Roll Companion

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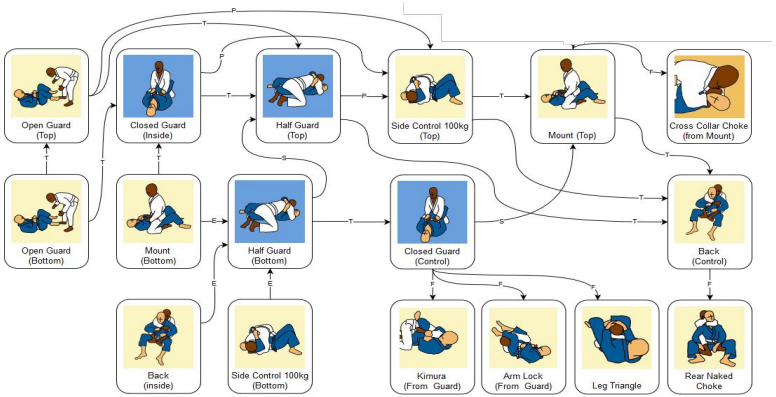
Problem

- ★ Brazilian Jiu jitsu is a difficult sport
- ★ There are many techniques and relationships betweens them
- ★ Can be hard for beginners to conceptualize
- ★ More experienced practitioners are likely to plateau

Solution

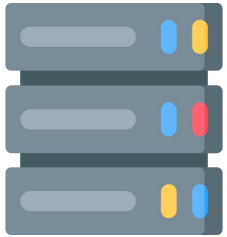
- ★ Mobile app for Jiu Jitsu practitioners
  - Track and visualize progress
  - Connect with friends
  - Watch video tutorials



