

COZY

Final exam presentation

Hannes, Maxim, Tim, Jens & Samuel

2. Juli 2020

Outline

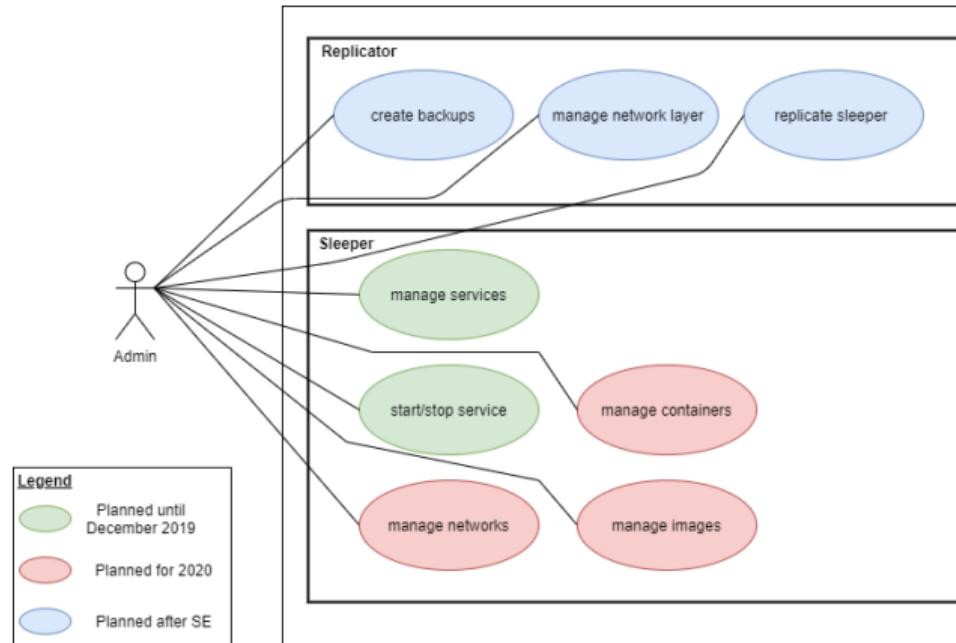
1. Vision
2. Project Methodology
3. Project Management
4. Architecture
5. Risk Management
6. Quality assurance
7. Technical ability

Vision

- Easy to use hosting service
- Super flexible deployments, enabled through Docker
- Deployments are very cost efficient

Use cases

Overall use case diagram



Project Methodology

Project Methodology

How did we approach the creation of cozy?

- Quickly adapt the product to requirement changes
- Involve feedback of everybody on the team
- Always focus on a functional product, whilst balancing function & form

