

A vibrant, low-angle photograph of four young adults celebrating. They are standing on what appears to be the back of a car, with their arms raised in the air. The scene is filled with a shower of colorful confetti falling from above. The background is a bright, hazy sky, suggesting a sunny day. The overall mood is joyful and carefree. The text 'TheFriendsLook' is superimposed over the upper part of the image in a black, handwritten-style font.

# TheFriendsLook

Jan, Mo, Marvin





Meet new  
people

fast

Coordinate  
your free time

Save time

Vision

Get more  
efficient

easy

Meet  
friends

User  
friendly

Have fun



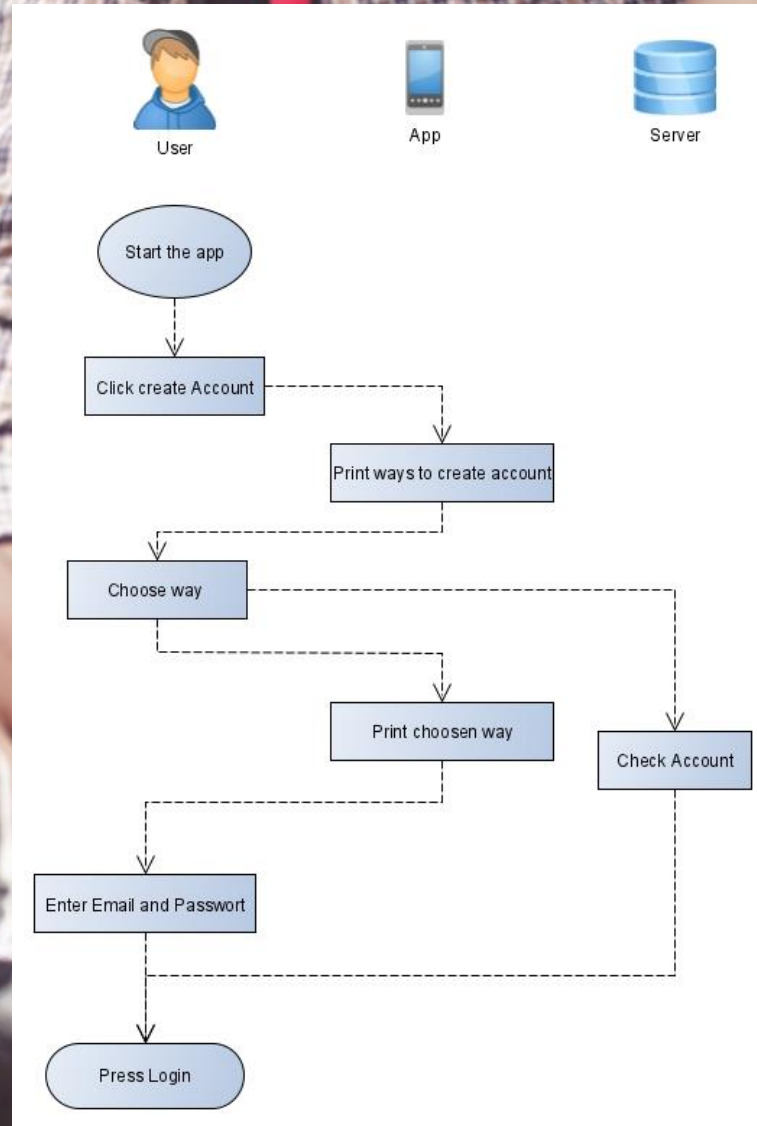
# Scope

- Vernetzung steigern
- Freizeit besser planbar machen
- Mehr zeit für freunde
- Mehr Spaß
- Einfach
- Meet new friends



