

## Lecture 14: Introduction to GitHub

### Managing and Manipulating Data Using R

# Introduction

# Libraries and data we will use today

## Libraries

```
library(tidyverse)
#> -- Attaching packages -----
#> v ggplot2 3.2.1          v purrr 0.3.2
#> v tibble 2.1.3           v dplyr 0.8.3
#> v tidyr 1.0.0.9000       v stringr 1.4.0
#> v readr 1.3.1           v forcats 0.4.0
#> -- Conflicts -----
#> x dplyr::filter() masks stats::filter()
#> x dplyr::lag() masks stats::lag()
library(haven)
library(labelled)
```

## Data frame

```
#load dataset with one obs per recruiting event
load(url("https://github.com/ozanj/rclass/raw/master/data/recruiting/recruit_ev
```

## **(LAST!) Lecture 14: Intro to GitHub**

- ▶ GitHub can be difficult to get the hang of!
- ▶ Learning goals: Develop basic understanding; set up a repo on your local machine; get some practice working with GitHub

### **Teacher Course Evaluations:**

- ▶ All but one completed as of this morning!

# What we will do today

## 1. Introduction

### 1.1 What is Git and GitHub?

### 1.2 Git Setup

What is Git and GitHub?

# What is Git and GitHub?

**Git** is the most commonly used version-control system to manage code

- ▶ Save drafts of code
- ▶ Look back at previous versions
- ▶ Undo mistakes
- ▶ Track your changes

A project managed in **Git** is called a **Git repository**

**GitHub** is the hosting site/service for **Git repositories**

- ▶ Stores your local repos in “the cloud”
- ▶ You can store files, share code, collaborate with others
- ▶ Who uses GitHub? Netflix, Airbnb, Lyft, Coursera
- ▶ Competes with Microsoft's and Google's in-house systems

This course is a **Git repository**!

## Git Setuup



# Create and Verify a Git Account

You should have created a free git account prior to class.

- ▶ If you haven't, please create one now: <https://github.com/>
- ▶ Be sure to verify your account via email sent by GitHub

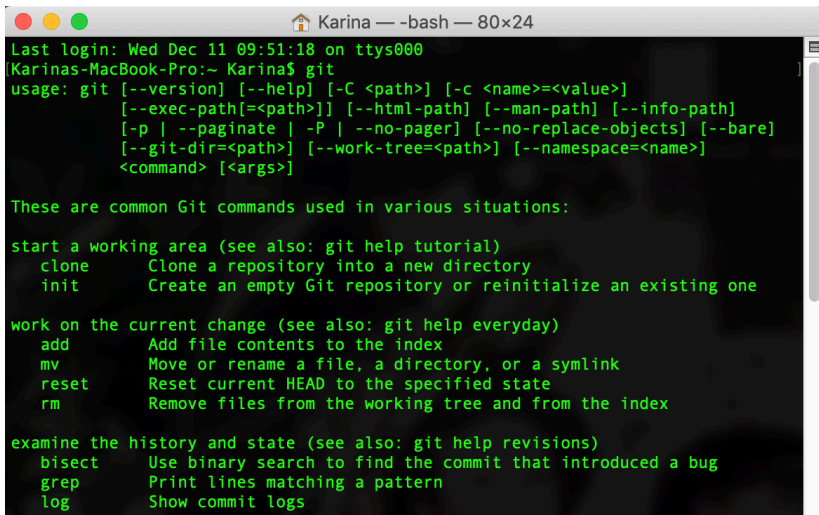
Share your usernames with me:

- ▶ ksalazar3

We will setup Git using **Code Academy** instructions: [Link](#)

## Git Setup for Mac Users

1. Open a Terminal window (command+space bar to open Spotlight Search)
  - ▶ Terminal is the CLI (command line interface) for Linux and Mac users
1. Type in git to the command line and press enter
2. If you don't already have Git installed, you'll get an warning saying **Git** requires command line developer tools. Click install and agree to terms.



```
Karina — -bash — 80x24
Last login: Wed Dec 11 09:51:18 on ttys000
[Karinas-MacBook-Pro:~ Karina$ git
usage: git [--version] [--help] [-C <path>] [-c <name>=<value>]
        [--exec-path[=<path>]] [--html-path] [--man-path] [--info-path]
        [-p | --paginate | -P | --no-pager] [--no-replace-objects] [--bare]
        [--git-dir=<path>] [--work-tree=<path>] [--namespace=<name>]
        <command> [<args>]

These are common Git commands used in various situations:

start a working area (see also: git help tutorial)
    clone      Clone a repository into a new directory
    init       Create an empty Git repository or reinitialize an existing one

work on the current change (see also: git help everyday)
    add        Add file contents to the index
    mv         Move or rename a file, a directory, or a symlink
    reset      Reset current HEAD to the specified state
    rm         Remove files from the working tree and from the index

examine the history and state (see also: git help revisions)
    bisect     Use binary search to find the commit that introduced a bug
    grep       Print lines matching a pattern
    log        Show commit logs
```

# Git Setup for Windows Users

Warning: I have never worked/installed on a Windows so this may take some time!  
Mac Users please be patient :)

## 1. Need to first install Git Bash

- ▶ *Bash* is the default shell (a specific type of CLI) for Linux and Mac Users so only Windows users need to install this first. Windows default is *Command Prompt*.
- ▶ Download and install Git Bash: <https://gitforwindows.org/>
- ▶ Run the downloaded .exe file and allow the application to make changes to your PC.
- ▶ Once it is finished install, check it installed by searching “git bash” in your start menu
- ▶ Click on the git bash icon to open your *Git Bash CLI*

## Setting Username and Email in Git