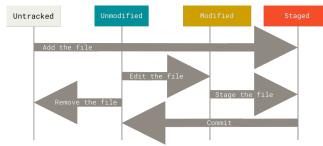


## **Git Cheat Sheet**

## Workflow



## Start a new repository

| Command                             | Description                                      |
|-------------------------------------|--|
| git init                            | Create a new repository in the current directory |
| git clone <url> [<dir>]</dir></url> | Clone a remote repository                        |

| History                 |   |
|-------------------------|---|
| Command                 | Description                               |
| git log                 | Show commit logs                          |
| git logoneline          | Show commit logs with one line per commit |
| git show                | Show the changes of the last commit       |
| git shortlog            | Summarize git log output by author        |
| git blame <file></file> | Show who changed which line in a file     |
|                         |   |

| Local changes         |   |
|-----------------------|---|
| Command               | Description   |
| git status            | List which files are staged,<br>unstaged, and untracked         |
| git add <file></file> | Add a file to the staging area                                  |
| git add -p            | Interactively choose hunks of a file to add to the staging area |

| Local changes (cont.)             |   |
|-----------------------------------|---|
| Command                           | Description   |
| git diff                          | Show unstaged changes   |
| git diffstaged                    | Show staged changes   |
| git commit                        | Commit staged changes using the default editor                    |
| git commit -m <message></message> | Commit staged changes with a message provided on the command line |
| git commitamend                   | Amend the last commit   |
| git reset HEAD <file></file>      | Unstage a file  |
| git checkout <file></file>        | Discard local changes in a file                                   |

| Branches                        |                                       |
|---------------------------------|---------------------------------------|
| Command                         | Description                           |
| git branch                      | List local branches                   |
| git branch -r                   | List remote branches                  |
| git branch <branch></branch>    | Create a new branch                   |
| git checkout <branch></branch>  | Switch to a branch                    |
| git checkout -b<br>branch>      | Create a new branch and switch to it  |
| git merge <branch></branch>     | Merge a branch into the active branch |
| git branch -d <branch></branch> | Delete a branch                       |
|                                 |                                       |

| Tags                   |                         |
|------------------------|-------------------------|
| Command                | Description             |
| git tag                | List tags               |
| git tag <tag></tag>    | Create a tag            |
| git tag -a <tag></tag> | Create an annotated tag |
| git tag -s <tag></tag> | Create a GPG-signed tag |
| git tag -d <tag></tag> | Delete a tag            |
| git show <tag></tag>   | Show the tag data       |

| Collaboration   |  |
|---|--|
| Command   | Description  |
| git remote -v   | List remote repositories   |
| git remote add <name> <url></url></name>                | Add a new remote repository  |
| git fetch <remote></remote>                             | Download all changes from a remote repository but don't integrate them |
| git pull <remote></remote>                              | Download changes and directly merge/integrate them                     |
| git pull <remote><br/><branch></branch></remote>        | Download changes and directly merge/integrate a remote branch          |
| <pre>git push <remote> <branch></branch></remote></pre> | Upload local changes to a remote repository                            |
| git push <remote>delete <branch></branch></remote>      | Delete a remote branch   |
| git push <remote>tags</remote>                          | Push tags to a remote repository                                       |

| Stashing        |   |
|-----------------|---|
| Command         | Description   |
| git stash       | Stash the changes in a dirty working directory away |
| git stash list  | List all stashes                                    |
| git stash pop   | Apply the last stash and delete it                  |
| git stash apply | Apply the last stash but don't delete it            |
| git stash drop  | Delete the last stash                               |
| git stash clear | Delete all stashes                                  |

## Writing good commit messages

- 1. Separate subject from body with a blank line
- 2. Limit the subject line to 50 characters
- 3. Capitalize the subject line
- 4. Do not end the subject line with a period
- 5. Use the imperative mood in the subject line
- 6. Wrap the body at 72 characters
- 7. Use the body to explain what and why vs. how