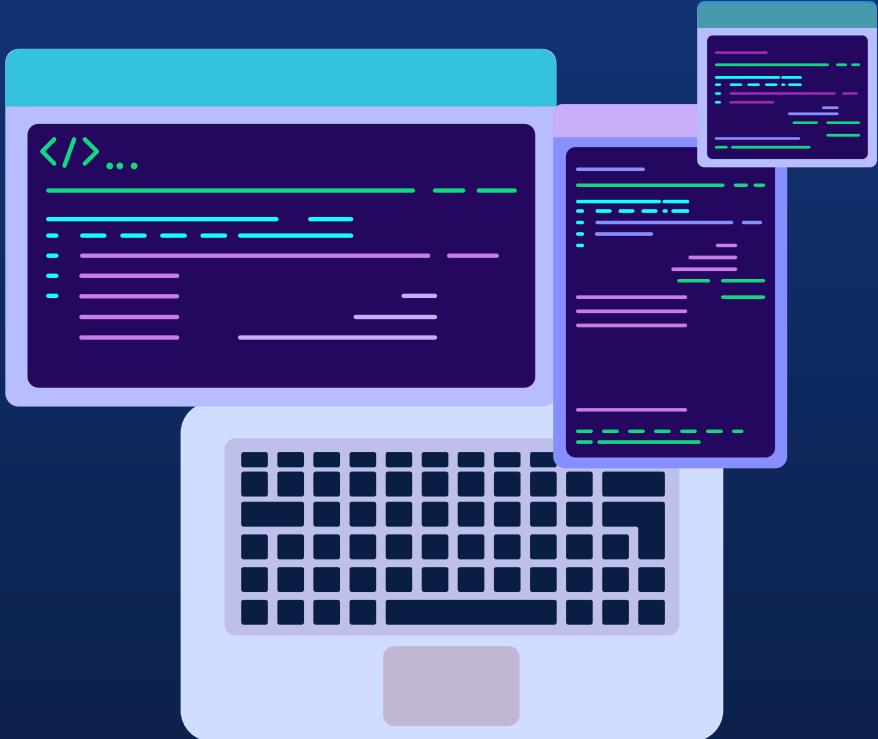


DHBW Experts

-All you need are the
right connections-

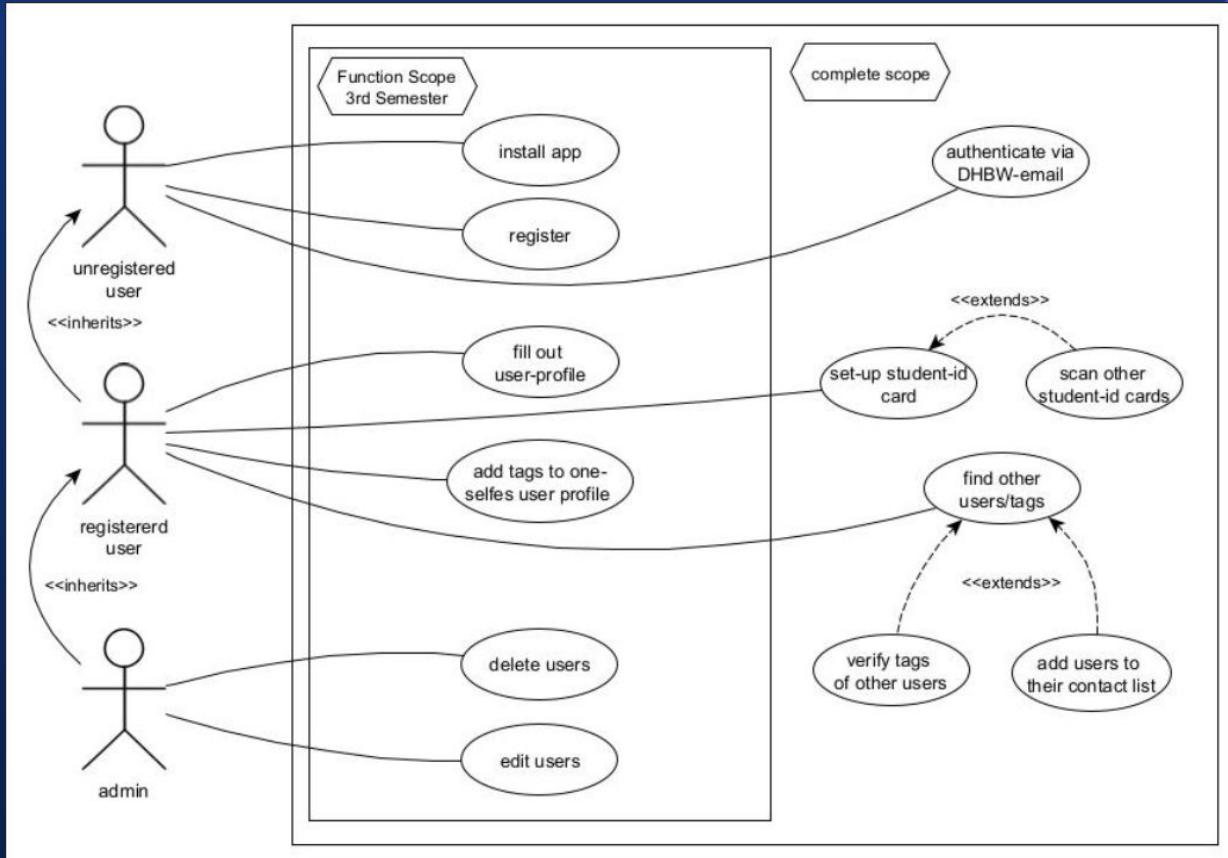


Vision

- Experten finden
- DHBW Ausweis als digitale Visitenkarte
- Kontakte pflegen
- Neue Leute finden



Use Case Diagram



Rollenverteilung im Team



Ralph



Frontend-Entwickler
Test-Designer
Software-Architekt



Noah

Frontend-Entwickler
Code Reviewer
Software-Architekt

Tim



Frontend-Entwickler
Code Reviewer



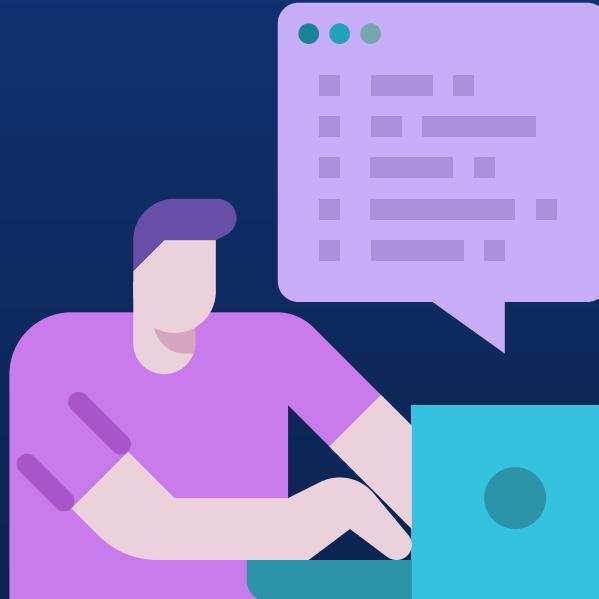
Lukas

Backend-Entwickler
Graphic Artist
Deployment Manager



Project Management

Scrumming, RUP &
mehr



Scrumming



Kanban Boards

Für eine gute Übersicht während dem Arbeiten



Iterativer Prozess

Sprints (2-wöchig) und Meetings (2x/Woche) finden regelmäßig statt

Pair Programming

Gemeinsames Erarbeiten einer Lösung für mehr Durchsicht



Retrospektive

Hinterfragen nicht fachlicher Themen, die sich auf das Projektmanagement beziehen





