A Project Report on “SDU-EVENT”

Final Report

Course: CSS 216 Mobile Programming

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CERTIFICATE

This is to certify that this Project Report entitled **“SDU-EVENT”** which is submitted by Zhanibek Kulmanov, Galymzhan Karatay, Zhaksylykov Yerkin, Yersultan, Beisen Berik in the partial fulfillment, for the award of course **“CSS216 Mobile Programming”** of Bachelor of Technology in Department of Computer Science & Engineering, of **UNIVERSITY OF SULEYMAN DEMIREL**.

The question embodied in this project work has not previously been submitted for the award of any degree or course at any university/institute, to our knowledge and belief.

ACKNOWLEDGEMENT

We are very pleased to present a report on the project work done during the CSS216 “Mobile Programming” course. We are especially grateful to Mr. Bissenbay Dauletbayev for his constant support and guidance throughout our work. Mr. Bissenbay Dauletbayev provided us with this opportunity to work on this mobile project. I appreciate the guidance provided and once again thanks to you. Last but not least, we thank our friends for their contribution to the completion of the project.

Chapter 1

INTRODUCTION

1.1 Overview

In today's world, smartphones have changed our lives and have become an indispensable part of our lives because of their ability to simplify our routine work and thereby save our time. An Android smartphone offers users great functionality and a special experience. Android is a Linux-based operating system that was purchased by Google in 2007. There are many applications, and one of the main reasons there are so many is that Android is open source. On the other hand, Android-based devices such as cell phones, tablets are very user-friendly. Besides Android, there is another OS called IOS, which is used by more than 900 million people. IOS is a mobile operating system for devices manufactured by Apple. iOS runs on the iPhone, iPad, iPod Touch. IOS is best known as the basic software that allows iPhone users to interact with their phones using gestures such as swiping, tapping and pinching.

There is an open-source UI software development package called Flutter that we can use to create mobile apps for both iOS and Android operating systems. Flutter is Google's free open-source UI environment for creating your own mobile apps. Released in 2017, Flutter allows developers to create mobile apps for iOS and Android using a single codebase and programming language. This feature makes it easier and faster to create iOS and Android apps.

In this context, the Project application is developed on the Android and IOS platforms using the Dart programming language. The name of the application is defined as **"SDU-EVENT"**. As the name says, the app is about creating events meant only for SDU students

1.2 Objectives

The main goal of **“SDU-EVENT”** is to create a user-friendly environment for all users and reduce manual effort .Creating an event, where people can participate in-person.Viewing clubs list of SDU and their main information Cancel changes The app will be useful for clubs as Mountain Kings which are doing events actively. Main purpose is to automate the process of ticket selling , so that they don't have to sit and sell them at the university. Event publishers can manage participants list, set person limit, price (if participation is paid) Event publisher should also give a description, accurate date and time and image (optional).

1.3 Motivation

Our aim is to be helpful for SDU students and give something good for SDU students. So because of that, we thought and decided to make an application that helps SDU students to solve social problems. Solution we found. Because of that, we started making this application.

Chapter 2

Detail of the project

2.1 Research

First of all, before starting the project we decided to make consultation with the team. And after the consultation we did some small research.

Like:

First, our goal is to make this project. As we note, our main goal is in this way to help SDU students, why do SDU students need the project, and like this.

Second, can our application be beneficial for users, what is our application feature. How the project should be realized, what technologies, services, etc. to be connected, What items the project should contest with, what great solutions exist in this area and what can be progressed in them.

First, through the research, we find approximately the number of users of our application and we understand more or less how to move forward in the future.

Then we as a team moved to the phase of developing, before that we examined this kind of application. Every member looks at several applications and writes down advantages and disadvantages, errors of the service we use.

Second, we needed to add some new features to our application for being beneficial to others. For this we get advantages of applications like kino.kz etc...

Third, we decided to make our project for android smartphones using flutter .Which is used by a lot of students in SDU.

Fourth, our mission is to give high quality products to students.

2.2 Problems

In the process of making a project, we have several problems.Like how to build our application, how to give it to people.What kind of features would it have?

So, a solution we try to find in applications that already exists. As we said before, we solve these problems by collecting advantages of different applications.

So from time to time, we start to search solutions to getting new features to our application.

