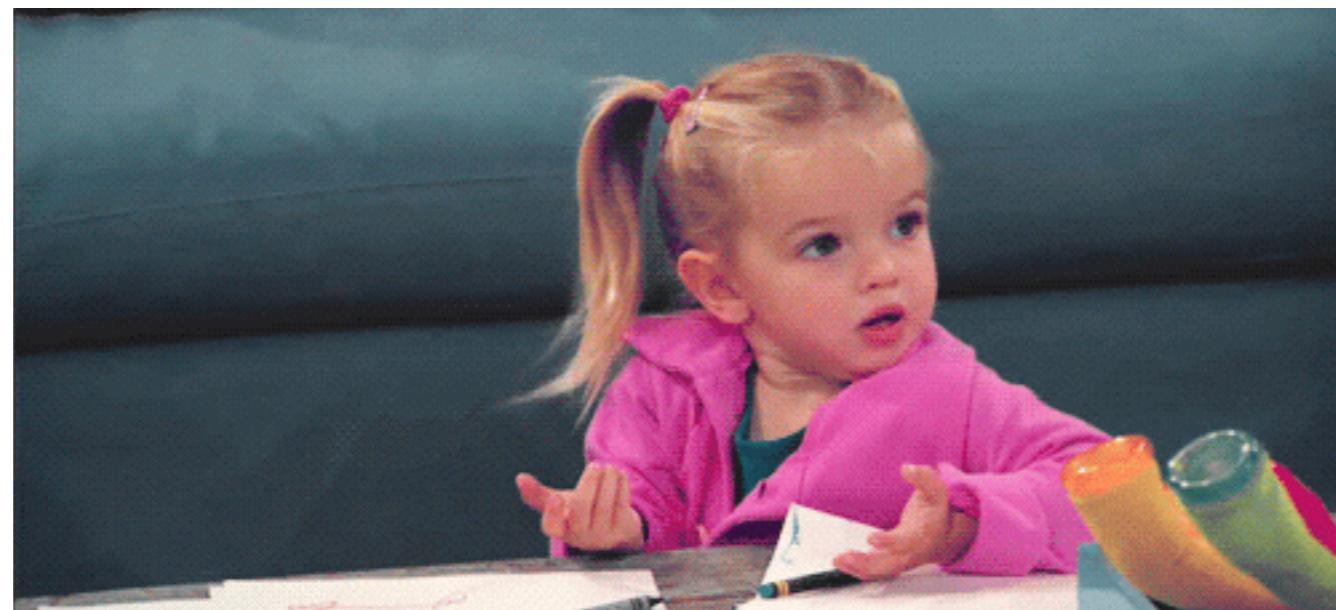


Command Line && Version Control

Learning to Code - Week 7
Bobby Smith

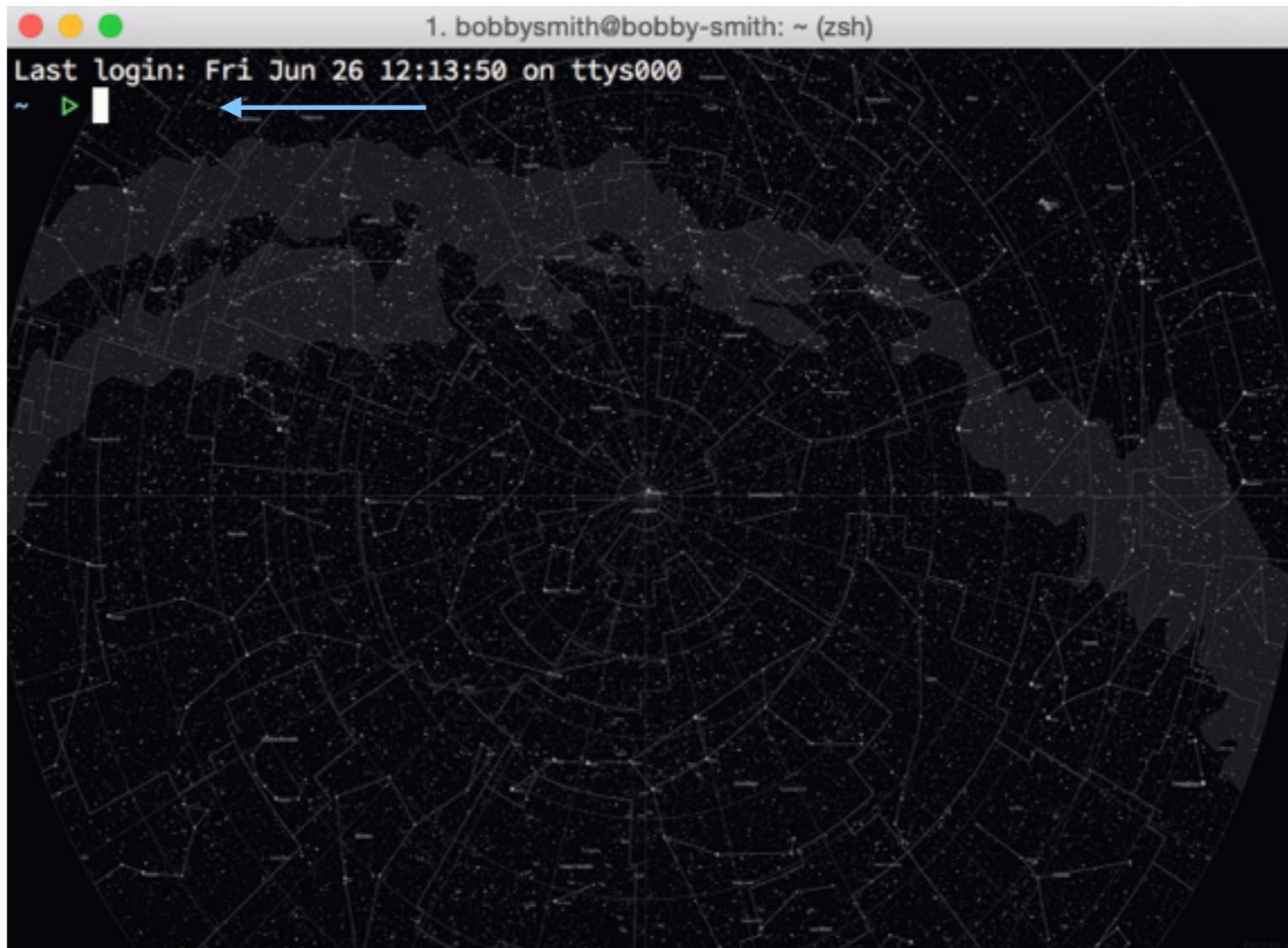
Wait, what...?

