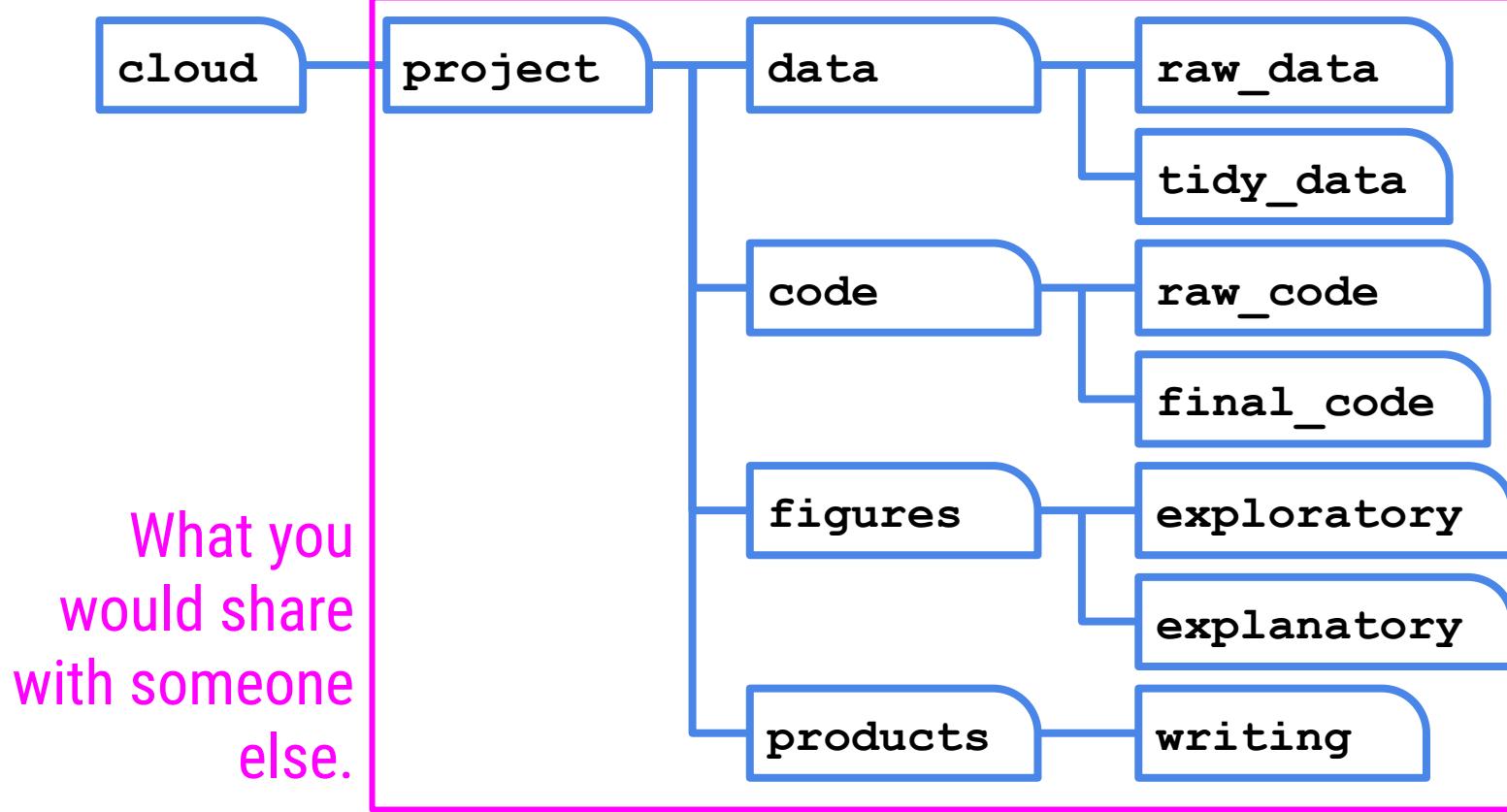


Version control with GitHub



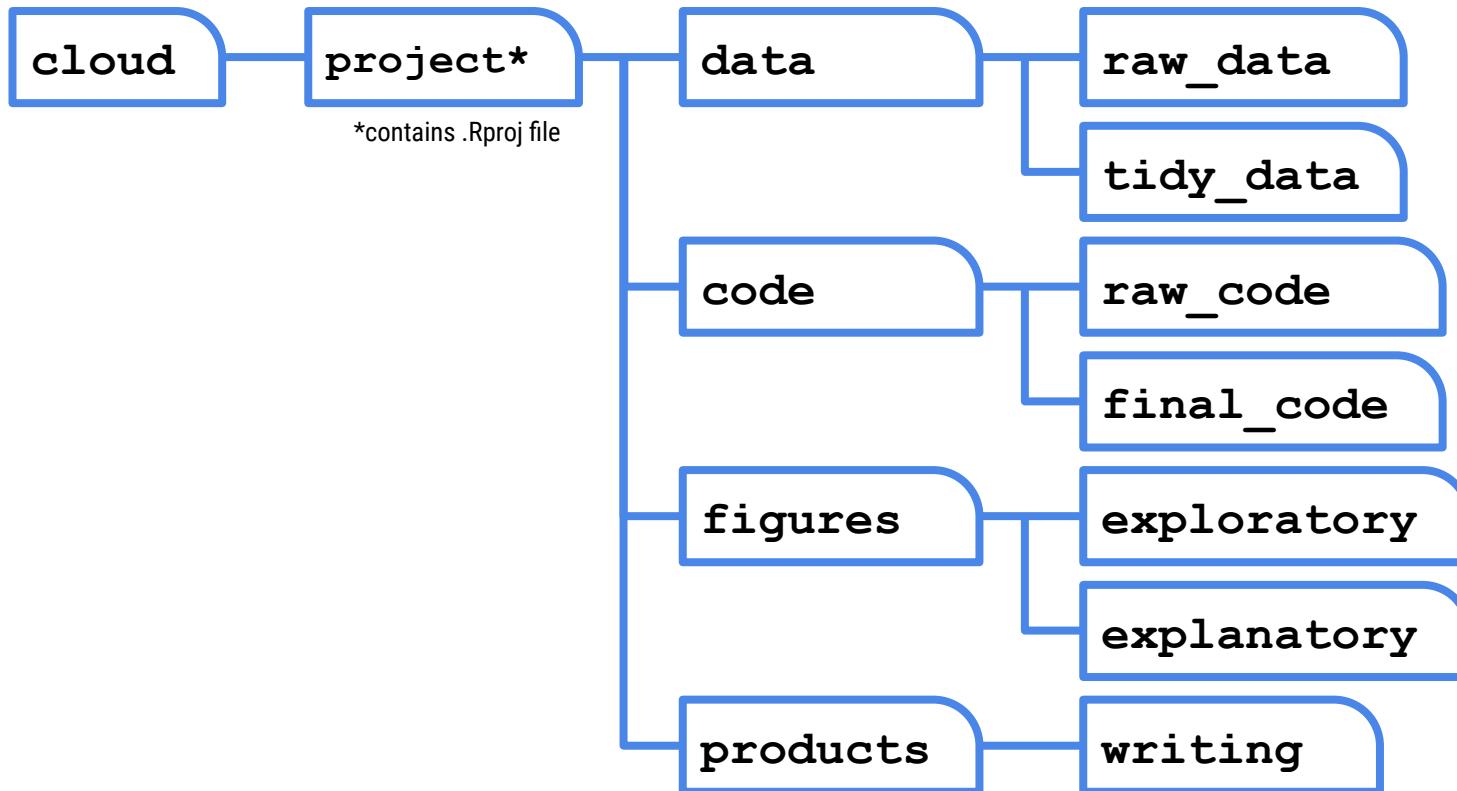
What you
would share
with someone
else.

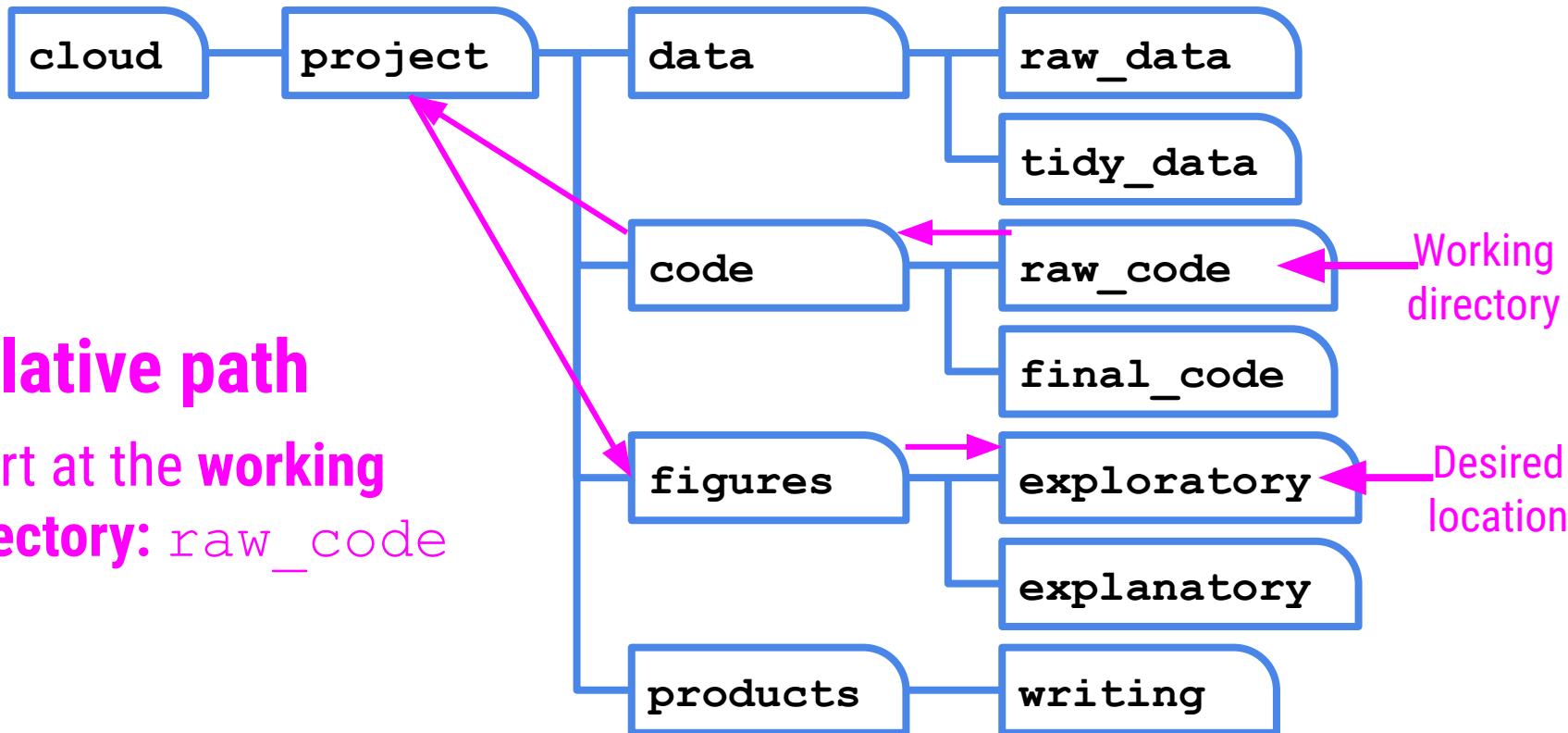
All paths in your code should be relative to /cloud/project !