2.3 Exact Decision

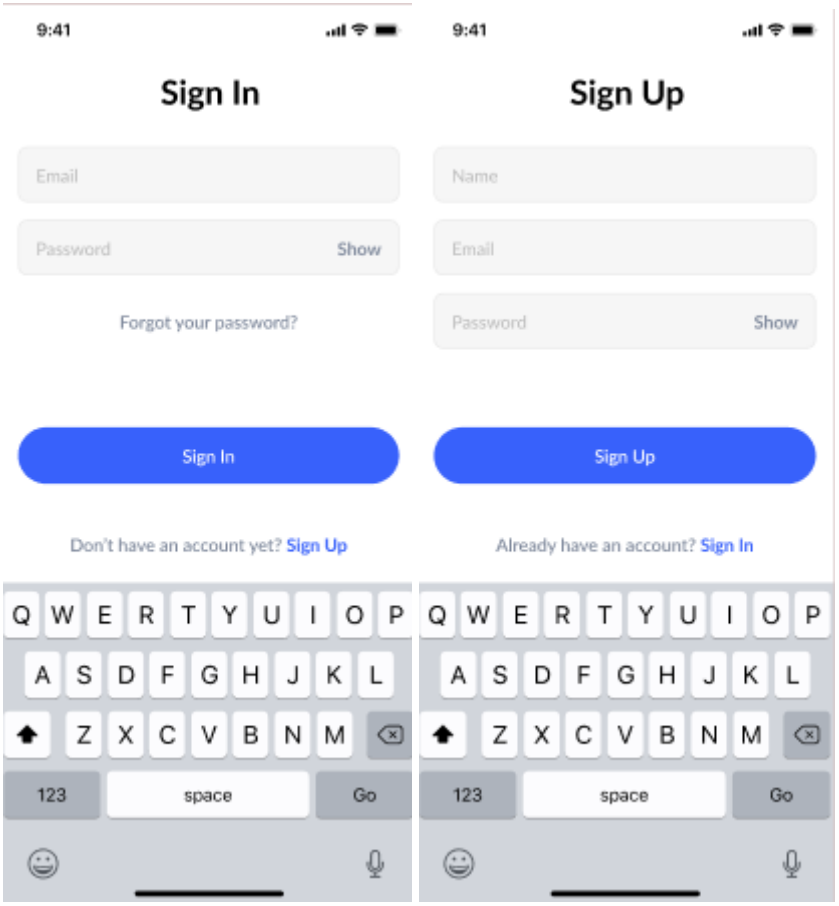
In the end, we want to say that, we add new features to application for android. But it is not enough, we need to make our application more broadly, with a lot of functions.