command line
console
prompt
terminal
cli



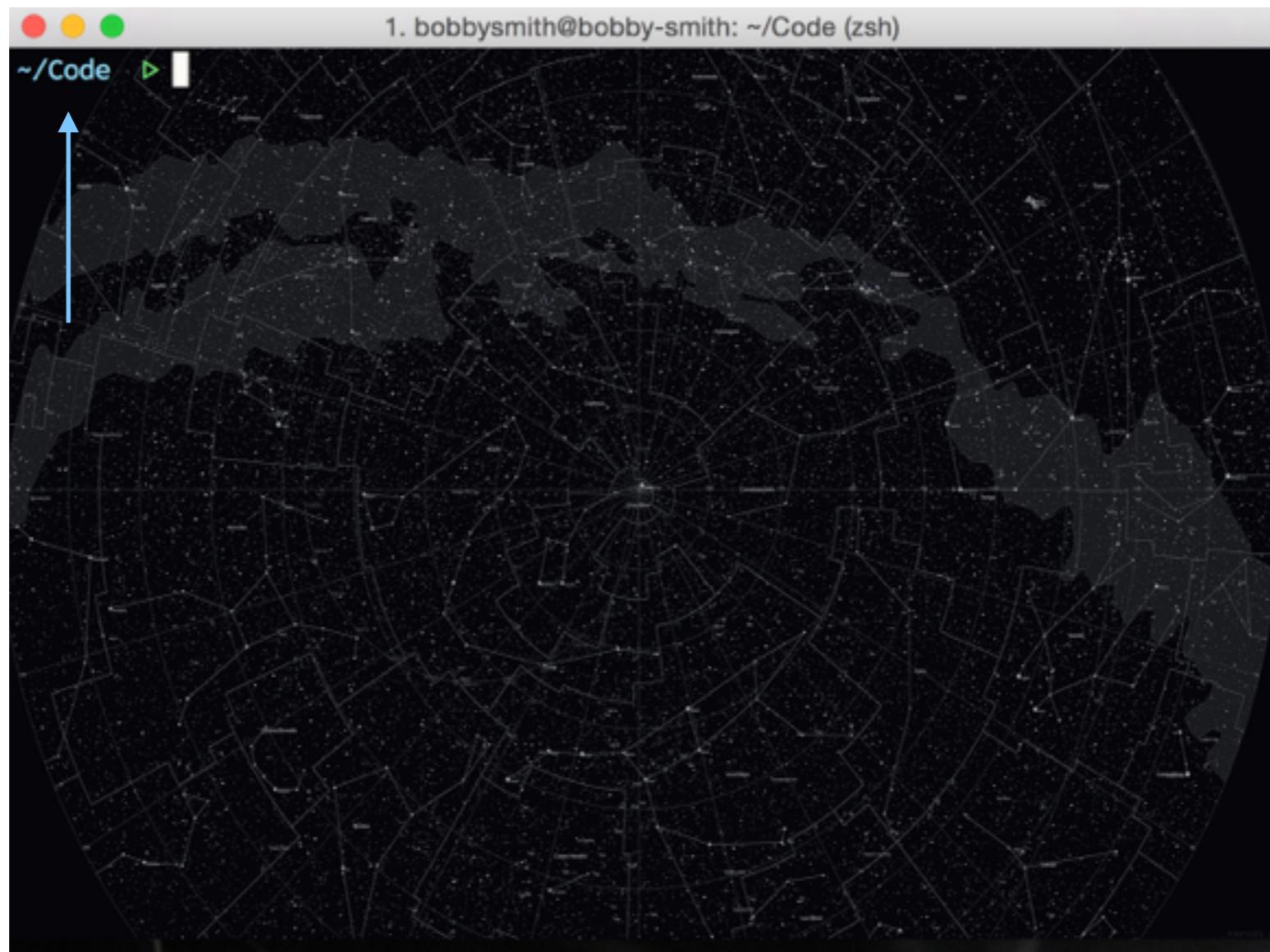
Command Line

The actual line where you type things.



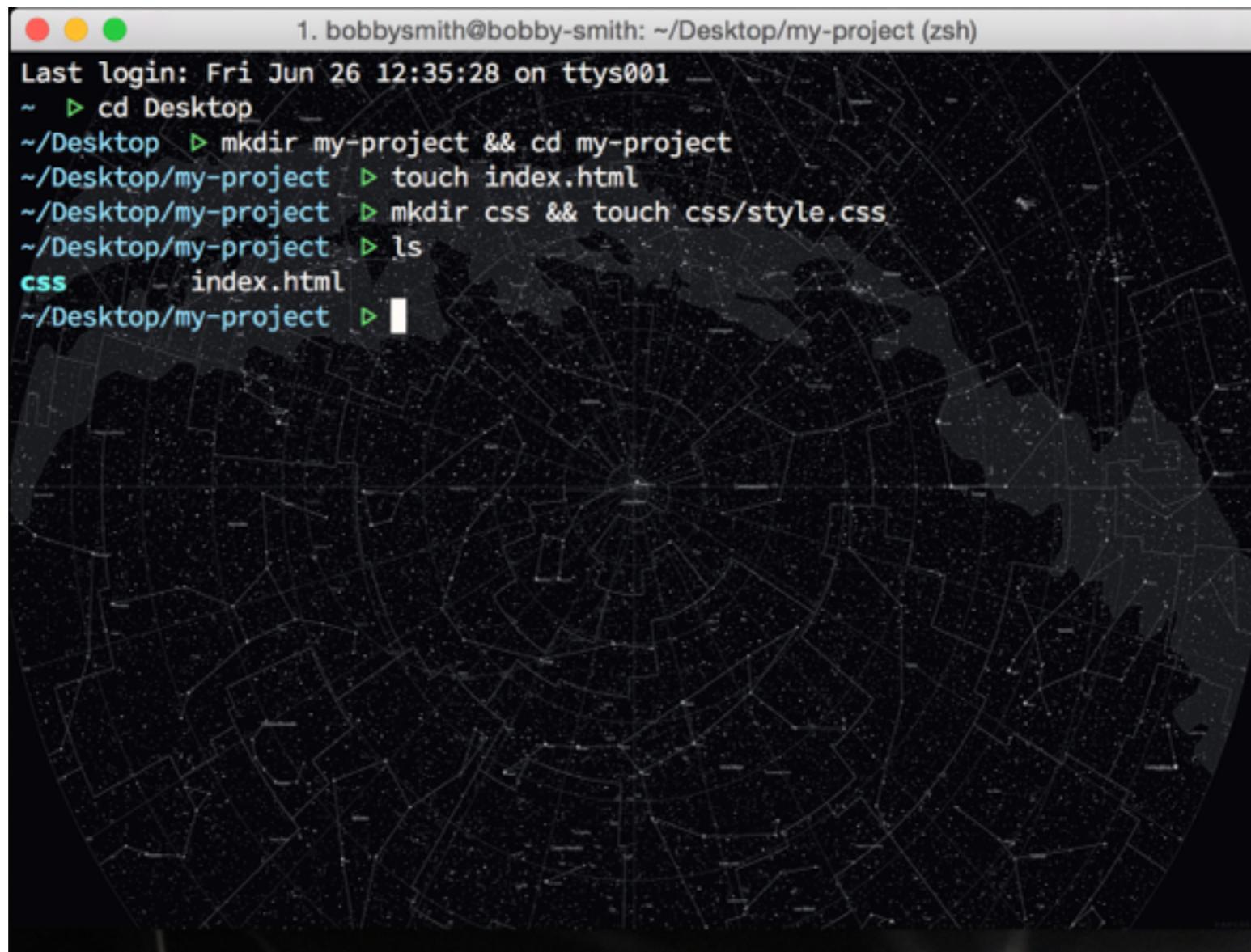
Prompt

The beginning of the command line.



Console

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

A screenshot of a terminal window with a dark background and light-colored text. The window title bar reads "1. bobbysmith@bobby-smith: ~/Desktop/my-project (zsh)". The terminal displays the following command history:

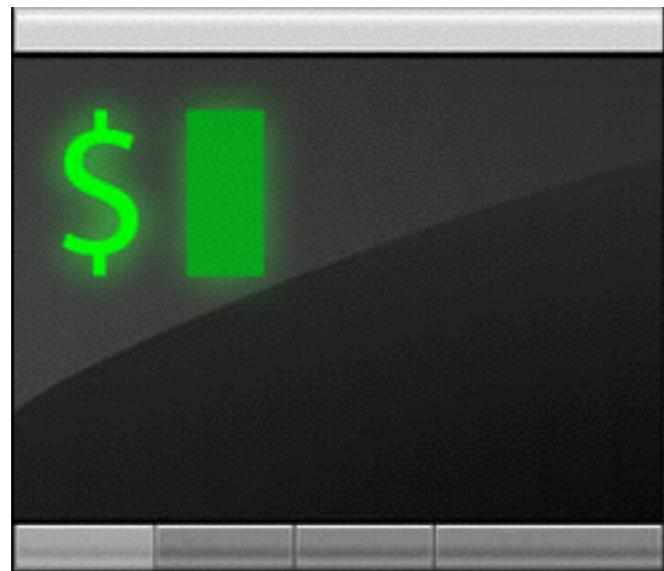
```
Last login: Fri Jun 26 12:35:28 on ttys001
~ > cd Desktop
~/Desktop > mkdir my-project && cd my-project
~/Desktop/my-project > touch index.html
~/Desktop/my-project > mkdir css && touch css/style.css
~/Desktop/my-project > ls
css      index.html
~/Desktop/my-project > 
```

The terminal window has three colored window control buttons (red, yellow, green) at the top left. The overall aesthetic is minimalist and modern.

