

What is git?

Website. git-scm.com. Git (/git/) is a distributed version-control system for tracking changes in source code during software development.

Configuring github

Sets the name you want attached to your commit transactions

- `$ git config --global user.name "[name]"`

Sets the email you want attached to your commit transactions

- `$ git config --global user.email "[email address]"`

Sets the name you want attached to your commit transactions

- `$ $ git config --global color.ui auto`

Enables helpful colorization of command line output

- `$ git config --global user.name "[name]"`

Create Repository

Creates a new local repository with the specified name

- `$ git init [project-name]`

Downloads a project and its entire version history

- `$ git clone [url]`

Redo Commits

Undoes all commits after [commit], preserving changes locally

- `$ git reset [commit]`

Discards all history and changes back to the specified commit

- `$ git reset --hard [commit]`

Make Changes

Lists all new or modified files to be committed

- \$ git status
Shows file differences not yet staged
- \$ git diff
Snapshots the file in preparation for versioning
- \$ git add [file]
Shows file differences between staging and the last file version
- \$ git diff --staged
Unstages the file, but preserve its contents
- \$ git reset [file]
Records file snapshots permanently in version history
- \$ git commit -m "[descriptive message]"

Group changes

Lists all local branches in the current repository

- \$ git branch
Creates a new branch
- \$ git branch [branch-name]
Switches to the specified branch and updates the working directory
- \$ git checkout [branch-name]
Combines the specified branch's history into the current branch
- \$ git merge [branch]
Deletes the specified branch
- \$ git branch -d [branch-name]

Make Changes

Deletes the file from the working directory and stages the deletion

- \$ git rm [file]
Removes the file from version control but preserves the file locally

- \$ git rm --cached [file]
Changes the file name and prepares it for commit
- \$ git mv [file-original] [file-renamed]

Group changes

Lists version history for the current branch

- \$ git log
Lists version history for a file, including renames
- \$ git log --follow [file]
Shows content differences between two branches
- \$ git diff [first-branch]...[second-branch]
Outputs metadata and content changes of the specified commit
- \$ git show [commit]

Save Fragments

Temporarily stores all modified tracked files

- \$ git stash
Restores the most recently stashed files
- \$ git stash pop
Lists all stashed changesets
- \$ git stash list
Discards the most recently stashed changeset
- \$ git stash drop

Synchronize Changes

Downloads all history from the repository bookmark

- \$ git fetch [bookmark]
Combines bookmark's branch into current local branch

- \$ git merge [bookmark]/[branch]
Uploads all local branch commits to GitHub
- \$ git push [alias] [branch]
Downloads bookmark history and incorporates changes
- \$ git pull