

Collaborating using git

Shared Repositories

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University of Tübingen

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Goal

Write collection of useful commands that a student starting in the group will need.

Topics and teams

Basic terminal

- Andre
- Eirik

vi

- Esra
- Joe
- Michael

Working remotely

- Kyle
- Reinhold

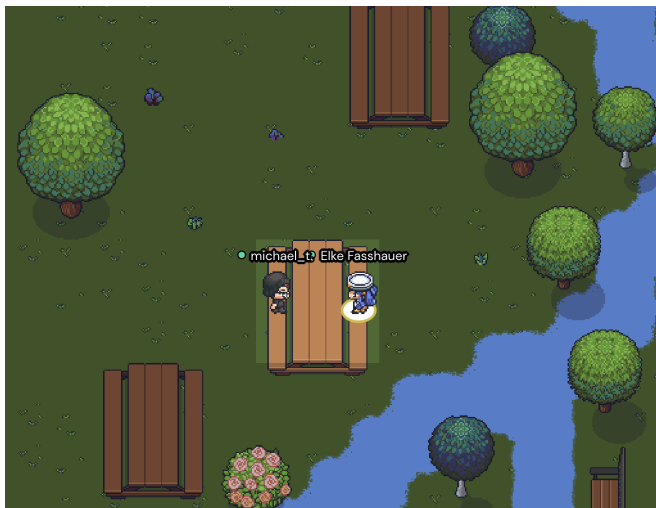
Finding information and other useful commands

- Adam
- Johannes

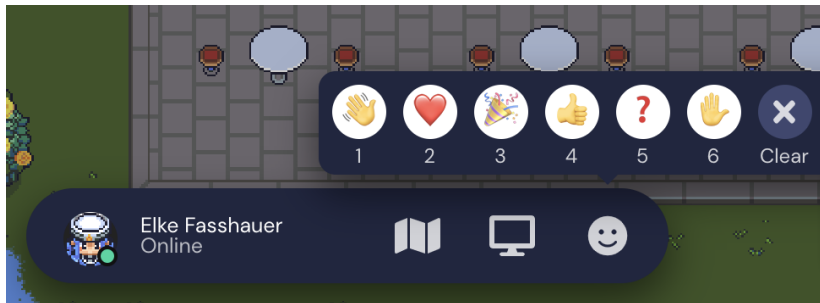
Submitting, managing jobs on clusters

- Andres
- Mats
- Stefan

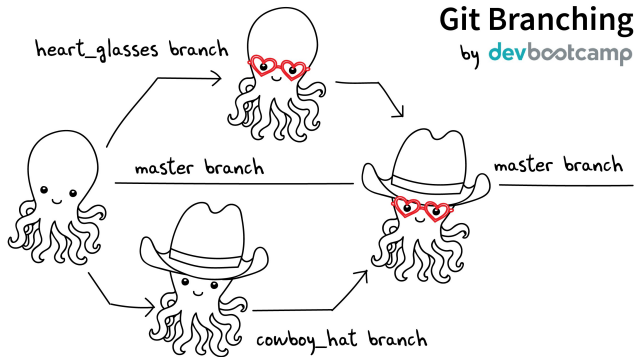
Collaborate in groups



Help?