Projects in RStudio help you organize like this

1. File → New Project
2. Can integrate with version control fairly painlessly
3. Can switch between projects very easily
4. Great for package development (as a bunch of additional options and tools become available)

Relative and absolute paths

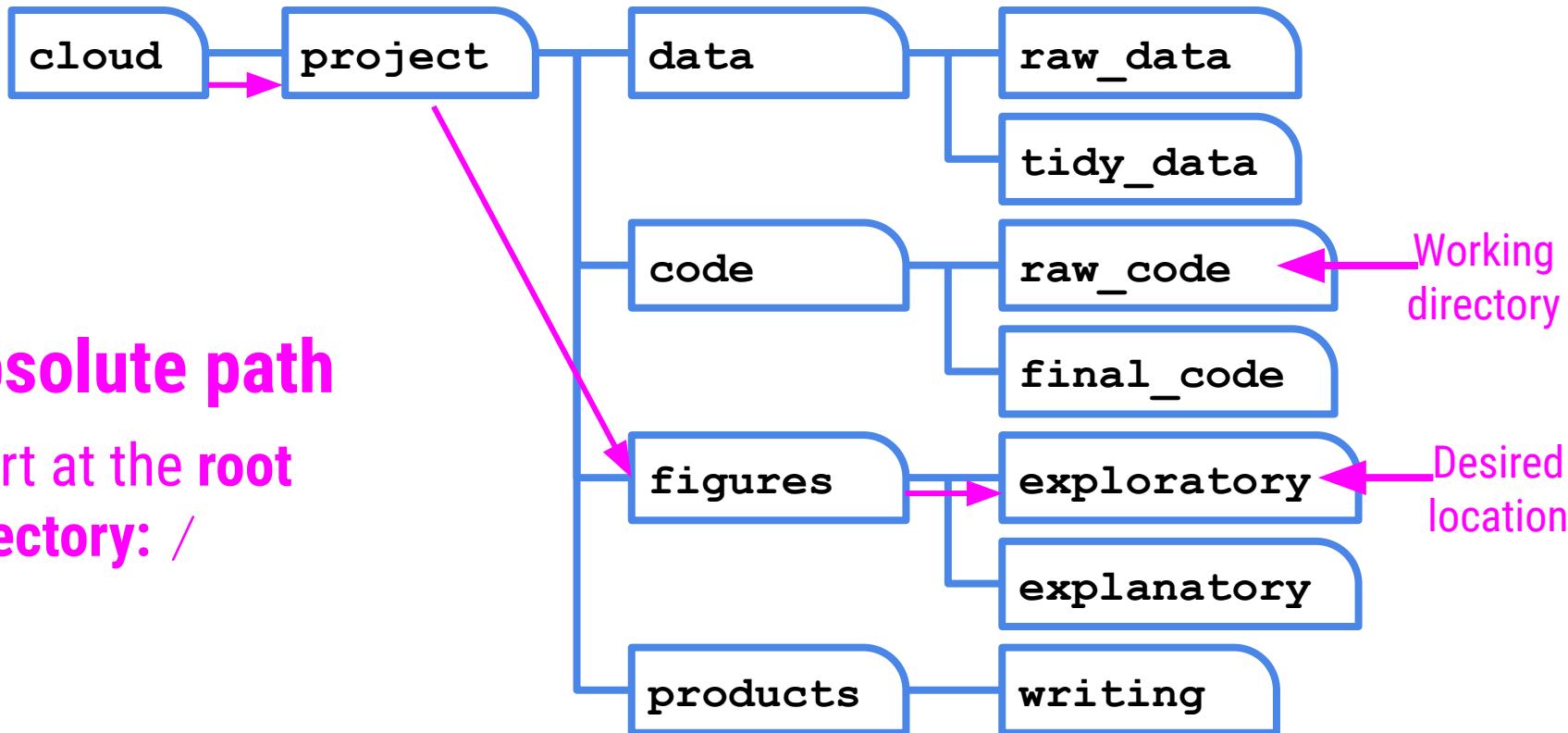




Relative path

Start at the **working directory**: `raw_code`

To specify this *relative path*: `../../figures/exploratory`

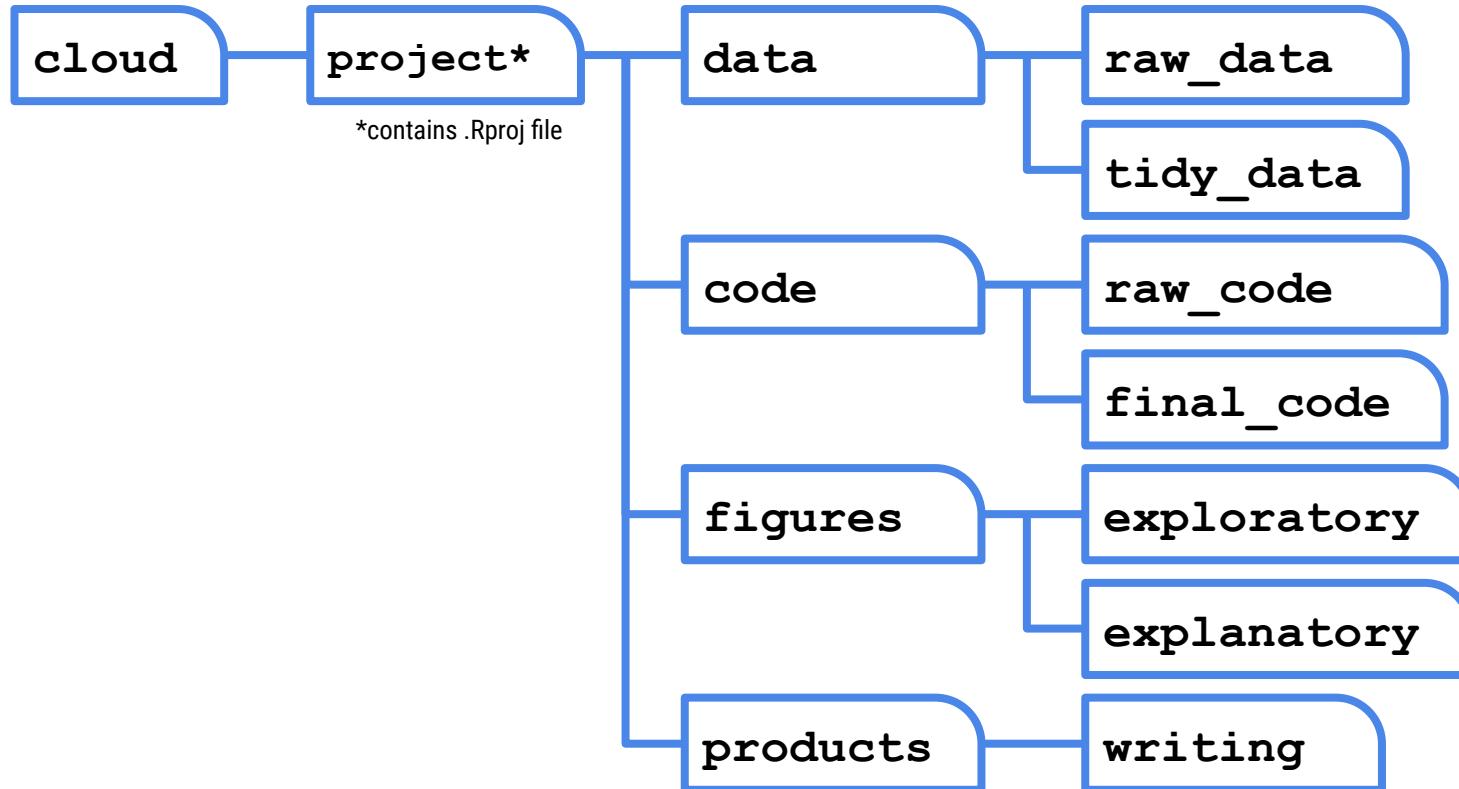


