

GIT

What is Git?

- Git is a free and open-source software.
 - Uses:
 - It is a **version-control system** for tracking changes in computer files.
 - **Coordinating work** on these computer files among multiple people.
 - **Source-code management** in software development.
 - Provides support for non-linear workflows.
 - It was created by **Linus Torvalds** in 2005.
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- Bitkeeper and Mercurial are examples of other version-control softwares.

What is version control?

- Version control systems are a category of software tools that help a software team manage changes to source code over time.
- Version control software keeps track of every modification to the code in a special kind of database.
- If a mistake is made, developers can turn back the clock and compare earlier versions of the code to help fix the mistake while minimizing disruption to all team members.
- Version control protects source code from both catastrophe and the casual degradation of human error and unintended consequences.

Basics of Git

- Initialize repository
 - create a new directory
 - cd into that directory
 - git init
- Set git user config
 - git config --global user.name "John Doe"
 - git config --global user.email "johnDoe@gmail.com"
- First commit
 - touch new file
 - echo text in the file: echo "my first line" >> <myFileName>
 - git add <file name>
 - git commit -m "my first commit"

- Git remote
 - Create a gitHub account
 - Create a new gitHub repository using the same directory name
 - Follow instructions written in the newly created gitHub repo

Some fun facts about repositories

- You have access to all files in your local repository, whether you are working on one file or multiple files.
- You can view public repositories without a GitHub account if you have the URL for that repository.
- Each repository belongs to a user account or a team. In the case of a user account, that user owns the repository. + In the case of a team, that team owns it.
- The repository owner is the only person who can delete the repository. If the repository belongs to a team, an admin can delete the repository.
- A code project can consist of multiple repositories across multiple accounts but can also be a single repository from a single account.

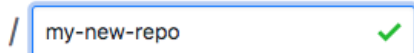
Create a new repository

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

Owner



Repository name



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

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

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

 Set up in Desktop or



Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

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

```
echo "# my-new-repo" >> README.md
git init
git add README.md
git commit -m "first commit"
git remote add origin git@github.com:codemary/my-new-repo.git
git push -u origin master
```



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

```
git remote add origin git@github.com:codemary/my-new-repo.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

5 commits

2 branches

0 releases

1 contributor

Branch: master ▾

New pull request

Create new file

Upload files

Find file

Clone or download ▾



codemary Merge pull request #2 from codemary/branch-2 ...



myFirstFile

Add third line

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

Clone with SSH ?

[Use HTTPS](#)

Use an SSH key and passphrase from account.

git@github.com:codemary/my-new-repo.ç



Open in Desktop

Download ZIP