Terminal

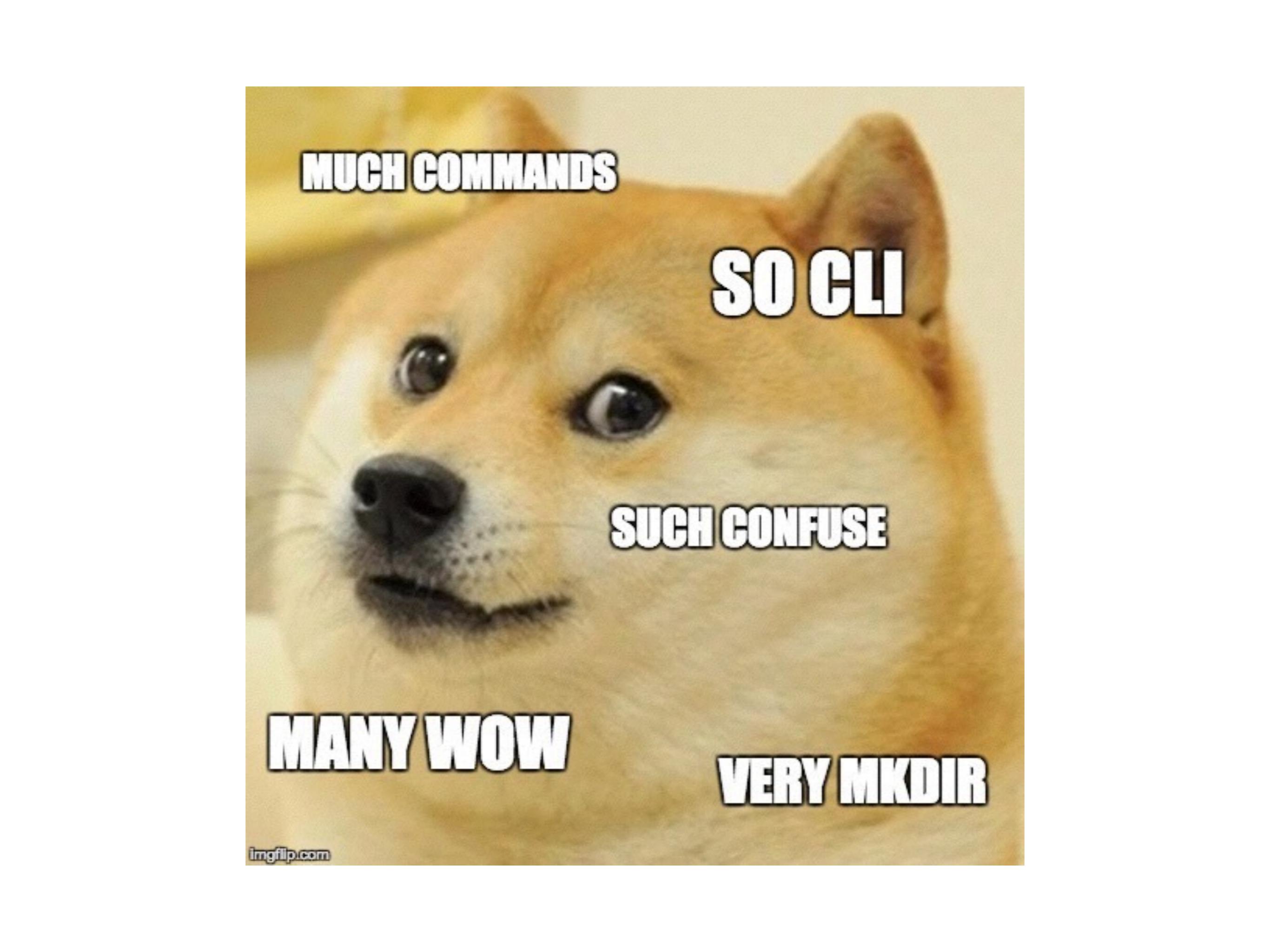
The whole interface.

iTerm



Mac Terminal





MUCH COMMANDS

SO CLI

SUCH CONFUSE

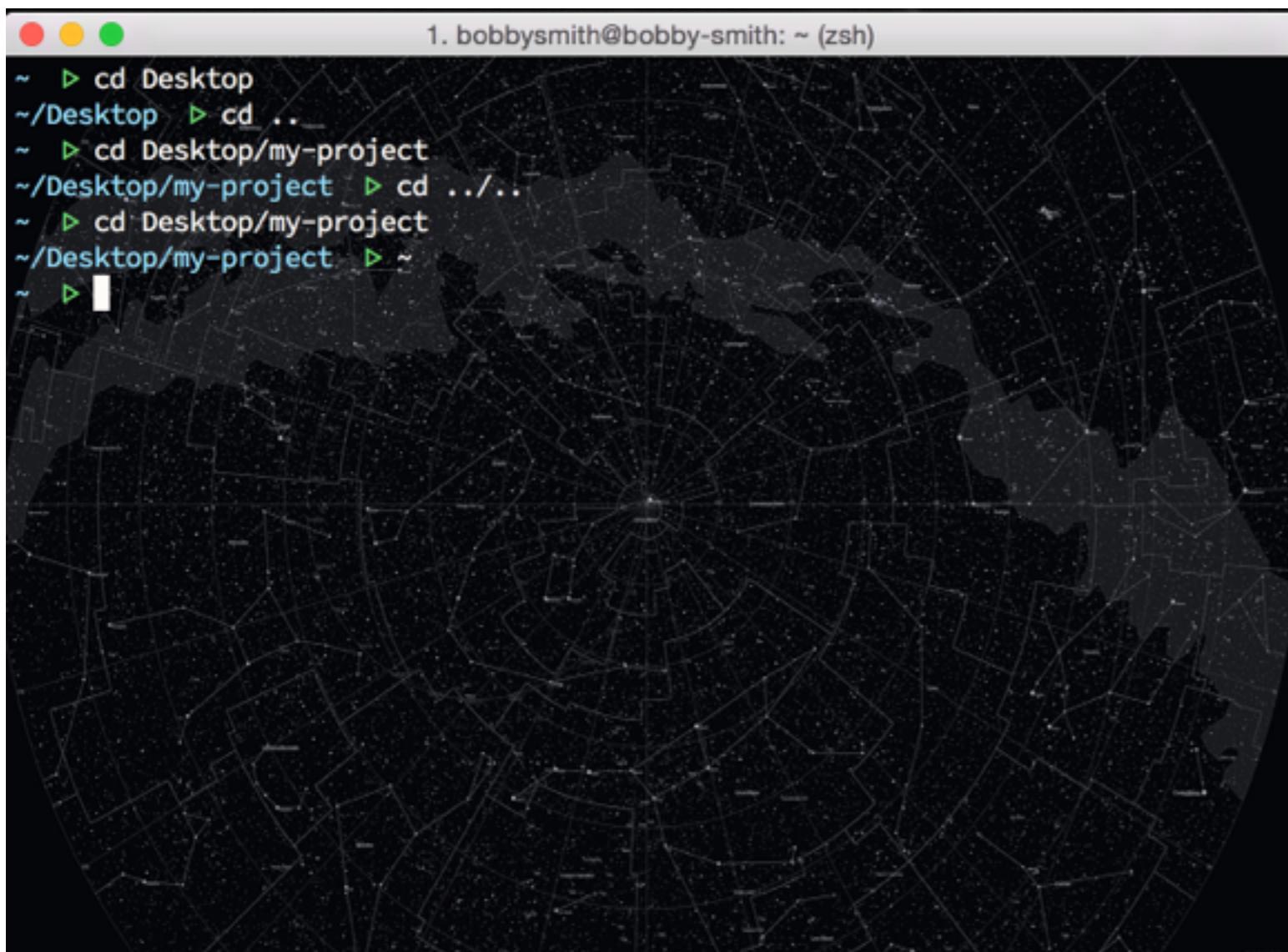
MANY WOW

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.

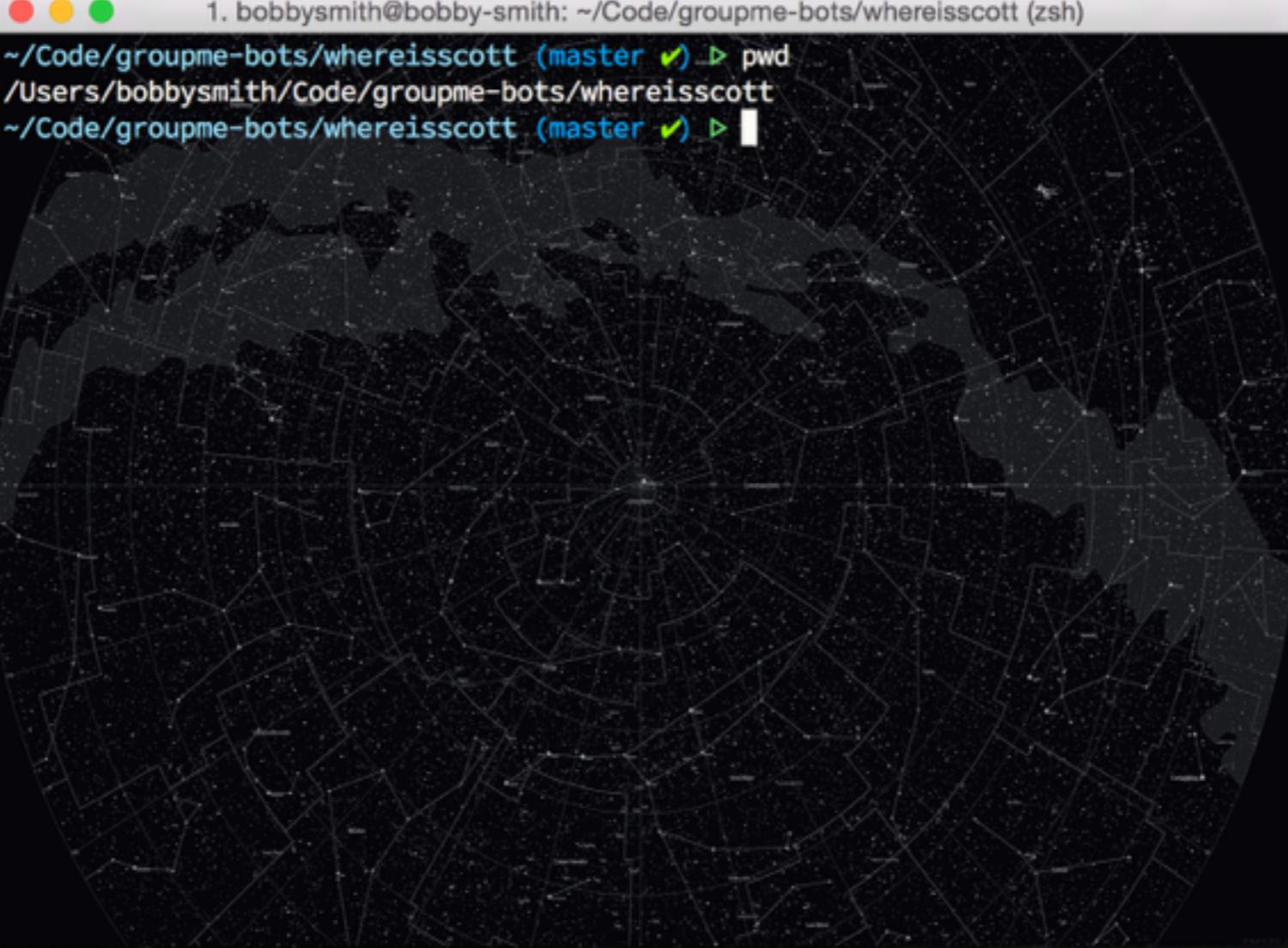
```
~ ▶ cd Desktop
~/Desktop ▶ cd ..
~ ▶ cd Desktop/my-project
~/Desktop/my-project ▶ cd ../../
~ ▶ cd Desktop/my-project
~/Desktop/my-project ▶ ~
~ ▶
```