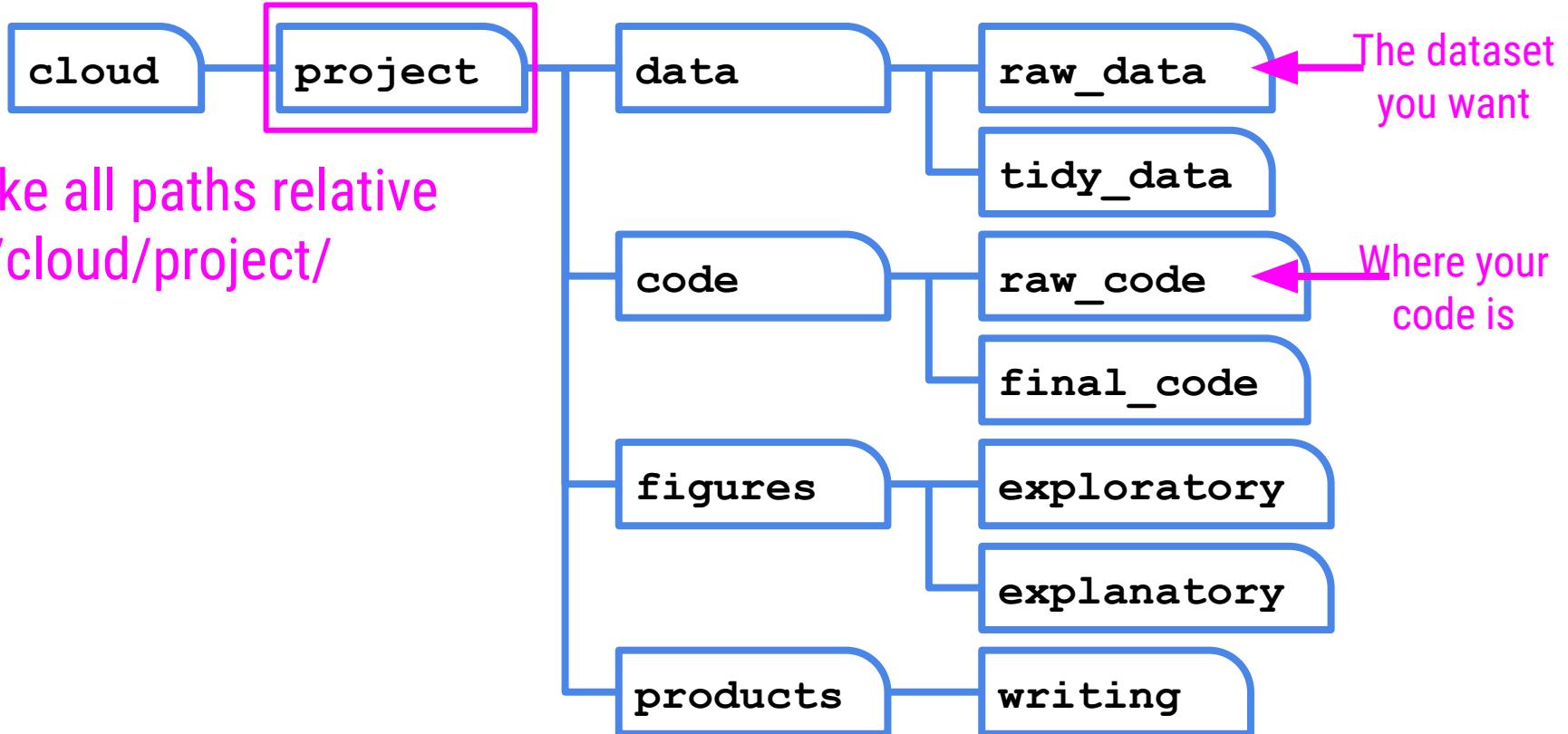
To specify this *absolute* path: /cloud/project/figures/exloratory/

	In the Terminal	In town
Root directory	/	Town square
Working directory	raw_code	Library
Destination	exploratory	Bakery

Absolute path: “We’re at the library but pretend you are at the town square. Turn left, then right.”

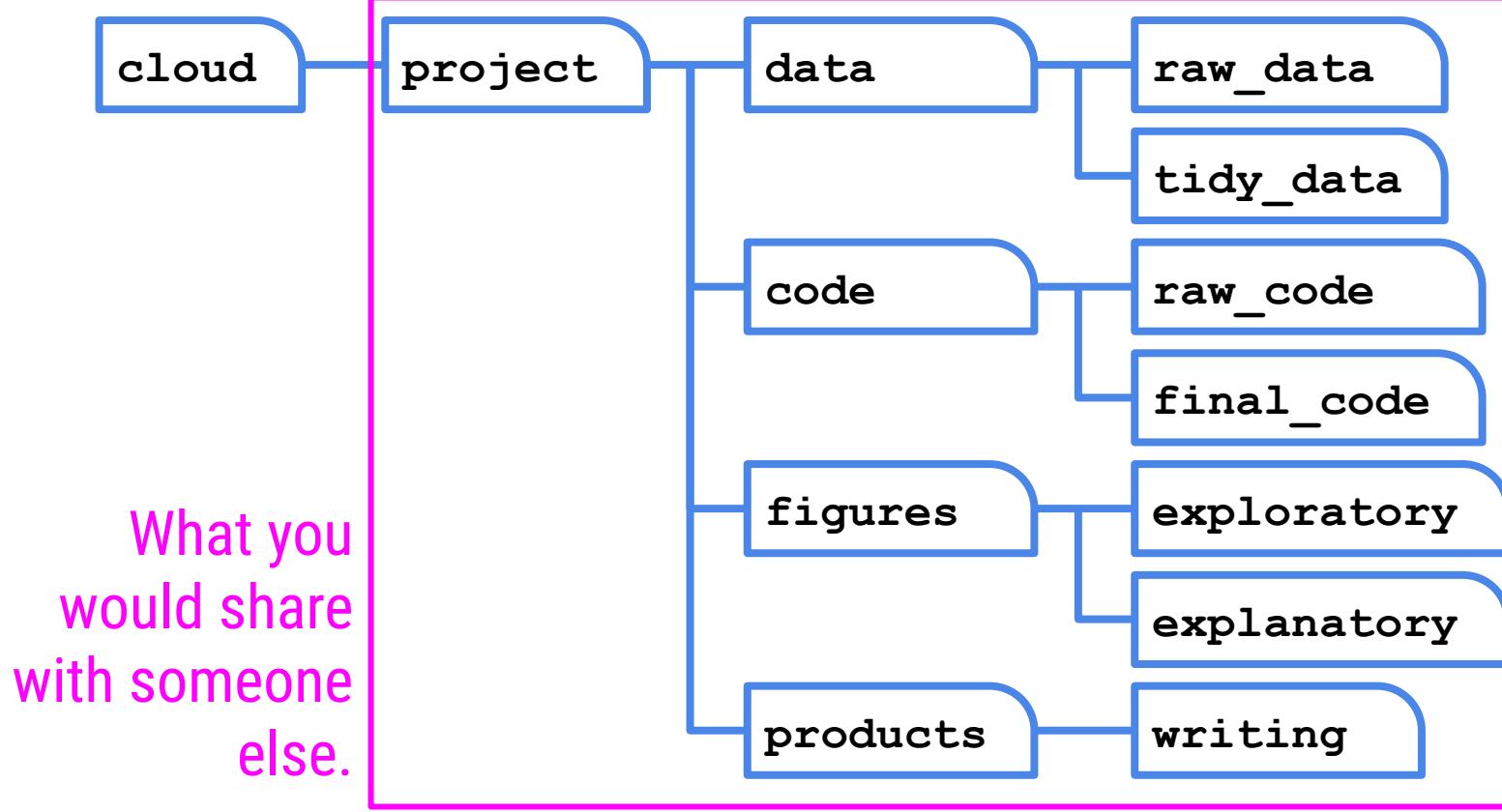
Relative path: “Turn right, then right again.”





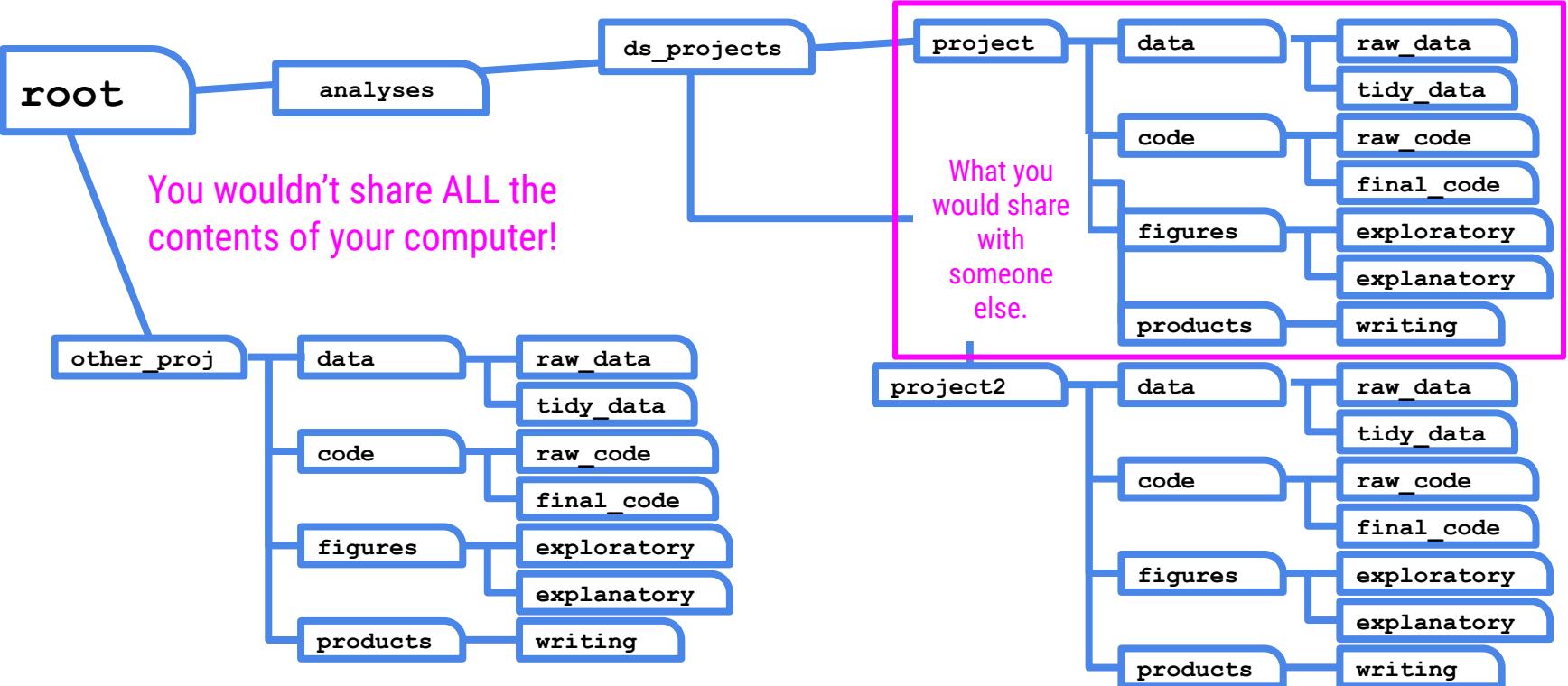
Make all paths relative
to /cloud/project/

