

DevOps 2TIN Recap



**DE HOGESCHOOL
MET HET NETWERK**

Elfde-Liniestraat 24, 3500 Hasselt, www.pxl.be

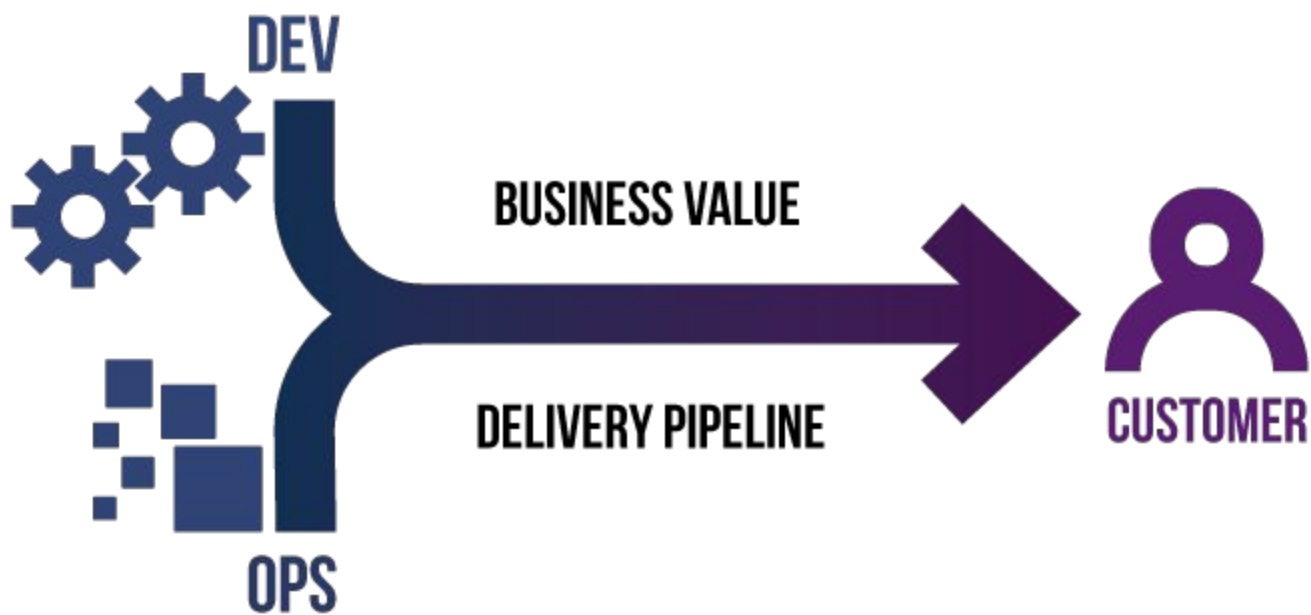
Recap



- 3 ways

THE FIRST WAY

CREATE A DELIVERY SYSTEM



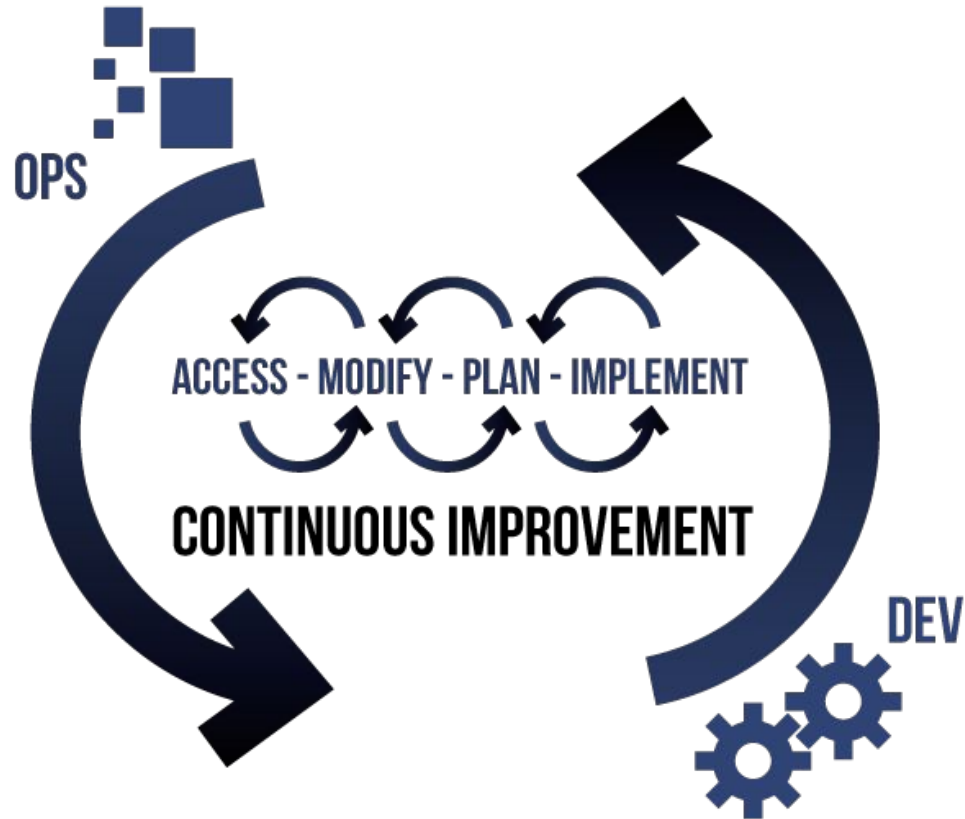
THE SECOND WAY

AMPLIFY FEEDBACK LOOPS



THE THIRD WAY

LEARN & EXPERIMENT CONTINUOUSLY



DevOps 2TIN