Sprints und Burndown Charts



Beispiel Burndown Chart



Idealer Burndown



Verbleibender Aufwand





Tools

YouTrack

Unser genutztes Kanban Board ist von YouTrack

Discord

Für eine bessere Kommunikation



GitHub

Mehrere Projekt-Repositories

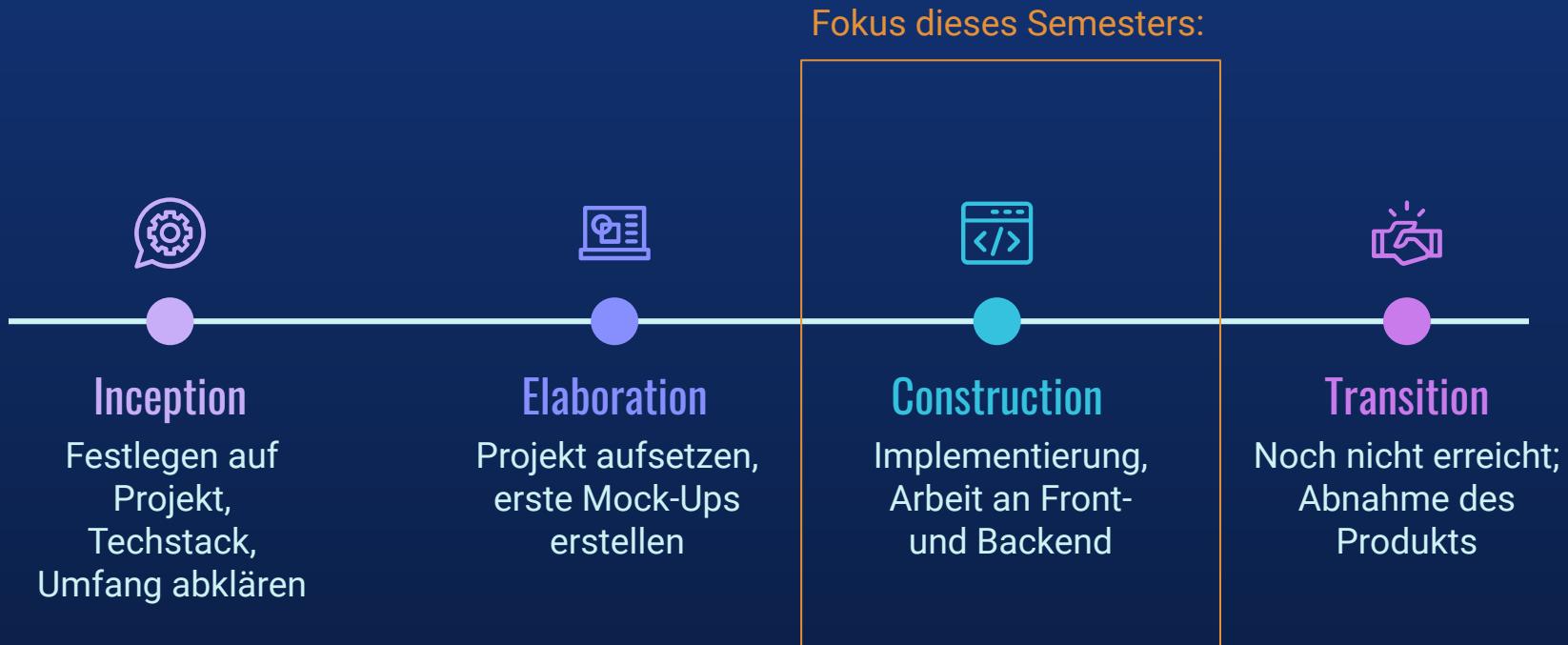
GitHub.io - Blog

Ein simpler Weg, um Blogs zu veröffentlichen





RUP-Phasen



RUP Workflows

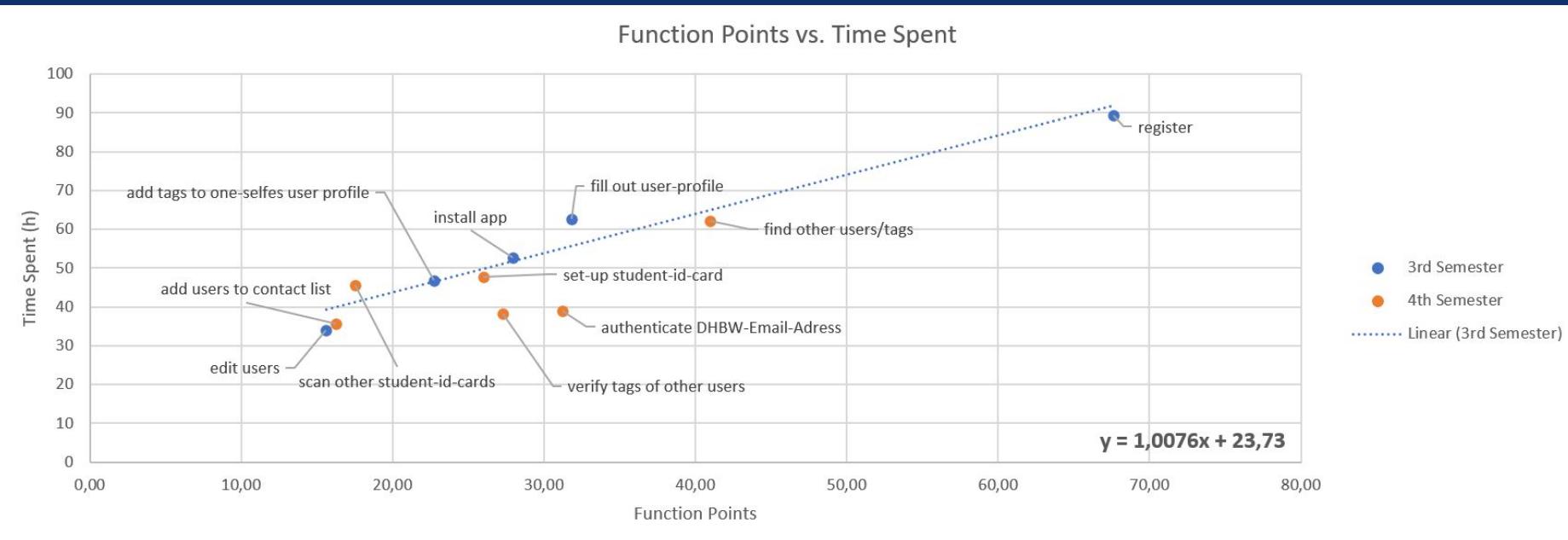


Aufwandsschätzung mit Function Points

	# User Input	# User Outputs	# User Inquiries	# Files	# External Interfaces	FP Calculated	Estimation			Time Spent		
3rd Semester												
install app	0	0	0	4	3	27,95	5d	3h	53m	6d	4h	40m
register	7	3	3	6	4	67,60	10d	3h	50m	11d	1h	30m
fill out user-profile	5	1	2	2	2	31,85	6d	7h	49m	7d	6h	40m
add tags to one-selfes user profile	2	1	2	2	1	22,75	5d	6h	39m	5d	6h	50m
delete users	1	0	1	1	1	11,70	3d	3h	31m	db operation		
edit users	3	0	1	1	1	15,60	4d	7h	26m	4d	2h	0m
4th Semester												
authenticate DHBW-Email-Adress	2	0	2	3	3	31,20	6d	7h	10m	4d	6h	55m
set-up student-id-card	2	1	2	2	2	26,00	5d	1h	55m	5d	7h	50m
scan other student-id-cards	1	1	1	1	2	17,55	4d	1h	24m	5d	5h	40m
find other users/tags	4	4	3	3	1	40,95	7d	0h	59m	7d	6h	10m
verify tags of other users	3	2	2	2	1	27,30	5d	3h	14m	4d	6h	20m
add users to contact list	2	1	1	1	1	16,25	4d	0h	6m	4d	3h	40m

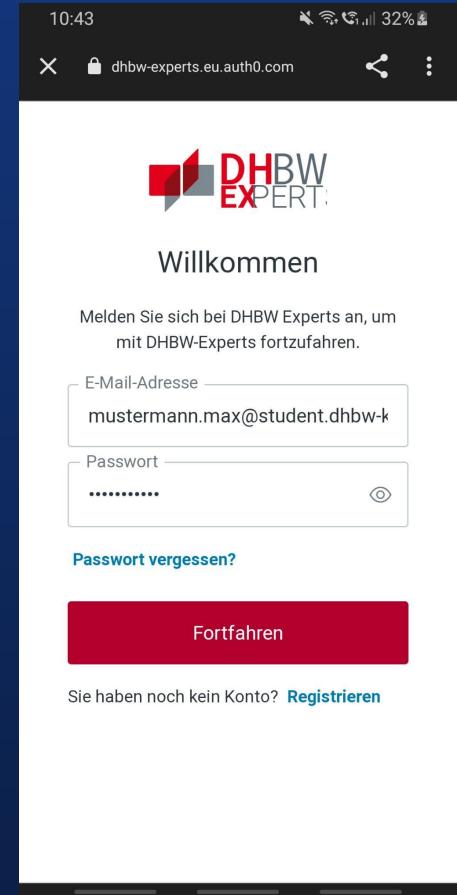
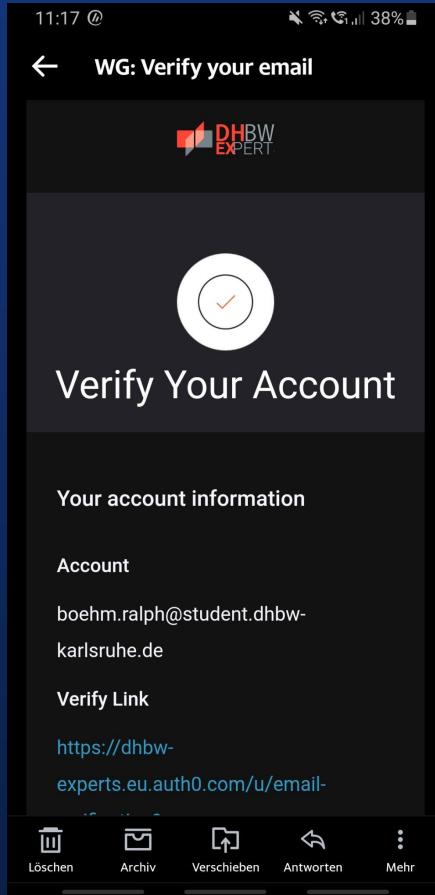


