Report

Submitted To :

Shakib Mahmud Dipto

Submitted By :

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Project Name: Vehicles Parking Space Finder Apps

Group No: 01

Course Title: Smartphone and Application

Course Code: CSE 438

Section: 01

Friends Circle Company

Date: 17/12/2023

Software Requirements Specification (SRS)

1. Introduction:

1.1Purpose:

The purpose of the "**Vehicles Parking Space Finder**" app is to provide a convenient and efficient solution for users to locate available parking spaces their vehicles. This apps aims to address the following purposes

- Because of that there are no towing problems.
- And the vehicle has been parked as a secure condition.
- There is no risk for the vehicle owner for parking the car.

1.2 Product Scope:

In the modern age many people have vehicles .Vehicles are now a basic need. Every place is under
The process of urbanization. There are many corporate offices and shopping centers, hospitals,
schools, government organizations etc. These systems might be computerized or non-computerized
with the help of computerized system. We can deliver a good service to customers who want to park
their vehicle into any place.

1.3 Document Conventions:

The main chapter headings are given with font. Times and font size of 18.the subheadings of each
chapter are given with font. Times and size of 14 Emphasize is given in Italy's. Critical information
in specific scenarios is given in Bold Words.

2. Overall Description:

2.1 Product Perspective:

SPSFA ought to have the option to give an essential and simple exchange of data.

For example: it ought to have the option to eliminate the correspondence holes between a representative and the client.

2.2 Product Functions:

There are a lot of functions in **parking space finder apps** .these function can be placed into broader categories as follows:
1. Efficiency and functionality.
2. Security over performance.
3. Lightweight and elegant.

2.3 User Classes and Characteristics:

A user can just have his/her worker Id number or vehicle plate number as username so assuming he joins the parking then no one but he can login.

2.4 Operating Environment:

There are many OS environment where our products compatible version of OS as describes in hardware and software requirements, so it does not need to rely on any other operating system. Our

product will provide the best features of both Android system.so it will have to provide complete support to old and new applications designed for both Android systems.

2.5 Design and Implementation Constraints:

Servers and the numbers of client can get to or can be online immediately. More is the quantity of client more will be the organization traffic and the server arrives in a down state .As an operating system the major constraint for parking space will be hardware and its performance there are several trivial and non-trivial constraint which are from both development perspective and context perspective. Some of them are listed as follows here;
1. Memory of the device.
2. Cope with boot up procedures of different manufacturers.
3. Prevent deadlock during application executions.

2.6 User Documentation:

First of all, the end users will be required to sign our terms and conditions while first running the Parking space finder product in their devices. These terms and conditions will contain and agreements relevant to the features implemented in the parking space finder product. Once the parking space has successfully run up for the first time, a detailed documentation page will be shown right on the device, which can be skipped as of now, upon clicking skip, the user will get instant no how to access the detailed documentation inside .

External Interface Requirements:

GUI;

User Interfaces:

This interface should be profoundly natural or intuitive on the ground that there won't be a help for the client who is working the Framework .at most of the spots assist work area with being accommodation client's comfort. The pin and secret word classification ought to be kept up this should be possible by utilizing reference marks at the secret phrase board. Legitimate security message ought to be shown all things consideration of the spots.

Hardware Interfaces:

The parking space apps will be interfacing with hardware all the time and the real challenge during development is to make most efficient possible usage of hardware components. Otherwise there will be no market of new parking space that does not even provide better performance .The parking space will be capable of running on all devices whether that be media and online servers and operating system.it will be interfacing with all the hardware components.

Software Interfaces:

- The last application should be bundled in a setup program with the goal that the items can be effectively introduced on machines.
- For the information base taking care of MYSQL should be introduced .These items are open sources items.

System Features:

3. Non-Functional Requirements

3.1 **Performance :**

- The system responds quickly.
- The tool for altering clothing must provide a responsive and enjoyable user experience.

3.2 **Security :**

- Passwords for users are entirely secure.
- The system encrypted sensitive data and user accounts.

3.3 **Usability :**

- The user interface has excellent usability.
- The tool for customizing clothing must provide thorough instructions.

3.4 **Scalability :**

- A lot of users should be able to use the system without any issues.
- The system should be easily expandable in order to allow for future expansion.

4. Constraints

- It is an Android application .
- The system should be developed by Dart

Outline :

➢ Authentication

➢ Log In (Admin & User& Space Owner)

➢ Sing Up

➢ View map

➢ User profile

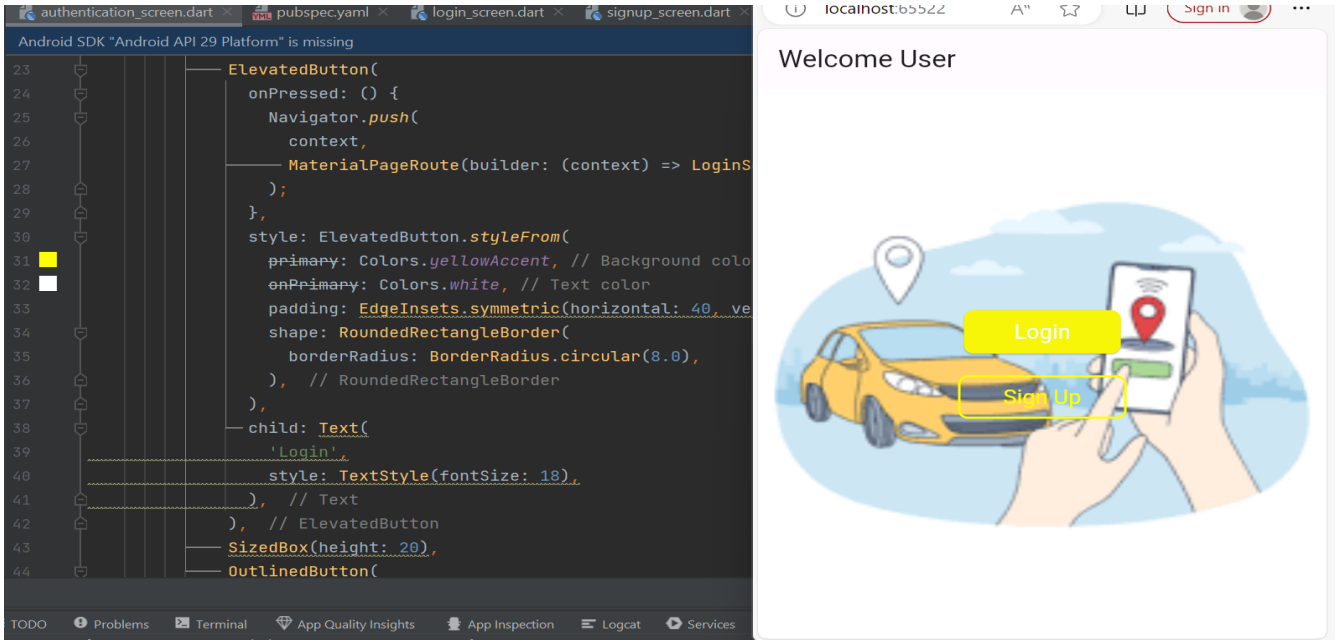
➢ Parking details

➢ Confirm booking

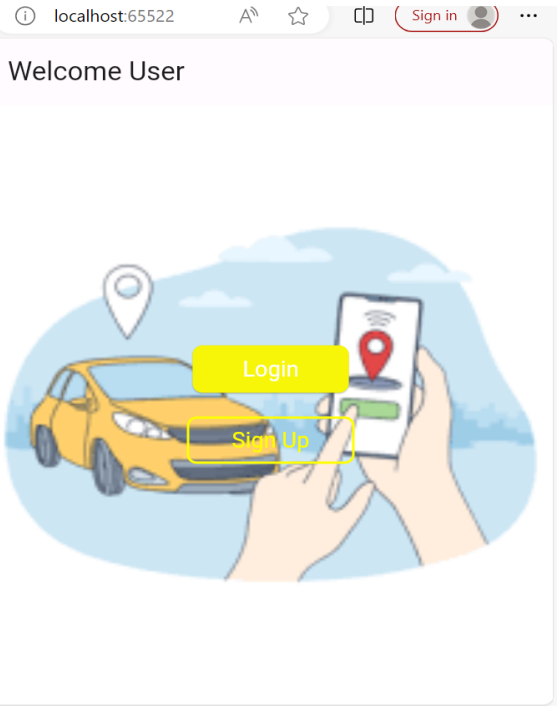
➢ payment

Code Screenshot:

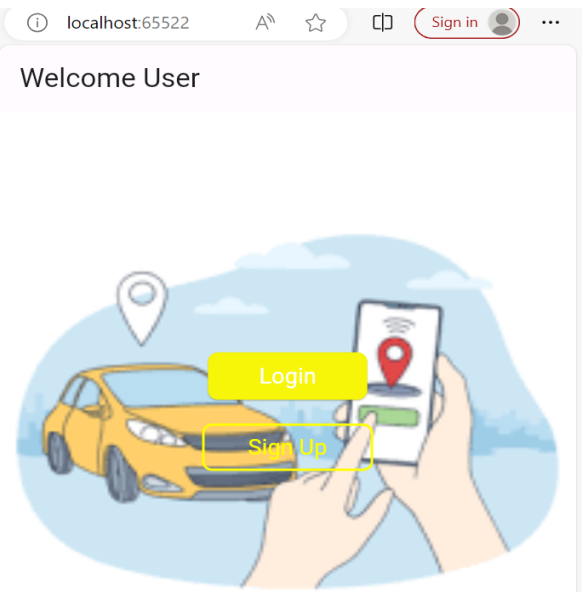
Authentication:

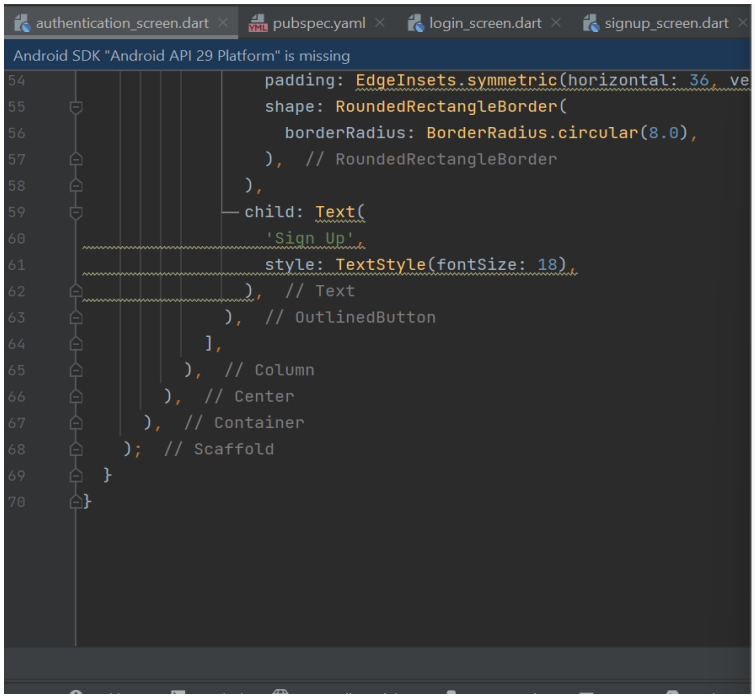


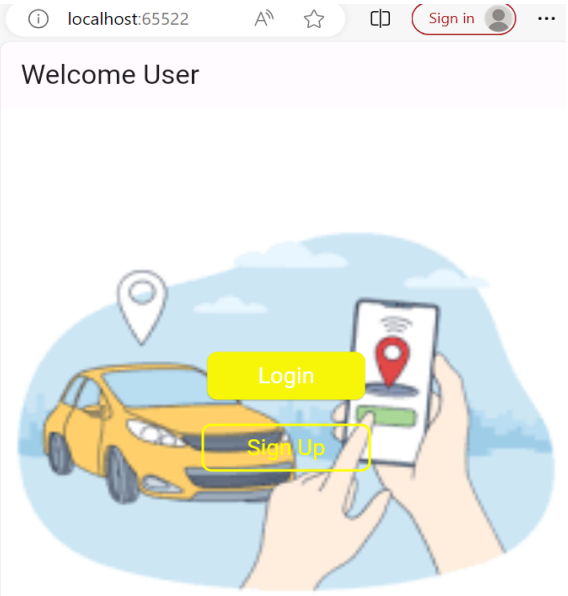
```dart
import 'package:flutter/material.dart';
import 'login_screen.dart';
import 'signup_screen.dart';

class AuthenticationScreen extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: Text('Welcome User'),
      ),  // AppBar
      body: Container(
        decoration: BoxDecoration(
          image: DecorationImage(
            image: AssetImage('assets/abc.png'), // Replace with y
            fit: BoxFit.cover,
          ),  // DecorationImage
        ),  // BoxDecoration
        child: Center(
          child: Column(
            mainAxisAlignment: MainAxisAlignment.center,
            children: [
```



