Git & GitHub Cheat Sheet

Essential commands for version control with Git and GitHub

Download as PDF

Git Basics

```
git --version
```
Check Git version (ensure installed)

```
git config --global
user.name "Your Name"
```
Configure username (first-time setup)

```
git config --global
user.email
"you@example.com"
```
Configure email (first-time setup)

```
git init
```
Start a new Git project

```
git clone <repository-
url>
```
Clone an existing repository

Commits & History

```
git log
```
View commit history

```
git log --oneline
```
View compact commit history

```
git diff
```
Show unstaged changes

```
git diff --staged
```
Show staged changes

```
git restore <file>
```
Discard changes in working directory

```
git reset HEAD <file>
```
Unstage file

```
git reset --hard HEAD
```

```
git status
```
Check repository status

```
git add <filename>
```
Add one file to staging

```
git add .
```
Add all files to staging

```
git commit -m "Commit
message"
```
Commit changes with a message

```
git push
```
Push changes to remote
repository

```
git pull
```
Pull latest changes from remote

Reset all to last commit

```
git revert <commit-id>
```
Safely revert a commit

```
git log --oneline --
graph --decorate --all
```
Show summary of commits
(graph)

```
git show
```
Show last commit details

Branching

```
git branch
```
List branches

```
git branch <name>
```
Create a new branch

```
git checkout <name>
```

Remote Management

```
git remote add origin
<repo-url>
```
Add a remote connection

```
git remote -v
```
View remote connections

Switch branch

`git checkout -b <name>`

Create and switch to new branch

`git checkout main`

Switch to main branch

`git merge <branch-name>`

Merge a branch into current branch

`git branch -d <name>`

Delete local branch

`git push origin --delete <branch-name>`

Delete remote branch

`git diff branch1..branch2`

Check difference between branches

`git branch -m oldname newname`

Rename a branch