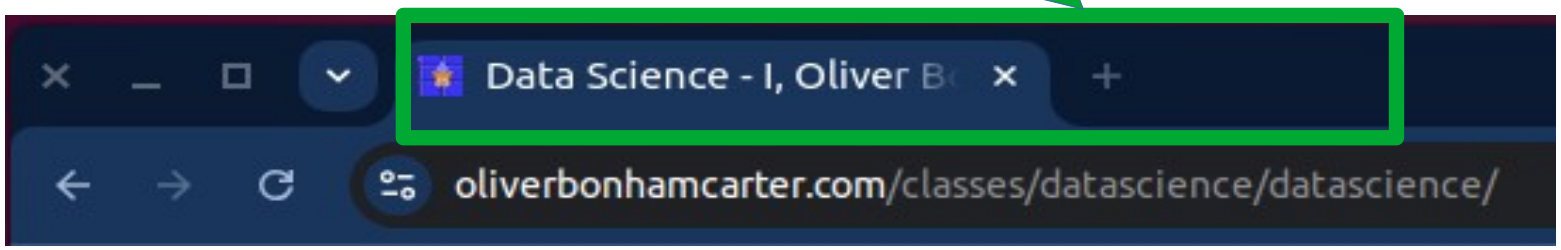
Data Science
CS301

Installing
R and RStudio

Week 1
Fall 2025
Oliver BONHAM-CARTER

Just Link-IN!



- Course web site:
  - https://www.oliverbonhamcarter.com/classes/datascience/datascience/
- Syllabus, Planning and ClassDocs/:
  - https://github.com/AlleghenyCollege-CIS-301-F2025/classDocs

The R Programming Language

- https://www.r-project.org/
- What is the R language?
  - An open source, well-developed programming platform for work in statistics, mathematics and data analytics
  - Cross platform; runs on major OSs
  - Popular programming skill among Big Data analysts, and data scientists
- Community Blogs:
  - https://www.r-bloggers.com/
  - https://twitter.com/rstudiotips/
  - https://towardsdatascience.com

RStudio

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rstudio-blog - post/rstudio-v1.4-python - RStudio

Go to file/function | Addins | rstudio-blog

script.py

Run | Source Script

```
1  import seaborn as sns
2  import matplotlib.pyplot as plt
3  sns.set_theme(style="whitegrid")
4
5  # Load the example diamonds dataset
6  diamonds = sns.load_dataset("diamonds")
7
8  f, ax = plt.subplots(figsize=(6.5, 6.5))
9  sns.despine(f, left=True, bottom=True)
10 clarity_ranking = [
11   "I1", "SI2", "SI1", "VS2", "VS1", "VVS2", "VVS1", "IF"]
12
13 sns.scatterplot(x="carat", y="price",
14                  hue="clarity", size="depth",
15                  palette="ch:r=-.2,d=.3_r",
16                  hue_order=clarity_ranking,
17                  sizes=(1, 8), linewidth=0,
18                  data=diamonds, ax=ax)
19
20 plt.show()
21
```