# Use Cases

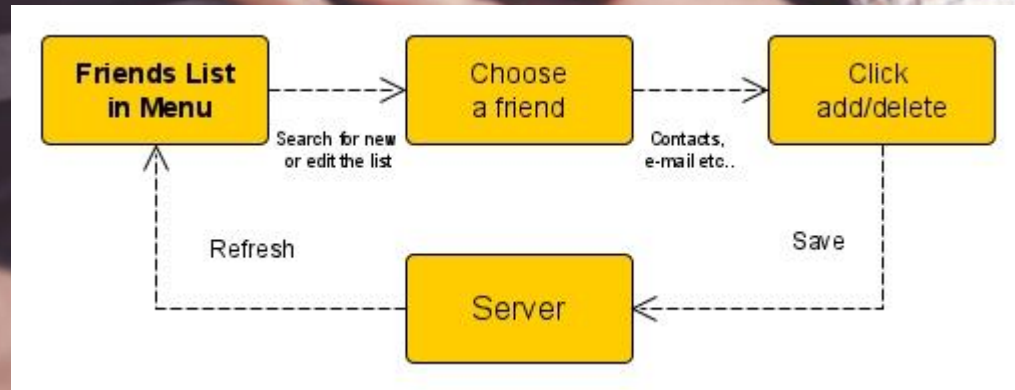
- Create Account





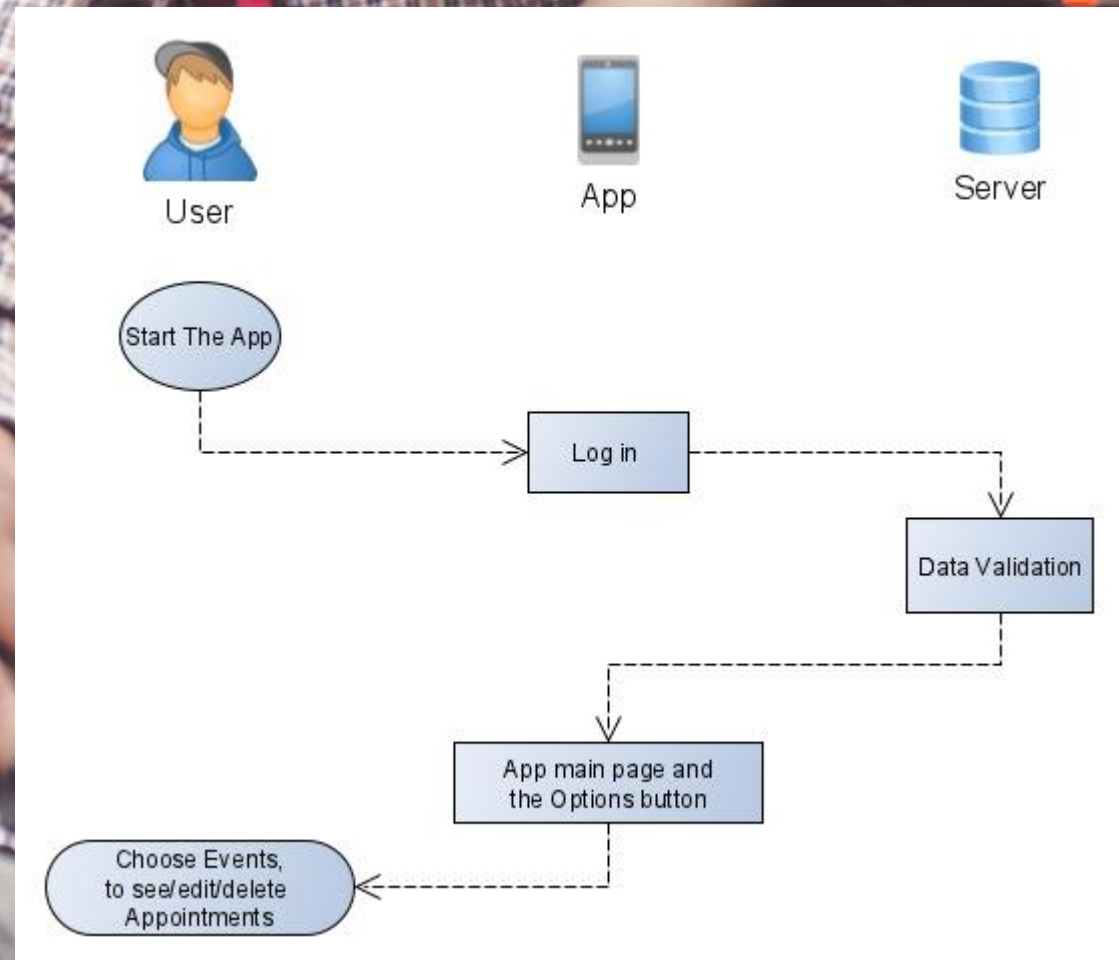
# Use Cases

- Add/Delete Friends



# Use Cases

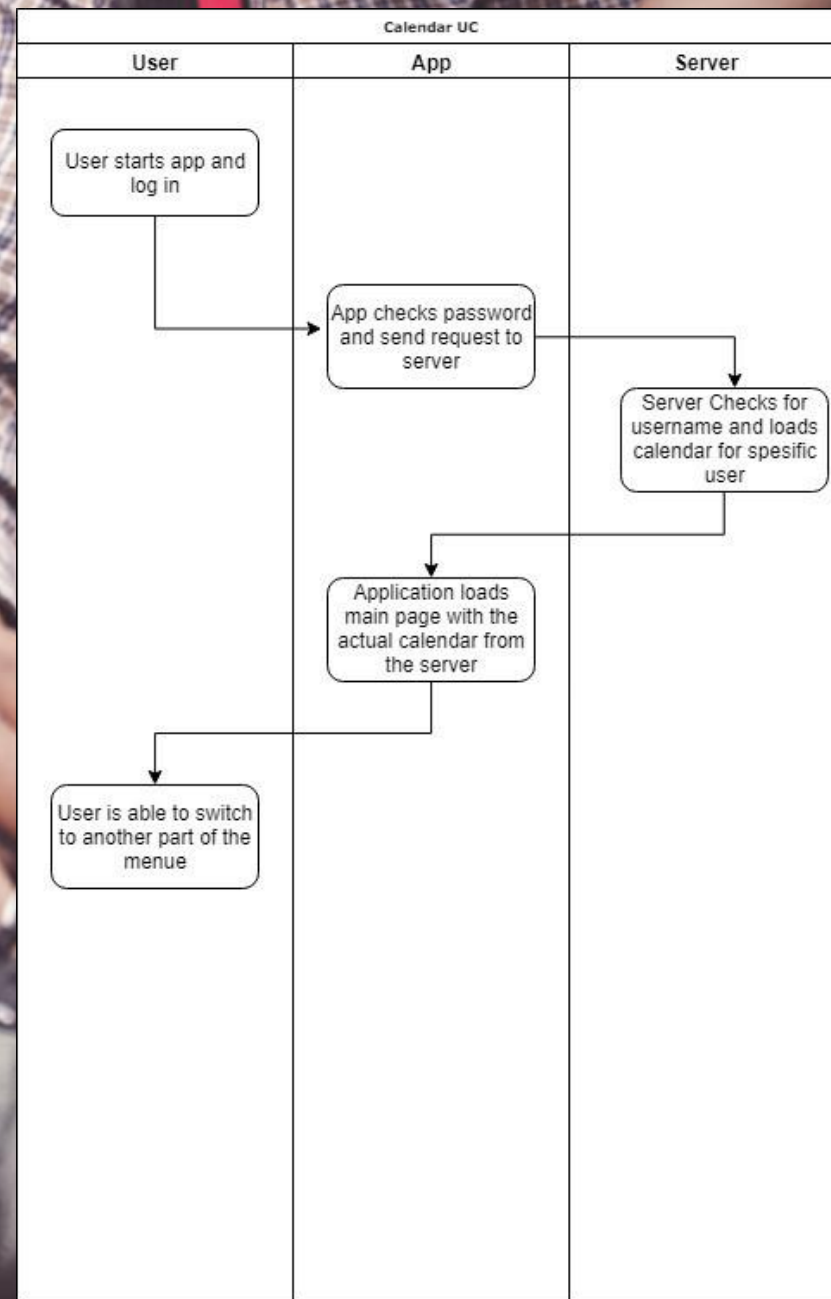
- Events/Appointments





# Use Cases

- Calendar





# Functionality

- Create events
- Discover events
- Watch calendar
- Subscribe events
- Manage your account



