Learn You some GIT

Florian Willich

Quality and Usability Lab Berlin Institute of Technology

May 26, 2015

Table of Contents

GIT - What's it for

Create Repositories

Make Changes

Group Changes

Suppress Tracking

Save Fragments

Synchronize Changes

The simple five

Miscellaneous

GIT - What's it for?



This talk is on Github: https://github.com/c-bebop/git

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 simple five

- ▶ \$ 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?