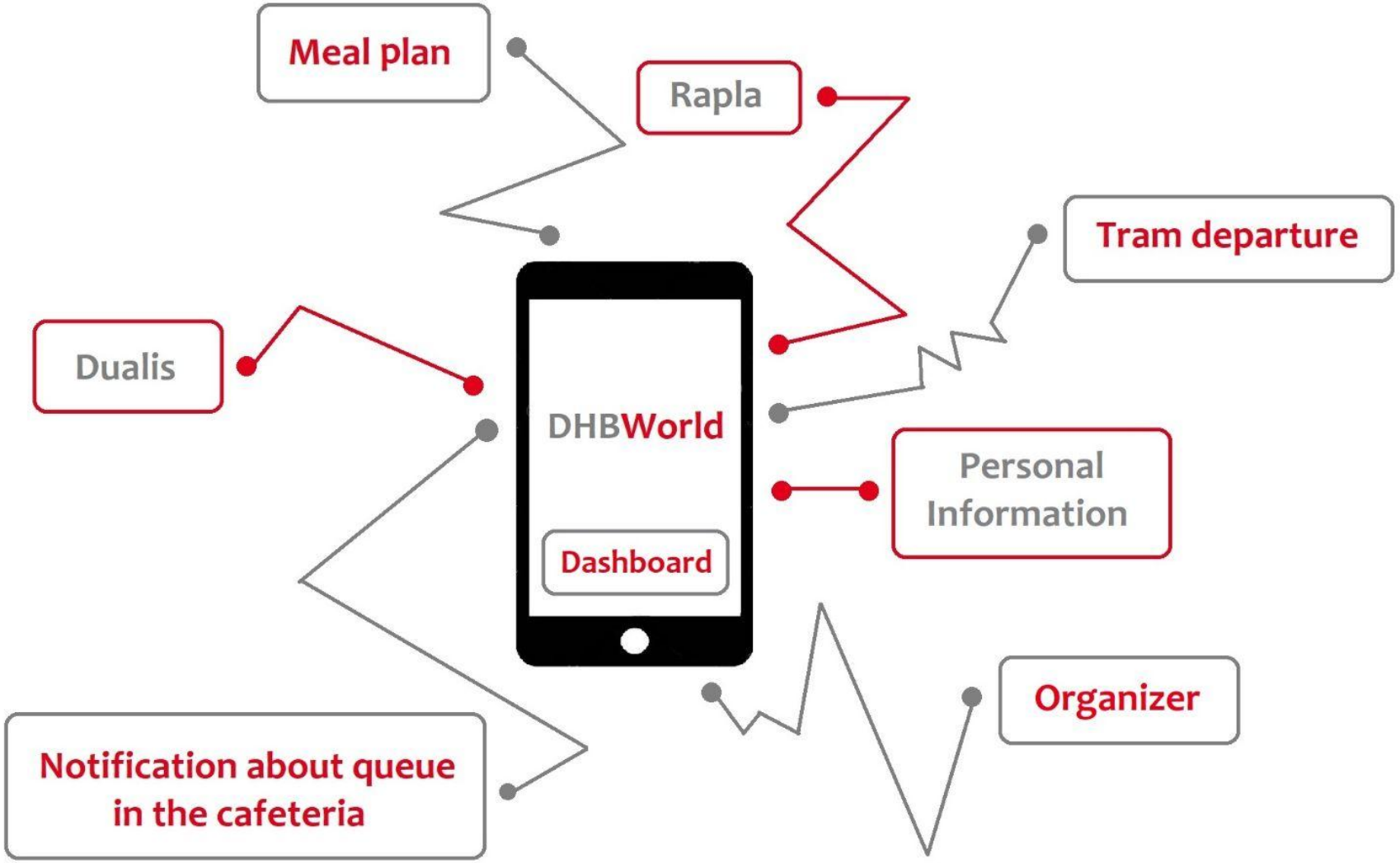
DHBWorld

The All-in-One DHBW App


Meal plan
Rapla
Tram departure
Dualis
DHBWorld
Dashboard
Personal Information
Organizer
Notification about queue in the cafeteria