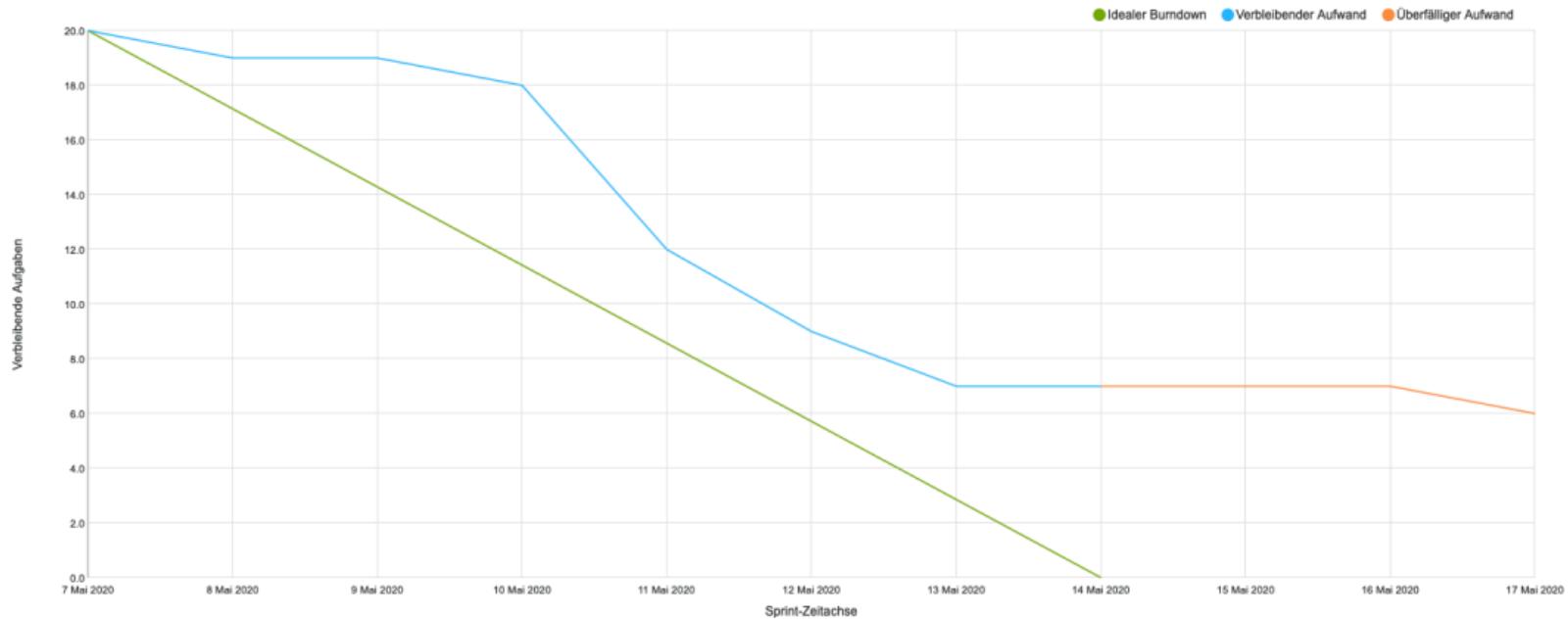
AGILE

Scrum process, weekly sprints.

Project Management

Sprints

Second sprint burndown

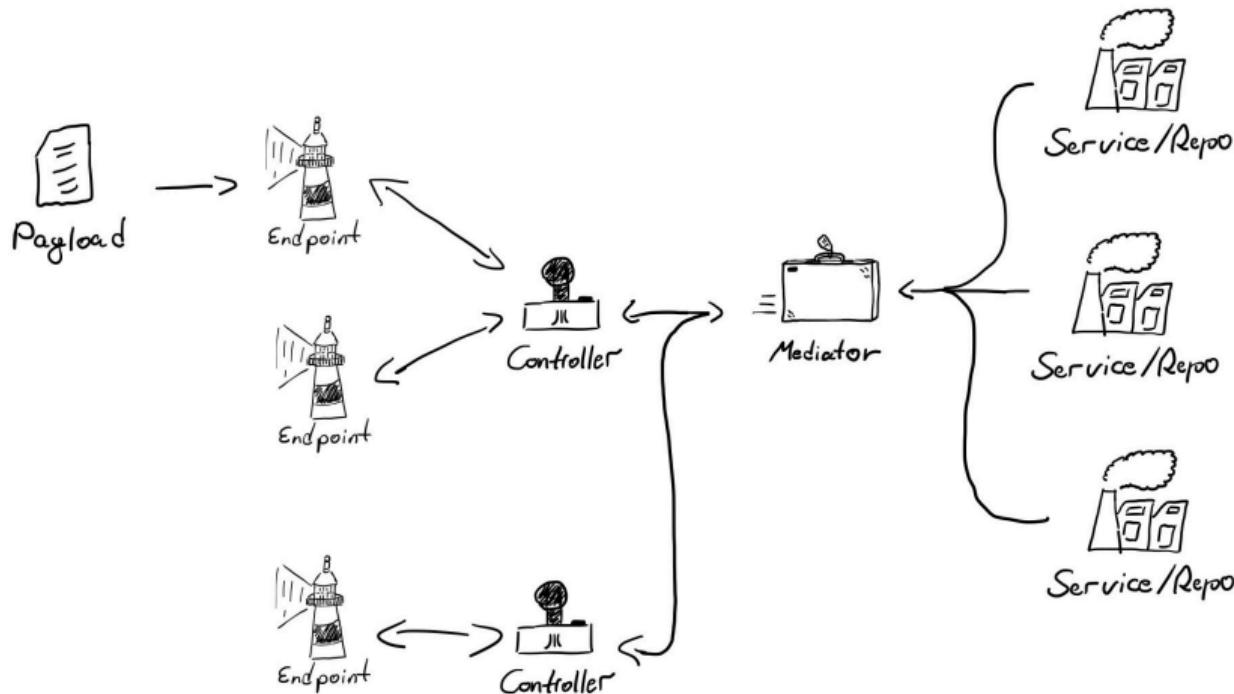


Architecture

- MVC architecture provided through ASP.NET Core
- Service layer and dependency injection
 - ▶ Improved testing of first party components and external dependencies
- Extended modularity due to using mediator Pattern (MediatR)
 - ▶ Slims down Requests into easily maintainable pieces of code
 - ▶ Validation alongside the Request instead of the data model
- Extensible due to the ability to smoothly integrate other micro-services
 - ▶ Allows for re-using instead of re-implementing functionality