To specify relative path to raw_data: data/raw_data/dataset.csv



What you
would share
with someone
else.

All paths in your code should be relative to `/cloud/project` !



Absolute paths like `/root/analyses/ds_projects/project/` wouldn't make sense on someone else's computer !

The screenshot shows the RStudio interface with three main panes:

- Console** (left): Displays R code and its output. A pink box highlights the command `library(here)` and its result [1] "/cloud/project".
- Environment** (top right): Shows the Global Environment pane with the message "Environment is empty".
- File Browser** (bottom right): Shows the contents of a project directory. A pink box highlights the ".Rhistory" file and the "project.Rproj" file.

A large pink arrow points from the highlighted text in the Console to the highlighted file in the File Browser, illustrating the relationship between the two.

here () defines your base directory to be the directory where you have a .Rproj file

https://github.com/jennybc/here_here

The screenshot shows the RStudio interface with three main panes:

- Console** (left pane): Displays R code and its output. A pink box highlights the first few lines of code related to the `here` package.
- Environment** (top right pane): Shows the global environment, which is currently empty.
- Files** (bottom right pane): Shows the project structure under `/cloud > project`. The structure includes a `..` folder, an `.Rhistory` file (0 B, May 17, 2018, 12:15 PM), and folders for `code`, `data`, `figures`, `products`, and `project.Rproj` (205 B, May 17, 2018, 12:15 PM).

Text overlay: here () does not care what you current working directory is. It's looking for a .Rproj file

```
> library(here)
>
> getwd()
[1] "/cloud/project"
>
> here()
[1] "/cloud/project"
>
> setwd("/cloud/project/code")
>
> getwd()
[1] "/cloud/project/code"
>
> here()
[1] "/cloud/project"
> |
```

Console Terminal

```
/cloud/project/ 
> library(here)
>
> getwd()
[1] "/cloud/project"
>
> here()
[1] "/cloud/project"
>
> here("code", "raw_code", "intro_code.R")
[1] "/cloud/project/code/raw_code/intro_code.R"
>
```

here () gets you the
path to this file!

Environment History Connections

Import Dataset

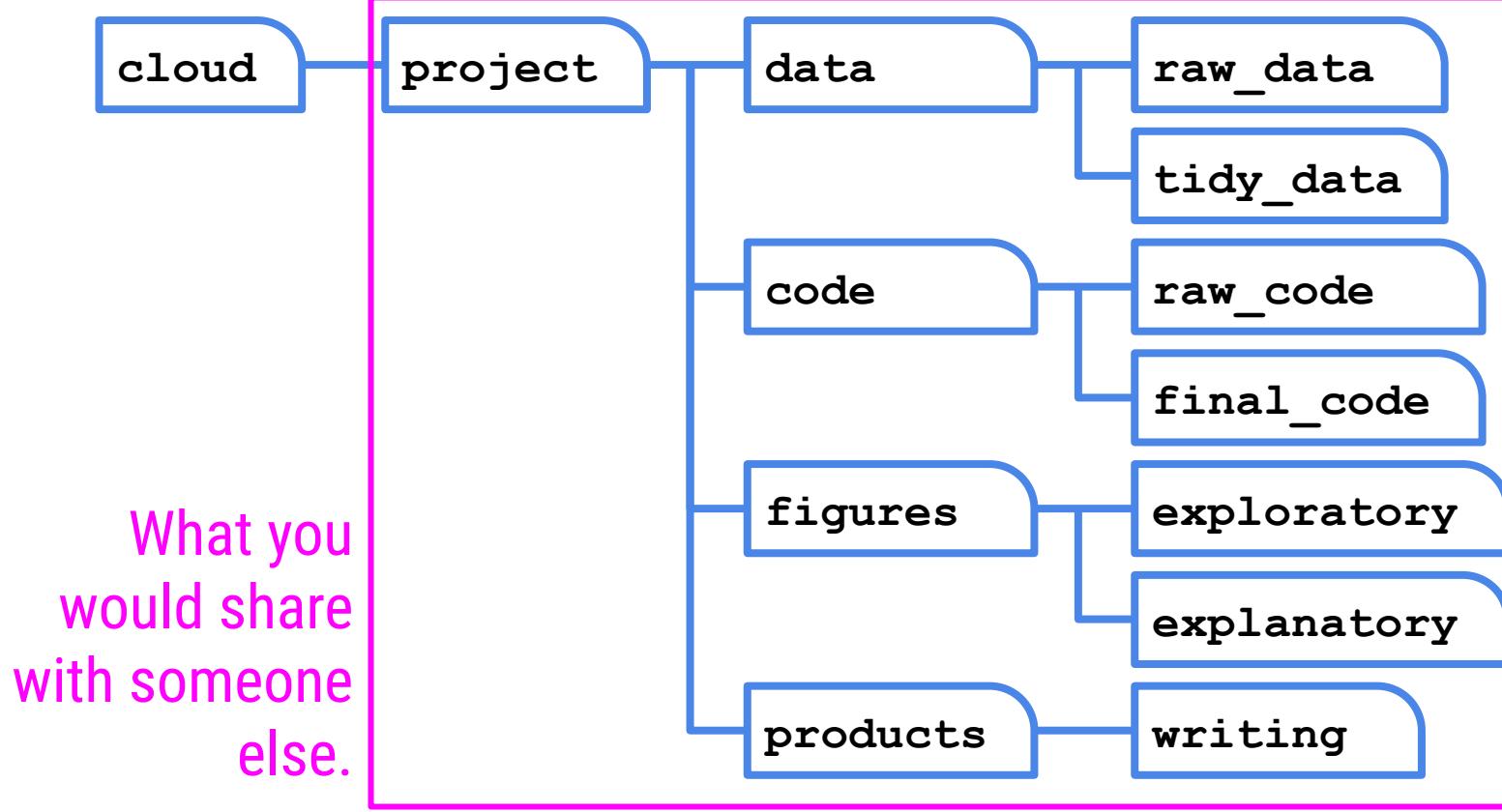
Global Environment

Environment is empty

Files Plots Packages Help Viewer

New Folder Upload Delete Rename More

Name	Size	Modified
..		
intro_code.R	12 B	May 17, 2018, 12:32 PM



What you
would share
with someone
else.

All paths in your code should be relative to `/cloud/project` !

So how do you efficiently share projects or
folders structured like this with other people?

GitHub!

Unfortunate truth

<https://twitter.com/mtrc/status/617075570761965568>



Michael Cook
@mtrc

 Follow

"Version control is a truly vital concept that has
unfortunately been implemented by madmen." Amen.
[twitter.com/Pentadact/stat...](https://twitter.com/Pentadact/status/617075570761965568)

5:00 PM - 3 Jul 2015



- Github - where the cool nerds are
- Bitbucket - where the real nerds are
- svn - where the old nerds are
- Files on your desktop - where the frustrated nerds are



[About](#)

[Documentation](#)

[Blog](#)

[Downloads](#)

GUI Clients

Logos

[Community](#)

The entire [Pro Git book](#) written by Scott Chacon and Ben Straub is available to [read online for free](#). Dead tree versions are available on [Amazon.com](#).

Downloads



Mac OS X



Windows



Linux



Solaris

Older releases are available and the [Git source repository](#) is on GitHub.

GUI Clients

Git comes with built-in GUI tools ([git-gui](#), [gitk](#)), but there are several third-party tools for users looking for a platform-specific experience.

[View GUI Clients →](#)

Latest source Release

2.4.5

Release Notes (2015-06-25)

Downloads for Mac



Logos

Various Git logos in PNG (bitmap) and EPS (vector) formats are available for use in online and print projects.

[View Logos →](#)

GitHub · Build software better

GitHub, Inc. [US] https://github.com

GitHub Search GitHub Explore Features Enterprise Blog Sign up Sign in

Build software better, together.

Powerful collaboration, code review, and code management for open source and private projects. Need private repositories? Upgraded plans start at \$7/mo.

Pick a username

Your email

Create a password

Use at least one lowercase letter, one numeral, and seven characters.