Actors

USER

DATABASE



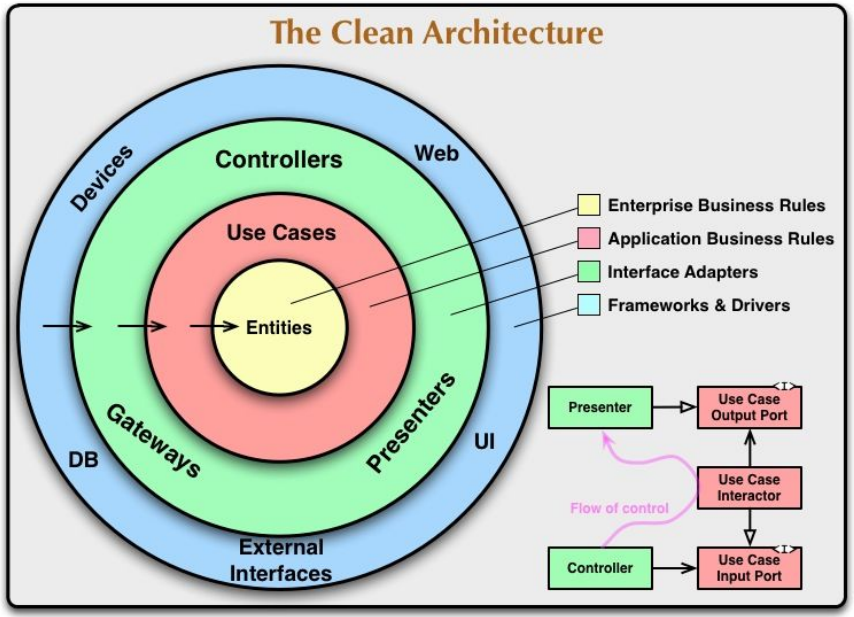
SERVERS

SYSTEM ADMINISTRATOR

Flutter

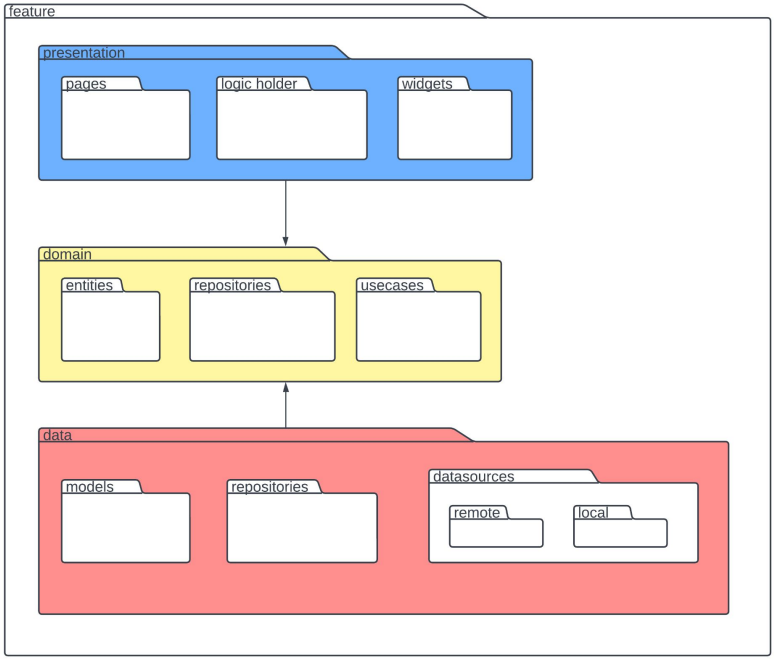
Firebase

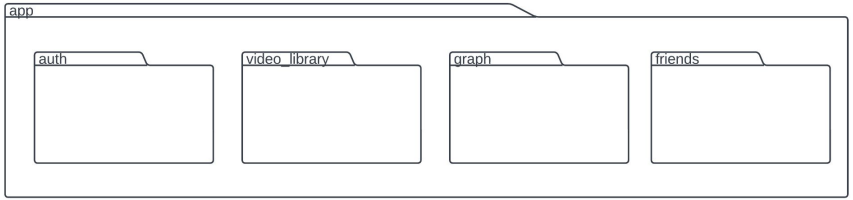
A Clean Architecture

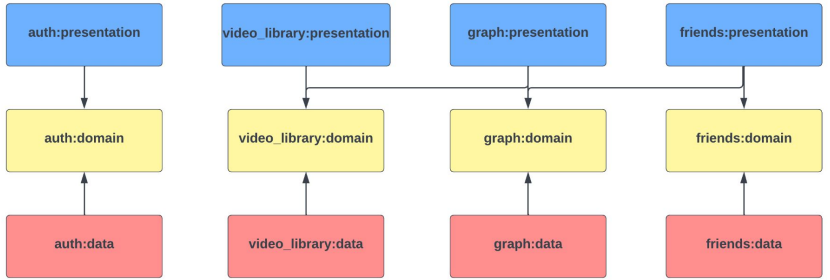


- Separation of Concerns
- Testability
- Flexibility
- Independent of External Frameworks
- Maintainability

