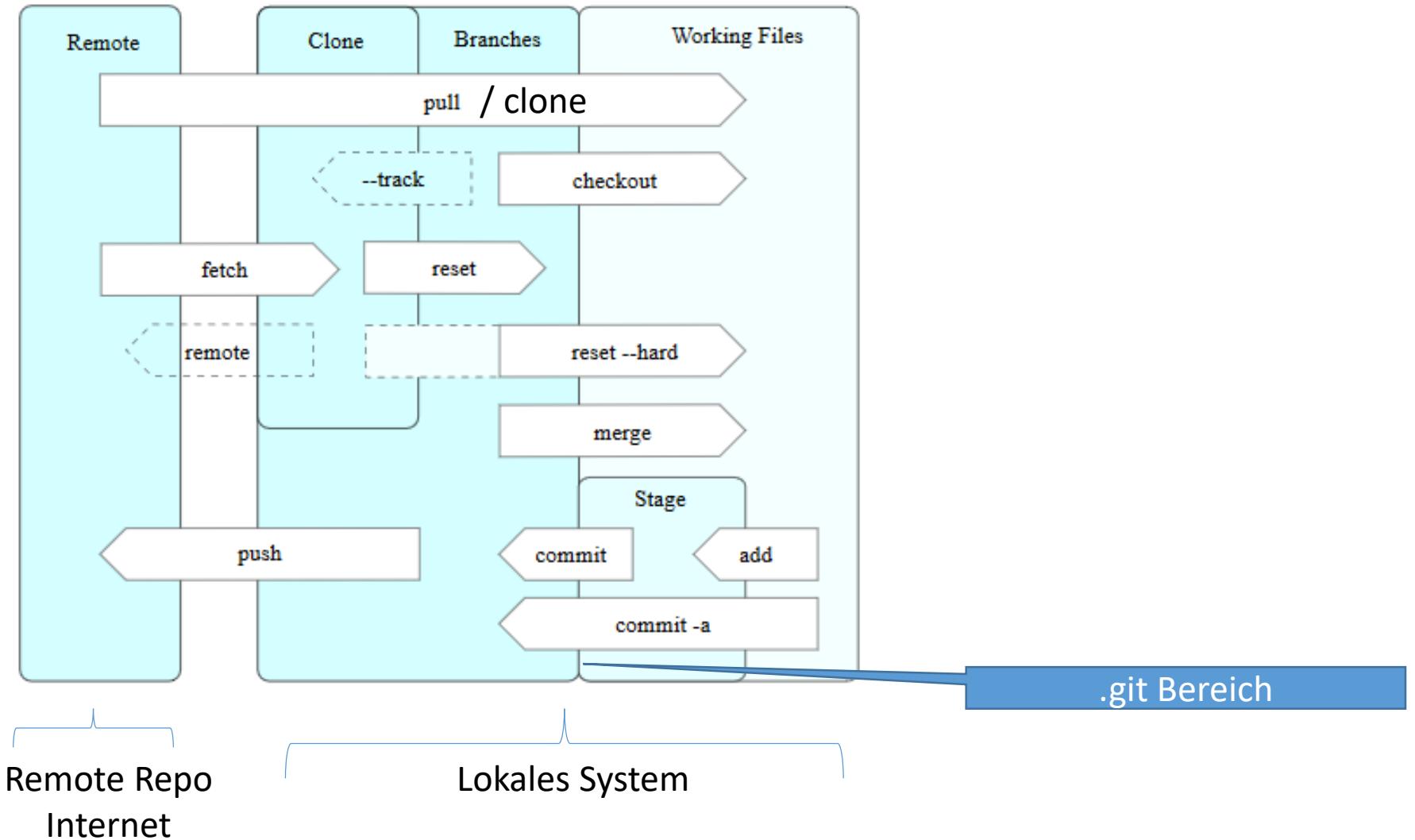


(Software-) Versionsverwaltung mit git, GitHub und PyCharm

Versionsverwaltung

- Verwaltung von Textdokumenten (z.B. Software)
 - Nachvollziehbarkeit von Änderungen
 - Versionierung
 - Zusammenarbeit von vielen Projektpartnern
 - Möglichkeit von Entwicklungszweigen (z.B. feature) - Branches
 - Offlinefähigkeit
-
- GIT - der zweite geniale Wurf von Linus Torvalds (2005)
<https://de.wikipedia.org/wiki/Git>