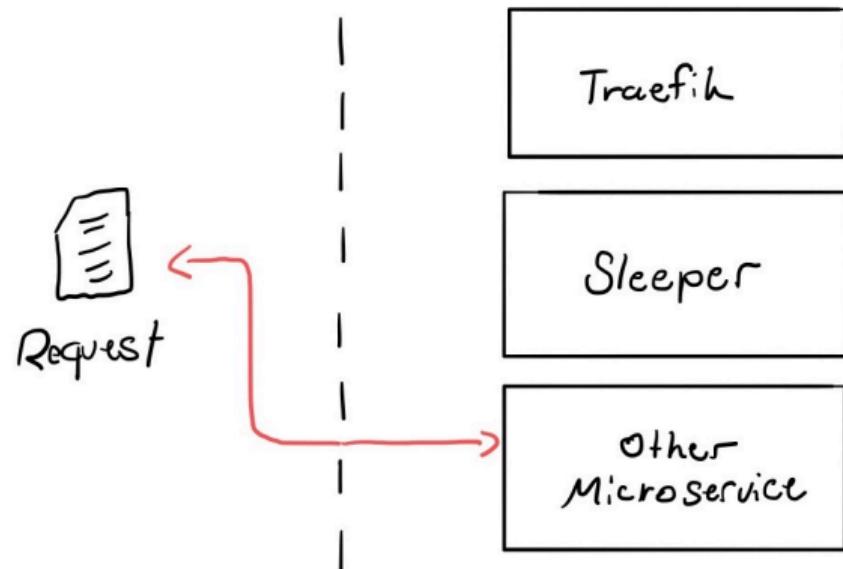
Architecture

Backend



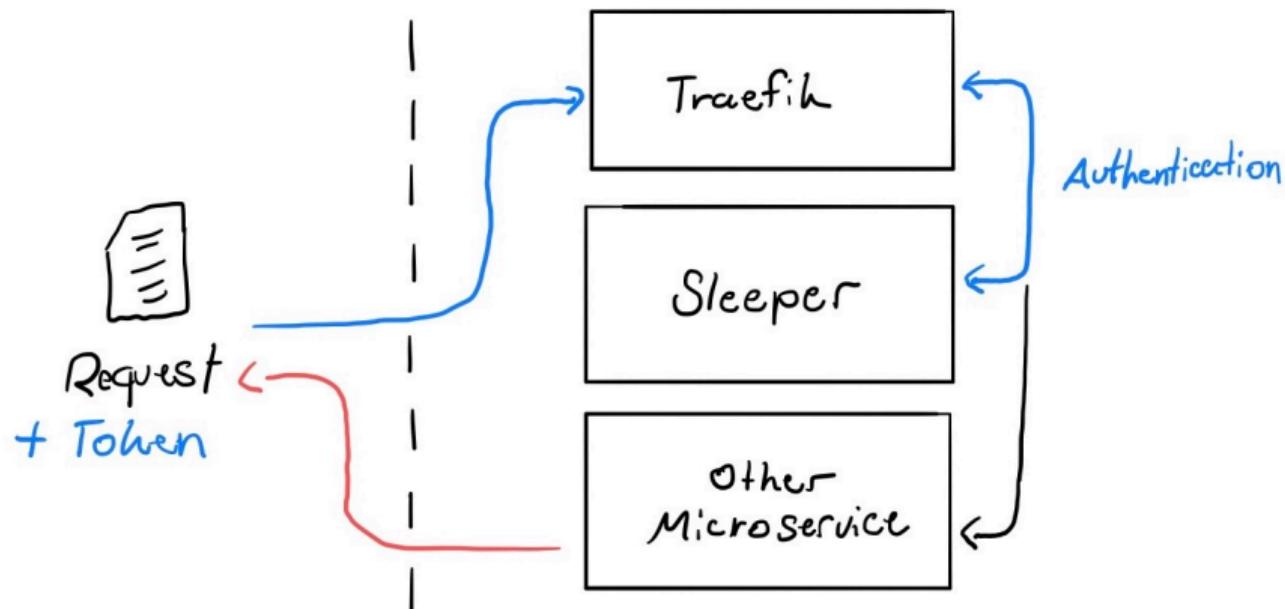
Architecture

Backend



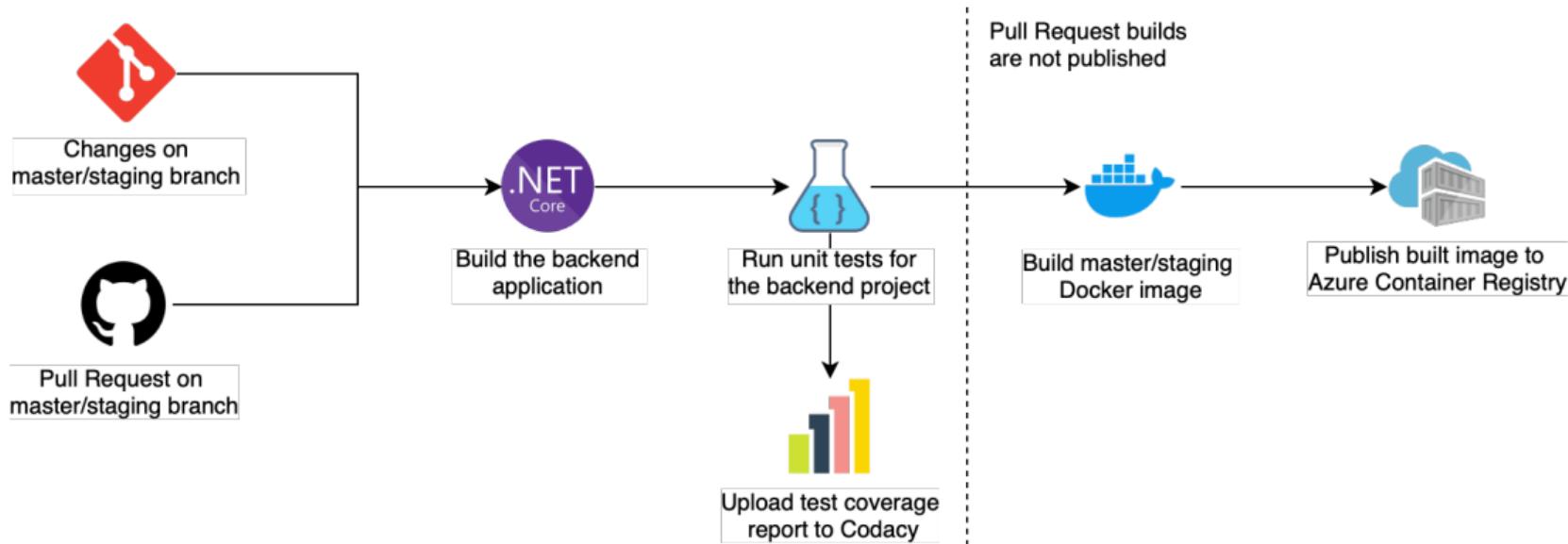
Architecture

Backend



Continuous Integration

Backend

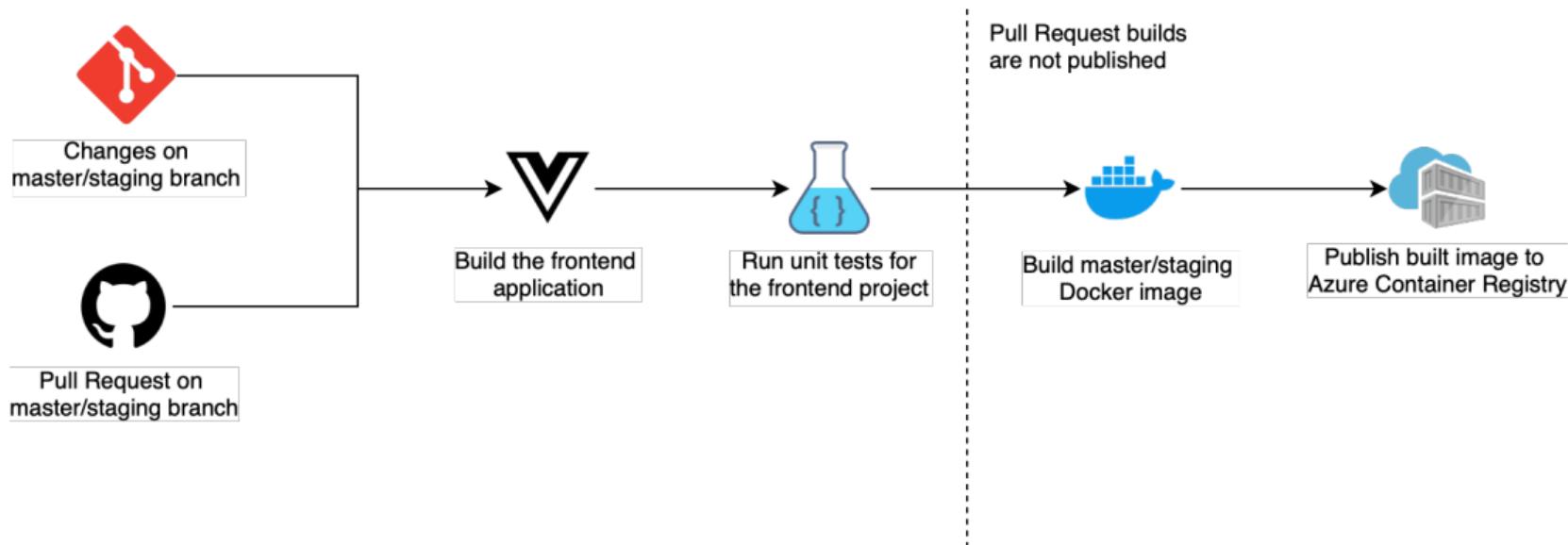


■ Single page application using Vue.JS

- ▶ Modern way of designing and implementing frontend
- ▶ Consumes REST endpoints from the backend and various other micro-services

Continuous Integration

Frontend



Risk Management

Time

No enough time to implement all features

Complexity

Features are too complex to implement

Missing organization

Losing overview about the project

SMOOTH

