

EPH Lunchtime hacks, June 29th 2020

Version control, git, and GitHub

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GitHub



git



**VERSION
CONTROL**

What is git?

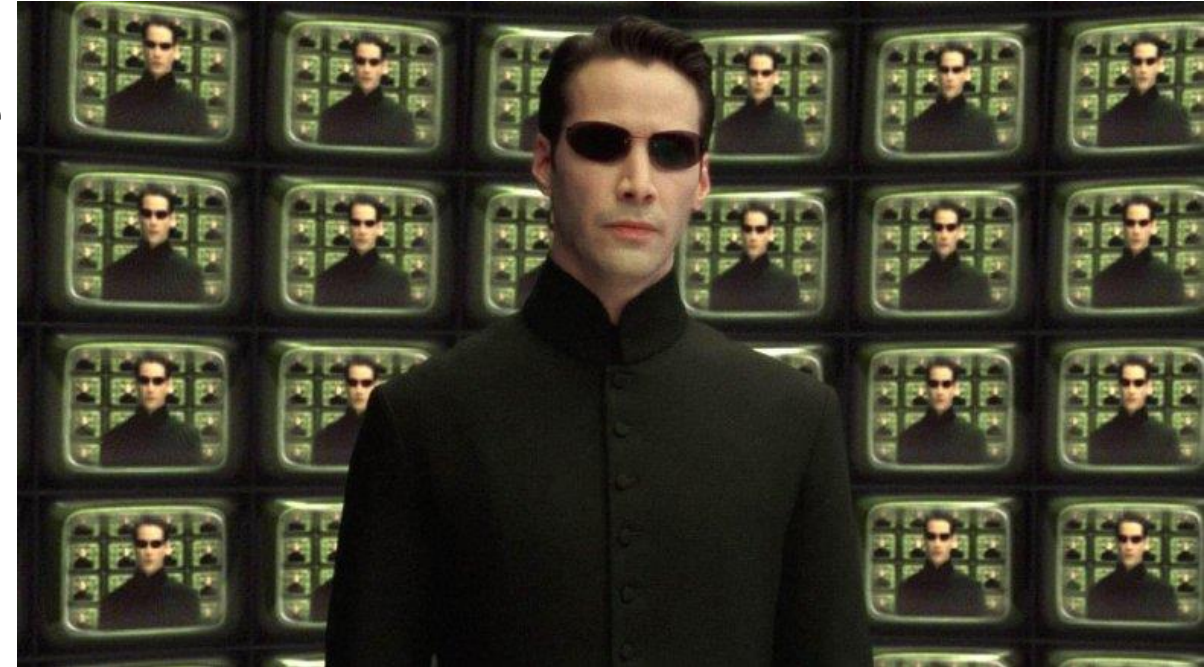


“A free and open source distributed version control system designed to handle everything from small to very large projects with speed and efficiency”

Advantages:

Version control

- Management of changes to documents, programs, web sites, or any other information
- Snapshots of every change you make
- Example: Track changes in MS Word



Online version control?



GitHub



What is Git(Hub?)



The GitHub

- Open source program for version control
- Multiple programming languages

The GitHub

- A collaboration platform
- Showcase
- Repository

Frequently used term

- Repository

A folder that contains a project. (Although you can have multiple projects inside a repository)

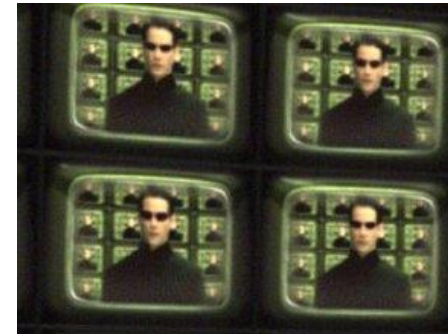
- Commit

Each snapshot or version of the project

- Branch

A sequence of commits that has an order.