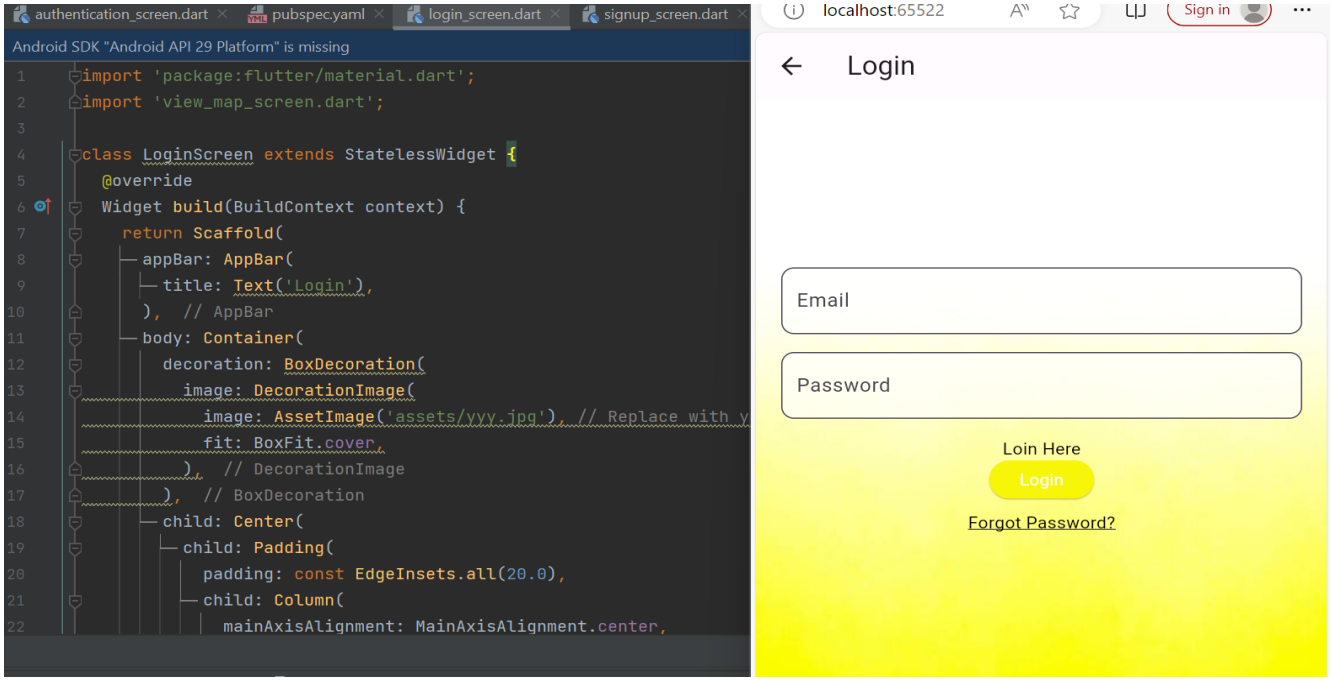

```dart
            OutlinedButton(
              onPressed: () {
                Navigator.push(
                  context,
                  MaterialPageRoute(builder: (context) => SignUp
                );
              },
              style: OutlinedButton.styleFrom(
                primary: Colors.yellowAccent, // Border color
                side: BorderSide(width: 2, color: Colors.yellowA
                padding: EdgeInsets.symmetric(horizontal: 36, ve
                shape: RoundedRectangleBorder(
                  borderRadius: BorderRadius.circular(8.0),
                ),  // RoundedRectangleBorder
              ),
              child: Text(
                'Sign Up',
                style: TextStyle(fontSize: 18),
              ),  // Text
            ),  // OutlinedButton
          ],
```

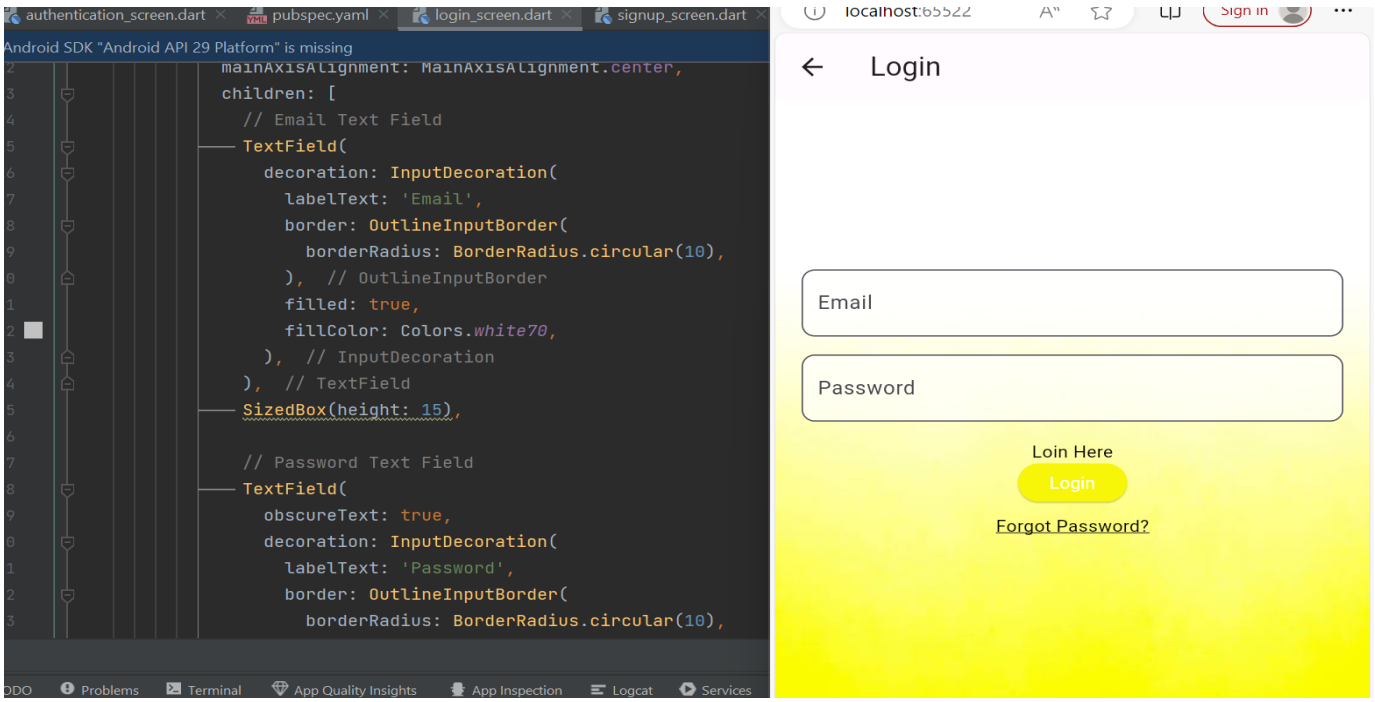


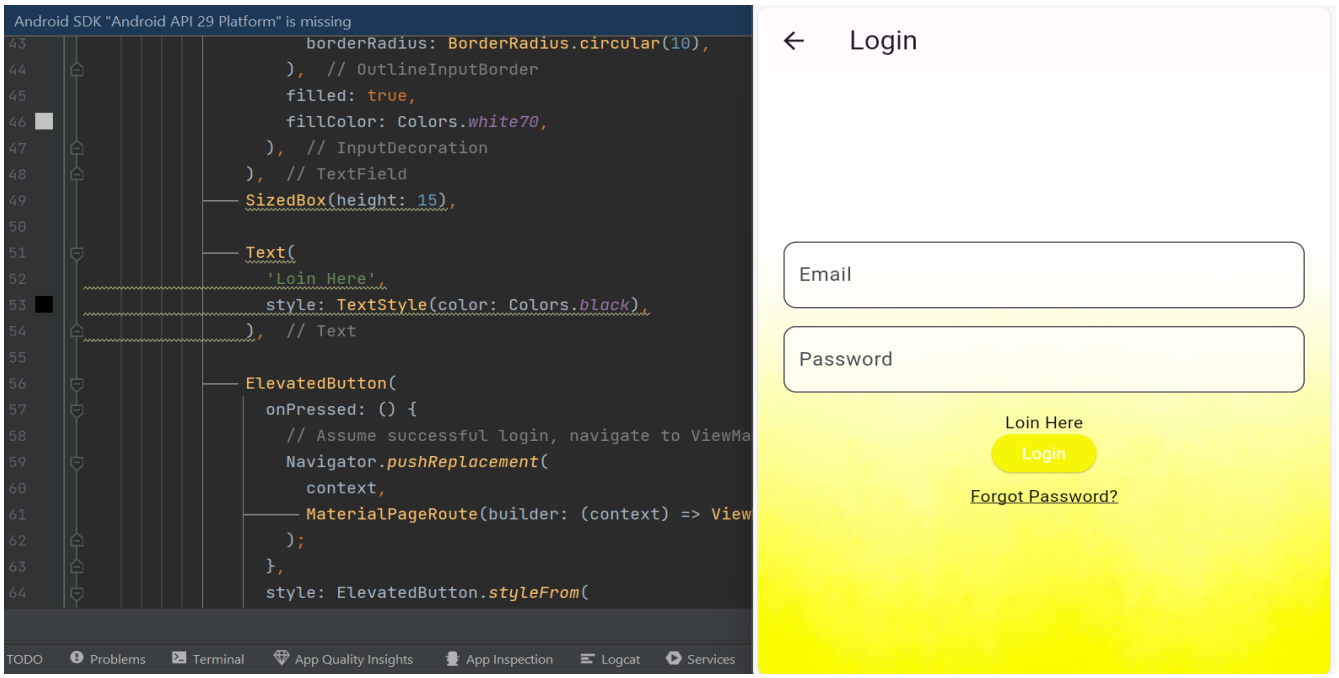

authentication_screen.dart
pubspec.yaml
login_screen.dart
signup_screen.dart
Android SDK "Android API 29 Platform" is missing
padding: EdgeInsets.symmetric(horizontal: 36, ve
shape: RoundedRectangleBorder(
borderRadius: BorderRadius.circular(8.0),
), // RoundedRectangleBorder
),
child: Text(
'Sign Up',
style: TextStyle(fontSize: 18),
), // Text
), // OutlinedButton
],
), // Column
), // Center
), // Container
); // Scaffold
}
}

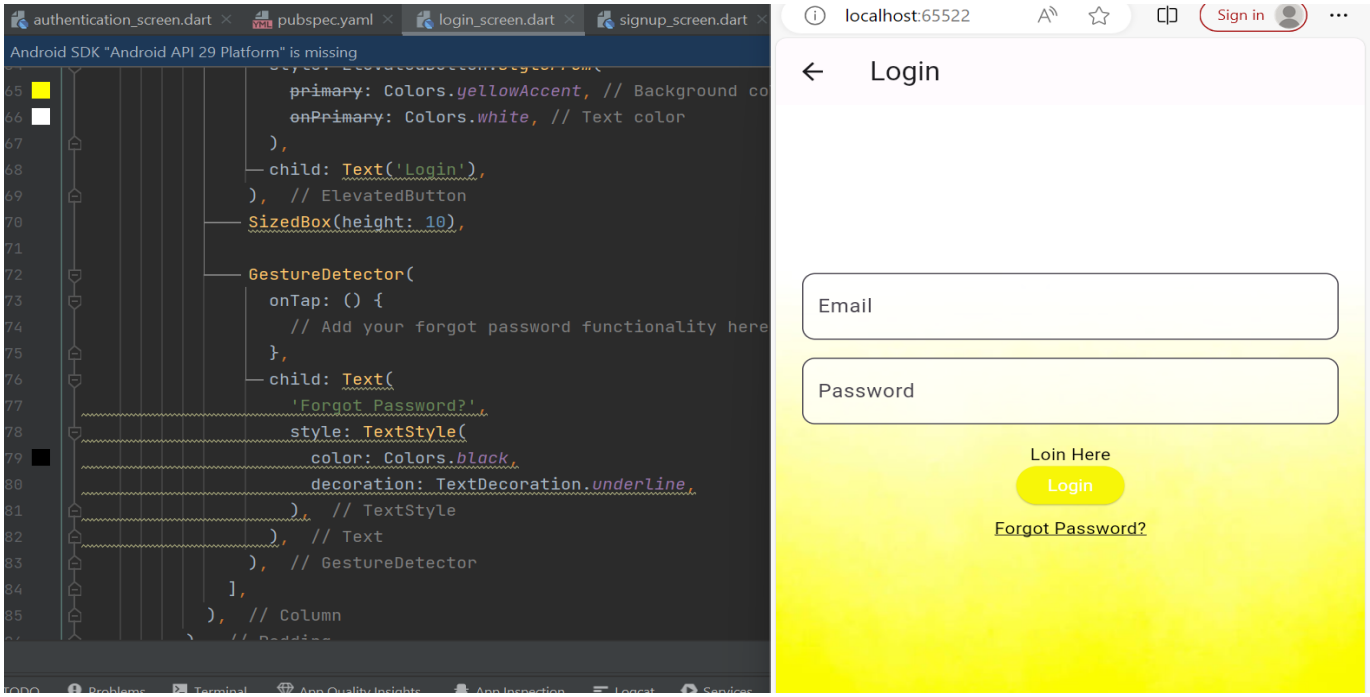

localhost:65522
Sign in
Welcome User
Login
Sign Up

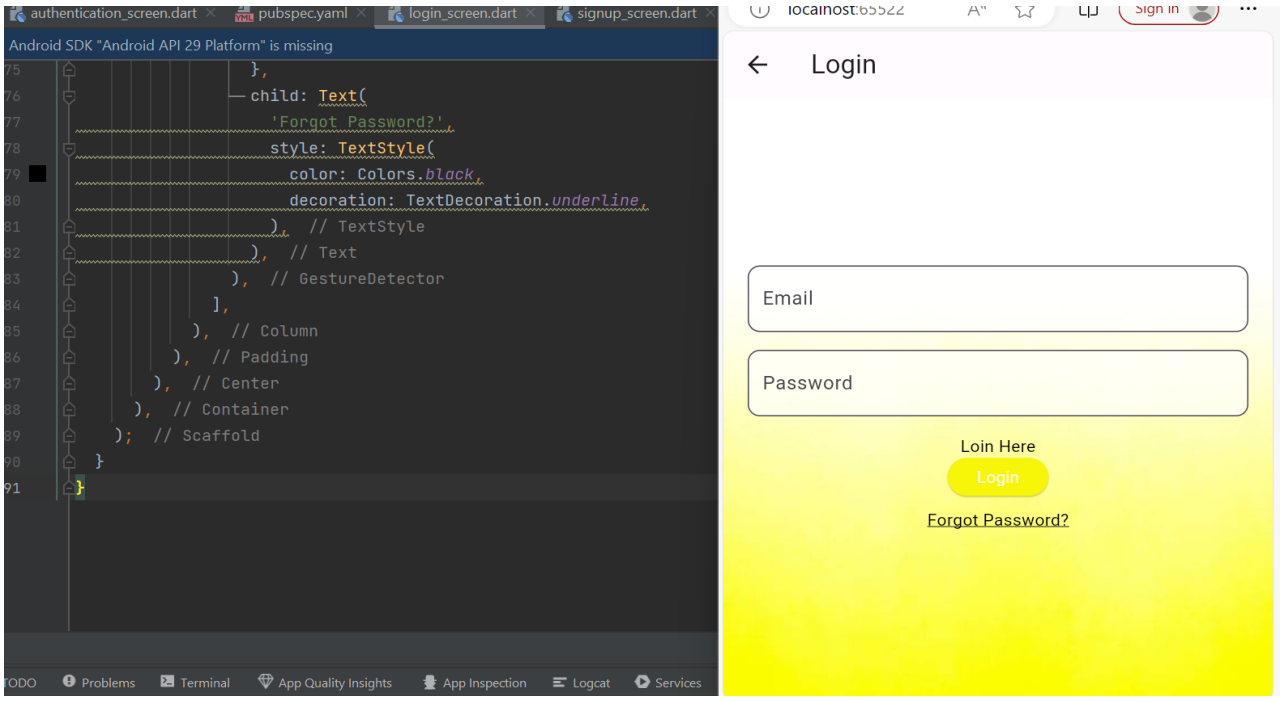
Login:


authentication_screen.dart
pubspec.yaml
login_screen.dart
signup_screen.dart
Android SDK "Android API 29 Platform" is missing
import 'package:flutter/material.dart';
import 'view_map_screen.dart';
class LoginScreen extends StatelessWidget {
@override
Widget build(BuildContext context) {
return Scaffold(
appBar: AppBar(
title: Text('Login'),
), // AppBar
body: Container(
decoration: BoxDecoration(
image: DecorationImage(
image: AssetImage('assets/yyy.jpg'), // Replace with y
fit: BoxFit.cover,
), // DecorationImage
), // BoxDecoration
child: Center(
child: Padding(
padding: const EdgeInsets.all(20.0),
child: Column(
mainAxisAlignment: MainAxisAlignment.center,
localhost:65522
Sign in
Login
Email
Password
Loin Here
Login
Forgot Password?


authentication_screen.dart
pubspec.yaml
login_screen.dart
signup_screen.dart
Android SDK "Android API 29 Platform" is missing
mainAxisAlignment: MainAxisAlignment.center,
children: [
// Email Text Field
TextField(
decoration: InputDecoration(
labelText: 'Email',
border: OutlineInputBorder(
borderRadius: BorderRadius.circular(10),
), // OutlineInputBorder
filled: true,
fillColor: Colors.white70,
), // InputDecoration
), // TextField
SizedBox(height: 15),
// Password Text Field
TextField(
obscureText: true,
decoration: InputDecoration(
labelText: 'Password',
border: OutlineInputBorder(
borderRadius: BorderRadius.circular(10),
Problems
Terminal
App Quality Insights
App Inspection
Logcat
Services
localhost:65522
Sign in
Login
Email
Password
Loin Here
Login
Forgot Password?


Android SDK "Android API 29 Platform" is missing
borderRadius: BorderRadius.circular(10),
), // OutlineInputBorder
filled: true,
fillColor: Colors.white70,
), // InputDecoration
), // TextField
SizedBox(height: 15),
Text(
'Loin Here',
style: TextStyle(color: Colors.black),
), // Text
ElevatedButton(
onPressed: () {
// Assume successful login, navigate to ViewMa
Navigator.pushReplacement(
context,
MaterialPageRoute(builder: (context) => View
);
},
style: ElevatedButton.styleFrom(
TODO
Problems
Terminal
App Quality Insights
App Inspection
Logcat
Services
Login
Email
Password
Loin Here
Login
Forgot Password?


authentication_screen.dart
pubspec.yaml
login_screen.dart
signup_screen.dart
Android SDK "Android API 29 Platform" is missing
primary: Colors.yellowAccent, // Background co
onPrimary: Colors.white, // Text color
),
child: Text('Login'),
), // ElevatedButton
SizedBox(height: 10),
GestureDetector(
onTap: () {
// Add your forgot password functionality here
},
child: Text(
'Forgot Password?',
style: TextStyle(
color: Colors.black,
decoration: TextDecoration.underline,
), // TextStyle
), // Text
), // GestureDetector
],
), // Column
TODO
Problems
Terminal
App Quality Insights
App Inspection
Logcat
Services
localhost:65522
Sign in
Login
Email
Password
Loin Here
Login
Forgot Password?


authentication_screen.dart
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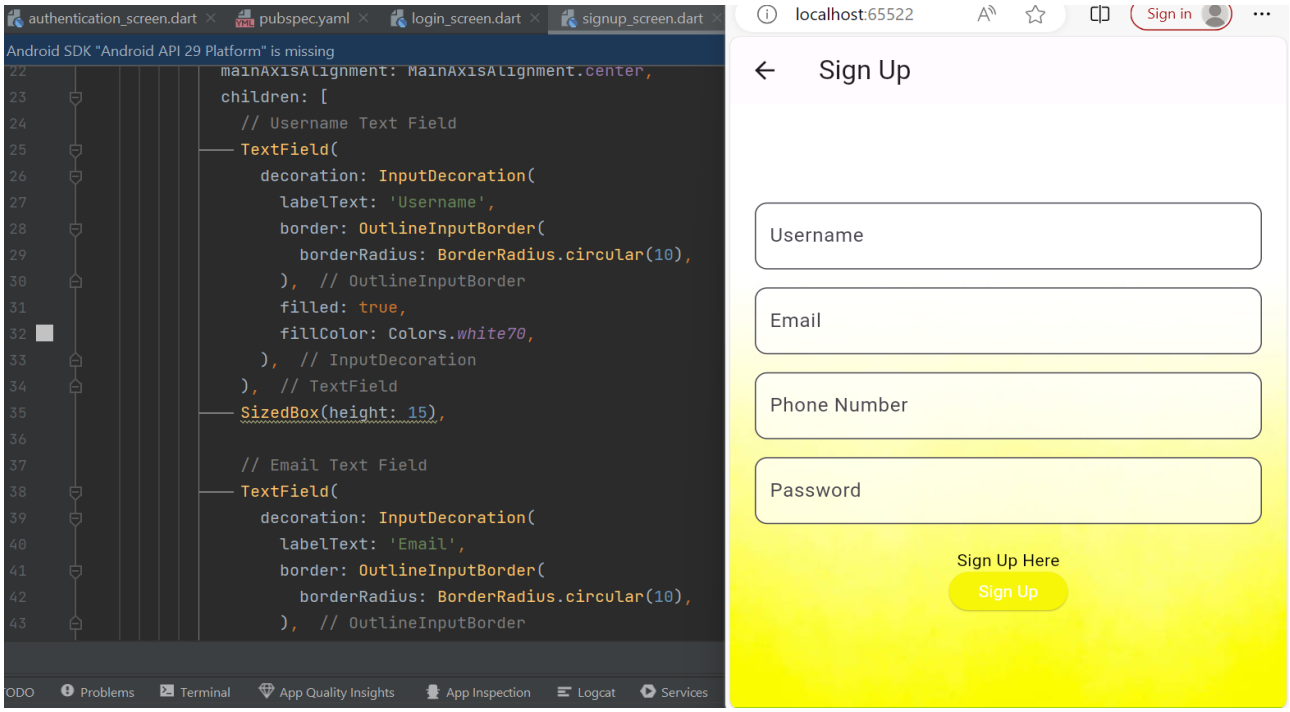
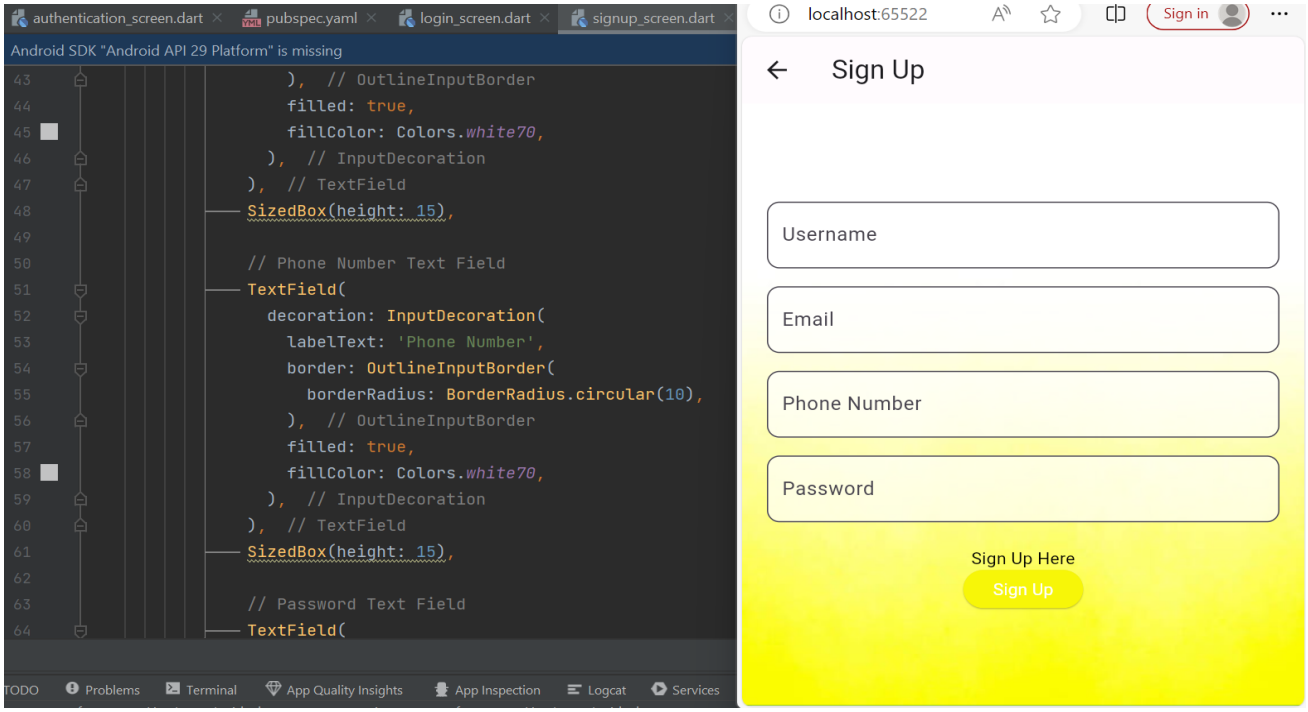
login_screen.dart
signup_screen.dart
Android SDK "Android API 29 Platform" is missing
child: Text(
'Forgot Password?',
style: TextStyle(
color: Colors.black,
decoration: TextDecoration.underline,
), // TextStyle
), // Text
), // GestureDetector
], // Column
), // Padding
), // Center
), // Container
); // Scaffold
}
}
Problems
Terminal
App Quality Insights
App Inspection
Logcat
Services
Login
Email
Password
Loin Here
Login
Forgot Password?

Signup:


authentication_screen.dart
pubspec.yaml
login_screen.dart
signup_screen.dart
Android SDK "Android API 29 Platform" is missing
mainAxisAlignment: MainAxisAlignment.center,
children: [
// Username Text Field
TextField(
decoration: InputDecoration(
labelText: 'Username',
border: OutlineInputBorder(
borderRadius: BorderRadius.circular(10),
), // OutlineInputBorder
filled: true,
fillColor: Colors.white70,
), // InputDecoration
), // TextField
SizedBox(height: 15),
// Email Text Field
TextField(
decoration: InputDecoration(
labelText: 'Email',
border: OutlineInputBorder(
borderRadius: BorderRadius.circular(10),
), // OutlineInputBorder
Problems
Terminal
App Quality Insights
App Inspection
Logcat
Services
localhost:65522
Sign in
Sign Up
Username
Email
Phone Number
Password
Sign Up Here
Sign Up