Chapter 3

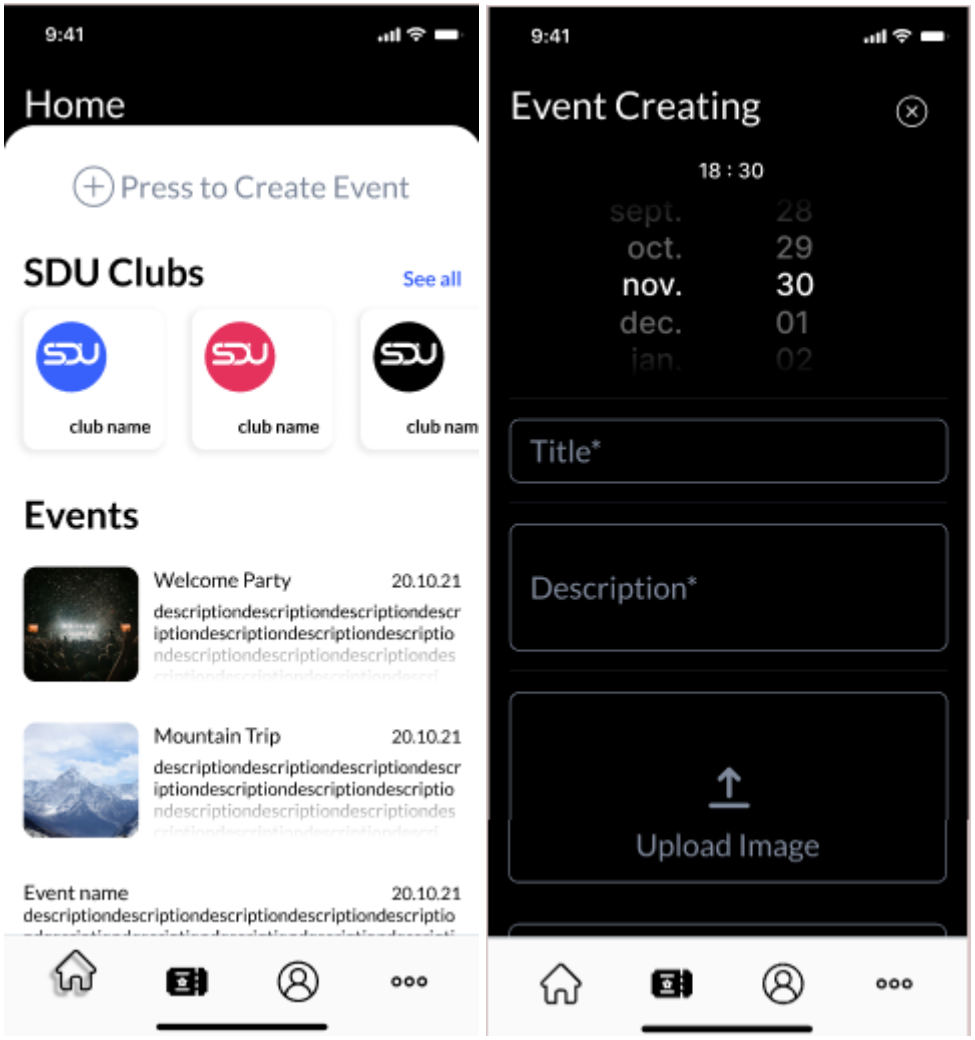
SDU EVENT

3.1 Our Application

Our application called “SDU-EVENT” for SDU students.