GIT – Datenbestände und Abläufe



GitHub – Account und Repository anlegen

<https://github.com>

The screenshot shows the GitHub sign-up page on the left and the repository creation interface on the right, separated by a vertical line.

Sign-up Form (Left):

- Username:** Input field.
- Email:** Input field.
- Password:** Input field.
- Text:** "Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter. [Learn more](#)".
- Sign up for GitHub:** Large green button.

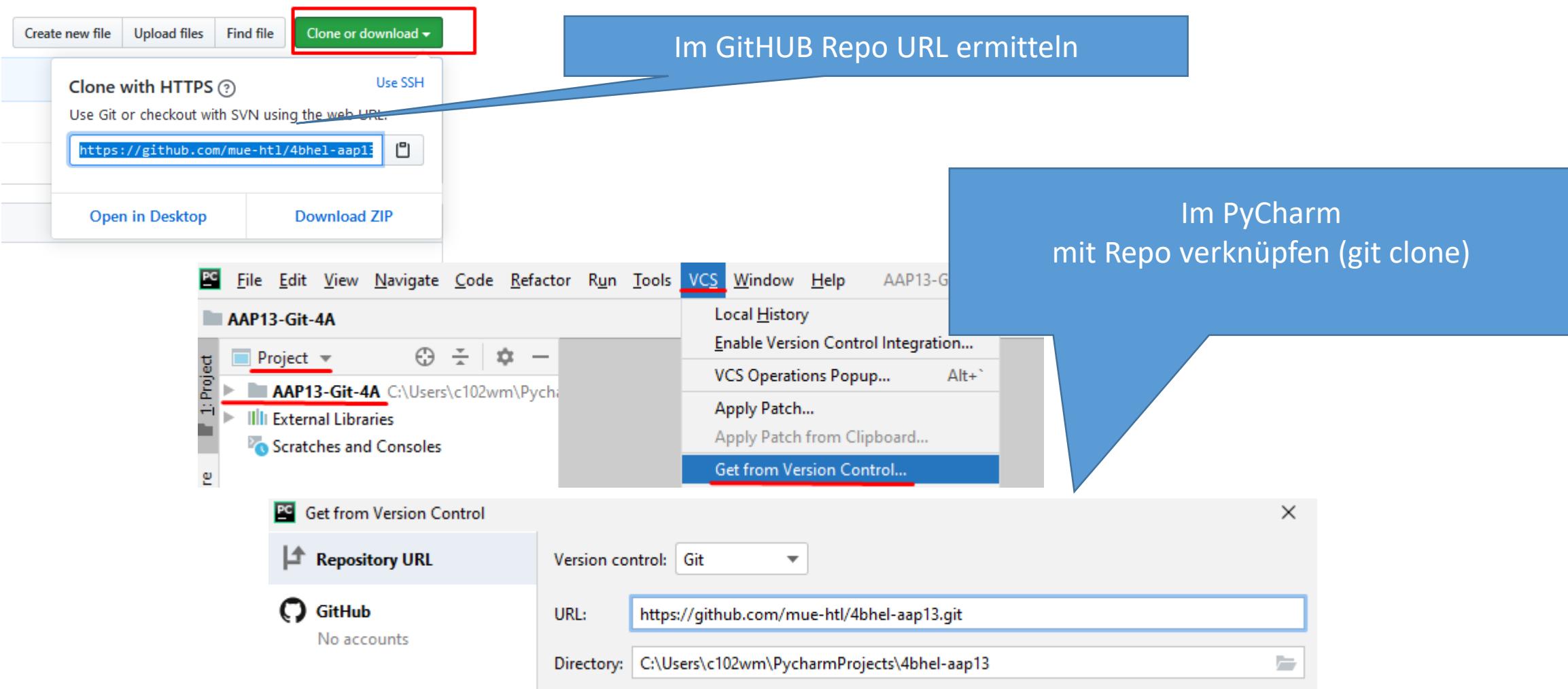
Repository Creation Form (Right):

