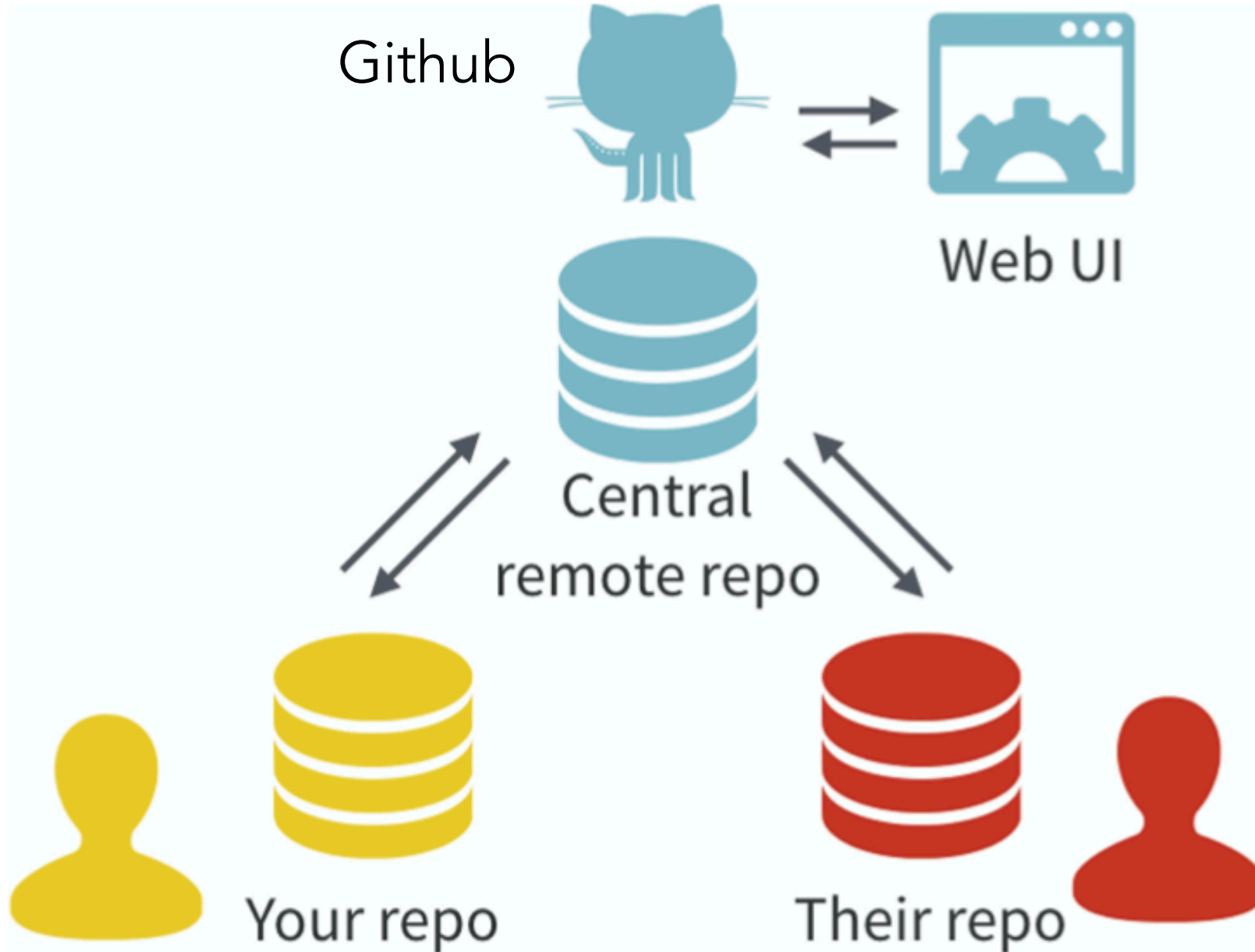


Setting up a Github repo and basic Git commands

1 October 2021

Modern Research Methods



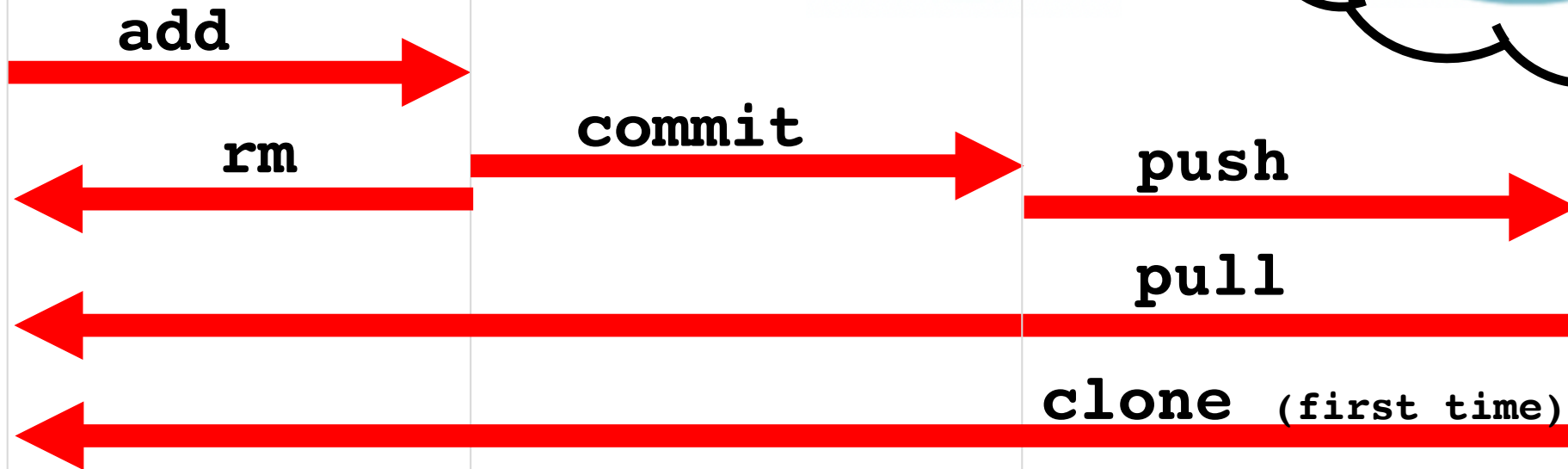
The workflow

Your Working Directory

Staging Area

Local Repo

Central Repo on Github



<https://github.com/mllewis/RC>

In groups of 2-3, answer the following questions:

1. What is the directory structure of the repo?
2. How many commits are there?
3. What was the first commit message on Aug 21, 2015
4. Can you find the object to the right? (obj_15.jpg)
5. How many collaborators were there on this project?



Setting up a GitHub repository

The screenshot shows the GitHub profile page for user 'jaeahk'. The top navigation bar is dark grey with the GitHub logo on the left, a search bar, and links for 'Pull requests', 'Issues', 'Marketplace', and 'Explore'. On the right of the navigation bar, there are icons for notifications, a plus sign (circled in orange), and a profile icon. A large green arrow points from the bottom right towards the plus sign icon.

Below the navigation bar, the profile header includes a 'ProTip!' message: 'Updating your profile with your name, location, and a profile picture helps other GitHub users get to know you.' with an 'Edit profile' button. The user's name 'jaeahk' is displayed below a large orange 'H' profile picture. A 'Set status' button is located below the profile picture.

The profile statistics are shown as: Overview, Repositories 0, Projects 0, Packages 0, Stars 0, Followers 0, and Following 0. The 'Overview' tab is selected.

Under the 'Popular repositories' section, a message states: 'You don't have any public repositories yet.'

The '0 contributions in the last year' section features a contribution graph grid. The grid has columns for months (Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec, Jan, Feb) and rows for days of the week (Mon, Wed, Fri). All squares in the grid are light grey, indicating no contributions. A legend at the bottom right shows a color scale from light grey to dark green, with a 'Less' and 'More' label.

Below the graph, there is explanatory text: 'This is your **contribution graph**. Your first ■ is for joining GitHub and you'll earn more as you make [additional contributions](#). More contributions means a darker green square for that day. Over time, your chart might start looking [something like this](#). We have a quick guide that will show you how to create your first repository and earn more green squares!'