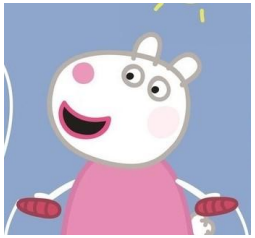
Team

Linus Pust

Tool Specialist
Change Control Manager
Test Designer
Implementer

Christian Zäske

Configuration Manager
Deployment Manager
Test Designer
Implementer

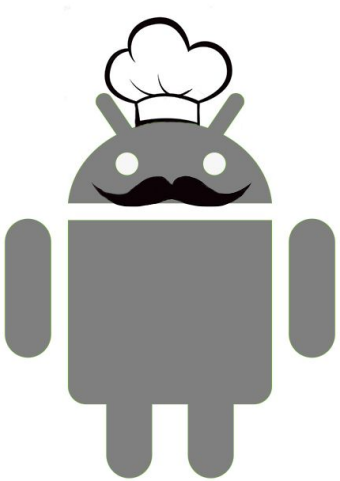


Daria Kodolova

Project Manager
Requirements Specifier
Designer
Implementer

Agenda

- Project Management
- Development
- Testing
- Demo
- Code Quality
- Conclusion

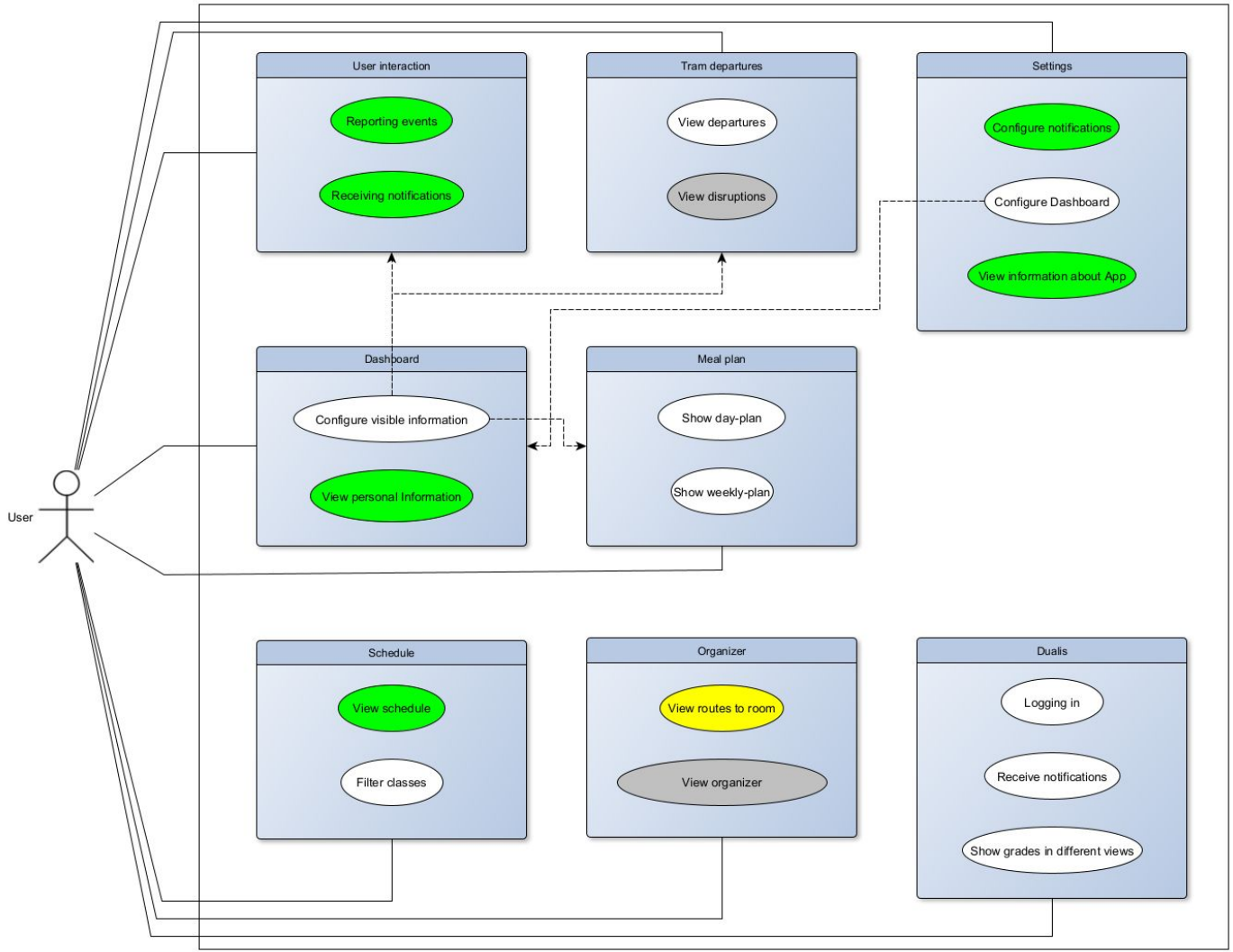


Project Management
-
Organization

Use Cases

Legend UC:

- implemented in 1. sem
- implemented in 2. sem
- insert in 2. sem (implemented)
- not implemented