Sign up for GitHub

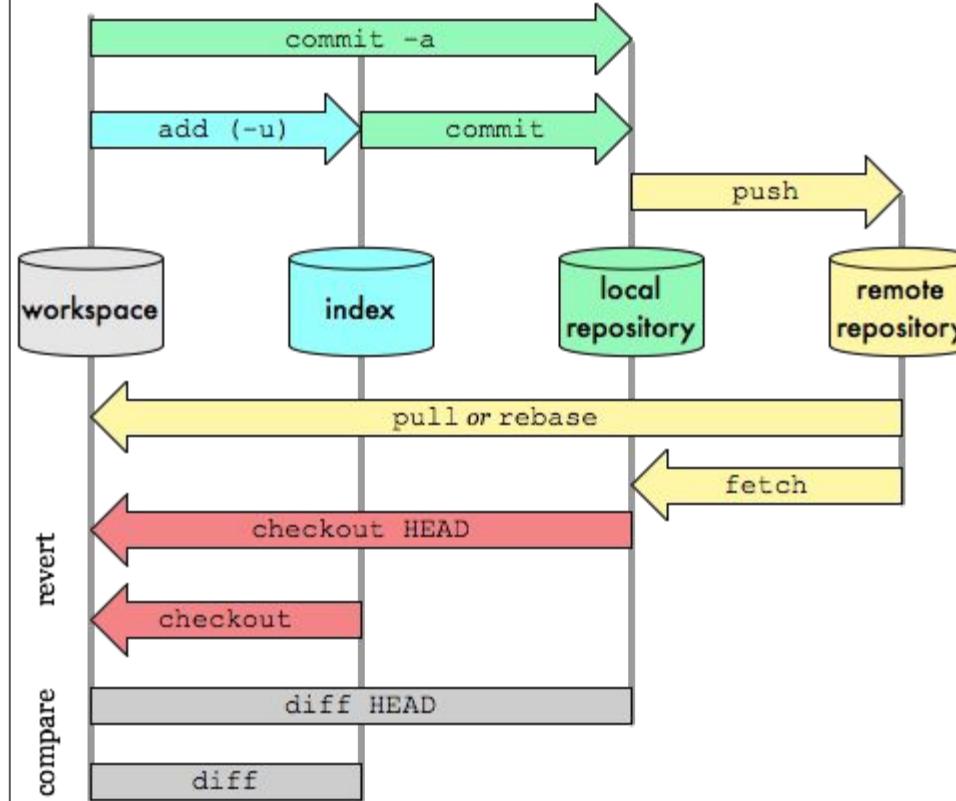
By clicking "Sign up for GitHub", you agree to our [terms of service](#) and [privacy policy](#). We will send you account related emails occasionally.

The image shows the GitHub homepage. At the top, there's a navigation bar with links for Explore, Features, Enterprise, and Blog, along with Sign up and Sign in buttons. Below the navigation is a large, bold headline: "Build software better, together.". Underneath the headline, there's a sub-headline: "Powerful collaboration, code review, and code management for open source and private projects. Need private repositories? Upgraded plans start at \$7/mo.". To the right of the headline, there's a sign-up form with three input fields: "Pick a username", "Your email", and "Create a password". Below the password field is a note: "Use at least one lowercase letter, one numeral, and seven characters.". A large green "Sign up for GitHub" button is positioned below the password field. At the bottom of the page, there's a small note: "By clicking "Sign up for GitHub", you agree to our [terms of service](#) and [privacy policy](#). We will send you account related emails occasionally." The background of the page features a dark blue gradient with various white GitHub-related icons like code, commits, and users scattered across it.

<https://github.com/>

Git Data Transport Commands

<http://osteale.com>



Basic use

- ▶ Change some files
- ▶ See what you've changed

```
git status  
git diff  
git log
```

- ▶ Indicate what changes to save

```
git add
```

- ▶ Commit to those changes

```
git commit
```

- ▶ Push the changes to GitHub

```
git push
```

- ▶ Pull changes from your collaborator

```
git pull
```

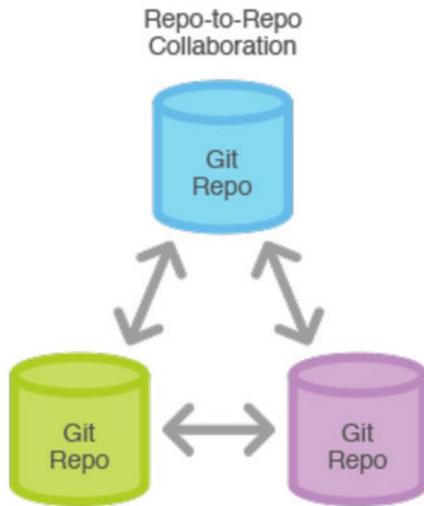
It's like a shared Dropbox folder that you have to sync yourself, on each of your computers, in specific orders

Why not just use Dropbox?

A screenshot of a GitHub commit history for the repository 'jtbleek/jtbleek.github.io'. The commits are listed chronologically from May 8, 2015, down to April 30, 2015. A red box highlights the commit 'Fix typo on papers.md' made on May 4, 2015, by 'hammer'. This commit fixes a typo in a file named 'papers.md'.

- jtbleek committed on May 8, 2015
- jtbleek committed on May 8, 2015
 - updated papers with rail**
- Commits on May 4, 2015
 - Merge pull request #14 from hammer/patch-1**
 - Fix typo on papers.md**
- Commits on May 1, 2015
 - regionr eport paper**
- Commits on Apr 30, 2015
 - added boosting lecture**
 - polyester paper**

possible, in theory



more typical

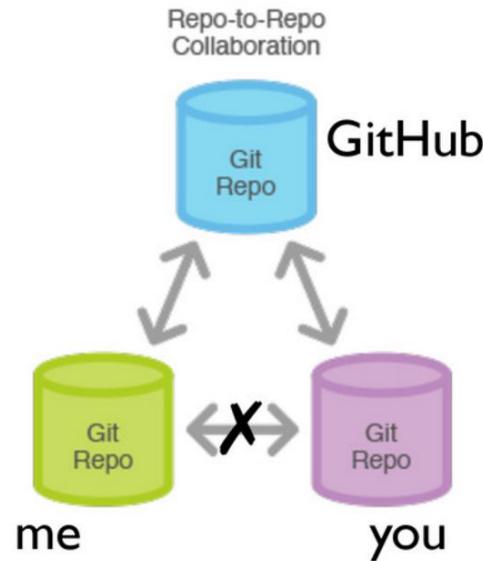


Image from <https://www.atlassian.com/git/tutorial/git-basics#!clone>

Jenny Bryan:<https://speakerdeck.com/jennybc/ubc-stat545-2015-cm001-intro-to-course>

A photograph from the TV show 30 Rock. A man with short brown hair, wearing a dark grey suit jacket, a white shirt, and a dark blue tie, is looking down at a small brown dog. He has a serious expression. In the background, there's a wooden door and a hallway with other doors and some office equipment. The lighting is indoor.

*There are no bad ideas, Lemon. Only
good ideas that go horribly wrong.*

<http://giphy.com/gifs/fail-30-rock-tina-fey-jBvPmuBuzmjzW>



SISBID / Module1

Watch 2

Star 2

Fork 5

Teaching material for Summer Institute in Statistics for Big Data Module 1.

27 commits

2 branches

0 releases

3 contributors



branch: gh-pages

Module1 / +



Add compiled html

raphg authored 18 hours ago

latest commit f715046bcf

lecture_notes Added installation script and set up instructions 18 hours ago

.gitignore First commit for lecture notes 27 days ago

.nojekyll updated license, added webpage 5 days ago

LICENSE updated license, added webpage 5 days ago

README.md Fixed typo and links 18 hours ago

SISBD.Rproj First commit for lecture notes 27 days ago

getting_started.md Added installation script and set up instructions 18 hours ago

index.Rmd Fixed typo and links 18 hours ago

m

Code

Issues 0

Pull requests 0

Pulse

Graphs

HTTPS clone URL

<https://github.com/> You can clone with [HTTPS](#) or [Subversion](#).

Clone in Desktop

Download ZIP

<https://github.com/sisbid/Module1>

GitHub = a place to host Git repositories on the web

GitHub ≠ Git

The screenshot shows the GitHub interface for the repository `RcppCore/Rcpp`. The top navigation bar includes links for `RcppCore/Rcpp`, `Explore`, `Gist`, `Blog`, and `Help`. On the right, there are user profile icons for `jennybc` and various repository stats: 5 stars, 1 fork, and 1 pull request. The main content area displays the repository's name, `RcppCore / Rcpp`, and a summary: 2,595 commits, 1 branch, 0 releases, and 6 contributors. A dropdown menu shows the current branch is `master`. Below this is a list of recent commits by `eddelbuettel`, with the latest commit being `b843b2e1e1`. The commit list includes:

Author	Message	Time Ago
	include the package file first. closes #64	4 days ago
	minor cosmetics for the Debian build	a month ago
	suppress two unused variable warnings from g++-4.8	2 days ago
	export Rcpp.plugin.maker from the NAMESPACE. closes #65	4 days ago
	mark functions as registered and make sure they don't throw. closes #73	3 days ago
	fix R CMD check not finding sourceCpp files	a year ago
	correct use of href	3 days ago
	added travis.yml to enable continuous integration on github	23 days ago
	added to exclude inst/doc/{Makefile,jss.bst} from making it into the ...	2 years ago
	ignoring inst/lib	20 days ago

On the right side, there is a sidebar titled `Code` containing links for `Issues` (47), `Pull Requests` (0), `Wiki`, `Pulse`, `Graphs`, and `Network`. At the bottom, there are buttons for `Clone in Desktop` and `Download ZIP`.