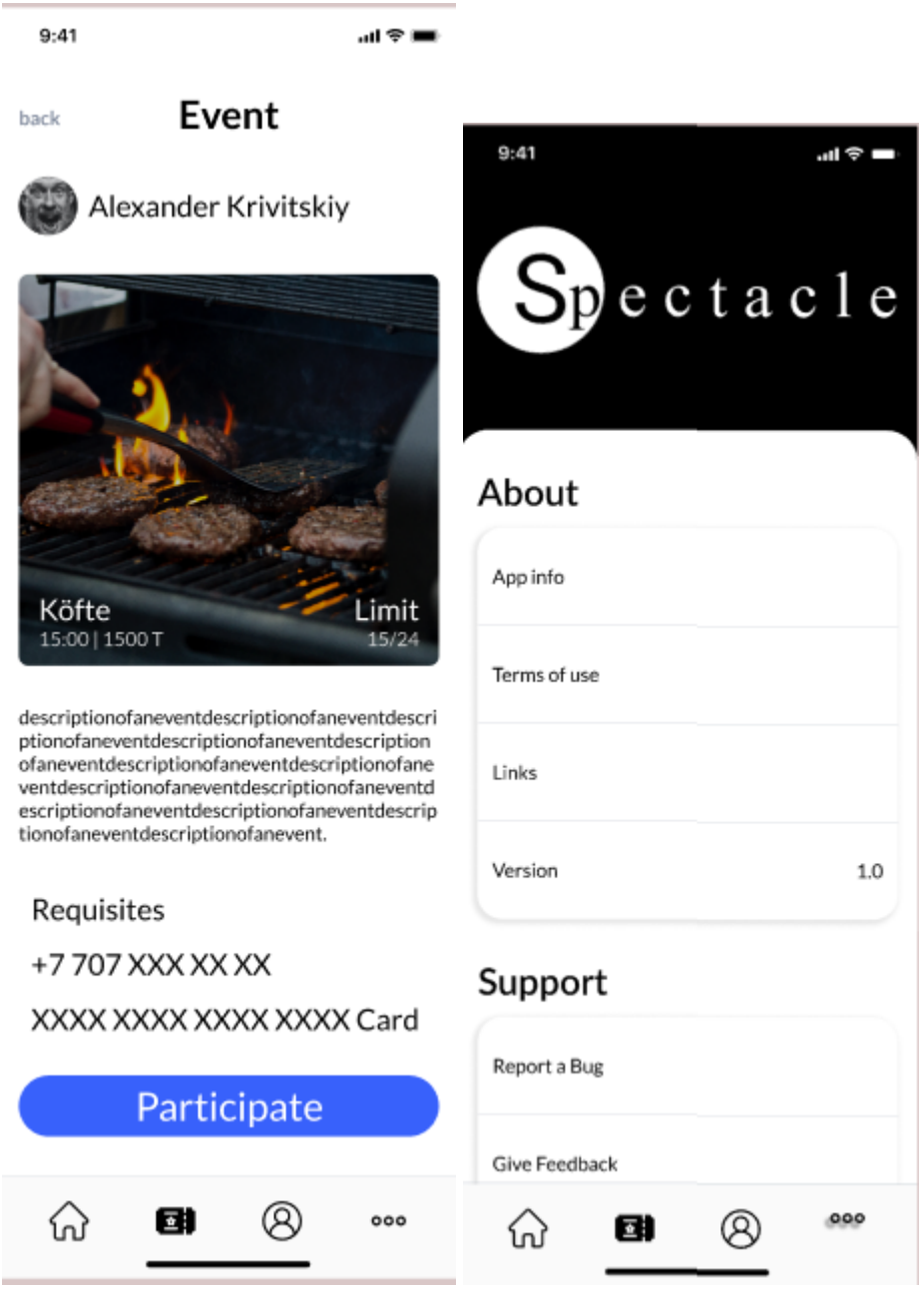


These pages sign up and sign in. If the user is not registered, he must register. Once the user is successfully registered. Enter your email and password in the desired field. The tooltip text tells you where to enter the email and password. After entering your username and password, click the sign in button.

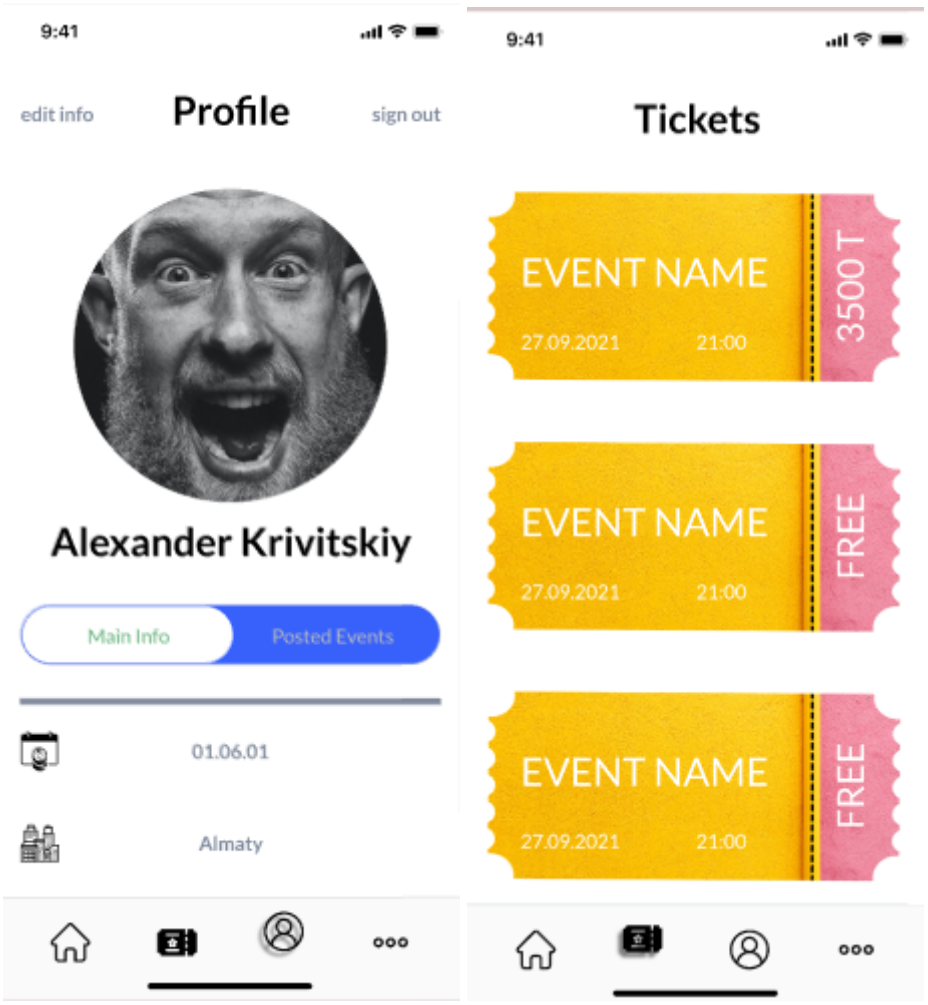


This is home page. In this page you see SDU clubs and clubs news. And you can creat any event .