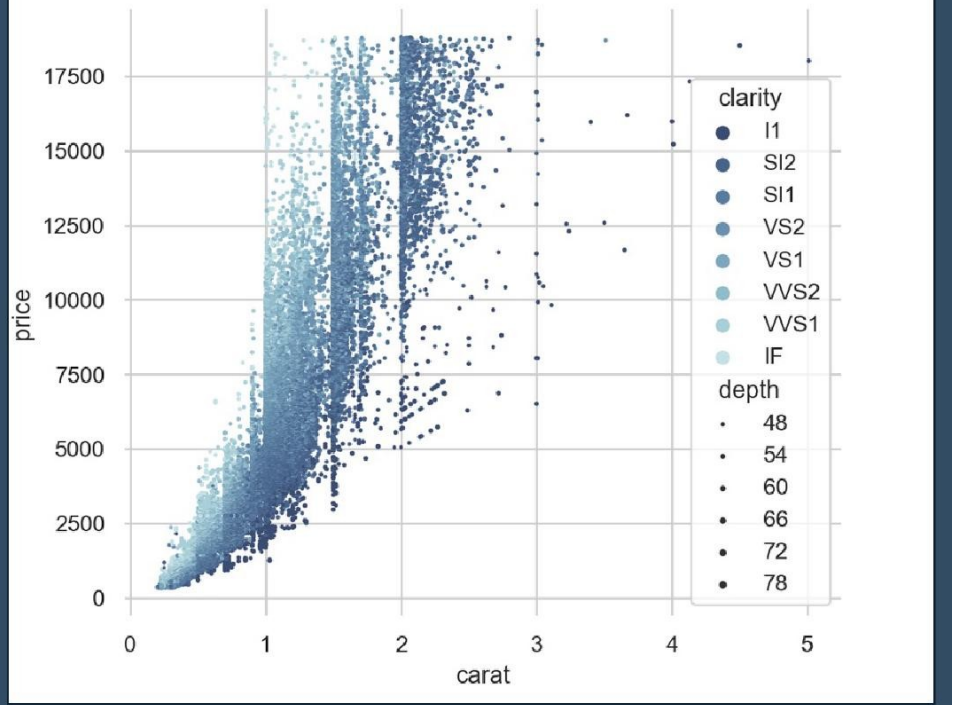
20:11 Python

Console

Environment | History | Connections | Build | Git | Tutorial

Files | Plots | Packages | Help | Viewer

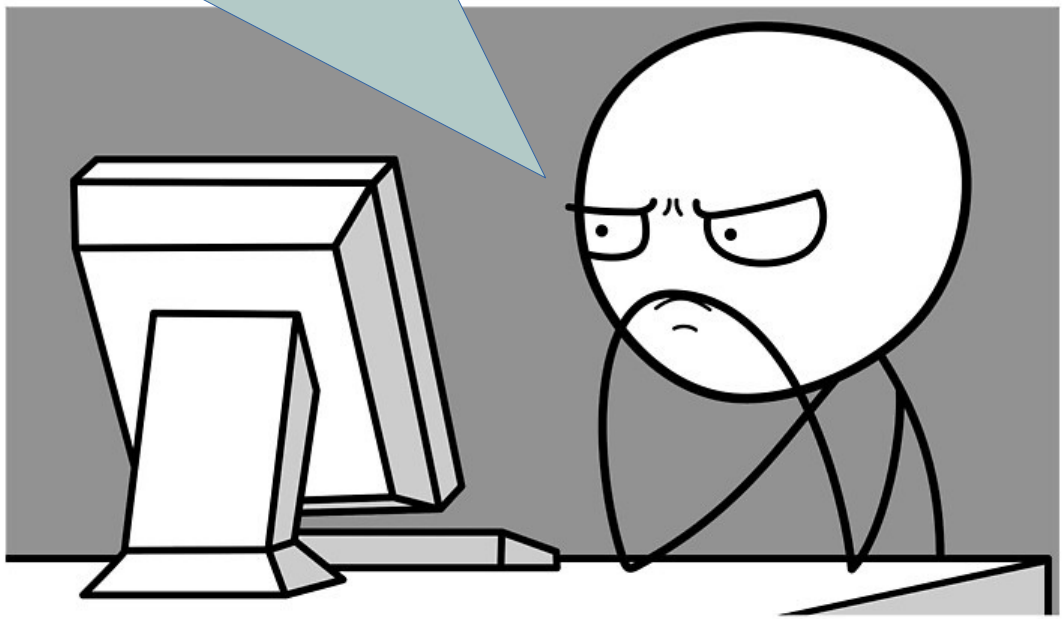
Zoom | Export



Let's take a moment to install these software packages!