Chapter 3

Source control



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Source control

*Recap & general use
Git & Github
Branching
Github flow
Pull requests*

Waarom source control

- single source of truth (belangrijk binnen flow!)



Waarom source control

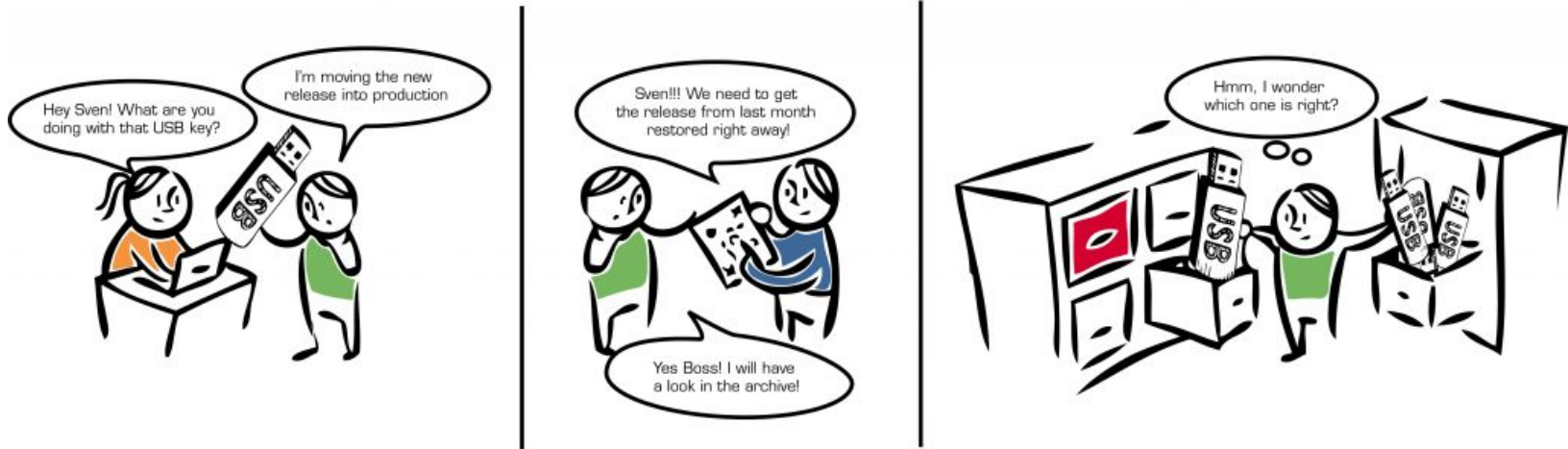
- Samenwerken als team aan dezelfde code