Jenny Bryan:<https://speakerdeck.com/jennybc/ubc-stat545-2015-cm001-intro-to-course>

You can see exactly how files have changed, when, and by whom. If commit message is good, you'll see why.
Commit = a formal “checkpoint” or snapshot of the state of the repository

The screenshot shows a GitHub repository page for 'RcppCore/Rcpp'. The top navigation bar includes links for GitHub, Inc., the repository URL, Reader, Explore, Gist, Blog, and Help. On the right, there are buttons for jennybc, Watch (5), Star (2), Fork (1), and a 'Code' button. Below the header, the repository name 'RcppCore / Rcpp' is displayed, along with a 'Watch' button, a star icon, and a fork icon.

The main content area features a summary bar with metrics: 2,595 commits (circled in orange), 1 branch, 0 releases, and 6 contributors. Below this is a timeline of recent commits:

- suppress two unused variable warnings from g++-4.8 (eddelbuettel, 2 days ago)
- include the package file first. closes #64 (4 days ago)
- minor cosmetics for the Debian build (a month ago)
- suppress two unused variable warnings from g++-4.8 (2 days ago)
- export Rcpp.plugin.maker from the NAMESPACE. closes #65 (4 days ago)

On the right side, there are links for Code, Issues (47), Pull Requests (0), Wiki, Pulse, Graphs, and Network.

Jenny Bryan:<https://speakerdeck.com/jennybc/ubc-stat545-2015-cm001-intro-to-course>



Jenny Bryan
@JennyBryan



Following

I have my own ideas about what makes a good commit message.

📄 .travis.yml

if this works, it will be a miracle

RETWEETS

7

LIKES

28



2:54 AM - 11 Jul 2016



7

28

...

<https://twitter.com/JennyBryan/status/752440799149846528>

Install Git/Github Locally (for later)

<http://happygitwithr.com/install-git.html>

and

<https://try.github.io/levels/1/challenges/1>

How the pros git/github

How to keep the local file or the remote file during merge using Git and the command line?



asked 5 years ago

viewed 31361 times

active 17 days ago

I know how to merge modification using vimdiff, but, assuming I just know that the entire file is good to keep or to throw away, how do I do that?

75

I don't want to open vimdiff for each of them, I change want a command that says 'keep local' or 'keep remote'.

E.G: I got a merge with files marked as changed because somebody opened it under windows, changing the EOL, and then committed. When merging, I want to just keep my own version and discard his.

33

I'm also interested in the contrary: I screwed up big time and want to accept the remote file, discarding my changes.

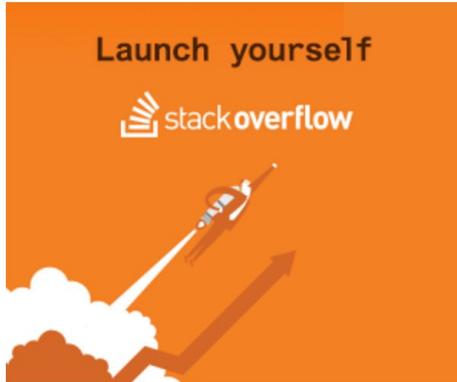
[git](#) [merge](#) [local](#)[share](#) [improve this question](#)

asked Jul 11 '11 at 12:41



e-satis

238k • 82 • 228 • 285

[add a comment](#)

Looking for a job?

QA Engineer

InVenture Santa Monica, CA

\$90,000 - \$110,000 RELOCATION

[android](#) [jenkins](#)[Reload th](#)**4 Answers**

The amount of Git skilz
necessary to fix a borked repo is
an order of magnitude bigger
than to bork it.

<https://github.com/jennybc/happy-git-and-github-for-the-user/blob/master/happy-git-and-github-for-the-user.pdf>



BURN IT ALL DOWN

<https://github.com/jennybc/happy-git-and-github-for-the-user/blob/master/happy-git-and-github-for-the-user.pdf>

THIS IS GIT. IT TRACKS COLLABORATIVE WORK
ON PROJECTS THROUGH A BEAUTIFUL
DISTRIBUTED GRAPH THEORY TREE MODEL.

COOL. HOW DO WE USE IT?

NO IDEA. JUST MEMORIZIZE THESE SHELL
COMMANDS AND TYPE THEM TO SYNC UP.
IF YOU GET ERRORS, SAVE YOUR WORK
ELSEWHERE, DELETE THE PROJECT,
AND DOWNLOAD A FRESH COPY.



[Title text] "If that doesn't fix it,
git.txt contains the phone number
of a friend of mine who
understands git. Just wait through a
few minutes of 'It's really pretty
simple, just think of branches as...'
and eventually you'll learn the
commands that will fix everything."



Search GitHub

Pull requests Issues Marketplace Explore



JaneEverydayDoe ▾

Browse activity

Discover repositories



You've been added to the jhudsl organization!

Here are some quick tips for a first-time organization member.

- Use the switch context button in the upper left corner of this page to switch between your personal context (JaneEverydayDoe) and organizations you are a member of.
- After you switch contexts you'll see an organization-focused dashboard that lists out organization repositories and activities.



defunkt ▾

Discover interesting projects and people to populate your personal news feed.

Your news feed helps you keep up with recent activity on repositories you [watch](#) and people you [follow](#).

[Explore GitHub](#)

Custom domains on GitHub Pages X

A gain support for HTTPS

Custom domains on GitHub Pages gain support for HTTPS.

[View new broadcasts](#)

Repositories you contribute to 1

[jhudsl/example_github_repository...](#) 0 ★

Your repositories 5

[New repository](#)[All](#) [Public](#) [Private](#) [Sources](#) [Forks](#)

[Temporary_add_to_version_control](#)

[first_project](#)

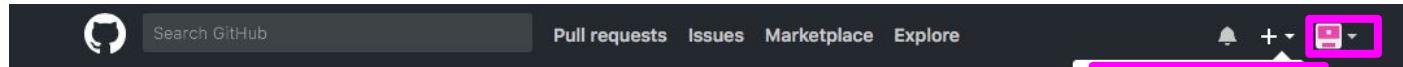
[janeeverydaydoe.github.com](#)

[hello-world](#)

[jhudsl/example_github_repository](#)

Your teams 1





JaneEverydayDoe ▾

Browse activity

Discover repositories



You've been added to the jhudsl organization!

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defunkt ▾

Discover interesting projects and people to populate your personal news feed.

Your news feed helps you keep up with recent activity on repositories you [watch](#) and people you [follow](#).

[Explore GitHub](#)



New repository

Import repository

New gist

New organization

[View new broadcasts](#)

Repositories you contribute to 1

[jhudsl/example_github_repository...](#) 0 ★

Your repositories 5

[New repository](#)

Find a repository...

All Public Private Sources Forks

[Temporary_add_to_version_control](#)

[first_project](#)

[janeeverydaydoe.github.com](#)

[hello-world](#)

[jhudsl/example_github_repository](#)

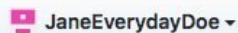
Your teams 1

Find a team...

Create a new repository

A repository contains all the files for your project, including the revision history.

Owner



Repository name

JaneEverydayDoe

/ my_first_project



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

Description (optional)

My first project files



Public

Anyone can see this repository. You choose who can commit.



Private

You choose who can see and commit to this repository.

Initialize this repository with a README

This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: **None** ▾

Add a license: **None** ▾



Create repository

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

My first project files

[Edit](#)[Add topics](#)

1 commit

1 branch

0 releases

1 contributor

Branch: master ▾

[New pull request](#)[Create new file](#)[Upload files](#)[Find file](#)[Clone or download](#) JaneEverydayDoe Initial commit[README.md](#)

Initial commit

 README.md

Clone with HTTPS ?

[Use SSH](#)

Use Git or checkout with SVN using the web URL.

https://github.com/JaneEverydayDoe/my_fi

my_first_project

My first project files

[Open in Desktop](#)[Download ZIP](#)

Spaces

Your Workspace

New Space

Info

Learn

Feedback and Questions

Terms and Conditions

Your Projects

No Projects

1

1

New Project

+ New Project

New Project from Git Repo

2

Your Workspace

Projects

Learn



Your Projects

New Project from Git Repo

New Project



URL of your Git repository

`https://github.com/JaneEverydayDoe/my_first_project.git`

OK

File Edit Code View Plots Session Build Debug Profile Tools Help

+ Go to file/function Addins R 3.4.4

README.md

1 # my_first_project
2 My first project files
3

Environment History Connections Git

Import Dataset Global Environment

Environment is empty

Files Plots Packages Help Viewer

New folder Upload Delete Rename More

/cloud/project/

Name Size Modified

Name	Size	Modified
.gitignore	40 B	May 11, 2018, 2:34 PM
.Rhistory	0 B	May 11, 2018, 2:34 PM
project.Rproj	205 B	May 11, 2018, 2:34 PM
README.md	42 B	May 11, 2018, 2:34 PM

Console Terminal

/cloud/project/

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.

