

DevOps 2TIN

Chapter 10

Integratieoefening



**DE HOGESCHOOL
MET HET NETWERK**

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Integratieoefening

Recap
Github actions
Heroku

Recap



Jenkins is the Hub of the CD/DevOps Ecosystem

Over
1000 Jenkins
Plugins



Integration
with over 100
DevOps Tools



Orchestration
of the DevOps
Toolchain



End-to-End
CD Pipeline
Management

Code & Commit

Build & Config

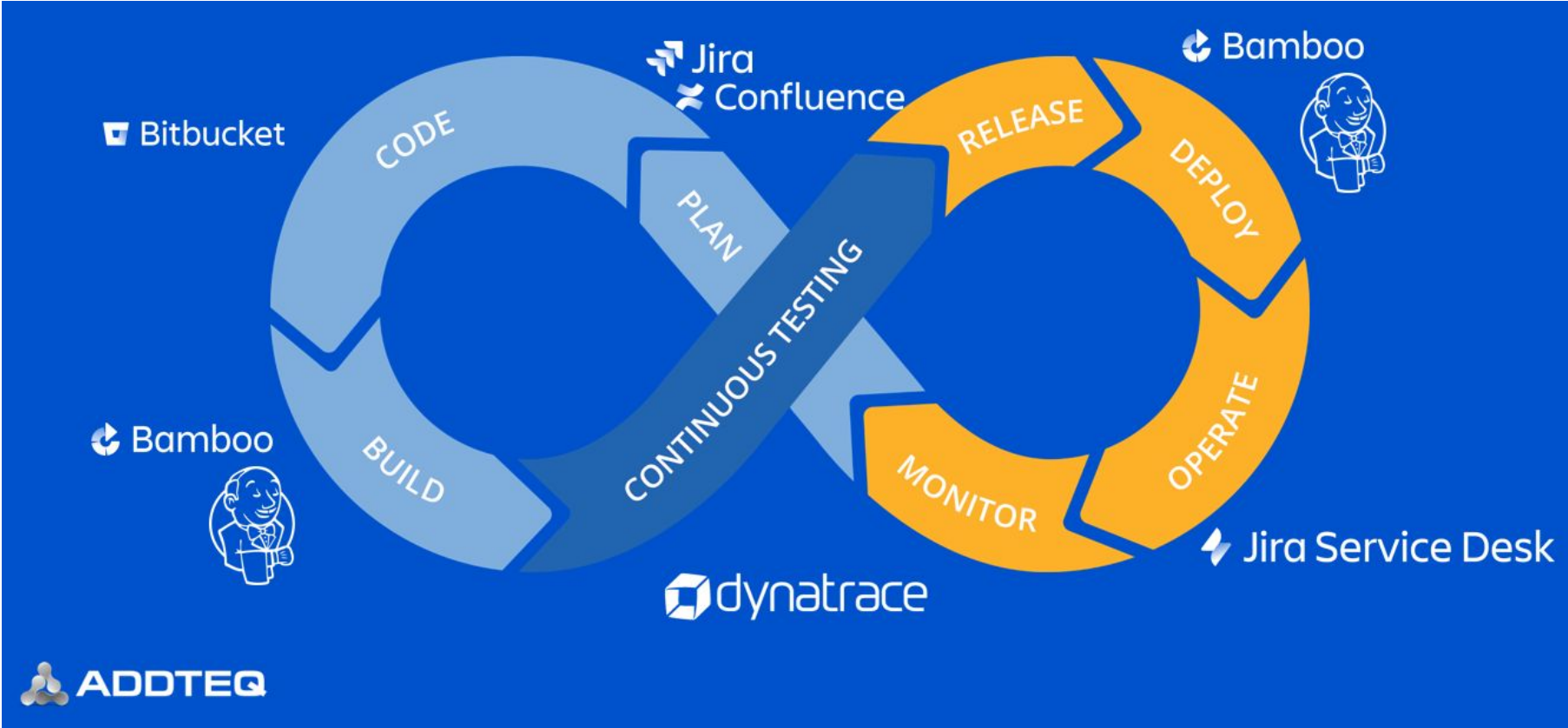