Waarom source control

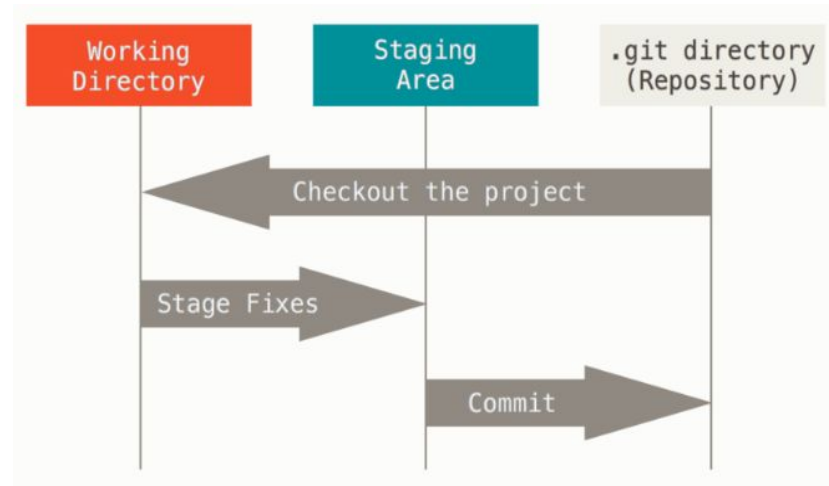


- Feedback over nieuwe releases van de code

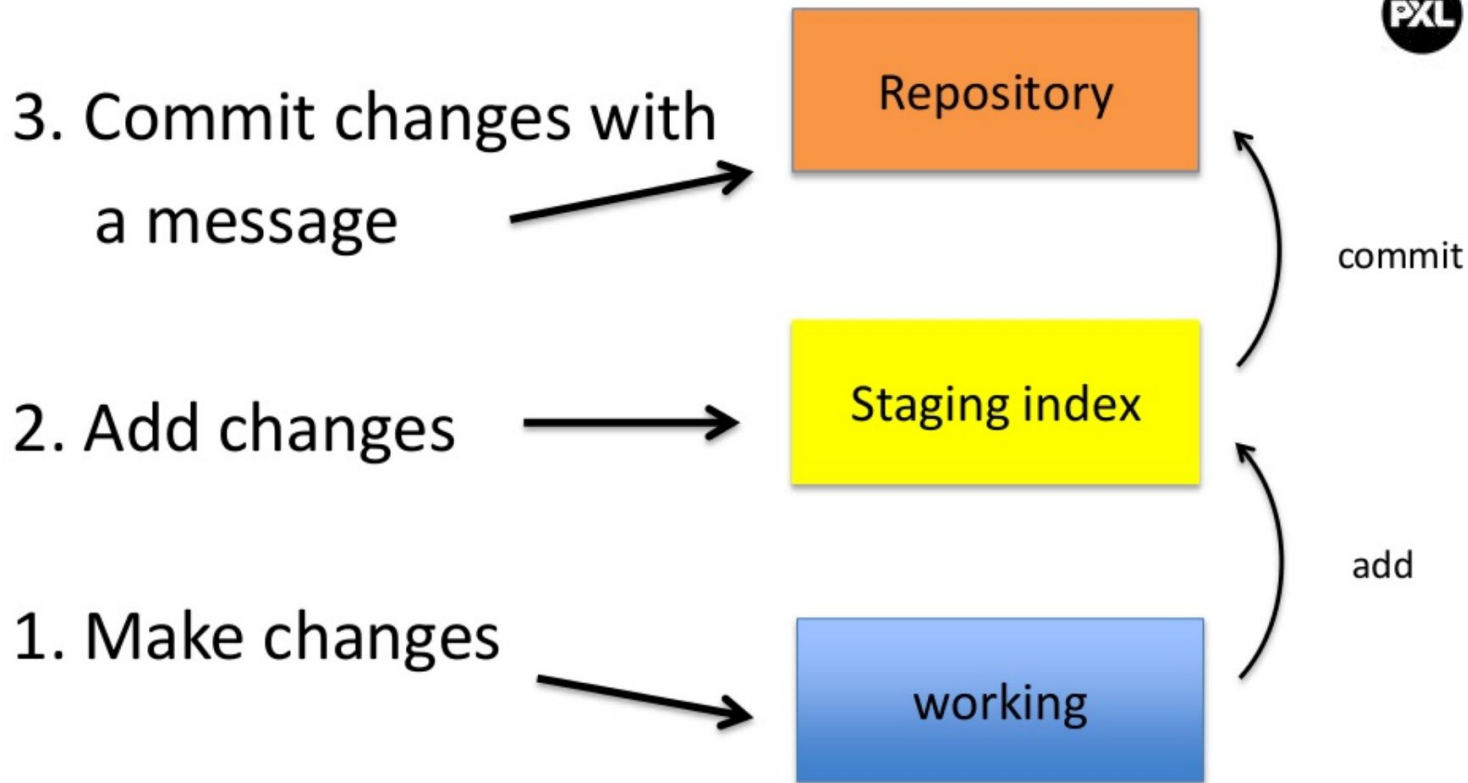


Recap & general use

- Source control
- Waar voorzien:
 - Software code
 - Infrastructure as code
 - (tekst)documenten
 - ...
- Git, SVN, TFS, ...
 - ...



Recap & algemeen gebruik



Recap & algemeen gebruik



- Commit messages
