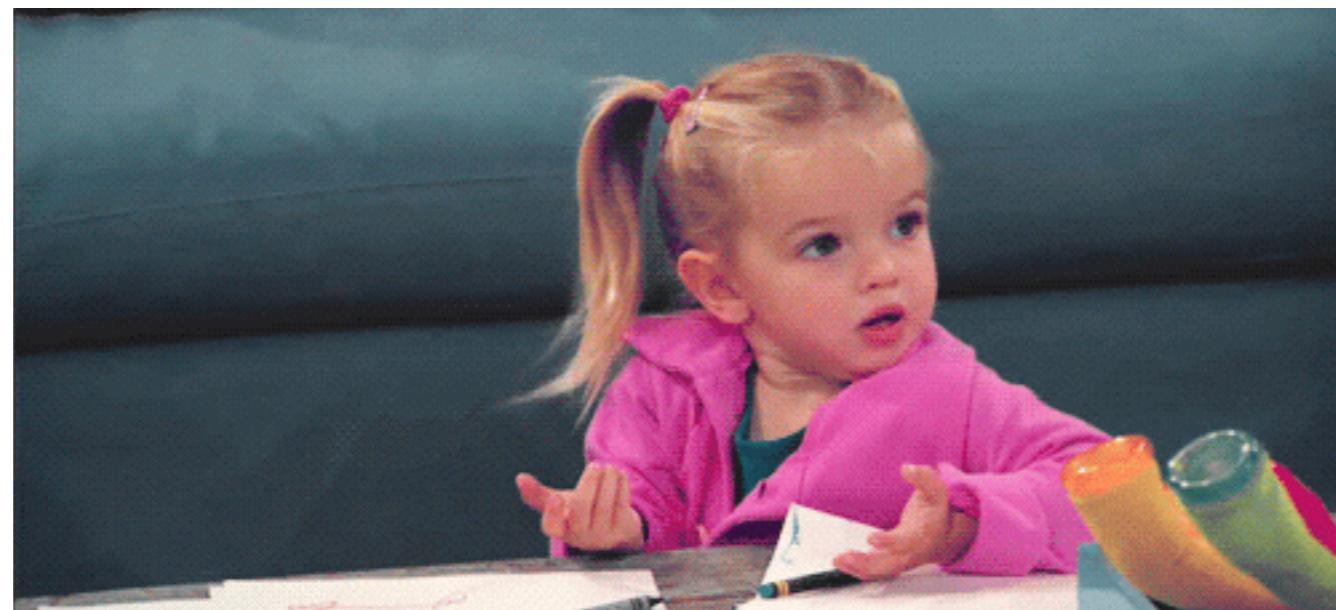


Command Line && Version Control

Learning to Code - Week 7

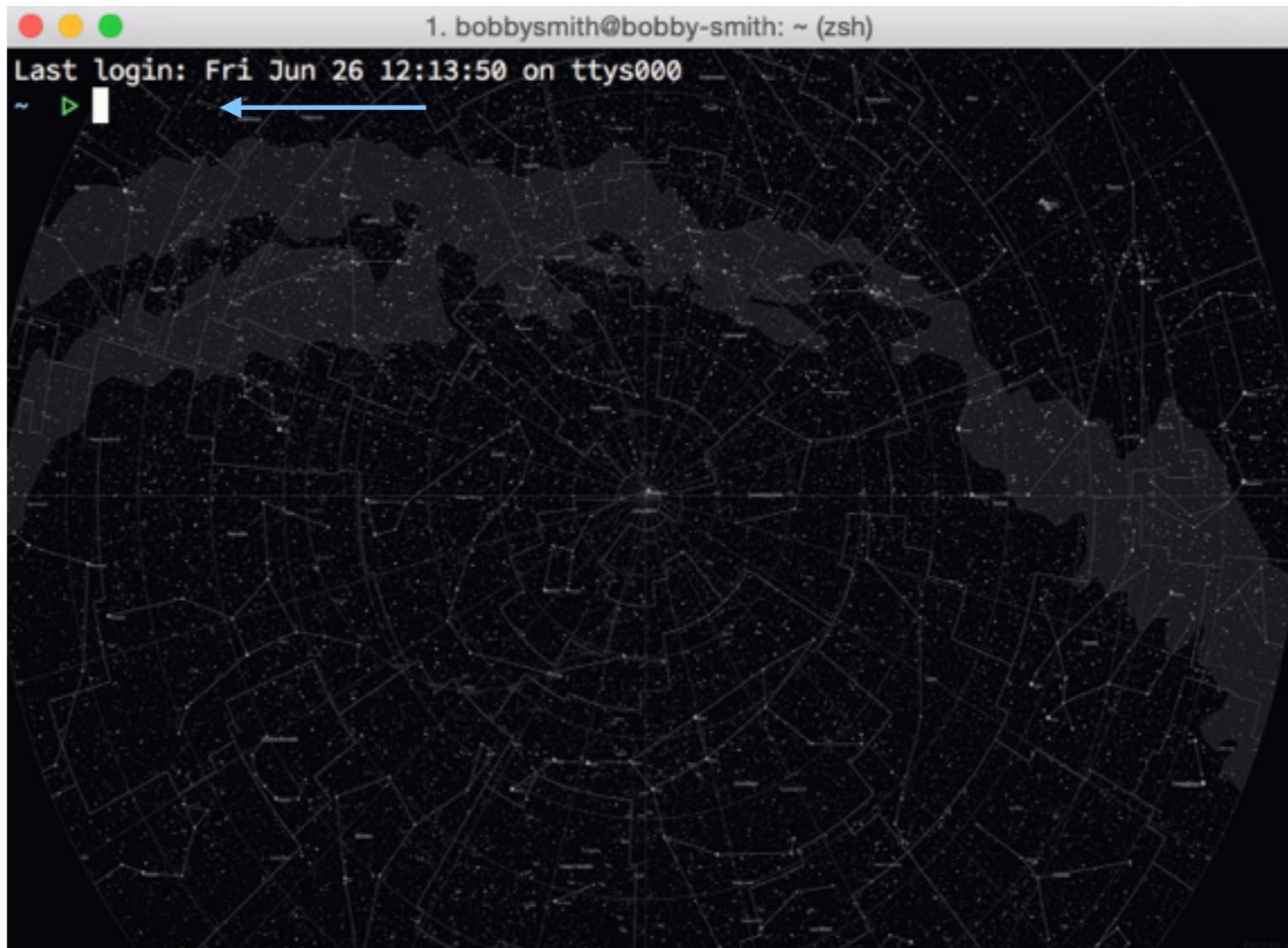
Wait, what...?

command line
console
prompt
terminal
cli



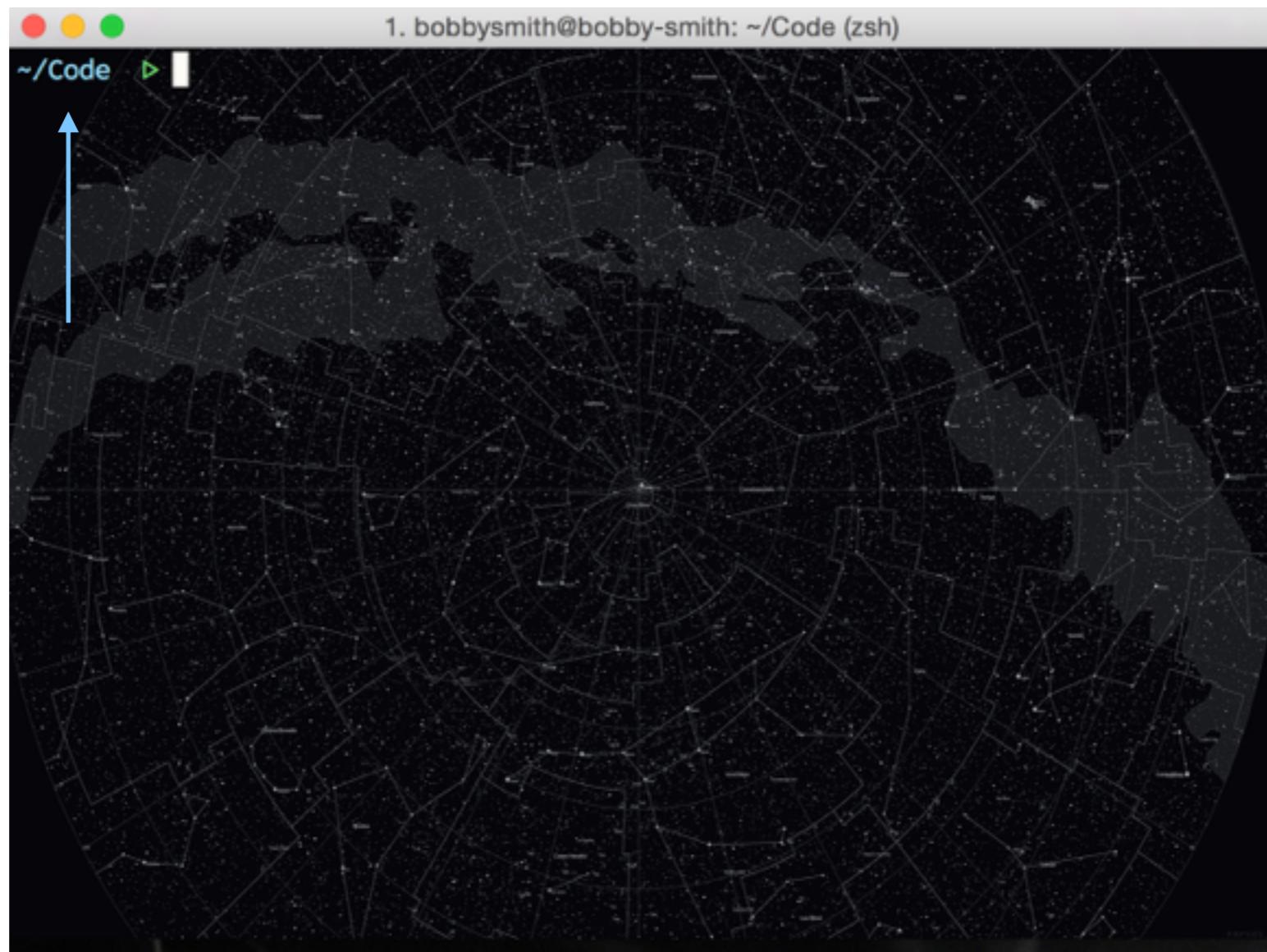
Command Line

The actual line where you type things.



