

GITHUB CLI QUICK REFERENCE

Repos, issues, PRs, actions, releases, API

Setup

Installation

```
brew install gh          macOS via Homebrew
sudo apt install gh      Debian / Ubuntu
winget install GitHub.cli Windows via winget
conda install gh         Via conda-forge
```

Authentication

```
gh auth login           # interactive login
gh auth login --with-token < token.txt
gh auth status          # check auth state
gh auth refresh -s repo,gist # add scopes
```

Configuration

```
gh config set editor vim
gh config set pager less
gh config set git_protocol ssh
gh config list
```

Repos

Repository Commands

```
gh repo create my-app --public --clone
gh repo clone owner/repo
gh repo fork owner/repo --clone
gh repo view owner/repo --web
```

Repo Options

```
--public | --private      Set repository visibility
--template owner/repo     Create from template repo
--clone                   Clone after creating
--add-readme              Initialize with README
gh repo list owner        List repos for owner
gh repo delete owner/repo Delete repository (with confirm)
gh repo rename new-name   Rename current repo
gh repo archive owner/repo Archive a repository
```

Issues

Managing Issues

```
gh issue create --title "Bug" --body "Details here"
gh issue list --state open --label bug
gh issue view 42
gh issue close 42 --reason completed
```

Issue Options

```
--assignee @me           Assign to yourself
--label bug,urgent       Add labels
--milestone v2.0         Set milestone
--project "Board"        Add to project
gh issue edit 42         Edit issue interactively
gh issue reopen 42       Reopen a closed issue
gh issue comment 42 -b "msg" Add comment to issue
gh issue pin 42          Pin issue to repo
```

Pull Requests

Creating & Managing PRs

```
gh pr create --title "feat: add auth" --body "..."
gh pr create --fill      # title/body from commits
gh pr list --state open
gh pr view 123 --web
```

Review & Merge

```
gh pr checkout 123      # check out PR branch
gh pr diff 123          # view PR diff
gh pr review 123 --approve
gh pr merge 123 --squash --delete-branch
```

PR Options

```
--draft                  Create as draft PR
--reviewer user1,user2  Request reviewers
--base main              Set base branch
--merge | --squash | --rebase Merge strategy
--auto                  Enable auto-merge when checks pass
--delete-branch         Delete branch after merge
gh pr ready 123         Mark draft PR as ready
```

Actions

Workflow Commands

```
gh run list             # recent runs
gh run view 12345       # run details
gh run view 12345 --log-failed # failed step logs
gh run watch 12345     # live status
```

Triggering & Managing

```
gh workflow run deploy.yml --ref main
gh workflow list
gh workflow view deploy.yml
gh run rerun 12345 --failed # rerun failed jobs
```

Actions Options

```
-f key=value            Pass input to workflow_dispatch
--json                 Output as JSON
-b branch              Filter by branch
gh run download 12345  Download run artifacts
gh cache list          List Actions caches
gh cache delete KEY    Delete a cache entry
```

Releases

Managing Releases

```
gh release create v1.0.0 --generate-notes
gh release create v1.0.0 ./dist/*.tar.gz
gh release list
gh release view v1.0.0
```

Release Options

```
--title "Release v1.0.0" Set release title
--notes "Changelog here" Set release notes inline
--notes-file CHANGELOG.md Notes from file
```

```
--generate-notes        Auto-generate from commits
--draft                 Create as draft
--pre-release           Mark as pre-release
--latest                Mark as latest release
gh release download v1.0.0 Download release assets
gh release delete v1.0.0 Delete a release
gh release edit v1.0.0  Edit release metadata
```

Gists

Gist Commands

```
gh gist create file.py -d "My snippet"
gh gist create file1.js file2.js # multi-file gist
gh gist list
gh gist view <id>
```

Gist Options

```
-d "description"        Set gist description
--public                Create public gist (default: secret)
--web                   Open gist in browser
gh gist edit <id>       Edit gist files
gh gist clone <id>      Clone gist locally
gh gist delete <id>     Delete a gist
```

API

Making API Calls

```
gh api repos/owner/repo
gh api repos/owner/repo/issues --method POST \
  -f title="Bug" -f body="Details"
gh api graphql -f query='{ viewer { login } }'
```

Formatting Output

```
gh api repos/owner/repo --jq '.stargazers.count'
gh api repos/owner/repo --template '{{.full name}}'
gh pr list --json number,title --jq '.[].title'
```

API Options

```
--method GET|POST|PUT|DELETE HTTP method
-f key=value              Set string field
-F key=@file             Set field from file
--jq 'expression'        Filter JSON with jq syntax
--template 'tmpl'        Format with Go template
--paginate               Fetch all pages
-H 'Accept: ...'         Set custom header
```

Aliases

Managing Aliases

```
gh alias set co 'pr checkout'
gh alias set bugs 'issue list --label bug'
gh alias set last 'run list -L 1'
gh alias list
```

Advanced Aliases

```
# Alias with shell command
gh alias set --shell pv 'gh pr view --json url --jq .url | pbcopy'

# Delete alias
gh alias delete co
```

Alias Tips

```
gh alias set name 'cmd' Create simple alias
--shell                Alias runs via shell (supports pipes)
gh alias list          Show all defined aliases
gh alias delete name   Remove an alias
```

Common Patterns

Daily Workflow

```
gh issue list --assignee @me # my open issues
gh pr status                 # PRs needing attention
gh pr checks 123             # CI status for PR
gh run list -b main -L 5     # recent CI runs
```

Searching

```
gh search repos --language rust --stars ">1000"
gh search issues --repo owner/repo "memory leak"
gh search prs --state open --review required
```

Useful Flags

```
--json field1,field2    Output specific fields as JSON
--jq 'expr'              Filter JSON output
-L N                     Limit results to N items
--web                    Open result in browser
-R owner/repo            Target a specific repository
GH_TOKEN=xxx             Auth via environment variable
```