Scan & Test

Release

Deploy



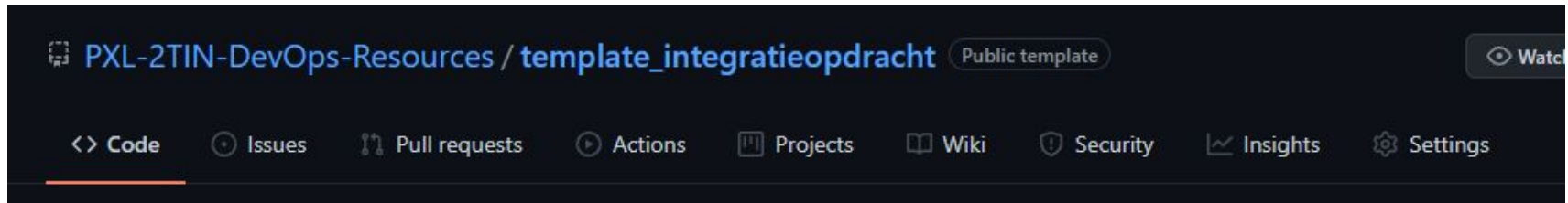
Recap



Github ecosysteem



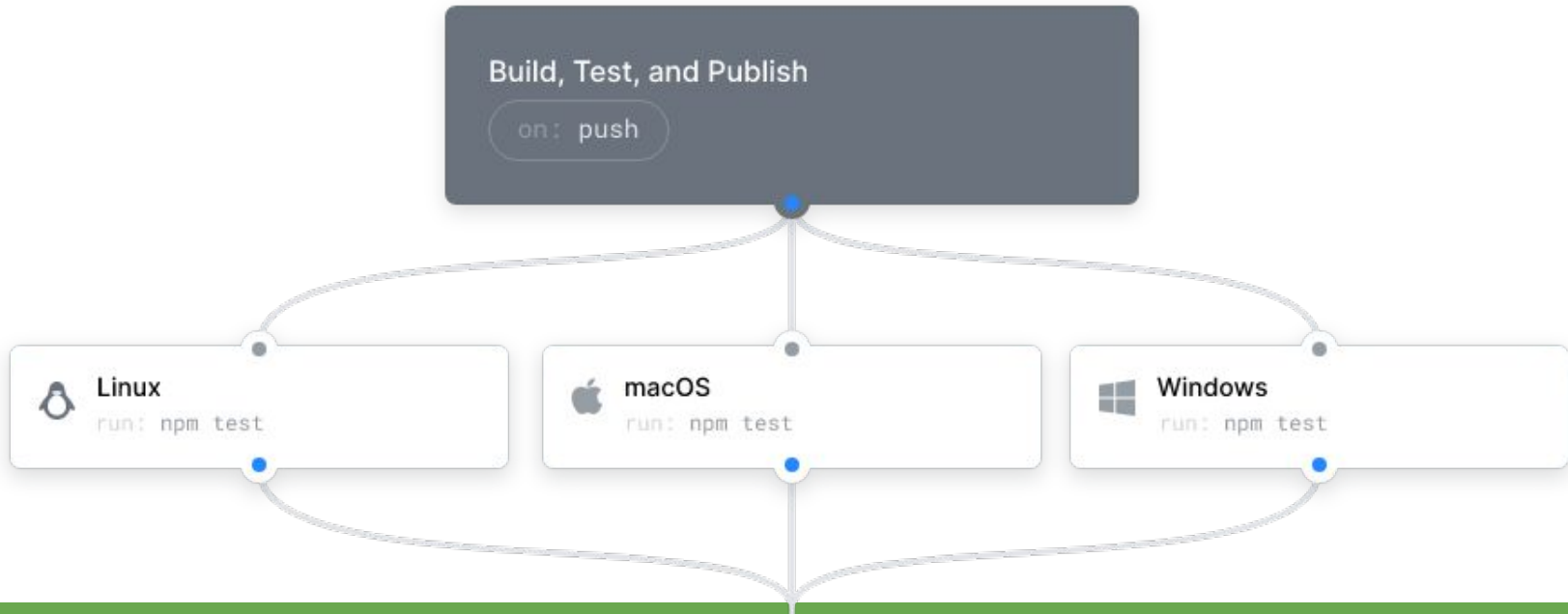
- Veel meer dan enkel code repositories
 - Issue tracking
 - Kanban & projectomvolging
 - Wiki & documentatie
 - Releases
 - Security scans / dependency scans
 - CI/CD
 -



Github actions



- Automated workflows (= pipelines)
 - Machines in de cloud
 - Of self hosted runners