In creating event page you must add Title, event date, description, upload image, phone number, and club name.



In this screenshot you see event page and info page.



In this screenshots you see user profile page and tickets page. In this page SDU clubs add their ticket to event. In tickets page users buys ticket to event. In profile page users can see own informations, birth date, city, in which day he registered, phone number. And users can will change own informations.

3.2 Prerequisite

- Internet Connection must active
- Valid Username with password must require to use this application

Chapter 4

Implementation

4.1 Creating an Application With Flutter

1: Install Android Studio
2: Install the Flutter and Dart Plugins
3: Create a Flutter Project
4: Run the Build: Flutter Doctor
5: Start Coding the Flutter App

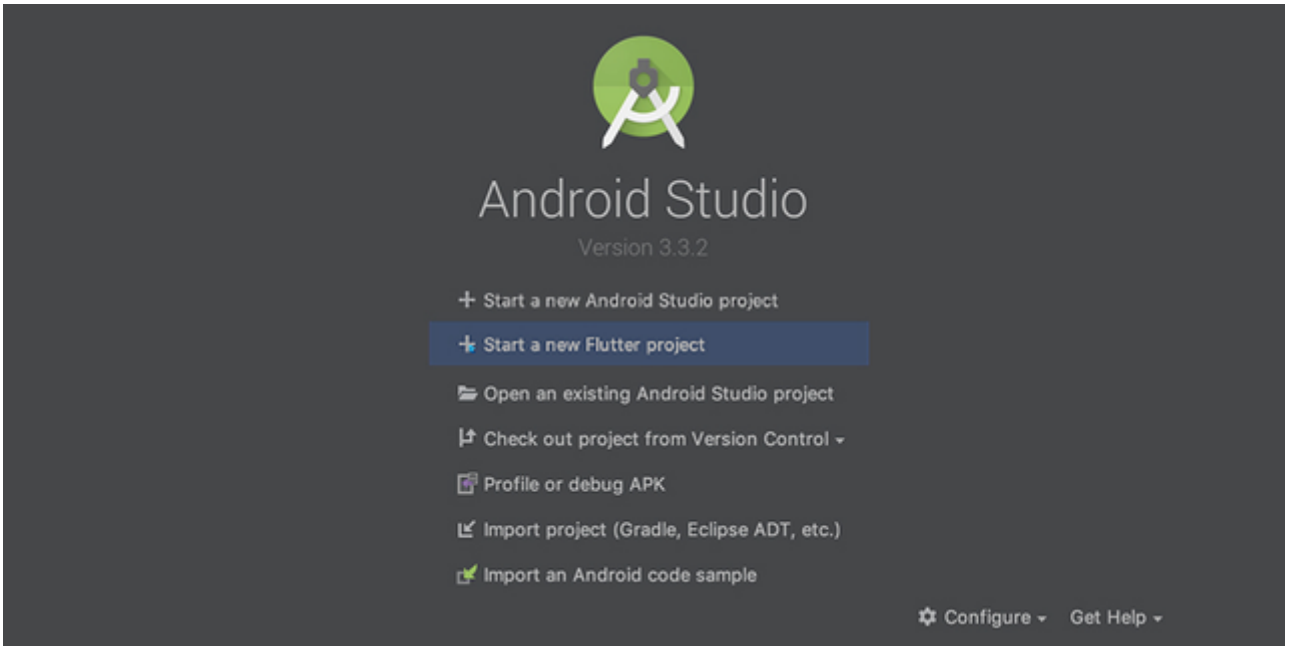
4.1.1 Android Studio

Android Studio offers a complete, integrated IDE experience for Flutter. Moreover, you can use the Flutter SDK for any text editor development experience. But, IDEs provide you with features like Syntax highlighting, code completion, and debugger which are really helpful during the development process.

4.1.2 Flutter Plugins

Flutter plugin is the wrapper of the native code like android(Kotlin or java) and iOS(swift or objective c). ... Flutter can do anything that a native application can through the use of Platform Channels and Message Passing. Flutter instructs the native iOS/Android code to perform an action and returns the result to Dart.

4.1.3 Create project



4.1.4 Flutter Doctor

To ensure that your app set up the environment is correctly working, it is worth to open the terminal *(Alt+F12 in Android Studio)* and involve the *Flutter Doctor* command.

