



### **Create a Repository**

From scratch -- Create a new local repository

\$ git init [project name]

Download from an existing repository \$ git clone my\_url

# **Observe your Repository**

List new or modified files not yet committed

\$ git status

Show the changes to files not yet staged

\$ git diff

Show the changes to staged files

\$ git diff --cached

Show all staged and unstaged file changes

\$ git diff HEAD

Show the changes between two commit ids

\$ git diff commit1 commit2

List the change dates and authors for a file

\$ git blame [file]

Show the file changes for a commit id and/or file

\$ git show [commit]:[file]

Show full change history

\$ git log

Show change history for file/directory including diffs

\$ git log -p [file/directory]

### **Working with Branches**

List all local branches

\$ git branch

List all branches, local and remote

\$ git branch -av

Switch to a branch, my\_branch, and update working directory

\$ git checkout my branch

Create a new branch called new branch

\$ git branch new branch

Delete the branch called my\_branch

\$ git branch -d my branch

Merge branch a into branch b

\$ git checkout branch b

\$ git merge branch\_a

Tag the current commit

\$ git tag my\_tag

### Make a change

Stages the file, ready for commit

\$ git add [file]

Stage all changed files, ready for commit

\$ git add .

Commit all staged files to versioned history

\$ git commit -m "commit message"

Commit all your tracked files to versioned history

\$ git commit -am "commit message"

Unstages file, keeping the file changes

\$ git reset [file]

Revert everything to the last commit

\$ git reset --hard

## **Synchronize**

Get the latest changes from origin (no merge)

\$ git fetch

Fetch the latest changes from origin and merge

\$ git pull

Fetch the latest changes from origin and rebase

\$ git pull --rebase

Push local changes to the origin

\$ git push

## **Finally!**

When in doubt, use git help

\$ git command --help

Or visit <a href="https://training.github.com/">https://training.github.com/</a> for official GitHub training.