A *Master* branch

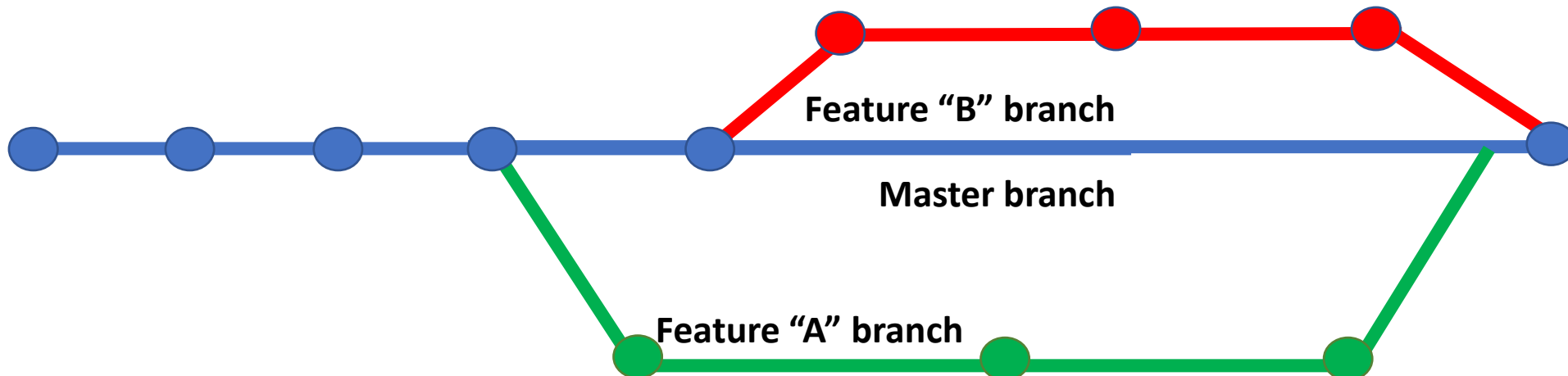


Creating branches

- This allows to work on the project while not touching the original files available in the **Master** branch

Committing the changes

- This allows to work on the project while not touching the original files available in the **Master** branch
- The commit messages should be short (50 characters or less)
- Using active voice
- You use commit when you are **decided** to make a change



Carvalenc / github-slideshow

Unwatch 2 Star 0 Fork 0

Code Issues 1 Pull requests 1 Actions Projects Wiki Security 2 Insights Settings

master github-slideshow / _posts /

Go to file Add file ...

Create new file Upload files

githubteacher Initial commit 139e


..

0000-01-01-intro.md Initial commit 3 years ago




Pull request

- Propose a work in progress to be pulled into the project

Creating a new repository



[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? [Import a repository.](#)

Owner *

Repository name *

 Carvalenc

 /

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

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.

Initialize this repository with:

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

☐ **Add a README file**

This is where you can write a long description for your project. [Learn more.](#)

☐ **Add .gitignore**

Choose which files not to track from a list of templates. [Learn more.](#)

☐ **Choose a license**

A license tells others what they can and can't do with your code. [Learn more.](#)

