

# Versionsverwaltung mit Git

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## Warum git?

```
objc[80911]: Class JavaLaunchHelper is implemented in both
Exception in thread "main" java.io.FileNotFoundException: /
    at java.io.FileInputStream.open0(Native Method)
    at java.io.FileInputStream.open(FileInputStream.java:195)
    at java.io.FileInputStream.<init>(FileInputStream.java:234)
    at java.io.FileInputStream.<init>(FileInputStream.java:234)
    at java.io.FileReader.<init>(FileReader.java:58)
    at explorekit.Program.main(Program.java:37)
```

Process finished with exit code 1

# Warum git?

This is pdfTeX, Version 3.14159265-2.6-1.40.17 (TeX Live 20

## Warum git?

```
This is pdfTeX, Version 3.14159265-2.6-1.40.17 (TeX Live 20
restricted \write18 enabled.
entering extended mode
(./test.latex
LaTeX2e <2016/03/31>
Babel <3.9r> and hyphenation patterns for 83 language(s) lo
! Undefined control sequence.
l.1 \hypertarget
           {gliederung}{%
?

! LaTeX Error: Missing \begin{document}.

See the LaTeX manual or LaTeX Companion for explanation.
Type H <return> for immediate help.
...
```

# Warum git?

- ▶ “Snapshots” wichtiger Zwischenergebnisse - *commits*
- ▶ Backups - *remotes*
- ▶ Fehler finden oder rückgängig machen - *checkout, diff*
- ▶ strukturierte Kollaboration

# git setup

- ▶ Basic Installation:
  - ▶ <https://git-scm.com/downloads>
  - ▶ Ubuntu: `sudo apt-get install git`
  - ▶ mac: `brew install git`
- ▶ Graphische Clients:
  - ▶ <https://desktop.github.com> (Windows/Mac)
  - ▶ <https://www.gitkraken.com/> (Windows/Mac/Linux)
- ▶ Semigraphischer Client:
  - ▶ <https://tortoisegit.org> (Windows)
- ▶ Hosting
  - ▶ **<https://github.com>**
  - ▶ <https://gitlab.com>

# git setup

```
cd  
ssh-keygen  
cat .ssh/id_rsa.pub
```

# git basics

```
git init
```

```
git status
```

```
git add # bzw. git reset
```

```
git commit -m "Did some stuff"
```

```
git log
```

```
git diff
```

```
git pull
```

```
git push
```

```
git branch
```

```
git checkout
```