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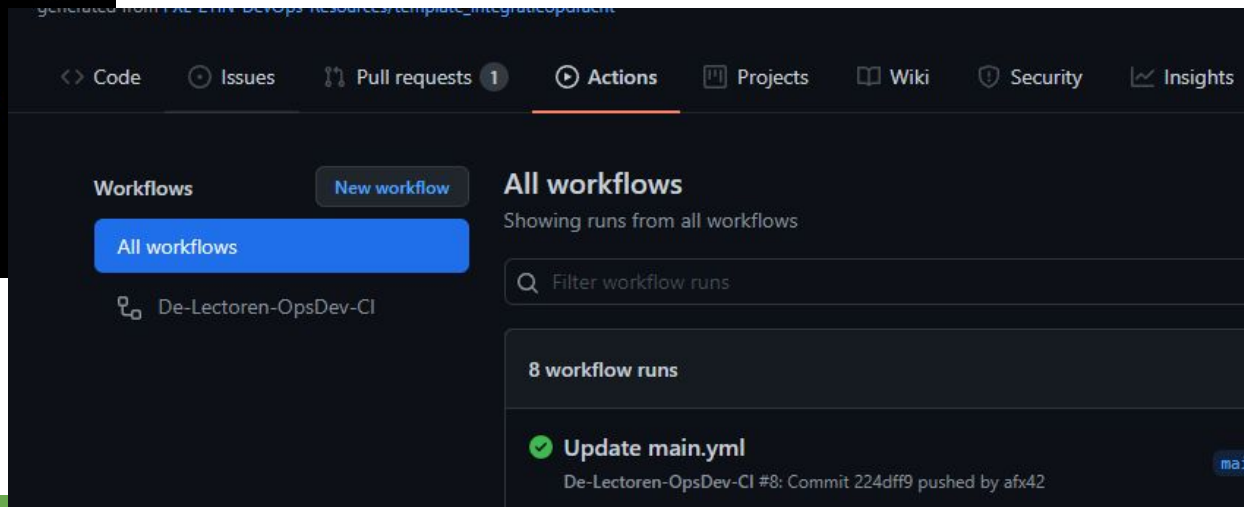
```
-- hello-world (repository)
```

```
| |__ .github
```

```
| |__ main.workflow
```

```
|
```


generated from the `github-actions/runner` repository





Github actions







- Integratie met repository / pull requests


 **All checks have passed** [Hide all checks](#)


4 successful checks

  **build** Successfully in 59s — build

  **test** Successfully in 59s — build

  **publish** Successfully in 59s — build

 **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](#).

Github actions



- Ingebouwde secret store (=credential / secrets manager)
- Integratie met release packages binnen Github zelf
 - Code, artifacts, containers, ...

The graphic compares the pricing of GitHub Actions for public repositories (Free) and private repositories (various plans). The public repository section is on a dark background with colorful sticky notes. The private repository section is on a light background with a table.

Public repositories	
Free	
We love open source	

Private repositories			
Included minutes		Additional hosted runner minutes	
Free	2,000 minutes per month	Linux 2 cores, 7GB	\$0.008 per minute
Pro	3,000 minutes per month	Windows 2 cores, 7GB	\$0.016 per minute
Team	3,000 minutes per month	macOS 2 cores, 7GB	\$0.08 per minute
Enterprise	50,000 minutes per month	Self-hosted	Free

Included, hosted runner minutes are consumed at different rates for each operating system. GitHub Actions is not available for private repos in legacy per-repository plans. [Learn more](#)

Azure



- cloud computing platform
 - verschillende services: compute, storage, networking, etc.
 - pay-as-you-go pricing model met enkele “always free” services
- Ontwikkeld door Microsoft
- Gratis 100\$ tegoed als student + toegang tot gratis services
 - <https://azure.microsoft.com/nl-nl/free/students/>
 - <https://azure.microsoft.com/en-us/pricing/free-services/>



Azure App service



- Een service om eenvoudig applicaties te hosten in de cloud
- Eenvoudige integratie met GitHub Actions
- Weinig tot geen “operations” kennis nodig
- Ondersteuning containers!
 - Kleine introductie lab:
<https://learn.microsoft.com/en-us/training/modules/deploy-run-container-app-service/>
- **Always free onder bepaalde voorwaarden!**

	Free Try for free	Basic Dedicated environment for dev/test
Web, mobile, or API apps	10	Unlimited
Disk space	1 GB	10 GB
Maximum instances	–	Up to 3
Custom domain	–	Supported
Auto Scale	–	–
Hybrid Connectivity	–	Supported
Virtual Network Connectivity	–	Supported
Private Endpoints	–	Supported
Compute Type	Shared	Dedicated
Pay as you go price	Free	\$0.018/hour

Opgave



- OpsDev - Concurrentie!
- Cloud based
 - Geen eigen infrastructuur
- Github ecosysteem
 - Github repository
 - Github actions
 - **Github secrets**
- Deployments naar het Azure cloud platform (Azure app services)