Aufwandsschätzung mit Function Points

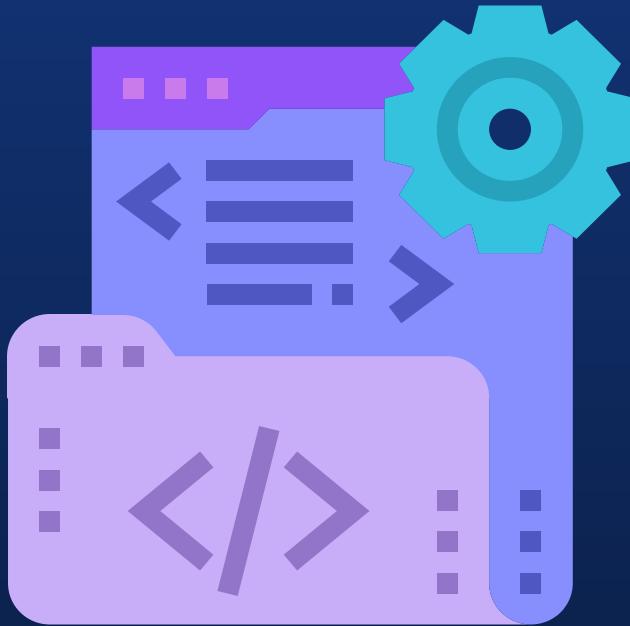


R = 0,976

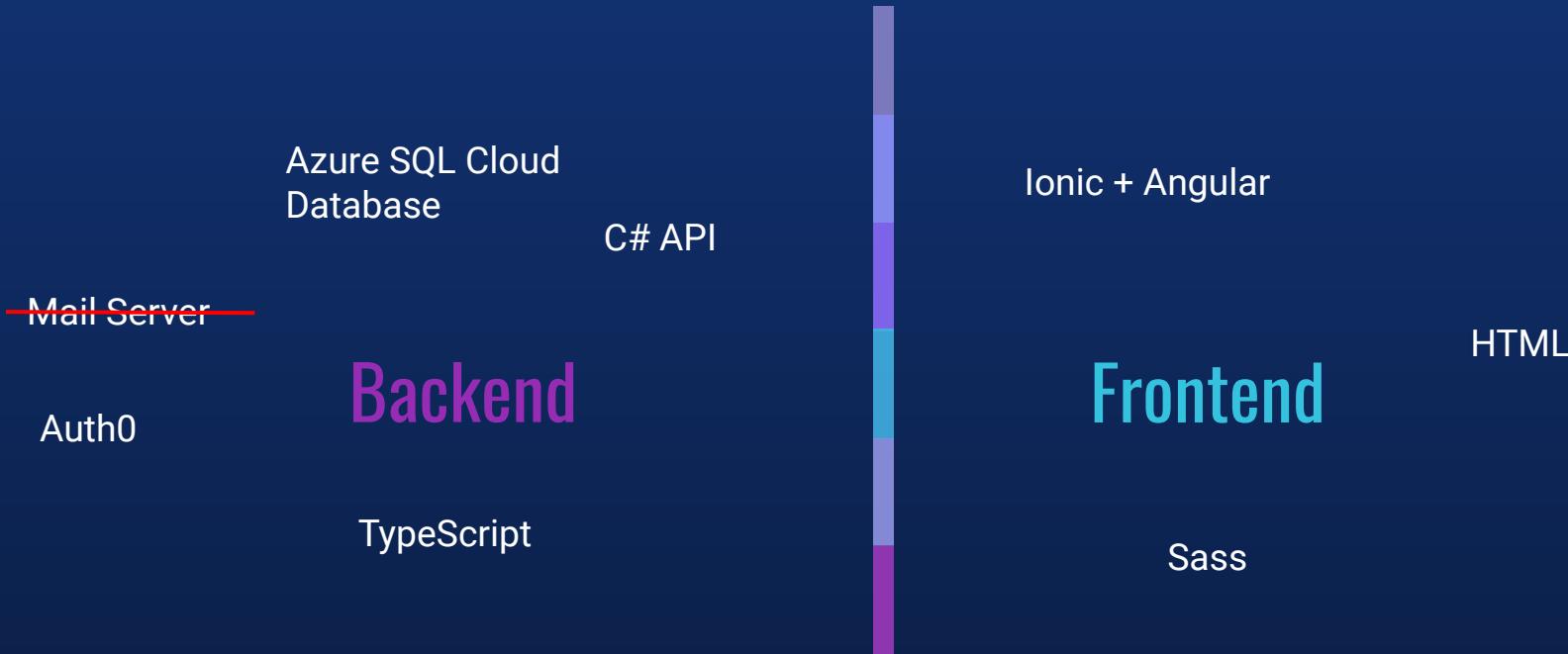
Demo



Architecture



Tech Stack





Tools

- Visual Studio Code
- Docker
- GitHub Actions
- Azure
- Ionic Jasmine
- SonarCloud