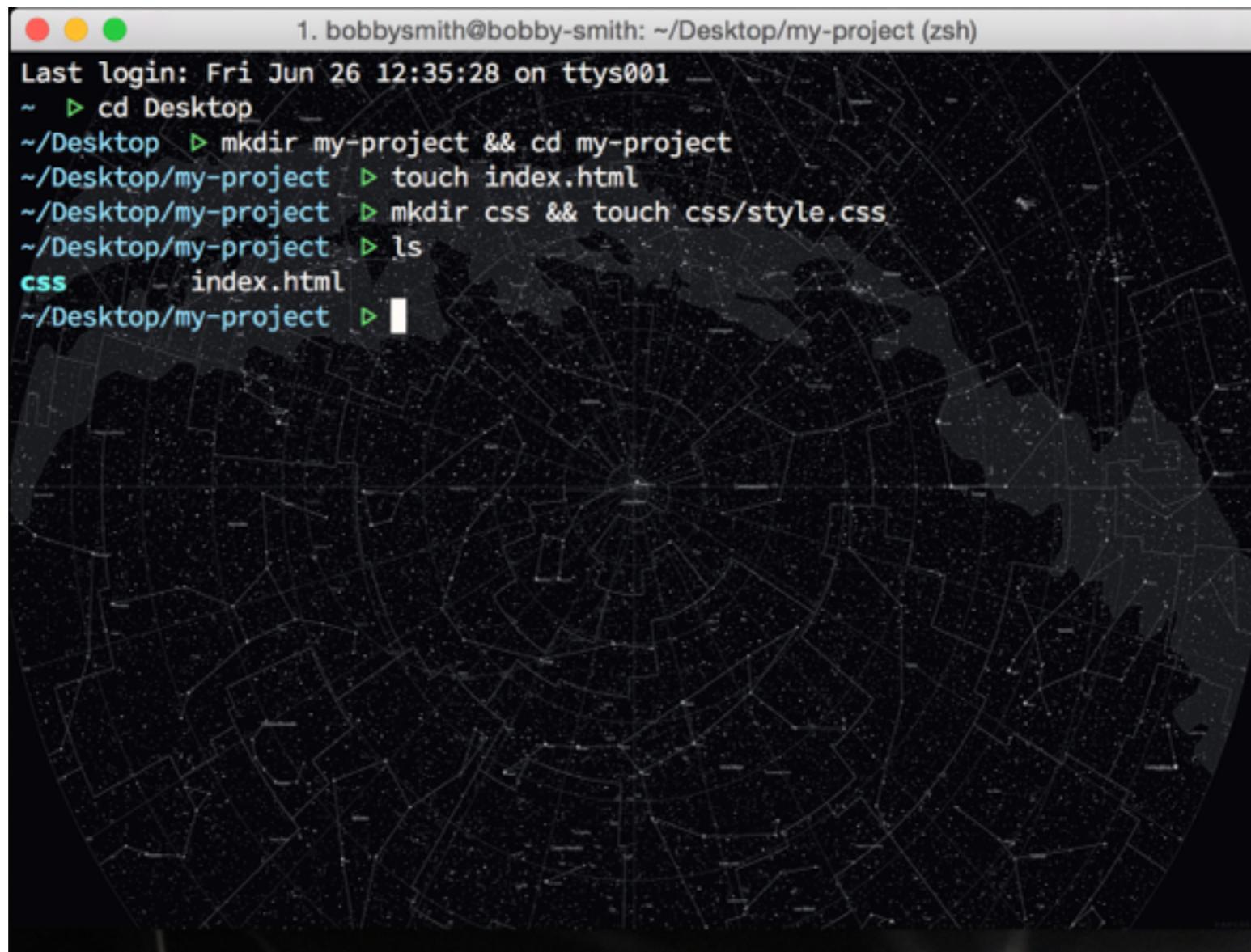
Prompt

The beginning of the command line.



Console

This is the command line and the output from commands you've typed.



The image shows a terminal window on a Mac OS X desktop. The window title bar reads "1. bobbysmith@bobby-smith: ~/Desktop/my-project (zsh)". The terminal displays the following command-line session:

```
Last login: Fri Jun 26 12:35:28 on ttys001
~ > cd Desktop
~/Desktop > mkdir my-project && cd my-project
~/Desktop/my-project > touch index.html
~/Desktop/my-project > mkdir css && touch css/style.css
~/Desktop/my-project > ls
css      index.html
~/Desktop/my-project > 
```

The background of the desktop is a dark, abstract space-themed wallpaper featuring a large nebula or galaxy.

Terminal

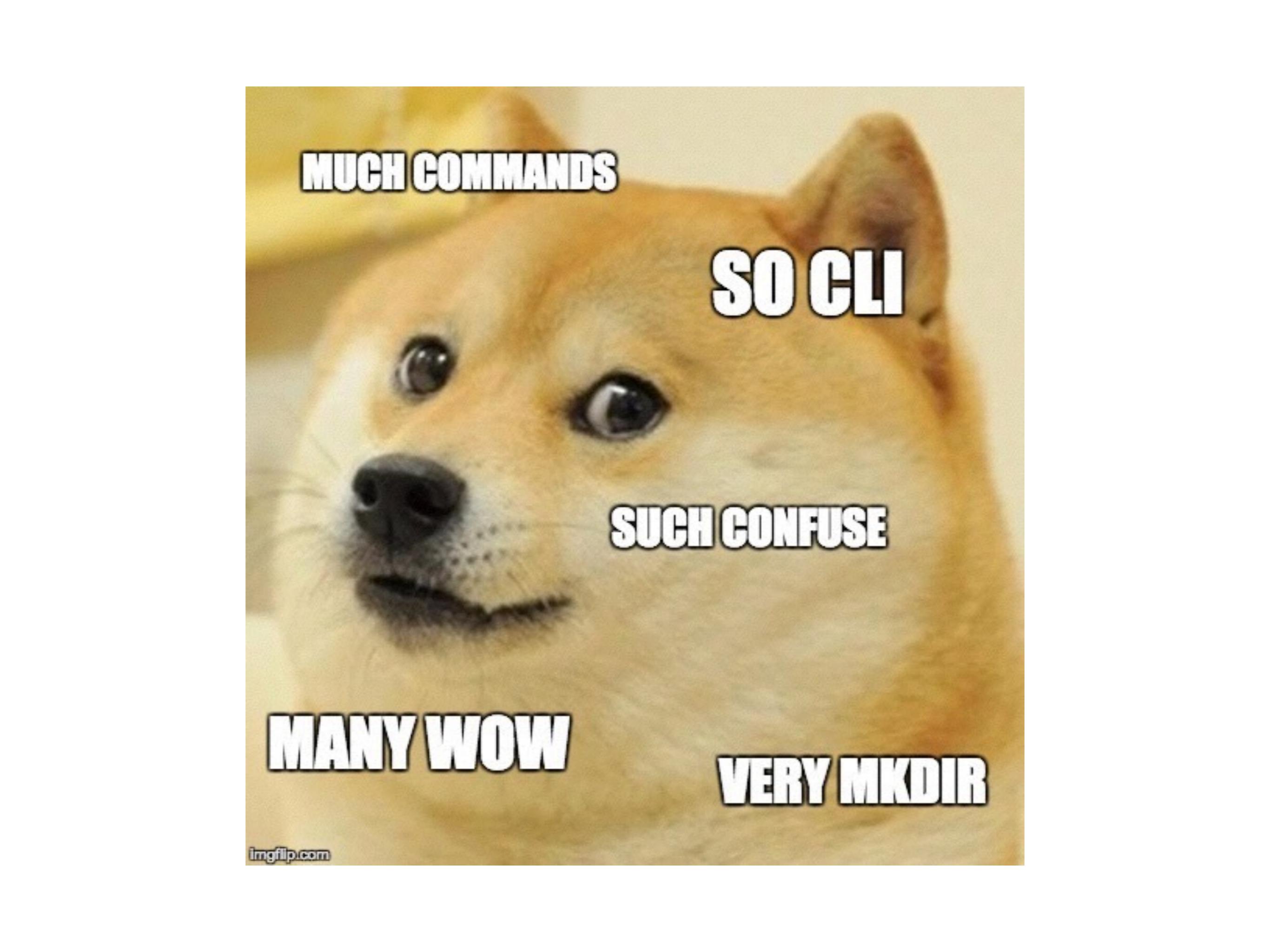
The whole interface.