 - geeft **feedback** over wijzigingen
 - Duidelijke **flow** in aanpassingen code
 - <https://chris.beams.io/posts/git-commit/>
- Multi line commits
 - <https://git-scm.com/book/en/v2/Customizing-Git-Git-Configuration>

Subject line (try to keep under 50 characters)

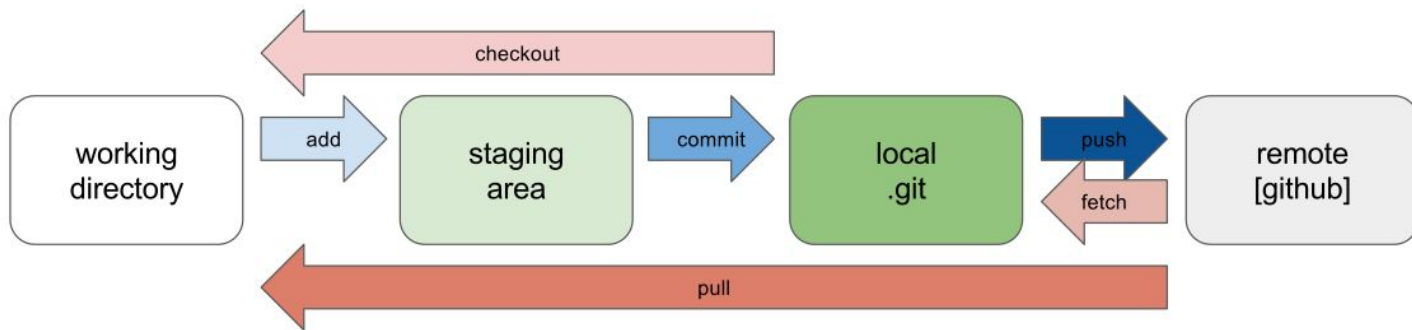
Multi-line description of commit,
feel free to be detailed.