Setting up a GitHub repository

The screenshot shows the GitHub user profile page for 'jaeahk'. The user's profile picture is a large orange 'H' on a grey background. Below the profile picture is a 'Set status' button. The user's name 'jaeahk' is displayed, followed by an 'Edit profile' button. The navigation bar at the top includes 'Pull requests', 'Issues', 'Marketplace', and 'Explore'. A dropdown menu is open, showing options: 'New repository', 'Import repository', 'New gist', 'New organization', and 'New project'. A green arrow points to the 'New repository' option. The main content area shows a 'ProTip!' message, a navigation bar with 'Overview' selected, and statistics for Repositories (0), Projects (0), Packages (0), Stars (0), Followers (0), and Following (0). Below this is a section for 'Popular repositories' with the message 'You don't have any public repositories yet.' and a '0 contributions in the last year' section with a contribution graph. The contribution graph shows a grid of squares for the last year, with a legend indicating 'Less' and 'More' contributions. A link to 'Learn how we count contributions.' is provided. At the bottom, there is a text block explaining the contribution graph and a link to a quick guide.

Search or jump to... / Pull requests Issues Marketplace Explore

ProTip! Updating your profile with your name, location, and a profile picture helps other GitHub users get to know you.

Overview Repositories 0 Projects 0 Packages 0 Stars 0 Followers 0 Following 0

Popular repositories

You don't have any public repositories yet.

0 contributions in the last year Contribution settings

Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb

Mon

Wed

Fri

[Learn how we count contributions.](#) Less More

This is your **contribution graph**. Your first ■ is for joining GitHub and you'll earn more as you make [additional contributions](#). More contributions means a darker green square for that day. Over time, your chart might start looking [something like this](#).

We have a quick guide that will show you how to create your first repository and earn more green squares!

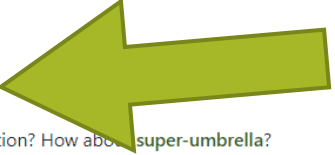
<https://github.com/new>

Setting up a GitHub repository

GitHub navigation bar: Search or jump to..., Pull requests, Issues, Marketplace, Explore, Notifications, Profile

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Owner jaeahk **Repository name *** MRM-Assignment-4-tutorial 

Great repository names are short and memorable. Need inspiration? How about [super-umbrella?](#)

Description (optional)

Public
Anyone on the internet can see this repository. You choose who can commit.

Private
You choose who can see and commit to this repository.






Skip this step if you're importing an existing repository.

Initialize this repository with a README
This will let you immediately clone the repository to your computer.

Add .gitignore: None **Add a license:** None ⓘ

Create repository



Setting up a GitHub repository

 Search or jump to...  [Pull requests](#) [Issues](#) [Marketplace](#) [Explore](#)   

Create a new repository


A repository contains all project files, including the revision history. Already have a project repository elsewhere?
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 **jaeahk** / **MRM-Assignment-4-tutorial** 

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Add .gitignore: **None** | Add a license: **None** 

Create repository

Setting up a GitHub repository

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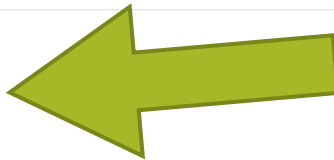
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Setting up a GitHub repository

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Description (optional)

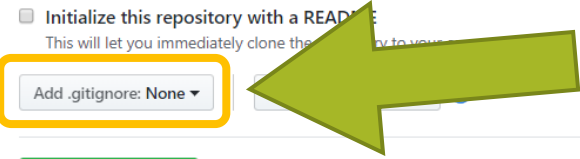
Public
Anyone on the internet can see this repository. You choose who can commit.

Private
You choose who can see and commit to this repository.

Skip this step if you're importing an existing repository.

Initialize this repository with a README
This will let you immediately clone the repository to your local machine.

Add .gitignore: None



Setting up a GitHub repository

GitHub navigation bar: Search or jump to..., Pull requests, Issues, Marketplace, Explore, notifications, user profile.

