# Getting changes from a remote repository

docs.github.com/en/get-started/using-git/getting-changes-from-a-remote-repository

You can use common Git commands to access remote repositories.

## Options for getting changes

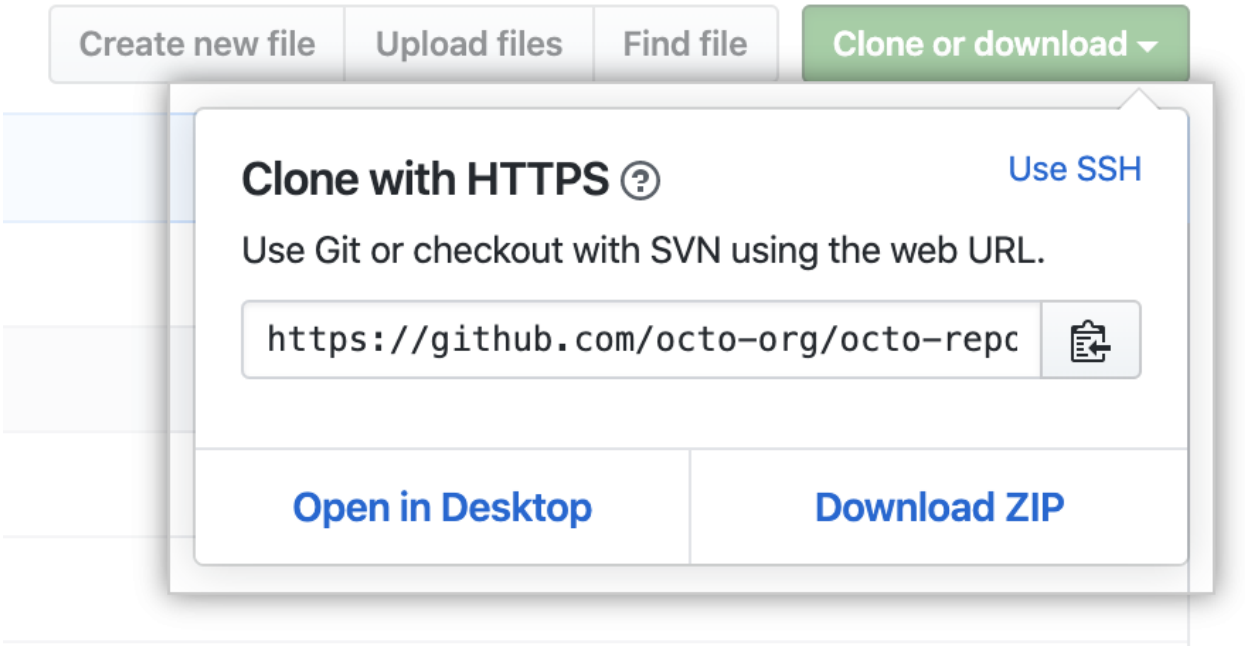
These commands are very useful when interacting with a remote repository. `clone` and `fetch` download remote code from a repository's remote URL to your local computer, `merge` is used to merge different people's work together with yours, and `pull` is a combination of `fetch` and `merge`.

## Cloning a repository

To grab a complete copy of another user's repository, use `git clone` like this:

```
$ git clone https://github.com/USERNAME/REPOSITORY.git
# Clones a repository to your computer
```

You can choose from several different URLs when cloning a repository. While logged in to GitHub, these URLs are available below the repository details:




When you run `git clone`, the following actions occur:

- A new folder called `repo` is made
- It is initialized as a Git repository
- A remote named `origin` is created, pointing to the URL you cloned from
- All of the repository's files and commits are downloaded there
- The default branch is checked out

For every branch `foo` in the remote repository, a corresponding remote-tracking branch `refs/remotes/origin/foo` is created in your local repository. You can usually abbreviate such remote-tracking branch names to `origin/foo`.

## Fetching changes from a remote repository

Use `git fetch` to retrieve new work done by other people. Fetching from a repository grabs all the new remote-tracking branches and tags *without* merging those changes into your own branches.

If you already have a local repository with a remote URL set up for the desired project, you can grab all the new information by using `git fetch *remotename*` in the terminal:

```
$ git fetch remotename
# Fetches updates made to a remote repository
```

Otherwise, you can always add a new remote and then fetch. For more information, see "Managing remote repositories."

## Merging changes into your local branch

Merging combines your local changes with changes made by others.

Typically, you'd merge a remote-tracking branch (i.e., a branch fetched from a remote repository) with your local branch:

```
$ git merge remotename/branchname
# Merges updates made online with your local work
```

## Pulling changes from a remote repository

`git pull` is a convenient shortcut for completing both `git fetch` and `git merge` in the same command:

```
$ git pull remotename branchname
# Grabs online updates and merges them with your local work
```

Because `pull` performs a merge on the retrieved changes, you should ensure that your local work is committed before running the `pull` command. If you run into a merge conflict you cannot resolve, or if you decide to quit the merge, you can use `git merge --abort` to take the branch back to where it was in before you pulled.

## Further reading