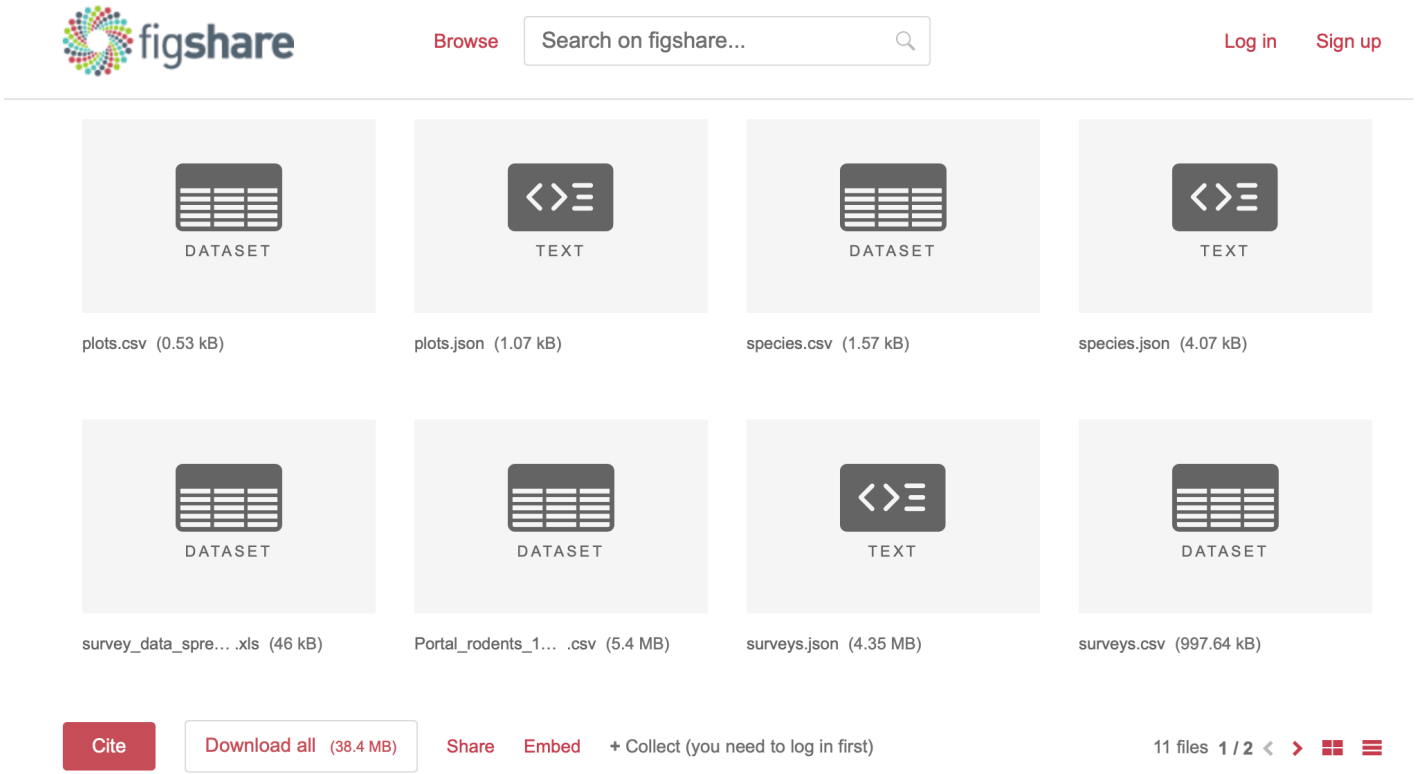
https://ndownloader.figshare.com/articles/1314459/versions/9 [compressed files]

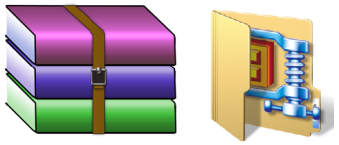
https://figshare.com/articles/Portal_Project_Teaching_Database/1314459

Brief

"The Portal Project Teaching Database is a simplified version of the Portal Project Database designed for teaching. It provides a real world example of life-history, population, and ecological data, with sufficient complexity to teach many aspects of data analysis and management, but with many complexities removed to allow students to focus on the core ideas and skills being taught."