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Owner **Repository name ***

jaeahk / MRM-Assignment-4-tutorial

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Skip this step if you're importing an existing repository.

Initialize this repository with a README
This will let you immediately clone the repository to your computer.

ⓘ



Setting up a GitHub repository

GitHub navigation bar: Search or jump to..., Pull requests, Issues, Marketplace, Explore, Notifications, +, Profile

Create a new repository

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Skip this step if you're importing an existing repository.

Initialize this repository with a README
This will let you immediately clone the repository to your computer.



Setting up a GitHub repository

github.com/jaeahk/MRM-Assignment-4-tutorial



Learn Git and GitHub without any code!

Using the Hello World guide, you'll start a branch, write comments, and open a pull request.

Read the guide

jaeahk / MRM-Assignment-4-tutorial Private

Unwatch 1 Star 0 Fork 0

Code Issues 0 Pull requests 0 Actions Projects 0 Security Insights Settings

No description, website, or topics provided.

Edit

Manage topics

1 commit 1 branch 0 packages 0 releases

Branch: master New pull request

Create new file Upload files Find file Clone or download

jaeahk Initial commit Latest commit 95710c7 13 minutes ago

README.md Initial commit 13 minutes ago

README.md

MRM-Assignment-4-tutorial

Cloning repository onto local machine/cloud

Learn Git and GitHub without any code!
Using the Hello World guide, you'll start a branch, write comments, and open a pull request.

[Read the guide](#)

jaeahk / MRM-Assignment-4-tutorial Private Unwatch 1 Star 0 Fork 0

[Code](#) [Issues 0](#) [Pull requests 0](#) [Actions](#) [Projects 0](#) [Security](#) [Insights](#) [Settings](#)

No description, website, or topics provided. [Edit](#)

Manage topics

1 commit 1 branch 0 packages 0 releases

Branch: master [New pull request](#) [Create new file](#) [Upload files](#) [Find file](#) [Clone or download](#)

jaeahk Initial commit Latest commit 95710c7 13 minutes ago

[README.md](#) Initial commit 13 minutes ago

README.md

MRM-Assignment-4-tutorial

How do you interact with git?

- At the command line in Terminal:

git **<VERB>** **<ARGS>**

- Various GUIs

Cloning repository onto local machine/cloud

The screenshot displays the R Studio Cloud interface. The top-left sidebar shows the 'Spaces' section with 'Your Workspace' selected. The main workspace area is titled 'Your Workspace / Assignment 4 Tutorial'. The top menu bar includes 'File', 'Edit', 'Code', 'View', 'Plots', 'Session', 'Build', 'Debug', 'Profile', 'Tools', and 'Help'. The 'Terminal' tab is selected and highlighted with a green arrow. The terminal output shows the R version (3.6.0) and copyright information. The file explorer on the right shows the 'project' folder containing files '.Rhistory' and 'project.Rproj'.