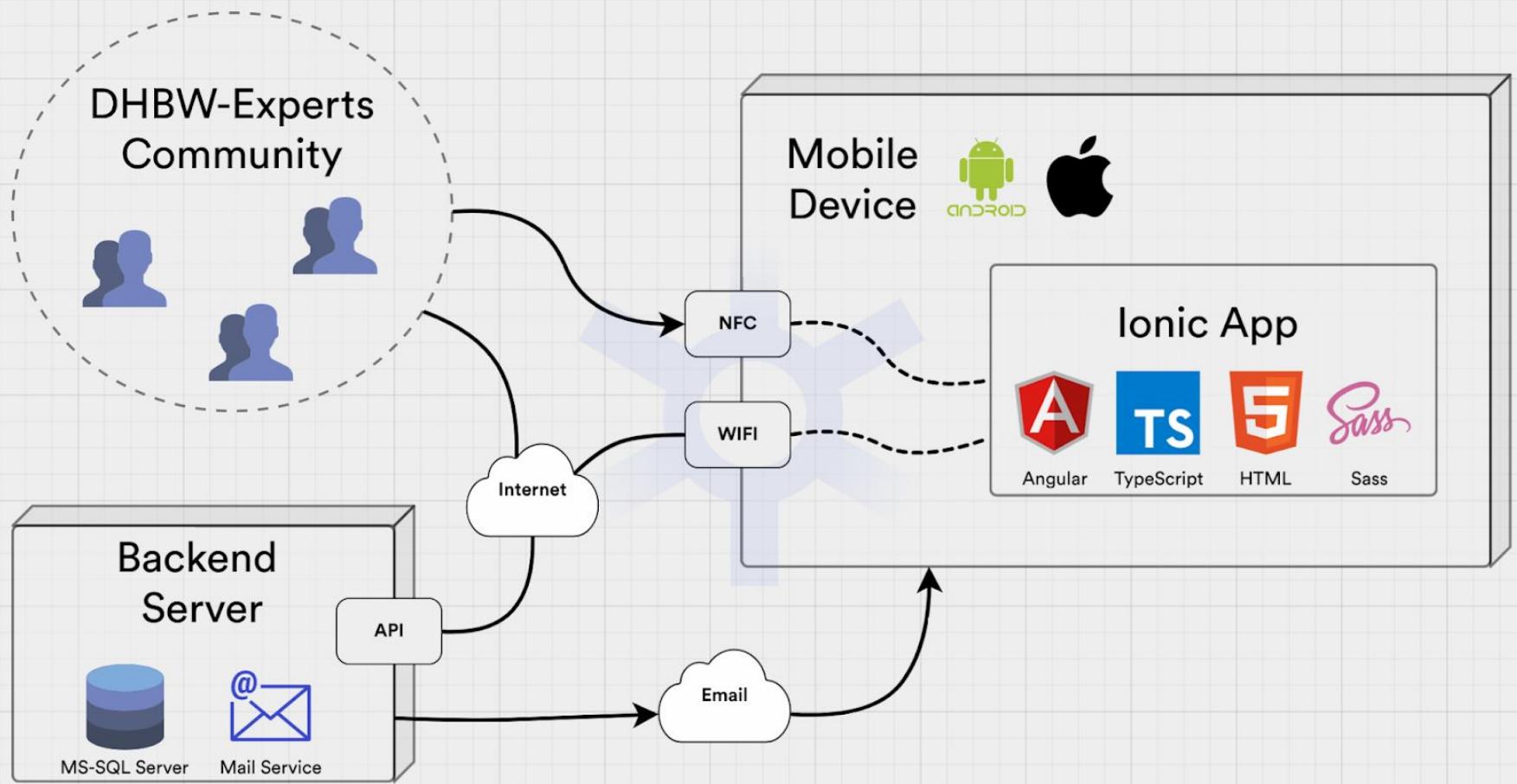
sonarcloud

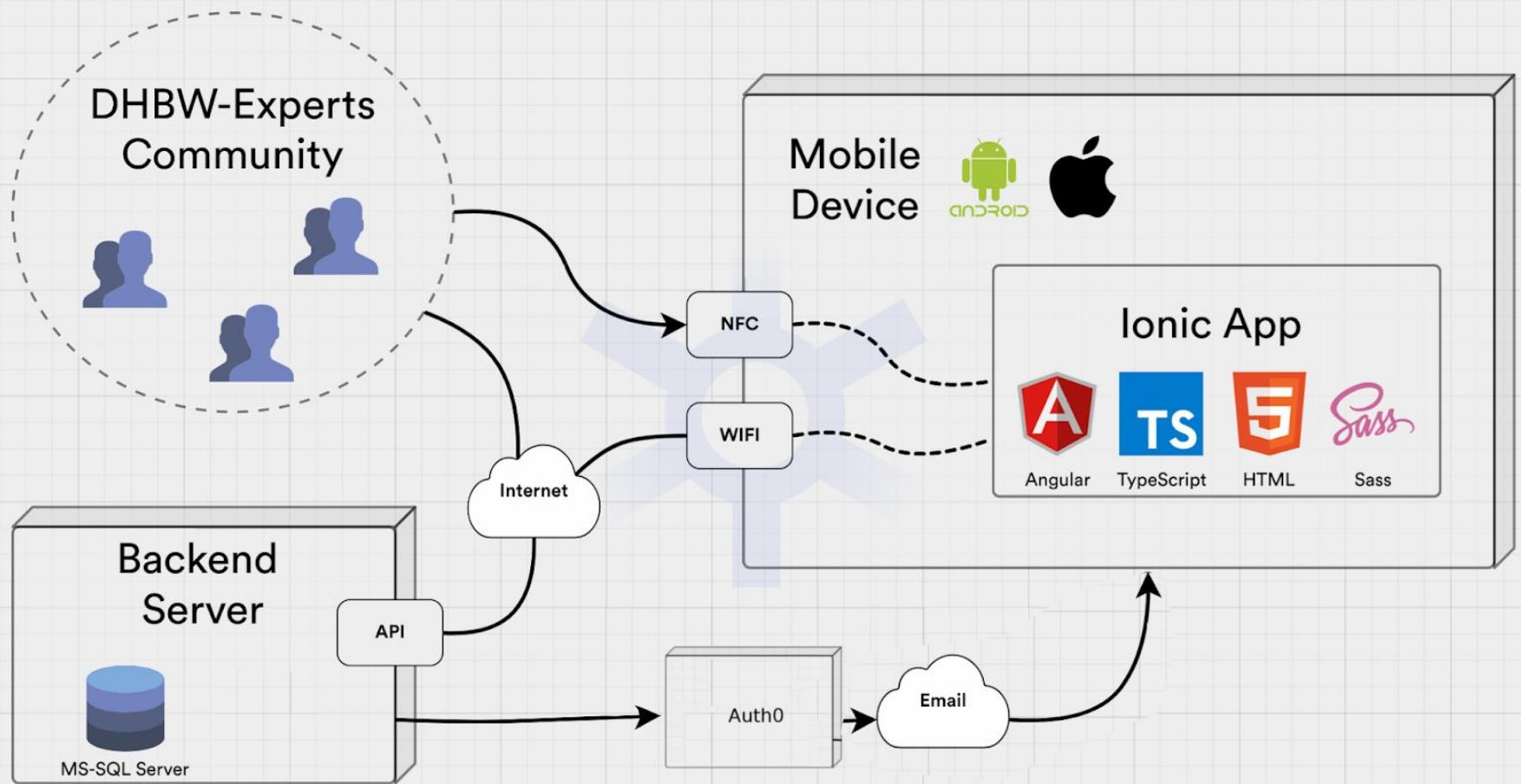


ionic

Azure



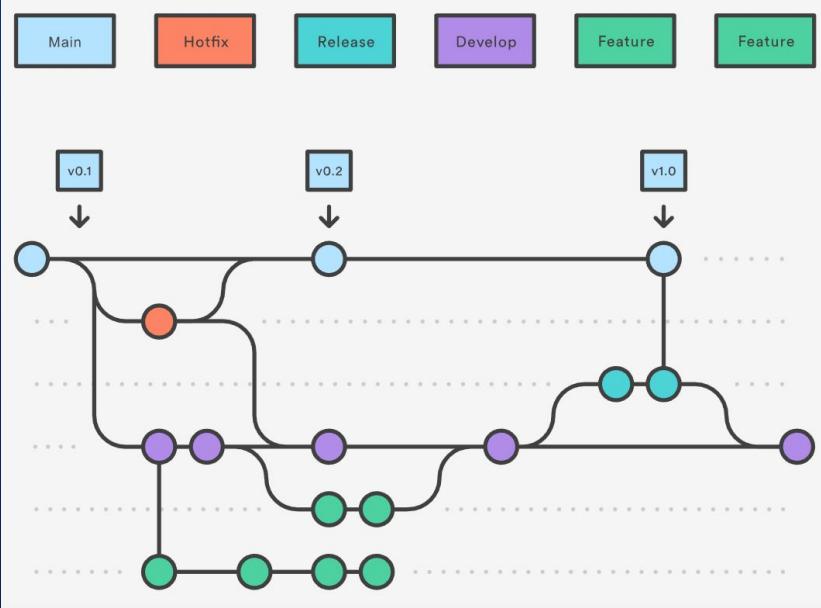




Qualität

Organisatorisch





Git-Flow Workflow

- ALLES bekommt einen dedizierten Branch
- Der aktuellste Stand ist auf dem Dev-Branch zu finden
- Der Main-Branch spiegelt das Produkt beim Kunden wieder
- Pull-Request führen alles zusammen



CI-CD



Trigger: Push auf
den main-Branch

Compile, Build und Test
durch Github Actions

Bereitstellung der App
als APK im Release Tab

Deploy auf einen
Azure Dev-Server

v0.1.1 Pre-release

DHBW-Experts Android App

Prerelease v0.1.1

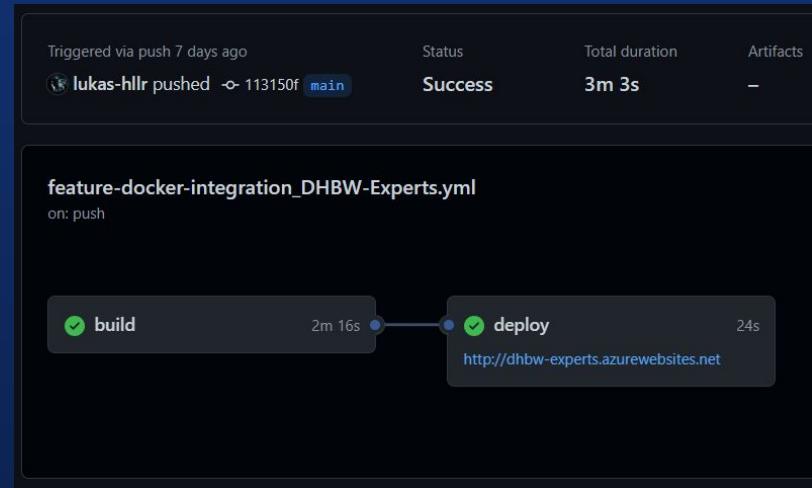
- implemented Auth0 support
- support for secured API Endpoints
- updated API Endpoint URIs
- added Unit Tests
- removed default user for login system

▼ Assets 3

dhw-experts_v0.1.1.apk	7.52 MB	May 16, 2022
Source code (zip)		May 16, 2022
Source code (tar.gz)		May 16, 2022

Sonstige Pipelines und Features

- DB-Reset Pipeline
- Alle Anwendungen sind Stack-unabhängig Dockerized
- Zentrales Docker-Compose Image zur Installation mit einem CMD-Befehl
- Docker Images werden GHCR zur Verfügung gestellt



Risiko Management

- Resultierender Risikofaktor ergibt sich aus Wahrscheinlichkeit des Auftretens und dem verursachenden Schaden (Arbeitszeit)
- Unsere größten Risiken:
 - Einer von uns verlässt das Team
 - Unser Techstack ändert sich noch einmal (gezwungenermaßen)
 - Ein unrealistischer Scope
 - Das Verwenden von (für alle) unbekannten Technologien





Qualität

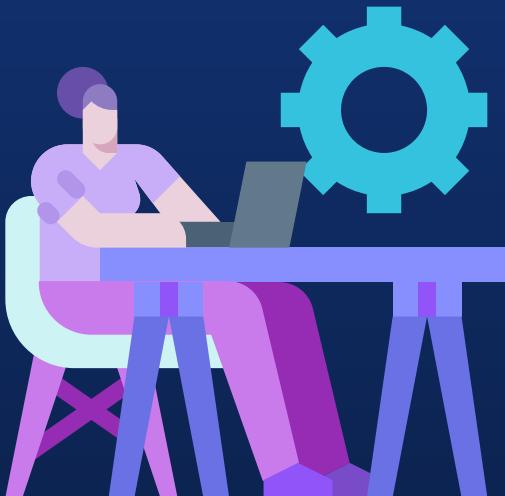
Technisch





TESTING

Qualitätssicherung



Feature Files

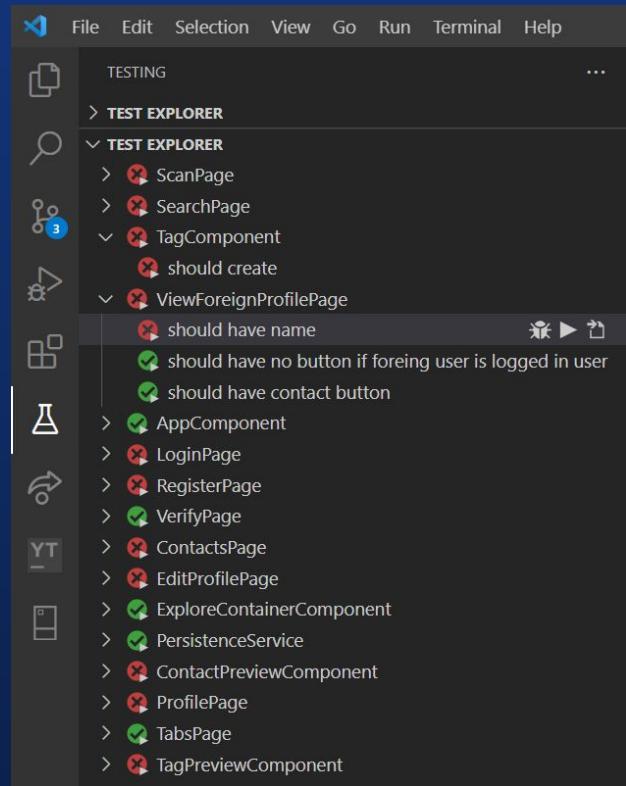
- Konnten bei uns nicht zum Laufen gebracht werden
- Geben Szenarien in Use-Cases an
- Ausschnitt / Beginn einer unserer Feature Files:

```
Feature: fill out the user profile

Scenario: fill out user-profile on the registration window
  Given I started the app for the first time and clicked on the button with id "register"
  Then I am on the "registrieren" page
  When I enter "Max" in the textfield with id "prename"
  And I enter "Mustermann" in the textfield "surname"
  And I select "Karlsruhe" in the dropdown menu with id "dhw_location"
  Then the textfield with id "email_address" gets autocompleted to "mustermann.max@student.dhbw-karlsruhe.de"
```

Unit Testing

-  Jasmine
- Integriert mit CI/CD



API Testing



POSTMAN



The screenshot shows the Postman interface with two test runs:

- GET Check if email-domain is valid** (`{{baseUrl}}/auth0/checkdomain`) / Auth0 / Check if email-domain is valid
 - Pass Endpoint is protected
 - Pass Response-Schema is valid
 - Pass Checking 'student.dhbw-karlsruhe.de' returns true
 - Pass Checking 'web.de' returns false
- GET Search for users** (`{{baseUrl}}/users?name=mustermann`) / Users / Search for users
 - Pass Endpoint is protected
 - Pass Response-Schema is valid
 - Pass Searching for users with 'name=mustermann' returns 3 entities