>

The screenshot shows a Jupyter Notebook interface with a single cell containing a Markdown file named README.md. The cell content is as follows:

```
1 # This is the README file for my_first_project
2 The folders in this project are:
3
4 * _data_ - is the folder where you will put all the data you have collected or been given to analyze.
5 * _figures_ - is where you will put plots, data pictures, and other images you have created to show
       data to other people.
6 * _code_ - is where you will create code files for collecting, cleaning up, or analyzing data.
7 * _products_ - this is the place where you will place any reports, presentations, or products you
       create for sharing with other people.
```

```
1 git add .
2 git commit -m "changed readme file"
3 git push
```

```
Counting objects: 3, done.  
Delta compression using up to 16 threads.  
Compressing objects: 100% (3/3), done.  
Writing objects: 100% (3/3), 338 bytes | 0 bytes/s, done.  
Total 3 (delta 1), reused 0 (delta 0)  
remote: Resolving deltas: 100% (1/1), completed with 1 local object.  
To https://github.com/JaneEverydayDoe/my_first_project.git  
    e80844c..24fec16  master -> master  
rstudio-user@f128931a1c66:/cloud/projects$
```

.gitignore	sdkfjsldf	22 hours ago
README.md	new changes	22 seconds ago
project.Rproj	sdkfjsldf	22 hours ago

[README.md](#)

This is the README file for my_first_project

The folders in this project are:

- *data* - is the folder where you will put all the data you have collected or been given to analyze.
- *figures* - is where you will put plots, data pictures, and other images you have created to show data to other people.
- *code* - is where you will create code files for collecting, cleaning up, or analyzing data.
- *products* - this is the place where you will place any reports, presentations, or products you create for sharing with other people.

Files Plots Packages Help Viewer

New Folder Upload Delete Rename More

cloud > project

	Name	Size	Modified
	..		
<input type="checkbox"/>	.gitignore	40 B	May 11, 2018, 2:34 PM
<input type="checkbox"/>	.Rhistory	0 B	May 11, 2018, 2:34 PM
<input type="checkbox"/>	project.Rproj	205 B	May 12, 2018, 12:51 PM
<input type="checkbox"/>	README.md	201 B	May 12, 2018, 12:52 PM
<input type="checkbox"/>	data		
<input type="checkbox"/>	figures		
<input type="checkbox"/>	code		
<input type="checkbox"/>	products		

- * data/
 - * raw_data/
 - * tidy_data/
- * code/
 - * raw_code/
 - * final_code/
- * figures/
 - * exploratory_figures/
 - * explanatory_figures/
- * products/
 - * writing/

In this lesson...

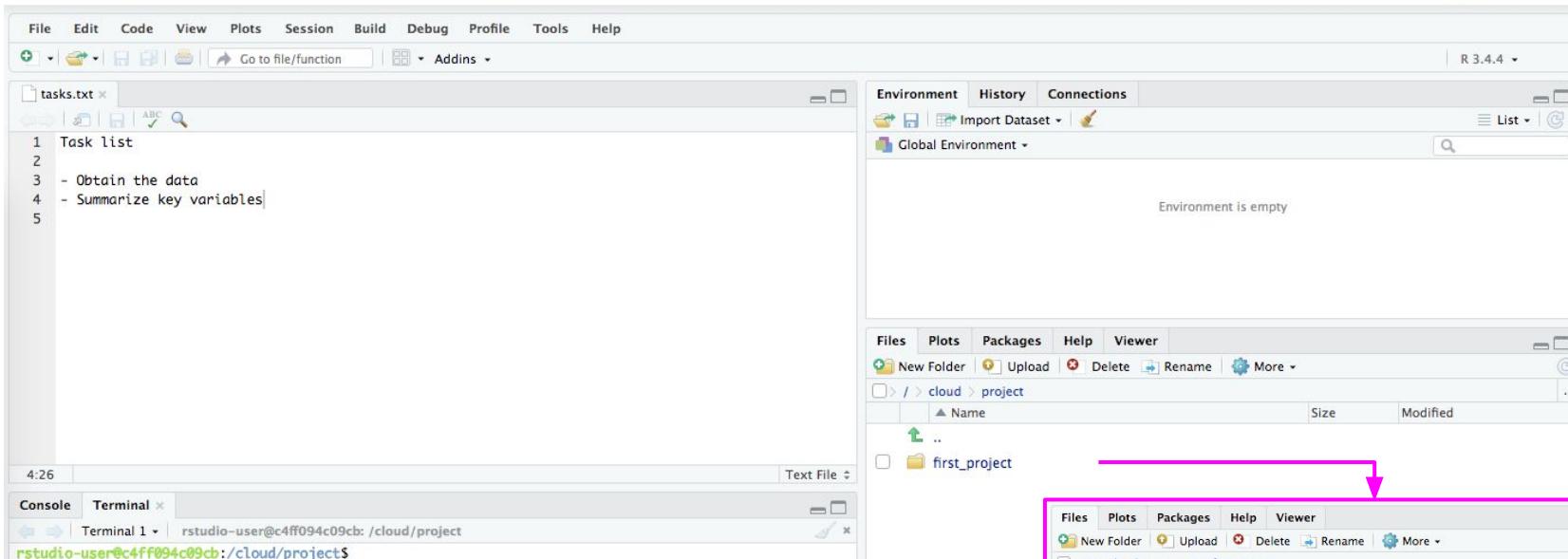
- You add/edit files on your computer or in your RStudio cloud project (in your **local repository**).
- You want to publish/share these changes to a **remote repository** (GitHub) so that others may see them/incorporate them into their own work.
- Git commands covered
 - status
 - add
 - commit

Console Terminal x

rstudio-user@56243c3396f9: /cloud/project/first_project

```
rstudio-user@56243c3396f9:/cloud/project/first_project$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
nothing to commit, working directory clean
rstudio-user@56243c3396f9:/cloud/project/first_project$ 
```

Creating a file in our project



The screenshot shows the RStudio interface. In the top-left pane, there is a text editor window titled "tasks.txt" containing the following content:

```
1 Task list
2
3 - Obtain the data
4 - Summarize key variables
5
```

In the top-right pane, the "Environment" tab is selected, showing the message "Environment is empty".

Below these panes, there are two "File Browser" windows. The left one shows a folder structure under "cloud > project":

- ..
- first_project

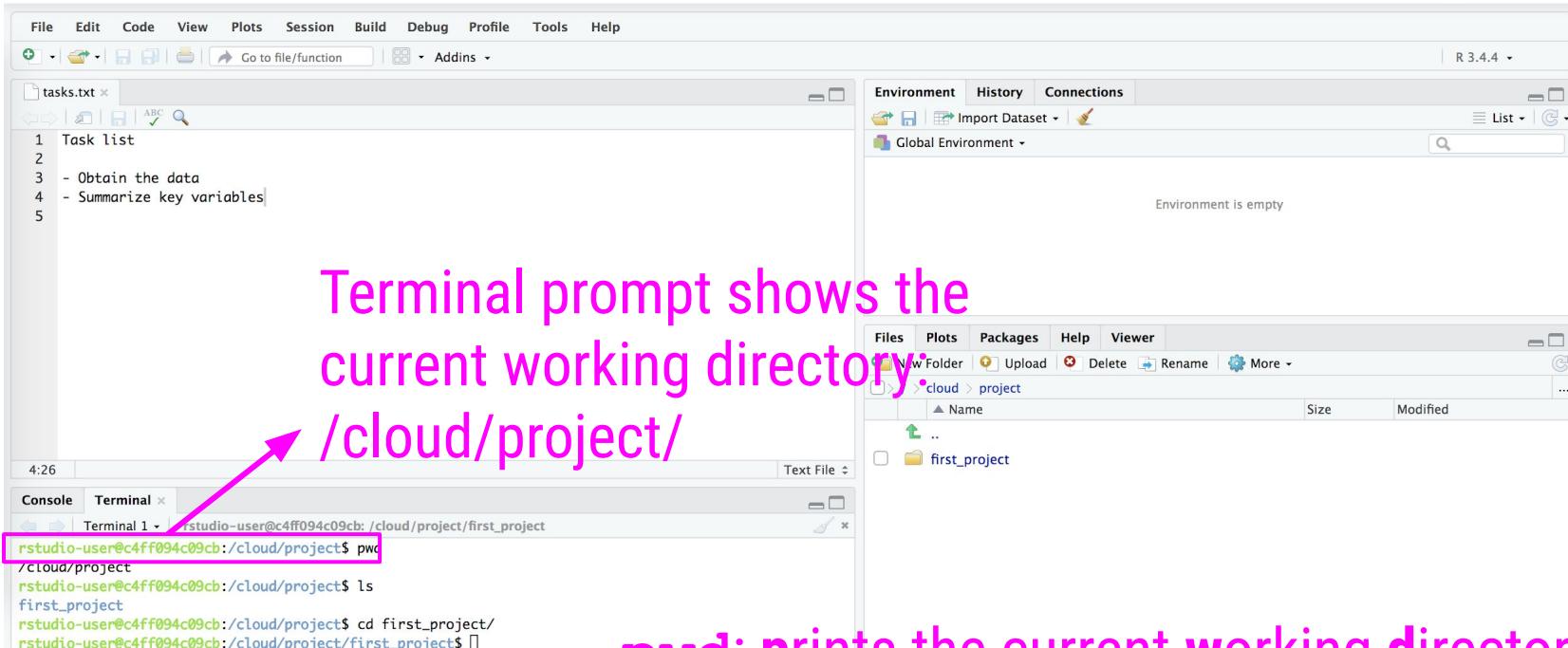
The right one shows the contents of the "first_project" folder:

Name	Size	Modified
README.md	75 B	Apr 20, 2018, 2:50 PM
tasks.txt	55 B	Apr 27, 2018, 9:51 AM

A pink arrow points from the "first_project" folder in the left browser to the "tasks.txt" file in the right browser.

File > New file > Text file > Save As “tasks.txt”
within the first_project folder

Creating a file in our project



The screenshot shows the RStudio interface with several panes:

- Code Editor:** A file named "tasks.txt" containing a task list.
- Environment:** Shows the Global Environment pane which is currently empty.
- File Browser:** Shows a project structure with a "first_project" folder under "cloud/project".
- Terminal:** A terminal window showing the current working directory as "/cloud/project/first_project". It also shows the output of the `pwd`, `ls`, and `cd` commands.

A pink arrow points from the text "Terminal prompt shows the current working directory: /cloud/project/" to the terminal window.