Studio Cloud

Your Workspace / Assignment 4 Tutorial

R 3.6.0

Environment History Connections

Global Environment

Environment is empty

Files Plots Packages Help Viewer

New Folder Upload Delete Rename More

Cloud > project

Name	Size	Modified
..		
.Rhistory	0 B	Feb 12, 2020, 4:59 PM
project.Rproj	205 B	Feb 12, 2020, 4:59 PM

```
R version 3.6.0 (2020-04-26) -- "Planting of a Tree"
Copyright (C) 2020 R Foundation for Statistical Computing
Platform: x86_64-pc-linux-gnu (64-bit)

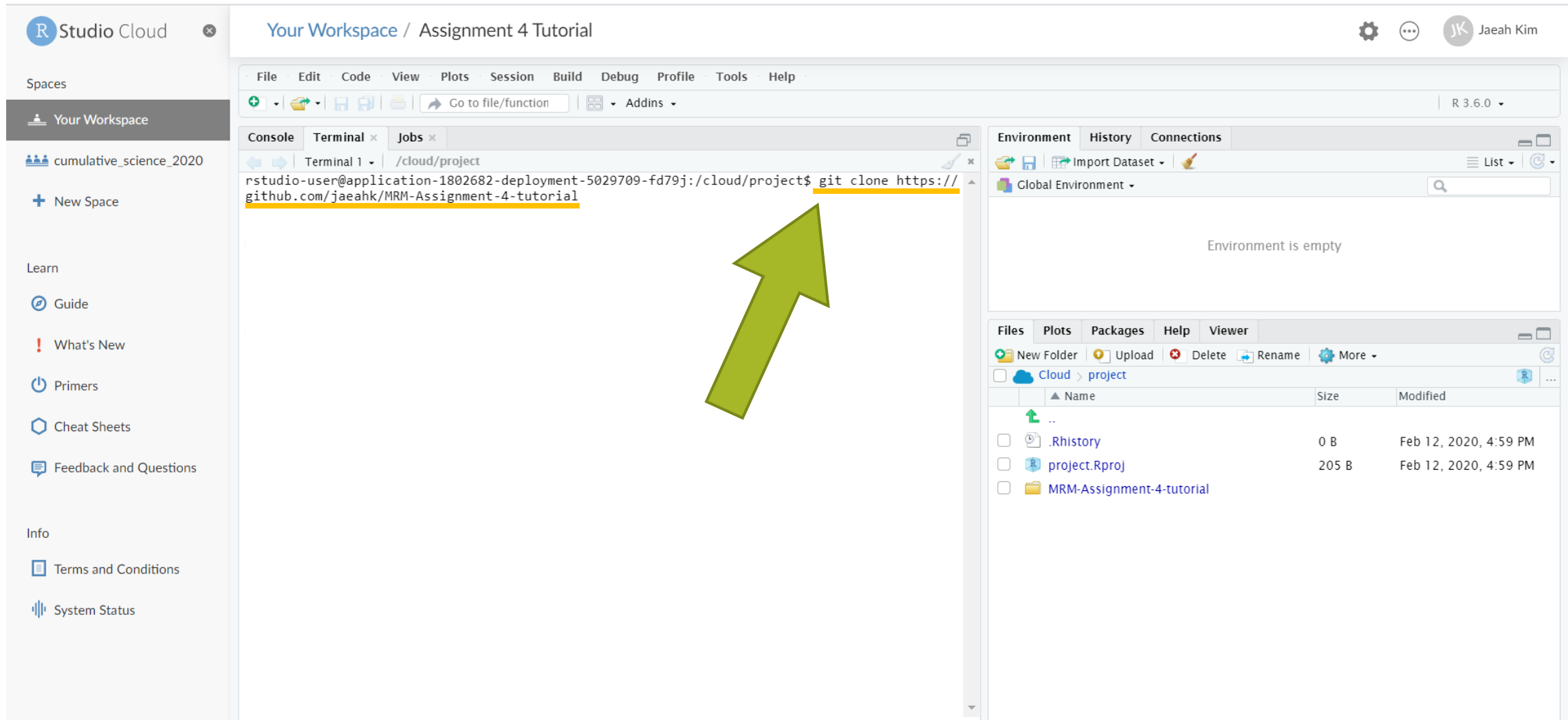
R is free software; it comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.

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.

> |
```


Cloning repository onto local machine/cloud



The screenshot displays the RStudio Cloud interface for a workspace named "Assignment 4 Tutorial". The terminal window shows the command `git clone https://github.com/jaeahk/MRM-Assignment-4-tutorial` being executed. A green arrow points to the command. The file explorer on the right shows the contents of the cloned repository, including a `.Rhistory` file, a `project.Rproj` file, and a folder named `MRM-Assignment-4-tutorial`.

Terminal Output:

```
rstudio-user@application-1802682-deployment-5029709-fd79j:/cloud/project$ git clone https://github.com/jaeahk/MRM-Assignment-4-tutorial
```

File Explorer Contents:

Name	Size	Modified
..		
.Rhistory	0 B	Feb 12, 2020, 4:59 PM
project.Rproj	205 B	Feb 12, 2020, 4:59 PM
MRM-Assignment-4-tutorial		

Navigating to repository (in file explorer)

The screenshot displays the RStudio Cloud interface. The top bar shows 'Your Workspace / Assignment 4 Tutorial' and the user 'Jaeah Kim'. The left sidebar contains navigation options like 'Spaces', 'Learn', and 'Info'. The main area is divided into a terminal and a file explorer.

