**GitHub collaboration commands** when working on a team using Git and GitHub

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**🔹 1. Cloning a Repository**

Download a remote GitHub repository to your local machine.

git clone https://github.com/username/repo-name.git

**🔹 2. Creating a Branch**

Create a new branch to work on a feature or bug fix.

git checkout -b feature-branch

**🔹 3. Checking Branches**

View all branches (local and remote):

git branch # local branches

git branch -r # remote branches

git branch -a # all branches

**🔹 4. Switching Branches**

Move between branches.

git checkout main

**🔹 5. Staging and Committing Changes**

Stage and commit your code changes.

git add .

git commit -m "Meaningful message describing the change"

**🔹 6. Pulling Latest Changes**

Update your branch with the latest changes from the remote repository.

git pull origin main

**🔹 7. Pushing Changes**

Push your local branch and commits to the remote GitHub repo.

git push origin feature-branch

**🔹 8. Forking a Repository (On GitHub)**

* Click "Fork" on GitHub to create a personal copy of someone else's repo.
* Clone it locally using git clone.

**🔹 9. Creating a Pull Request (PR)**

* After pushing a feature branch, go to GitHub and click “Compare & pull request”.
* Add title and description, then click “Create pull request”.

**🔹 10. Merging Pull Requests (On GitHub)**

After code review, maintainers can merge the PR using:

* **Merge**, **Squash**, or **Rebase** options on GitHub UI.

**🔹 11. Fetching Changes**

Download changes from remote without merging.

bash

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git fetch origin

**🔹 12. Rebasing (Advanced)**

Reapply commits on top of another base tip:

bash

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git rebase main

**🔹 13. Resolving Merge Conflicts**

After pull or merge, manually resolve conflicts in files, then:

git add .

git commit

**🔹 14. Deleting a Branch**

* Local:

git branch -d feature-branch

* Remote:

git push origin --delete feature-branch