

Git Basics



Syntegris Knowledge Sprint

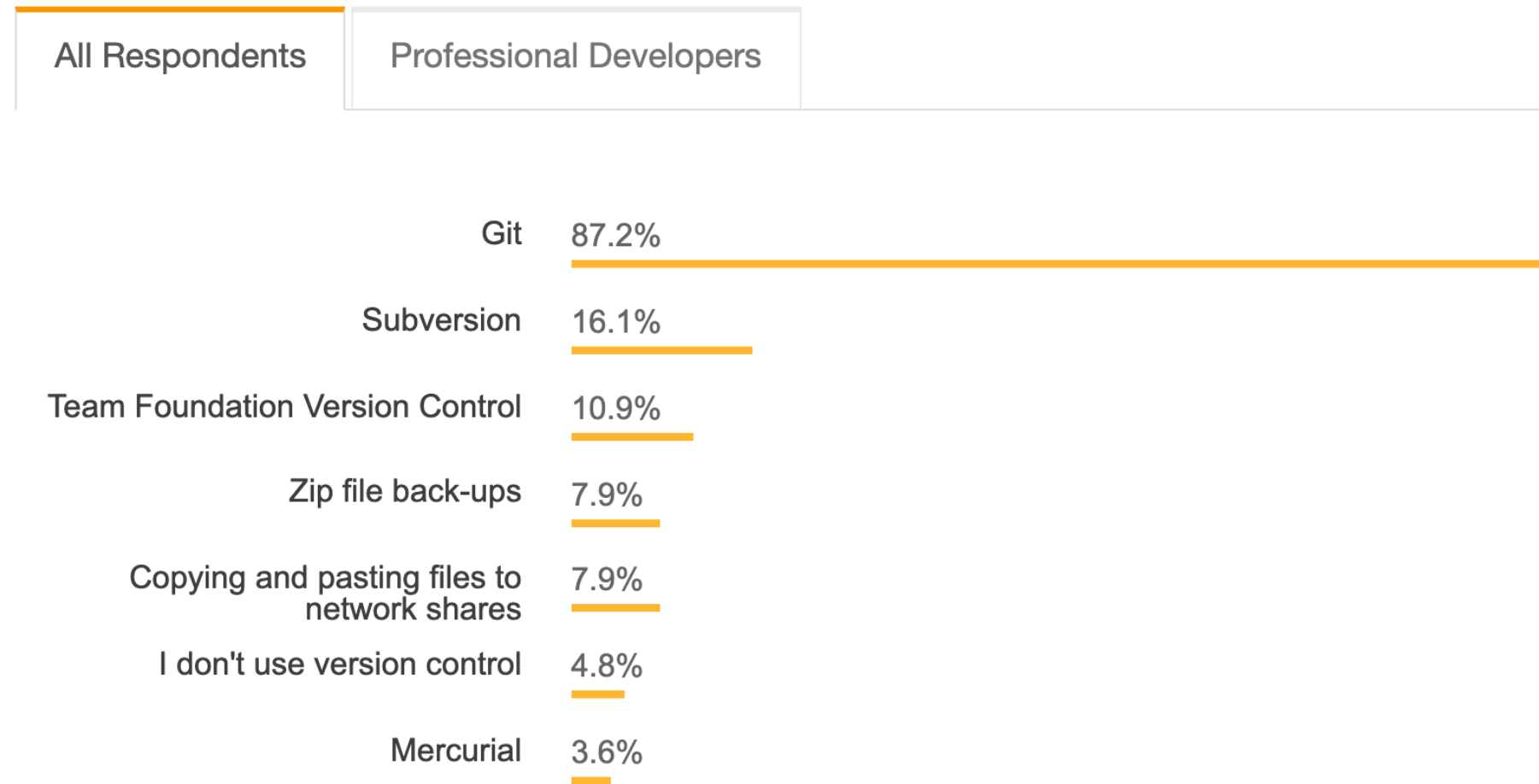
Autor: Felix Gündling

Agenda

1. Was ist Git
2. Motivation
3. Grundlagen
4. Datenmodell
5. Hosting
6. Demo

Was ist Git

Version Control