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

pwd

print working directory

Where am I?



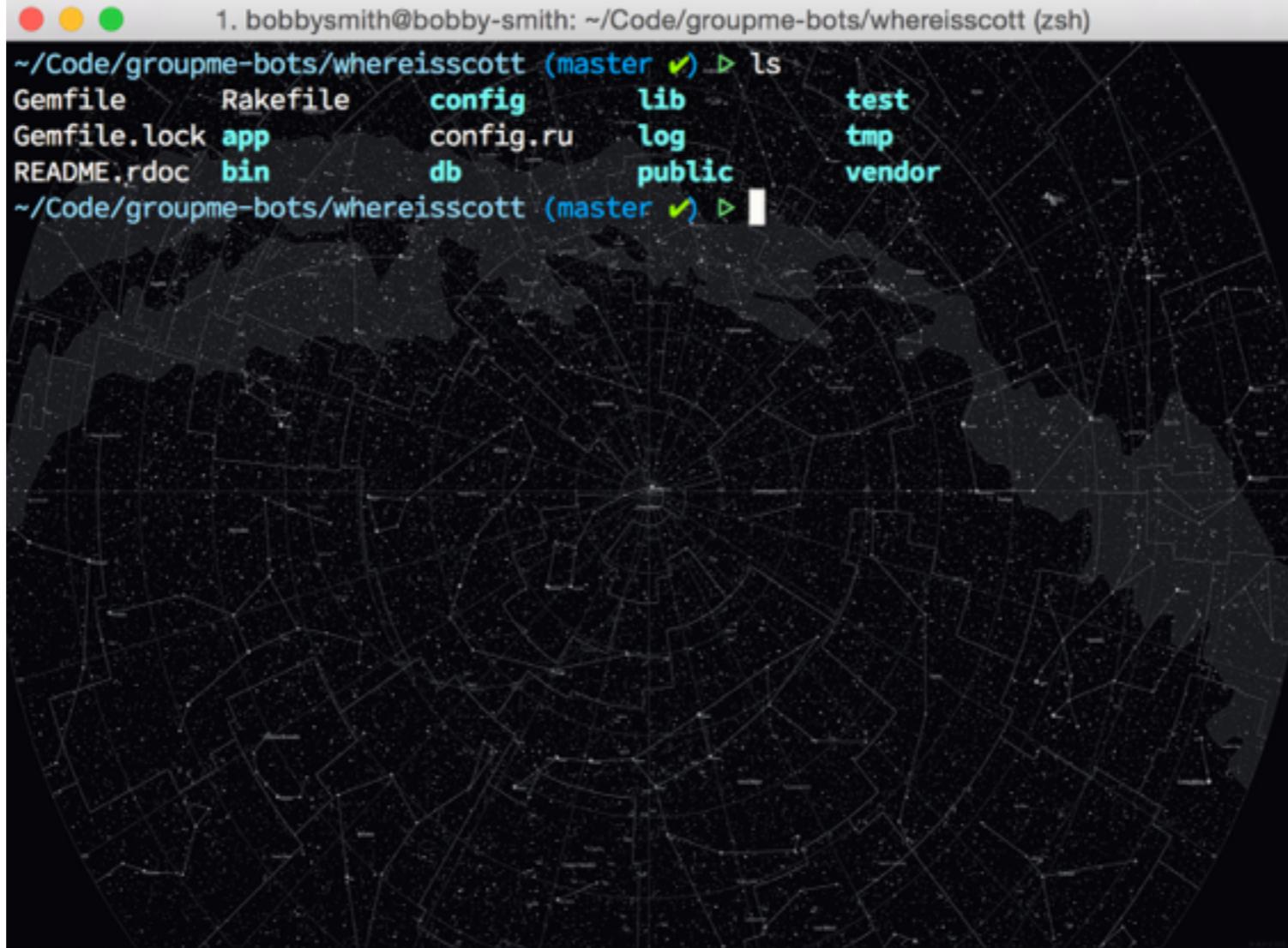
```
1. bobbysmith@bobby-smith: ~/Code/groupme-bots/whereisscott (zsh)
~/Code/groupme-bots/whereisscott (master ✓) ▶ pwd
/Users/bobbysmith/Code/groupme-bots/whereisscott
~/Code/groupme-bots/whereisscott (master ✓) ▶ █
```

ls

list

What is in this directory?

