



Git Cheat Sheet

 /dschetel/GitCheatSheet

Installation & Configuration

Install Git

<http://git-scm.com>

Configure user information for all local repositories

```
$ git config --global user.name [name]
Sets the name you want attached to your commit transactions

$ git config --global user.email [email]
Sets the email you want attached to your commit transactions

$ git config --global color.ui auto
Enables helpful colorization of command line output

$ git config --global core.editor vim
Set standard editor for crafting of commit messages
```

Create a Repository

Start a new repository or obtain one from an existing URL

```
$ git init [project name]
Creates a new local repository
```

```
$ git clone [url]
Downloads a project and its entire version history
```

Supress tracking

```
build/
*.aux
```

A textfile named `.gitignore` suppresses accidental versioning of files and paths matching the specified patterns.
Use <https://www.gitignore.io/> to generate `.gitignore` files.

Basic vi / vim commands

i	Enter insert mode
ESC	Exit insert mode
:w	Save file
:q	Exit if no changes have been made
:q!	Exit and undo made changes

Make changes

```
$ git status
Show the working tree status

$ git diff
Shows the file differences not yet staged

$ git add [file]
Add file contents to the staging area

$ git add .
Add all modified contents to the staging area

$ git add -p
Add modified contents to the staging area in parts

$ git diff --cached
Shows file differences between staged files to HEAD

$ git diff [commit1] [commit2]
Shows file differences between commit1 and commit2

$ git reset [file]
Unstages the file, but preserves its contents

$ git commit -m „commit message“
Record changes to the repository

$ git log
Lists version history for the current branch

$ git tag
Create, list, delete or verify a tag object
```

Working with Branches

```
$ git branch
Lists all local branches in the current repository

$ git branch [branch-name]
Creates a new branch

$ git checkout [branch-name]
Switches to the specified branch and updates the working directory

$ git merge [branch-name]
Combines the specified branch's history into the current branch

$ git branch -d [branch-name]
Deletes the specified branch
```

Stashing

```
$ git stash
Temporarily stores all modified tracked files

$ git stash pop
Restores the most recently stashed file

$ git stash list
Lists all stashed change-sets

$ git stash drop
Discards the most recently stashed change-set
```

Redo commits

```
$ git reset [commit]
Undoes all commits after [commit], preserving changes locally

$ git reset --hard
Discards all history and changes back to the specified commit
```

Synchronize

```
$ git remote add [bookmark] [url]
Set a new repository

$ git fetch [bookmark]
Downloads all history from the repository

$ git merge [bookmark]/[branch-name]
Combines bookmark's branch into local branch

$ git pull
Downloads bookmark history and incorporates changes

$ git push [bookmark] [branch-name]
Uploads all local branch commits to the remote repository
```

master is the default mainline branch
origin is the default upstream repository
HEAD is the current branch

git commands

