GitHub CLI

GitHub from the terminal

START HERE

`gh auth login`
Sign in to GitHub

`gh repo clone <owner>/<repo>`
Clone a repository

`gh pr create --fill`
Open a pull request

`gh pr checkout <number>`
Try out a pull request

`gh pr merge --squash`
Merge a pull request

`gh issue list`
See open issues

`gh run watch`
Follow a CI run

`gh api <endpoint>`
Call the REST API

Branch local commits → `gh pr create` → **Pull request** review and checks → `gh pr merge` → **Merged** base branch → `gh run watch` → **Actions run** CI and deploy

CONCEPTS

Inside a git clone, gh picks the repo from the remotes. Elsewhere add -R <owner>/<repo>.

Most list and view commands take --json <fields> with --jq <expr> for scripting.

Without a terminal (pipes, scripts) set GH_TOKEN instead of running gh auth login.

AUTH AND SETUP

`gh auth login`
Sign in interactively

`gh auth status`
Show who you are signed in as

`gh auth login --with-token < <file>`
Sign in with a token from stdin

`gh auth setup-git`
Use gh as git credential helper

REPOSITORIES

`gh repo clone <owner>/<repo>`
Clone a repository

`gh repo create <name> --public --clone`
Create a repo and clone it

`gh repo create <name> --private --source=. --push`
Publish the current folder

`gh repo view --web`
Open the repo in the browser

`gh repo fork --clone`
Fork and clone

`gh repo list <owner>`
List an owner's repos

`gh repo set-default`
Pick the default repo for gh

`gh browse`
Open the repo, file or PR in the browser

PULL REQUESTS

`gh pr create --fill`
Open a PR with title from commits

`gh pr create --draft --title "<t>" --body "<b>"`
Open a draft PR

`gh pr list`
List open PRs

`gh pr view <number>`
Show a PR

PULL REQUESTS (cont.)

`gh pr checkout <number>`
Check out a PR branch

`gh pr status`
PRs that involve you

`gh pr diff <number>`
Show the PR diff

`gh pr checks --watch`
Watch CI checks on this PR

`gh pr review --approve`
Approve a PR

`gh pr review --request-changes -b "<text>"`
Request changes

`gh pr comment <number> -b "<text>"`
Comment on a PR

`gh pr merge --squash --delete-branch`
Squash-merge and clean up

`gh pr merge --auto --squash`
Merge when checks pass

`gh pr ready`
Mark a draft as ready

`gh pr edit <number> --add-label <name>`
Change labels, reviewers, base

`gh pr list --author @me --state all`
Your PRs in any state

`gh pr create --reviewer <user> --label <name>`
Request review while opening

`gh pr close <number>`
Close without merging

ISSUES

`gh issue list`
List open issues

`gh issue create --title "<t>" --body "<b>"`
File an issue

`gh issue view <number>`
Show an issue

`gh issue comment <number> -b "<text>"`
Comment on an issue

`gh issue close <number>`
Close an issue

`gh issue list --assignee @me`
Issues assigned to you

`gh issue list --label <name> --state all`
Filter by label and state

`gh issue create --assignee @me --label <name>`
File and self-assign

ISSUES (cont.)

`gh issue develop <number> --checkout`
Create a linked branch for an issue

`gh issue edit <number> --add-label <name>`
Change labels or assignees

`gh issue reopen <number>`
Reopen an issue

ACTIONS

`gh run list`
Recent workflow runs

`gh run view <run-id>`
Summary of a run

`gh run watch`
Follow a run live

`gh run view <run-id> --log-failed`
Logs of failed steps only

`gh run rerun <run-id> --failed`
Rerun only failed jobs

`gh run list --branch <branch> --workflow <name>`
Filter runs

`gh run download <run-id>`
Download run artifacts

`gh workflow list`
List workflows

`gh workflow run <workflow> -f <key>=<value>`
Trigger a workflow_dispatch

RELEASES AND GISTS

`gh release list`
List releases

`gh release create <tag> --generate-notes`
Publish a release

`gh release create <tag> <file>...`
Release with attached assets

`gh release download <tag>`
Download release assets

`gh gist create <file>`
Share a file as a gist

SEARCH AND STATUS

`gh search repos <query>`
Search repositories

`gh search issues <query>`
Search issues across GitHub

`gh search prs --author @me --state open`
Your open PRs everywhere

SEARCH AND STATUS (cont.)

`gh search code <query>`
Search code

`gh status`
Your PRs, issues and notifications

`gh secret set <name>`
Set an Actions secret

API AND SCRIPTING

`gh api repos/{owner}/{repo}/issues`
GET a REST endpoint
{owner} and {repo} are filled in from the current repo

`gh api <endpoint> --jq '<expr>'`
Filter the response with jq

`gh api <endpoint> --paginate`
Fetch every page

`gh api <endpoint> -f <key>=<value>`
Send a string field (POST)

`gh api <endpoint> -F <key>=<value>`
Typed field: numbers, bools, @file

`gh api -X PATCH <endpoint> -f <key>=<value>`
Choose the HTTP method

`gh api graphql -f query='<query>'`
Run a GraphQL query

`gh pr list --json number,title --jq '.[].title'`
JSON fields, then jq

RECIPES

Feature branch to merged PR

```
git switch -c feature/x
# commit your work
git push -u origin feature/x
gh pr create --fill
gh pr checks --watch
gh pr merge --squash --delete-branch
```

Review someone's PR

```
gh pr checkout <number>
gh pr diff
gh pr review --approve -b "LGTM"
```

Debug a failed CI run

```
gh run list --branch <branch> --limit 5
gh run view <run-id> --log-failed
gh run rerun <run-id> --failed
```

Publish a local project

```
git init
git add . && git commit -m "Initial commit"
gh repo create <name> --private --source=. --push
```