Week 2: Accessing and Viewing Data

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6/20/2024

Welcome to Week 2!

Week 2 Warm-Up: **We'll go over at 2:50 PM**

1. Please sign in with the link or QR code: https://tinyurl.com/signin-bootcamp-2

2. Make a New R script.

    i. Save it to your computer. Title it "S2_warmup"

    ii. Add a comment with the date, a title, and your name

3. Create three different vectors:

       i. A vector called "names" with three names

    ii. A vector named "ages" with three ages of college students

    iii. A vector called "year" with three years of college (e.g., Freshman, Sophomore, etc.)

4. Run the code and check that everything looks correct in the global environment.

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Today's agenda (Topic: Accessing & Viewing Data)

1. Data frames

2. Working directory

3. Reading in data

4. Viewing your data

5. Making factors

6. Group activity to practice!

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What is a "working directory"?

- The current file path that R is using and where it will "look" for files

  - R will assume I want to read in or write out files using this folder

- You can think of file paths as addresses

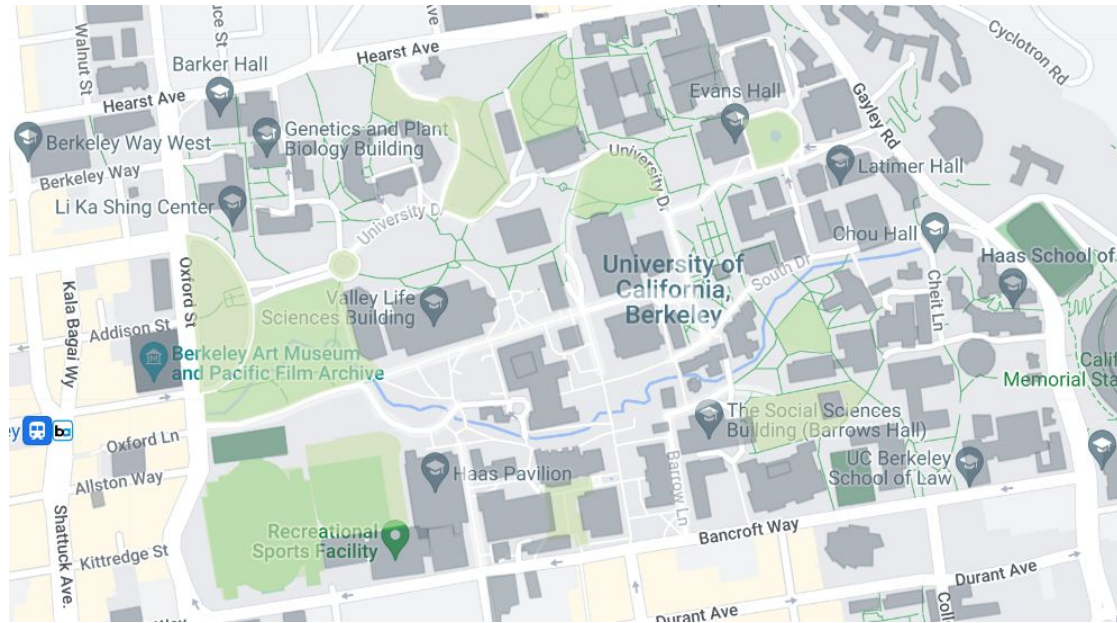 - */Users/sierrasemko/Desktop/bootcamp_2024/session2/session2_starter-code.R*