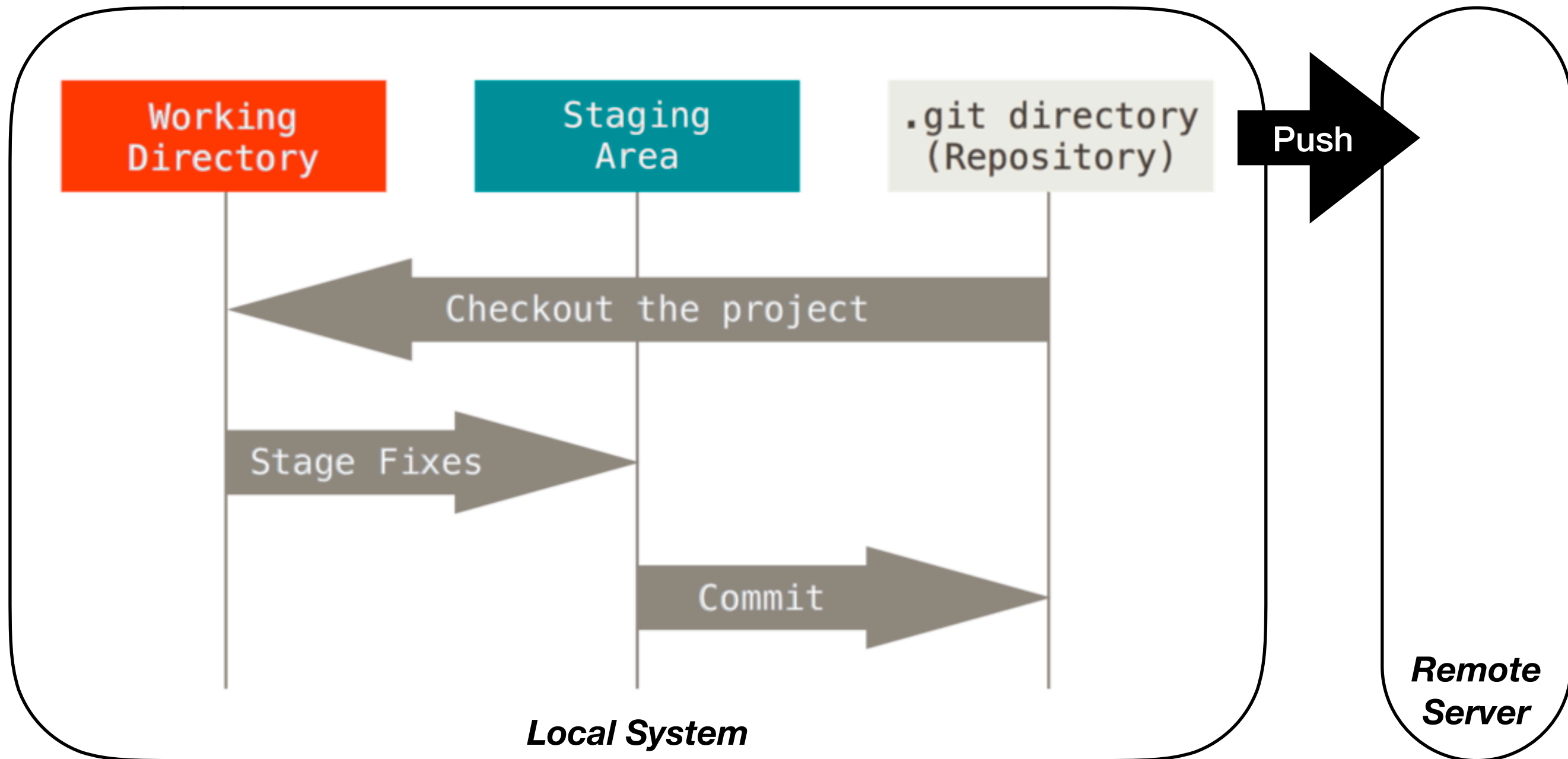
74,298 responses; select all that apply

Git is the dominant choice for version control for developers today, with almost 90% of developers checking in their code via Git.