Create repository

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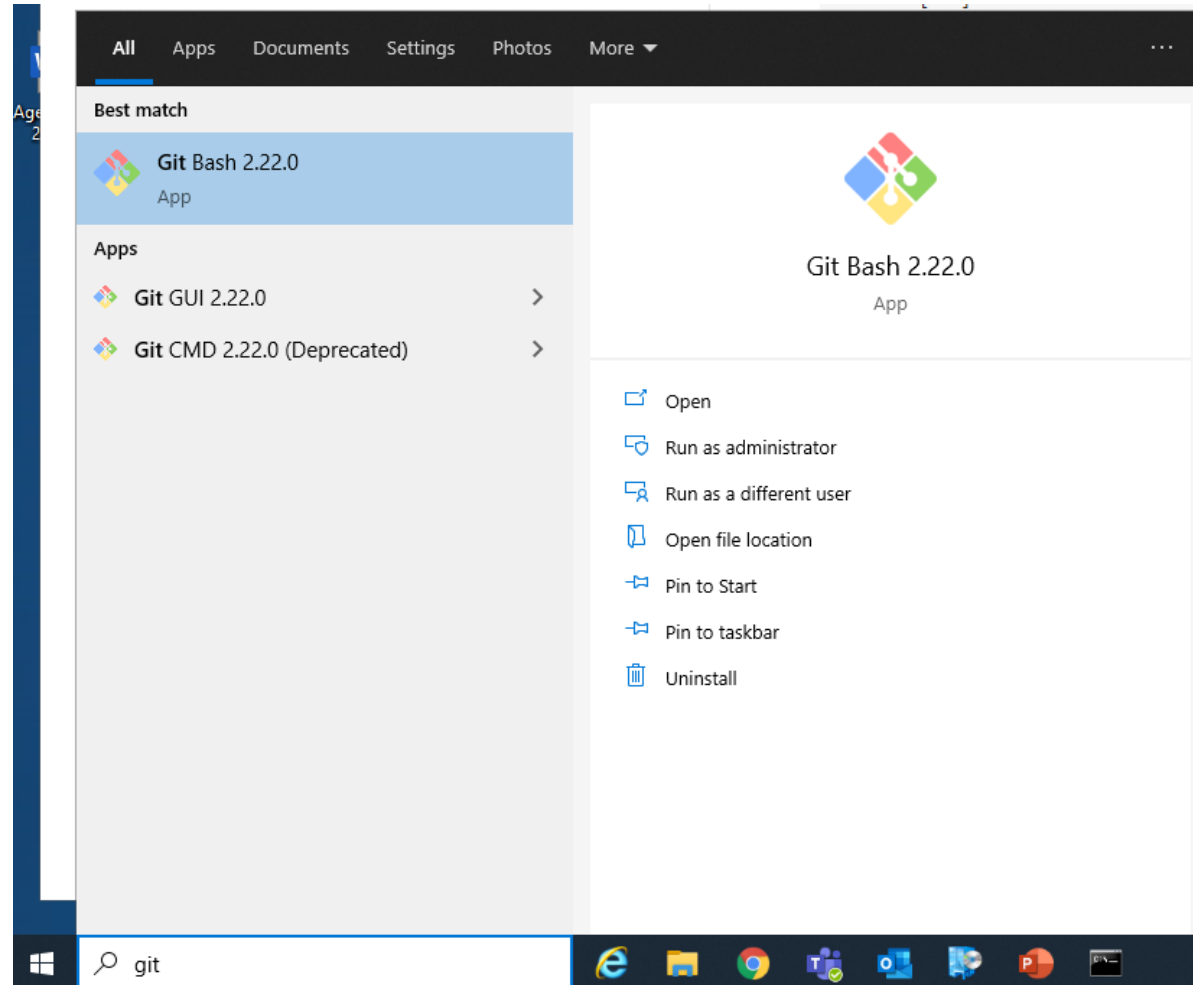
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MAC terminal

Windows on a UCL computer



Clone the repository

The screenshot shows the GitHub interface for the repository `Carvalenc/regressionwithr`. The repository is private and has 1 branch and 0 tags. The main branch is `main`. The repository contains the following files:

File	Commit	Time
<code>.gitignore</code>	Initial commit	1 hour ago
<code>LICENSE</code>	Initial commit	1 hour ago
<code>README.md</code>	Initial commit	1 hour ago

The `README.md` file content is:

```
regressionwithr
```

Text and script in R studio for the exercises of the book "Linear Regression with R, from Martin Sheather"

A terminal window is open in the foreground, showing the command to clone the repository:

```
rmj@CS00035589 MINGW64 /d/Documents/Desktop/UCL/Cavalenc/PhD/R/learning
$ git clone https://github.com/Carvalenc/regressionwithr
Cloning into 'regressionwithr'...
```

A GitHub Login overlay is visible on the right side of the screen, showing the login form with fields for Username or email and Password, and buttons for Login and Cancel. The overlay also includes links for Sign up and Forgot your password?



Why GitHub? ▾ Team Enterprise Explore ▾ Marketplace Pricing ▾

stata



Sign in

Sign up

Repositories 4K

Code ?