iTerm



Mac Terminal





MUCH COMMANDS

SO CLI

SUCH CONFUSE

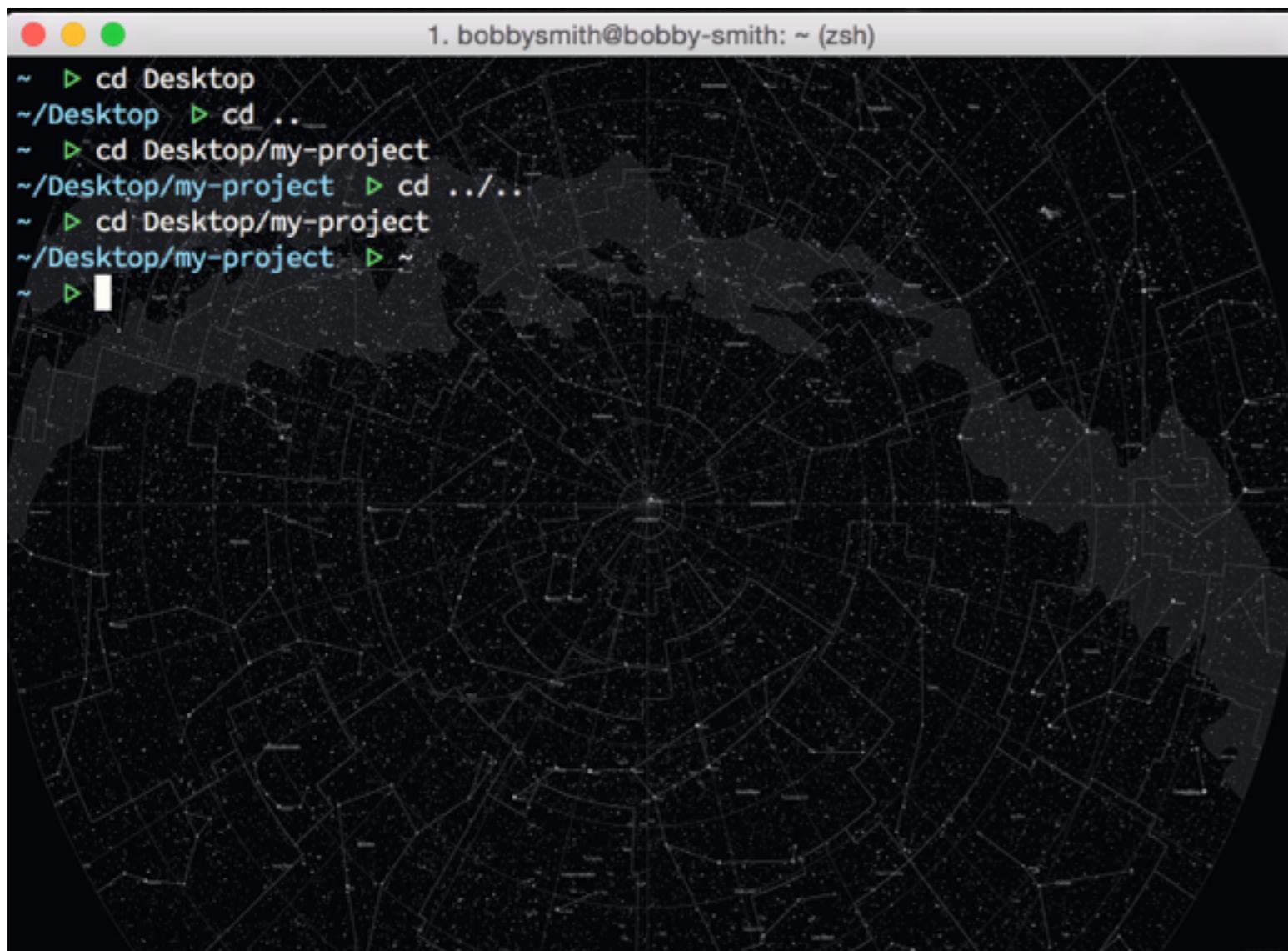
MANY WOW

VERY MKDIR

cd

change directory

This navigates through your computer.

A screenshot of a macOS terminal window titled "1. bobbysmith@bobby-smith: ~ (zsh)". The window shows a history of directory changes. The background of the terminal is a dark space-themed image with stars and nebulae.

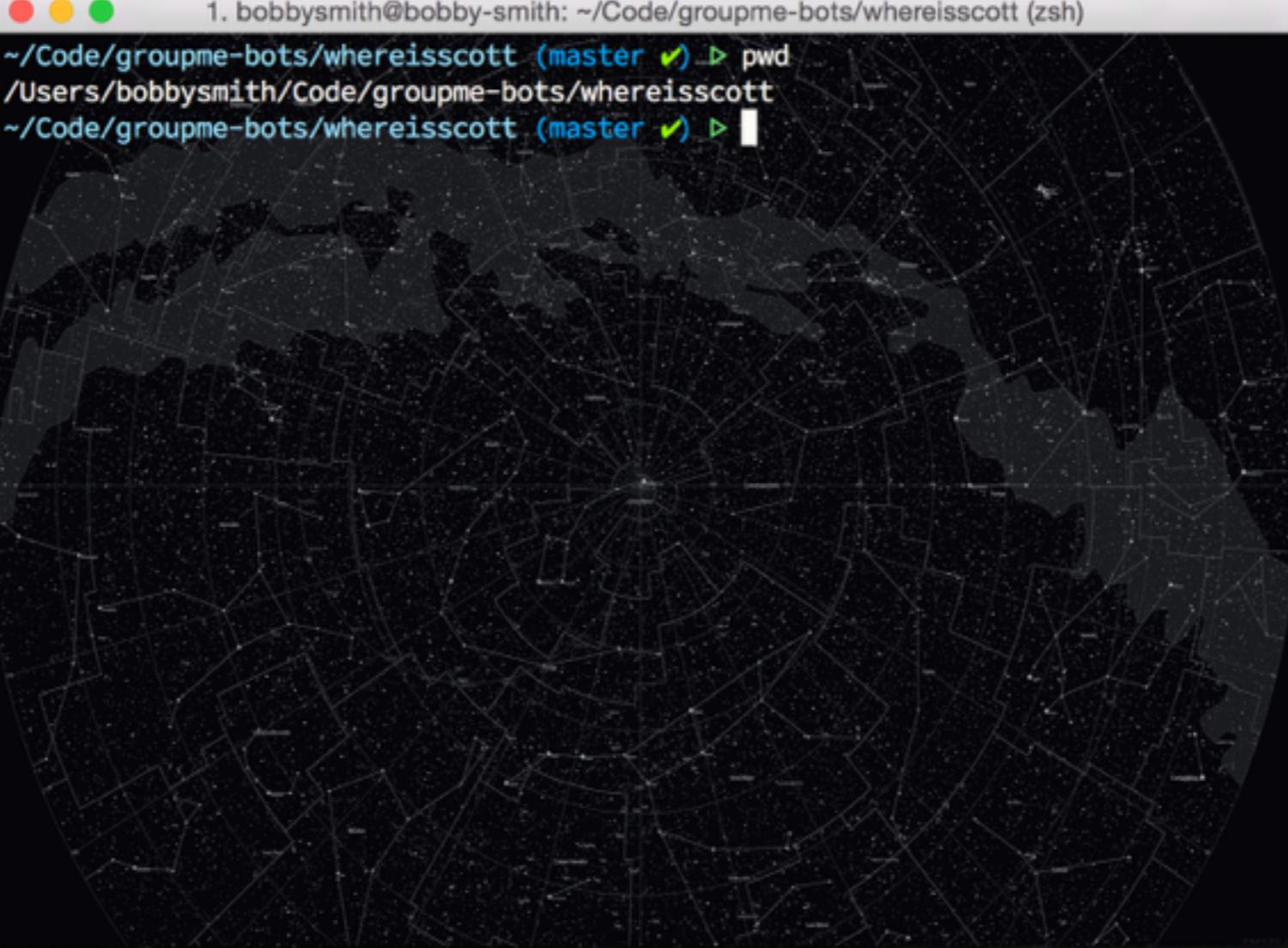
```
~ ▶ cd Desktop
~/Desktop ▶ cd ..
~ ▶ cd Desktop/my-project
~/Desktop/my-project ▶ cd ../../
~ ▶ cd Desktop/my-project
~/Desktop/my-project ▶ ~
~ ▶
```

```
cd Desktop
cd ..
cd Desktop/my-proj
cd ../../..
cd Desktop/my-proj
~
```

pwd

print working directory

Where am I?



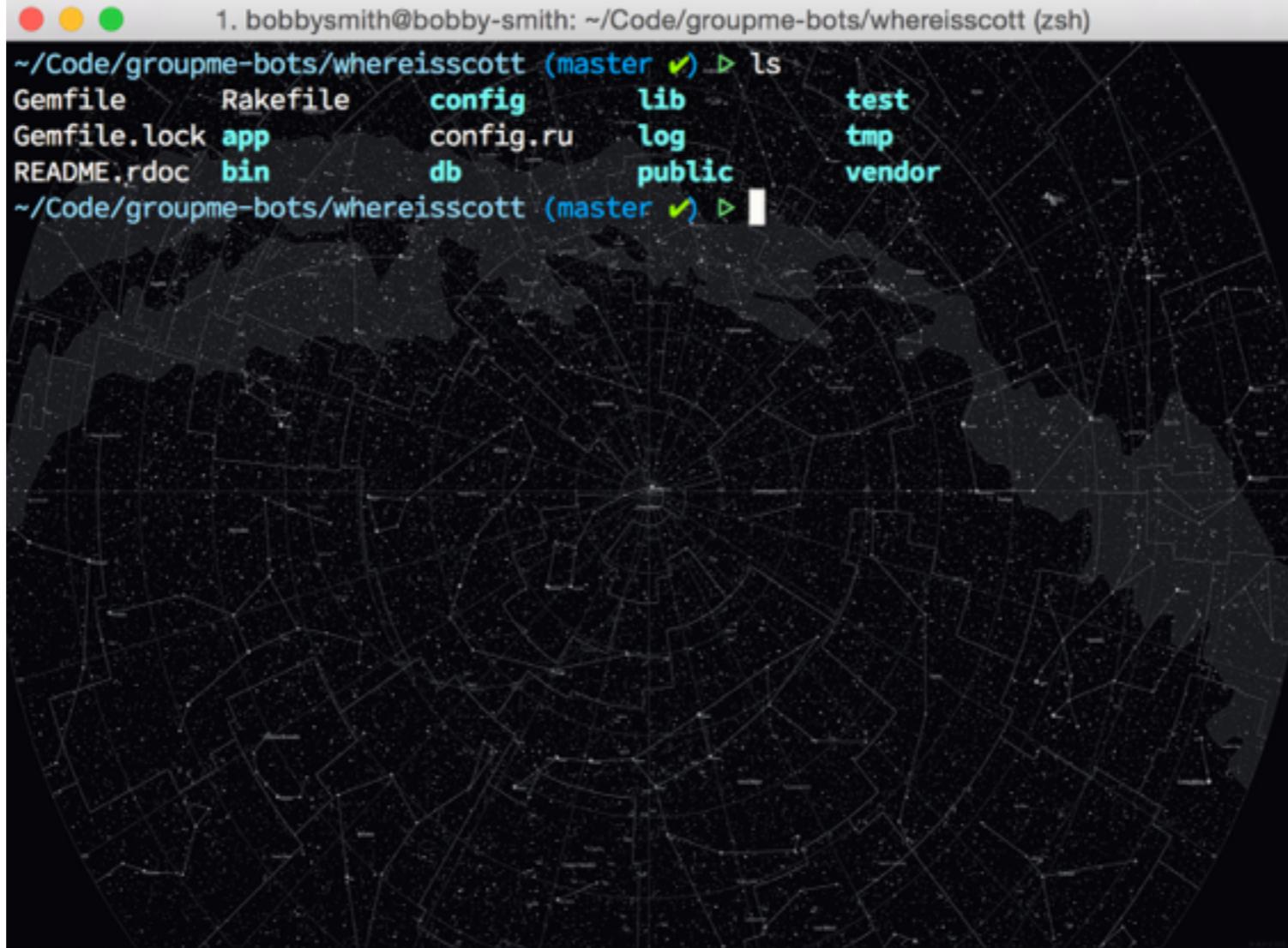
```
1. bobbysmith@bobby-smith: ~/Code/groupme-bots/whereisscott (zsh)
~/Code/groupme-bots/whereisscott (master ✓) ▶ pwd
/Users/bobbysmith/Code/groupme-bots/whereisscott
~/Code/groupme-bots/whereisscott (master ✓) ▶ █
```