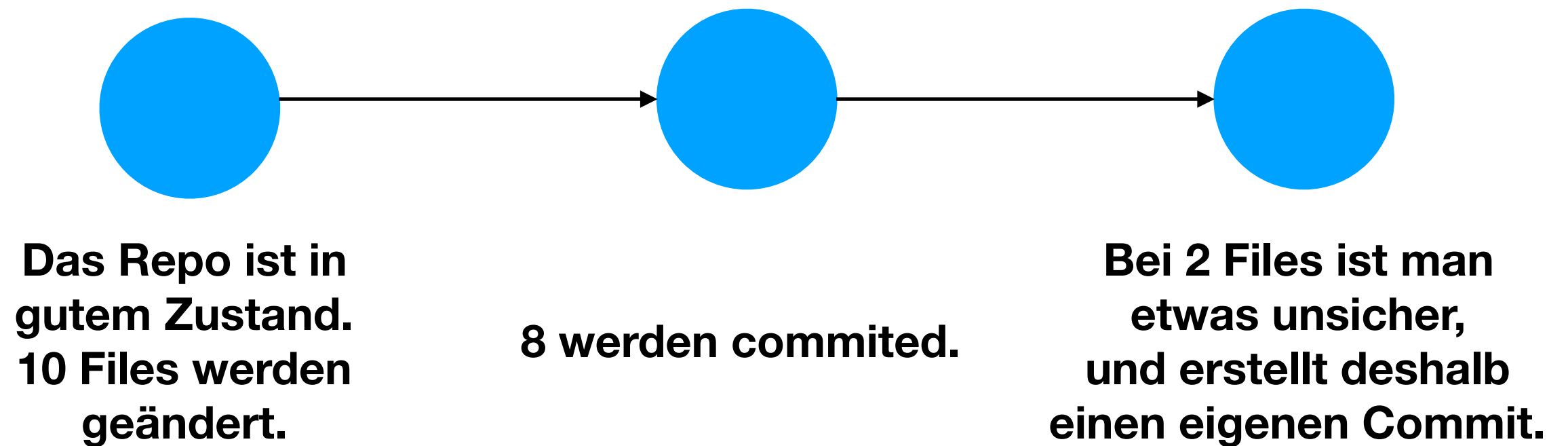
Motivation



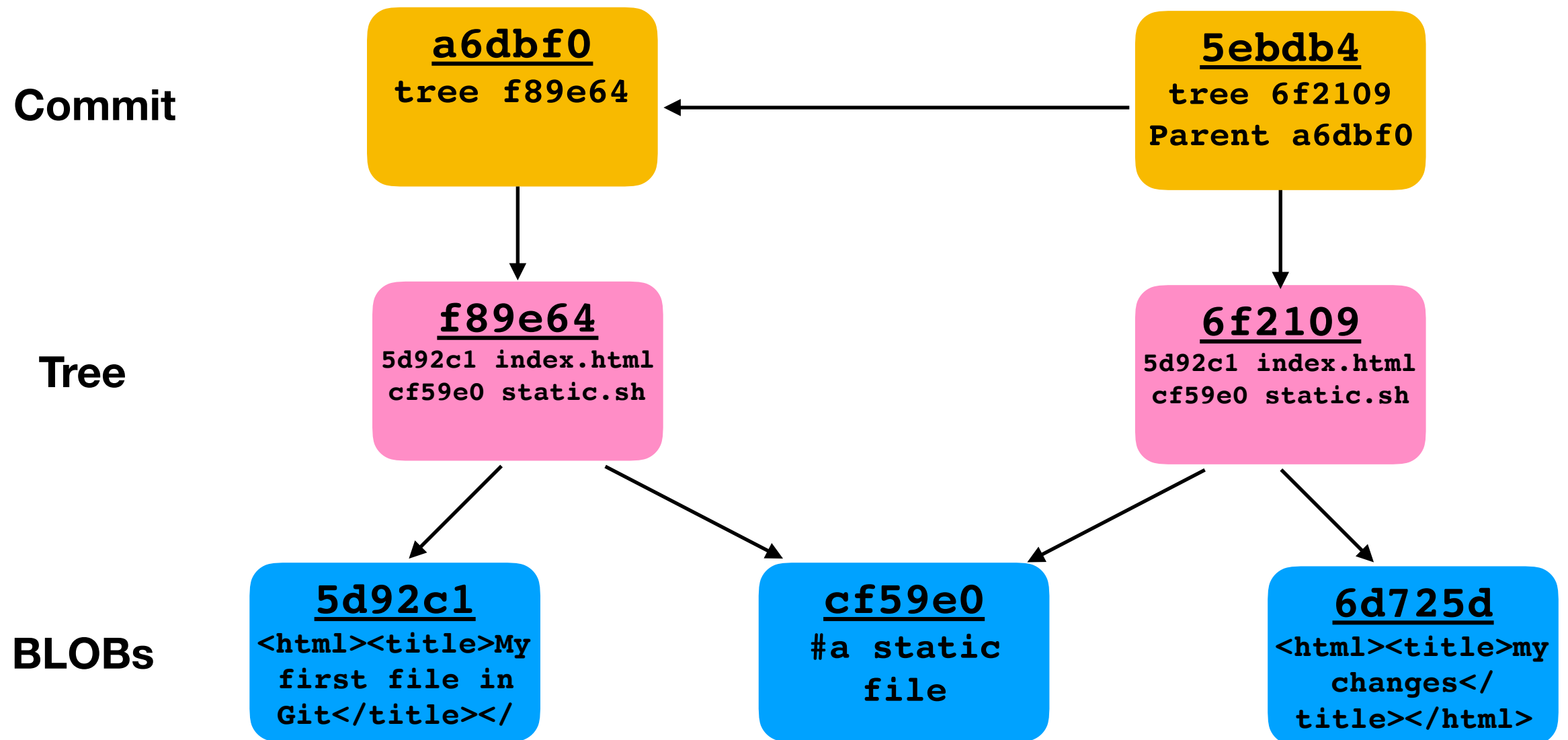
Grundlagen



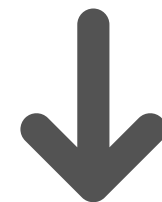
Wozu die Staging Area



Data Model



Hosting



<https://git.syntegris.de>

* Es gibt noch weitere Anbieter

Demo

Basic Setup

```
$ (git init)
```

```
$ git clone <url of repository>
```

```
$ git remote -v
```

Status

```
$ git status
```

```
$ echo 'select * from dual;' > query.sql
```

```
$ git status
```

Add & Commit

```
$ git add query.sql
```

```
$ git commit -m „commit messages are useful“
```

```
$ git commit -a -m „Überspringen des Staging,  
wenn das File schon existierte.“
```

Diff

```
$ echo "select 'another thing' from dual;" >>  
query.sql
```

```
$ git diff
```