Tools

Development

GitHub

android studio

Firebase

Code quality

CODE CLIMATE

MetricsReloaded

Testing

JUnit

Google Play

Organization

Documentation

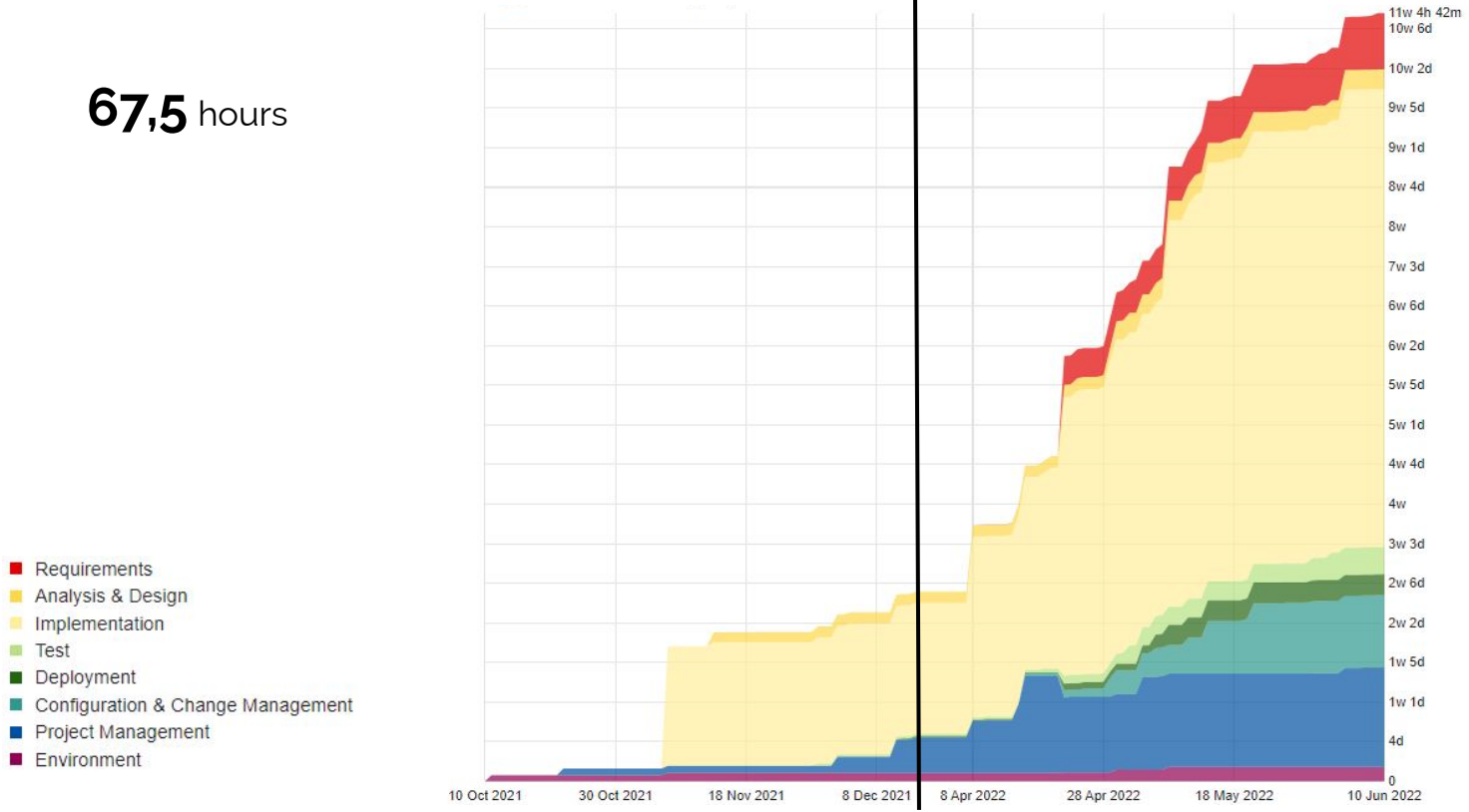
yEd

miro

GitHub

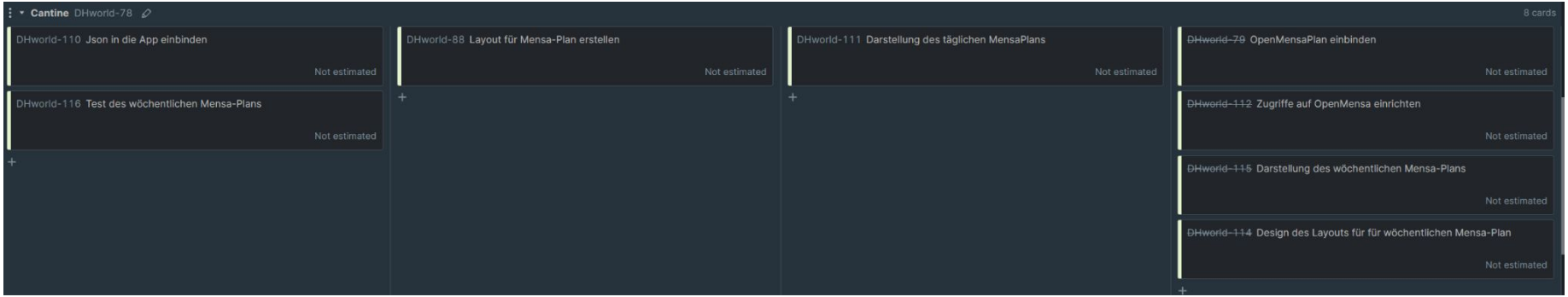
Project Management

First semester	Second semester
67,5 hours	**265,5** hours



SCRUM - Why use it?