ls

list

What is in this directory?

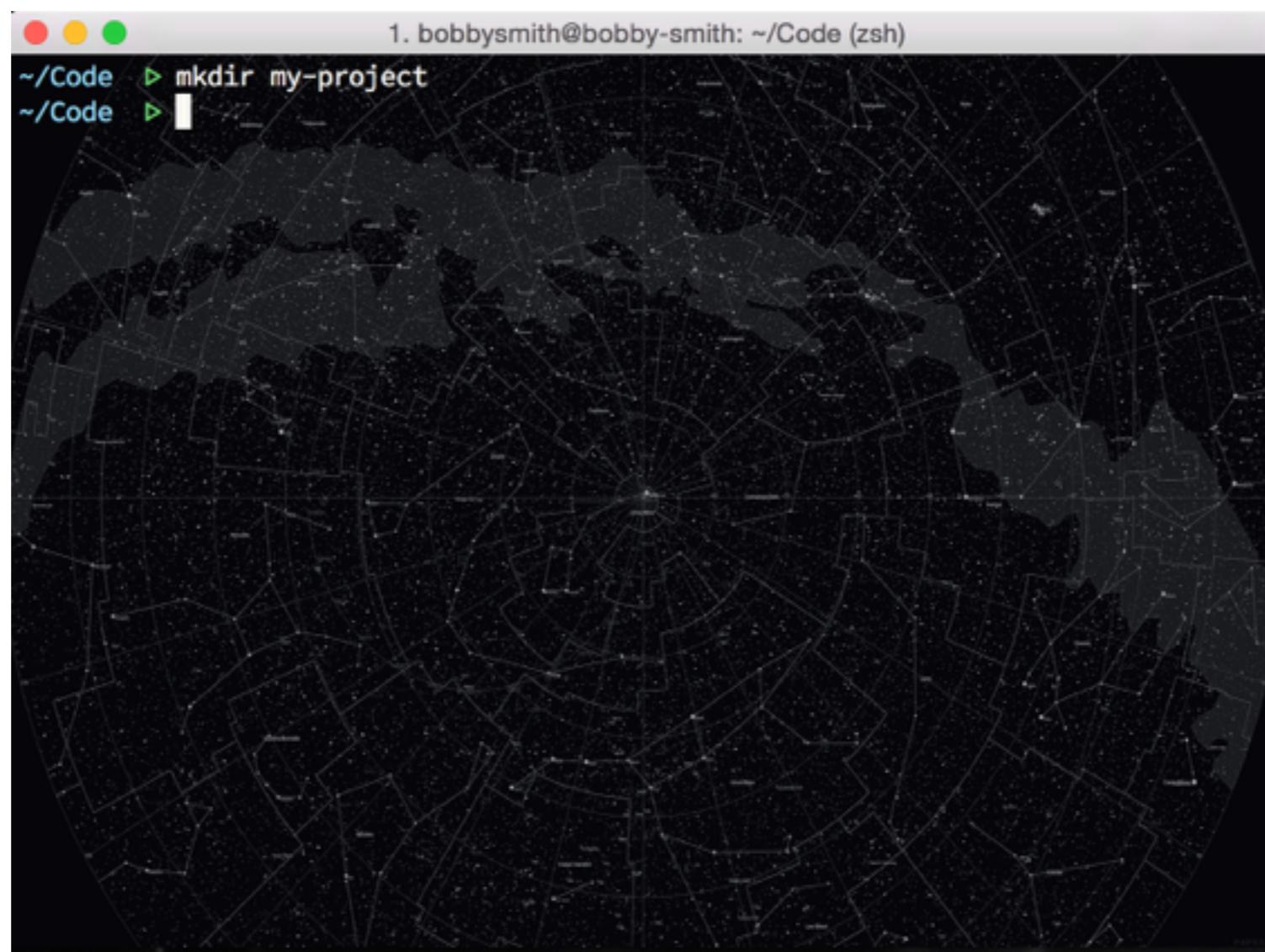
```
1. bobbysmith@bobby-smith: ~/Code/groupme-bots/whereisscott (zsh)
~/Code/groupme-bots/whereisscott (master ✓) ▶ ls
Gemfile      Rakefile    config      lib       test
Gemfile.lock  app        config.ru   log      tmp
README.rdoc   bin        db          public   vendor
~/Code/groupme-bots/whereisscott (master ✓) ▶
```



mkdir

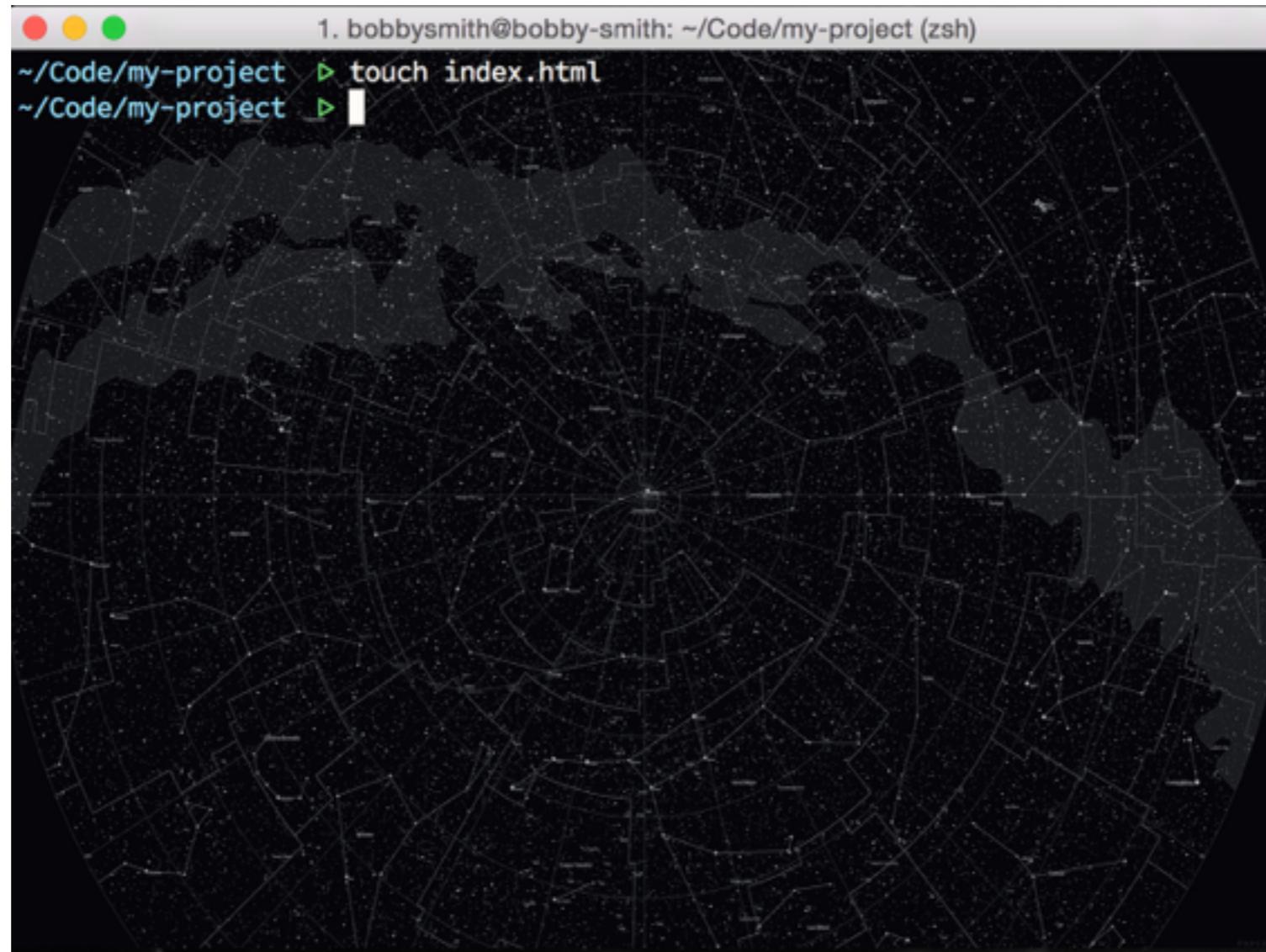
make directory

Create a new directory (folder).