iCloud Drive › Desktop › bootcamp_2024 › session2_bootcamp_2024
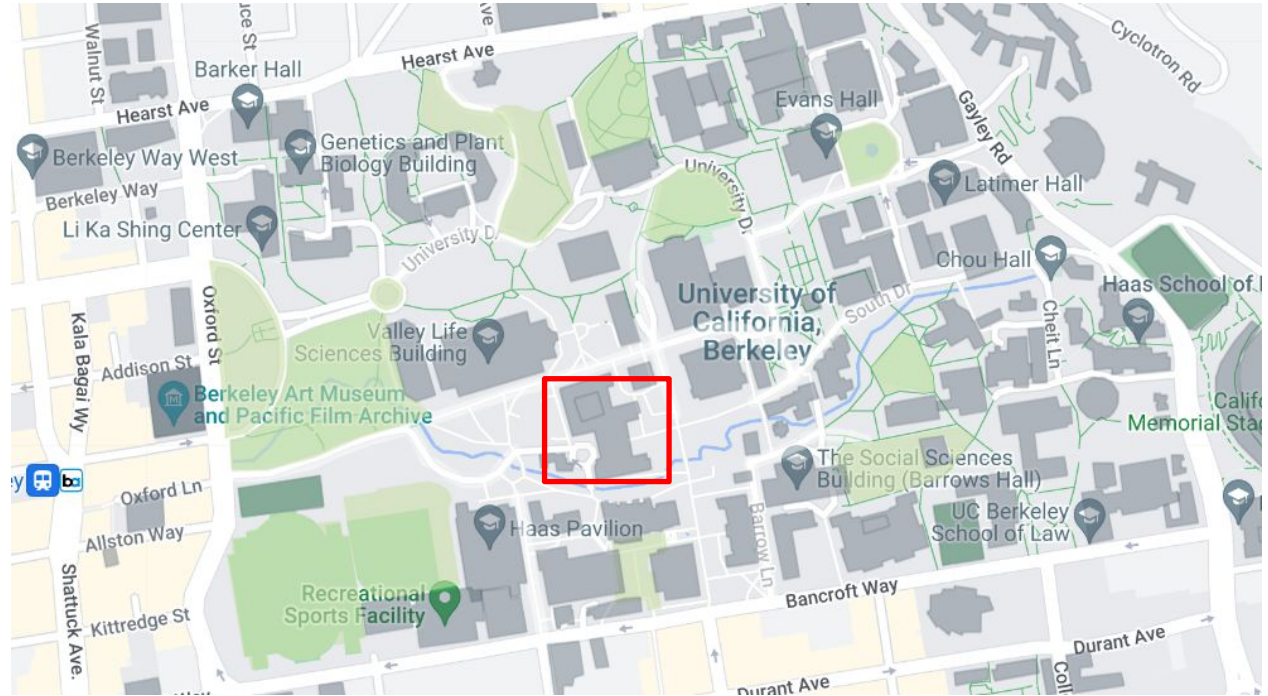
- Our files are in a **nested structure**

For more info see YaRR: A Pirate's Guide to R chapter

For instance….

- Let's say you have a class! But where are you going? Where is it being held?

It's in Dwinelle Hall

It's in the basement!

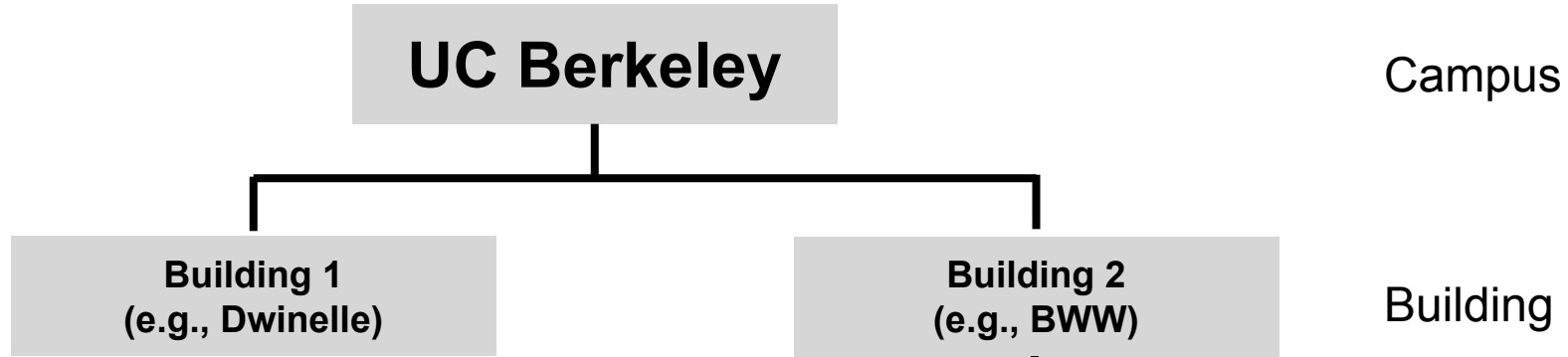# In room 75!