# Methodology

- Agiles Projektmanagement
- Wöchentliche Sprints
- Flacher Hierarchie
- Direkte und offene Kommunikation
- Tracking in YouTrack





# RUP

- Inception
- Elaboration
- Construction
- Transition





# RUP

- ~~Inception~~
- Elaboration
- Construction
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# RUP

- ~~Inception~~
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# RUP

- ~~Inception~~
- ~~Elaboration~~
- ~~Construction~~
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# YouTrack

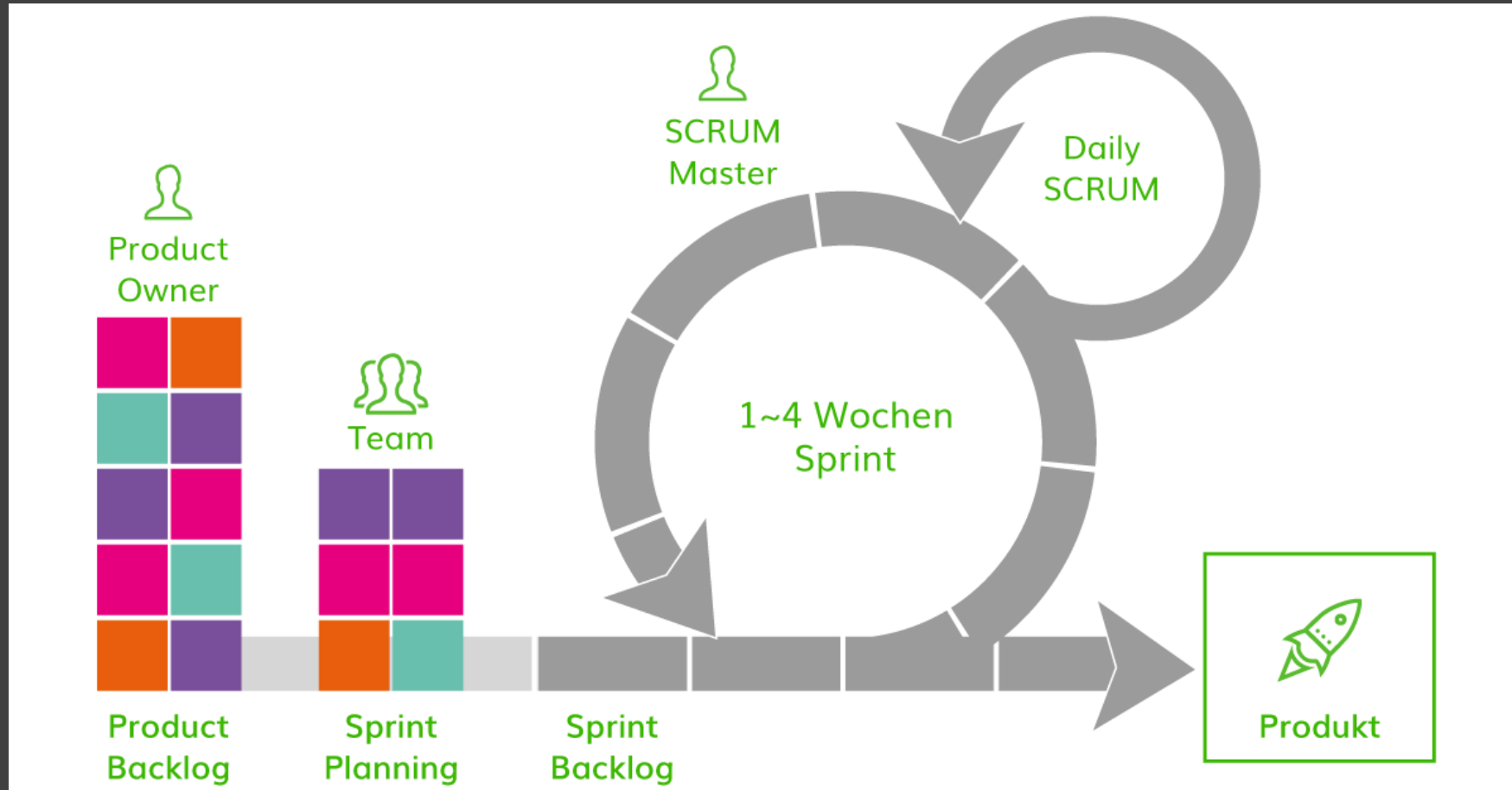
- Flexibel
- Iterativer Prozess
- Monitoring