Push & Pull

Remote Repository

Branch



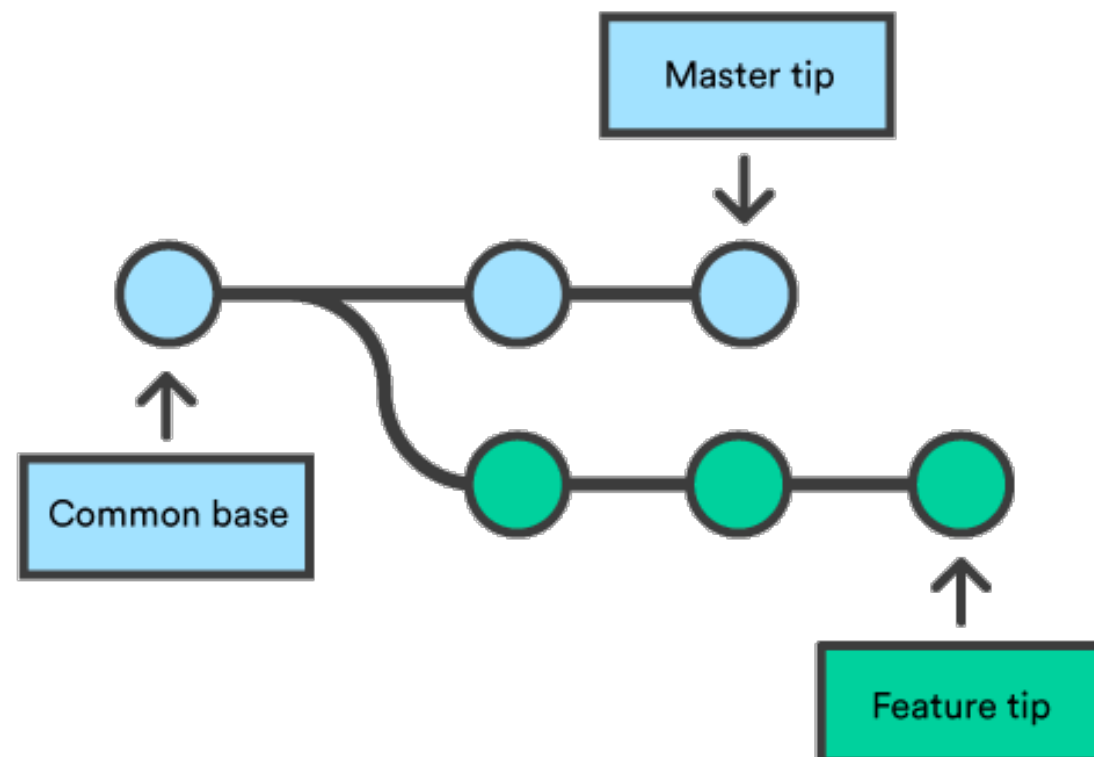
```
$ git push (origin master)
```

```
$ git pull (== git fetch + git merge origin/master)
```

Branches (=references)

```
$ git branch <new branch name>
```

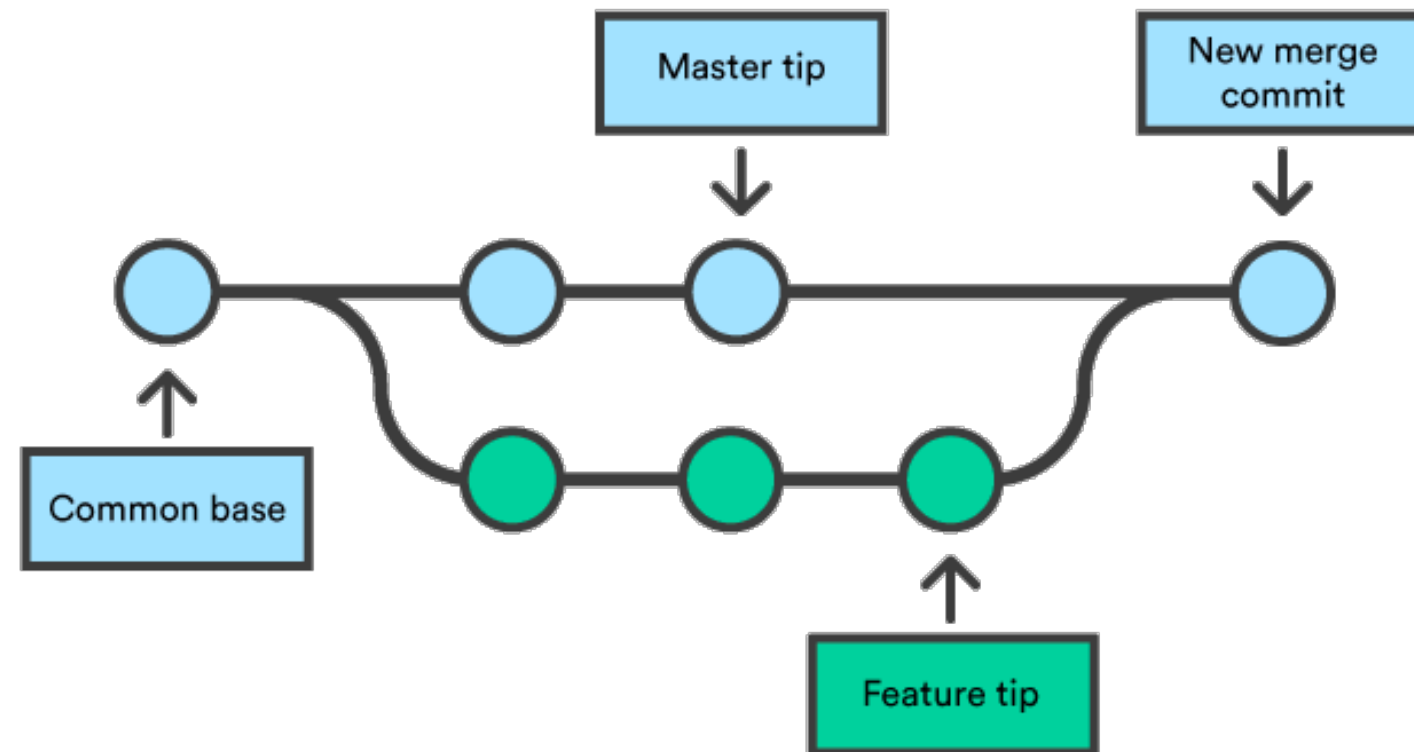
```
$ git checkout <new branch name>
```