[Ticket: X]

Recap & algemeen gebruik



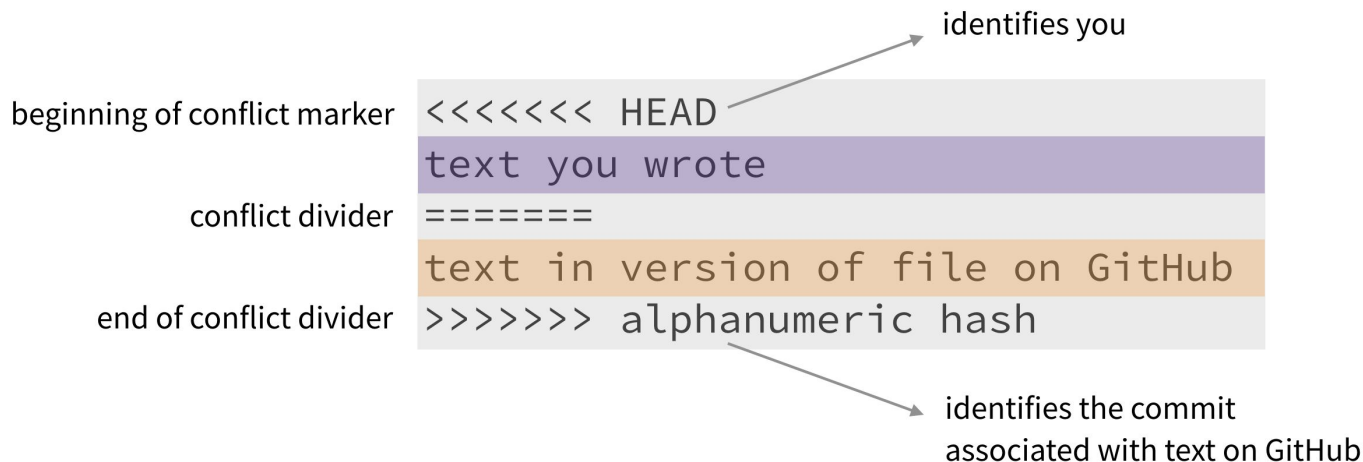
- Pushing code to a remote, central location



Recap & algemeen gebruik



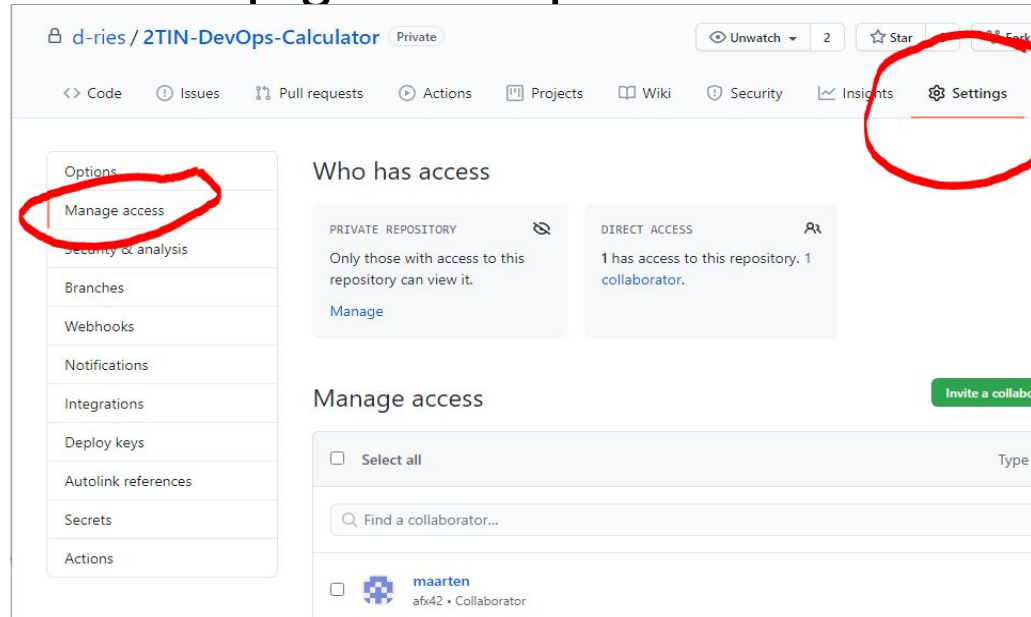
- Merge conflicts
 - Changes on the same line
 - Changes in a deleted file



Github - Collaboration & permissions



- Samenwerken op github repositories



<https://app.pluralsight.com/course-player?clipId=7587de8c-55c1-4595-b219-b6ce687e41dc>