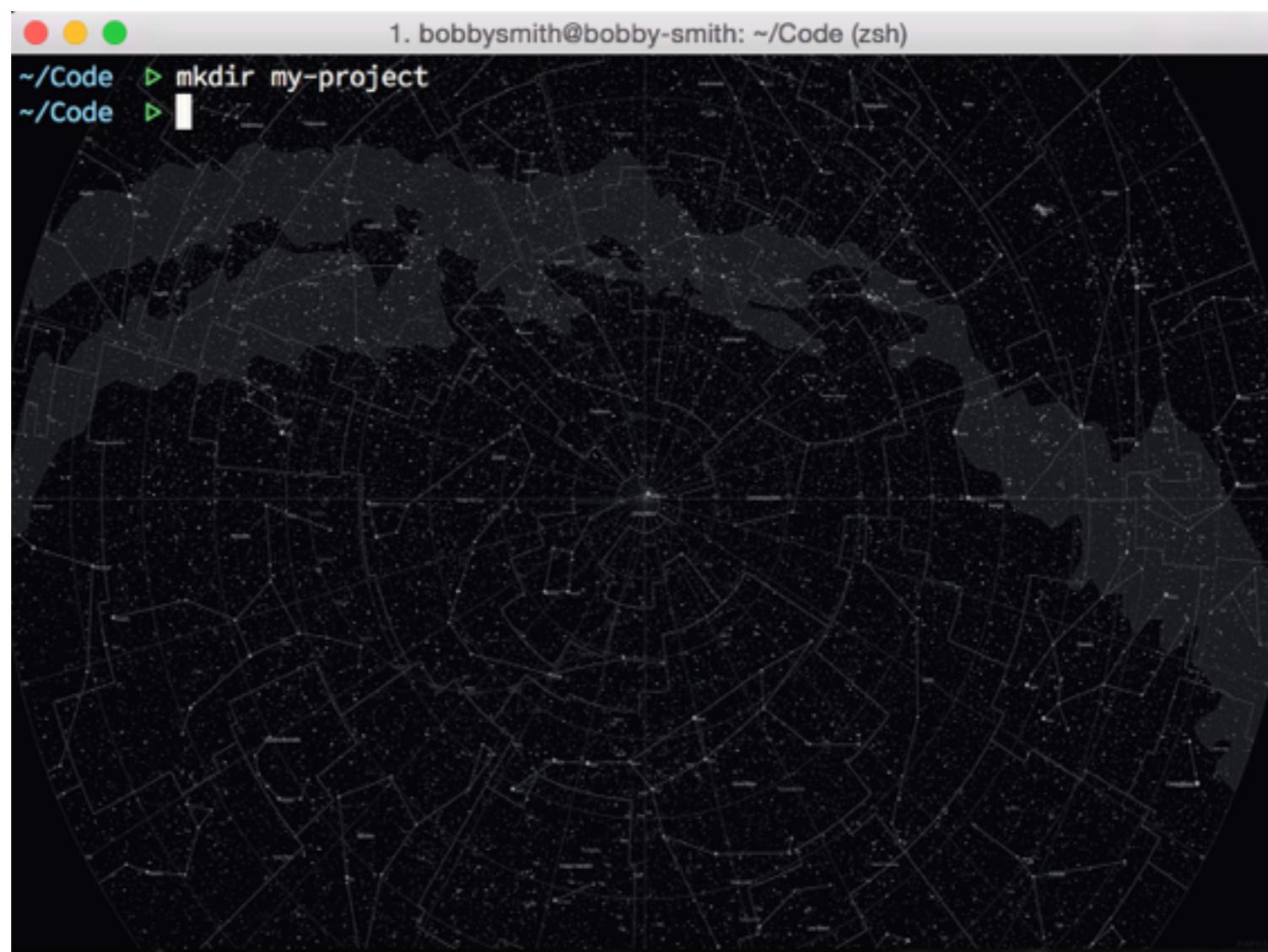
```
1. bobbysmith@bobby-smith: ~/Code/groupme-bots/whereisscott (zsh)
~/Code/groupme-bots/whereisscott (master ✓) ▶ ls
Gemfile      Rakefile    config      lib       test
Gemfile.lock  app        config.ru   log      tmp
README.rdoc   bin        db          public   vendor
~/Code/groupme-bots/whereisscott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



mkdir

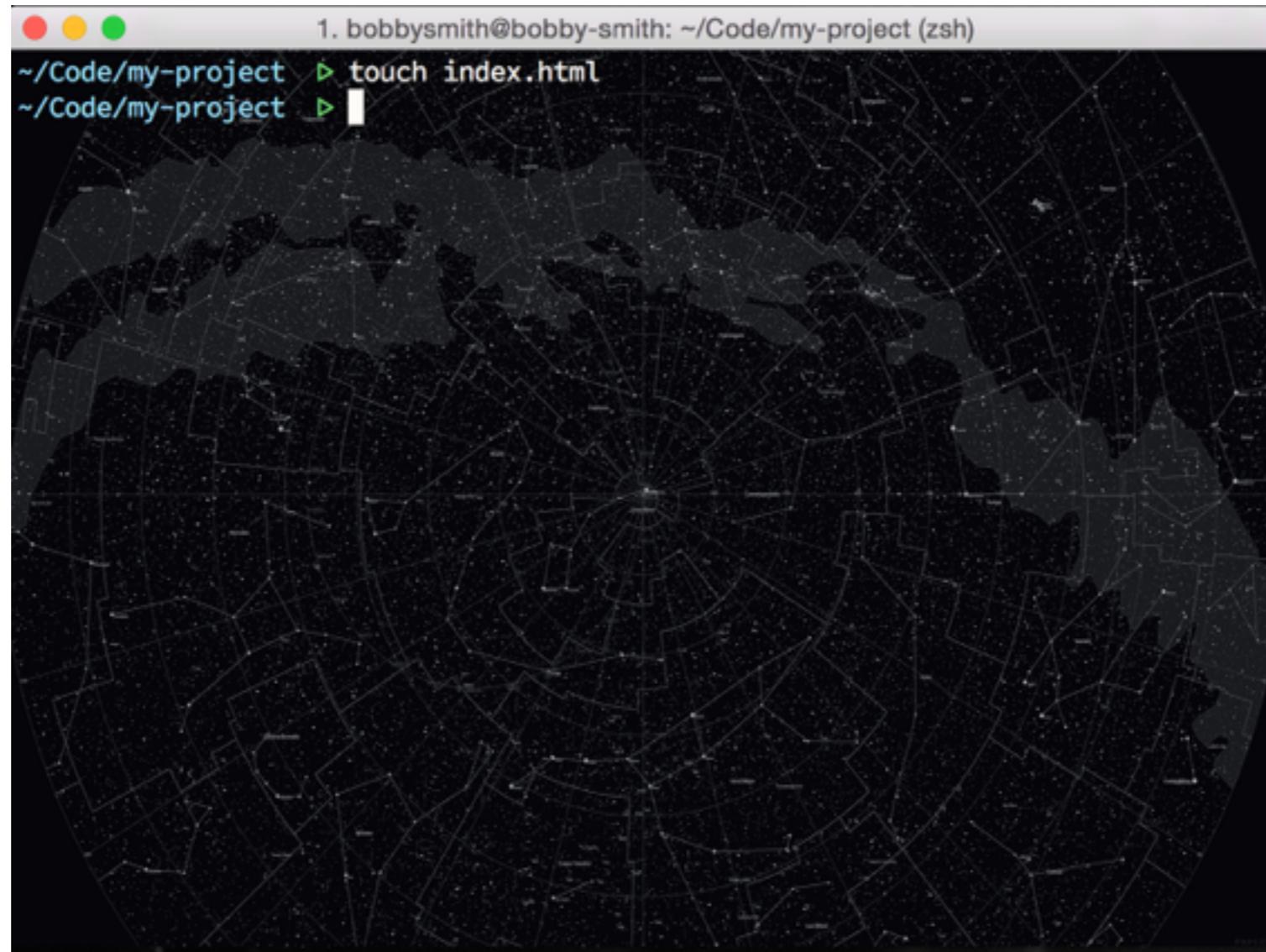
make directory

Create a new directory (folder).



touch

Create a new file.



want more commands?

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