Merge

```
$ git checkout master
```

```
$ git merge <new branch name>
```



Logs

```
$ git log
```

```
$ git log --pretty=oneline
```

```
$ git log --pretty=format:"%h - %an, %ar : %s"
```

Tags

```
$ git tag -a <tag Bezeichnung> <commit ID>
```

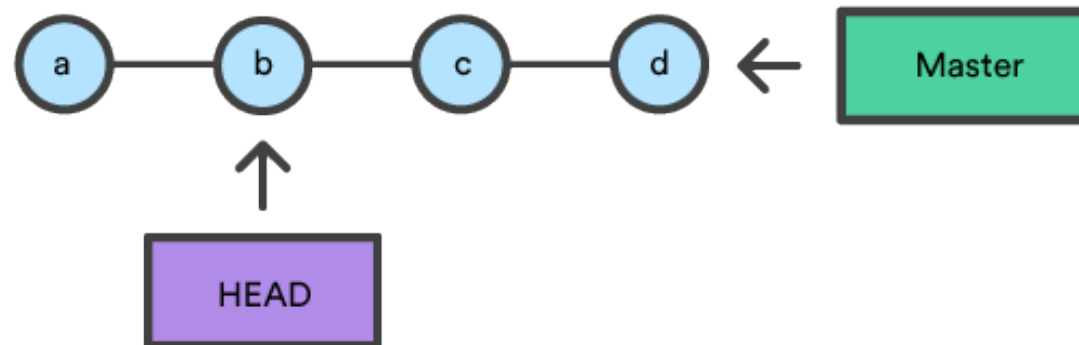
```
$ git tag
```

```
$ git show <tag id>
```

```
$ git push origin --tags
```

Time Travel 🙄

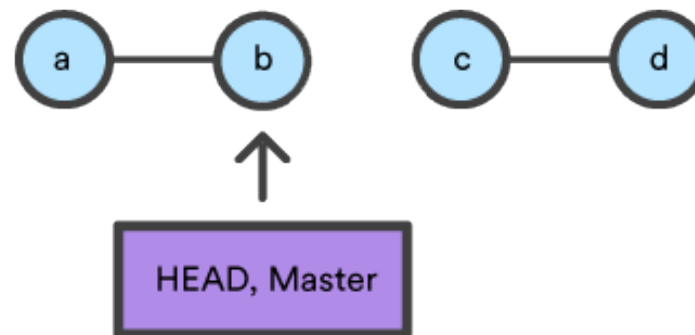
```
$ git checkout <commit id>
```



Time Travel 🙄

```
$ git reset --hard <commit id>
```

➡ (git push --force origin master)