Branching strategie

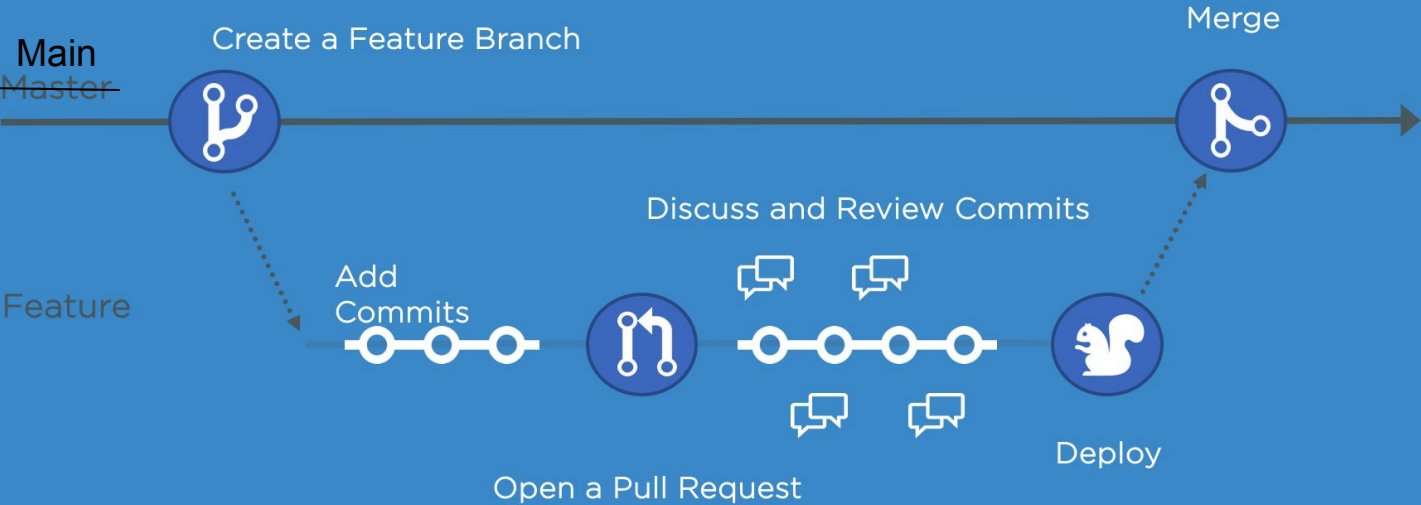


- Strategie voor het (samen)werken met versiebeheer
 - Verschillende varianten
- Aftakkingen van de ~~master~~ main branch tijdens het ontwikkelen
- Duidelijke **Flow** doorheen het ontwikkelproces

<https://guides.github.com/introduction/flow/>

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Github Flow



Github flow - Pull requests

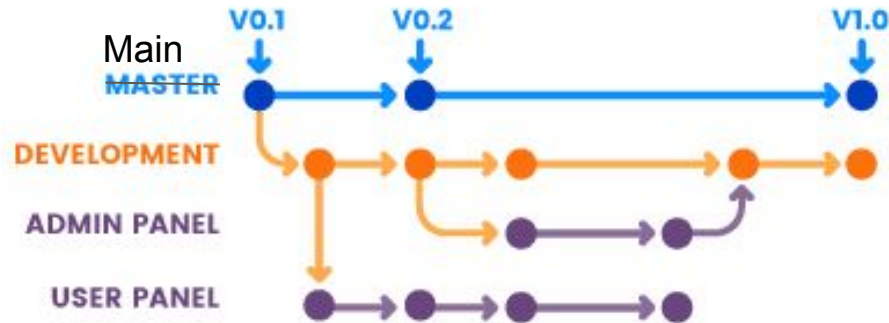


1. Een developer maakt een feature in een aparte branch in zijn lokale repo
2. De developer pusht de branch naar de centrale repository op Github
3. De developer start een pull request via Github
4. De rest van het team evalueert de code, geeft feedback, past aan, ...
5. De verantwoordelijke van de repository merged de wijzigingen naar de main branch en sluit de pull request