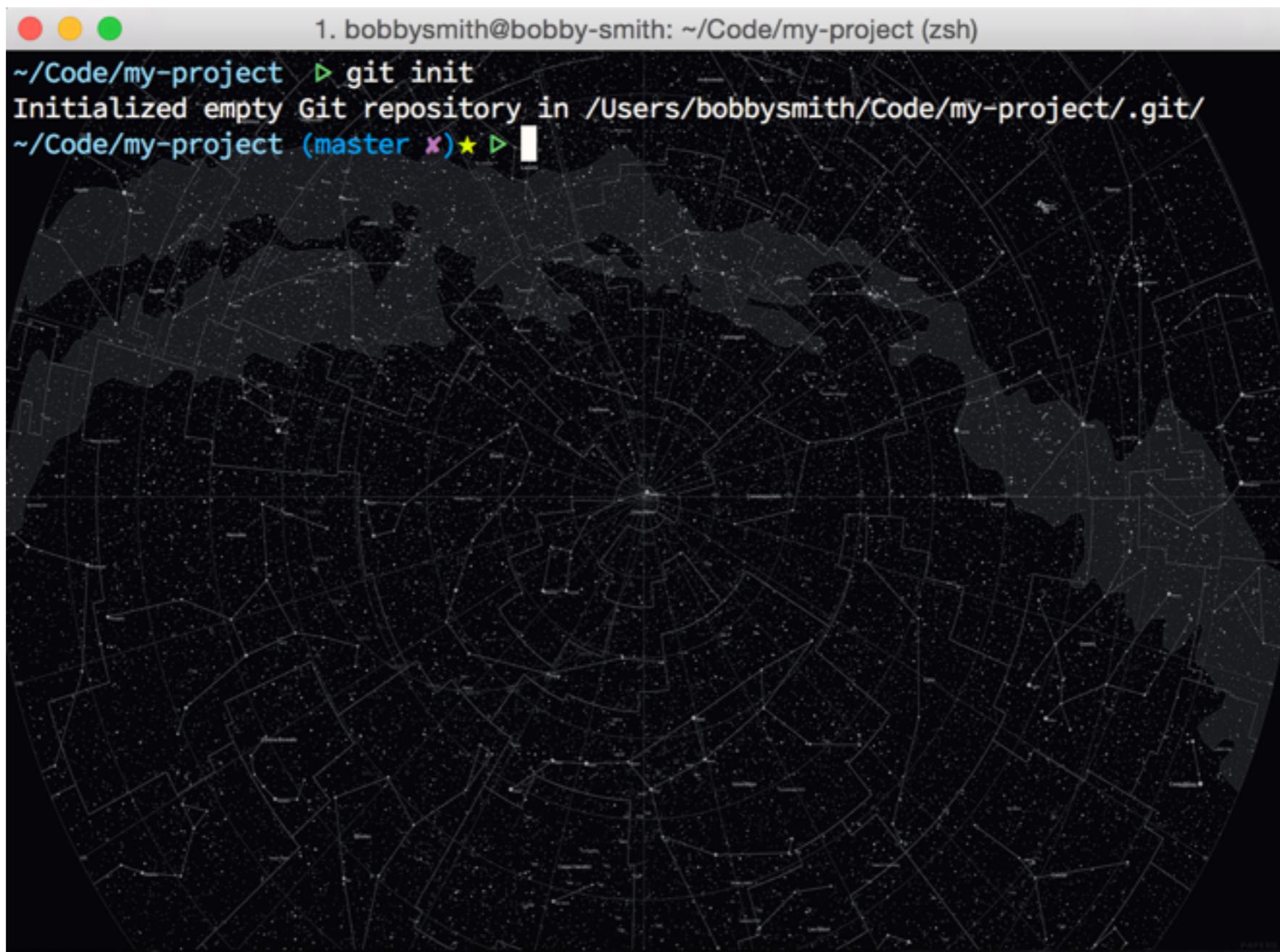
Version Control

A system that records changes to files over time.

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

git init

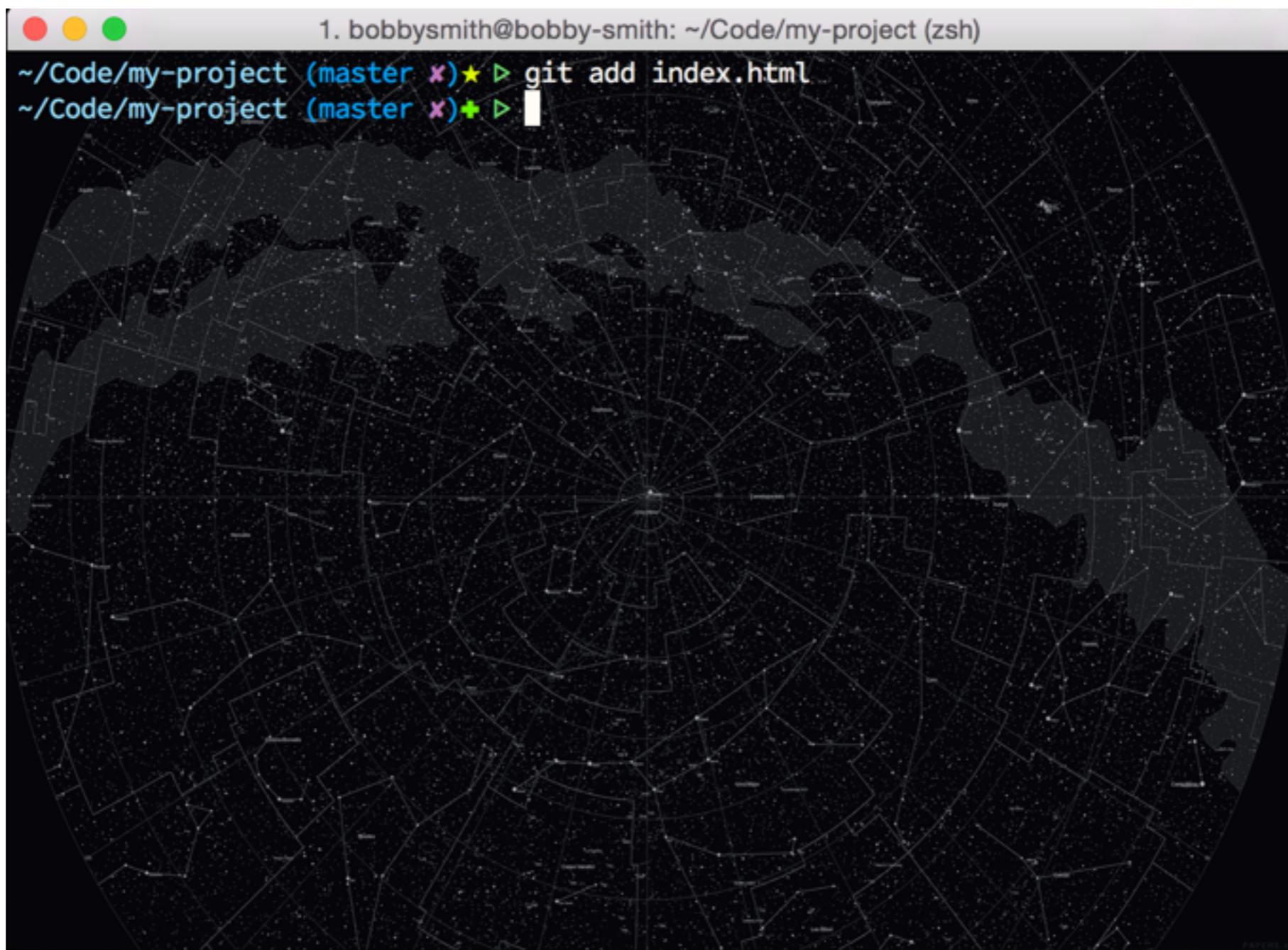
Initializes a new local git repo.

A screenshot of a terminal window titled "1. bobbysmith@bobby-smith: ~/Code/my-project (zsh)". The terminal shows the command "git init" being run, followed by the message "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

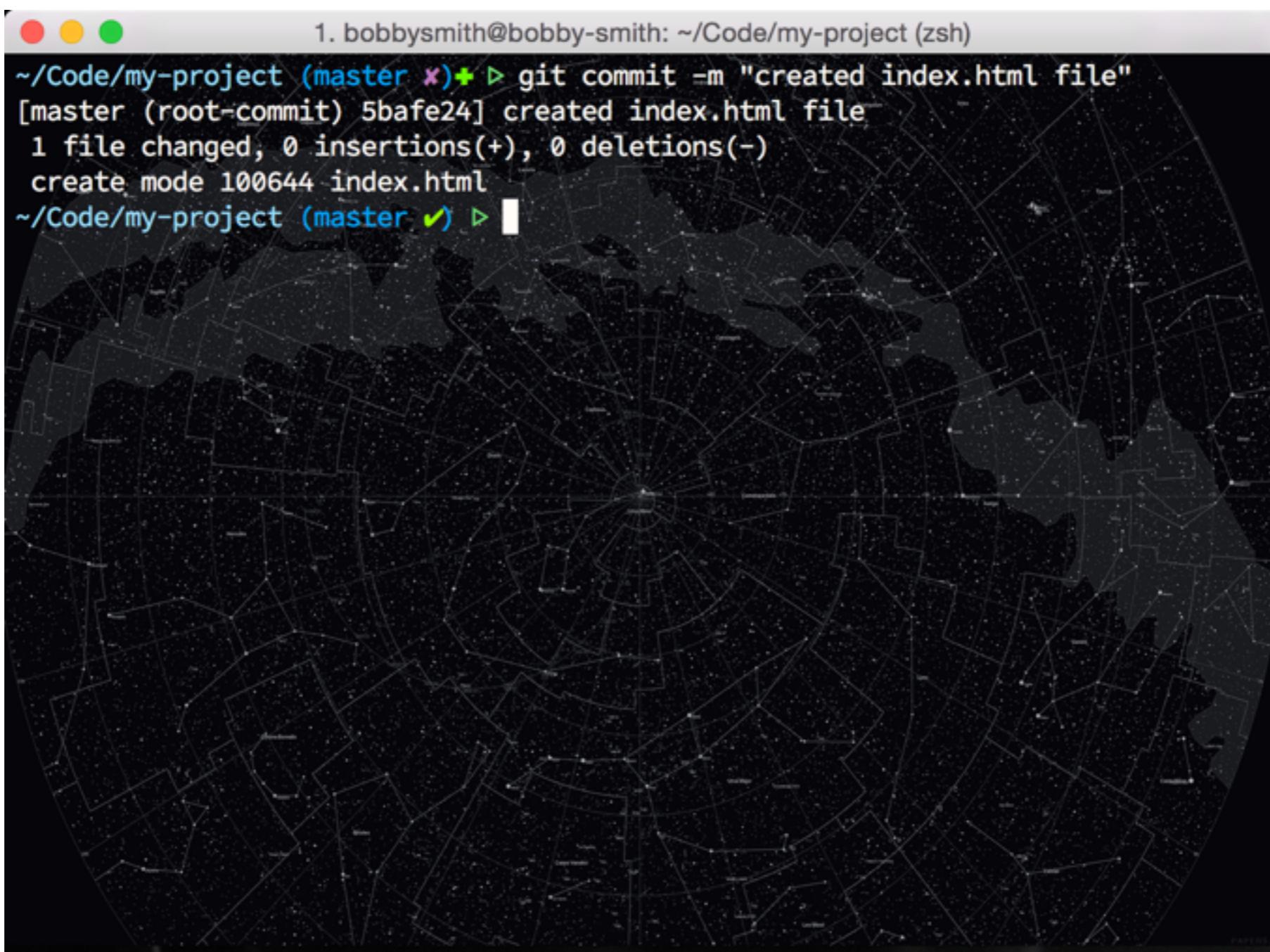
Adds a change to the staging area.