- SCRUM is essential part of project
- YouTrack as All-in-One tool for SCRUMing
- New sprints every two weeks

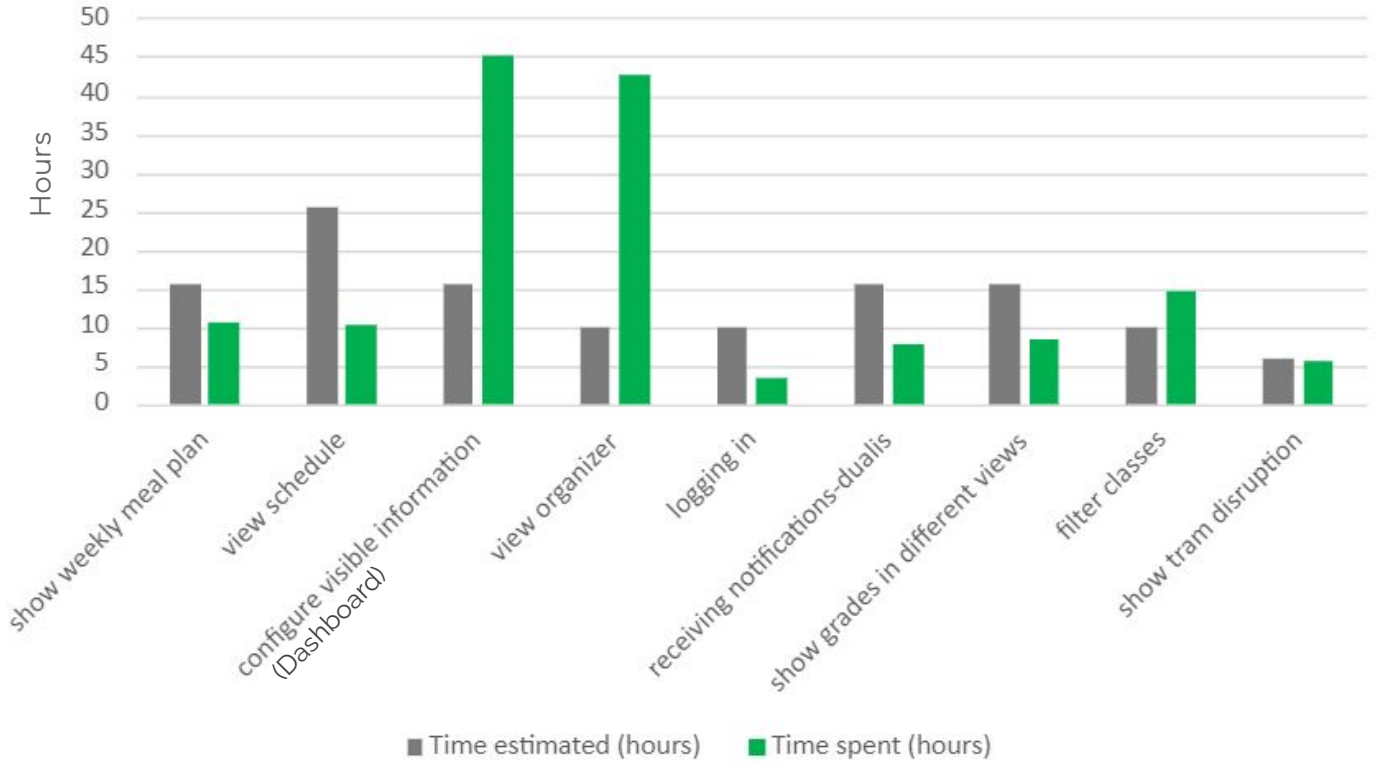


Risk Management

- Focus on high-risk items
- Adhesion to determined mitigation strategies
- Regular check for new risks

Risks	Mitigation strategy	Risk Factor
Problems with code	Make consistent rules for all members. Code-Review of others code.	480
Inaccurate deadlines	Good project management regularly redefine deadlines.	280