R Language

R Studio®



https://www.oliverbonhamcarter.com/resources/dataanalytics_resources/

Install links

RStudio download

https://posit.co/downloads/

R Programming Language

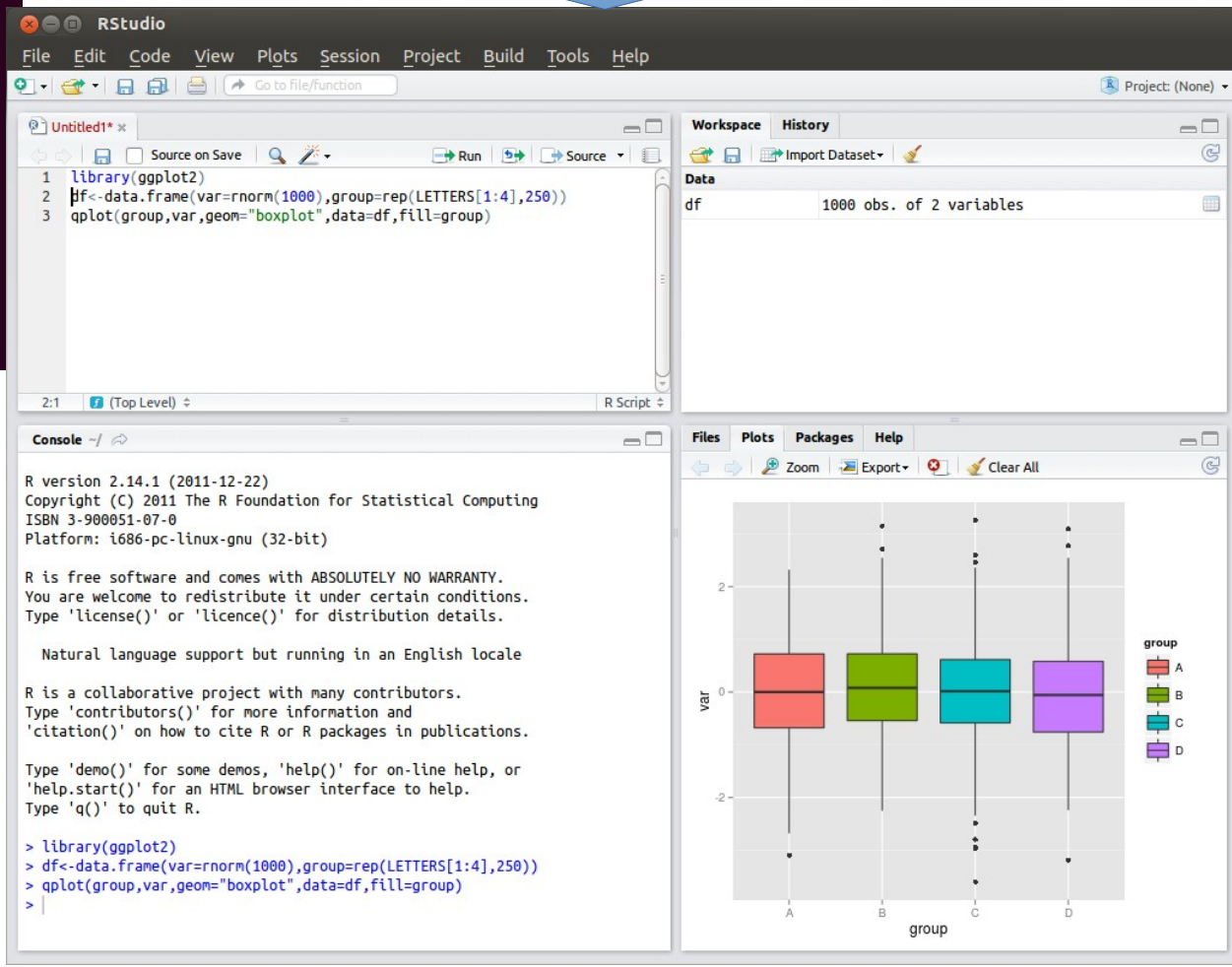
https://cran.rstudio.com/

Verify Your Installation!

- Wait! R or RStudio? Same language!

To run:
Find its icon or type *rstudio at terminal*

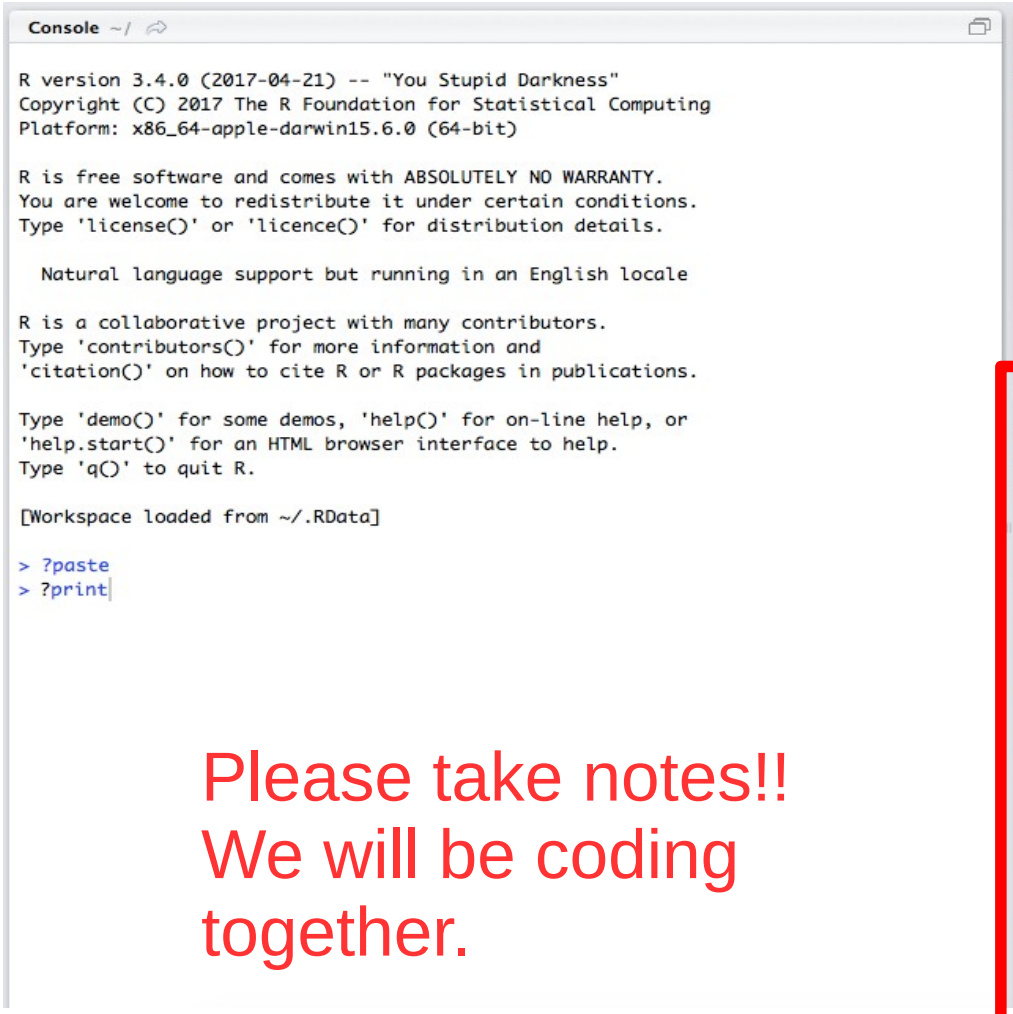
```
R version 3.2.2 (2015-08-14) -- "Fire Safety"
Copyright (C) 2015 The R Foundation for Statistical Computing
Platform: x86_64-pc-linux-gnu (64-bit)

R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.

  Natural language support but running in an English locale

R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

>
```

