

Building a JavaScript Development Environment

YOU NEED A STARTER KIT



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Do you like to fail fast?



Do you like rapid feedback?



Want to know immediately
when a test is failing?



Overwhelmed by
all the options?



So. Many. Decisions.

Editor

- Which one?
- Which plugins?
- Use built in terminal?
- Editor config

Module format

- ES6 Modules, CommonJS...

HTML generation

- Minify?
- Use plugin?
- Inject prod only concerns?
- Templating language?

Transpiling

- Native ES or diff language?
- Use experimental features?
- Which plugins?
- Production vs dev config

Bundler

- Webpack, Browserify, Rollup...

Linting

- Which linter?
- Enable which rules?
- Warning or error?
- Which plugins?
- Use a preset?

Testing

- Framework?
- Assertion Library?
- Helpers?
- Test file location?
- File naming?
- What environment?
- Mocking?
- Code Coverage
- Continuous Integration

Project structure

- By file type or feature?
- Centralize API?
- Allow Inline JS?
- Extract to POJOs?

HTTP

- Library
- Mock schema format
- Mock data generation
- Mock server

Production build

- Minification
- Sourcemaps
- Bundle splitting
- Cache busting
- Error logging



Overwhelmed yet?



Make "best practices"
automatic.




Your team *needs* a
JavaScript starter kit.



Starter kits speed
development, increase
quality and reduce fatigue.



A yellow square containing the letters 'JS' in a large, bold, dark grey sans-serif font.

JS

Why a Starter Kit?

Codifies

- Decisions
- Best practices
- Lessons learned

Encourages consistency

Avoids forgetting important details

Increases quality

- Doing the “right” thing is the easy thing

Avoids repeating work



Today's list of “best practices” is too long for any individual to track.

Create a starter kit that does it for you.



A Starter Kit Is an Automated Checklist



Line Checklist







1. Wash their hands with soap
2. Clean patient's skin with chlorhexidine
3. Put sterile drapes over entire patient
4. Wear sterile mask, hat, gown & gloves
5. Put sterile dressing over catheter

THE NEW YORK TIMES BESTSELLER

THE CHECKLIST MANIFESTO

HOW TO GET THINGS RIGHT

PICADOR

ATUL GAWANDE

BESTSELLING AUTHOR OF *BETTER* AND *COMPLICATIONS*

We think we can remember all the steps.

We can't.



THE NEW YORK TIMES BESTSELLER

THE CHECKLIST MANIFESTO

HOW TO GET THINGS RIGHT

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Dramatic Results

10 day line-infection rate
Fell from 11% to 0%

Checklist prevented:
43 infections
8 deaths
\$2 million



THE NEW YORK TIMES BESTSELLER

THE CHECKLIST MANIFESTO

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Doctors know what to do,
but **it's easy to overlook a step.**



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Developers



~~Doctors~~ know what to do,
but **it's easy to overlook a step.**



A starter kit is a living,
automated, and interactive
checklist.



Who Is This Course For?