DATABASE FIRST

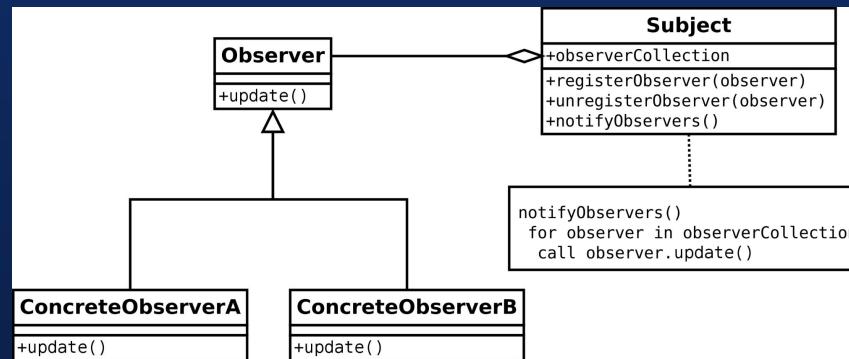
Jede Änderung an der Datenbank sorgt für Bugs in der API

Mit C# und Database First kann anhand der Datenbank aber in Sekunden ein neues funktionales Datenbankmodell generiert werden

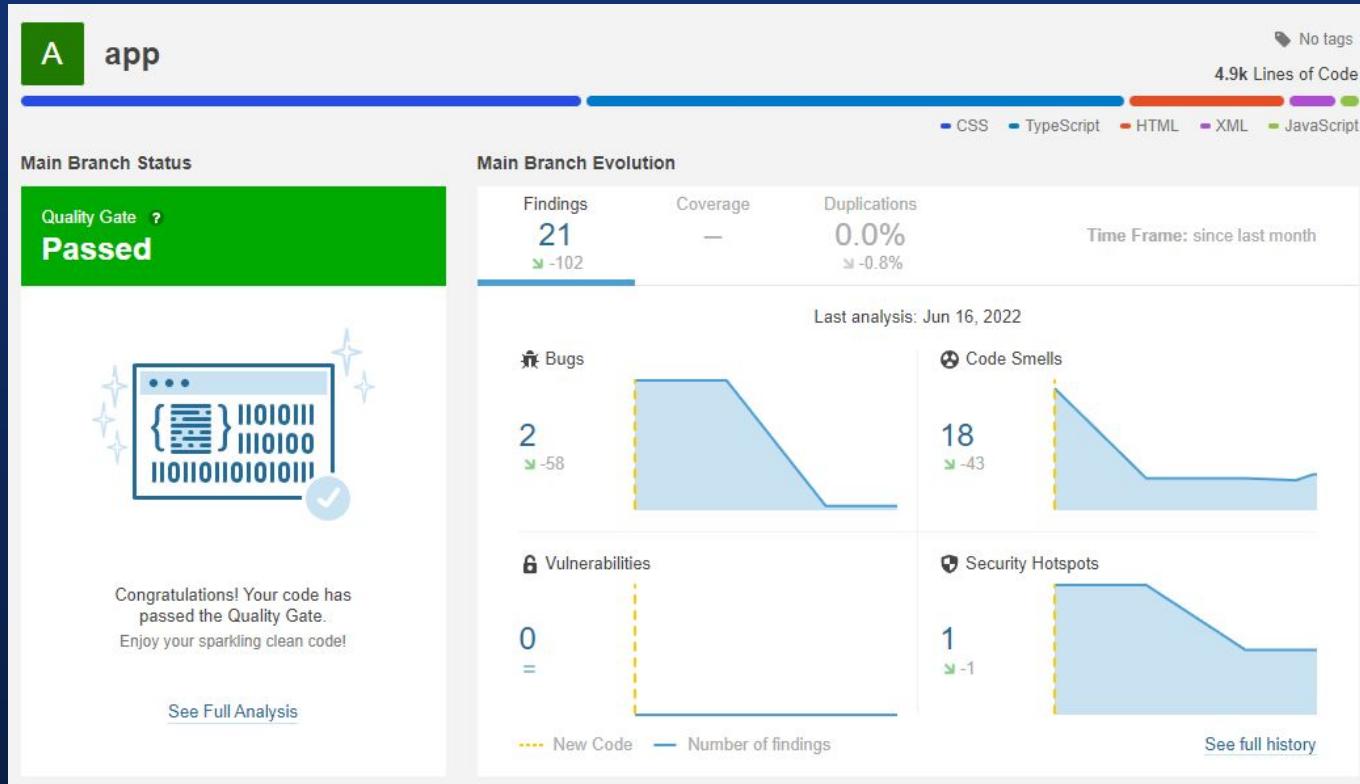
Software Design Pattern

Observer

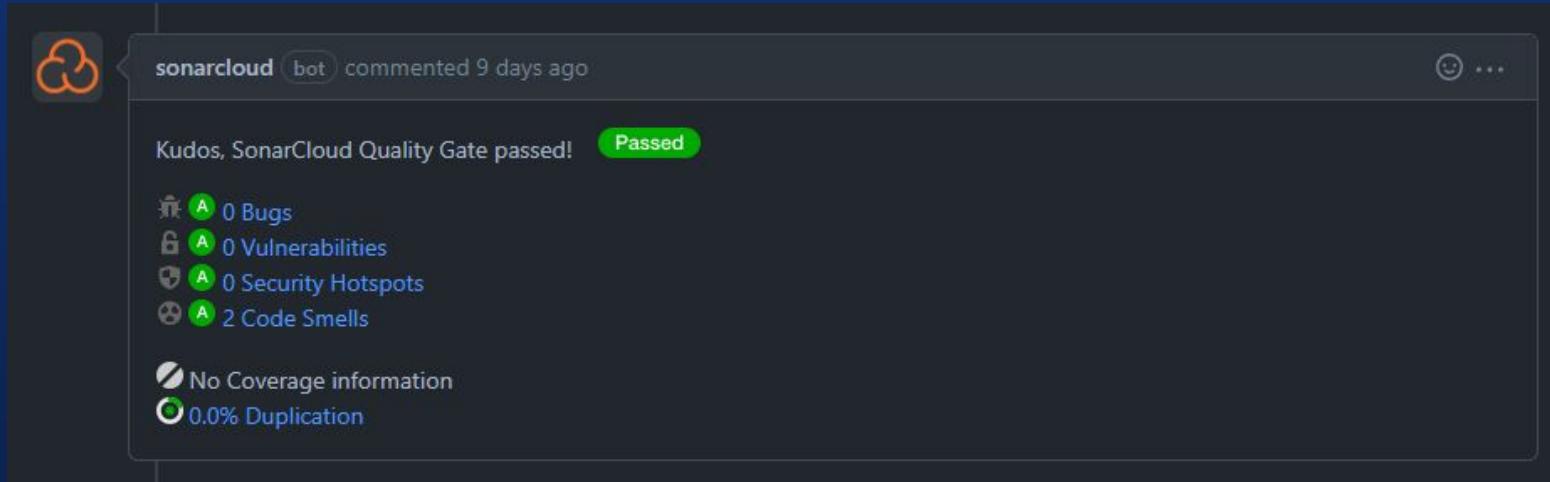
- Objekte können abonniert werden (subscribe)
- Subscriber bekommen Signal bei Änderungen



Metrics



Metrics



A screenshot of a GitHub pull request comment from the `sonarcloud bot`. The comment was posted 9 days ago and congratulates the user on passing the SonarCloud Quality Gate. It provides a summary of the analysis results:

- 0 Bugs
- 0 Vulnerabilities
- 0 Security Hotspots
- 2 Code Smells

It also notes that there is no coverage information available.

Kudos, SonarCloud Quality Gate passed! Passed

- 0 Bugs
- 0 Vulnerabilities
- 0 Security Hotspots
- 2 Code Smells

No Coverage information

0.0% Duplication

Metrics

42 – 0.3.1 Pre-Release	Passed	AU	+2	8 days ago 32bb24d3	
40 – Feature/spinner and registering page	Passed	AU		9 days ago 3483763f	
41 – Hotfix/update tests	Passed	AU		9 days ago 1ac2e918	
39 – Fix/scan	Passed		AU	14 days ago 76d73d5b	
38 – Feature/new search endpoints	Passed	AU	+2	14 days ago 6a849603	
37 – Feature/Improve-User-Experience	Passed	AU		22 days ago 48712313	
36 – Improve Metrics	Passed			26 days ago e45ff7ed	
35 – Improve metrics	Passed			29 days ago 922eec2f	
34 – Feature/loading-animation	Passed	AU		29 days ago a85df109	
33 – 0.2.0 Prerelease	Passed		AU +2	29 days ago eb919f8b	
32 – Add observer pattern	Passed			29 days ago 6ef3ac12	
31 – Hotfix/profile routing	Passed	AU		29 days ago 513766df	
30 – Feature/go back button	Passed	AU		last month 3f748b4b	

DANKE

Fragen? Immer her damit!