These have a **NESTED STRUCTURE**

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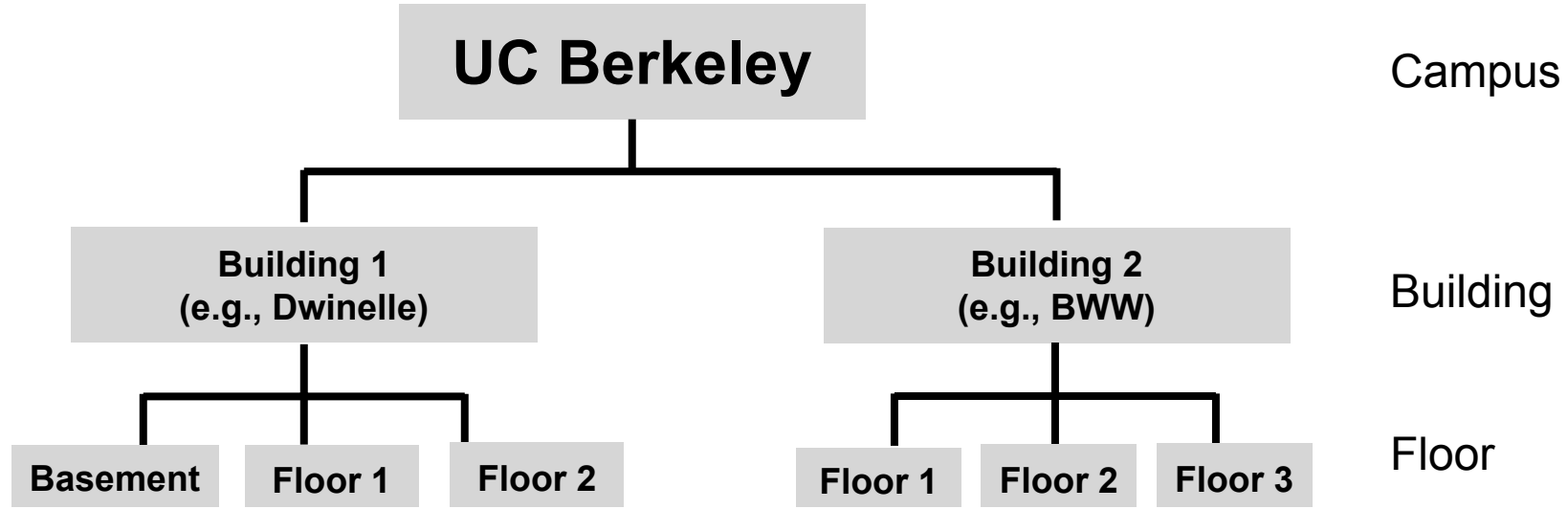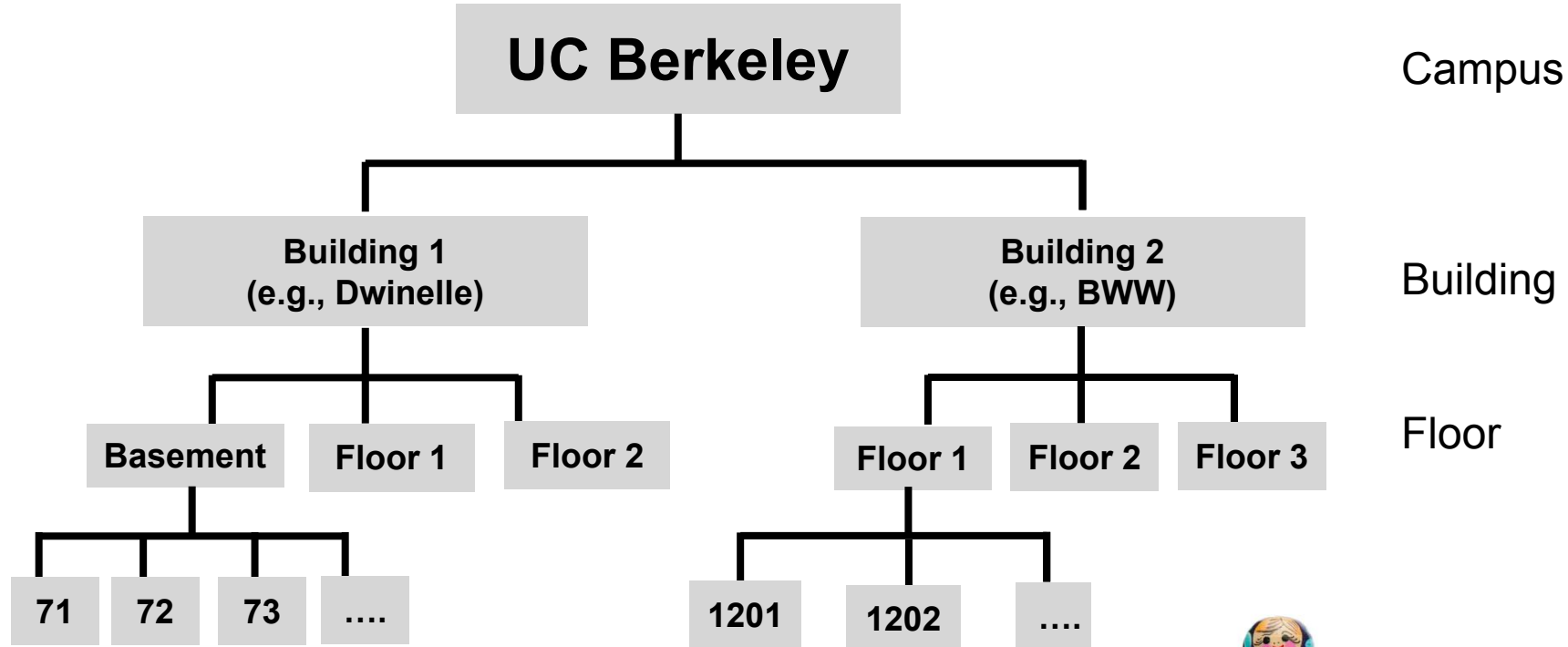Campus