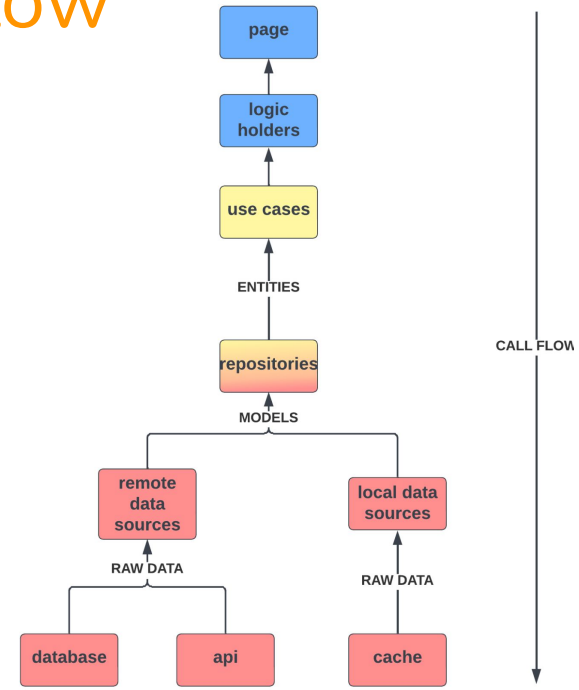
Modularisation



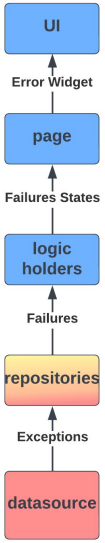




Call Flow



Flow of Error States

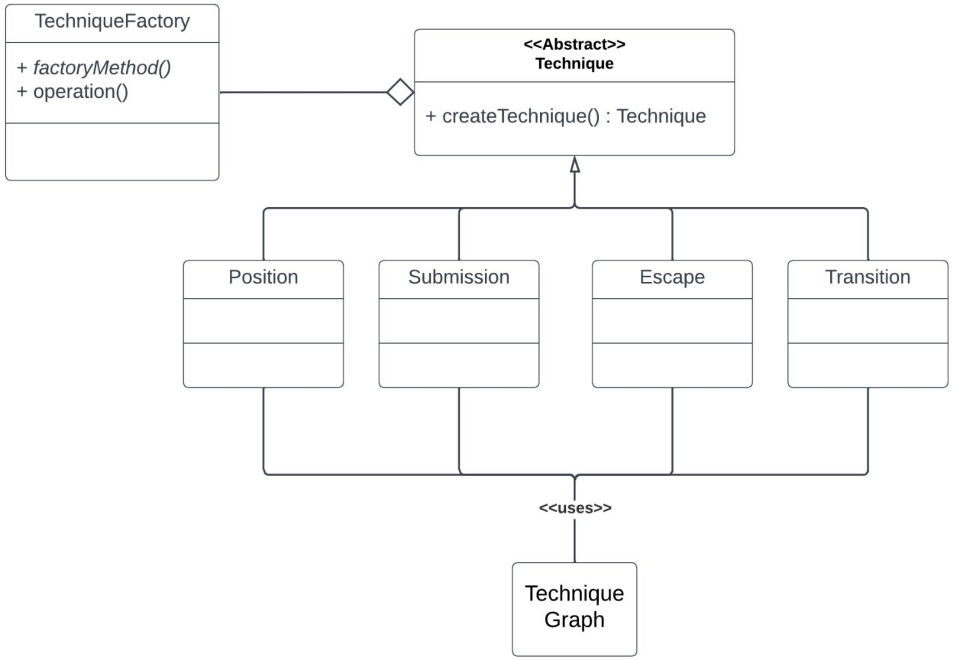


Future<Either<Failure, ReturnType>>
methodName

```
Model datasourceImpl {
 Try {
        // successful code
        // return a model or void
} Catch (e) {
        // throw exceptions to repositories
}
}
```