Terminal Output:

```
rstudio-user@application-1802682-deployment-5029709-fd79j:/cloud/project$ git clone https://github.com/jaeahk/MRM-Assignment-4-tutorial
Cloning into 'MRM-Assignment-4-tutorial'...
error: cannot run rpostback-askpass: No such file or directory
Username for 'https://github.com': jaeahk
error: cannot run rpostback-askpass: No such file or directory
Password for 'https://jaeahk@github.com':
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
Checking connectivity... done.
rstudio-user@application-1802682-deployment-5029709-fd79j:/cloud/project$ ls
MRM-Assignment-4-tutorial  project.Rproj
rstudio-user@application-1802682-deployment-5029709-fd79j:/cloud/project$ git config --global user.email "jaeah2014@gmail.com"
rstudio-user@application-1802682-deployment-5029709-fd79j:/cloud/project$ git config --global user.name "Jaeah Kim"
rstudio-user@application-1802682-deployment-5029709-fd79j:/cloud/project$ cd MRM-Assignment-4-tutorial/
rstudio-user@application-1802682-deployment-5029709-fd79j:/cloud/project/MRM-Assignment-4-tutorial$ ls
README.md
rstudio-user@application-1802682-deployment-5029709-fd79j:/cloud/project/MRM-Assignment-4-tutorial$
```

File Explorer:

The file explorer shows the current directory structure:

Name	Size	Modified
..		
.Rhistory	0 B	Feb 12, 2020, 4:59 PM
project.Rproj	205 B	Feb 12, 2020, 4:59 PM
MRM-Assignment-4-tutorial		

A green arrow points to the 'MRM-Assignment-4-tutorial' folder in the file explorer.

Some basic Linux commands

In the Terminal:

cd – change your current directory

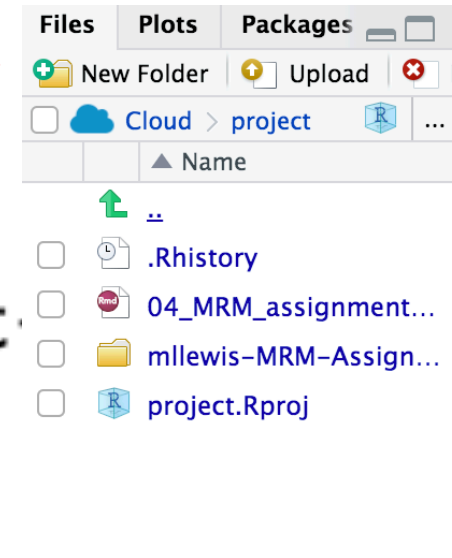
```
MRMSTUDENT$ cd mllewis-MRM-Assignment
```

ls – shows you the files in your directory

```
MRMSTUDENT$ ls
```

```
README.md filter_flamingo_molly.jpg
```

Your place in the Rstudio visual directory and the Terminal are not the same!



New R function: clean_names()

- In the janitor package
- Cleans the names of the variables in a data frame
- By default, does "snake_case"

```
# Create a data.frame with dirty names
test_df <- as.data.frame(matrix(ncol = 6))
names(test_df) <- c("firstName", "ábc@!*", "% successful (2009)",
                  "REPEAT VALUE", "REPEAT VALUE", "")
```

Clean the variable names, returning a data.frame:

```
test_df %>%
  clean_names()
#>   first_name abc percent_successful_2009 repeat_value repeat_value_2 x
#> 1          NA  NA                    NA          NA          NA NA
```

Assignment 4

- Exercise 1-2 involve writing R code to reproduce someone numbers from an existing paper
- Exercises 3-10 involve using git and Github
- As part of your assignment, only need to include something in your .Rmd when prompted
- Use the remaining time today to get started on the assignment