<https://dhbw-karlsruhe.myjetbrains.com/youtrack/dashboard?id=95e71f97-3a1a-4120-916d-a2036778a351>



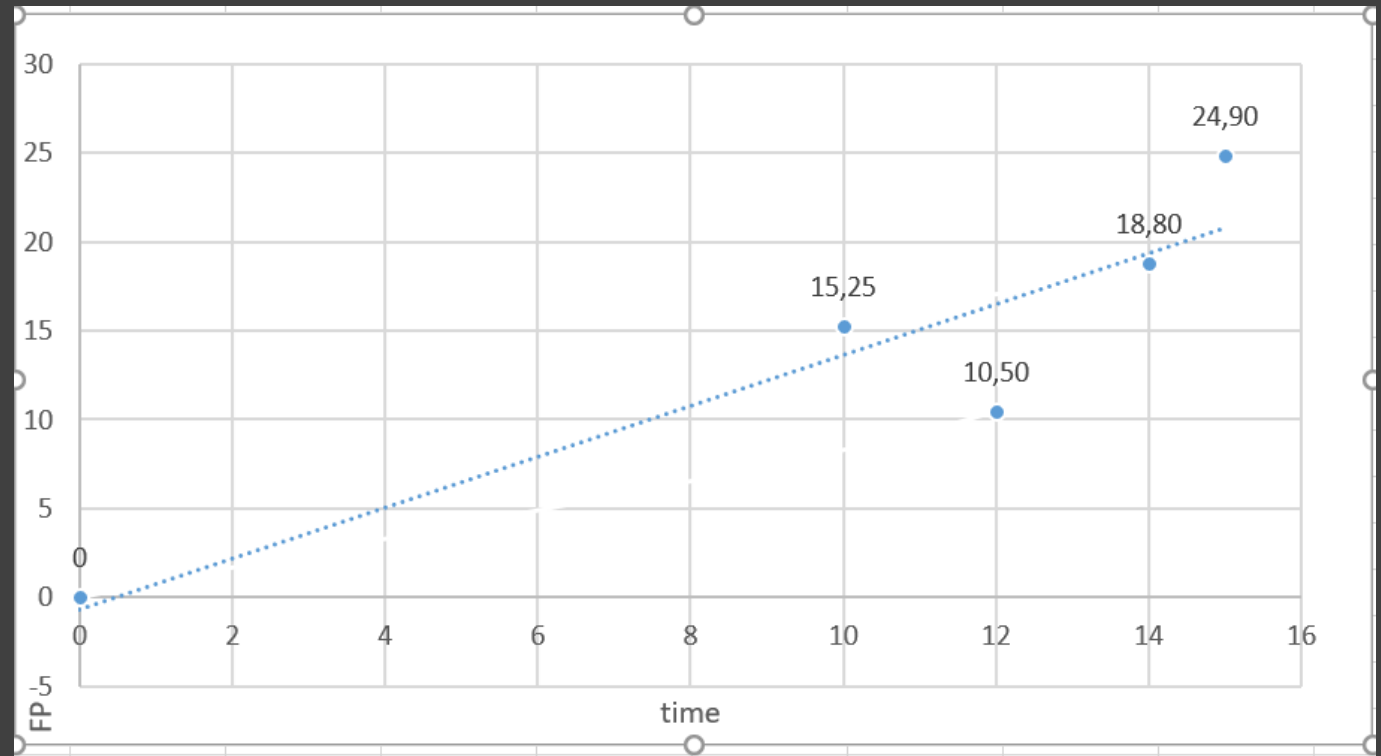
# YouTrack





# Cost Estimation

| UC                  | time | FP    |
|---------------------|------|-------|
| start               | 0    | 0     |
| create accounts     | 12   | 10,50 |
| add/delete Friend   | 10   | 15,25 |
| events/appointments | 14   | 18,80 |
| calendar            | 15   | 24,90 |