- Create a new repository:** Section title.
- Owner:** dropdown set to "mue-htl".
- Repository name ***: input field containing "4bhel-aap13" with a green checkmark icon.
- Description (optional):** input field containing "Demo Repository".
- Visibility:** Radio buttons for "Public" (selected) and "Private".
- Notes:** "Great repository names are short and memorable. Need inspiration? How about [friendly-lamp](#)?"
- Skip this step if you're importing an existing repository.**
- Initialize this repository with a README:** checked checkbox. Subtext: "This will let you immediately clone the repository to your computer."
- Additional Options:** "Add .gitignore: Python" dropdown, "Add a license: None" dropdown, and an info icon.
- Create repository:** Large green button.

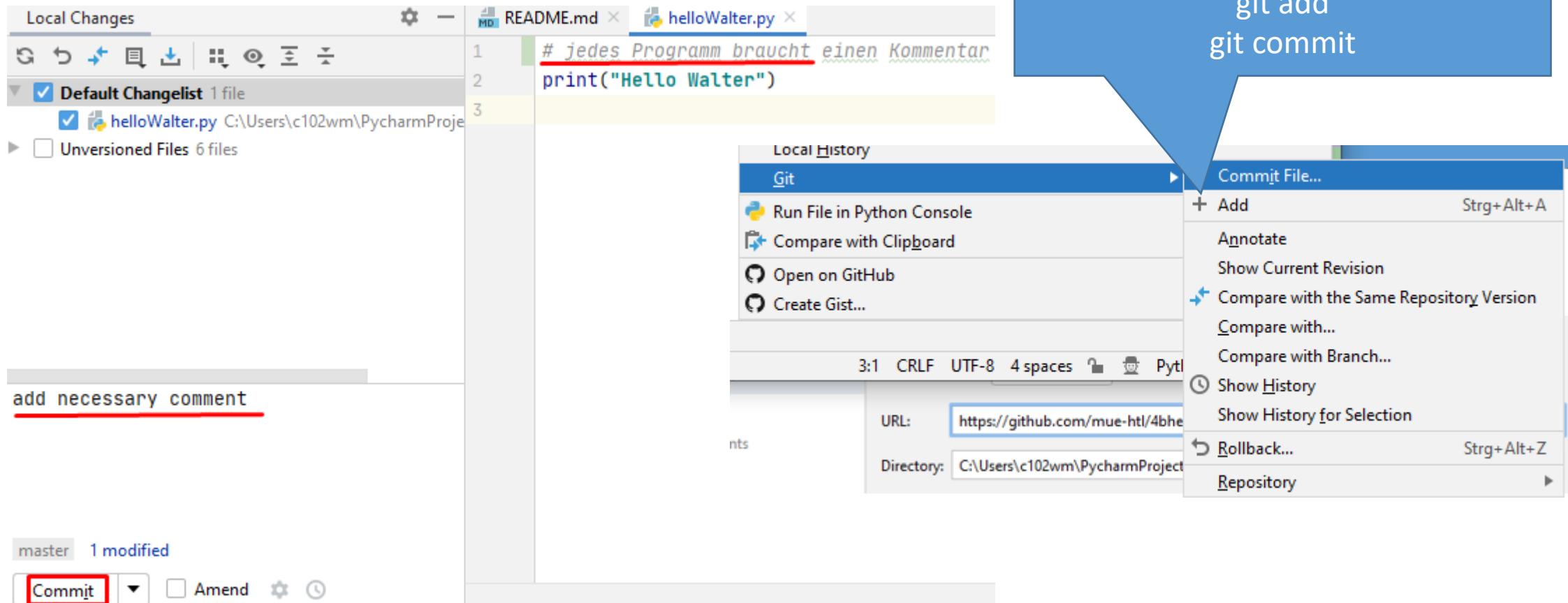
Footer (Bottom Left):

By clicking "Sign up for GitHub", you agree to our [Terms of Service](#) and [Privacy Statement](#). We'll occasionally send you account related emails.

