Collaborating and Contributing in GitHub

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GitHub

Web-based repository for software projects

Hosts over 31 million repositories that include code and the documentation for that code.

Octocat, the GitHub Mascot (Simon Oxley)

https://github.com/
GitHub uses Git.

Distributed version control system for software development

Developed by Linus Torvalds, creator of Linux.

#1 code management tool, adopted by one third of software developers
Launched 2008, why now?

GitHub adds features to Git repositories, such as bug tracking and feature requests.

Simplified the process of contributing to open source projects.

Flickr: David Hilowitz
“Follow” people

“Watch” projects

“Star” projects & visit your “Stars” page

Flickr: Antonio Silveira
Opportunities for TCs

Contribute to and review projects

Manage communities

Learn from the code

Docs live with the code; reviewed with the code
Individuals with a free account:

- Can create public repositories and contribute to projects.

For a fee:

- Can create private repositories

Organizations can post projects on the public version of GitHub for free, as well as purchase GitHub Enterprise for their internal use.
This Is Responsive

Patterns, resources and news for creating responsive web experiences.

- This Is Responsive web site
- Announcement post by Brad Frost
- Contribution guidelines
**Repository:** The most basic element of GitHub. They're easiest to imagine as a project's folder. A repository contains all of the project files (including documentation), and stores each file's revision history.

**Branch:** A branch is a parallel version of a repository. It is contained within the repository, but does not affect the primary or master branch allowing you to work freely without disrupting the "live" version.

**Fork:** A fork is a personal copy of another user's repository that lives on your account.

From the [GitHub Glossary](https://github.com/glossary)  
Flickr: [MarcoG2012](https://flickr.com/photos/marco2012)
Commit: A commit, or "revision", is an individual change to a file (or set of files). It's like when you save a file, except with Git, every time you save it creates a unique ID (a.k.a. the "hash") that allows you to keep record of what changes were made when and by who. Commits usually contain a commit message which is a brief description of what changes were made.

Pull request: Pull requests are proposed changes to a repository submitted by a user and accepted or rejected by a repository's collaborators.

Merge: Merging takes the changes from one branch (in the same repository or from a fork), and applies them into another.

Collaborator: A collaborator is a person with read and write access to a repository who has been invited to contribute by the repository owner.

Contributor: A contributor is someone who has contributed to a project by having a pull request merged but does not have collaborator access.
GitHub Documentation

Options

Readmes

GitHub Pages

Wikis
Readme

In GitHub repositories, a Readme file is created automatically.

Authored in Markdown, and has the file extension of .md.
Lightweight markup language that can be converted to HTML easily.
Originally developed in 2004 by John Gruber, and has splintered into different variations. GitHub uses “GitHub Flavored Markdown”
Extra features: syntax highlighting, task lists, and tables.

Fun stuff: [Emoji Cheat Sheet](#)
Useful: [Markdown Cheat Sheet](#)
Wikis

Every repository can have one.
Author in Markdown, or one of the other 8 edit modes.
Wiki pages are stored in Git repositories like all other content.
By default, anyone can edit your wiki, but you can make your wiki read-only.

https://github.com/showcases/projects-with-great-wikis
GitHub Pages

Webpages hosted and published on GitHub.

Authored in Markdown

GitHub provides themes to create a custom look.

You can add your Google Analytics tracking ID to each of your Pages.

By default, the URL of your GitHub pages will be: http://[accountName].github.io/[repoName].

GitHub Pages are always public, even if your repository is private.

https://github.com/showcases/github-pages-examples
Reuse!

Share files and more using **Gists:**

https://gist.github.com

Each Gist is a repository
Can be public or “secret”
You can download or embed a Gist

Flickr: [Chris Potter](https://www.flickr.com/photos/chrispotter)
Integrations with GitHub

• Over 70 productivity tools can be integrated with GitHub, including Slack and Travis CI. See the list at https://github.com/integrations.

• GitBook can be used to host and write books, see https://github.com/integrations/gitbook.
ZenHub

Agile project management https://www.zenhub.io/
Dynamic Information Model (DIM)

https://github.com/oxygenxml/dim

Open source (Apache 2.0 license)

Contributors

- oXygen XML Editor
- Comtech Services
GitHub is now being used to collaborate on projects as diverse as Gregorian chants, licensing agreements, and wedding invitations.
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Further Reading/References

• **Introducing GitHub** by Peter Bell and Brett Beer

• **Story of Octocat** (also see the **Octodex**)

• **What Exactly Is GitHub Anyway?** by Klint Finley (TC Newsletters)

• **Mastering Markdown** and **The Basics of Git and GitHub** (GitHub Guides)
Further Reading/References

- **GitHub training** (try the free 15 minute “Basics of Git” exercise)
- **From Collaborative Coding to Wedding Invitations: GitHub Is Going Mainstream** by R. McMillan (Wired)
- **Pro Git** by Scott Chacon and Ben Straub