authentication_screen.dart
pubspec.yaml
login_screen.dart
signup_screen.dart
Android SDK "Android API 29 Platform" is missing
), // OutlineInputBorder
filled: true,
fillColor: Colors.white70,
), // InputDecoration
), // TextField
SizedBox(height: 15),
// Phone Number Text Field
TextField(
decoration: InputDecoration(
labelText: 'Phone Number',
border: OutlineInputBorder(
borderRadius: BorderRadius.circular(10),
), // OutlineInputBorder
filled: true,
fillColor: Colors.white70,
), // InputDecoration
), // TextField
SizedBox(height: 15),
// Password Text Field
TextField(
TODO
Problems
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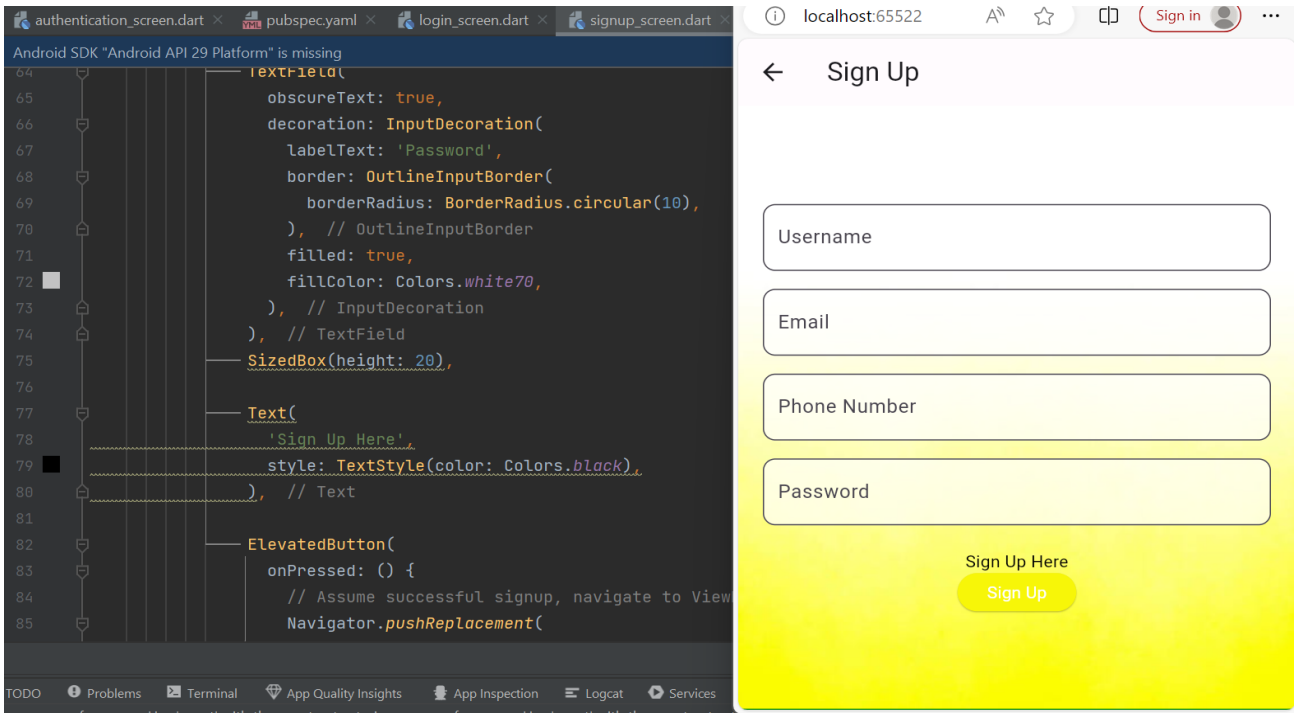
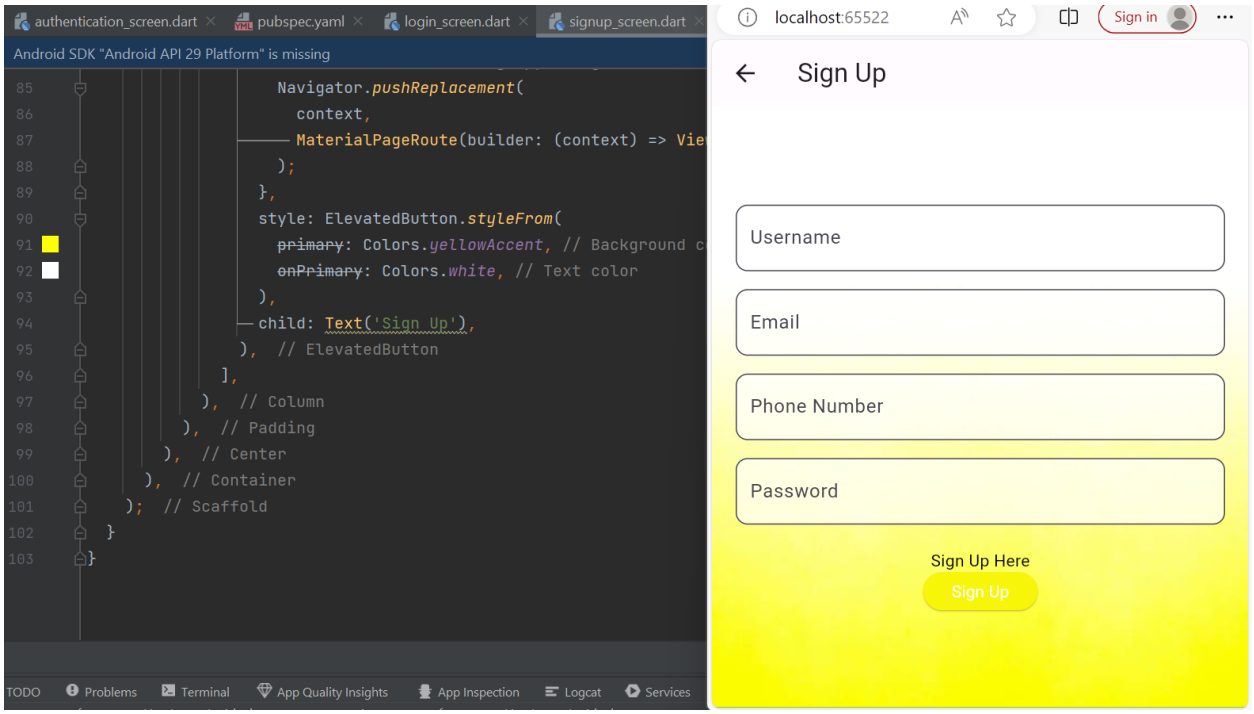
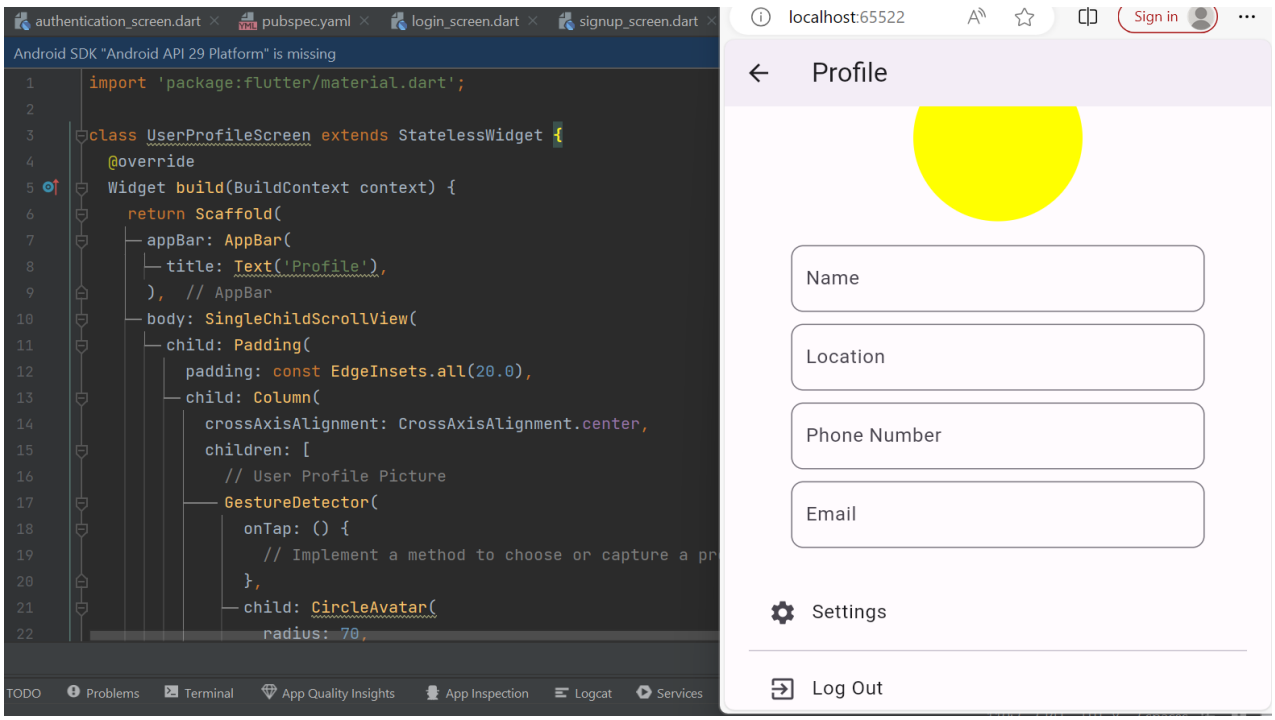
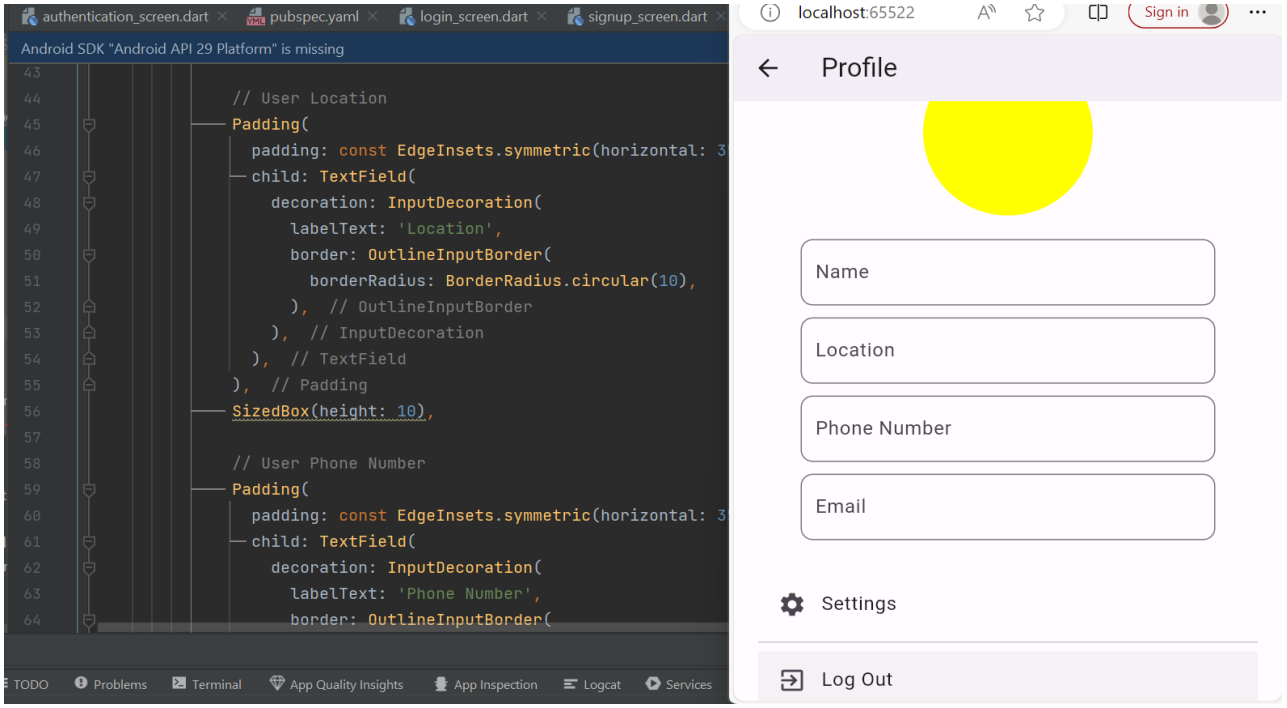
App Inspection
Logcat
Services
localhost:65522
Sign in
Sign Up
Username
Email
Phone Number
Password
Sign Up Here
Sign Up

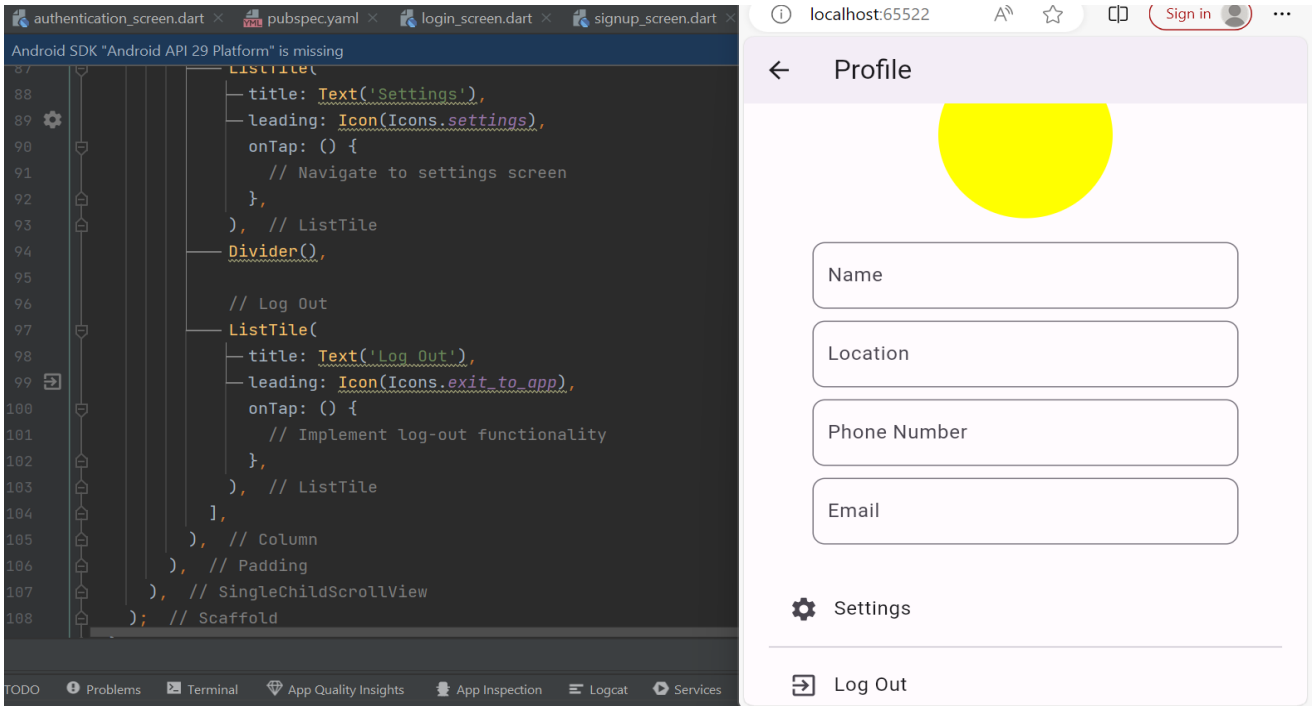

authentication_screen.dart
pubspec.yaml
login_screen.dart
signup_screen.dart
Android SDK "Android API 29 Platform" is missing
TextField(
obscureText: true,
decoration: InputDecoration(
labelText: 'Password',
border: OutlineInputBorder(
borderRadius: BorderRadius.circular(10),
), // OutlineInputBorder
filled: true,
fillColor: Colors.white70,
), // InputDecoration
), // TextField
SizedBox(height: 20),
Text(
'Sign Up Here',
style: TextStyle(color: Colors.black),
), // Text
ElevatedButton(
onPressed: () {
// Assume successful signup, navigate to View
Navigator.pushReplacement(
TODO
Problems
Terminal
App Quality Insights
App Inspection
Logcat
Services
localhost:65522
Sign in
Sign Up
Username
Email
Phone Number
Password
Sign Up Here
Sign Up



