

Glossary of Git commands

Add: Add new/changed files to staging area, to be included in the next commit

```
git add <file1> <file2> ...    # Specific files
git add .                      # All changed files
```

Commit: Permanently saves a snapshot of your repository.

```
git commit -m "Commit Message" # Regular commit with commit message
git commit -am "commit Message" # Add and commit in one step
git commit --amend              # Add forgotten file to previous commit
```

Status: Status of git repository (modified or added files present?)

```
git status          # Verbose information on working directory
git status -s       # Short info
git status -s -b    # Short info + info about current branch
```

Log: Shows a log of your repo's commit history.

```
git log -n 4          # show only last four commits
git log --oneline     # concise log in one line per commit
git log --graph       # log visualization
```

Diff: Compare commits or branches.

```
git diff              # Compare working directory to last commit (HEAD)
git diff <Commit>     # Compare specified commit to last commit (HEAD)
git diff <Commit1> <Commit2> # Compare the two specified commits
git diff HEAD~2 HEAD  # Compare the third last commit to the last commit (HEAD)
```

Push: Push local commits to Github

```
git push              # Push to the associated Github branch
git push -u origin <branch> # For new branch: push to the specified Github branch
git push origin --delete <branch> # Delete remote branch
```

Pull: Pulls commits on Github to local computer.

```
git pull              # Fetches and merges commits from Github into associated branch
git pull --rebase     # Adds first remote changes, and afterwards local changes (if present)
git pull --ff-only    # Only carries out (linear) fast-forward merge
```

Branch: List, create or delete branches

```
git branch          # List local branches
git branch -r       # List remote branches
git branch -a       # List all (local + remote) branches
git branch <newbranch> # Create new branch
git branch -m <newname> # Rename current branch
git branch -d       # Delete local branch
git branch -D       # Force delete local branch even if not yet merged
```

Switch: Switch to a branch or a commit

```
git switch <branch> # Switch to specified branch
git switch -c <branch> # Create new branch and switch to it
```

Merge: Merges the specified branch into the currently checked out branch

```
git merge <branch> # Merge the specified branch into the current branch
```

Reset: Resets the repo to the specified old commit, by rewriting history

```
git reset --hard HEAD~1 # Completely discard last commit
git reset --mixed HEAD~1 # Discard last commit, but keep the changes in the files
git reset --soft HEAD~1 # Discard last commit, changes in files are kept and staged
```

Revert: Reverts the changes in the specified commit, by creating a new commit.

```
git revert HEAD # Completely discard last commit
```