BST 219
Core Principles of Data Science

Lecture 2: Introduction RStudio, RMarkdown & GitHub
September 5, 2024

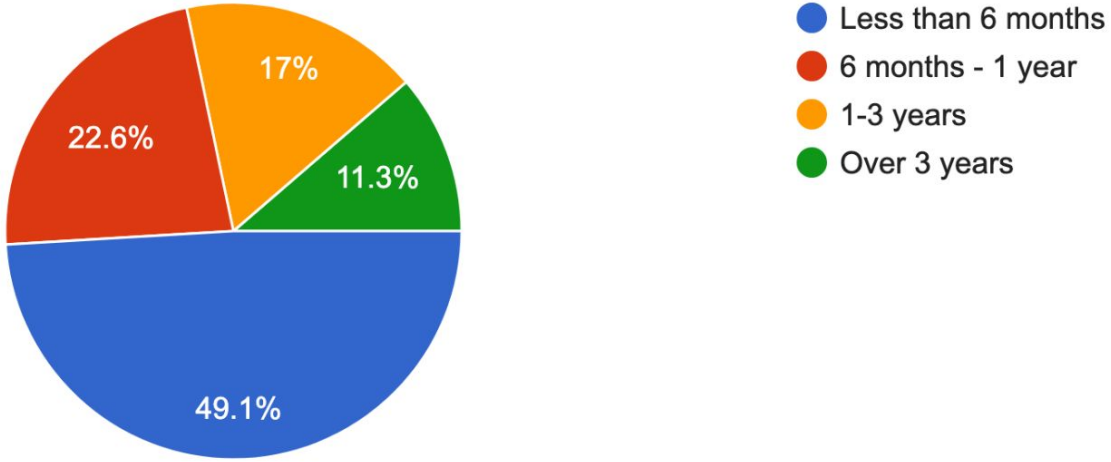
Recipe of the Day!

Apple Scones with Maple Cinnamon Glaze

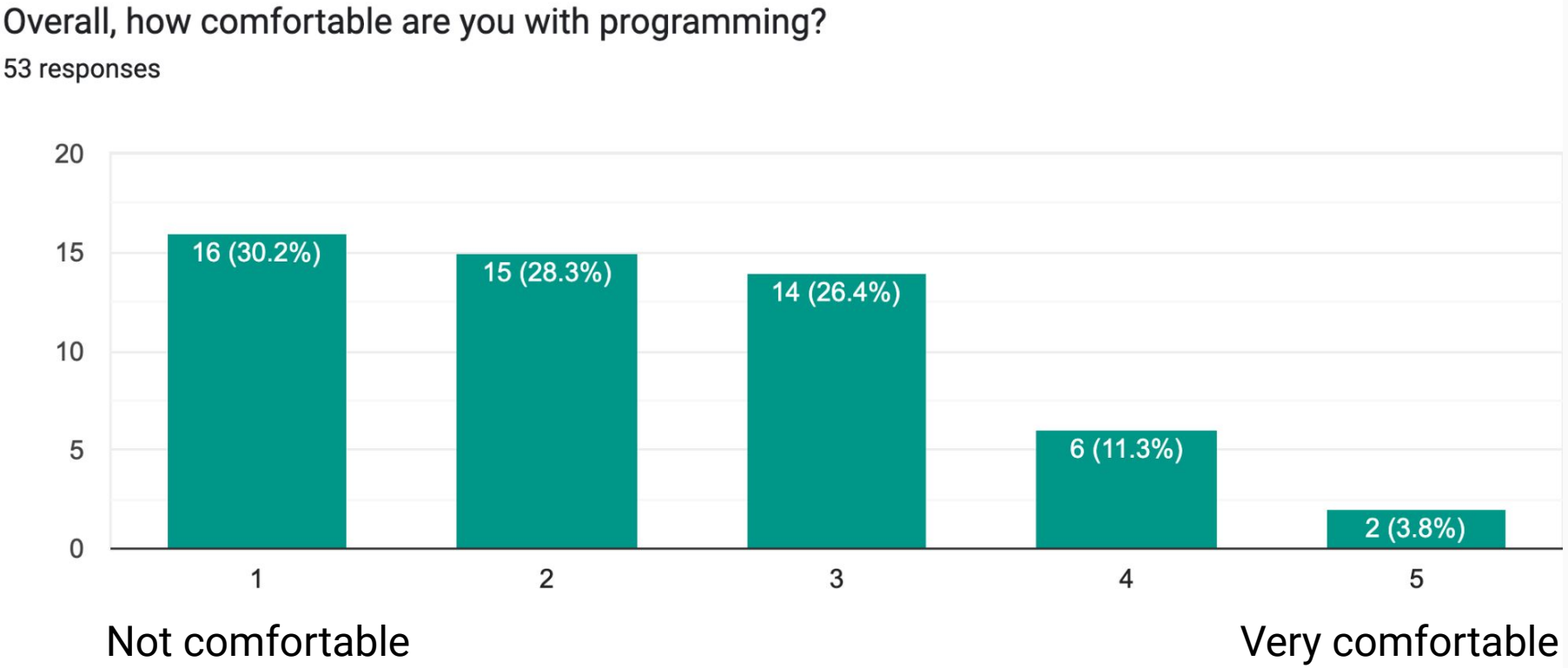
Preliminary Survey Results

How long have you been programming?