touch

Create a new file.



want more commands?

https://en.wikipedia.org/wiki/List_of_Unix_commands

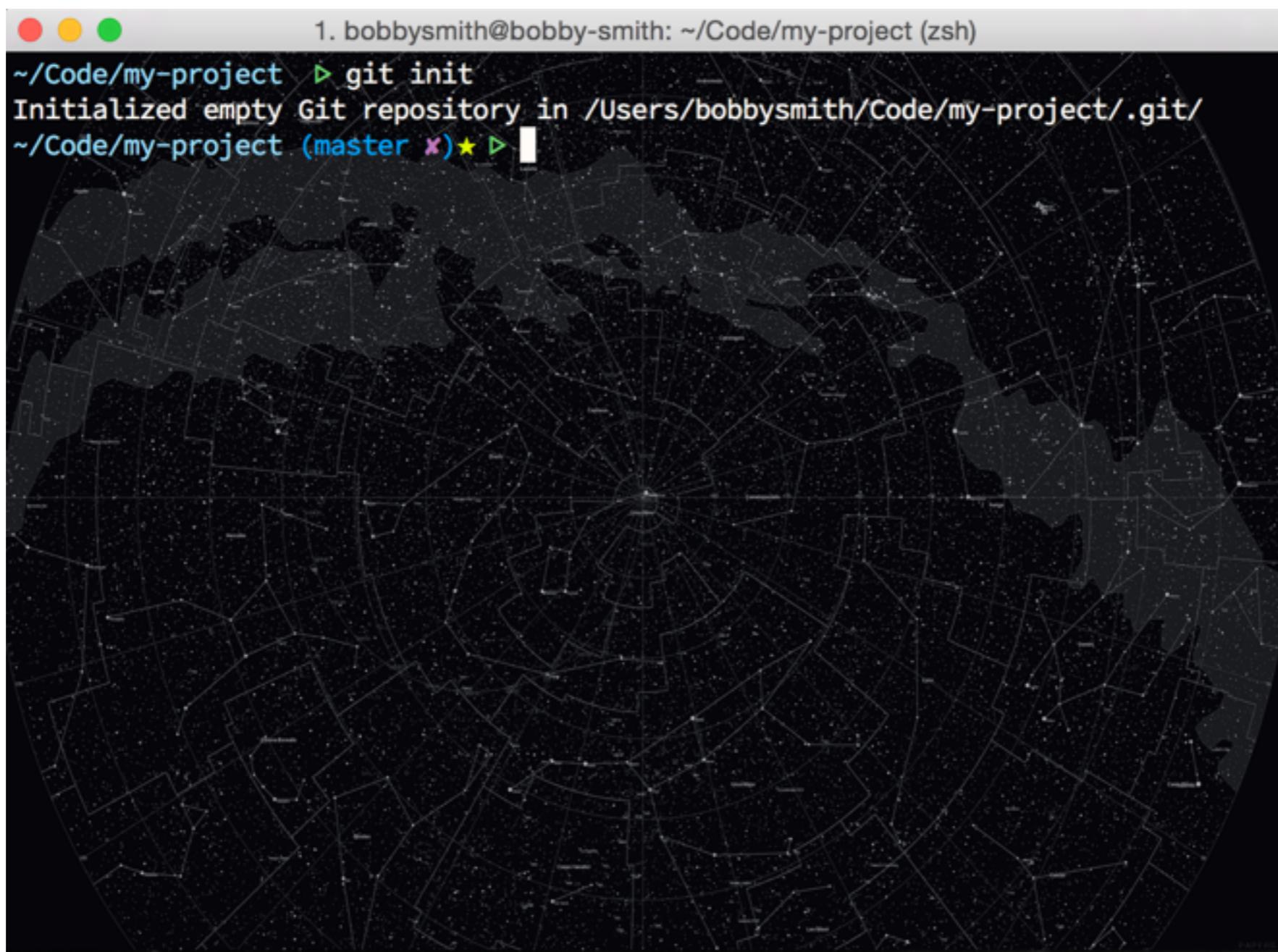
Version Control

A system that records changes to files over time.

We can access different versions of those files from the commits we make.

git init

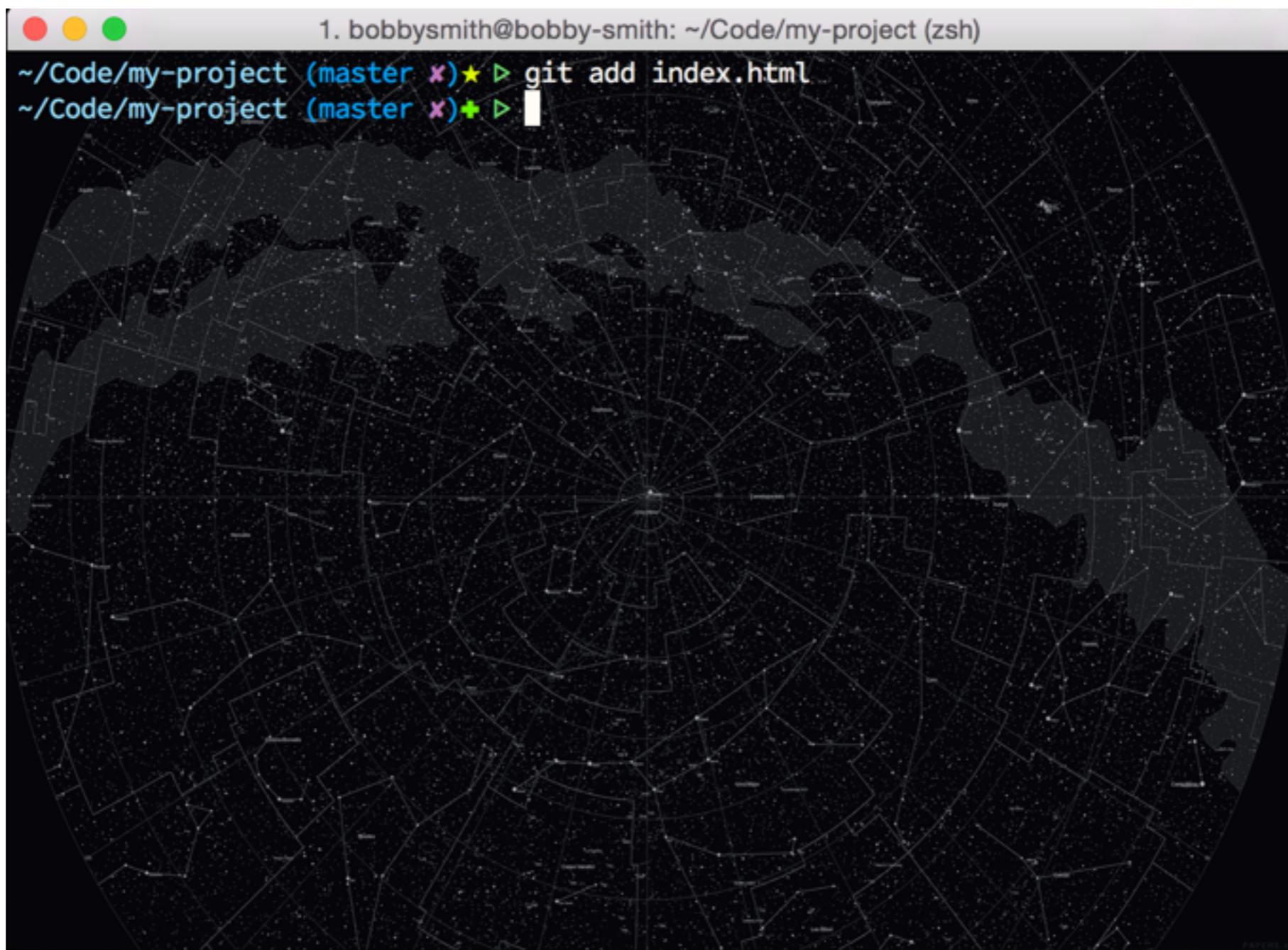
Initializes a new local git repo.

A screenshot of a terminal window titled "1. bobbysmith@bobby-smith: ~/Code/my-project (zsh)". The terminal is displaying the command "git init" and its output: "Initialized empty Git repository in /Users/bobbysmith/Code/my-project/.git/". The background of the terminal window features a dark, abstract geometric pattern of interconnected lines and dots.

```
~/Code/my-project ▶ git init
Initialized empty Git repository in /Users/bobbysmith/Code/my-project/.git/
~/Code/my-project (master ✘)▶
```