Commits 27K

Issues 15K

Discussions Beta 52

Packages 1

Marketplace 1

Topics 46

Wikis 1K

Users 425

4,368 repository results

Sort: Best match ▾



[worldbank/stata](#)

Stata Commands for Data Management and Analysis

☆ 144 MIT license Updated on 23 Mar 2020



[GeoCenter/StataTraining](#)

Stata & R code for course on the fundamentals of data analysis and visualization

☆ 109 HTML Updated on 24 Jul 2018



[statamic/statamic](#)

Statamic 3: The New Site/App Package

cms

php

vuejs

laravel

beta

laravel-package

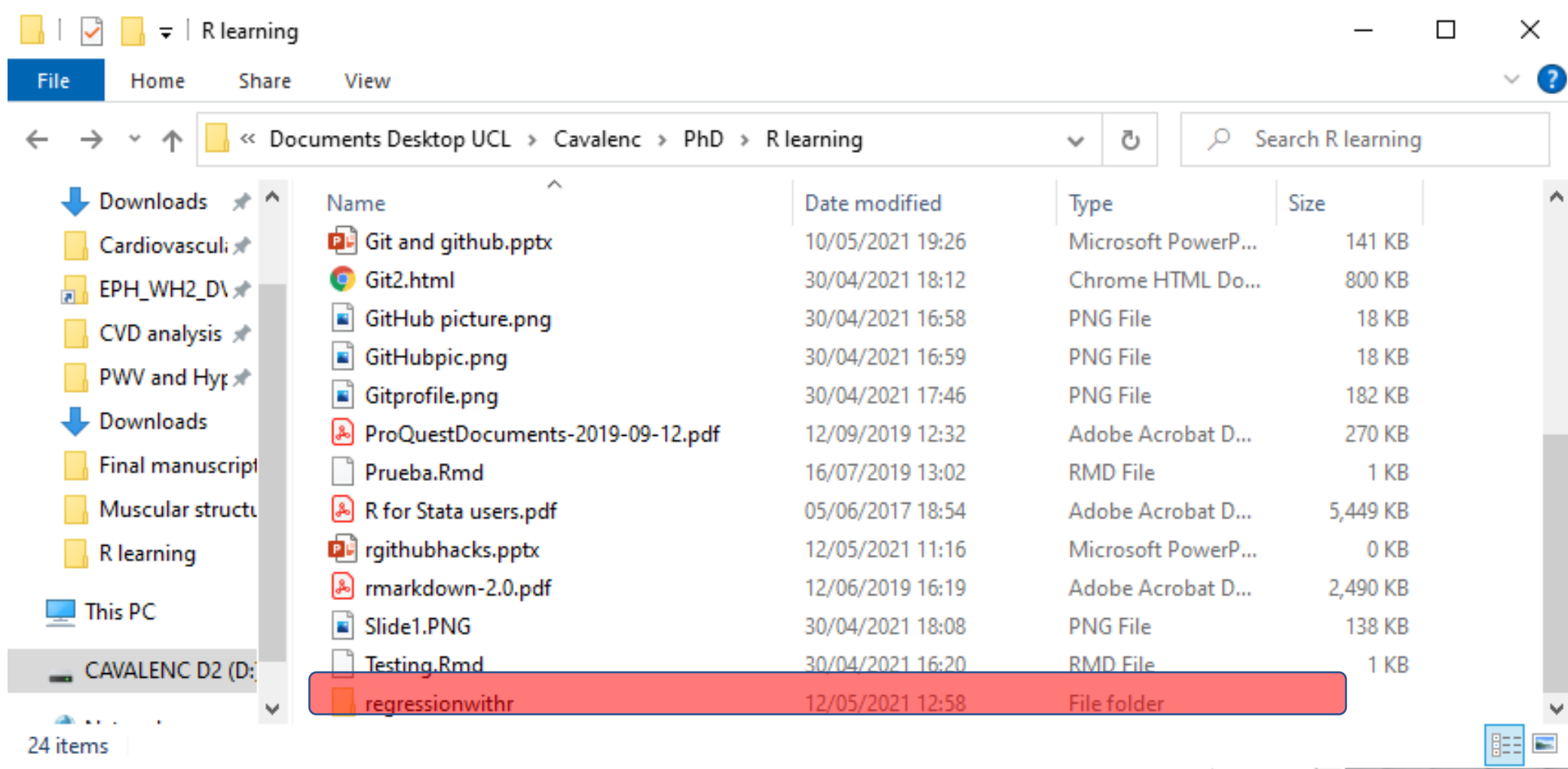
laravel-cms

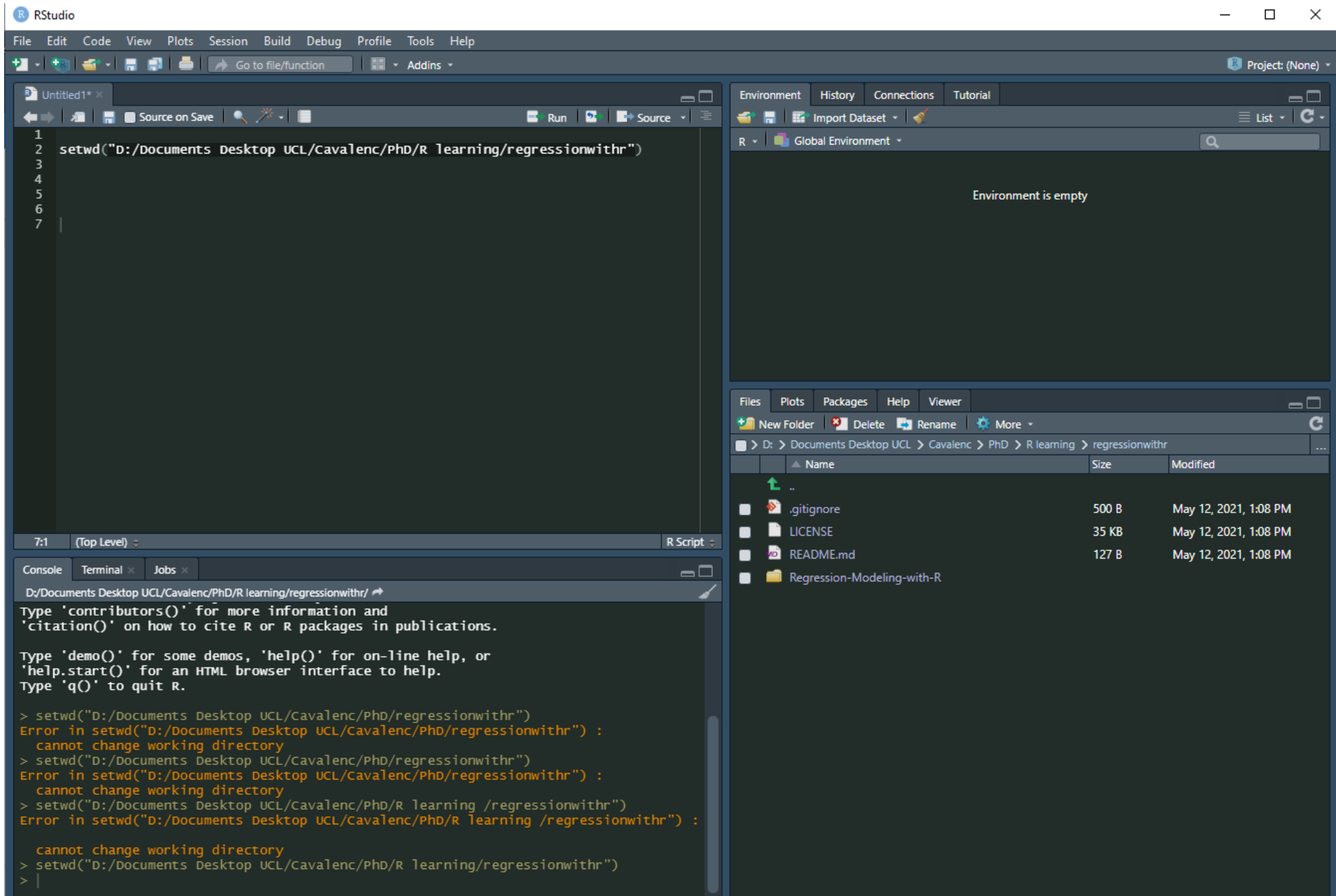
statamic

composer-package

[+11k in doc](#)

Now we can see the cloned repository





Useful resources:

- The Git book

<https://git-scm.com/book/en/v2>

- Set up Git course

<https://docs.github.com/en/get-started/quickstart/set-up-git>