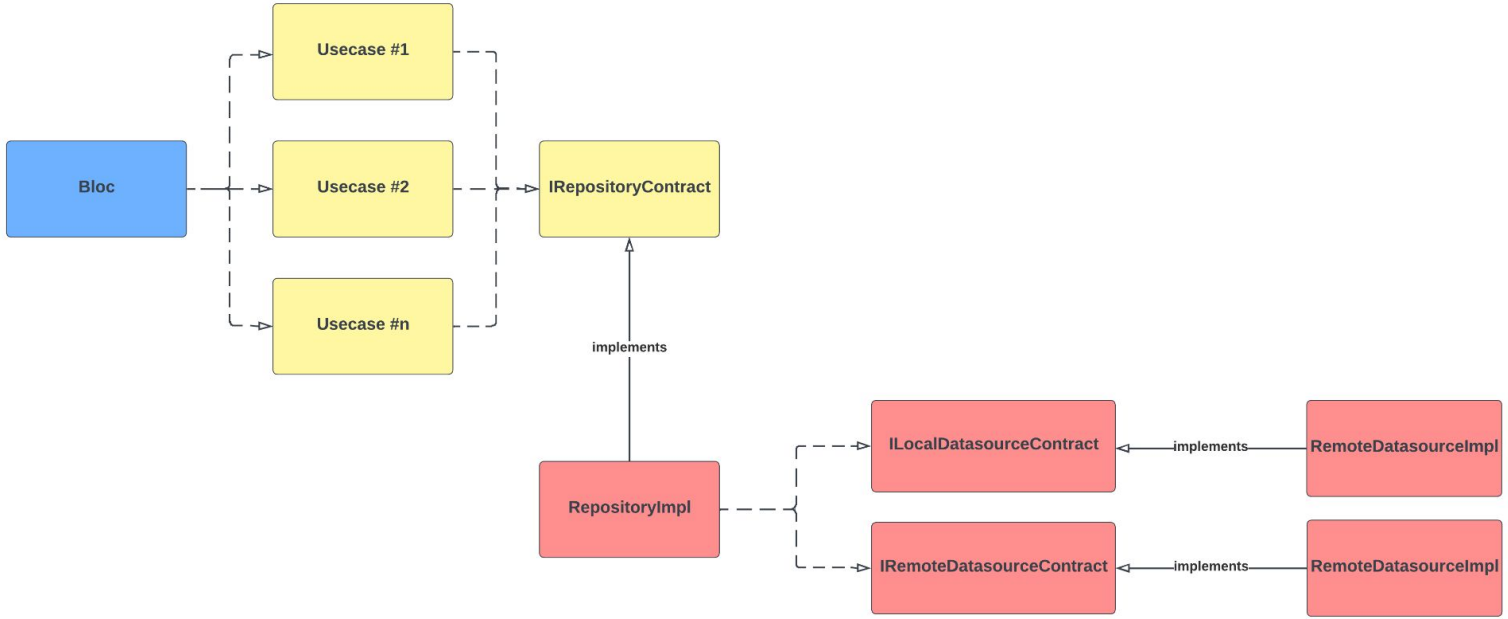
Design Patterns

Factory


TechniqueFactory
+ factoryMethod()
+ operation()
<<Abstract>>
Technique
+ createTechnique() : Technique
Position
Submission
Escape
Transition
<<uses>>
Technique
Graph

Singletons

Dependency Injection



Dependencies

Firebase Stuff:

