



# Git

<https://youtu.be/RGOj5yH7evk?feature=shared>

- Generate a SSH key using terminal. `ssh-keygen -t ed25519 -C "your_email@example.com"`
- Copy the SSH key to clipboard. `clip < ~/.ssh/id_ed25519.pub`
- Add the new SSH key in GitHub. GitHub > Settings > SSH and GPG Keys > Add SSH Key.

Method 1:

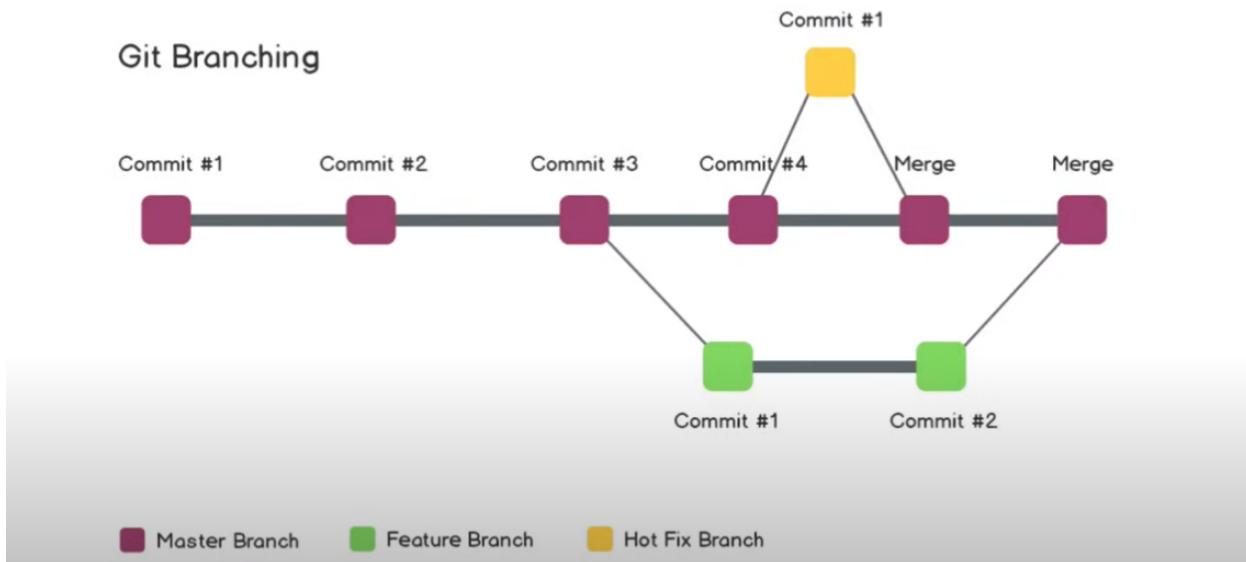
- `git clone` - clone repo (use ssh link)
- `git status` - shows all the changes in the dir
- `git add .` - add changes to git file
- `git commit -m "your message" -m "description"` - commit the changes in the git file
- `git push origin <branch>` - push to GitHub repo

Method 2:

- create empty repo on GitHub.
- `git init` - to initialize current working directory as repo
- `git status`
- `git add .`
- `git commit -m "message"`
- `git remote add origin "ssh link"` - links the current dir and repo together
- `git remote -v` - displays the connected remote repos
- `git push -u origin "branch"` - fix stream for pushing operations

## Git Branching:

- When we create a new branch, any updates made in the feature branch do not reflect in the main branch. Each branch is independent.
- It is useful to add new features that may break the entire code before review.
- Types:



- `git branch` - lists the available branch

- `git checkout -b <feature/update name>` - creates a new branch
- `git checkout "main / "` - returns to main branch. switch between branches
- `git diff <name of the branch>` - compares two versions of the code in branching
- `git push --set-upstream origin <branch name>`

## Pull Request:

A PR (Pull Request) is a request to pull code into another branch, make changes, and then merge it back into the same branch.

- review and merge the PR.
- `git pull origin master` - pull the code with latest updates
- `git branch -d <branch name>` - delete the branch
- `git commit -am "message"` - adds and commits at the same time but only works for modified files
- To fix merge conflicts, delete the <<<HEAD and >>>master lines. Save the changes and then make the commit again.

## Undoing:

- `git reset HEAD~1` - undo last commit
- `git log` - displays all the commits made
- `git reset <hash of the commit copied from the logs>` - undo the commit
- `git reset --hard <hash>` - completely removes the commit

## Forking:

- Manually fork the repository on GitHub.
- Make the updates in the forked repo.
- Create pull request