git add

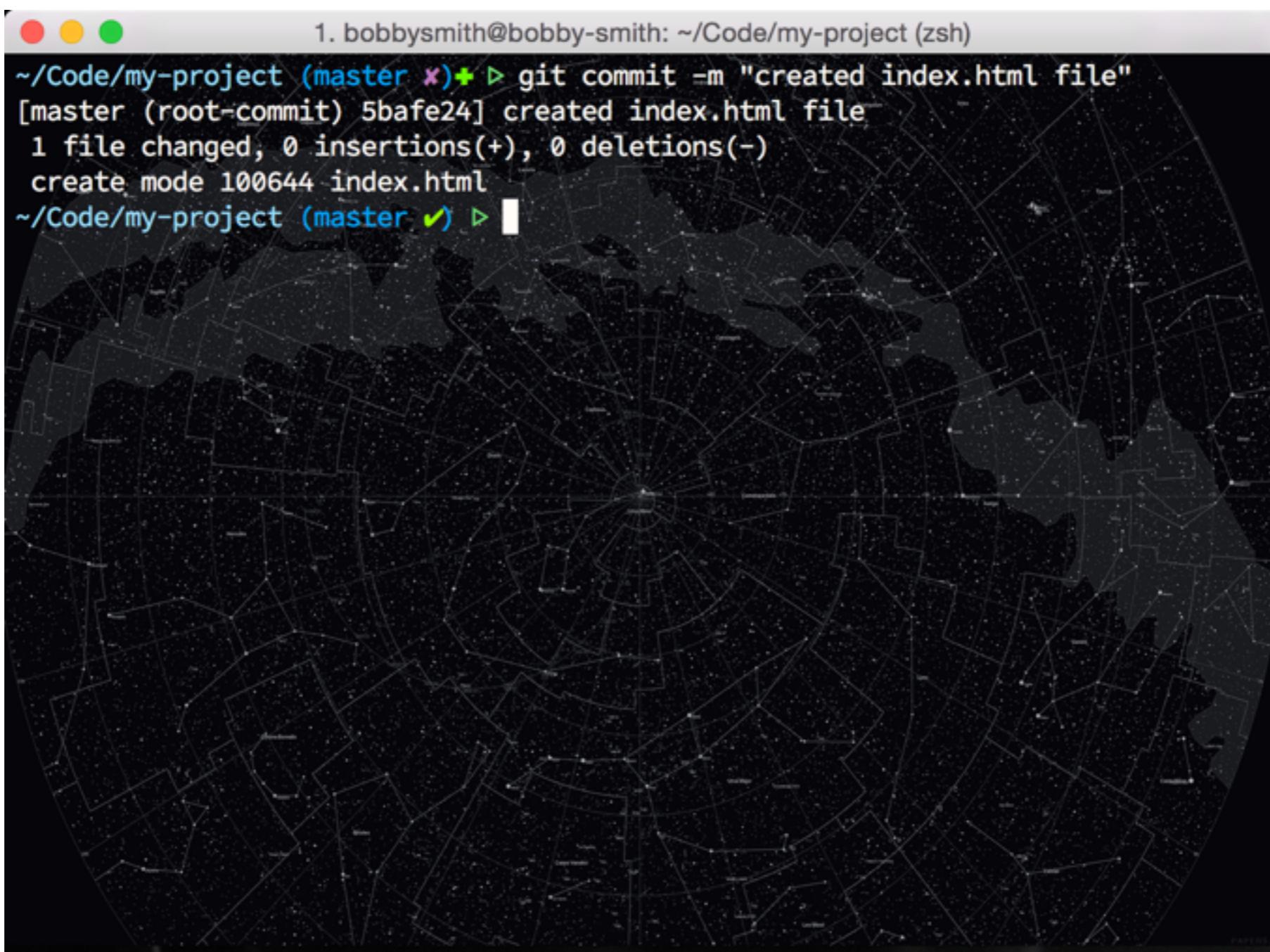
Adds a change to the staging area.



```
1. bobbysmith@bobby-smith: ~/Code/my-project (zsh)
~/Code/my-project (master ✘)★▷ git add index.html
~/Code/my-project (master ✘)★▷ █
```

git commit

Commits versions of a project.



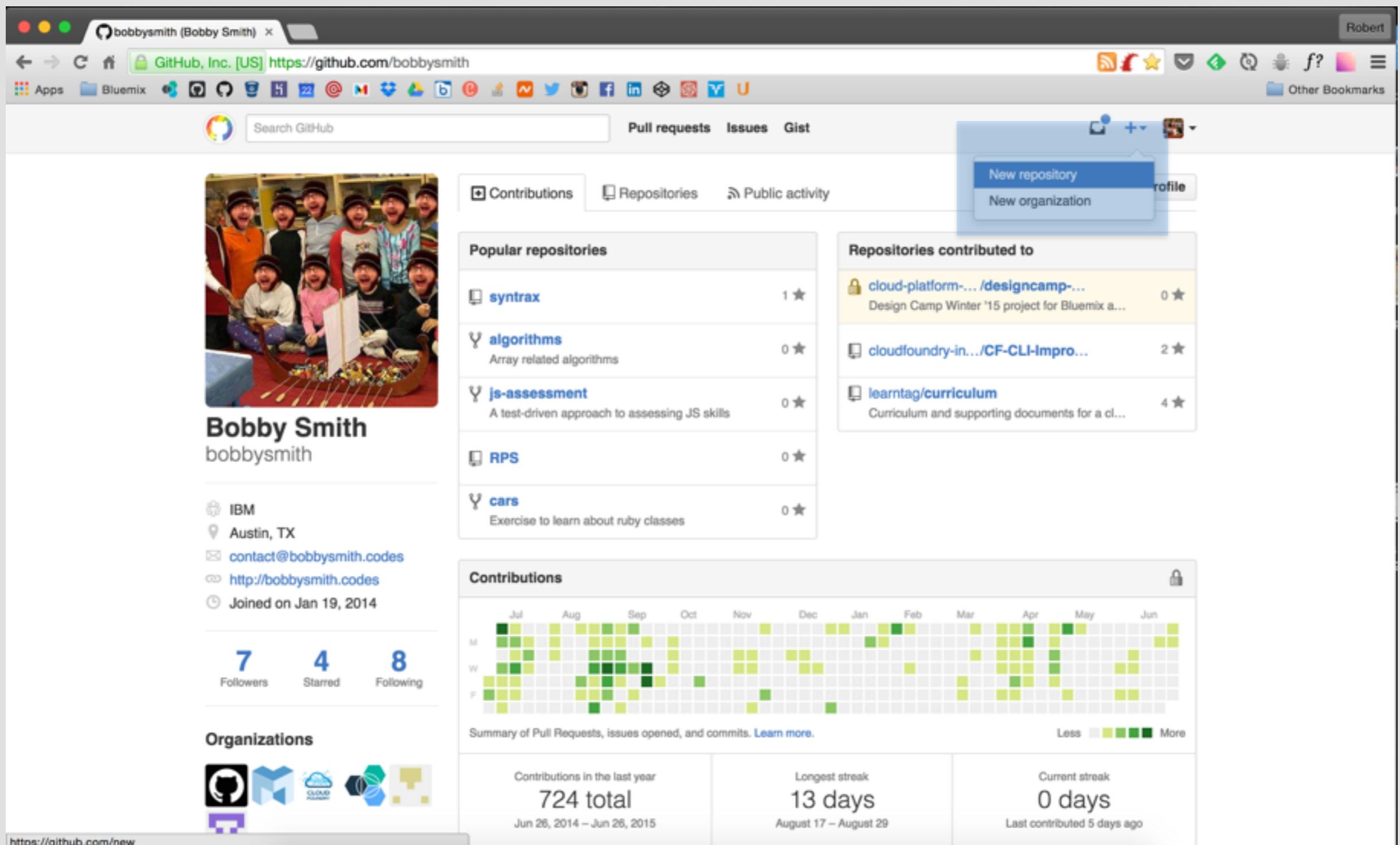
1. bobbysmith@bobby-smith: ~/Code/my-project (zsh)
~/Code/my-project (master ✘) ➤ git commit -m "created index.html file"
[master (root-commit) 5bafe24] created index.html file
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 index.html
~/Code/my-project (master ✓) ➤

git vs github

git is a version control system

github is a remote repository

create a new repo



A screenshot of a GitHub user profile for [bobbysmith](https://github.com/bobbysmith). The profile page includes a photo of a group of people, the user's name **Bobby Smith**, and their GitHub handle `bobbysmith`. It shows their location as IBM in Austin, TX, and their email as contact@bobbysmith.codes. The user joined on Jan 19, 2014, and has 7 Followers, 4 Starred repositories, and 8 Following users. The 'Contributions' section shows a heatmap of activity over time. A prominent feature is a blue dropdown menu in the top right corner with the option 'New repository' highlighted. Other options in the menu include 'New organization'.

[bobbysmith \(Bobby Smith\)](https://github.com/bobbysmith)

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

Search GitHub

Pull requests Issues Gist

Contributions Repositories Public activity

New repository

New organization

Popular repositories

- [syntax](#) 1 ★
- [algorithms](#) 0 ★
Array related algorithms
- [js-assessment](#) 0 ★
A test-driven approach to assessing JS skills
- [RPS](#) 0 ★
- [cars](#) 0 ★
Exercise to learn about ruby classes

Repositories contributed to

- [cloud-platform-... /designcamp-...](#) 0 ★
Design Camp Winter '15 project for Bluemix a...
- [cloudfoundry-in.../CF-CLI-Impro...](#) 2 ★
- [learntag/curriculum](#) 4 ★
Curriculum and supporting documents for a cl...

Contributions

Summary of Pull Requests, issues opened, and commits. [Learn more](#).

Less More

Contributions in the last year	Longest streak	Current streak
724 total Jun 26, 2014 – Jun 26, 2015	13 days August 17 – August 29	0 days Last contributed 5 days ago

Organizations

<https://github.com/new>

create a new repo

A screenshot of a web browser showing the GitHub 'Create a New Repository' interface. The browser window has a dark header bar with the title 'Create a New Repository'. The main content area shows a form for creating a repository. The 'Owner' field is set to 'bobbysmith'. The 'Repository name' field contains 'lets-git-crazy' with a green checkmark icon. Below the name is a note: 'Great repository names are short and memorable. Need inspiration? How about [spawncamping-octo-lana](#)'. The 'Description (optional)' field is empty. The 'Visibility' section shows 'Public' selected (indicated by a blue dot) and 'Private' unselected. The 'Initialize this repository with a README' checkbox is unselected. At the bottom are buttons for 'Add .gitignore: None' and 'Add a license: None', followed by a large green 'Create repository' button. The footer includes links for 'Status API Training Shop Blog About Help'.