Github Flow - Branching



- Branches zijn aftakkingen
 - default branch = main / development branch

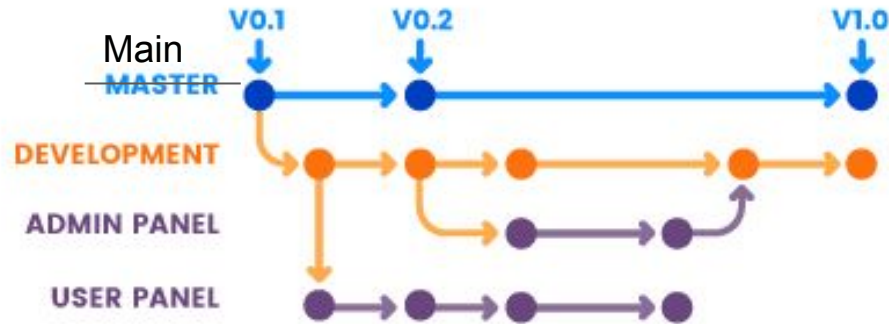


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Github Flow - Branching



- Main branch = releases
- Development branch =



<https://www.atlassian.com/git/tutorials/using-branches>

Github Flow - Branching



- Branches maken

```
$ git branch nieuwe-branch
```

Of

```
$ git checkout -b nieuwe-branch
```

<https://www.atlassian.com/git/tutorials/using-branches>

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Github Flow - Branching



- Branches gebruiken
 - bestanden in working dir worden overschreven

```
$ git checkout branch-naam
```

- Branches bekijken

```
$ git branch -a
```

<https://www.atlassian.com/git/tutorials/using-branches/git-checkout>

Github Flow - Branching



- Branches pushen naar github

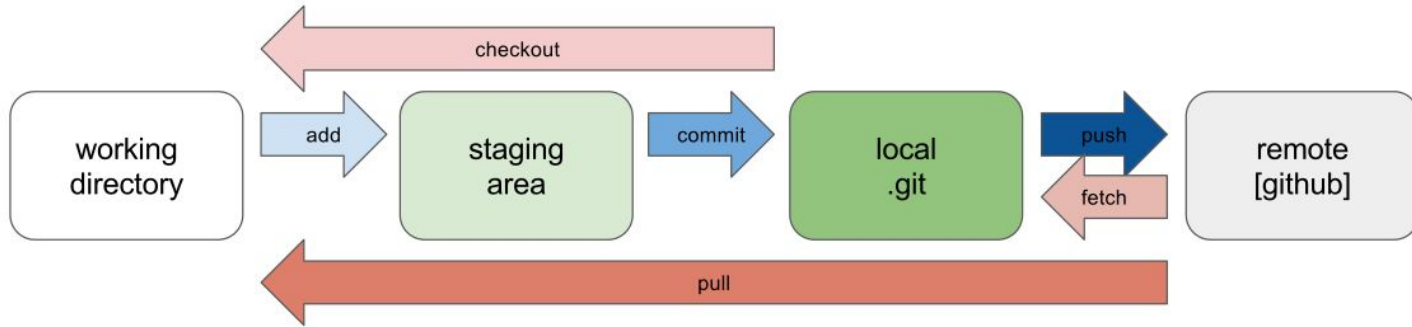
```
$ git push origin nieuwe-branch
```

- Branches pullen van github

```
$ git fetch --all
```

<https://www.atlassian.com/git/tutorials/using-branches/git-checkout>

Github Flow - Branching



<https://www.atlassian.com/git/tutorials/using-branches/git-checkout>

Github Flow - Branching



- Merging a branch
 - make sure you are on the main branch

```
$ git merge nieuwfeature
```

- Deleting branches

```
$ git branch -d nieuwfeature
```

Gebruik pull requests om een merge te doen!

<https://www.atlassian.com/git/tutorials/using-branches/git-merge>

Github flow - Pull requests



- Signaal geven dat code klaar is voor merge
- Waarom pull requests?
 - Evaluatie van code voor het mergen
 - Communicatie tussen developers, feedback voorzien
- Inhoud pull request:
 - comments, omschrijving, tag collega's, ...