GitHub und PyCharm

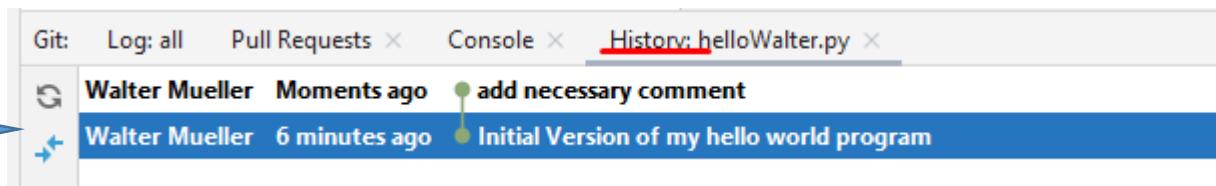


git add / git commit

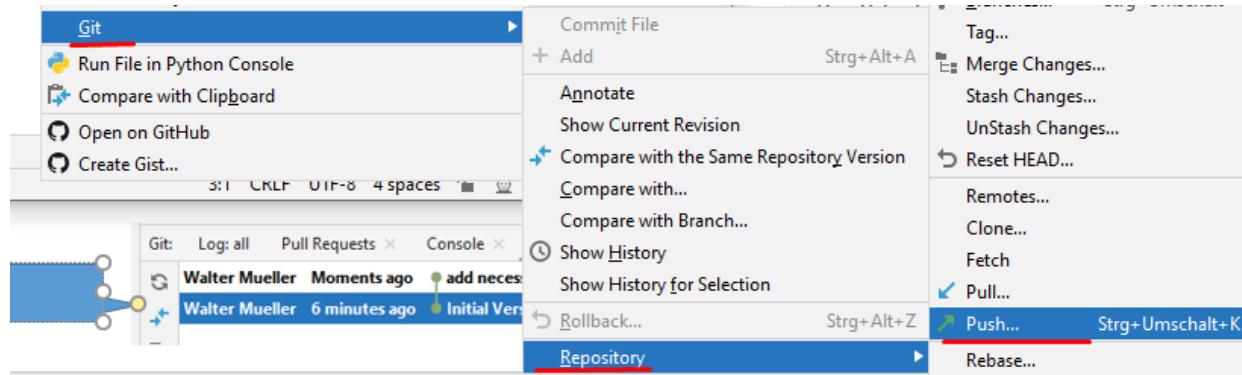


git add
git commit

Git / Show History



git push – mit/zum remote repository abgleichen



Anmeldung mit github User + Passwort
PUSH

Änderungen im Web verfügbar

A screenshot of a GitHub repository page titled 'Demo Repository'. The page shows basic repository statistics: 3 commits, 1 branch, 0 packages, 0 releases, and 1 contributor. Below this, there is a summary bar with buttons for 'Branch: master', 'New pull request', 'Create new file', 'Upload files', 'Find file', and 'Clone or download'. The main area displays the commit history:

| Commit | Message | Time |
|----------------|-----------------------|-------------------------------------|
| muller-w-htl | add necessary comment | Latest commit fe98e3b 9 minutes ago |
| .gitignore | Initial commit | 33 minutes ago |
| README.md | Initial commit | 33 minutes ago |
| helloWalter.py | add necessary comment | 9 minutes ago |