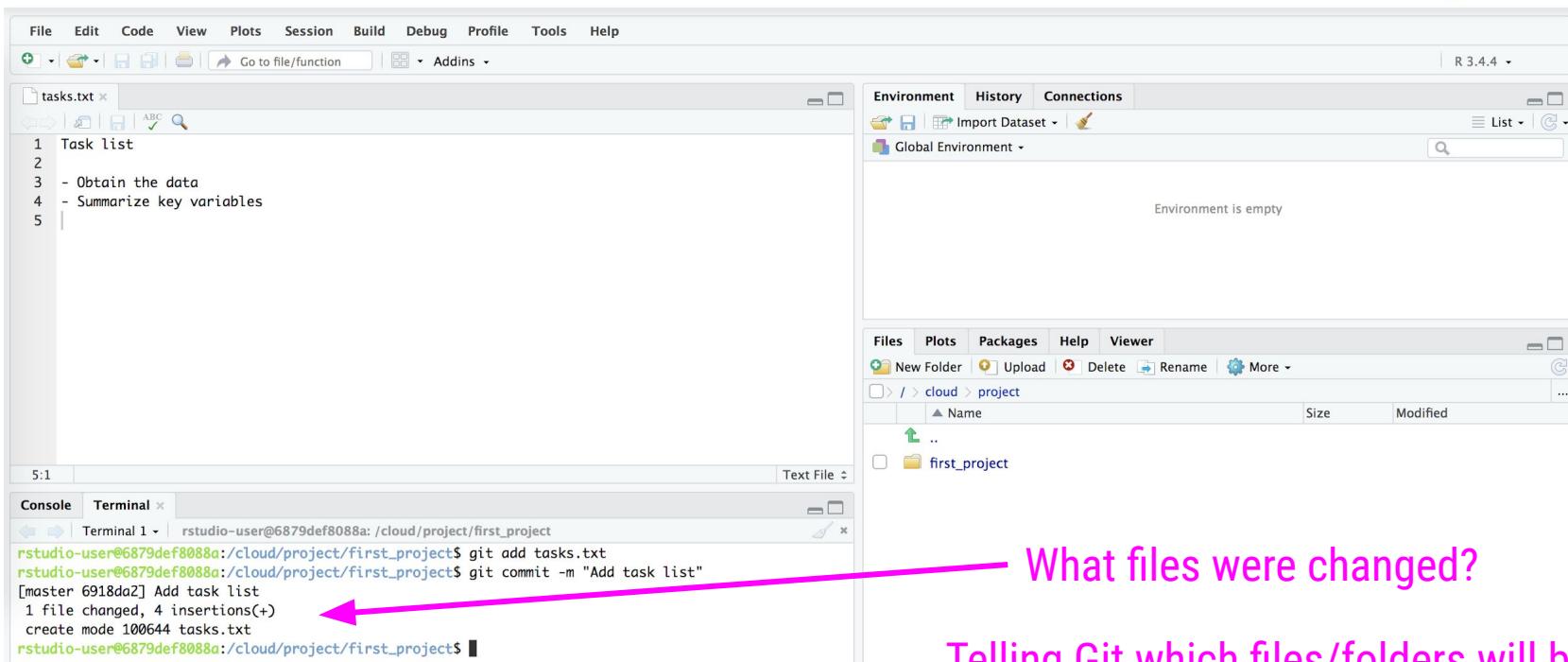
```
4:26
Console Terminal x
Terminal 1 -> rstudio-user@c4ff094c09cb:/cloud/project/first_project
rstudio-user@c4ff094c09cb:/cloud/project$ pwd
/cld/project
rstudio-user@c4ff094c09cb:/cloud/project$ ls
first_project
rstudio-user@c4ff094c09cb:/cloud/project$ cd first_project/
rstudio-user@c4ff094c09cb:/cloud/project/first_project$ 
```

pwd: prints the current working directory
ls: lists files and folders in the directory
cd: change directory

Changing directory in the Terminal

Staging files and folders with git add

git add file_or_folder	stages specified file or folder
git add .	stages new and modified files
git add -u	stages modified and deleted files
git add -A	stages new, modified, and deleted files
git add *.csv	Stages any files with .csv extension
git add *	Use with caution: stages everything



The screenshot shows the RStudio interface with the following components:

- Code Editor:** Displays the file `tasks.txt` with the following content:

```
1 Task list
2
3 - Obtain the data
4 - Summarize key variables
5
```
- Global Environment:** Shows that the environment is empty.
- File Browser:** Shows a project structure with a folder named `first_project`.
- Terminal:** Displays the following command history:

```
rstudio-user@6879def8088a:/cloud/project/first_project$ git add tasks.txt
rstudio-user@6879def8088a:/cloud/project/first_project$ git commit -m "Add task list"
[master 6918da2] Add task list
 1 file changed, 4 insertions(+)
 create mode 100644 tasks.txt
rstudio-user@6879def8088a:/cloud/project/first_project$
```

What files were changed?

`git add file_or_folder`

`git commit -m "Descriptive message about changes"`

Adding a file and committing changes

Telling Git which files/folders will be tracked
for version control

Actually update version history of those files/folders

File Edit Code View Plots Session Build Debug Profile Tools Help

Source

Console Terminal x

```
rstudio-user@6879def8088a:/cloud/project/first_project$ git push
warning: push.default is unset; its implicit value has changed in
Git 2.0 from 'matching' to 'simple'. To squelch this message
and maintain the traditional behavior, use:

git config --global push.default matching

To squelch this message and adopt the new behavior now, use:

git config --global push.default simple

When push.default is set to 'matching', git will push local branches
to the remote branches that already exist with the same name.

Since Git 2.0, Git defaults to the more conservative 'simple'
behavior, which only pushes the current branch to the corresponding
remote branch that 'git pull' uses to update the current branch.

See 'git help config' and search for 'push.default' for further information.
(The 'simple' mode was introduced in Git 1.7.11. Use the similar mode
'current' instead of 'simple' if you sometimes use older versions of Git)

error: cannot run rpostback-askpass: No such file or directory
Username for 'https://github.com': JaneEverydayDoe
error: cannot run rpostback-askpass: No such file or directory
Password for 'https://JaneEverydayDoe@github.com':
Counting objects: 3, done.
Delta compression using up to 16 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 345 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/JaneEverydayDoe/first_project.git
 a02e81b..6918da2 master -> master
rstudio-user@6879def8088a:/cloud/project/first_project$
```

git push

→ Publish these changes to a
remote repository (GitHub)

Environment History Connections

Import Dataset

Global Environment

Environment is empty

Files Plots Packages Help Viewer

New Folder Upload Delete Rename More

/ cloud project

Name	Size	Modified
..		
first_project		

Enter GitHub username
and password

I'm saving changes

Pulling

- Others have pushed changes to the remote repository.
- You want to incorporate those changes into your local repository.
- Git commands covered
 - pull

[This repository](#)[Search](#)[Pull requests](#) [Issues](#) [Marketplace](#) [Explore](#)[JaneEverydayDoe / first_project](#)[Watch](#) [0](#)[Star](#) [0](#)[Fork](#) [0](#)[Code](#)[Issues 0](#)[Pull requests 0](#)[Projects 0](#)[Wiki](#)[Insights](#)[Settings](#)

Branch: master ▾

[first_project / tasks.txt](#)[Find file](#) [Copy path](#)

JaneEverydayDoe Add task item

8659545 a minute ago

1 contributor

6 lines (4 sloc) | 76 Bytes

[Raw](#) [Blame](#) [History](#)

```
1 Task list
2
3 - Obtain the data
4 - Summarize key variables
5 - Write short report
```

tasks.txt has been changed

Changes made by others

File Edit Code View Plots Session Build Debug Profile Tools Help

Go to file/function Addins R 3.4.4

Source

Console Terminal x

Terminal 1 | rstudio-user@6879def8088a: /cloud/project/first_project

to the remote branches that already exist with the same name.

Since Git 2.0, Git defaults to the more conservative 'simple' behavior, which only pushes the current branch to the corresponding remote branch that 'git pull' uses to update the current branch.

See 'git help config' and search for 'push.default' for further information.
(the 'simple' mode was introduced in Git 1.7.11. Use the similar mode 'current' instead of 'simple' if you sometimes use older versions of Git)

error: cannot run rpostback-askpass: No such file or directory
Username for 'https://github.com': JaneEverydayDoe
error: cannot run rpostback-askpass: No such file or directory
Password for 'https://JaneEverydayDoe@github.com':
Counting objects: 3, done.
Delta compression using up to 16 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 345 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/JaneEverydayDoe/first_project.git
 a02e81b..6918da2 master -> master
rstudio-user@6879def8088a:/cloud/project/first_project\$ git pull

remote: Counting objects: 3, done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/JaneEverydayDoe/first_project
 6918da2..8659545 master -> origin/master
Updating 6918da2..8659545
Fast-forward
 tasks.txt | 1 +
 1 file changed, 1 insertion(+)

rstudio-user@6879def8088a:/cloud/project/first_project\$

Environment History Connections

Import Dataset Global Environment

Environment is empty

Files Plots Packages Help Viewer

New Folder Upload Delete Rename More

/ > / cloud > project

Name	Size	Modified
..		
first_project		

git pull → Incorporate changes from remote repository

What files were changed?

Pulling changes made by others



<http://www.cc.com/video-clips/dcyyviro/the-colbert-report-austerity-s-spreadsheet-error>
<http://www.cc.com/video-clips/kbgnf0/the-colbert-report-austerity-s-spreadsheet-error---thomas-herndon>

“An analysis can be fully
reproducible and still be
wrong.”

Github lab

<https://bit.ly/1H0qcwB>

Nice practice

<https://www.katacoda.com/courses/git>