Learn You some GIT

Florian Willich

Quality and Usability Lab Berlin Institute of Technology

May 26, 2015

Table of Contents

Create Repositories

Make Changes

Group Changes

Suppress Tracking

Save Fragments

Synchronize Changes

The five daily commands

Miscellaneous

Create Repositories

\$ git init *project-name*Creates a new local repository with the specified name

Create Repositories

\$ git init *project-name*Creates a new local repository with the specified name

\$ git clone *url*Downloads a project and its entire version history but only the master branch!

Create Repositories

\$ git init *project-name*Creates a new local repository with the specified name

\$ git clone *url*Downloads a project and its entire version history but only the master branch!

\$ git fetch remote-branch/local-branch lets you fetch the remote branch and create a local branch

\$ git status

Most important command! Lists all new or modified files to be committed

\$ git status

Most important command! Lists all new or modified files to be committed

\$ git add *file*

Snapshots the file in preparation for versioning

\$ git status

Most important command! Lists all new or modified files to be committed

\$ git add *file*

Snapshots the file in preparation for versioning

\$ git commit -m "descriptive message"
Records file snapshots permanently in version history

\$ git status

Most important command! Lists all new or modified files to be committed

\$ git add file

Snapshots the file in preparation for versioning

\$ git commit -m "descriptive message"
Records file snapshots permanently in version history

\$ git commit -am "descriptive message"
Snapshots all tracked files in preparation for versioning & records file snapshots
permanently in version history

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

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

\$ git branch branch-name
Creates a new branch with the specified branch name

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

\$ git branch branch-name
Creates a new branch with the specified branch name

\$ git checkout *branch-name*Switches to the specified branch and updates the working directory

\$ git branch

Lists all local branches in the current repository

\$ git branch branch-name

Creates a new branch with the specified branch name

\$ 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

Lists all local branches in the current repository

\$ git branch branch-name

Creates a new branch with the specified branch name

\$ 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

Suppress Tracking

By creating a file called .gitignore (yes its a hidden file) in the root directory, you can specify all the files you want git to ignore.

Suppress Tracking

By creating a file called .gitignore (yes its a hidden file) in the root directory, you can specify all the files you want git to ignore.

Examples for files you don't want to track:

- ▶ *.log
- *.config
- my-secret-passwords.secret
- Any IDE related files

Save Fragments

\$ git stash Temporarily stores all modified tracked files

Save Fragments

\$ git stash
Temporarily stores all modified tracked files

\$ git stash pop Restores the most recently stashed files

Synchronize Changes

\$ git pull

Downloads bookmark history and incorporates changes Shortcut for: git fetch and git merge

Synchronize Changes

\$ git pull

Downloads bookmark history and incorporates changes Shortcut for: git fetch and git merge

\$ git push Uploads all local branch commits

Synchronize Changes

\$ git pull

Downloads bookmark history and incorporates changes Shortcut for: git fetch and git merge

\$ git push Uploads all local branch commits

\$ git merge *branch*Merges the specified branch changes into the the branch you're currently in

The five daily commands

- ▶ \$ git status
- ▶ \$ git pull
- ▶ \$ git add *file*
- \$ git commit -m "descriptive message"
- ▶ \$ git push

And please DON'T use git commit -am "message"!

Miscellaneous

\$ git checkout *hash*Use this command only to look up the state of the commit.

\$ git revert hash Use this command to revert to the hash. This implicitly creates a new commit with the state of hash you reverting to and does not change your history!

Thank You

Now you've learned yourself some GIT! Thank You!

Questions?