```
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 (Bobby Smith)'. The profile page shows a photo of a group of people, the user's name 'Bobby Smith' and handle 'bobbysmith', and a summary of their activity: 7 Followers, 4 Starred, and 8 Following. Below this is a section for 'Organizations' with icons for GitHub, Bluemix, Cloud Foundry, and another organization. The main content area displays 'Popular repositories' like 'syntax', 'algorithms', 'js-assessment', 'RPS', and 'cars'. A 'Contributions' chart shows activity from July 2014 to June 2015. A 'Repositories contributed to' section lists repositories such as 'cloud-platform-.../designcamp...', 'cloudfoundry-in.../CF-CLI-Impro...', and 'learntag/curriculum'. A prominent blue button labeled 'New repository' is overlaid on the top right of the page.

<https://github.com/bobbysmith>

create a new repo

A screenshot of a web browser showing the GitHub 'Create a New Repository' form. The browser window has a dark header bar with the title 'Create a New Repository'. The main content area shows the repository creation interface. The 'Owner' dropdown 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 copyright information for GitHub and links to Status, API, Training, Shop, Blog, About, and Help.

Create a New Repository

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

Owner: bobbysmith / Repository name: lets-git-crazy ✓

Great repository names are short and memorable. Need inspiration? How about [spawncamping-octo-lana](#).

Description (optional)

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

© 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 GitHub interface is visible, with the repository name **bobbysmith / lets-git-crazy** at the top. On the left, there's a sidebar with links for **Code**, **Issues** (0), **Pull requests** (0), **Wiki**, **Pulse**, **Graphs**, and **Settings**. The main content area contains sections for quick setup, command-line repository creation, command-line pushing, and importing code from other repositories.

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

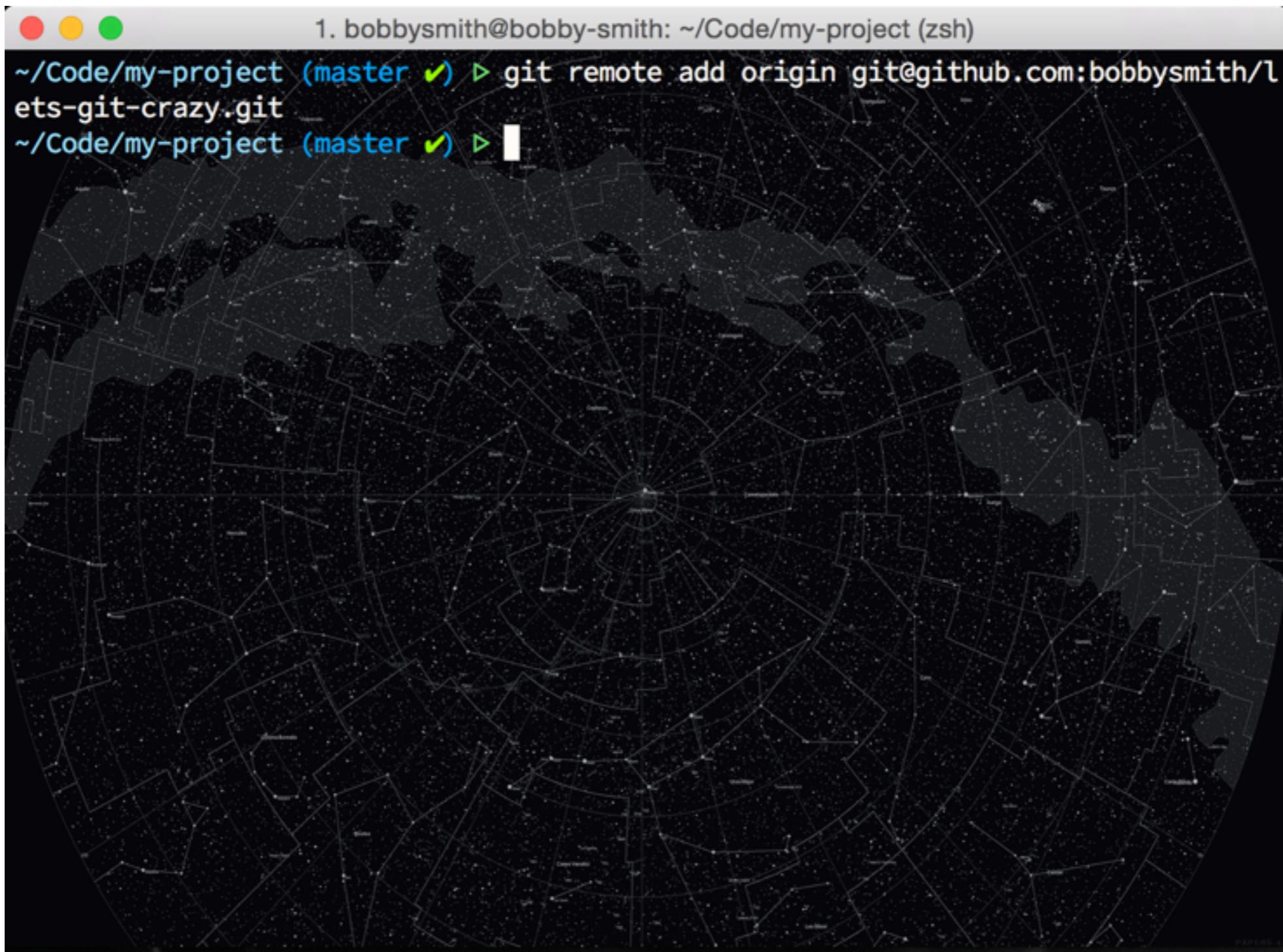
```
git remote add origin git@github.com:bobbysmith/lets-git-crazy.git
git push -u origin master
```

...or import code from another repository

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

[Import code](#)