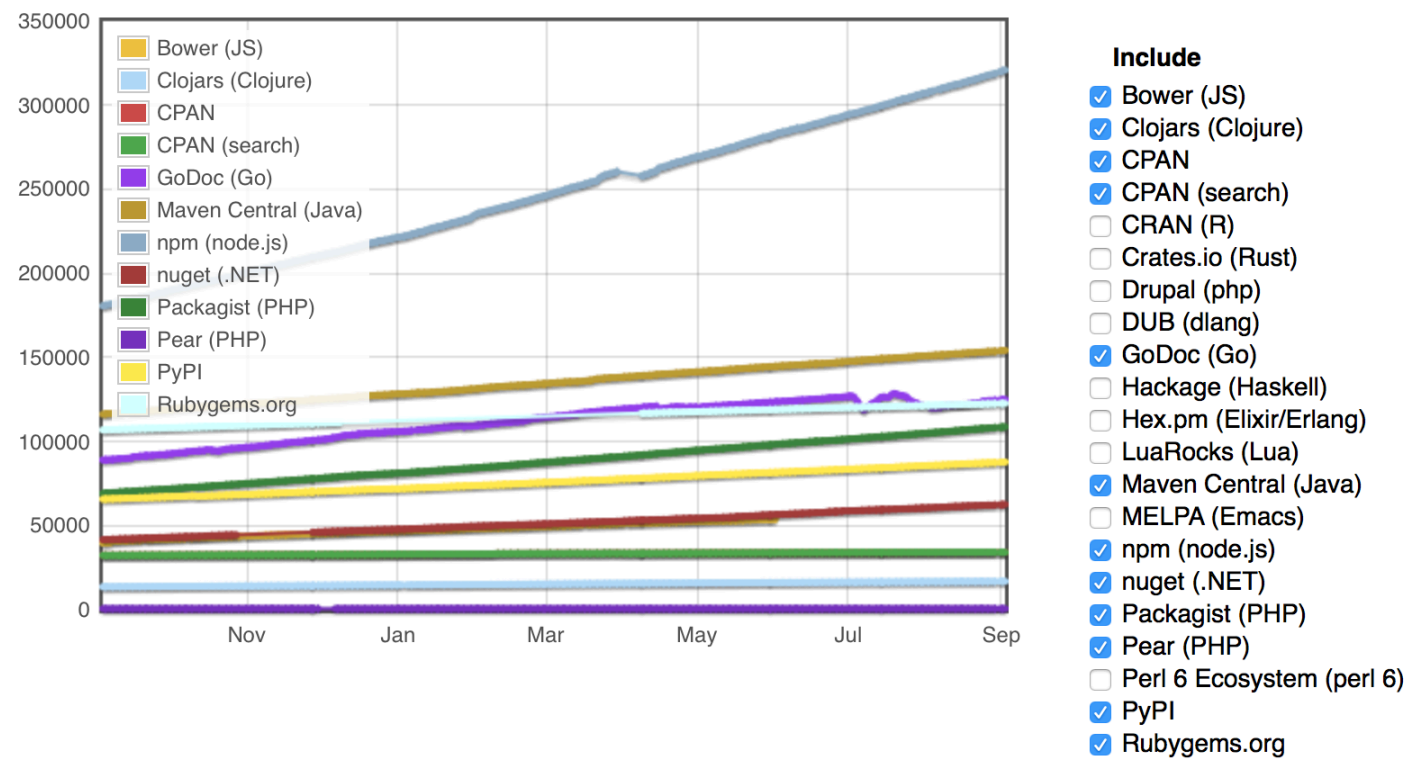


“Any application that *can* be written in JavaScript, *will* eventually be written in JavaScript.”

Atwood's Law



Module Counts



time period ☐ all time ☒ last year ☐ last 90 days ☐ last 30 days ☐ last 7 days

	Aug 27	Aug 28	Aug 29	Aug 30	Aug 31	Sep 1	Sep 2	Avg Growth
<u>Bower (JS)</u>								37/day
<u>Clojars (Clojure)</u>	16764	16769	16789		16821	16828	16837	12/day
<u>CPAN</u>	34109	34107	34108		34116	34119	34123	2/day
<u>CPAN (search)</u>	34109	34107	34108		34116	34120	34125	3/day
<u>CRAN (R)</u>	9034	9035	9044		9062	9069	9078	7/day
<u>Crates.io (Rust)</u>	5851	5862	5880		5902	5912	5920	11/day
<u>Drupal (php)</u>	35258	35261	35265		35281	35303	35316	10/day
<u>DUB (dlang)</u>	837	838	839		841	841	841	1/day
<u>GoDoc (Go)</u>	124396	124377	124497		124651	124969	125024	105/day
<u>Hackage (Haskell)</u>	10169	10171	10173		10177	10189	10191	4/day



JavaScript Is Everywhere



Web

Server

Mobile

Desktop



This Course Is for JS Developers



Web


Demo

Server


Build tool & API

Mobile

Desktop



Who Doesn't Need This Course?



Highly opinionated and comprehensive frameworks



React

Node

Angular

Ember

Opinion →



Boilerplate

Save time

Proven

Full-featured

Build your own

Freedom

Perfect fit for your team

No unnecessary complexity

Understand it

Easier to change



What Belongs in Your Starter Kit?