Time Estimation

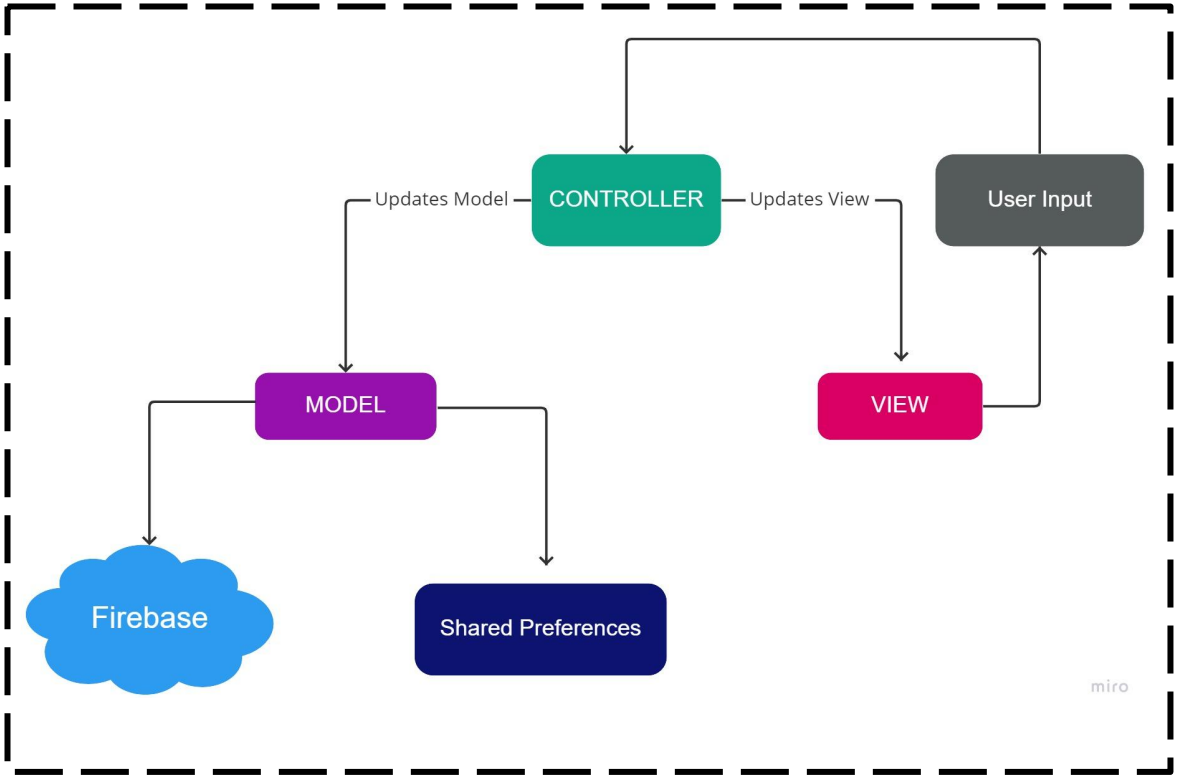


The funniest part of our project was . . .

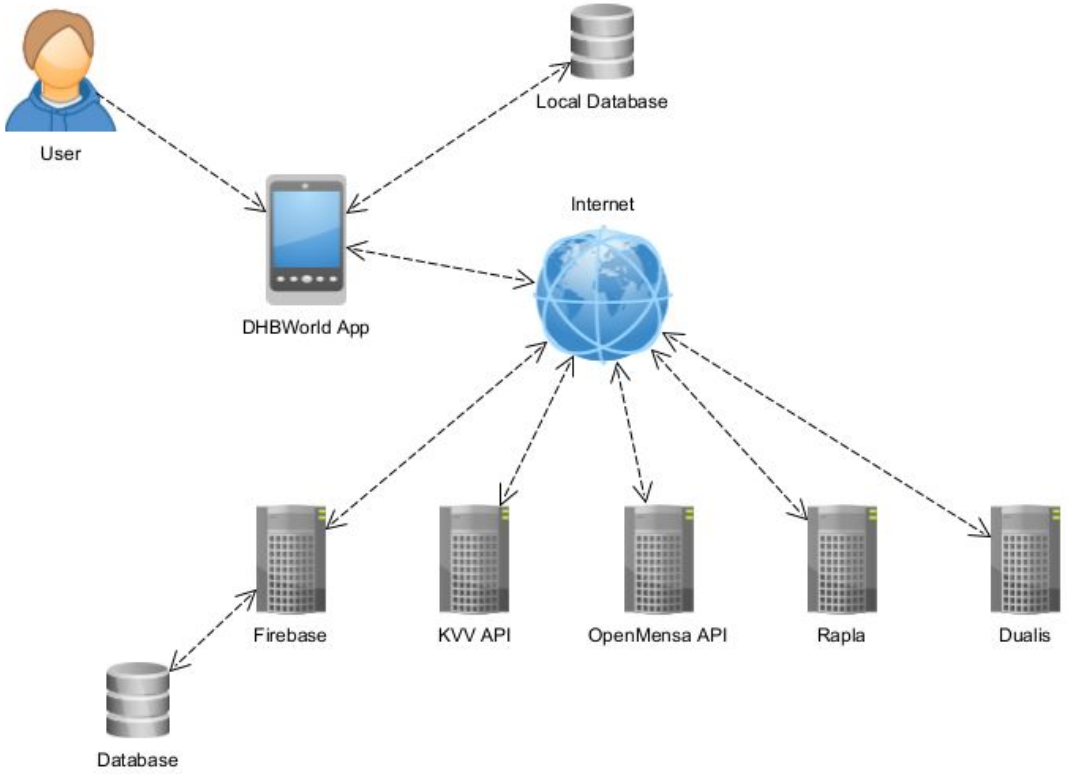
Development

Architecture

- MVC pattern
- Android Studio native
- Logic: Java
- Layout: XML
- Database: Firebase



Deployment View



During the development, we tried to keep the functional quality of our app with the help of . . .