- firebase_auth
- firebase_core
- cloud_firestore
- google_sign_in

State Management

- bloc
- flutter_bloc

Testing

- bloc_test
- flutter_test
- mocktail

Value Equality

- equatable

Dependency Injection

- get_it

Localization

- flutter_localizations
- intl

Functional Programming - Either Types

- dartz

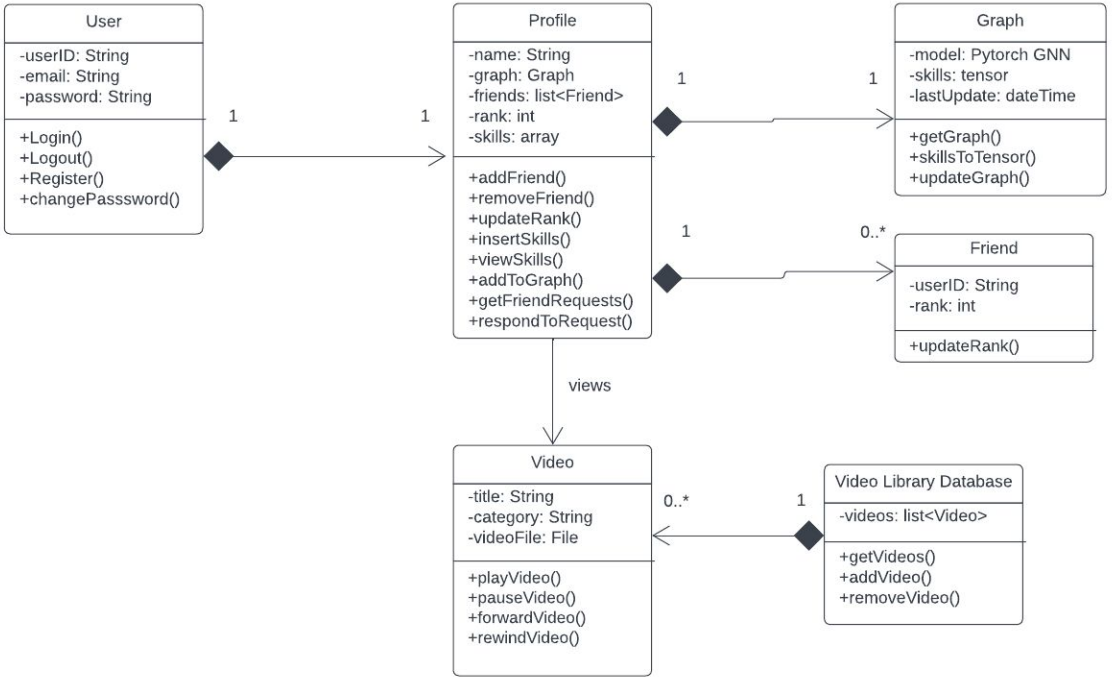
Linting

- flutter_lints

