

Initialize

| | |
|--|--|
| <code>git init</code> | Initialize repository |
| <code>git remote add <origin/alternate name> <repo url></code> | Link local repo with <repo URL> |
| <code>git push -u origin master</code> | Push committed changes (-u and track branch with remote) |

Commit

| | |
|---|--|
| <code>git add .</code> | Adds all modified and new (untracked) files in the current directory and all subdirectories to the staging area |
| <code>git commit -m <commit message></code> | Locally commit |
| <code>git checkout .</code> | Revert changes to local copy |
| <code>git reset</code> | Revert changes made to the index (i.e., that you have added). Warning this will reset all of your unpushed commits to master! |
| <code>git revert <commit 1> <commit 2></code> | Revert a change that you have committed |
| <code>git clean -f</code> | Remove untracked files (e.g., new files, generated files) |
| <code>git clean -fd</code> | Remove untracked directories |
| <code>git stash</code> | Stash the changes away in a working directory |
| <code>git diff <branch 1> <branch 2></code> | Compare two branches |
| <code>git diff <branch 1> <branch 2> --name-only</code> | Compare two branches, file names only |
| <code>git diff <branch></code> | Compare <branch> with current branch |
| <code>git rm <file> --cached</code> | Remove file from remote, while retaining local copy |

Branching, Merging

| | |
|--|--|
| <code>git checkout -b <branch> master</code> | Create <branch> from master |
| <code>git push -u origin <branch></code> | Push <branch> |
| <code>git merge <branch></code> | Merge <branch> into current branch |
| <code>git branch -d <branch></code> | Delete local branch if it is merged, if not -D to force delete |

Branching, Merging (cont)

| | |
|---|---|
| <code>git push <remote_name> --delete <branch></code> | Delete remote branch |
| <code>git branch <branch></code> | Create branch <branch> |
| <code>git branch [-a]</code> | List branches, -a including remote, * indicates current branch |
| <code>git rebase <branch></code> | Rebase from <branch> into current branch, i.e. take <branch> and then apply current branch's commits onto it to create linear history |
| <code>git branch -m <old> <new></code> | 1. Rename your local branch |
| <code>git push origin :<old> <new></code> | 2. Delete the <old> remote branch and push the <new> local branch |
| <code>git push origin -u <new></code> | 3. Reset the upstream branch for the <new> local branch |
| <code>git diff --name-status <b1>..<b2></code> | Show diffs (filenames only) between two branches |
| <code>git diff --name-status master</code> | Show diffs (filenames only) between master and current branch |

Admin, Trouble-shooting

| | |
|---|---|
| <code>git log [-p] [-n]</code> | Shows commit history, last n, -p differences |
| <code>git remote set-url origin <new url></code> | Change remote url |
| <code>git remote -v</code> | List remote information |
| <code>git config --global credential.helper cache</code> | Set git to use the credential memory cache |
| <code>git config --global credential.helper 'cache --timeout=3600'</code> | set the cache to timeout after 1 hour (setting is in seconds) |
| <code>git config [--global] user.name "FIRST_NAME LAST_NAME"</code> | Set (global/repo) username for commits |
| <code>git config [--global] user.email "MY_NAME@example.com"</code> | Set (global/repo) email for commits |