GIT im Dateisystem

| Name | Änderungsdatum | Typ | Größe |
|----------------|------------------|-------------|-------|
| hooks | 04.06.2020 18:24 | Dateiordner | |
| info | 04.06.2020 18:24 | Dateiordner | |
| logs | 04.06.2020 18:24 | Dateiordner | |
| objects | 04.06.2020 18:53 | Dateiordner | |
| refs | 04.06.2020 18:24 | Dateiordner | |
| COMMIT_EDITMSG | 04.06.2020 18:34 | Datei | 1 KB |
| config | 04.06.2020 18:24 | Datei | 1 KB |
| description | 04.06.2020 18:24 | Datei | 1 KB |
| FETCH_HEAD | 04.06.2020 18:53 | Datei | 1 KB |
| HEAD | 04.06.2020 18:24 | Datei | 1 KB |
| index | 04.06.2020 18:53 | Datei | 1 KB |
| ORIG_HEAD | 04.06.2020 18:53 | Datei | 1 KB |
| packed-refs | 04.06.2020 18:24 | Datei | 1 KB |

Unter .git

Content unter hash abgelegt

| Name | Änderungsdatum | Typ | Größe |
|--|------------------|-------|-------|
| 75dd696bb78792e2c99b613e5ae715a0463e59 | 04.06.2020 18:27 | Datei | 1 KB |

Git for Windows - git in der shell

| | | |
|----------------|------------------|----------------------|
| .git | 04.06.2020 19:20 | Dateiordner |
| .idea | 04.06.2020 19:02 | Dateiordner |
| .gitignore | 04.06.2020 19:20 | Textdokument 2 KB |
| helloWalter.py | 04.06.2020 18:53 | PY-Datei 1 KB |
| README.md | 04.06.2020 18:24 | MD-Datei 1 KB |

```
MINGW64:/c/Users/c102wm/PycharmProjects/4bhel-aap13
c102wm@c102-mwa2 MINGW64 ~/PycharmProjects/4bhel-aap13 (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
    (use "git restore <file>..." to discard changes in working directory)
      modified:   .gitignore

no changes added to commit (use "git add" and/or "git commit -a")

c102wm@c102-mwa2 MINGW64 ~/PycharmProjects/4bhel-aap13 (master)
$ git commit -a -m "ignore pycharm config files in .idea"
[master 0eaa4a4] ignore pycharm config files in .idea
 1 file changed, 3 insertions(+)

c102wm@c102-mwa2 MINGW64 ~/PycharmProjects/4bhel-aap13 (master)
$ git push
```

Git for Windows:
<https://git-scm.com/download/win>

rechte Maustaste/
Git bash here

repository an neue Stelle clonen

- PyCharm / VCS / Git / Clone
in neuen Pfad
- Dort Änderungen machen,
dann:
git commit, push
- Im ursprünglichen Projekt
Änderungen vom remote
Repo nachziehen
git pull

anderen Zugriff auf Projekt im GitHub geben

The screenshot shows a GitHub repository page for the user 'mue-htl' with the repository name '4bhel-aap13'. The top navigation bar includes links for Code, Issues (0), Pull requests (0), Actions, Projects (0), Wiki, Security (0), Insights, and Settings. The 'Settings' link is highlighted with a red box. On the left, a sidebar menu lists Options, Manage access (which is underlined and highlighted with a red box), Branches, Webhooks, and Notifications. The main content area features a section titled 'Who has access' with two options: 'PUBLIC REPOSITORY' and 'DIRECT ACCESS'. The 'DIRECT ACCESS' section indicates that 0 collaborators have access, noting that only the user can contribute. A red box highlights the 'Manage' link under 'DIRECT ACCESS'.

mue-htl / 4bhel-aap13

Unwatch 1 | Star 0 | Fork 0

Code Issues 0 Pull requests 0 Actions Projects 0 Wiki Security 0 Insights Settings

Manage access

Options

Branches

Webhooks

Notifications

PUBLIC REPOSITORY

This repository is public and visible to anyone.

Manage

DIRECT ACCESS

0 collaborators have access to this repository. Only you can contribute to this repository.

Git

- Git Branches
 - Entwicklungszweige für noch nicht akzeptierte Änderungen
- Git Merges
 - Integrieren von Branches in den Entwicklungsbaum