<https://app.pluralsight.com/course-player?clipId=a486511a-b79e-48e9-8b4f-12b7e2ebd352>

<https://www.atlassian.com/git/tutorials/making-a-pull-request>

Github flow - Pull requests



d-ries / jenkins-test Private

Unwatch ▾

<> Code

! Issues

Pull requests

▶ Actions

Projects

Wiki

Security

awesome-feature had recent pushes less than a minute ago

Compare & pull request

awesome-feature ▾

Go to file

Add file ▾

Code ▾

This branch is 1 commit ahead of master.

Pull request

Compare

d-ries update dockerfile with whitespace ... now 21

src	test	6 months ago
Dockerfile	update dockerfile with whitespace	now
Jenkinsfile	test	6 months ago



Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also [compare across forks](#).



base: master ▾



compare: awesome-feature ▾

✓ **Able to merge.** These branches can be automatically merged.



update dockerfile with whitespace

Write

Preview

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Description

Please include a summary of the change and which issue is fixed. Please also include relevant motivation and context. List any dependencies that are required for this change.

Fixes # (issue)

Type of change

Please delete options that are not relevant.

- [] Bug fix (non-breaking change which fixes an issue)
- [] New feature (non-breaking change which adds functionality)
- [] Breaking change (fix or feature that would cause existing functionality to not work as expected)

How Has This Been Tested?

Attach files by dragging & dropping, selecting or pasting them.



Create pull request

Reviewers



No reviews

Assignees



No one—assign yourself

Labels



None yet

Projects



None yet

Milestone



No milestone

Linked issues



Use [Closing keywords](#) in the description to automatically close issues

Github flow - Pull requests



- Pull request templates
 - maak file `pull_request_template.md` aan in je root directory van de repository
 - Markdown syntax (md)

<https://app.pluralsight.com/course-player?clipId=5bf0cb6a-3483-4f44-8b16-ee66a5a41acf>

Github flow - Pull requests



- Commenting & giving feedback on pull requests

The screenshot shows a GitHub pull request titled "update dockerfile with whitespace #1". The interface includes a navigation bar with tabs for Code, Issues, Pull requests (1), Actions, Projects, Wiki, Security, Insights, and Settings. Below the title, there are buttons for "Edit" and "Open with". A green "Open" button is also visible. The pull request is from "d-ries" and wants to merge 1 commit into "master" from "awesome-feature".

Below the pull request details, there are tabs for Conversation (0), Commits (1), Checks (0), and Files changed (1). A comment by "d-ries" is shown, stating "Deze pull request voorziet aanpassingen aan de dockerfile zodat er op het einde een whitespace staat." and "@d-ries: Klopt het dat die daar moet staan?". The comment also mentions "Fixes # 123".

The pull request details on the right side include:

- Reviewers: No reviews
- Assignees: No one—assign yourself
- Labels: enhancement
- Projects: None yet
- Milestone: No milestone

Github flow - Pull requests



- Merging pull requests
 - Approval van meerdere teamleden?
 - Merge conflicts?



This branch has no conflicts with the base branch

Merging can be performed automatically.

Merge pull request



You can also [open this in GitHub Desktop](#) or view [command line instructions](#).

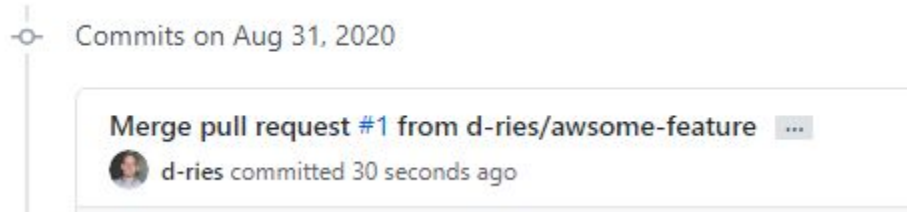


Pull request successfully merged and closed

You're all set—the `awesome-feature` branch can be safely deleted.

Delete branch

Github flow - Pull requests





Assignments

Introductieopdracht
Source control