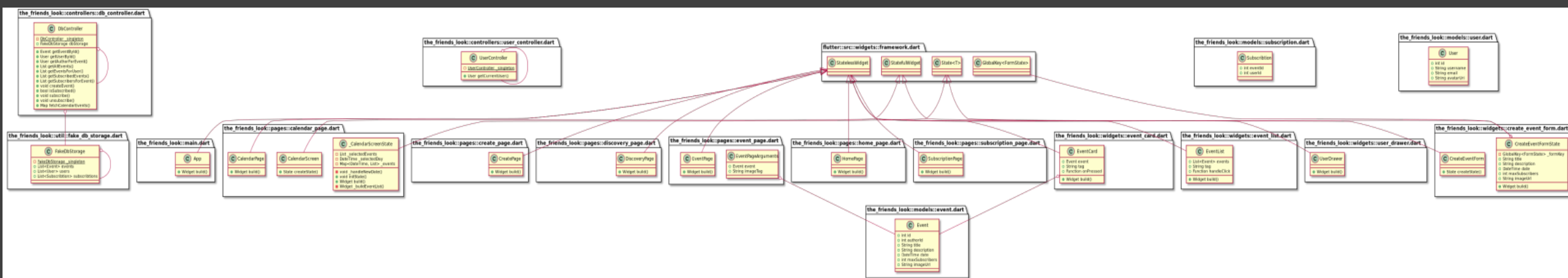
# Cost real time

- server problem
- Kein Server -> Keine Nutzer
- Keine Zeit für Implementierung

Demo



# Class Diagram



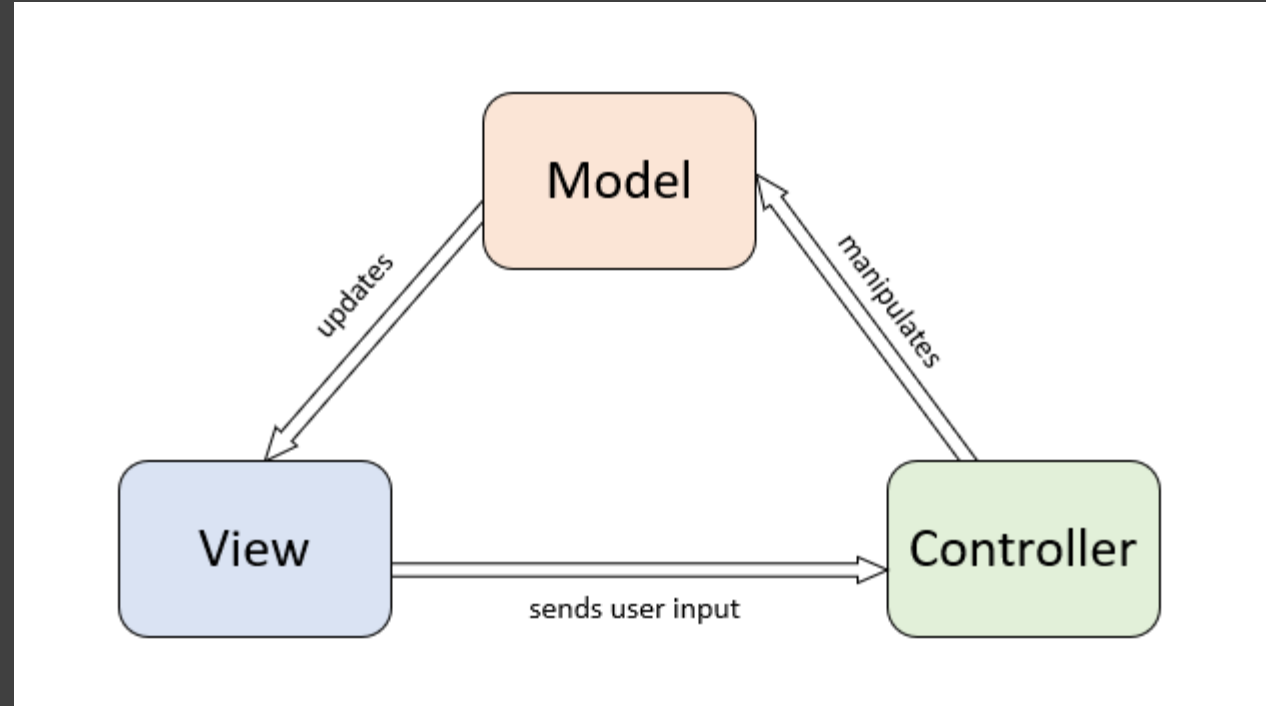
# Class Diagram

- <https://www.youtube.com/watch?v=FgTSfL13MUA&feature=youtu.be>



# Architecture

- Application
- Flutter
- MVC Modell



# Technik

- Visual Studio code
  - Entwicklung
- Git
  - Versionierung
  - Code Zusammenführung



# Technik

- Dart Analyzer
  - Code Analyse
  - Metrics
- Flutter Plugins
- DCDG
  - Klassendiagramme

# Automation

- Unit Testing
- Git
- Klassendiagramme erzeugen
- SonarQube



# Risk

| fx | ID |                 |                                                       |                                |        |        |                                                          |                  |
|----|----|-----------------|-------------------------------------------------------|--------------------------------|--------|--------|----------------------------------------------------------|------------------|
|    | A  | B               | C                                                     | D                              | E      | F      | G                                                        | H                |
| 1  | ID | Risk name       | Risk description                                      | Risk Probability of Occurrence | Impact | Factor | Migration                                                | Person in charge |
| 2  | 1  | Lack of time    | not achieving our goals or projekt                    | 50%                            | 10     | 6      | Planning and time management                             | All              |
| 3  | 2  | COVID-19        | Internet and server problems, limited contact         | 40%                            | 9      | 1,8    | have patience, we can do nothing                         | All              |