Package Management

Bundling

Minification

Sourcemaps

Transpiling

Dynamic HTML Generation

Centralized HTTP

Mock API framework

Component libraries

Development Webserver

Linting

Automated testing

Continuous Integration

Automated build

Automated deployment

Working example app



Here's the Plan...

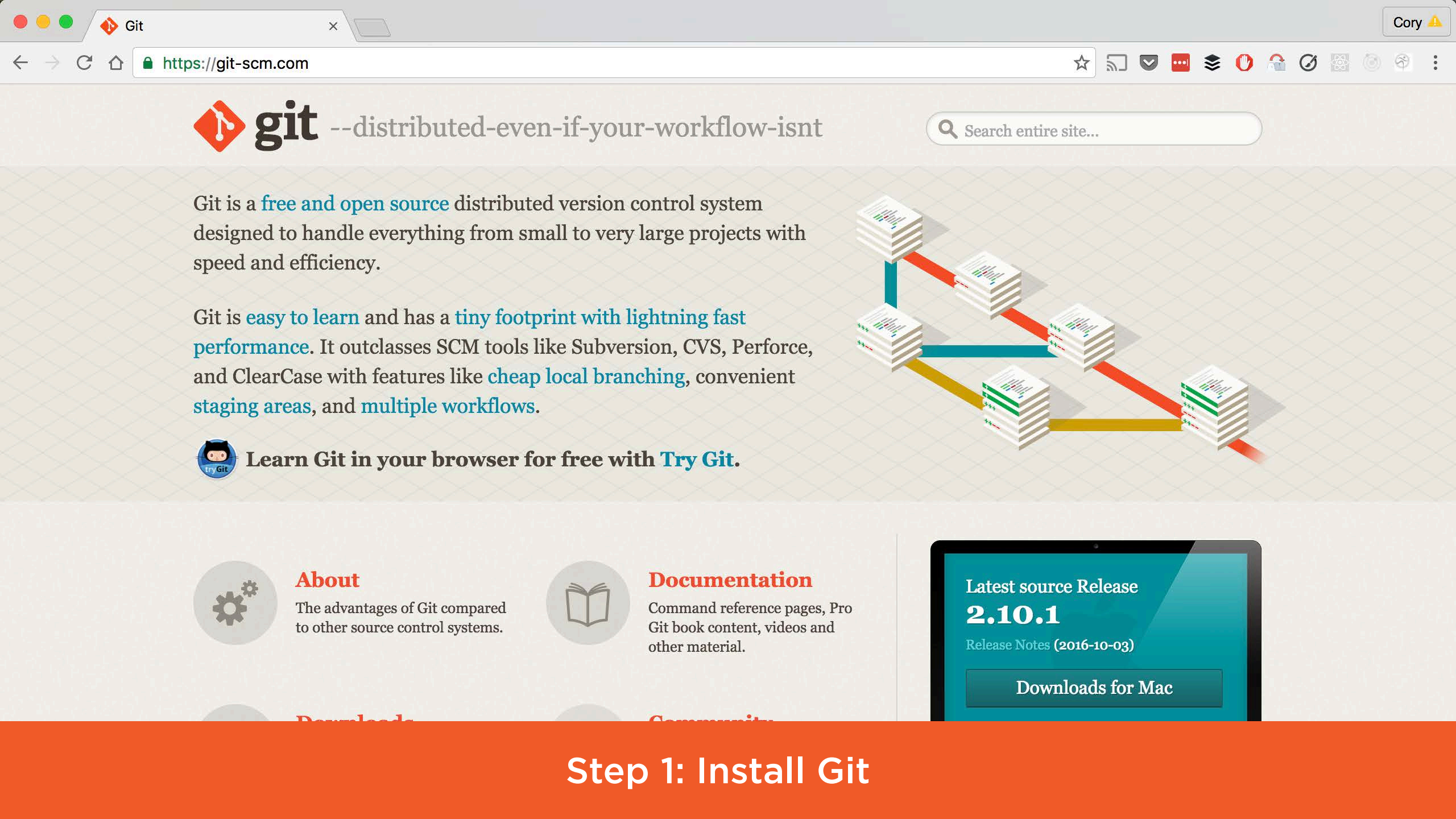


GitHub



Why?