53 responses



Preliminary Survey Results



Preliminary Survey Results

What are you hoping to get out of this course?

Getting **comfortable coding in R** and with coding in general

Better understanding of data science for the **entire research pipeline**

Become a **coding master**! Mostly to understand the **dialogue/script that appears on the console** and understanding R functions, **how to work with raw data** that isn't already finetuned, how to **problem solve when errors occur and regulating frustration.**

Better at data cleaning, intro to ML, feel better about **generating files to upload as images for manuscript instead of just screenshotting the image in R console**

To be able to **interface better with colleagues** who do most of the programming but being able to suggest approaches to data analysis knowing more about the potential and limitation of R and ML

A practical understanding of data science in order to **collaborate effectively on teams and apply to my own research**.

Course Roadmap

Importing (loading) the data

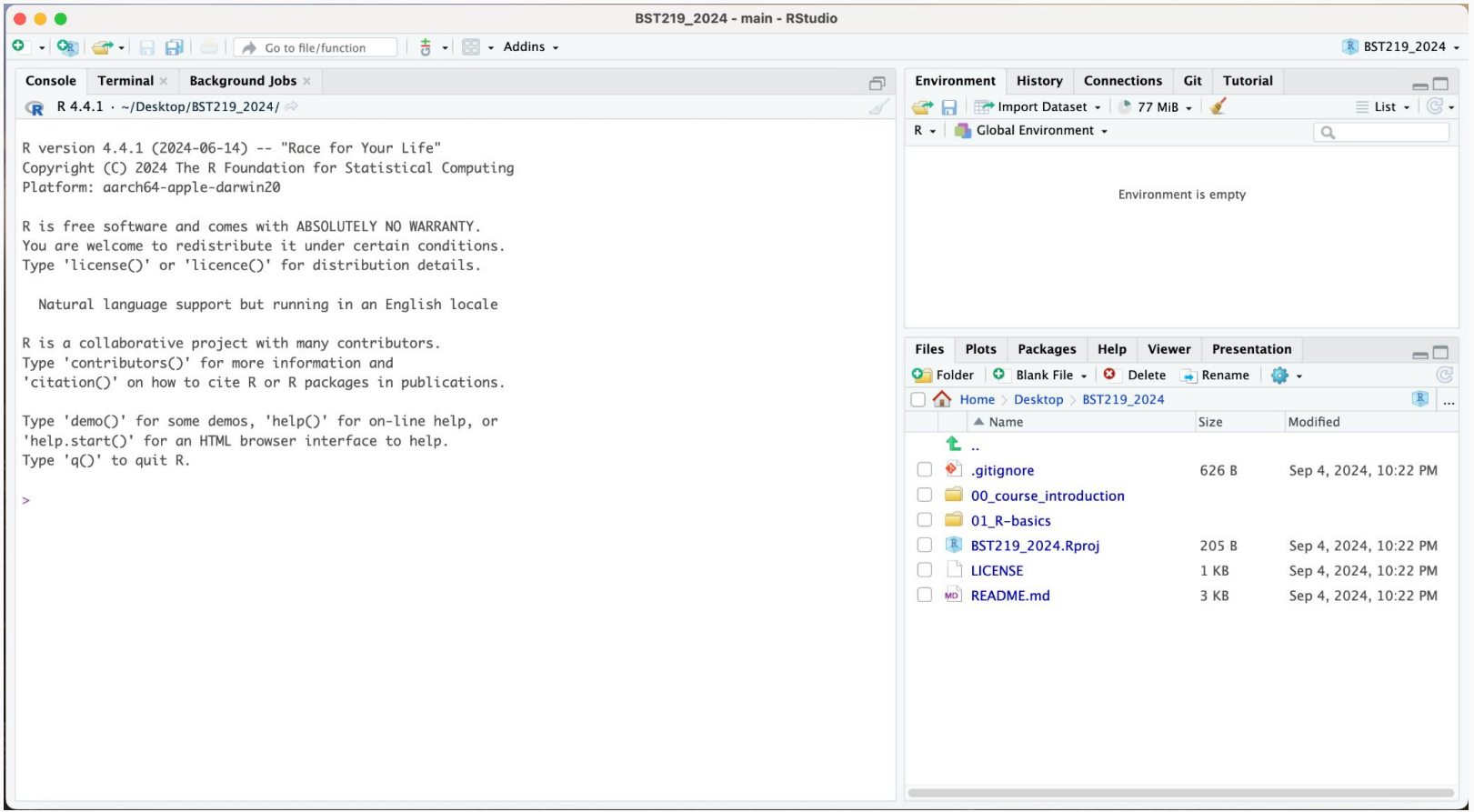
Processing (cleaning, wrangling) the data

