

Git Cheatsheet

SETUP

Configuring user information used across all local repositories

```
git config --global user.name "[firstname lastname]"
```

set a name that is identifiable for credit when review version history

```
git config --global user.email "[valid-email]"
```

set an email address that will be associated with each history marker

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

set automatic command line coloring for Git for easy reviewing

SETUP & INIT

Configuring user information, initializing and cloning repositories

```
git init
```

initialize an existing directory as a Git repository

```
git clone [url]
```

retrieve an entire repository from a hosted location via URL

STAGE & SNAPSHOT

Working with snapshots and the Git staging area `git status` show modified files in working directory, staged for your next commit

```
git add [file]
```

add a file as it looks now to your next commit (stage)

```
git reset [file]
```

Unstage a file while retaining the changes in the working directory `git diff` of what is changed but not staged

```
git diff --staged
```

diff of what is staged but not yet committed

```
git commit -m "[descriptive message]"
```

commit your staged content as a new commit snapshot

BRANCH & MERGE

Isolating work in branches, changing context, and integrating changes

`git branch`

list your branches. a * will appear next to the currently active branch

`git branch [branch-name]`

create a new branch at the current commit

`git checkout`

switch to another branch and check it out into your working directory

`git merge [branch]`

merge the specified branch's history into the current one

`git log`

show all commits in the current branch's history

INSPECT & COMPARE

Examining logs, diffs and object information

`git log`

show the commit history for the currently active branch

`git log branchB..branchA`

show the commits on branchA that are not on branchB

`git log --follow [file]`

show the commits that changed file, even across renames

`git diff branchB...branchA`

show the diff of what is in branchA that is not in branchB

`git show [SHA]`

show any object in Git in human-readable format

TRACKING PATH CHANGES

Versioning file removals and path changes

`git rm [file]`

delete the file from project and stage the removal for commit

```
git mv [existing-path] [new-path]
```

change an existing file path and stage the move

```
git log --stat -M
```

show all commit logs with an indication of any paths that moved

IGNORING PATTERNS

Preventing unintentional staging or committing of files

```
logs/  
*.notes  
pattern*/
```

Save a file with desired patterns as `.gitignore` with either direct string matches or wildcard globs.

```
git config --global core.excludesfile [file]
```

system-wide ignore pattern for all local repositories

SHARE & UPDATE

Retrieving updates from another repository and updating local repos

```
git remote add [alias] [url]
```

add a git URL as an alias

```
git fetch [alias]
```

fetch down all the branches from that Git remote

```
git merge [alias]/[branch]
```

merge a remote branch into your current branch to bring it up to date

```
git push [alias] [branch]
```

Transmit local branch commits to the remote repository branch

```
git pull
```

fetch and merge any commits from the tracking remote branch

REWRITE HISTORY

Rewriting branches, updating commits and clearing history

```
git rebase [branch]
```

apply any commits of current branch ahead of specified one

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

clear staging area, rewrite working tree from specified commit

TEMPORARY COMMITS

Temporarily store modified, tracked files to change branches

```
git stash
```

Save modified and staged changes

```
git stash list
```

list stack-order of stashed file changes

```
git stash pop
```

write working from top of stash stack

```
git stash drop
```

discard the changes from top of stash stack