

### Create Git Repository

#### From existing directory

```
cd project_dir
```

```
git init
```

```
git add .
```

#### From other repository

```
git clone existing_dir new_dir
```

```
git clone git://github.com/user/repo.git
```

```
git clone https://github.com/user/repo.git
```

### Git - Local Changes

#### Changed in working directory

```
git status
```

#### Tracked file changes

```
git diff
```

#### Add changed files

```
git add file1 file2 file3
```

#### Remove file

```
git rm file
```

```
git rm dir/ -r
```

*(recursive under directory)*

#### See files ready for commit

```
git diff --cached
```

#### Commit changes

```
git commit
```

```
git commit -m "My message"
```

```
git commit -a -m "My Message"
```

*(tracked files only, auto add)*

#### Change last commit

```
git commit --amend
```

#### Revert changes to file

```
git checkout -- file
```

#### Revert changes (new commit)

```
git revert HEAD
```

#### Return to last committed state

```
git reset --hard HEAD
```

### Git - History

#### Show all commits

```
git log
```

#### Short Format

```
git log --pretty=short
```

#### Patches

```
git log -p
```

#### Show file commits

```
git log file
```

#### Show directory commits

```
git log dir/
```

#### Stats

```
git log --stat
```

#### Who changed file

```
git blame file
```

### Git - Merge/Rebase

#### Merge branch into current

```
git merge branch
```

#### Rebase into branch

```
git rebase branch
```

```
git rebase master branch
```

#### Abort rebase

```
git rebase --abort
```

#### Merge tool to solve conflicts

```
git mergetool
```

#### Conflicts against base file

```
git diff --base file
```

#### Diff other users changes

```
git diff --theirs file
```

#### Diff your changes

```
git diff --ours file
```

#### After resolving conflicts

```
git rebase --continue
```

### Git - Remote Update / Publish

#### List remotes

```
git remote -v
```

#### Show information

```
git remote show remote
```

#### Add remote

```
git remote add path/url
```

#### Fetch changes

```
git fetch remote
```

#### Fetch + merge

```
git pull remote branch
```

#### Publish local to remote

```
git push remote branch
```

#### Delete remote branch

```
git push remote :branch
```

#### Publish tags

```
git push --tags
```

### Git - Branching/Tagging

#### List branches

```
git branch
```

#### Switch to branch

```
git checkout branch
```

#### Create new branch

```
git branch new
```

#### Create branch from existing

```
git branch new existing
```

#### Delete branch

```
git branch -d branch
```

#### Tag current commit

```
git tag tag-name
```