Testing

Testing

Functional Test

➡ .feature files

```
Feature: Meal plan

  as a User
  I want to see the meal plan for the current day and week

  Scenario: User has no internet
    Given The app is opened
    When The user opens the meal plan page
    And The user has no connection to the internet
    Then The meal plan page will show an error message
```

Unit Test

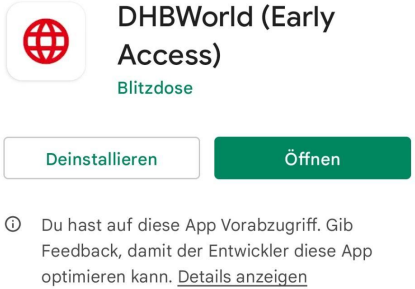
➡ AndroidJUnit

```
-----------------------------------------------
---        Android Test Report Action        ---
-----------------------------------------------


----------------------------
        Test Summary
   23              tests
  1               failures
  18.156s         duration
 95%             successful
----------------------------
```

User Test

➡ Google Play

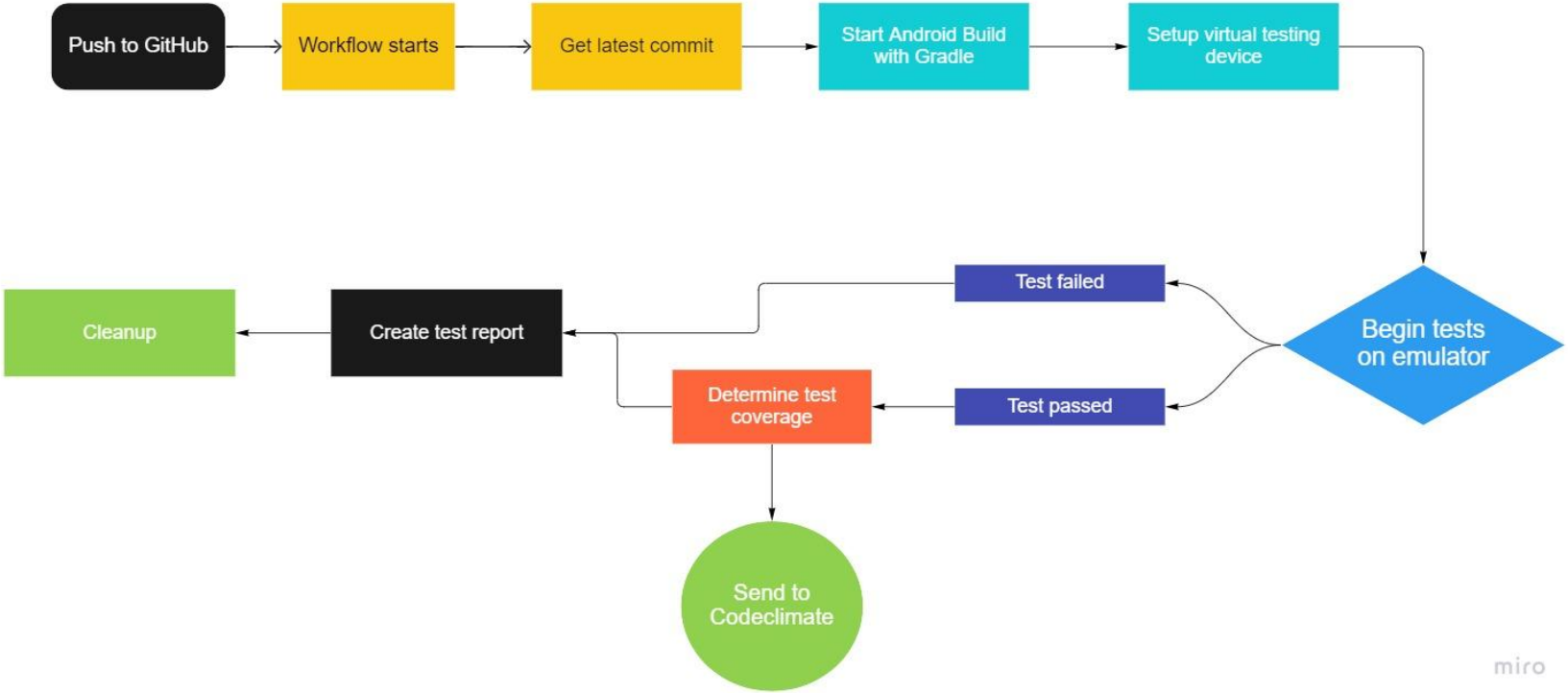


DHBWorld (Early Access)
Blitzdose

Deinstallieren | Öffnen

Du hast auf diese App Vorabzugriff. Gib Feedback, damit der Entwickler diese App optimieren kann. Details anzeigen

Testing Workflow (Unit tests)



DEMO

After the main functions of our app were completed, we thought about . . .