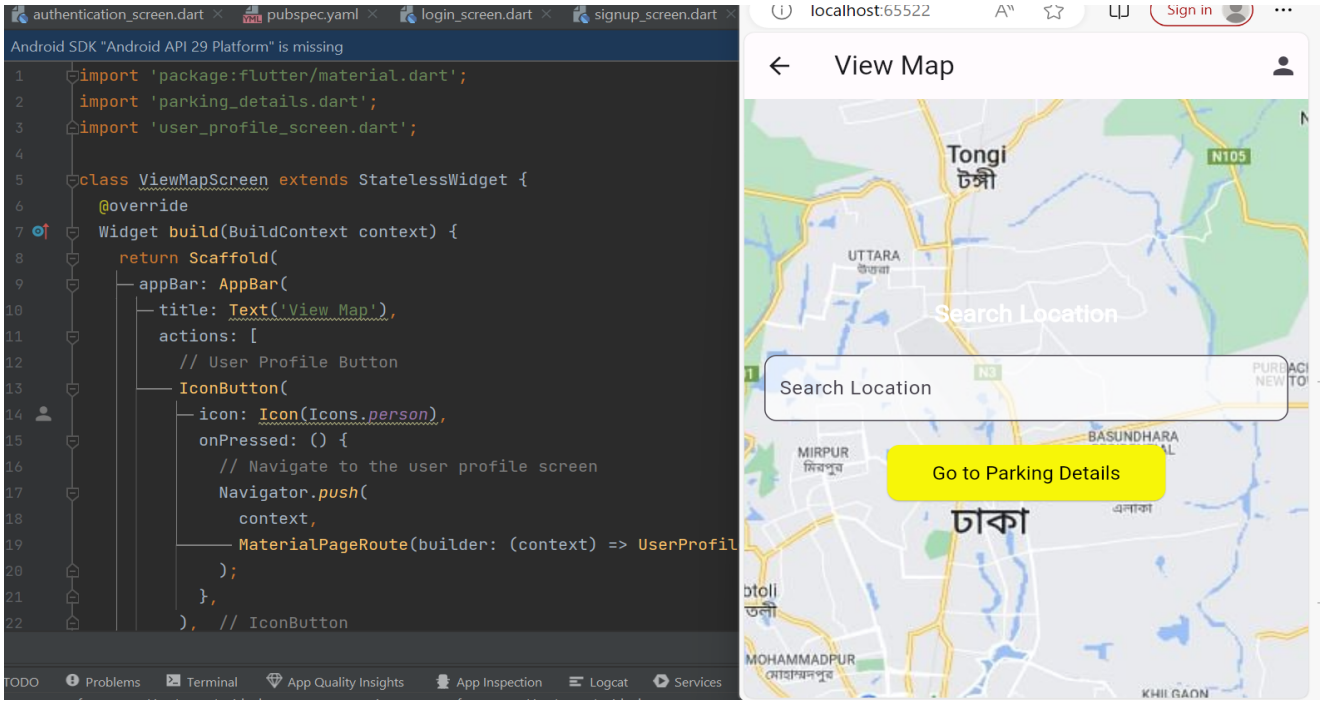
user profile:




authentication_screen.dart
pubspec.yaml
login_screen.dart
signup_screen.dart
Android SDK "Android API 29 Platform" is missing
// User Location
Padding(
padding: const EdgeInsets.symmetric(horizontal: 3
child: TextField(
decoration: InputDecoration(
labelText: 'Location',
border: OutlineInputBorder(
borderRadius: BorderRadius.circular(10),
), // OutlineInputBorder
), // InputDecoration
), // TextField
), // Padding
SizedBox(height: 10),
// User Phone Number
Padding(
padding: const EdgeInsets.symmetric(horizontal: 3
child: TextField(
decoration: InputDecoration(
labelText: 'Phone Number',
border: OutlineInputBorder(
TODO
Problems
Terminal
App Quality Insights
App Inspection
Logcat
Services
localhost:65522
Sign in
Profile
Name
Location
Phone Number
Email
Settings
Log Out


authentication_screen.dart
pubspec.yaml
login_screen.dart
signup_screen.dart
Android SDK "Android API 29 Platform" is missing
title: Text('Settings'),
leading: Icon(Icons.settings),
onTap: () {
// Navigate to settings screen
},
), // ListTile
Divider(),
// Log Out
ListTile(
title: Text('Log Out'),
leading: Icon(Icons.exit_to_app),
onTap: () {
// Implement log-out functionality
},
), // ListTile
], // Column
), // Padding
), // SingleChildScrollView
); // Scaffold
TODO
Problems
Terminal
App Quality Insights
App Inspection
Logcat
Services
localhost:65522
Sign in
Profile
Name
Location
Phone Number
Email
Settings
Log Out

view map:


authentication_screen.dart
pubspec.yaml
login_screen.dart
signup_screen.dart
Android SDK "Android API 29 Platform" is missing
import 'package:flutter/material.dart';
import 'parking_details.dart';
import 'user_profile_screen.dart';
class ViewMapScreen extends StatelessWidget {
@override
Widget build(BuildContext context) {
return Scaffold(
appBar: AppBar(
title: Text('View Map'),
actions: [
// User Profile Button
IconButton(
icon: Icon(Icons.person),
onPressed: () {
// Navigate to the user profile screen
Navigator.push(
context,
MaterialPageRoute(builder: (context) => UserProfil
);
},
), // IconButton
TODO
Problems
Terminal
App Quality Insights
App Inspection
Logcat
Services
localhost:65522
Sign in
View Map
Tongi
টঙ্গী
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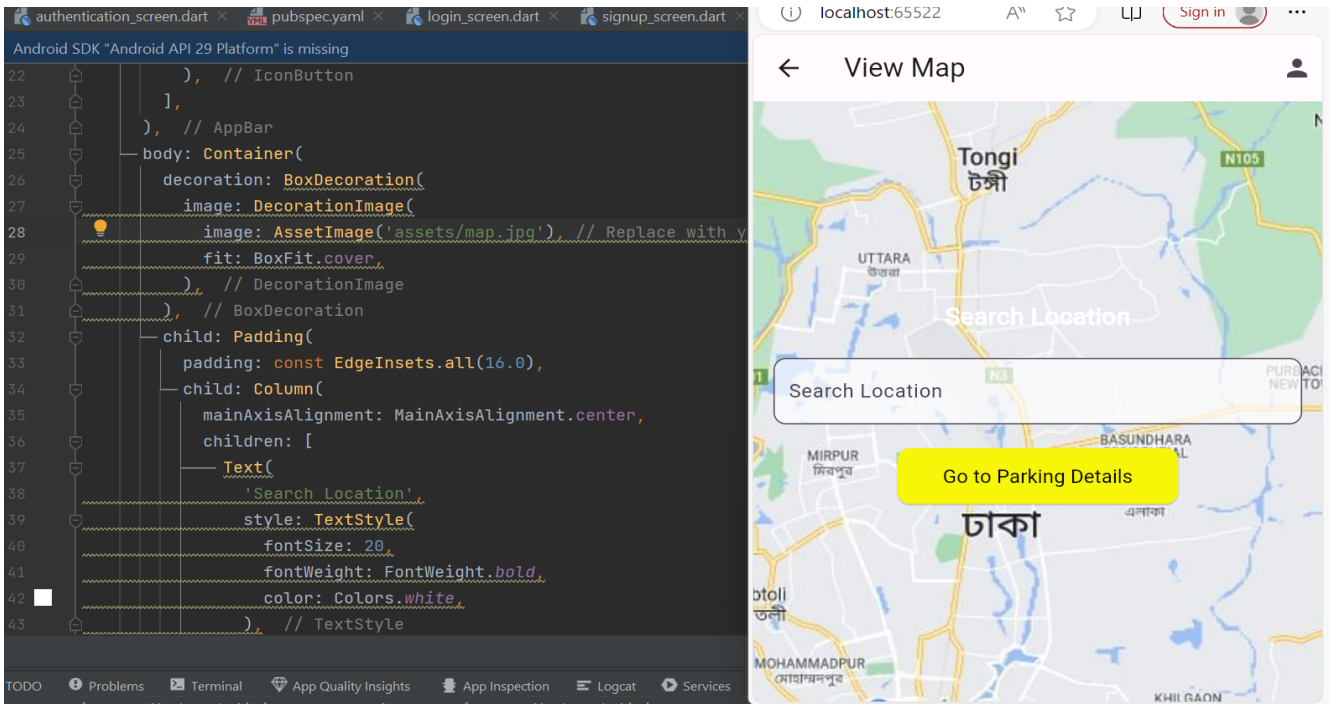
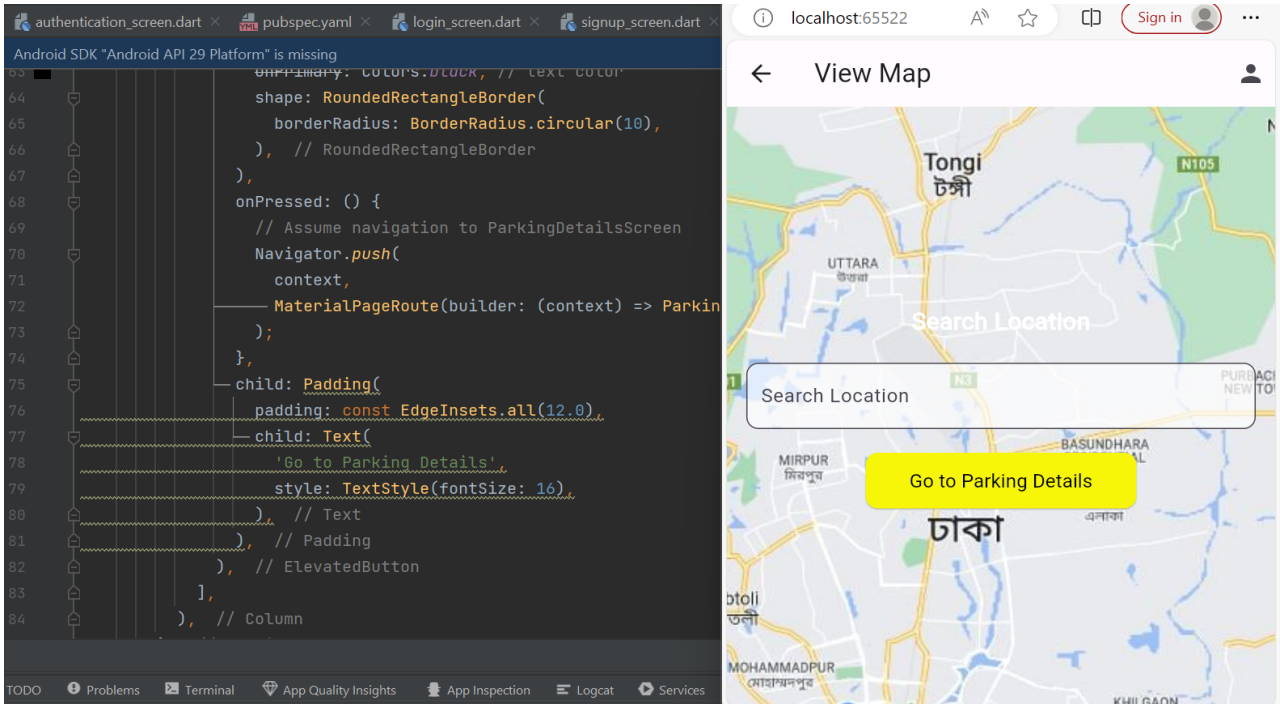
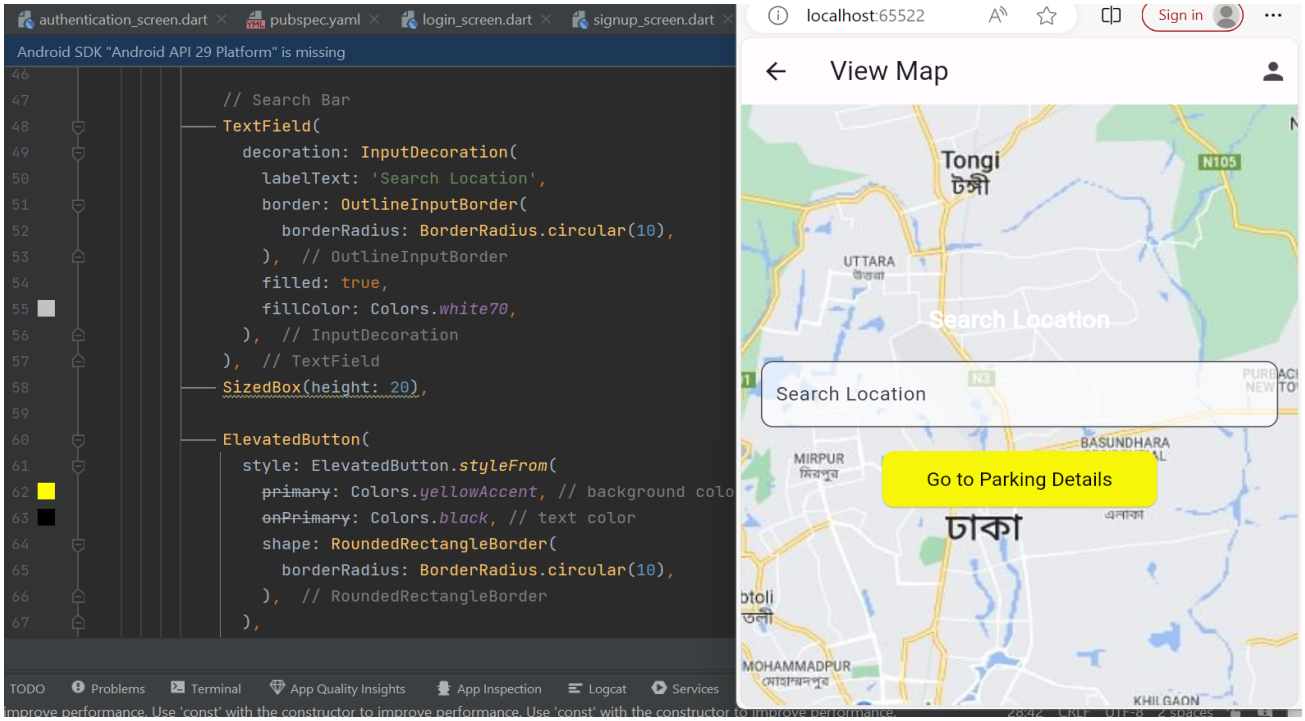
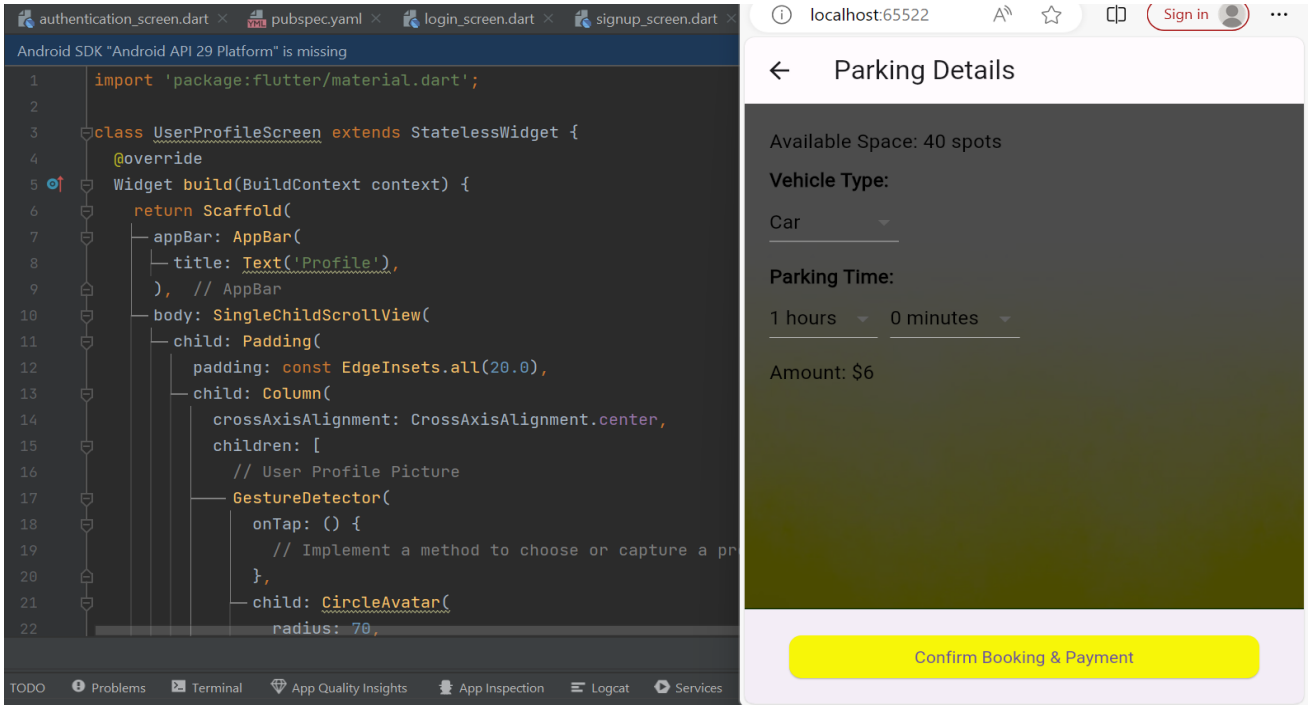
UTTARA
উত্তরা
Search Location
Search Location
MIRPUR
মিরপুর
BASUNDHARA
Go to Parking Details
ঢাকা
এলাকা
MOHAMMADPUR
মোহাম্মদপুর
KHILGAON