DHBW-Experts
Ralph, Tim, Lukas, Noah

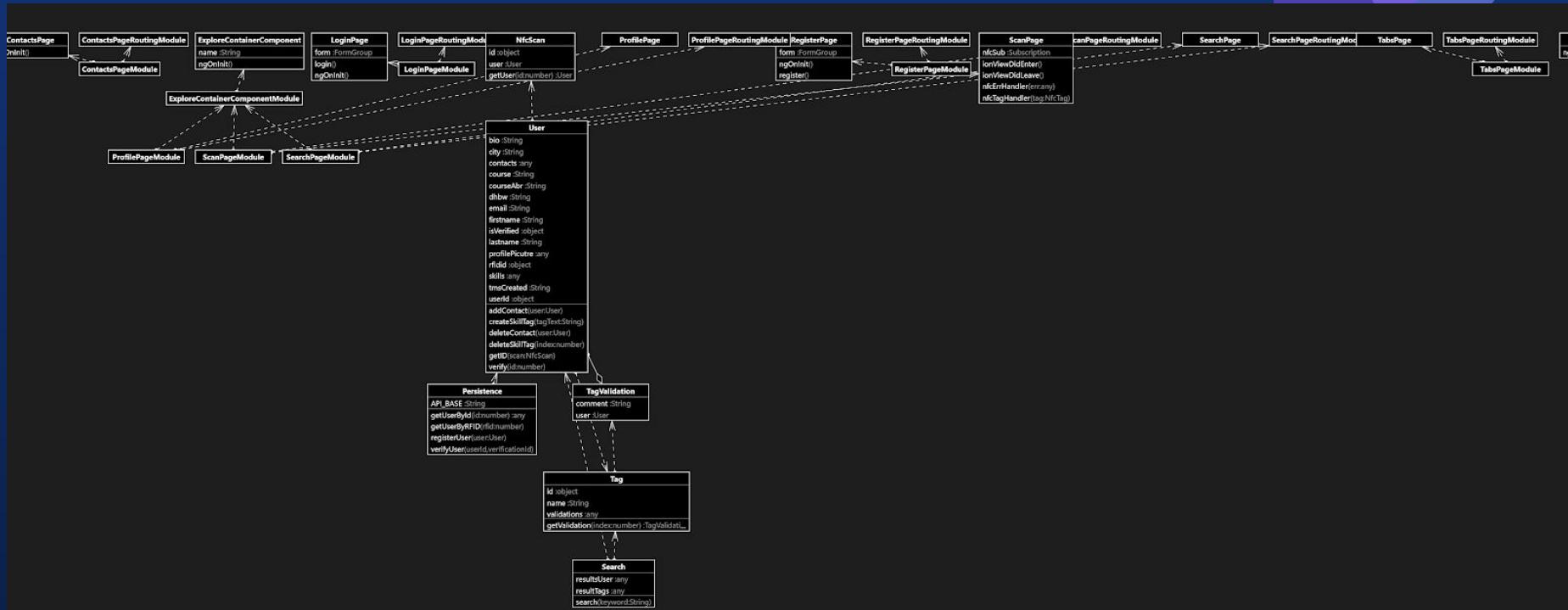
CREDITS: This presentation template was created by [Slidesgo](#),
including icons by [Flaticon](#), infographics & images by [Freepik](#)



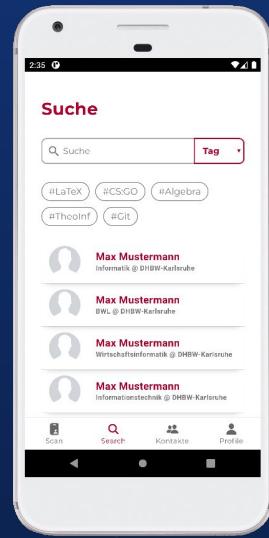
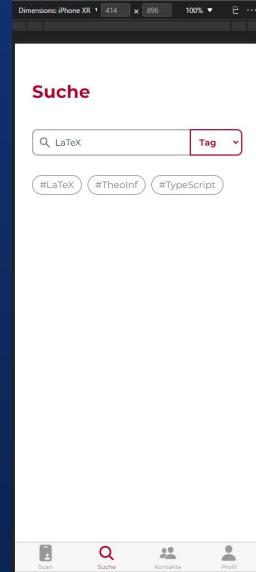
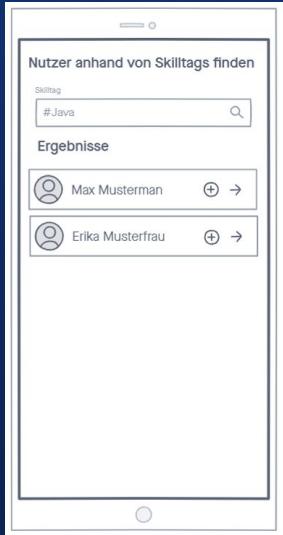


**ENDE GELÄNDE
AB HIER VORLAGEN**

Class Diagram



APP-UI-DESIGN-PROZESS



WIREFRAMES



IONIC

API

Wo alle Daten
zusammenkommen





Gedankenprozess

Schritt 1

- Welche Daten fallen an?

Schritt 2

- Wie setzen wir unsere Anforderungen in ein Datenbankmodell um?

Schritt 3

- Welche Datenbank verwenden wir?

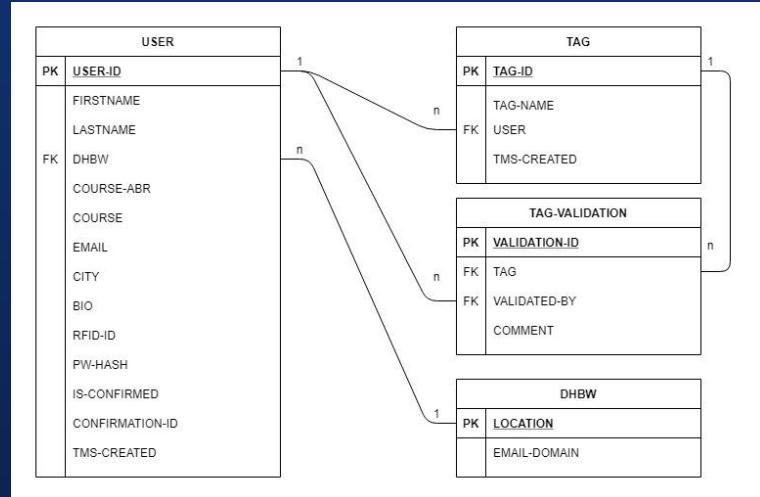
Schritt 4

- Wie kommt unsere App sicher an diese Daten?



Welche Daten fallen an? Wie speichern wir sie?

- Orientierung an Use-Cases
- Relationales Datenbankmodell
- Leicht umzusetzen





Microsoft Azure

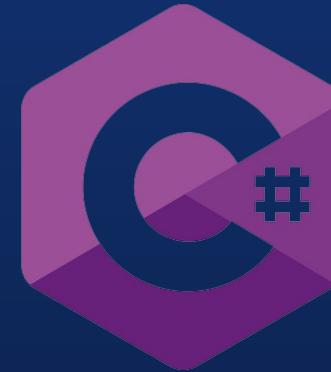
Welche Datenbank verwenden wir?

- Kostenlos für Studenten
- Erfahrung aus dem letzten Projekt
- 24/7 verfügbar
- Alle arbeiten auf den gleichen Datensätzen
- Spiegelt realistisches Szenario wider



Wie machen wir unsere Daten verfügbar?

- C# Backend
 - Kontrollierter Zugriff auf Daten
 - Code/Database First Coding möglich
 - Authentifiziert Benutzer
 - Verifiziert Nutzer
 - (E-Mail Verifizierung vorgeplant)
- 

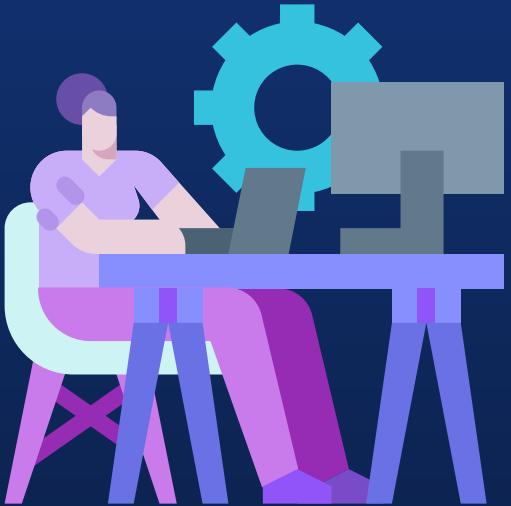


DotNet C#



API

Qualitätssicherung





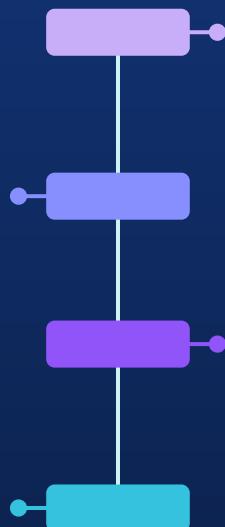
Datenbank Constraints

Keine eigenen Tags validieren

Reputation muss sich
erarbeitet werden

**Sämtliche unlogischen Aktionen
wurden eingeschränkt**

z.B. sich selbst als
Kontakt hinzufügen



Nur DHBW-E-Mail-Adressen

Anders ist eine Registrierung
nicht möglich

**Nur verifizierte User können
teilnehmen**

Andere blendet die Such-API
aus





21 API Schnittstellen

Davon 19 bereits im ersten Semester implementiert



API-Endpunkte

Login, Register,
Verify



GET

Login User

POST

Register User

PUT

Verify User

API-Endpunkte

Users



GET

Get User by User-ID

GET

Get User by RFID-ID

POST

Edit User

DELETE

Delete User by User-ID

API-Endpunkte

Tags

GET

Get Tag by Tag-ID

GET

Get Tags by User-ID

GET

Get Tag-Validation by Val-ID

GET

Get Tag-Validations by Tag-ID

POST

Add Tag to User

DELETE

Delete Tag by Tag-ID

DELETE

Delete Tag-Validation by Val-ID

API-Endpunkte

Contacts

GET

Get Contacts of User by User-ID

POST

Add User to Contact List

DELETE

Delete Contact of User by User-ID

API-Endpunkte

Search

GET

GET User by User-ID

GET

GET Distinct Tags by Text



CONTENTS OF THIS TEMPLATE

Here's what you'll find in this **Slidesgo** template:

- A slide structure based on a business plan, which you can easily adapt to your needs. For more info on how to edit the template, please visit **Slidesgo School** or read our **FAQs**.
- An assortment of illustrations and photos that are suitable for use in the presentation can be found in the **alternative resources** slide.
- A **thanks** slide, which you must keep so that proper credits for our design are given.
- A **resources** slide, where you'll find links to all the elements used in the template.
- **Instructions for use**.
- Final slides with:
 - The **fonts and colors** used in the template.
 - A selection of **illustrations**. You can also customize and animate them as you wish with the online editor. Visit **Storyset by Freepik** to find more.
 - More **infographic resources**, whose size and color can be edited.
 - Sets of **customizable icons** of the following themes: general, business, avatar, creative process, education, help & support, medical, nature, performing arts, SEO & marketing, and teamwork.