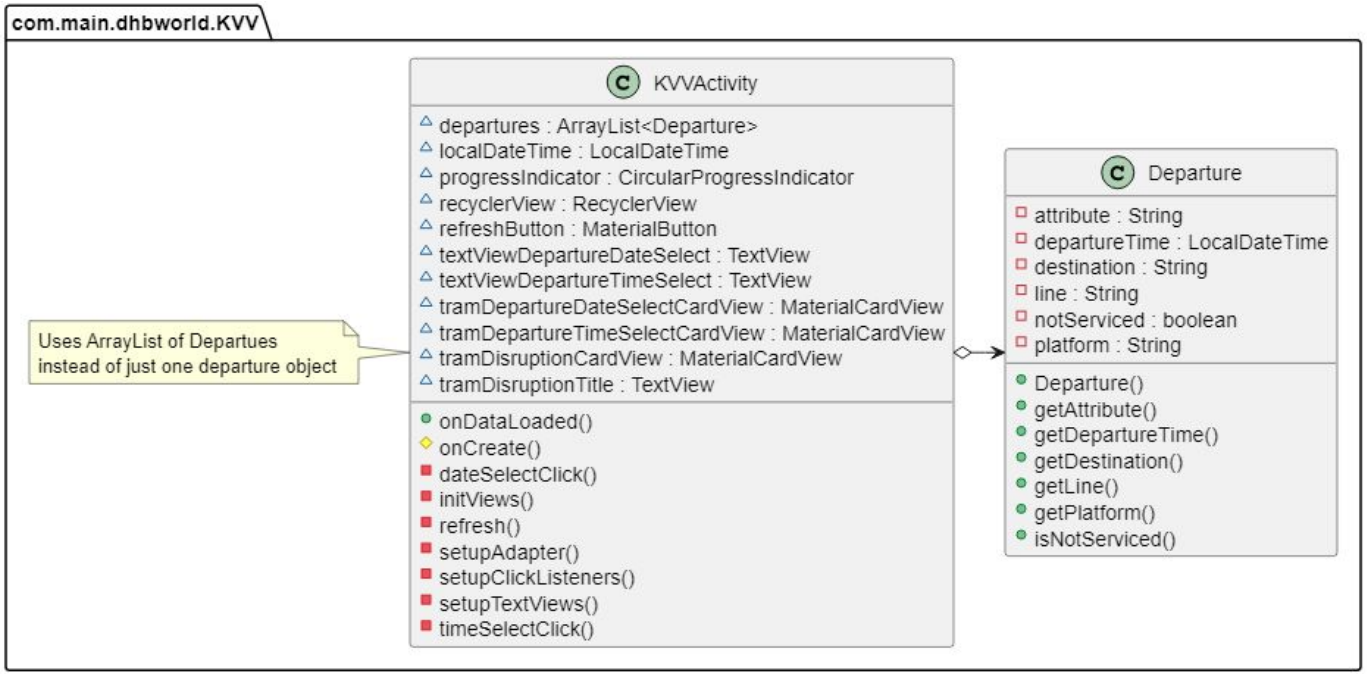
Code Quality

Code improvement

We improved our code quality with:

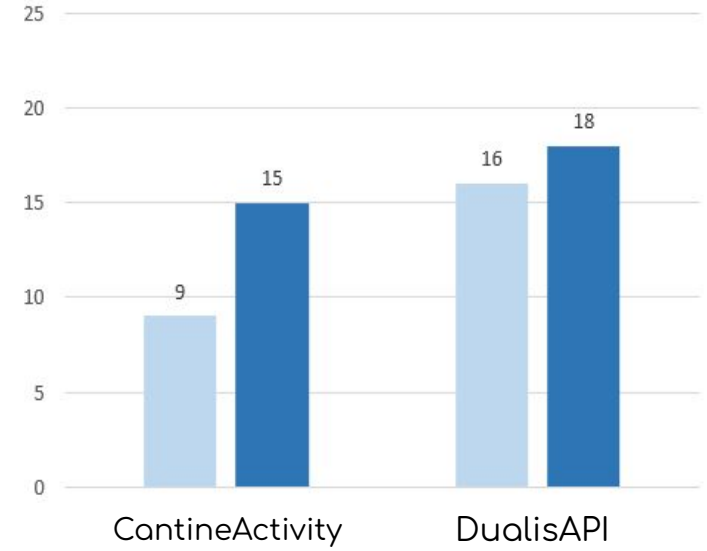
-Code refactoring
-Design Pattern

Private Class Data Pattern

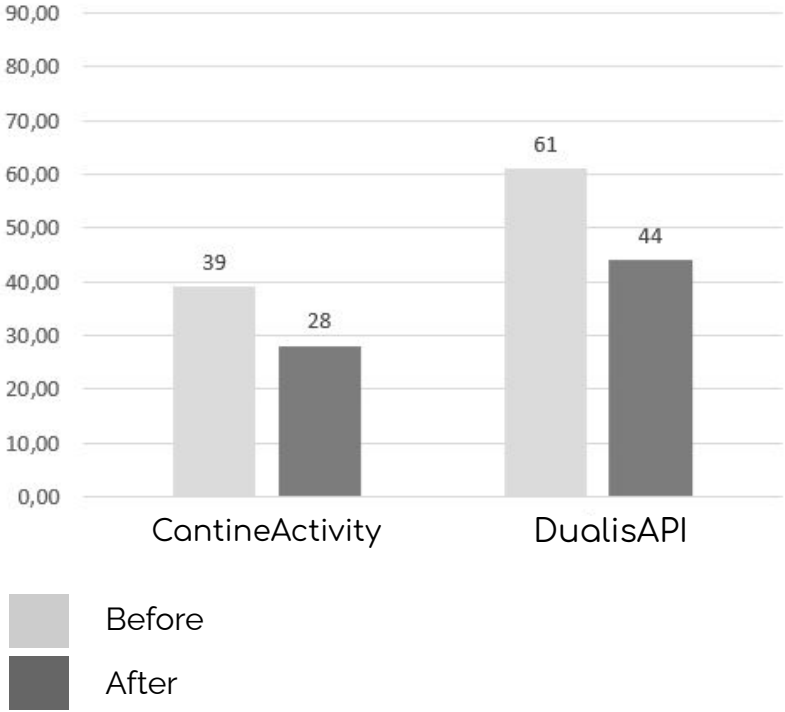


Metrics - Code Quality

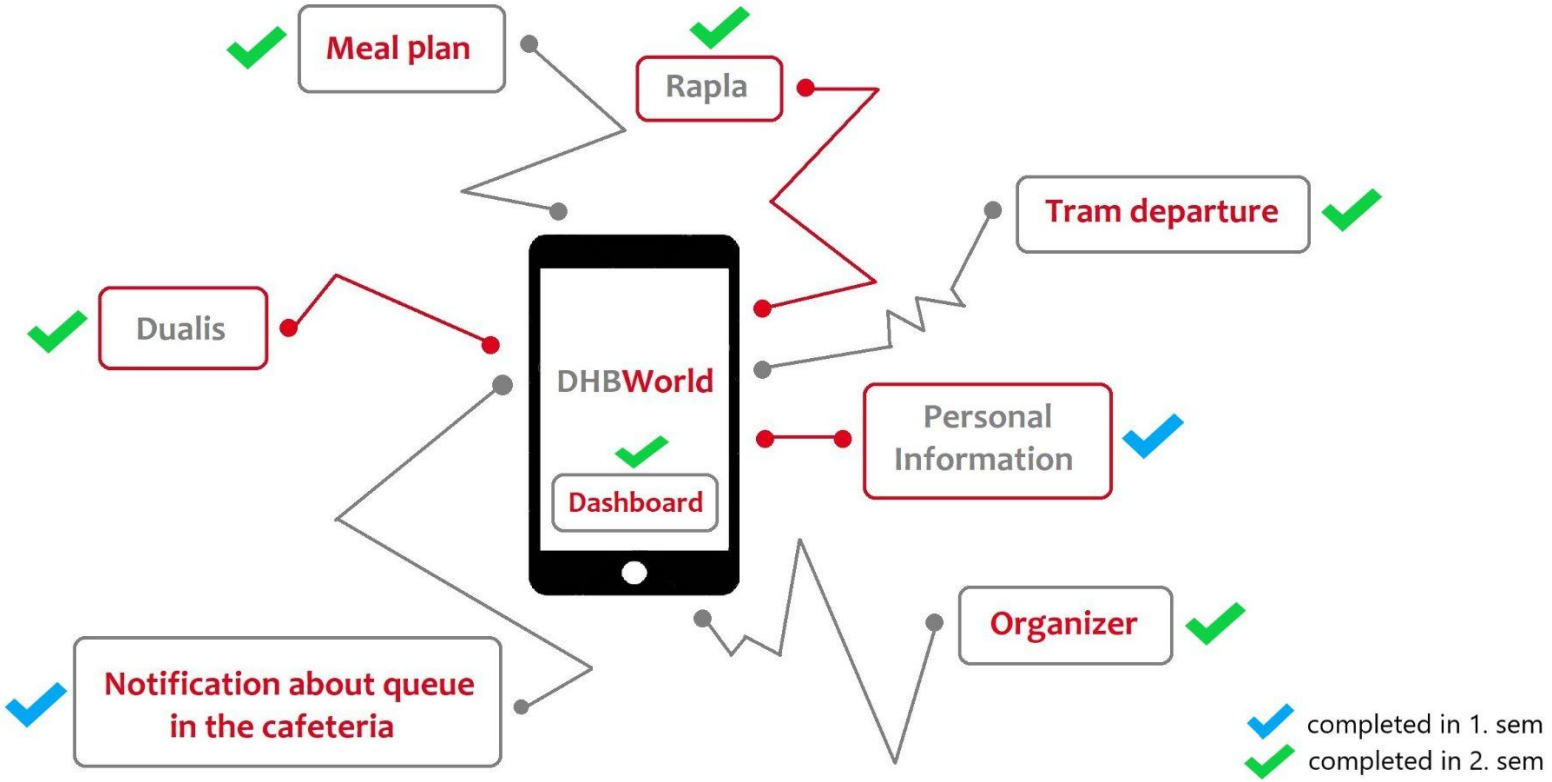
Coupling between object classes



Weighted methods for class



Our progress - Conclusion



Do you have any questions?