Motivation



Coderefinery: https://twitter.com/jay_gee/status/703360688618536960

Platforms

Platforms





Platforms



GitLab


Platforms


Herunterladen




Quelldateien PDF


Aktionen


 **Projekt kopieren**

 **Wortzahl**

Sync

 **Dropbox**

 **Git**

 **GitHub**

TCM1-Vorlesun

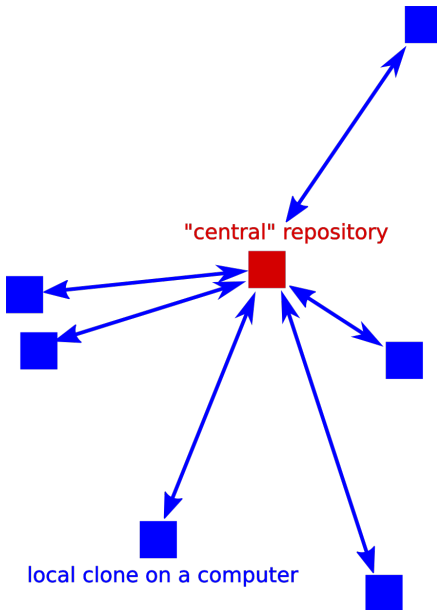
Source Rich Text Ω

```
\documentclass[fontsize=14pt]{
%usepackage{ngerman}
%usepackage{a4}
\usepackage[utf8]{inputenc}
%usepackage{graphics}
\usepackage{graphicx}
\usepackage{amsmath}
\usepackage{amsmath}
\usepackage{xcolor}
\usepackage{siunitx}
\usepackage{cancel}
\usepackage{bbold}
%usepackage{hyperref}
%hyperref{linktocpage}
%hyperref{colorlinks=true,color=blue,urlcolor=blue}

\newcommand\Ccancel[2][red]{\r
cancel{#2}}
```

Central Workflow

Central Workflow



Get the repository

```
$ git clone https://github.com/ElkeF/tc_commands.git TC_commands
```

Get the repository

Search or jump to... Pull requests Issues Marketplace Explore

ElkeF/tc_commands Public

Unwatch 1 Star 0 Fork 0

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main 5 branches 0 tags

Go to file Add file Code

ElkeF add author fields

LICENSE	Initial commit
cluster_commands.txt	add author fields
get_information.txt	add author fields
terminal_basics.txt	add author fields
vi.txt	add author fields
working_remotely.txt	add author fields

3 hours ago

Help people interested in this repository understand your project by adding a README. Add a README

Clone

HTTPS SSH GitHub CLI

[https://github.com/ElkeF/tc_commands.g](https://github.com/ElkeF/tc_commands.git)

Use Git or checkout with SVN using the web URL.

Open with GitHub Desktop

Download ZIP

About

Helpful linux commands for new students in theoretical chemistry

MIT License

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Remote branches

- remote branches are not automatically transferred
- need to create local branch that tracks remote branch

```
$ git branch -r
```

```
origin/HEAD -> origin/main  
origin/basics  
origin/cluster  
origin/main  
origin/remotely  
origin/vi_masters
```

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$ git branch basics origin/basics
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$ git branch basics origin/basics
```

Interacting with remote branches: pull, push

Branch off from remote tracking branch

```
$ git checkout basics  
$ git branch feature basics  
$ git checkout feature
```

Work, work, work on feature branch

Safely move your changes to collective remote branch

```
$ git checkout basics  
$ git pull  
$ git checkout feature  
$ git merge basics  
$ git checkout basics  
$ git merge feature  
$ git pull  
$ git push
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- occur when changes are made in the same line of the same document
- git does not know, which version to keep and asks you to resolve it

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$ cat ingredients.txt

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* 2 tbsp cilantro
=====
* 0.5 tbsp cilantro
>>>>>>> dislike-cilantro
* 2 avocados
* 1 lime
* 1 tsp salt
* 1/2 onion
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Conflict Resolution

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- TALK to the other person(s), who made the conflicting changes, and find a common solution
- choose the version, you agree on (not necessarily either of yours)
- remove the conflict identifiers
- add and commit
- then proceed with what you were up to

Best practice

- AVOID conflicts
- branch off for every single feature
- merge often
- do not merge buggy code anywhere, where it can affect somebody else's unrelated work

Exercise

- 1 create local branch tracking *your group's* remote branch
- 2 branch off
- 3 add you name to the list of main authors in your document
- 4 safely move this change to your group's remote branch using the strategy given in this document
- 5 resolve conflicts along the way
- 6 move on collectively adding content to your topic
- 7 goal: have all contributions on the remote branch until 17.50/16.50