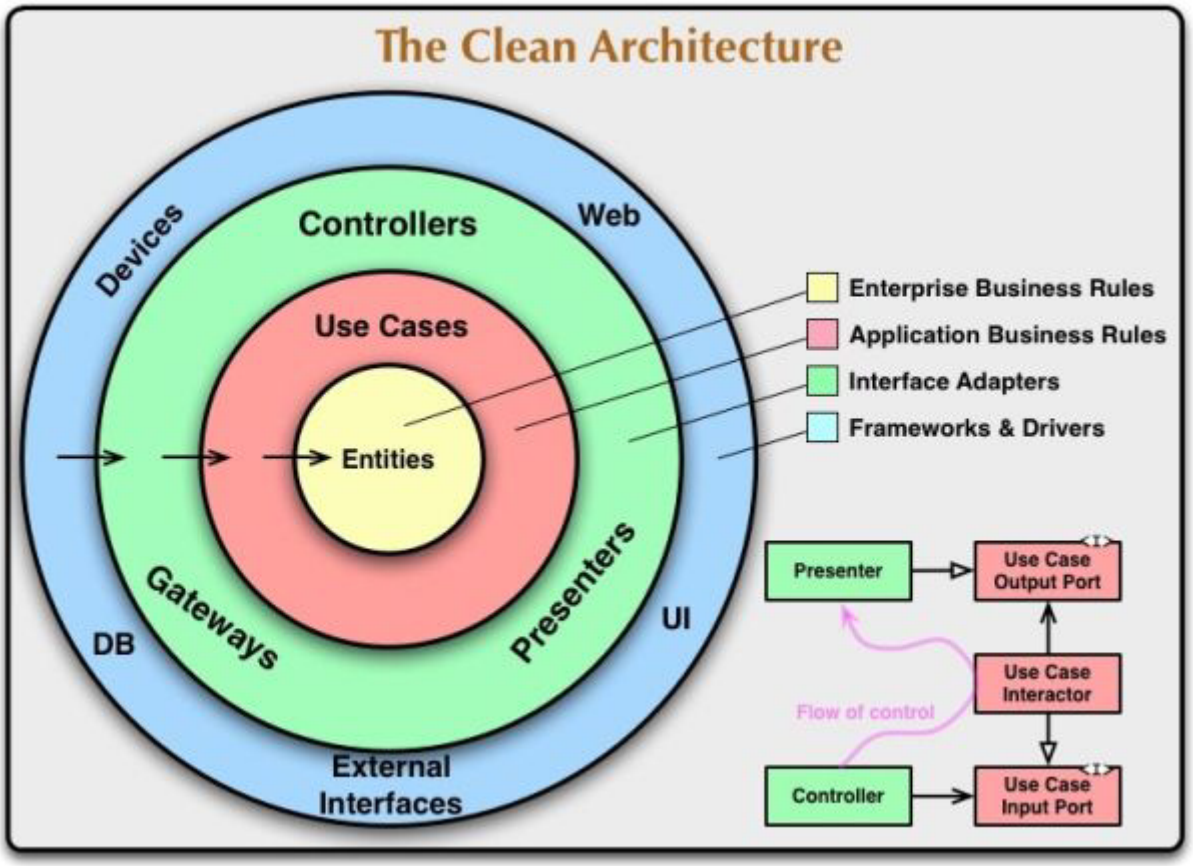
4.1.5 Start Coding

4.2 Recommended Computer Specifications

OS: Windows 10 64-bit.
CPU: Intel Core i5-8400.
Memory: 8 GB RAM.
Free storage: 5 GB SSD.
Tools: Windows PowerShell 5.0+, Git 2.x.

4.3 Architecture and Clean Code

The Clean Architecture is the most powerful solution for building clean apps that multiple teams can work on, independent data layers, scalable for adding/removing features, testable, independent frameworks/tools, and can be easily maintained at any time.


The Clean Architecture
Devices
Controllers
Web
Use Cases
Entities
Gateways
Presenters
DB
UI
External Interfaces
Enterprise Business Rules
Application Business Rules
Interface Adapters
Frameworks & Drivers
Presenter
Use Case Output Port
Use Case Interactor
Flow of control
Controller
Use Case Input Port

Chapter 5

Conclusion

So, in the end, our goal of making this project is to helps sdu clubs.And we do not say that by only this application, sdu clubs problems will be solved. It is the only thing that what we could do at this time.