You can delete this slide when you're done editing the presentation.



TABLE OF CONTENTS

01

Business Overview

Here you could describe
the topic of the section

02

Market Analysis

Here you could describe
the topic of the section

03

Sales and Marketing Plan

Here you could describe
the topic of the section

04

Management Plan

Here you could describe
the topic of the section

05

Operating Plan

Here you could describe
the topic of the section

06

Financial Plan

Here you could describe
the topic of the section



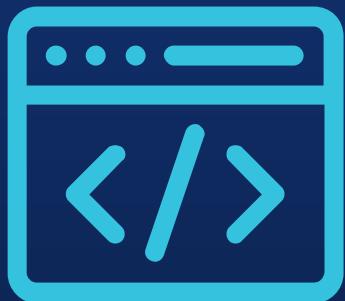
**“This is a quote, words full of wisdom
that someone important said and can
make the reader get inspired.”**

—SOMEONE FAMOUS



MISSION STATEMENT

Here you could describe the company's mission. A clear message is a good way to get down to business





Your Logo Here

OUR COMPANY

Mercury is the closest planet to the Sun and the smallest one in the Solar System—it's only a bit larger than the Moon



A PICTURE IS WORTH A THOUSAND WORD





REVIEWING CONCEPTS IS A GOOD IDEA

MERCURY

Mercury is the closest planet to the Sun

VENUS

Venus has a beautiful name

JUPITER

It's the biggest planet in the Solar System



MARS

Despite being red, Mars is a cold place

SATURN

Saturn is the ringed one and a gas giant

NEPTUNE

Neptune is the farthest planet from the Sun





01

BUSINESS OVERVIEW





MARKET TRENDS



To modify this graph, click on it, follow the link, change the data and paste the resulting graph here, replacing this one

- Despite being red, Mars is a very cold place
- Venus has a beautiful name, but it's terribly hot
- Mercury is the closest planet to the Sun



PROBLEM VS SOLUTION



PROBLEM

Venus has a beautiful name and is the second planet from the Sun. It's terribly hot!



SOLUTION

Mercury is the closest planet to the Sun and also the smallest one in the Solar System

COMPETITORS



MARS

Mars is full of iron oxide dust, giving this planet its reddish cast



JUPITER

Jupiter is the biggest one and the fourth-brightest object in the sky



SATURN

Saturn is a gas giant, composed mostly of hydrogen and helium



THEM VS US

THEM

Mercury is the closest planet to the Sun and the smallest one in the Solar System

US

Venus is the second planet from the Sun. Its atmosphere is very poisonous





1,200,000

Big numbers catch your audience's attention

02

MARKET ANALYSIS AND COMPETITION





The Slide Title Goes Here

Here you can enter a
subtitle if you need it

Do you know what helps you make your point clear?
Lists like this one:

- They're simple
- You can organize your ideas clearly and easily
- You'll never forget to buy milk again!

And the most important thing: the audience won't
miss the point of your presentation

AWESOME WORDS



TARGET



GENDER

● 60%

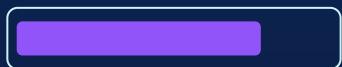
● 40%

AVERAGE SPEND PER CUSTOMER

\$50.00

AGE

25 - 45



MARKET SIZE



40%

MERCURY

Mercury is the closest planet to the Sun



60%

SATURN

It is composed of hydrogen and helium



80%

MARS

Despite being red, Mars is a cold place



75%

JUPITER

It's the biggest object in the Solar System



MARKET SHARE

MERCURY

Mercury is the closest object to the Sun

MARS

Despite being red, Mars is a cold place



NEPTUNE

Neptune is the farthest planet from the Sun

JUPITER

Jupiter is the biggest planet of them all

To modify this graph, click on it, follow the link, change the data and paste the new graph here





COMPETITION ANALYSIS



JUPITER



MERCURY



VENUS



MARS

	JUPITER	MERCURY	VENUS	MARS
COMPETITOR 01	✓	✗	✗	✓
COMPETITOR 02	✗	✗	✓	✗
COMPETITOR 03	✗	✗	✓	✗



03

SALES AND MARKETING PLAN



OUR SERVICES



MERCURY

Mercury is the closest planet to the Sun and the smallest one



SATURN

It is the ringed planet. It is composed of hydrogen and helium



NEPTUNE

Neptune is the fourth-largest planet in the Solar System



JUPITER

Jupiter is a gas giant and the biggest planet in the Solar System





BREAK-EVEN ANALYSIS

BREAK-EVEN POINT

It's the biggest planet in the Solar System



BIG LOSS

Mercury is the closest planet to the Sun

LOSS

Despite being red, Mars is a very cold place

PROFIT

It's composed of hydrogen and of helium

HIGH PROFIT

Neptune is the farthest planet from the Sun





OUR PLANS

BASIC	PRO	PREMIUM
Despite being red, Mars is a very cold place	Venus has a beautiful name, but it's terribly hot	Mercury is the closest planet to the Sun
\$50	\$75	\$95





SALES AND DISTRIBUTION

CHANNEL 1



Mercury is the closest planet to the Sun and the smallest one

CHANNEL 2



It is the ringed planet. It is composed of hydrogen and helium

CHANNEL 3



Jupiter is a gas giant and the biggest object in the Solar System

CHANNEL 4



Despite being red, Mars is actually a very cold place





ADVERTISING AND PROMOTION

CHANNEL 1



ADVERTISING

It's the farthest planet
from the Sun

CHANNEL 2



PR

Venus is the second
planet from the Sun

CHANNEL 3



ONLINE

It's only a bit larger
than the Moon





04 MANAGEMENT PLAN



OUR TEAM



SARAH LEE

You can
replace the
image on the
screen with
your own



AVA SMITH

You can
replace the
image on the
screen with
your own



STEPHEN JAY

You can
replace the
image on the
screen with
your own



ORGANIZATIONAL CHART





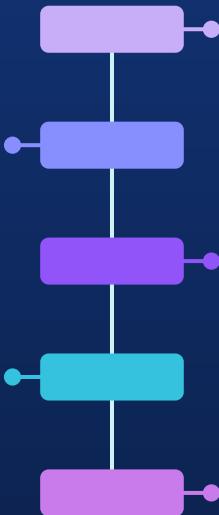
OUR PARTNERS

VENUS

Venus is terribly hot, even hotter than Mercury

MARS

Despite being red, Mars is now a very cold place



JUPITER

It's the biggest planet in the Solar System

MERCURY

Mercury is the closest planet to the Sun

NEPTUNE

Neptune is the farthest planet from the Sun



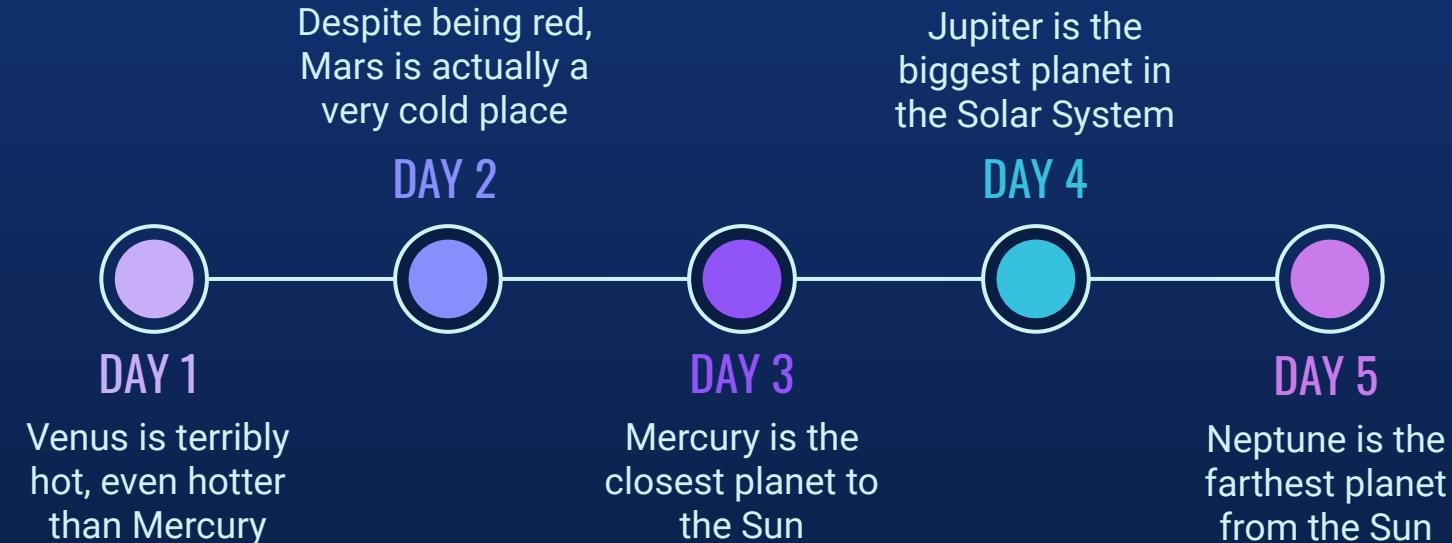
05

OPERATING PLAN





OUR PROCESS



06

FINANCIAL PLAN





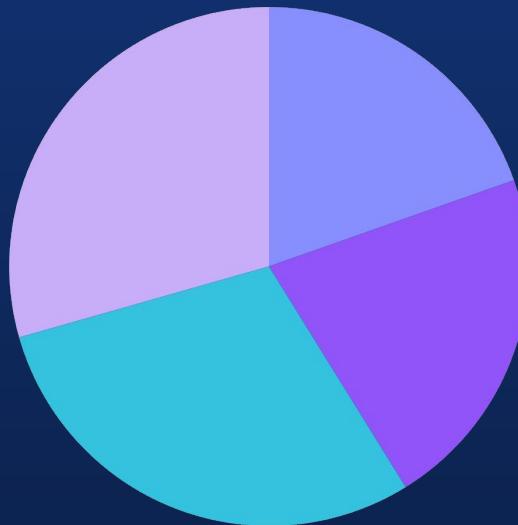
PREDICTED GROWTH

NEPTUNE

Neptune is the farthest planet from the Sun

MARS

Despite being red, Mars is a very cold place



JUPITER

It's the biggest planet in the Solar System

MERCURY

Mercury is the closest planet to the Sun

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BALANCE SHEET



1M **ASSETS**

What the company owns

300K **LIABILITIES**

What the company owes

700K **EQUITY**

Difference between both



THANKS



Do you have any questions?
addyouremail@freepik.com
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ALTERNATIVE RESOURCES