© 2015 GitHub, Inc. [Terms](#) [Privacy](#) [Security](#) [Contact](#)

Status API Training Shop Blog About Help

new remote repo

The screenshot shows a web browser window with the GitHub URL <https://github.com/bobbysmith/lets-git-crazy> in the address bar. The page displays instructions for setting up a new repository. It includes sections for quick setup via desktop or command line, pushing from the command line, and importing code from other repositories. On the right side, there's a sidebar with links for Code, Issues, Pull requests, Wiki, Pulse, Graphs, and Settings. The GitHub logo is visible in the top left corner of the page area.

Quick setup — if you've done this kind of thing before

Set up in Desktop or [HTTPS](#) [SSH](#) `git@github.com:bobbysmith/lets-git-crazy.git`

We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

...or create a new repository on the command line

```
echo "# lets-git-crazy" >> README.md
git init
git add README.md
git commit -m "first commit"
git remote add origin git@github.com:bobbysmith/lets-git-crazy.git
git push -u origin master
```

...or push an existing repository from the command line

```
git remote add origin git@github.com:bobbysmith/lets-git-crazy.git
git push -u origin master
```

...or import code from another repository

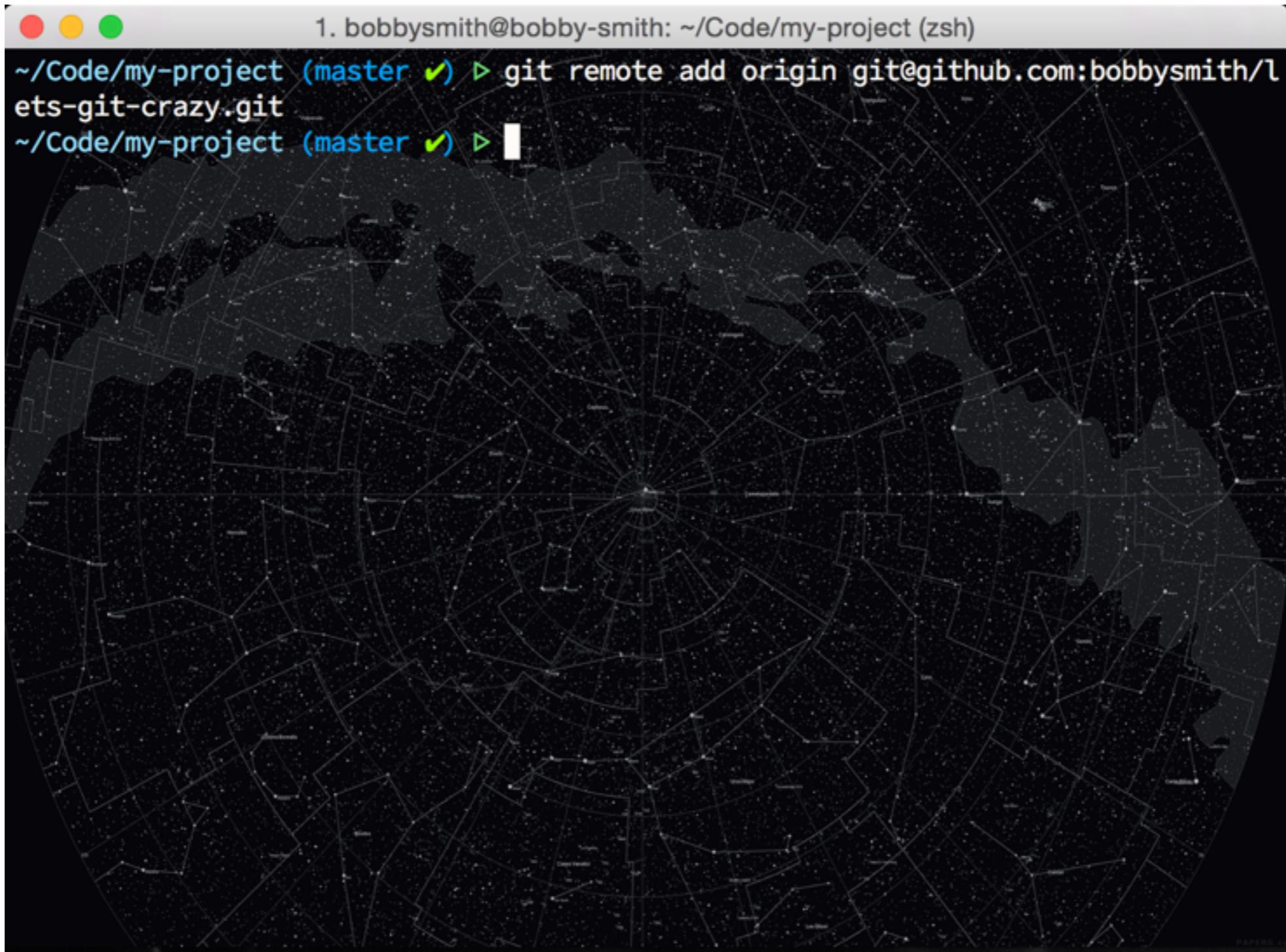
You can initialize this repository with code from a Subversion, Mercurial, or TFS project.

[Import code](#)

Code

- [Issues](#) 0
- [Pull requests](#) 0
- [Wiki](#)
- [Pulse](#)
- [Graphs](#)
- [Settings](#)

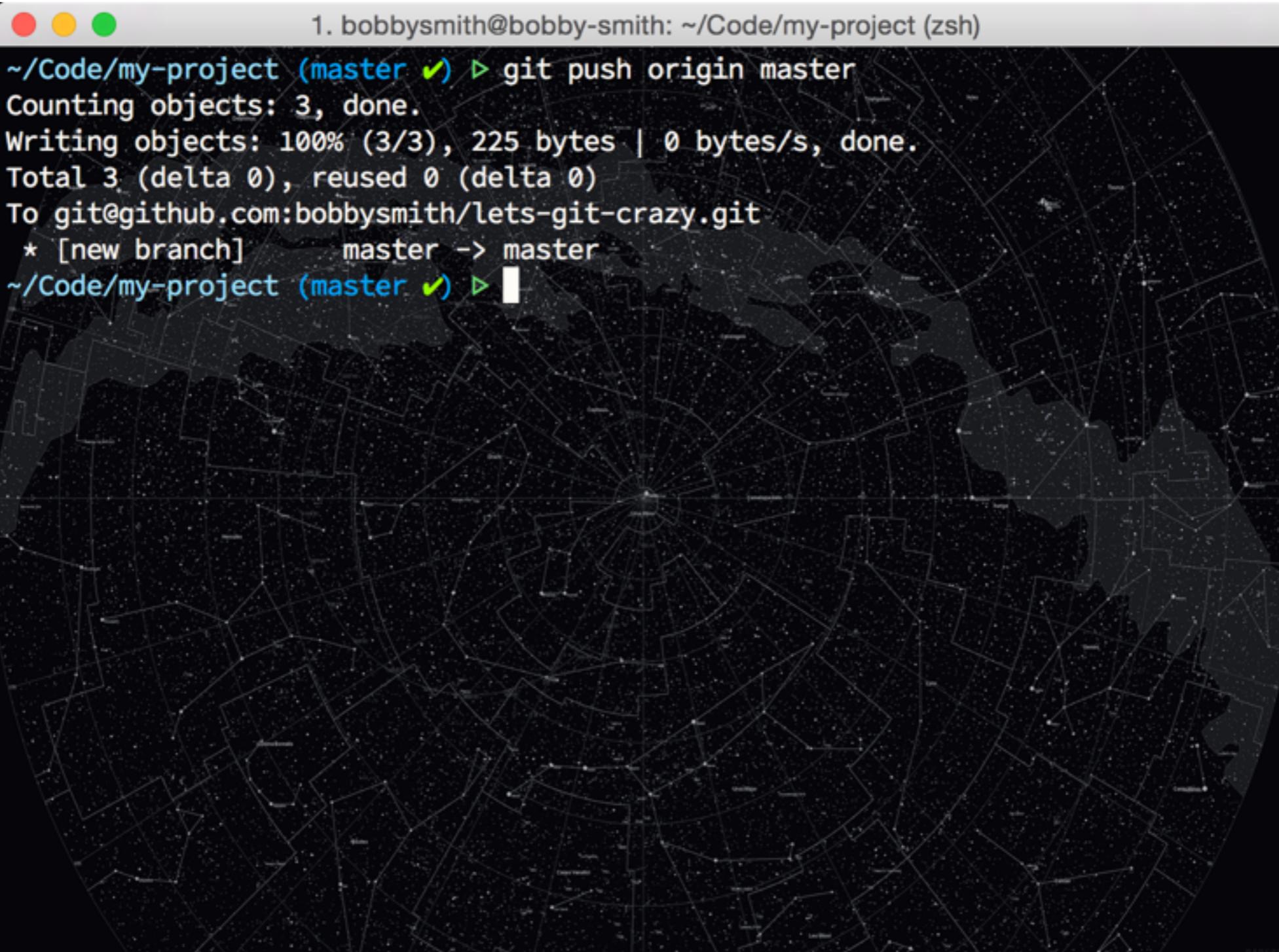
add remote repo



```
1. bobbysmith@bobby-smith: ~/Code/my-project (zsh)
~/Code/my-project (master ✓) ▶ git remote add origin git@github.com:bobbysmith/lets-git-crazy.git
~/Code/my-project (master ✓) ▶
```

git push origin master

```
1. bobbysmith@bobby-smith: ~/Code/my-project (zsh)
~/Code/my-project (master ✓) ▶ git push origin master
Counting objects: 3, done.
Writing objects: 100% (3/3), 225 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To git@github.com:bobbysmith/lets-git-crazy.git
 * [new branch] master -> master
~/Code/my-project (master ✓) ▶
```



remote repo changes

A screenshot of a GitHub repository page for 'bobbysmith/lets-git-crazy'. The page shows a commit history with one commit from 'bobbysmith' authored 22 minutes ago. The commit message is 'created index.html file'. The repository has 1 commit, 1 branch, 0 releases, and 1 contributor. A 'README' button is visible at the bottom. The right sidebar includes links for Issues, Pull requests, Wiki, Pulse, Graphs, Settings, SSH clone URL, Clone in Desktop, and Download ZIP.

bobbysmith / lets-git-crazy

Description

Short description of this repository

Website

Website for this repository (optional)

Save or Cancel

1 commit

1 branch

0 releases

1 contributor

branch: master / +

lets-git-crazy / +

created index.html file

bobbysmith authored 22 minutes ago

latest commit 5bafe244ec

index.html created index.html file 22 minutes ago

Help people interested in this repository understand your project by adding a README!