These have a **NESTED STRUCTURE**

UC Berkeley — Campus

Building 1 (e.g., Dwinelle) / Building 2 (e.g., BWW) — Building

These have a **NESTED STRUCTURE**

UC Berkeley — Campus

Building 1 (e.g., Dwinelle) — Building
Building 2 (e.g., BWW) — Building

Basement | Floor 1 | Floor 2 — Floor
Floor 1 | Floor 2 | Floor 3 — Floor

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These have a **NESTED STRUCTURE**

| UC Berkeley | Campus |

Building 1 (e.g., Dwinelle) — Building 2 (e.g., BWW) — Building

Basement — Floor 1 — Floor 2 — Floor 1 — Floor 2 — Floor 3 — Floor

71 72 73 …. 1201 1202 ….

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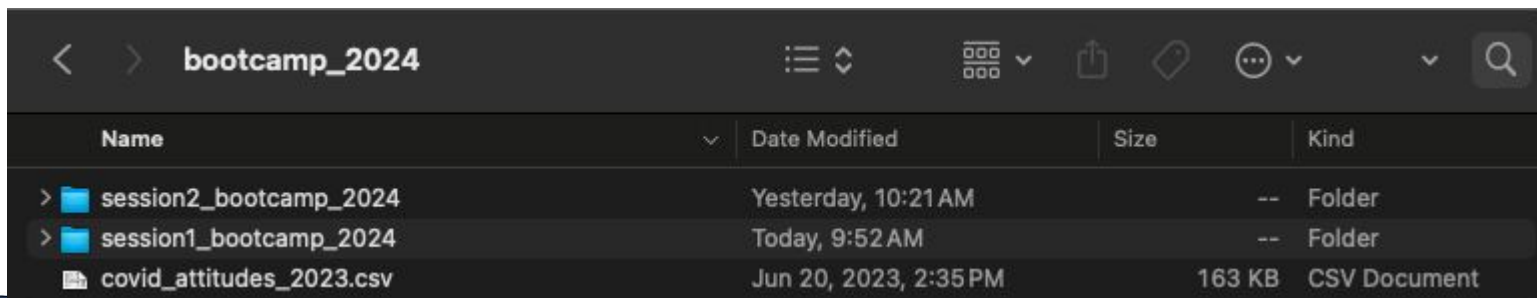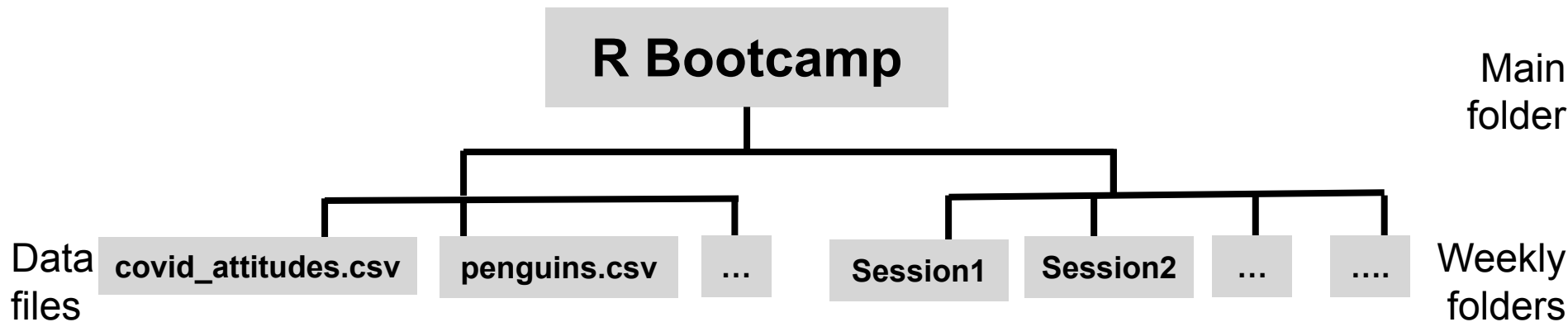
Working directory and loading data

● Organization is up to you (and ask your grad student for how they do it!)

● Whatever you do though, you need to understand it when you're loading your data!

● R has to know where to look for the data file, or it won't be able to read it in

How we recommend storing files for bootcamp

Most common errors when loading data

- Wrong file path (i.e., wrong working directory so R is looking in the wrong place and cannot find the file)

- Forgot to put quotes around the name of the file and/or file path! read.csv("penguins.csv")

Other tips:
- Don't use spaces in your file names or folder names!