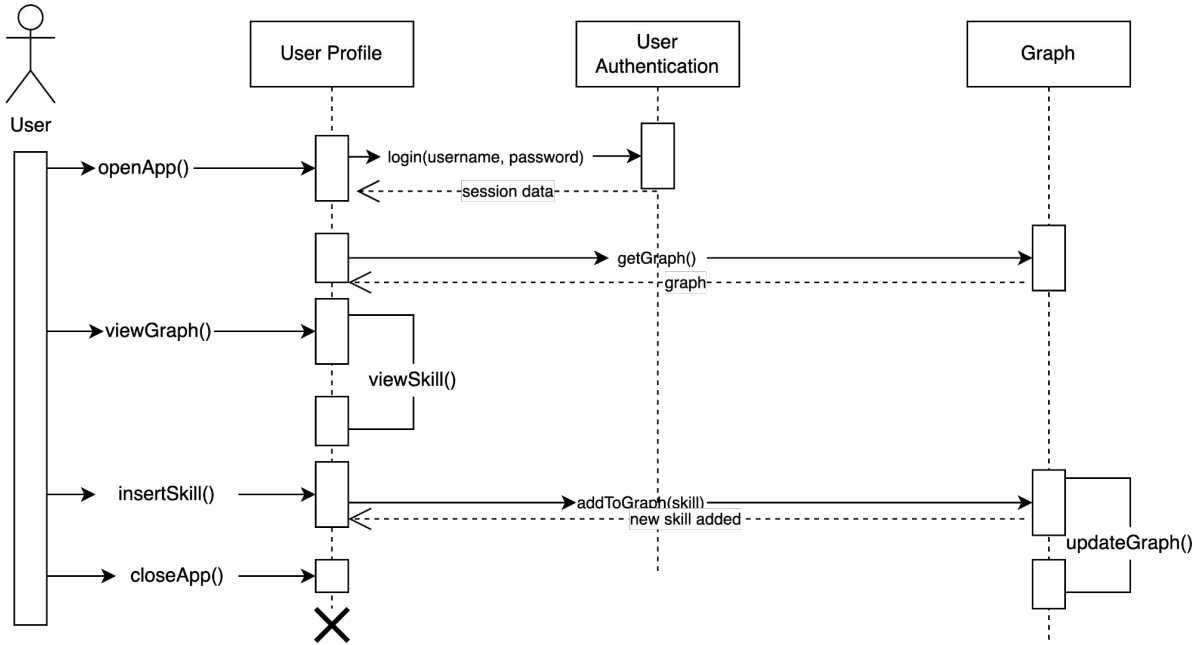
Static Code Analysis

- dart_code_metrics

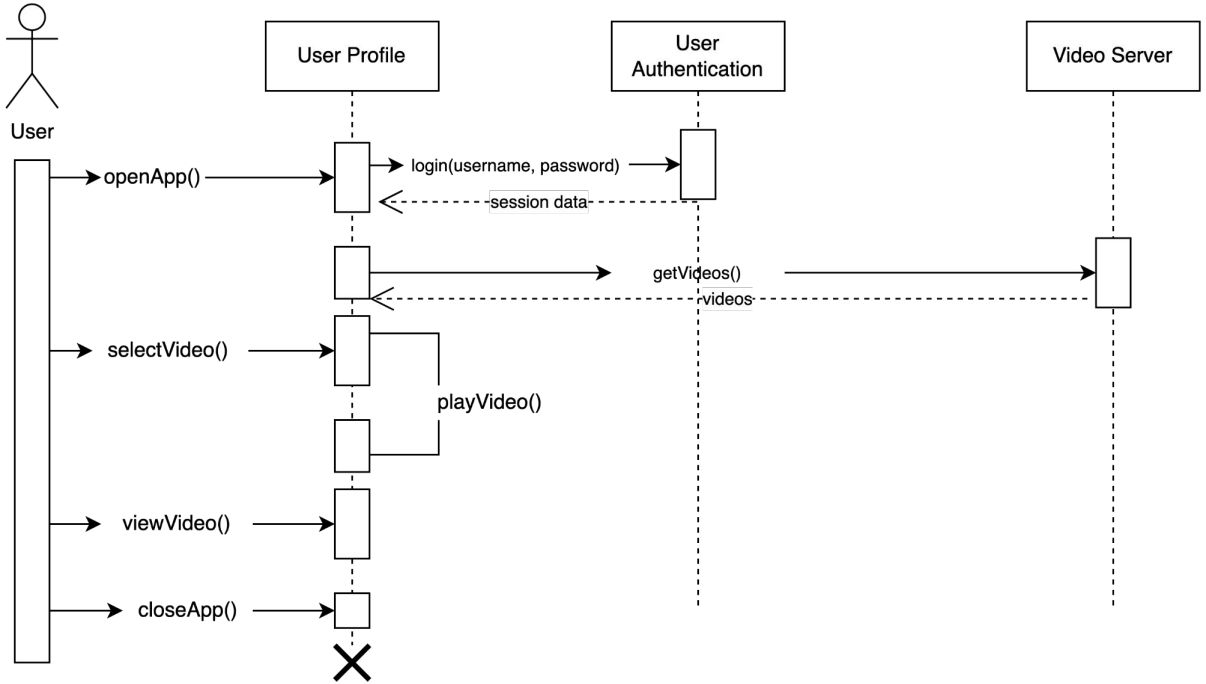
Class Diagram



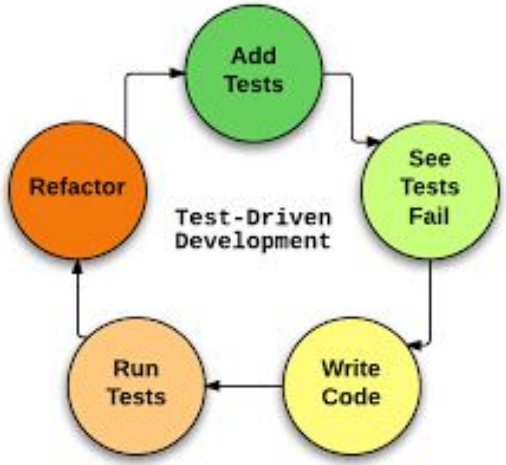
Insert Skill Sequence



View Video Sequence



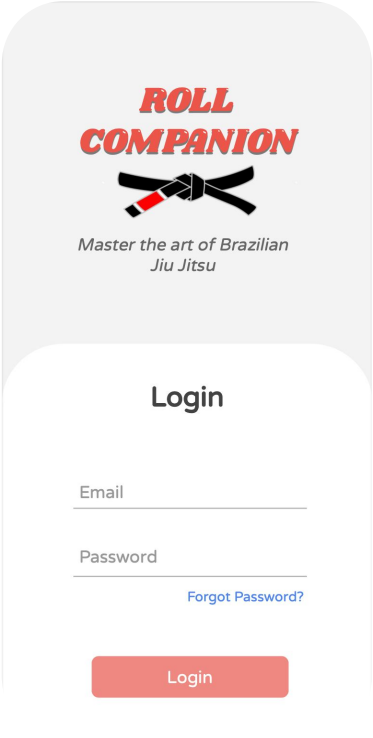
Testing

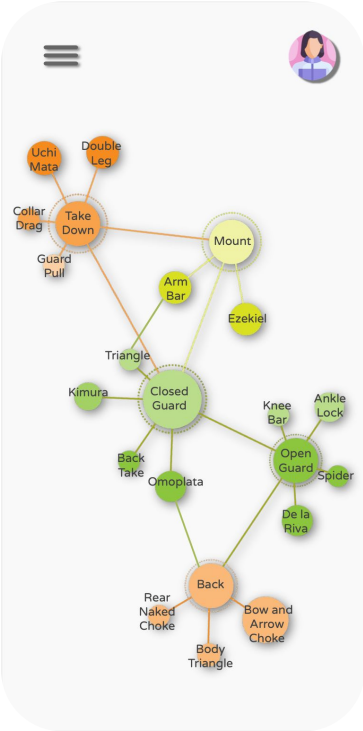


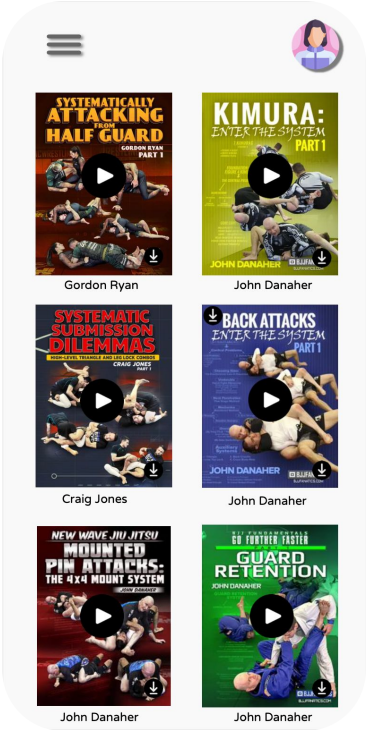
Testing in Flutter:

- Unit Testing
- Widget Testing
- Integration Testing

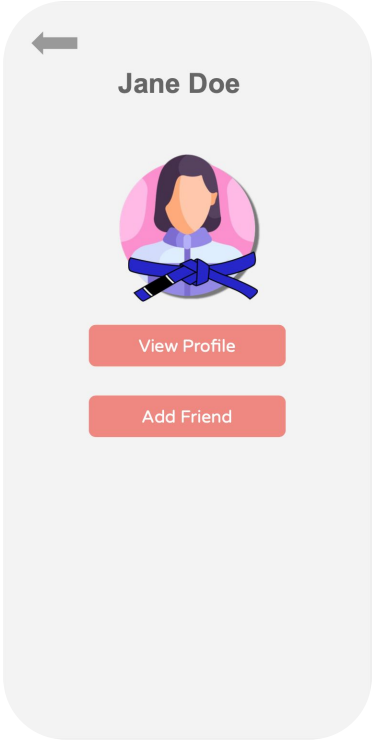
Mockup

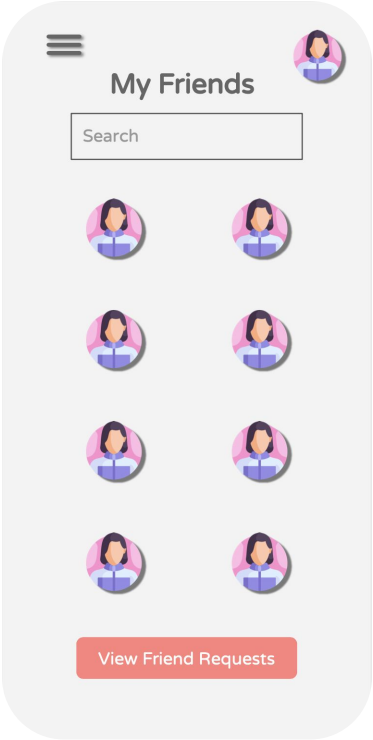

ROLL COMPANION
Master the art of Brazilian Jiu Jitsu
Login
Email
Password
Forgot Password?
Login

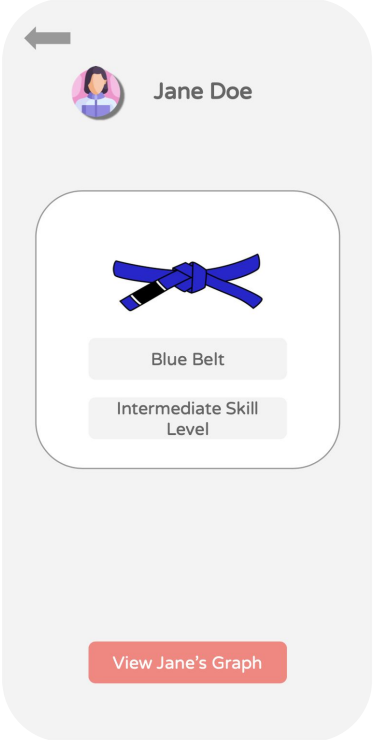

Uchi Mata
Double Leg
Collar Drag
Take Down
Guard Pull
Mount
Arm Bar
Ezekiel
Triangle
Kimura
Closed Guard
Knee Bar
Ankle Lock
Back Take
Omoplata
Open Guard
Spider
De la Riva
Back
Rear Naked Choke
Bow and Arrow Choke
Body Triangle


SYSTEMATICALLY ATTACKING FROM HALF GUARD
Gordon Ryan
KIMURA: ENTER THE SYSTEM PART 1
John Danaher
SYSTEMATIC SUBMISSION DILEMMAS
Craig Jones
BACK ATTACKS ENTER THE SYSTEM PART 1
John Danaher
NEW WAVE JIU JITSU
MOUNTED PIN ATTACKS: THE 4X4 MOUNT SYSTEM
John Danaher
GUARD RETENTION
John Danaher

Mockup


Jane Doe
View Profile
Add Friend


My Friends
Search
View Friend Requests


Jane Doe
Blue Belt
Intermediate Skill Level
View Jane's Graph

THANK YOU