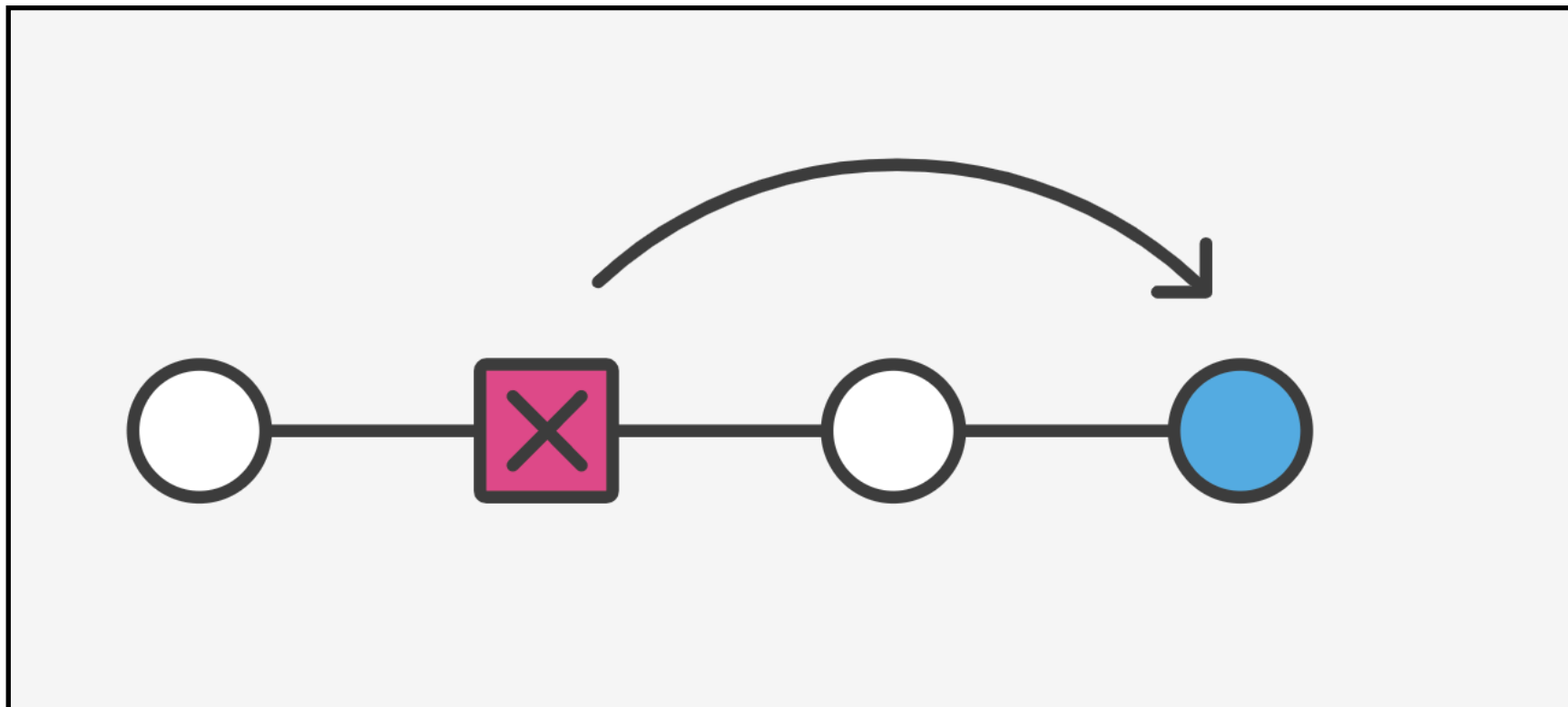




made on imgur

Time Travel 🙄

```
$ git revert HEAD
```



Erwähnenswerte Konzepte

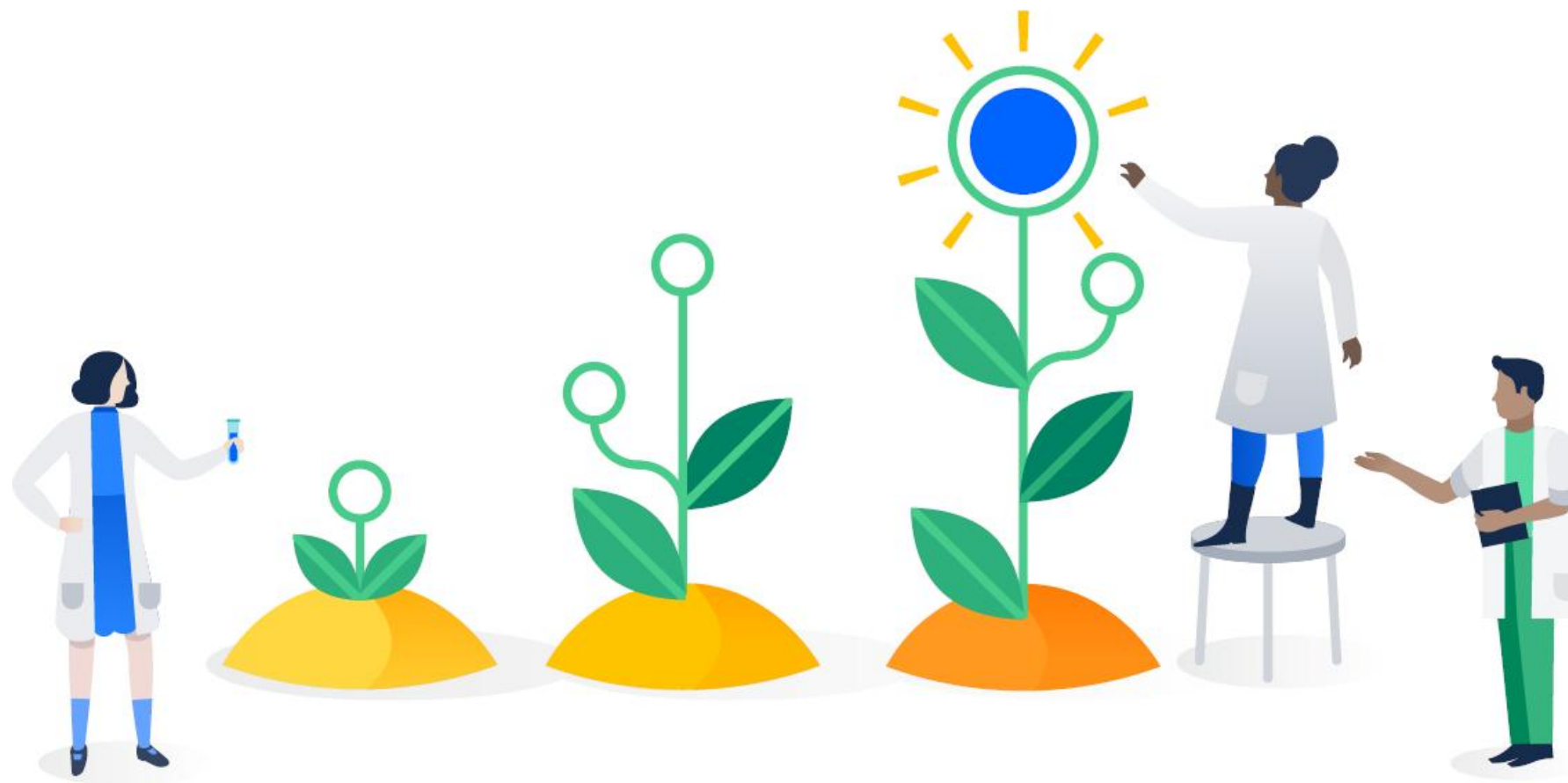
\$.gitignore

\$ git help <command>

\$ HEAD

\$ stash, rebase, and the list goes on

Questions & Answers



Literatur/ Links

- <https://git-scm.com/book/en/v2>
- <https://de.atlassian.com/git/tutorials>
- <http://think-like-a-git.net>
- <https://riedmann.dev/2019/06/02/GitGud.html>
- <https://tomayko.com/blog/2008/the-thing-about-git>
- <https://nfarina.com/post/9868516270/git-is-simpler>
- <https://hackernoon.com/understanding-git-fcffd87c15a3>
- <http://perl.plover.com/yak/git/>
- ...