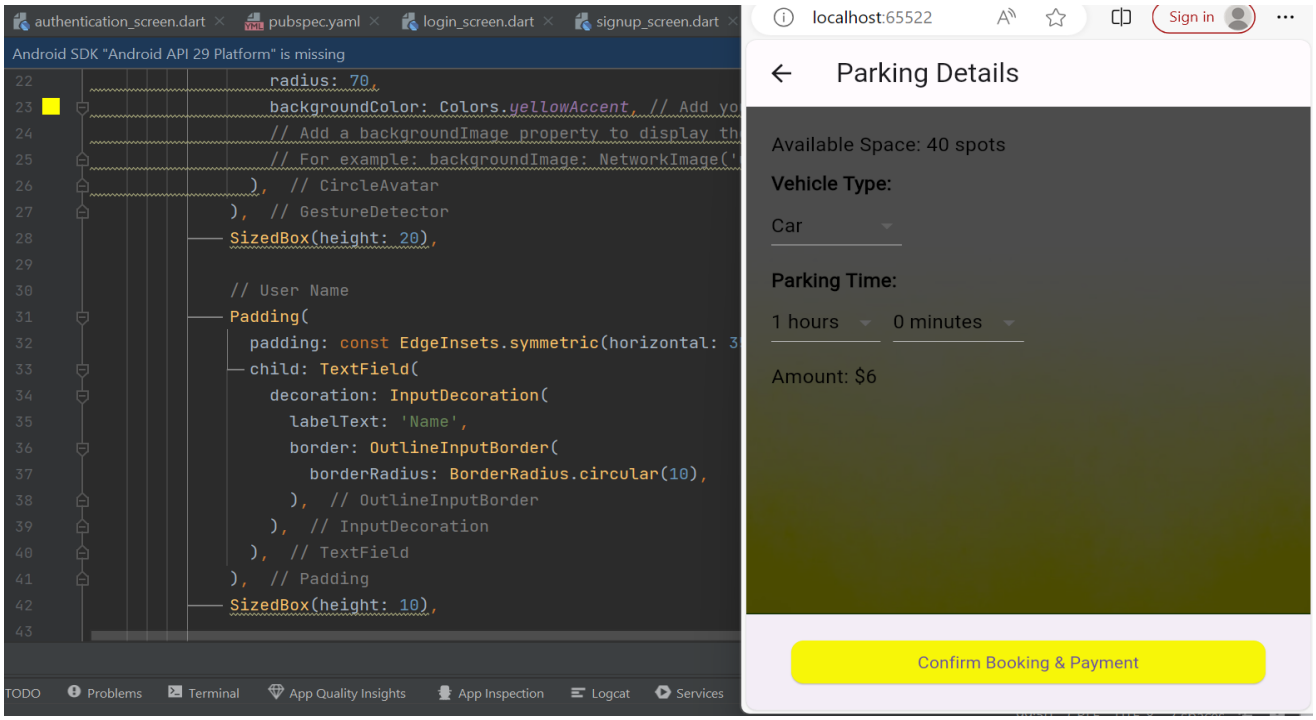

authentication_screen.dart
pubspec.yaml
login_screen.dart
signup_screen.dart
Android SDK "Android API 29 Platform" is missing
), // IconButton
],
), // AppBar
body: Container(
decoration: BoxDecoration(
image: DecorationImage(
image: AssetImage('assets/map.jpg'), // Replace with y
fit: BoxFit.cover,
), // DecorationImage
), // BoxDecoration
child: Padding(
padding: const EdgeInsets.all(16.0),
child: Column(
mainAxisAlignment: MainAxisAlignment.center,
children: [
Text(
'Search Location',
style: TextStyle(
fontSize: 20,
fontWeight: FontWeight.bold,
color: Colors.white,
), // TextStyle
TODO
Problems
Terminal
App Quality Insights
App Inspection
Logcat
Services
localhost:65522
Sign in
View Map
Tongi
টঙ্গী
N105
UTTARA
উত্তরা
Search Location
Search Location
MIRPUR
মিরপুর
BASUNDHARA
Go to Parking Details
ঢাকা
এলাকা
MOHAMMADPUR
মোহাম্মদপুর
KHILGAON

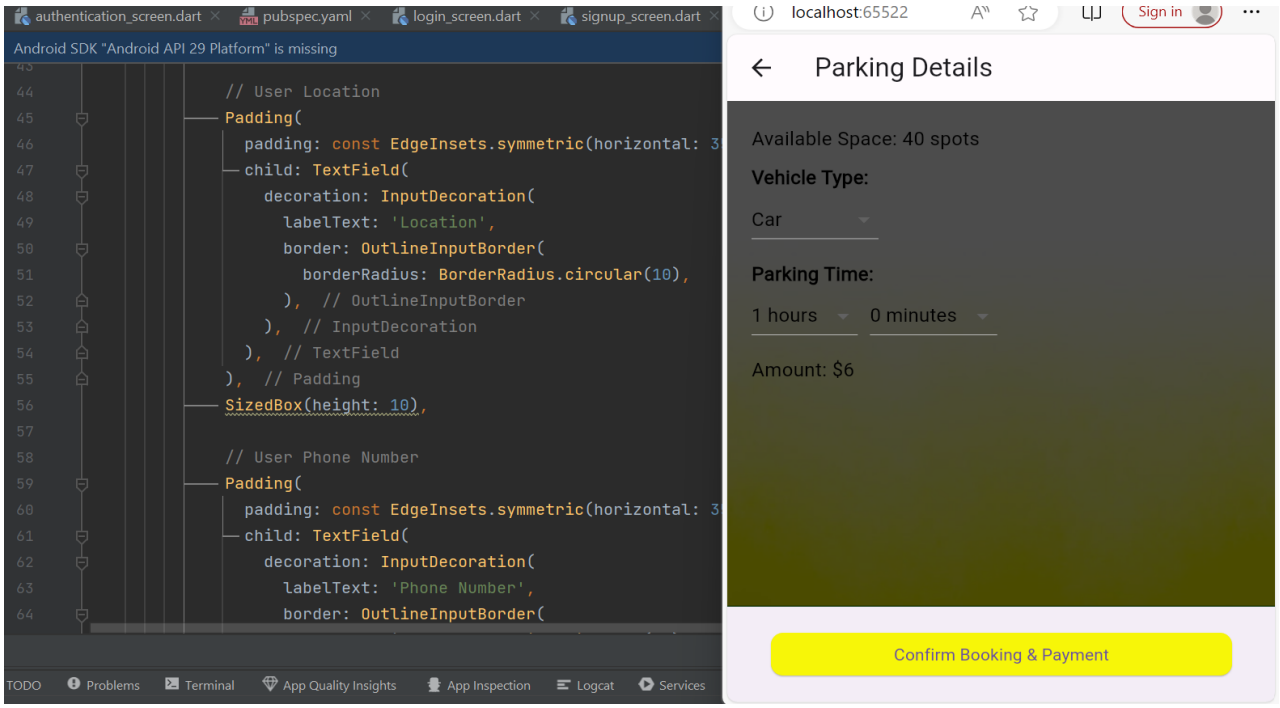

authentication_screen.dart
pubspec.yaml
login_screen.dart
signup_screen.dart
Android SDK "Android API 29 Platform" is missing
shape: RoundedRectangleBorder(
borderRadius: BorderRadius.circular(10),
), // RoundedRectangleBorder
),
onPressed: () {
// Assume navigation to ParkingDetailsScreen
Navigator.push(
context,
MaterialPageRoute(builder: (context) => Parkin
);
},
child: Padding(
padding: const EdgeInsets.all(12.0),
child: Text(
'Go to Parking Details',
style: TextStyle(fontSize: 16),
), // Text
), // Padding
), // ElevatedButton
], // Column
TODO
Problems
Terminal
App Quality Insights
App Inspection
Logcat
Services
localhost:65522
Sign in
View Map
Tongi
টঙ্গী
N105
UTTARA
উত্তরা
Search Location
Search Location
N3
MIRPUR
মিরপুর
BASUNDHARA
Go to Parking Details
ঢাকা
এলাকা
MOHAMMADPUR
মোহাম্মদপুর