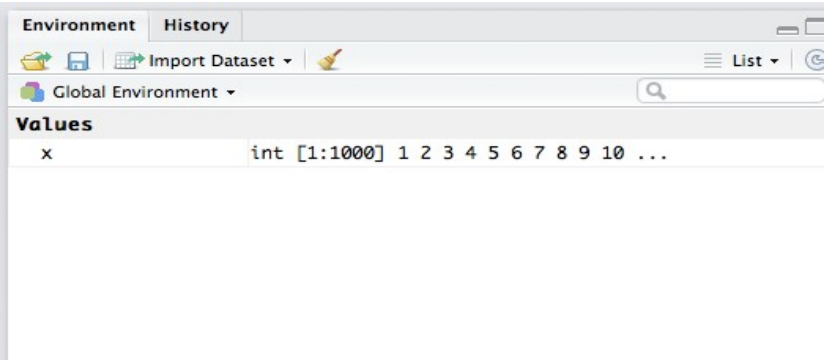


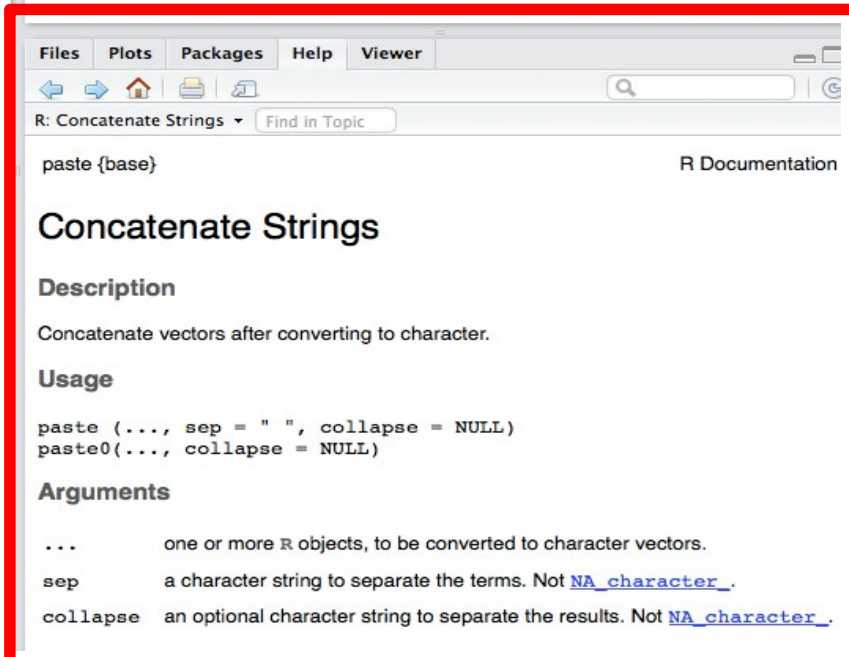
To run:
Type "*R*" at terminal

Getting Help in R

- Online help: place a “?” in front of a keyword
  - Ex: ?print







Please take notes!!
We will be coding together.