| 4  | 3  | Human resources | lack of experience or effort                          | 30%                            | 7      | 2,5    | work together to complete all tasks                      | Marvin           |
| 5  | 4  | Dataloss        | Git is down or we lose the backups (backup's failure) | 20%                            | 6      | 1      | always make sure that the backups works                  | Mo               |
| 6  | 5  | Complexity      | our goals are too hard to achieve                     | 15%                            | 7      | 0,75   | Prioritize all functions and work together to find a     | Mo               |
| 7  | 6  | Tools           | licence or failure, and lack of support               | 5%                             | 5      | 0,25   | look at documentations and infos before using a new tool | Jan              |
| 8  |    |                 |                                                       |                                |        |        |                                                          |                  |

# testing

- Unit Testing

```
1 import 'package:flutter_test/flutter_test.dart';
2 import 'package:the_friends_look/controllers/db_controller.dart';
3
4 void main() {
5   test('Fetch demo user', () {
6     var provider = DbController();
7
8     var username = provider.getUserById(0).username;
9     var email = provider.getUserById(0).email;
10
11     expect(username, 'peter');
12     expect(email, 'peter@gmail.com');
13   });
14 }
```

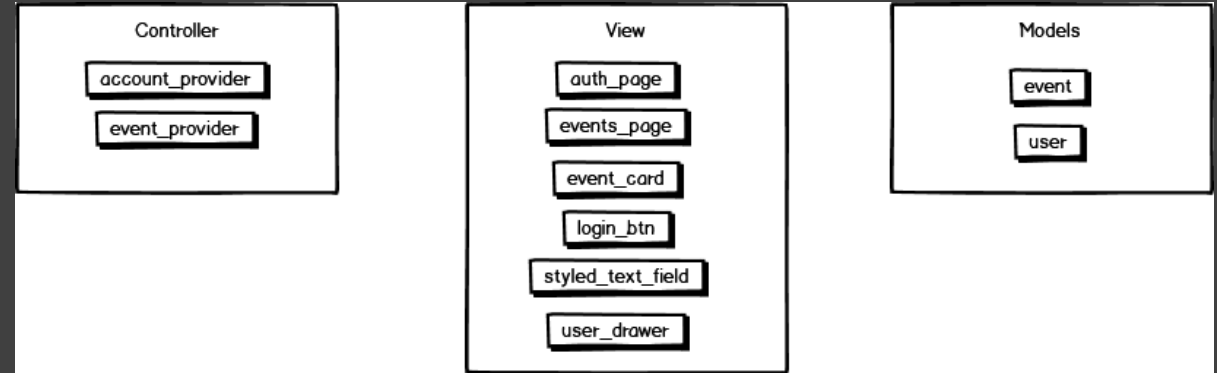
```
1 import 'package:flutter_test/flutter_test.dart';
2 import 'package:the_friends_look/controllers/db_controller.dart';
3
4 void main() {
5   test('Fetch data from database', () {
6     var provider = DbController();
7     var data = provider.getAllEvents();
8
9     expect(data.length, 4);
10   });
11
12   test('Demo event is present', () {
13     var provider = DbController();
14     var data = provider.getAllEvents();
15
16     expect(data[0].title, "Grillen im Garten");
17   });
18 }
```



