

Article version: GitHub.com ▾

[GitHub.com](#) / [Getting started](#) / [Quickstart](#) / Fork a repo

Fork a repo

A fork is a copy of a repository. Forking a repository allows you to freely experiment with changes without affecting the original project.

Mac Windows Linux

In this article

- [Fork an example repository](#)
- [Keep your fork synced](#)
- [Find another repository to fork](#)
- [Celebrate](#)

Most commonly, forks are used to either propose changes to someone else's project or to use someone else's project as a starting point for your own idea.

Propose changes to someone else's project

For example, you can use forks to propose changes related to fixing a bug. Rather than logging an issue for a bug you've found, you can:

- Fork the repository.
- Make the fix.
- Submit a pull request to the project owner.

Use someone else's project as a starting point for your own idea.

Open source software is based on the idea that by sharing code, we can make better, more reliable software. For more information, see the "[About the Open Source Initiative](#)" on the Open Source Initiative.

When creating your public repository from a fork of someone's project, make sure to include a license file that determines how you want your project to be shared with others. For more information, see "[Choose an open source license](#)" at [choosealicense](#).

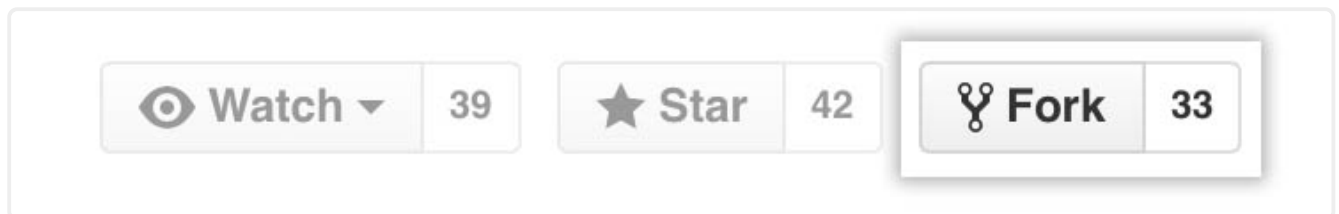
For more information on open source, specifically how to create and grow an open source project, we've created [Open Source Guides](#) that will help you foster a healthy open source community by recommending best practices for creating and maintaining repositories for your open source project. You can also take a free [GitHub Learning Lab](#) course on maintaining open source communities.

Note: You can use GitHub Desktop to fork a repository. For more information, see "[Cloning and forking repositories from GitHub Desktop](#)."

Fork an example repository

Forking a repository is a simple two-step process. We've created a repository for you to practice with.

- 1 On GitHub, navigate to the [octocat/Spoon-Knife](#) repository.
- 2 In the top-right corner of the page, click **Fork**.



Keep your fork synced

You might fork a project to propose changes to the upstream, or original, repository. In this case, it's good practice to regularly sync your fork with the upstream repository. To do this, you'll need to use Git on the command line. You can practice setting the upstream repository using the same [octocat/Spoon-Knife](#) repository you just forked.

Step 1: Set up Git



If you haven't yet, you should first [set up Git](#). Don't forget to [set up authentication to GitHub from Git](#) as well.

Step 2: Create a local clone of your fork

Right now, you have a fork of the Spoon-Knife repository, but you don't have the files in that repository on your computer. Let's create a clone of your fork locally on your computer.

- 1 On GitHub, navigate to **your fork** of the Spoon-Knife repository.
- 2 Under the repository name, click **Clone or download**.



- 3 To clone the repository using HTTPS, under "Clone with HTTPS", click . To clone the repository using an SSH key, including a certificate issued by your organization's SSH certificate authority, click **Use SSH**, then click .



- 4 Open Git Bash.
- 5 Type `git clone`, and then paste the URL you copied earlier. It will look like this, with your GitHub username instead of `YOUR-USERNAME`:

```
$ git clone https://github.com/YOUR-USERNAME/Spoon-Knife
```

- 6 Press **Enter**. Your local clone will be created.

```
$ git clone https://github.com/YOUR-USERNAME/Spoon-Knife
> Cloning into `Spoon-Knife`...
> remote: Counting objects: 10, done.
> remote: Compressing objects: 100% (8/8), done.
> remove: Total 10 (delta 1), reused 10 (delta 1)
> Unpacking objects: 100% (10/10), done.
```



Now, you have a local copy of your fork of the Spoon-Knife repository.