Visualizing and summarizing the data

Building models (statistical and ML)

Interpretation and communication of results

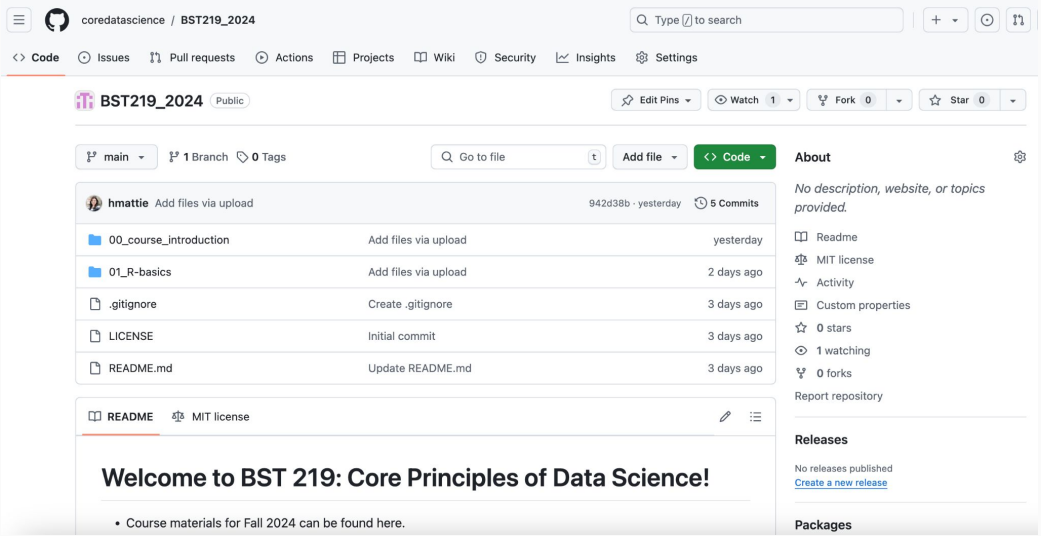
RStudio and RMarkdown Files

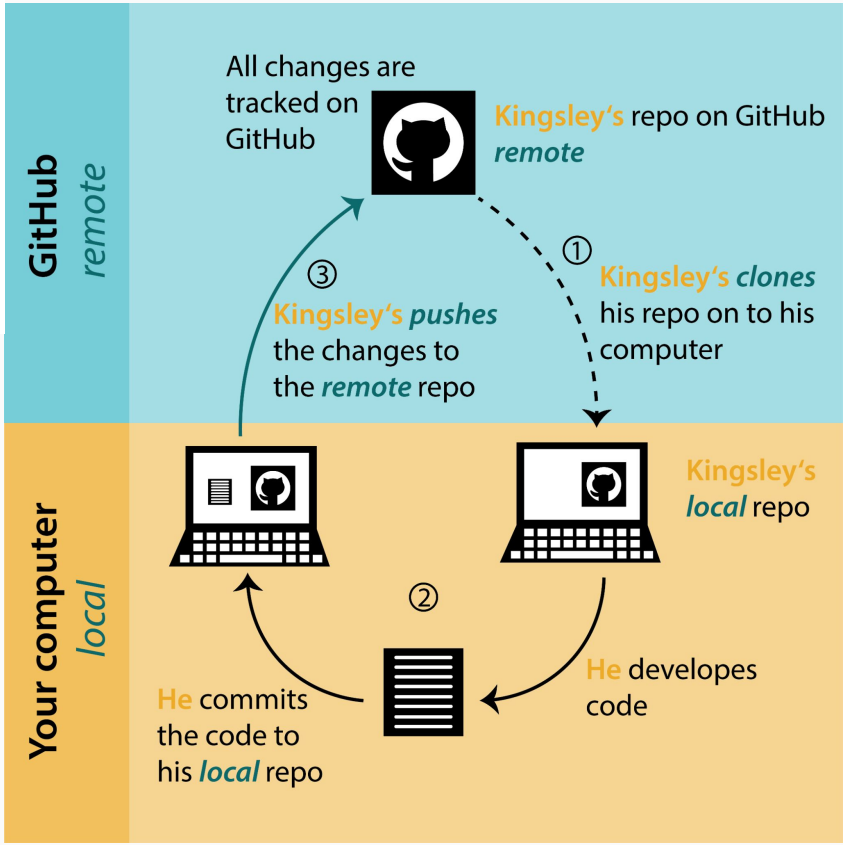


GitHub and RStudio

Definitions

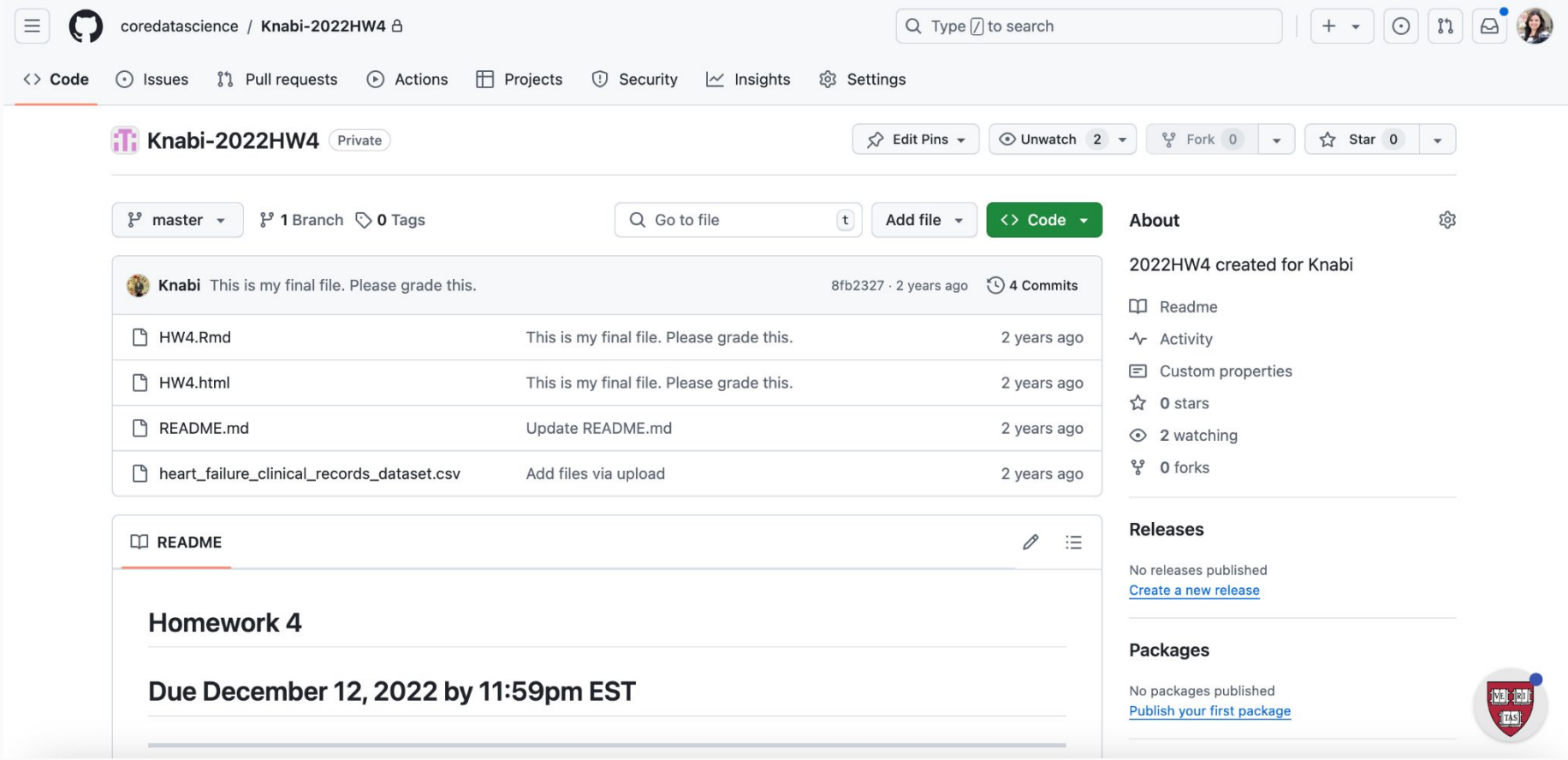
- **repo** - short for repository
- **repository** - the directory or folder that is under version control
- **local** - the repository on your computer
- **remote** - the repository on GitHub
- **commit** - take a snapshot of one or more files in the repository
- **push** - send commits from the local repo to the remote repo
- **pull** - retrieve commits from the remote repo to the local repo
- **.gitignore** a file that tells git which files or types of files you don't want to commit





Source

Homework Repositories



Homework Repositories