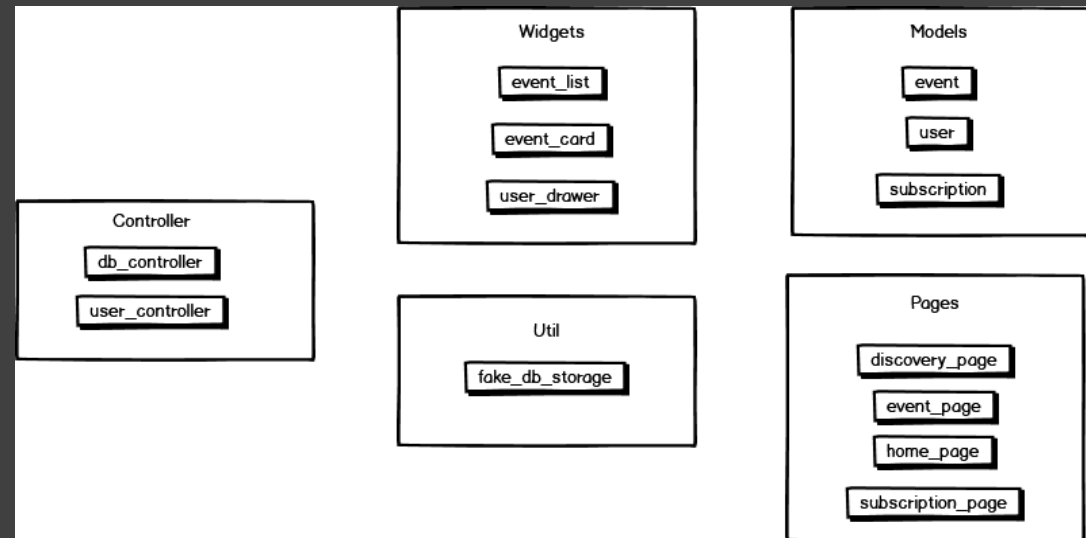
# Patterns

- Sofa Prinzip
- Kürzere Methoden
- Weniger Argumente
- Weniger Abstraktion
- Code smells beseitigt
- Bessere struktur

before



after



# Metrics

- Improve Code Quality
- Dart Analyzer
- Refactore Code

```
PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL

No dart files found at: C:\Users\Asus\TheFriendsLook\TheFriendsLook\metrics
PS C:\Users\Asus\TheFriendsLook\TheFriendsLook> dartanalyzer lib
Analyzing lib...
  error - This requires the 'control-flow-collections' experiment to be enabled. - lib\controllers\db_controller.dart:96:9 -
  hint - Set literals weren't supported until version 2.2, but this code is required to be able to run on earlier versions.
  hint - Unused import: '../models/event.dart'. - lib\pages\calendar_page.dart:6:8 - unused_import
  hint - Unused import: '../widgets/event_list.dart'. - lib\pages\calendar_page.dart:7:8 - unused_import
1 error and 3 hints found.
PS C:\Users\Asus\TheFriendsLook\TheFriendsLook> dartanalyzer test
Analyzing test...
No issues found!
PS C:\Users\Asus\TheFriendsLook\TheFriendsLook> |
```

Ln 26, Col 21 Spaces: 2 UTF-8

Danke