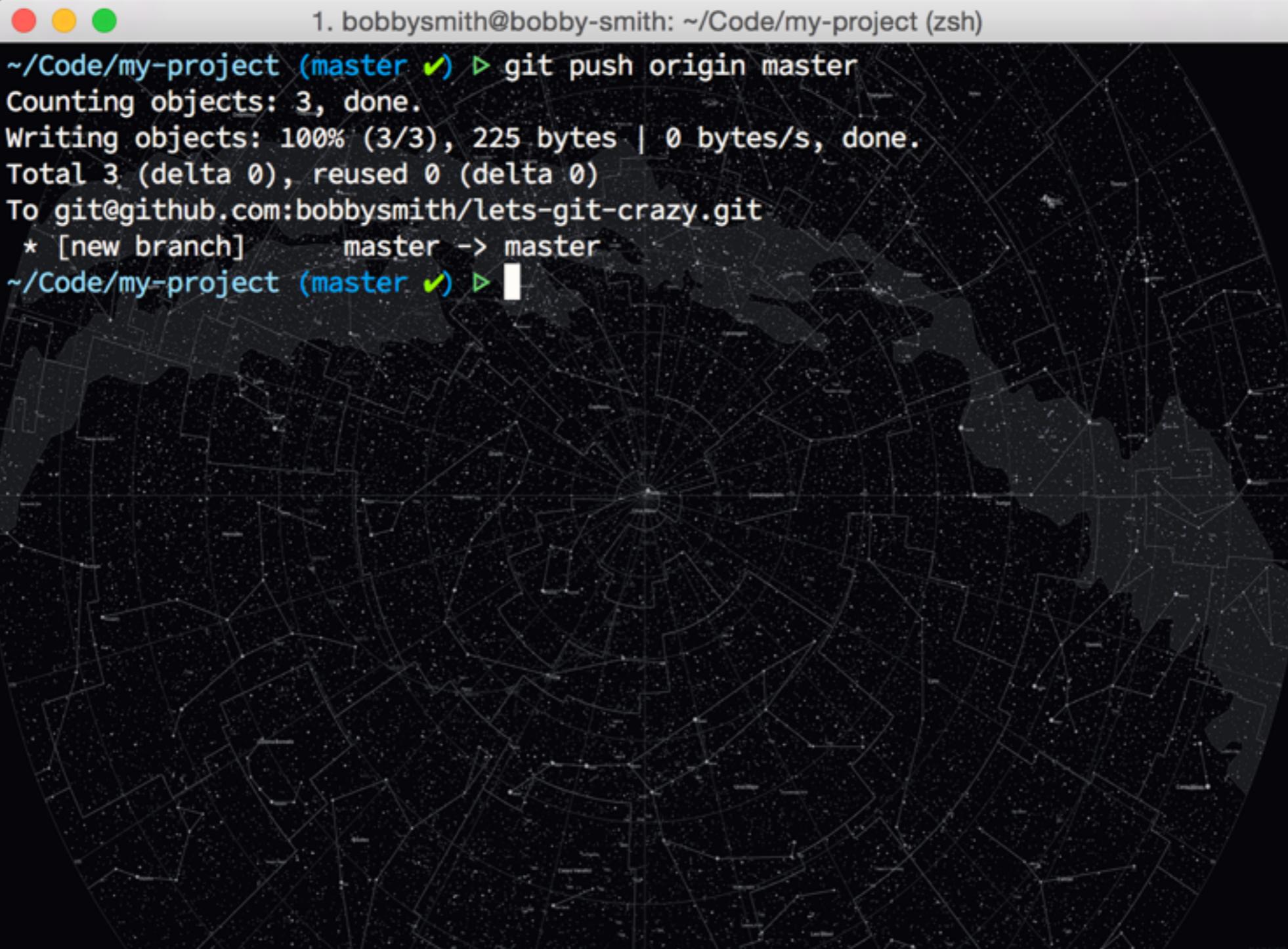
add remote repo



```
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

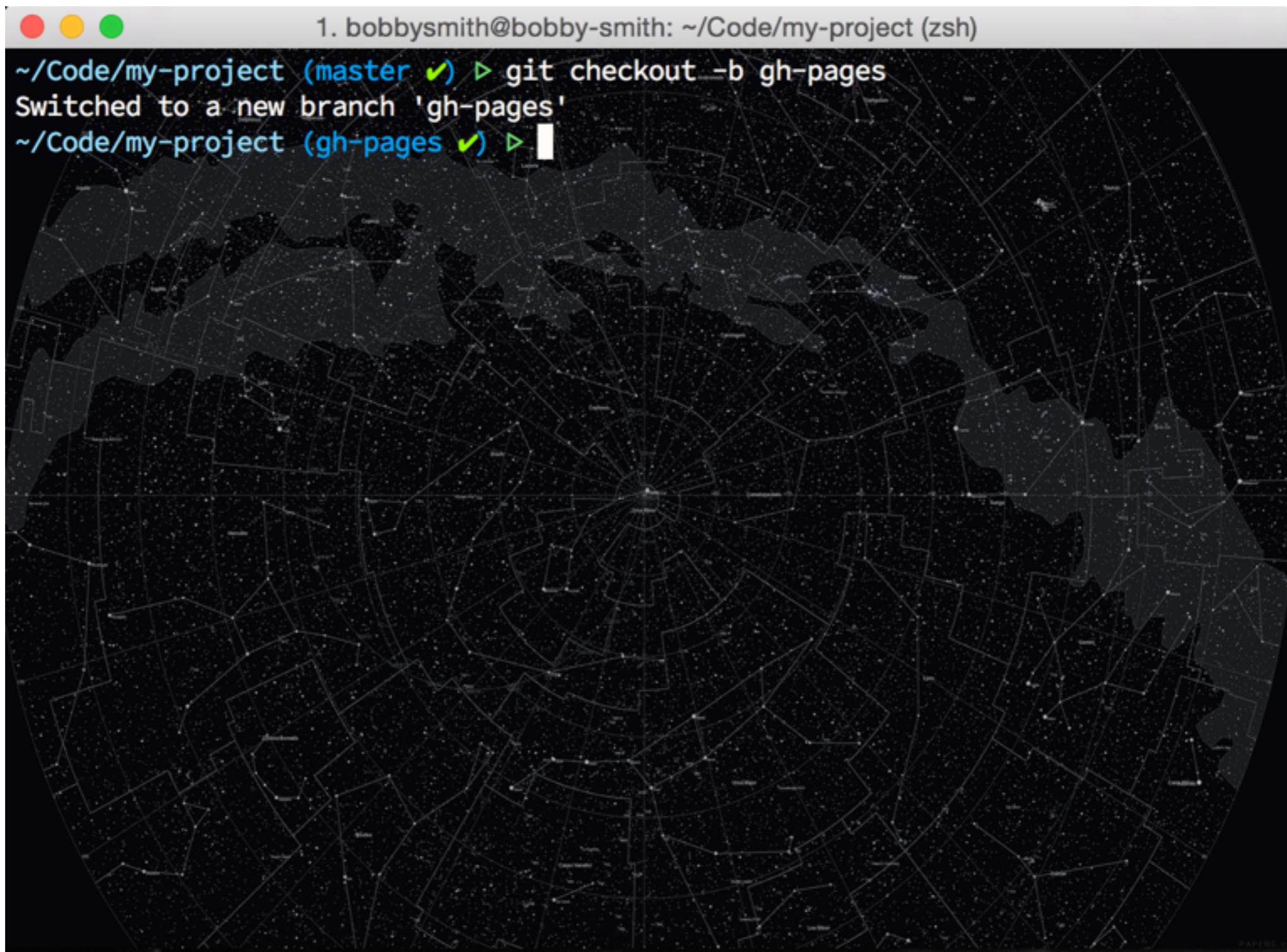
Download ZIP

github pages



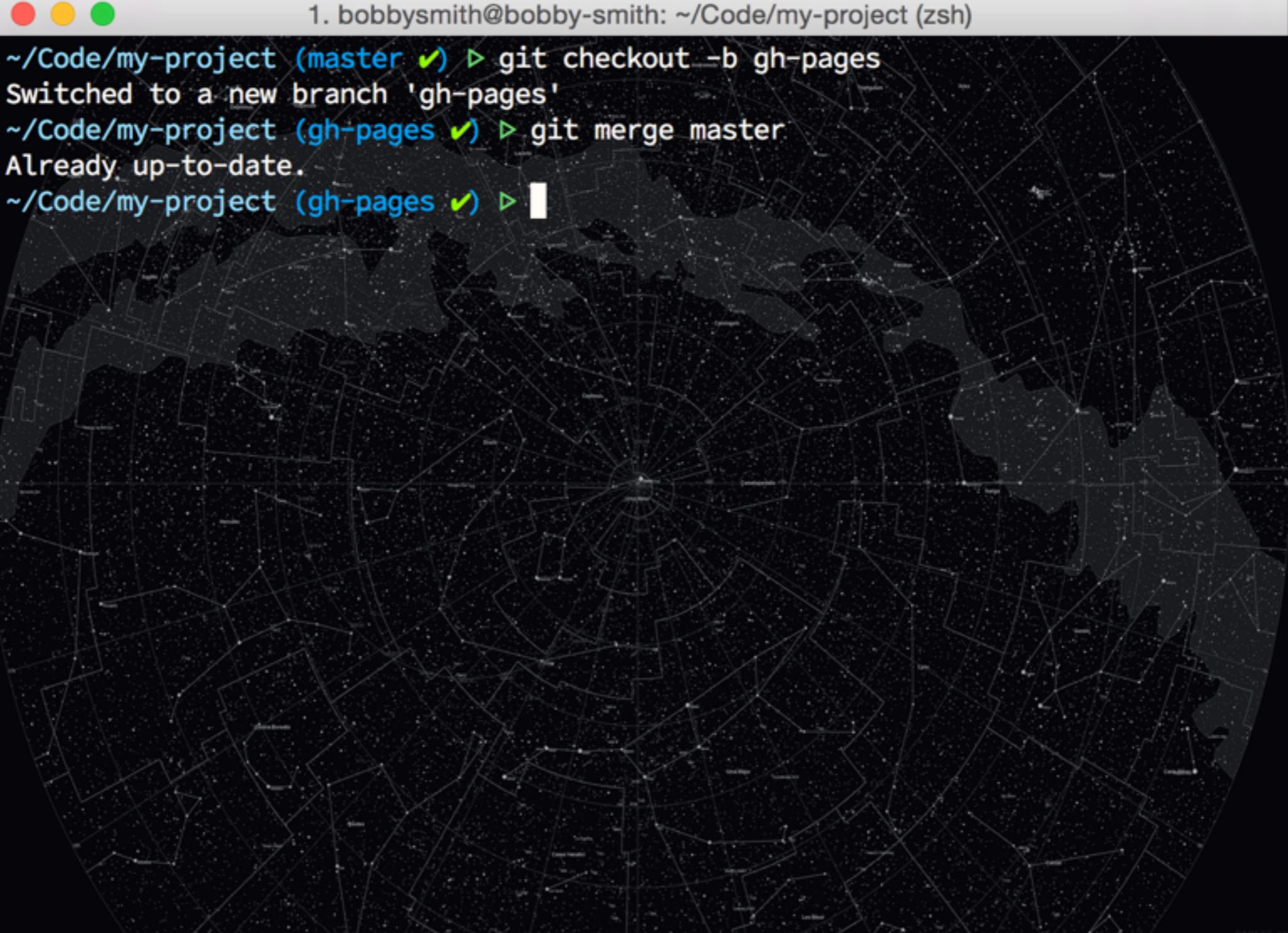
gh-pages: create branch

```
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>