Before we start… < TROUBLESHOOTING > Get the data ready…





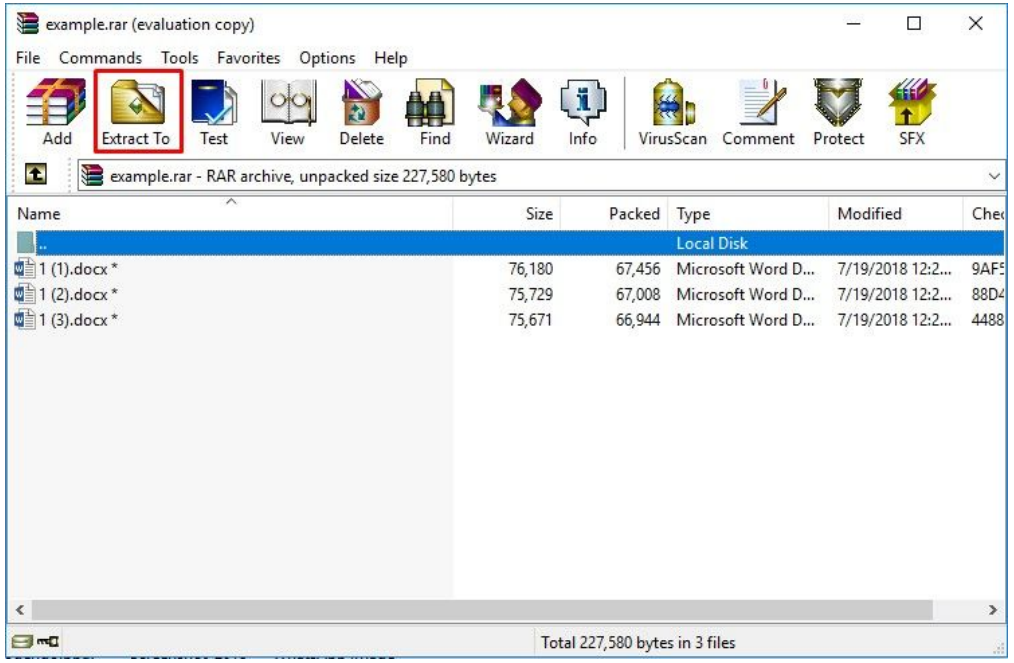


Image is for illustration only.