VECTORS

- Modern web design concept with flat style
- App development concept with flat design
- Graphic design idea concept

PHOTOS

- Workers in the office during pandemic wearing medical masks
- People in the office working during pandemic with masks on
- Young man with laptop and headphones
- Asian woman using laptop
- Young girl speaking on the phone in the office
- Modern woman using laptop
- Cute young woman working on a laptop





RESOURCES

VECTORS

- Concepto de programadores con diseño plano
- Software Development free icon
- Programming free icon
- Layout free icon
- Project free icon
- Planning free icon

PHOTOS

- Co workers wearing face mask at the office
- Man working on laptop in the office
- Young woman working on laptop
- Business woman typing on laptop keyboard



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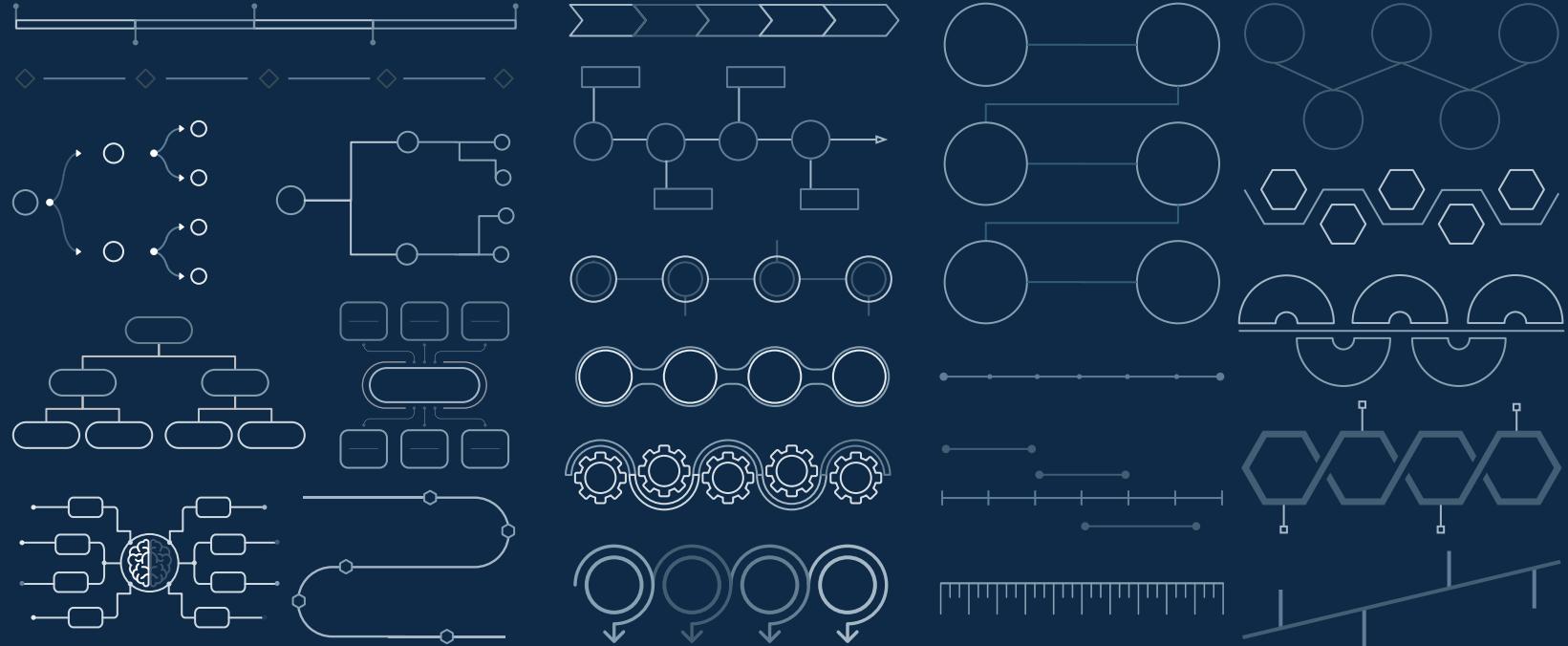
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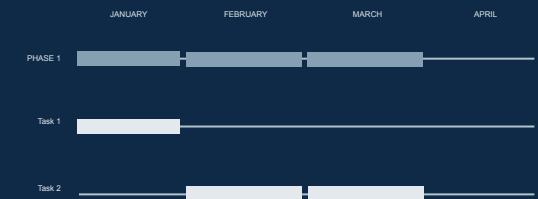
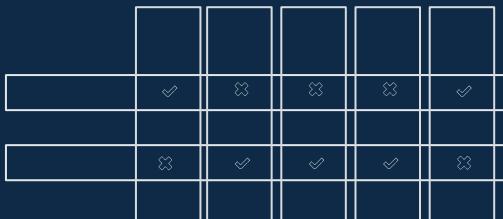
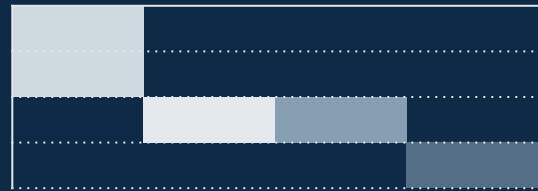
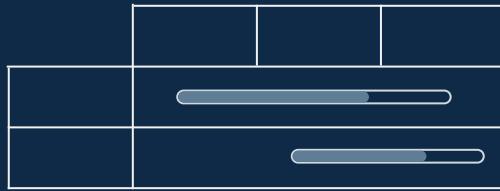
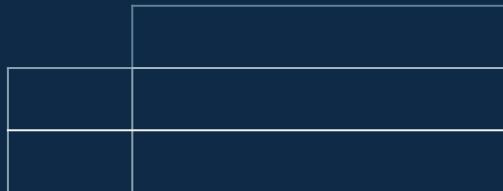
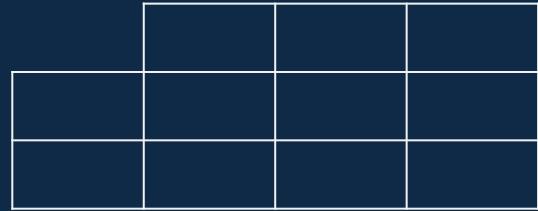
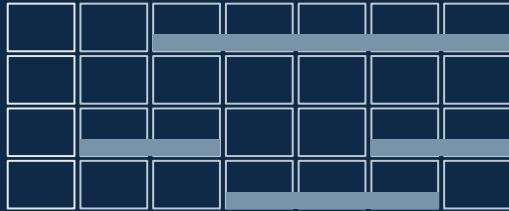
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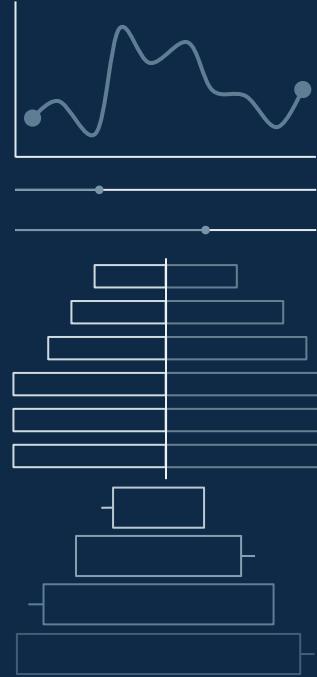
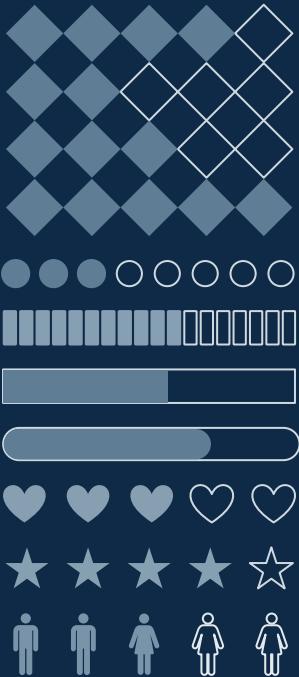
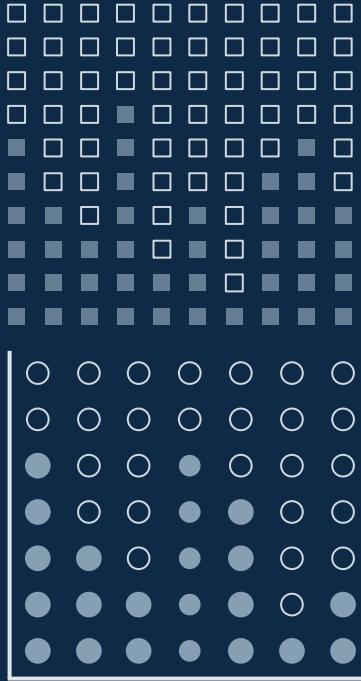












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