We did not encounter any planed risks!

Quality assurance

■ Backend

- ▶ Unit tests using NUnit
- ▶ Functional testing using Specflow
Unused due to the backend relying mostly on external services
- ▶ Integration Tests possible to improve test coverage

■ Frontend

"Not ready for end-user deployment, thus untested and low priority"

Checks

Quality assurance



oechsler merged commit **613af05** into **master** 27 days ago

[Hide details](#)

[Revert](#)

3 checks passed

- | | | |
|--|---|-------------------------|
| | Codacy/PR Quality Review Up to standards. A positive pull request. | Details |
| | continuous-integration/travis-ci/pr The Travis CI build passed | Details |
| | continuous-integration/travis-ci/push The Travis CI build passed | Details |

Metrics

Quality assurance

sleeper master

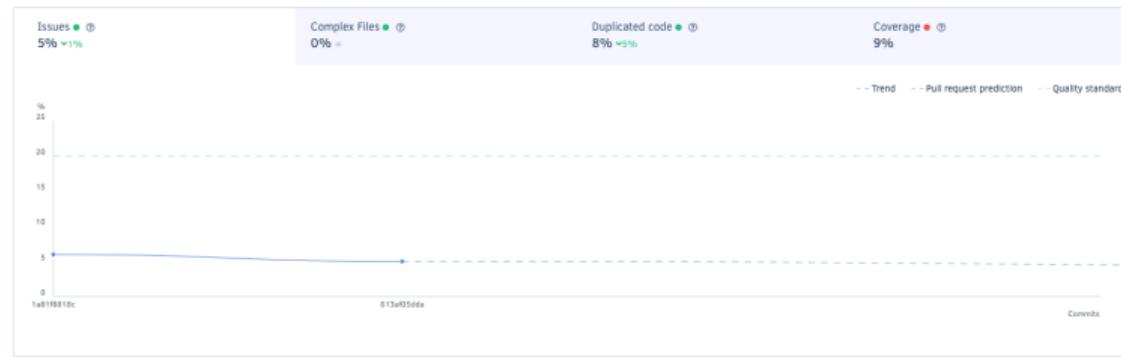
Badge

Repository certification

Last 8 commits

Quality evolution

Last 8 commits



Issues breakdown

27 total issues

Category

Category	Total
Security	2
Error Prone	6
Code Style	7
Compatibility	0
Unused Code	1
Performance	11

[See all issues](#)

Coverage

9% LoC covered

Quality settings: 60% coverage

Files without coverage (50)

Files not up to standards (94)

Files up to standards (15)

[See all files](#)

Technical ability

DEMO

Let us show you what COZY has in store.