Step 3: Configure Git to sync your fork with the original Spoon-Knife repository

When you fork a project in order to propose changes to the original repository, you can configure Git to pull changes from the original, or upstream, repository into the local clone of your fork.

- 1 On GitHub, navigate to the [octocat/Spoon-Knife](#) repository.
- 2 Under the repository name, click **Clone or download**.



- 3 To clone the repository using HTTPS, under "Clone with HTTPS", click . To clone the repository using an SSH key, including a certificate issued by your organization's SSH certificate authority, click **Use SSH**, then click .



- 4 Open Git Bash.
- 5 Change directories to the location of the fork you cloned in [Step 2: Create a local clone of your fork](#).
 - To go to your home directory, type just `cd` with no other text.
 - To list the files and folders in your current directory, type `ls`.
 - To go into one of your listed directories, type `cd your_listed_directory`.
 - To go up one directory, type `cd ..`.

- 6 Type `git remote -v` and press **Enter**. You'll see the current configured remote repository for your fork.

```
$ git remote -v
> origin https://github.com/YOUR_USERNAME/YOUR_FORK.git (fetch)
> origin https://github.com/YOUR_USERNAME/YOUR_FORK.git (push)
```

- 7 Type `git remote add upstream`, and then paste the URL you copied in Step 2 and press **Enter**. It will look like this:

```
$ git remote add upstream https://github.com/octocat/Spoon-Knife.git
```

- 8 To verify the new upstream repository you've specified for your fork, type `git remote -v` again. You should see the URL for your fork as `origin`, and the URL for the original repository as `upstream`.

```
$ git remote -v
> origin https://github.com/YOUR_USERNAME/YOUR_FORK.git (fetch)
> origin https://github.com/YOUR_USERNAME/YOUR_FORK.git (push)
> upstream https://github.com/ORIGINAL_OWNER/ORIGINAL_REPOSITORY.git (fetch)
> upstream https://github.com/ORIGINAL_OWNER/ORIGINAL_REPOSITORY.git (push)
```

Now, you can keep your fork synced with the upstream repository with a few Git commands. For more information, see "[Syncing a fork](#)."

Next steps

You can make any changes to a fork, including:

- **Creating branches:** [Branches](#) allow you to build new features or test out ideas without putting your main project at risk.
- **Opening pull requests:** If you are hoping to contribute back to the original repository, you can send a request to the original author to pull your fork into their repository by submitting a [pull request](#).

Find another repository to fork

Fork a repository to start contributing to a project. You can fork any public repository to your user account or any organization in which you have repository creation permissions. For more information, see "[Permission levels for an organization](#)."

You can fork any private repository you can access to your user account or any organization on GitHub Team or GitHub Enterprise in which you have repository creation permissions. For more information, see "[GitHub's products](#)."

You can browse [Explore](#) to find projects and start contributing to open source repositories. For more information, see "[Finding ways to contribute to open source on GitHub](#)."

Celebrate

You have now forked a repository, practiced cloning your fork, and configured an upstream repository. What do you want to do next?

- "[Set up Git](#)"
- "[Create a repository](#)"
- "[Be social](#)"
- Connect with people around the world in the [GitHub Community Forum](#)

Ask a human

Can't find what you're looking for?

Contact us





Product

[Features](#)

[Security](#)

[Enterprise](#)

[Case Studies](#)

[Pricing](#)

[Resources](#)

Platform

[Developer API](#)

[Partners](#)

[Atom](#)

[Electron](#)

[GitHub Desktop](#)

Support

[Help](#)

[Community Forum](#)

[Training](#)

[Status](#)

[Contact GitHub](#)

Company

[About](#)

[Blog](#)

[Careers](#)

[Press](#)

[Shop](#)