- Module 9: Continuous Integration
- Module 13: Automated Deploy



git --distributed-even-if-your-workflow-isnt

Search entire site...

Git is a **free and open source** distributed version control system designed to handle everything from small to very large projects with speed and efficiency.

Git is **easy to learn** and has a **tiny footprint with lightning fast performance**. It outclasses SCM tools like Subversion, CVS, Perforce, and ClearCase with features like **cheap local branching**, convenient **staging areas**, and **multiple workflows**.



Learn Git in your browser for free with **Try Git**.



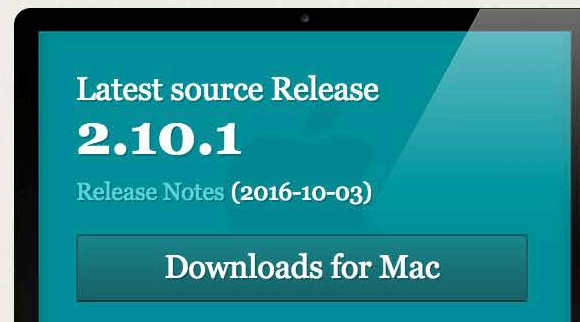
About

The advantages of Git compared to other source control systems.

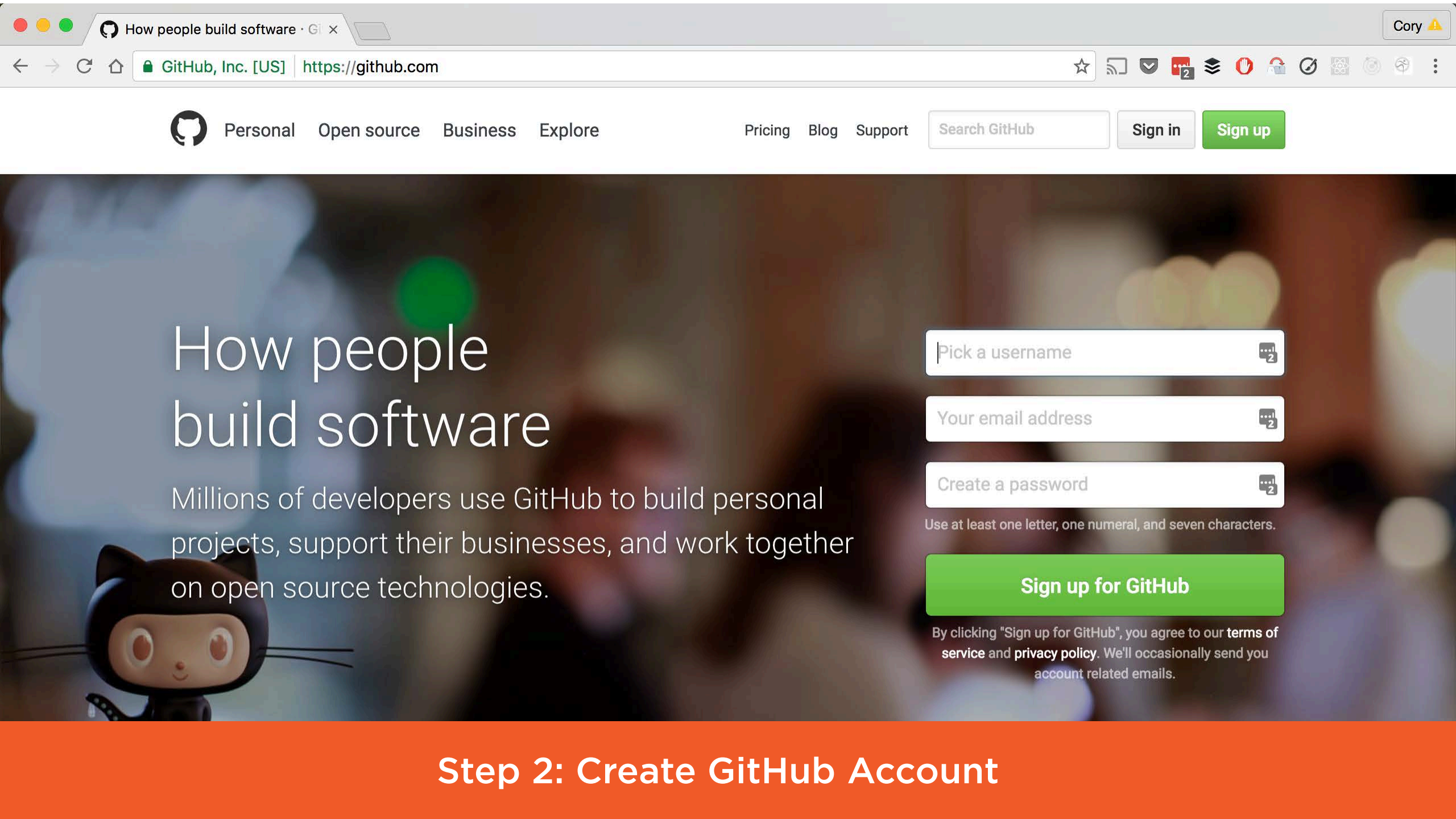


Documentation

Command reference pages, Pro Git book content, videos and other material.



Step 1: Install Git



How people build software

Millions of developers use GitHub to build personal projects, support their businesses, and work together on open source technologies.

Use at least one 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'll occasionally send you account related emails.

Step 2: Create GitHub Account


[Pull requests](#) [Issues](#) [Gist](#)

Create a new repository

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

Owner

Repository name

 **coryhouse** ▼

 /


pluralsight-js-dev-env ✓

Great repository names are short and memorable. Need inspiration? How about **furry-goggles**.

Description (optional)

JavaScript Development Environment from Pluralsight Course with Cory House

☒  **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: **Node** ▼

Add a license: **None** ▼



Step 3: Create GitHub Repository



This repository Search

Pull requests Issues Gist