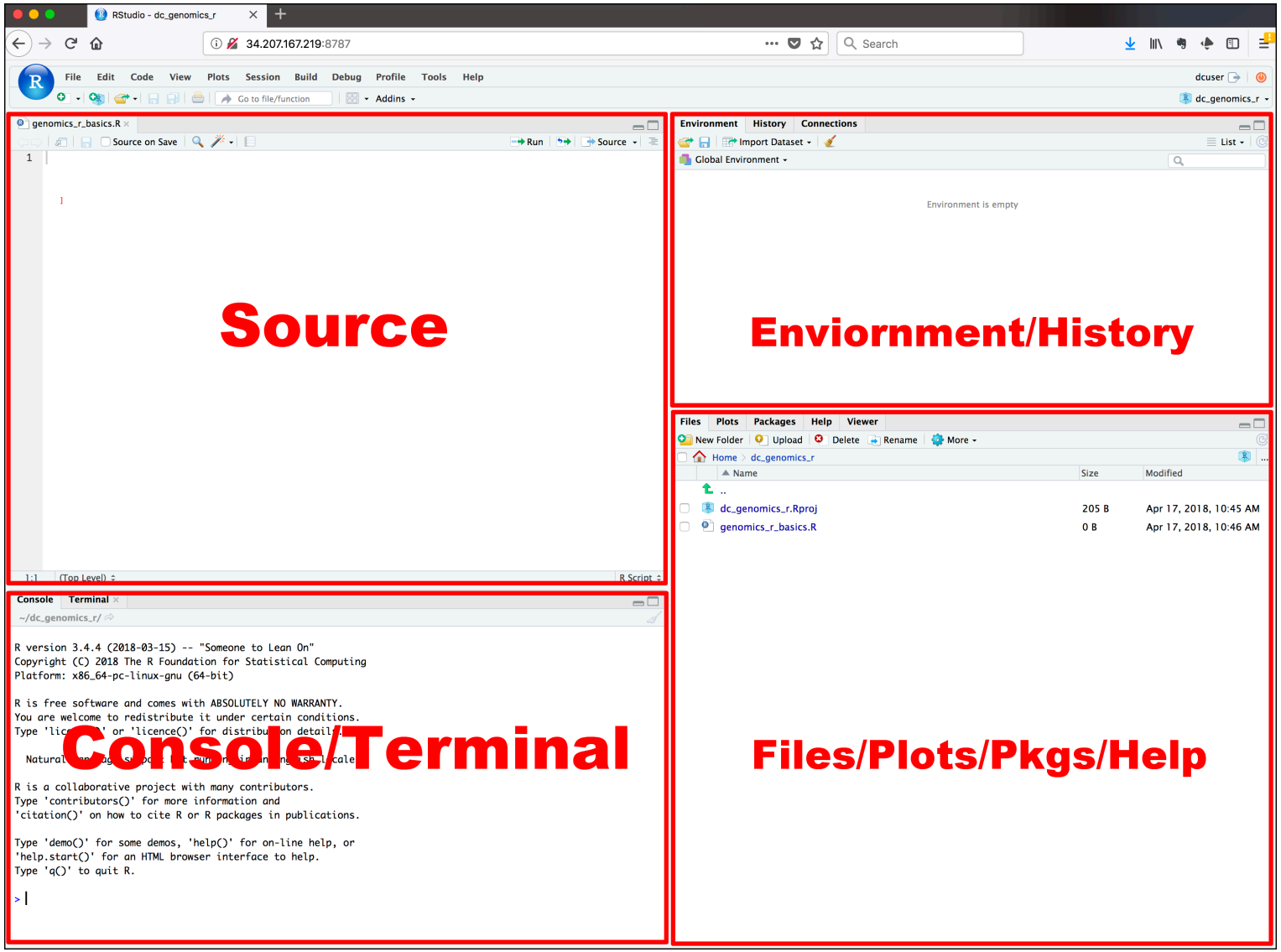
1. Download compressed files from online repository
2. Decompress (e.g. unzip) file(s) into preferred working directory

Before we start… Download R script handout…

R script handout download URL:

https://datacarpentry.org/R-ecology-lesson/code-handout.R

Before we start… Our working environment Graphical User Interface (GUI)



RStudio

RStudio IDE Cheatsheet

https://github.com/rstudio/cheatsheets/raw/master/rstudio-ide.pdf

Install and load packages

Windows users also need to install and load `*Rtools*` package.

install.packages(c('tidyverse', 'RSQLite', 'Rtools'))

lapply(c('tidyverse', 'RSQLite', 'Rtools'), require, character.only = TRUE)

Before we start… Some important keyboard shortcuts/ cheatsheets

RStudio keyboard shortcuts

[Menu bar/] *Tools → Keyboard Shortcuts Help, e.g.:*

- **Save**: Ctrl (Cmd) + S
- **Execute/ run script or command/ instruction**: Ctrl (Cmd) + Enter
- **Autofill**: press 'Tab'
- **Comment single line/ multiple lines**: Shift + Ctrl (Cmd) + C **OR** everything after the *hash* '#' symbol will be interpreted as a comment

Cheatsheets

https://rstudio.com/resources/cheatsheets/

Before we start… **Please be aware..**

R/ RStudio can behave slightly differently when running on different OS (e.g. Windows vs UNIX [e.g. Mac or Linux] machines) and even on the same OS different software versions can ‘surprise’ us.