Add a README

SSH clone URL

git@github.com:bob

You can clone with [HTTPS](#), [SSH](#), or [Subversion](#).

Clone in Desktop

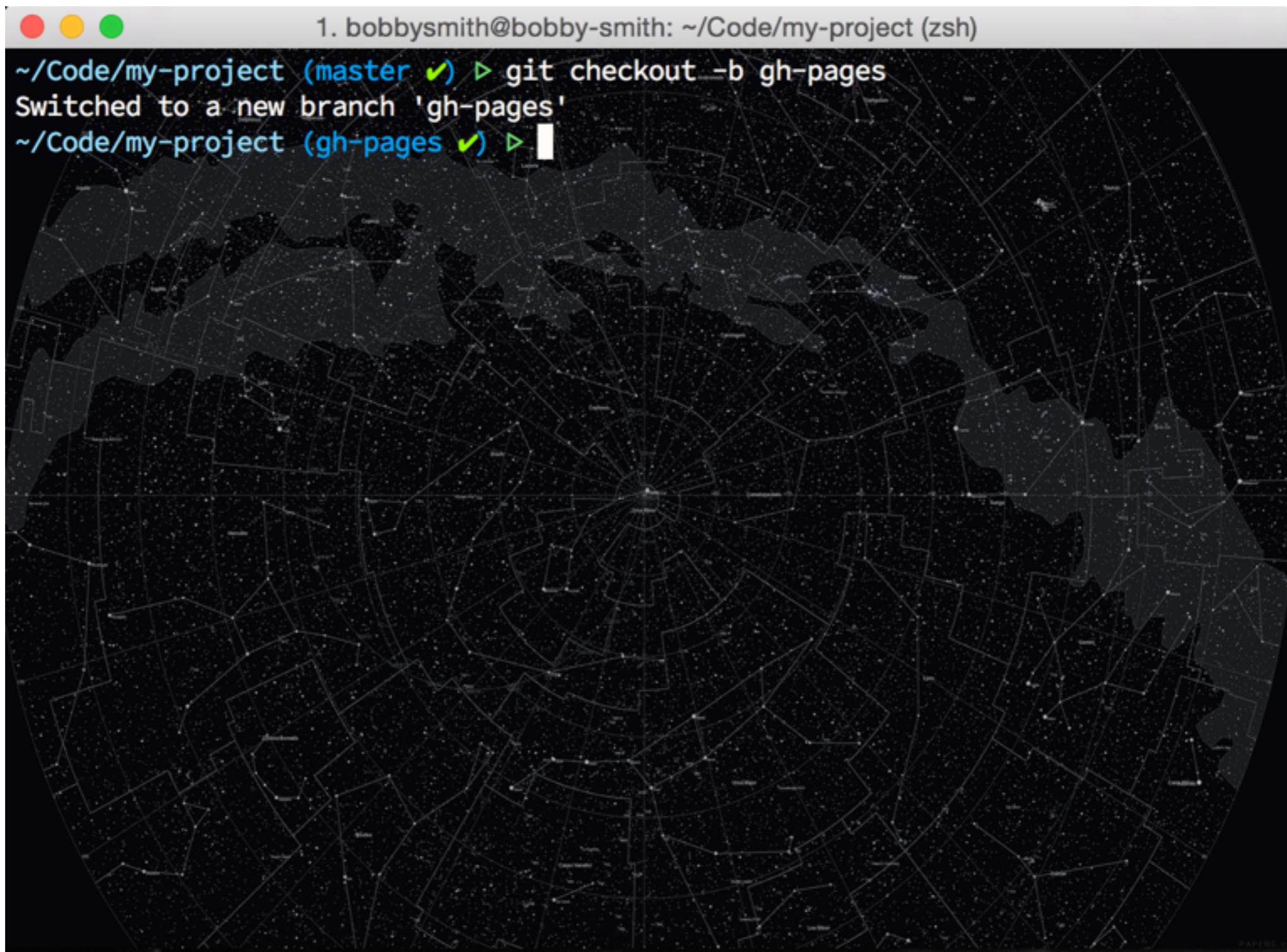
Download ZIP

github pages



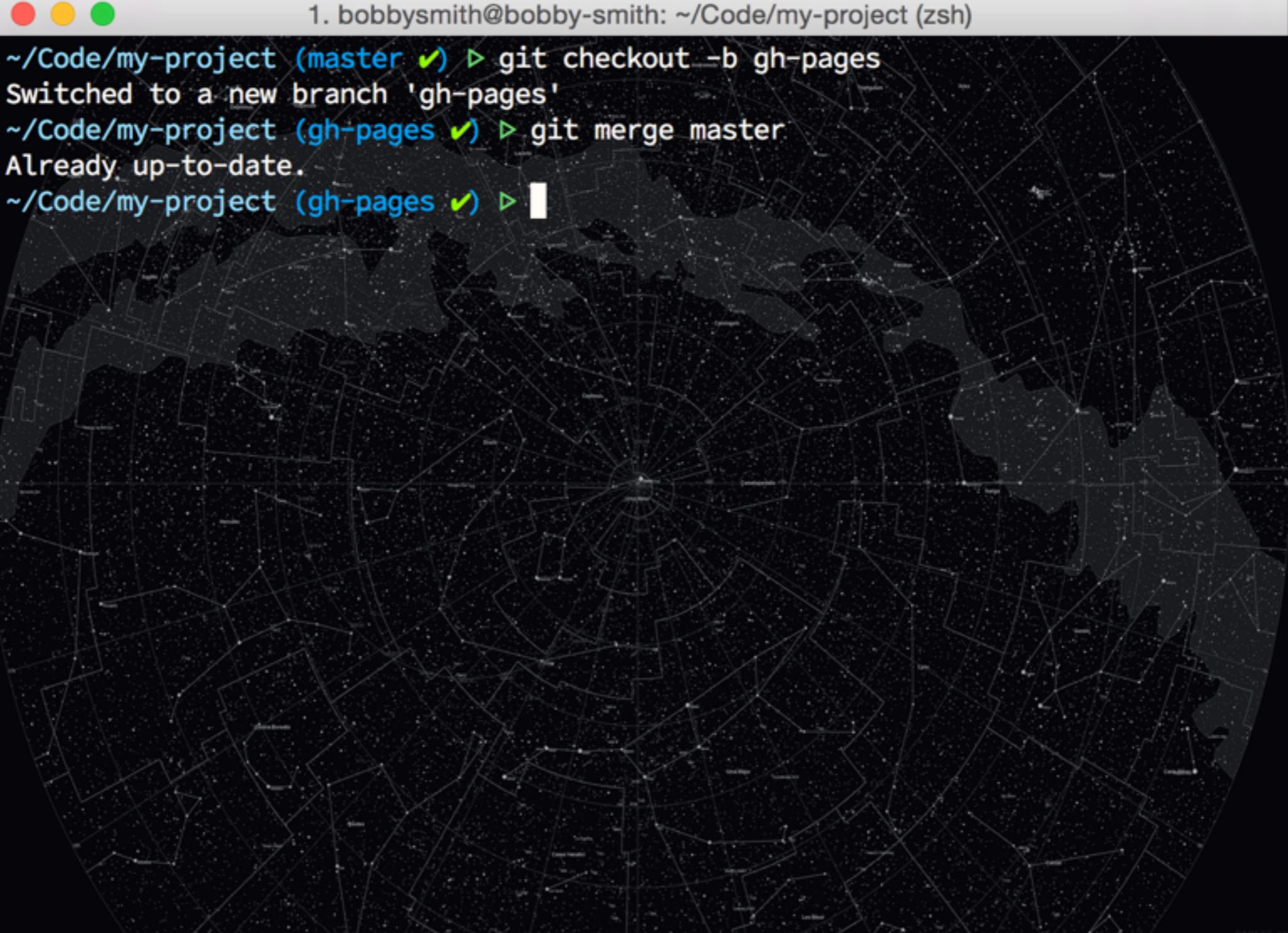
gh-pages: create branch

```
1. bobbysmith@bobby-smith: ~/Code/my-project (zsh)
~/Code/my-project (master ✓) ▷ git checkout -b gh-pages
Switched to a new branch 'gh-pages'
~/Code/my-project (gh-pages ✓) ▷
```



gh-pages: merge master

```
1. bobbysmith@bobby-smith: ~/Code/my-project (zsh)
~/Code/my-project (master ✓) ▶ git checkout -b gh-pages
Switched to a new branch 'gh-pages'
~/Code/my-project (gh-pages ✓) ▶ git merge master
Already up-to-date.
~/Code/my-project (gh-pages ✓) ▶
```



gh-pages: git push

```
1. bobbysmith@bobby-smith: ~/Code/my-project (zsh)
~/Code/my-project (master ✓) ▶ git checkout -b gh-pages
Switched to a new branch 'gh-pages'
~/Code/my-project (gh-pages ✓) ▶ git merge master
Already up-to-date.
~/Code/my-project (gh-pages ✓) ▶ git push origin gh-pages
Total 0 (delta 0), reused 0 (delta 0)
To git@github.com:bobbysmith/lets-git-crazy.git
 * [new branch]      gh-pages -> gh-pages
~/Code/my-project (gh-pages ✓) ▶ █
```

github pages

your page is now live at

`http://username.github.io/repo-name`

<http://bobbysmith.github.io/lets-git-crazy>

want more git?

<http://git-scm.com/>

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

<https://www.atlassian.com/git/tutorials>