coryhouse / pluralsight-js-dev-env

Unwatch 1

Star 0

Fork 0

Code

Issues 0

Pull requests 0

Projects 0

Wiki

Pulse

Graphs

Settings

JavaScript Development Environment from Pluralsight Course with Cory House — Edit

1 commit

1 branch

0 releases

1 contributor

Branch: master ▾

New pull request

Create new file

Upload files

Find file

Clone or download ▾



coryhouse Initial commit

.gitignore

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/coryhouse/pluralsight-js-dev-env>



Open in Desktop

Download ZIP

pluralsight-js-dev-env

JavaScript Development Environment from Pluralsight Course with Cory House

Step 4: Clone Repository

Last login: Sat Oct 22 16:10:11 on ttys002

-bash: alias: desktop: not found

-bash: alias: cd ~Desktop: not found

| ~ @ Mac (coryhouse)

| => git clone https://github.com/coryhouse/js-dev-env-demo.git

Step 4: Clone Repository

1. Stage all the files you changed

```
git add .
```

2. Commit your changes locally

```
git commit -m "added new feature"
```

3. Push your work to Github

```
git push
```

Step 5: Enjoy Git!

Course Agenda



Synonyms

x == y

JavaScript Development Environment

Boilerplate

Starter Kit

Seed

Starter Project



The Rhythm

1

Options

2

Recommendation

3

Implement



Course Outline

1. **Intro**
2. **Editors and configuration**
3. **Package management**
4. **Development webserver**
5. **Automation**
6. **Transpiling**
7. **Bundling**
8. **Linting**
9. **HTTP**
10. **Testing and CI**
11. **Project structure**
12. **Production build**
13. **Automated deployment**



Wrap Up



You need a starter kit

- Reduce decision fatigue
- Right thing becomes automatic
- Codifies lessons learned
- Rapid feedback
- Automated checklist

Writing JS? This course is for you.

Next up: Editor and configuration