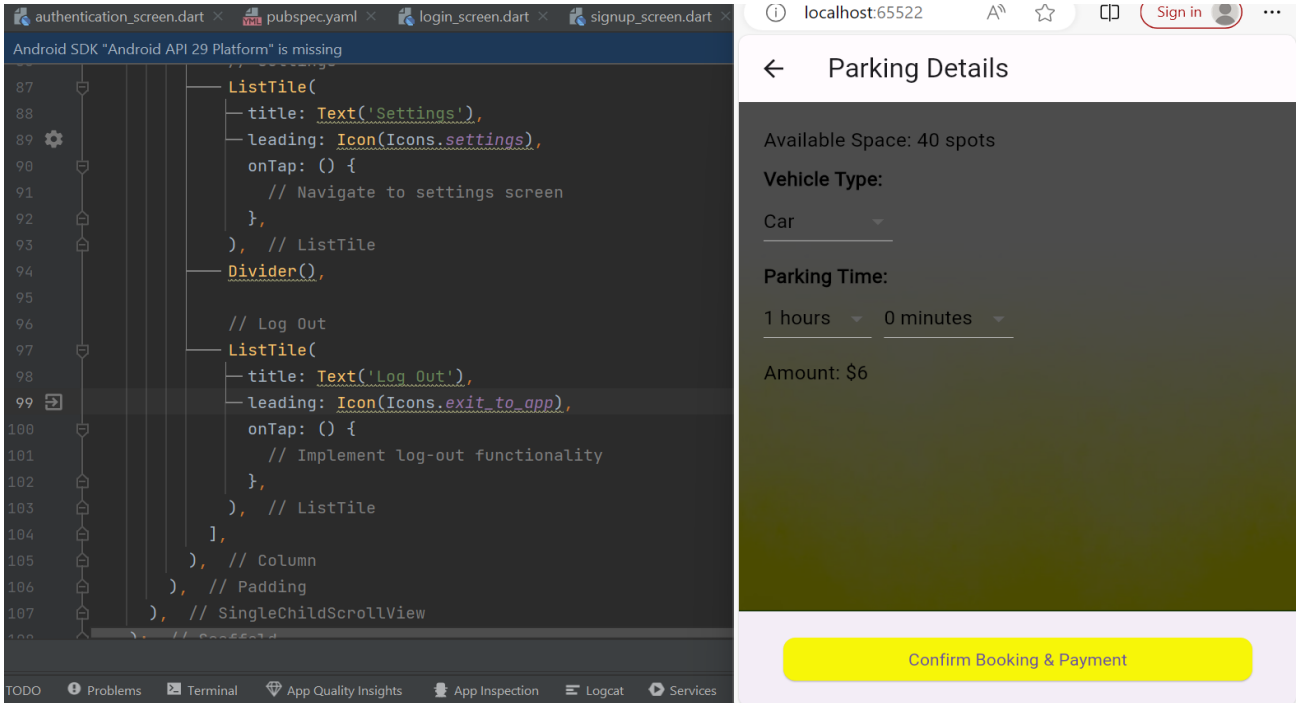

authentication_screen.dart
pubspec.yaml
login_screen.dart
signup_screen.dart
Android SDK "Android API 29 Platform" is missing
// Search Bar
TextField(
decoration: InputDecoration(
labelText: 'Search Location',
border: OutlineInputBorder(
borderRadius: BorderRadius.circular(10),
), // OutlineInputBorder
filled: true,
fillColor: Colors.white70,
), // InputDecoration
), // TextField
SizedBox(height: 20),
ElevatedButton(
style: ElevatedButton.styleFrom(
primary: Colors.yellowAccent, // background colo
onPrimary: Colors.black, // text color
shape: RoundedRectangleBorder(
borderRadius: BorderRadius.circular(10),
), // RoundedRectangleBorder
),
TODO
Problems
Terminal
App Quality Insights
App Inspection
Logcat
Services
improve performance. Use 'const' with the constructor to improve performance. Use 'const' with the constructor to improve performance.
localhost:65522
Sign in
View Map
Tongi
টঙ্গী
N105
UTTARA
উত্তরা
Search Location
Search Location
N3
MIRPUR
মিরপুর
BASUNDHARA
Go to Parking Details
ঢাকা
এলাকা
MOHAMMADPUR
মোহাম্মদপুর

parking details:

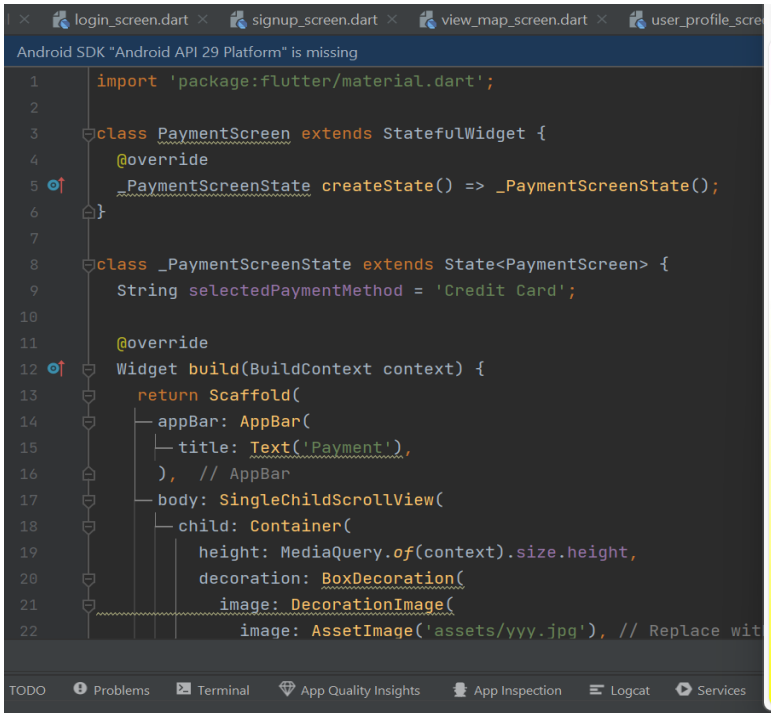


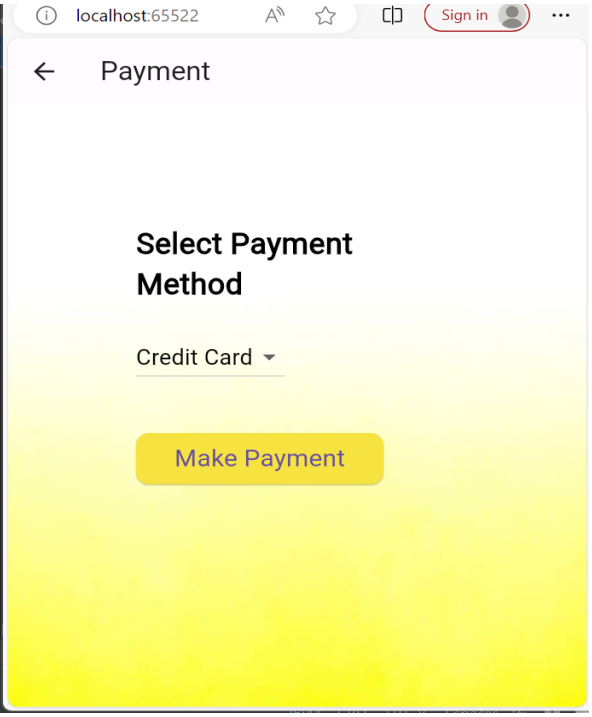


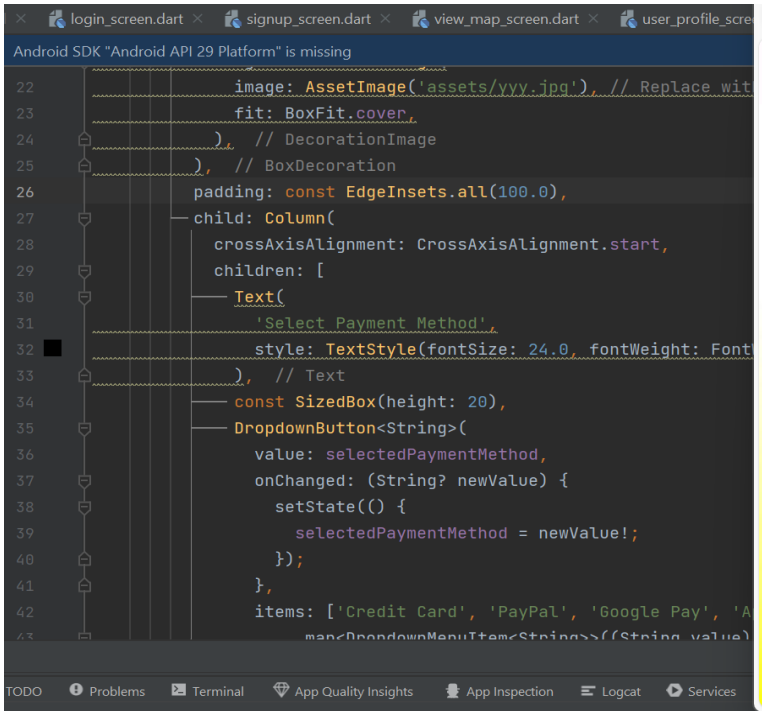

authentication_screen.dart
pubspec.yaml
login_screen.dart
signup_screen.dart
Android SDK "Android API 29 Platform" is missing
// User Location
Padding(
padding: const EdgeInsets.symmetric(horizontal: 3
child: TextField(
decoration: InputDecoration(
labelText: 'Location',
border: OutlineInputBorder(
borderRadius: BorderRadius.circular(10),
), // OutlineInputBorder
), // InputDecoration
), // TextField
), // Padding
SizedBox(height: 10),
// User Phone Number
Padding(
padding: const EdgeInsets.symmetric(horizontal: 3
child: TextField(
decoration: InputDecoration(
labelText: 'Phone Number',
border: OutlineInputBorder(
TODO
Problems
Terminal
App Quality Insights
App Inspection
Logcat
Services
localhost:65522
Sign in
Parking Details
Available Space: 40 spots
Vehicle Type:
Car
Parking Time:
1 hours
0 minutes
Amount: $6
Confirm Booking & Payment

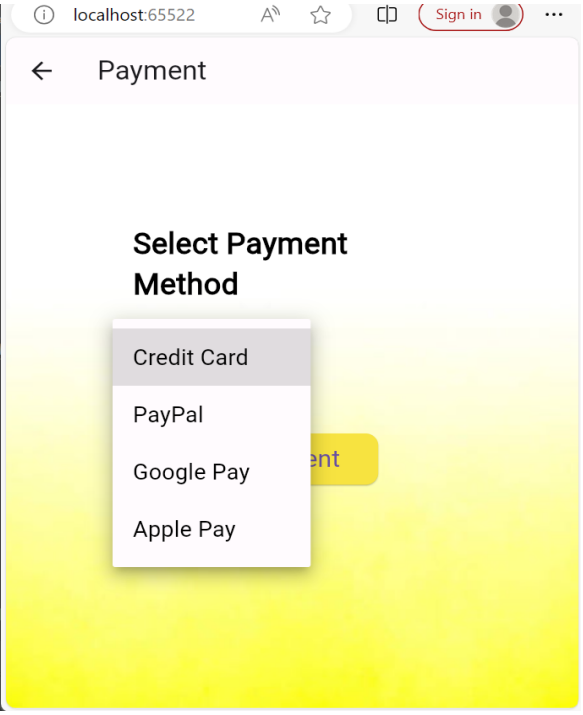

authentication_screen.dart
pubspec.yaml
login_screen.dart
signup_screen.dart
Android SDK "Android API 29 Platform" is missing
ListTile(
title: Text('Settings'),
leading: Icon(Icons.settings),
onTap: () {
// Navigate to settings screen
},
), // ListTile
Divider(),
// Log Out
ListTile(
title: Text('Log Out'),
leading: Icon(Icons.exit_to_app),
onTap: () {
// Implement log-out functionality
},
), // ListTile
],
), // Column
), // Padding
), // SingleChildScrollView
TODO
Problems
Terminal
App Quality Insights
App Inspection
Logcat
Services
localhost:65522
Sign in
Parking Details
Available Space: 40 spots
Vehicle Type:
Car
Parking Time:
1 hours
0 minutes
Amount: $6
Confirm Booking & Payment

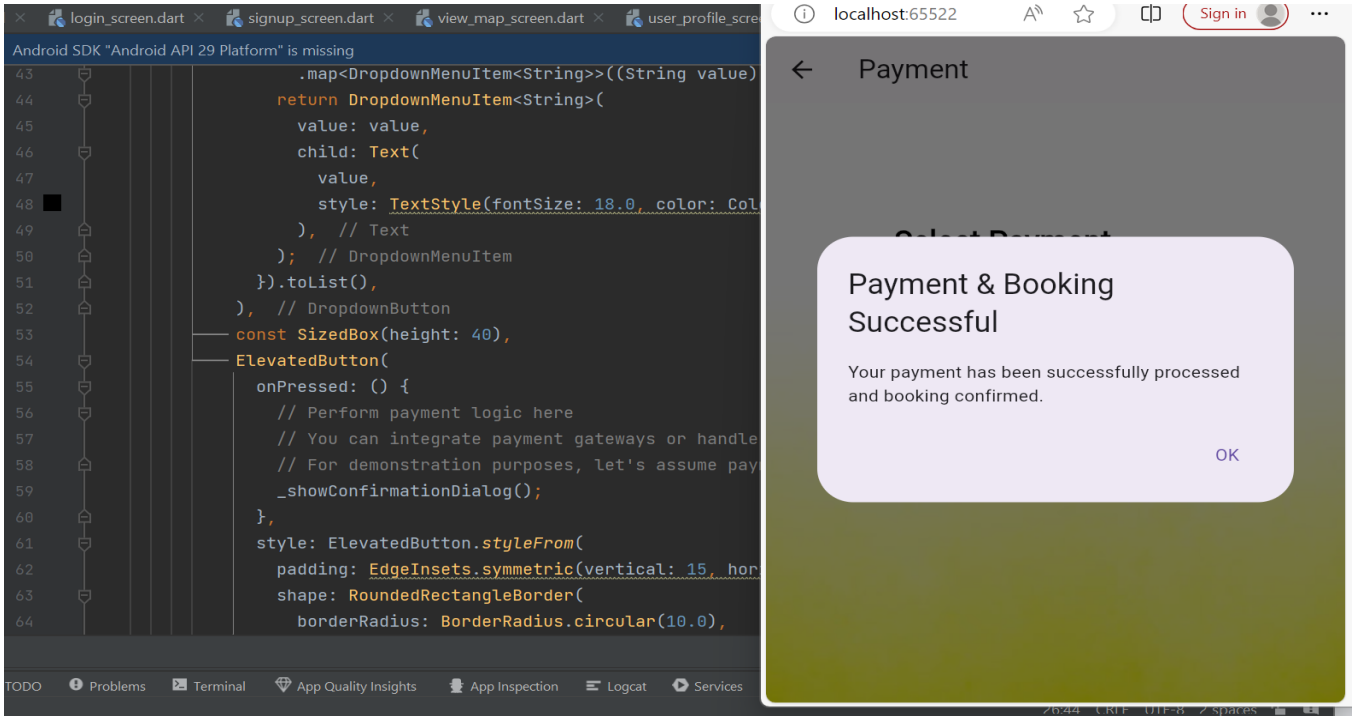
payment Method:

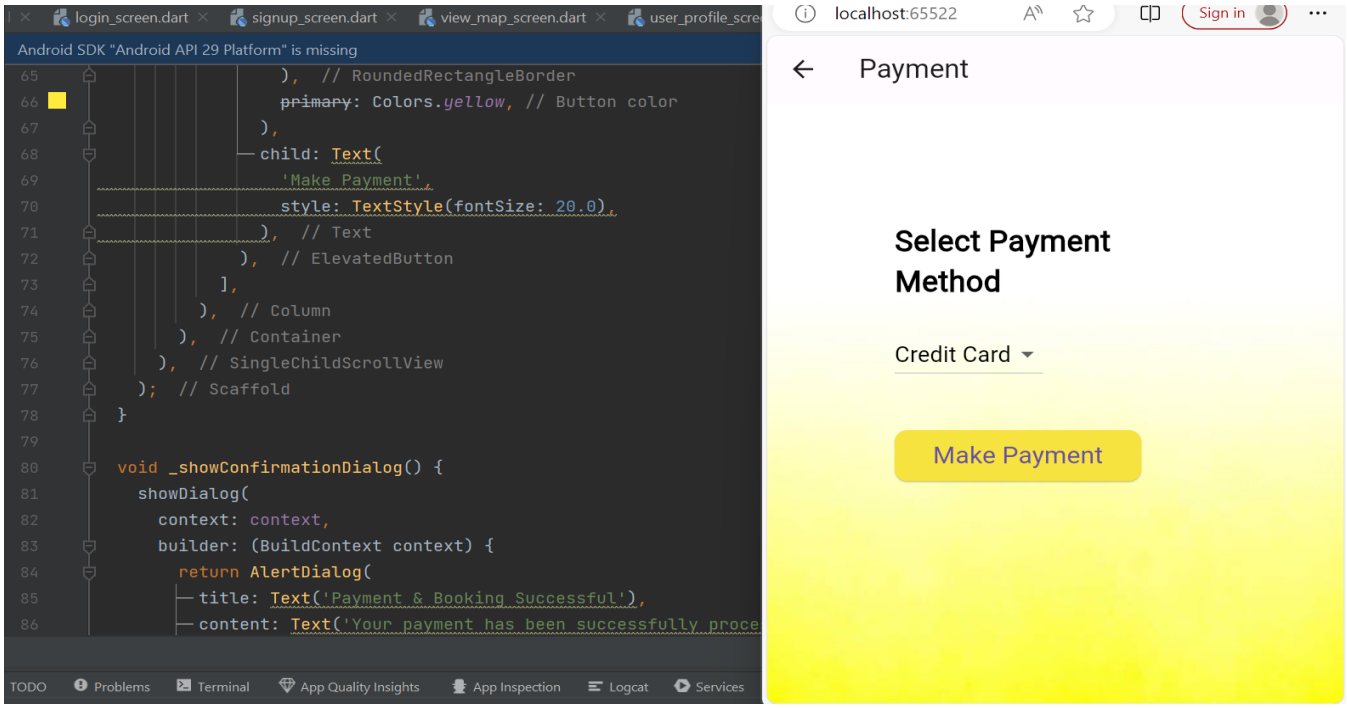


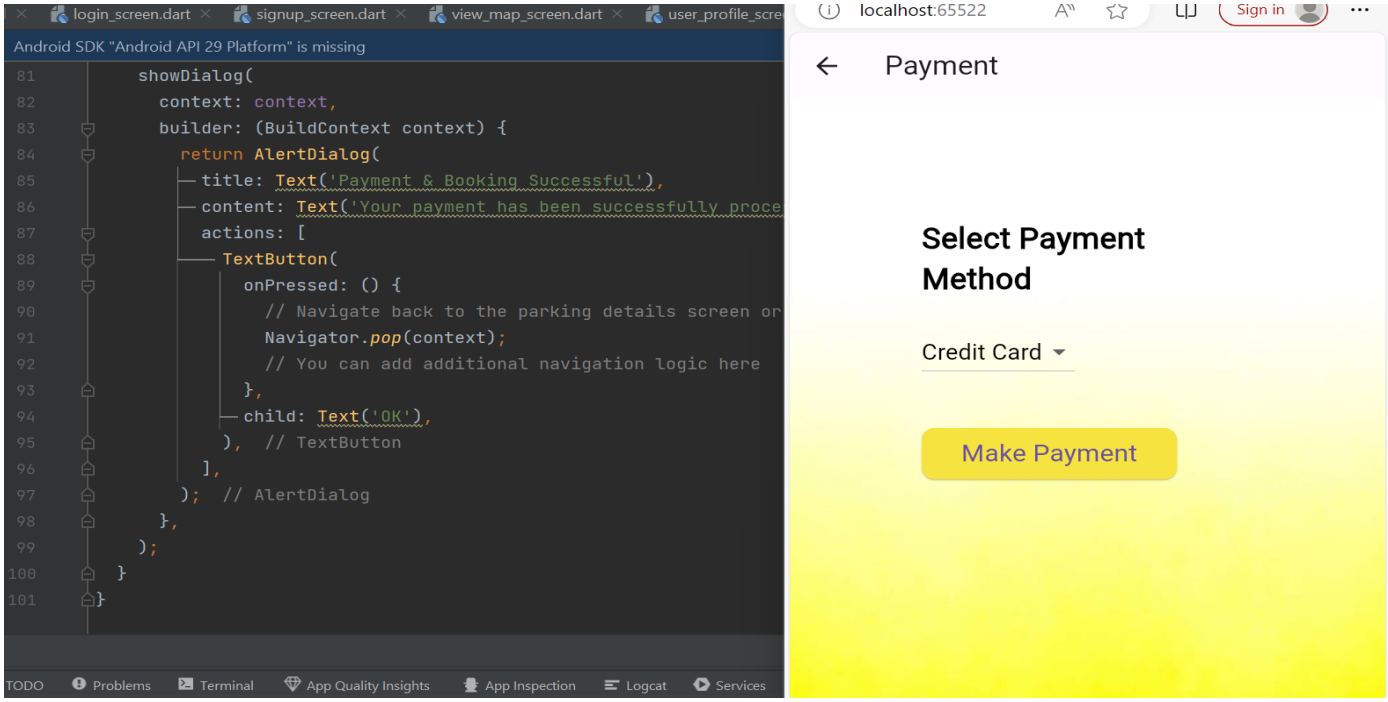







login_screen.dart
signup_screen.dart
view_map_screen.dart
user_profile_scre
Android SDK "Android API 29 Platform" is missing
.map<DropdownMenuItem<String>>((String value)
return DropdownMenuItem<String>(
value: value,
child: Text(
value,
style: TextStyle(fontSize: 18.0, color: Col
), // Text
); // DropdownMenuItem
}).toList(),
), // DropdownButton
const SizedBox(height: 40),
ElevatedButton(
onPressed: () {
// Perform payment logic here
// You can integrate payment gateways or handle
// For demonstration purposes, let's assume pay
_showConfirmationDialog();
},
style: ElevatedButton.styleFrom(
padding: EdgeInsets.symmetric(vertical: 15, hor
shape: RoundedRectangleBorder(
borderRadius: BorderRadius.circular(10.0),
TODO
Problems
Terminal
App Quality Insights
App Inspection
Logcat
Services
localhost:65522
Sign in
Payment
Payment & Booking Successful
Your payment has been successfully processed and booking confirmed.
OK

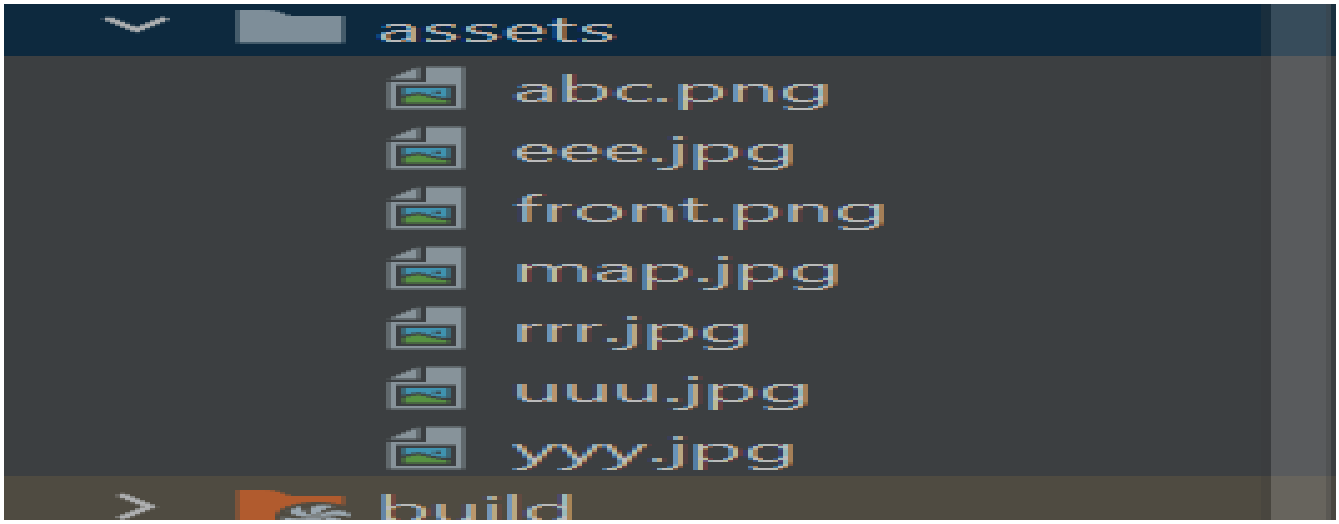

login_screen.dart
signup_screen.dart
view_map_screen.dart
user_profile_scre
Android SDK "Android API 29 Platform" is missing
), // RoundedRectangleBorder
primary: Colors.yellow, // Button color
),
child: Text(
'Make Payment',
style: TextStyle(fontSize: 20.0),
), // Text
), // ElevatedButton
],
), // Column
), // Container
), // SingleChildScrollView
); // Scaffold
}
void _showConfirmationDialog() {
showDialog(
context: context,
builder: (BuildContext context) {
return AlertDialog(
title: Text('Payment & Booking Successful'),
content: Text('Your payment has been successfully proce
TODO
Problems
Terminal
App Quality Insights
App Inspection
Logcat
Services
localhost:65522
Sign in
Payment
Select Payment Method
Credit Card
Make Payment



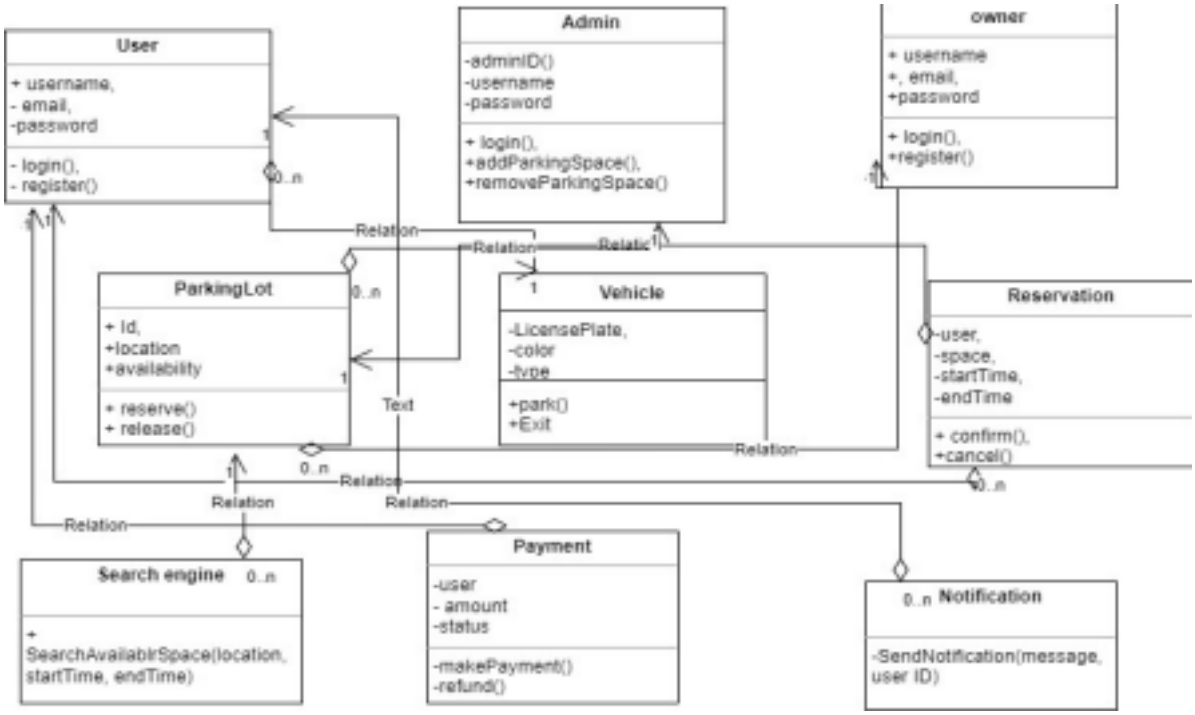
Dependences for image setting:

```
# the material icons class.
uses-material-design: true

# To add assets to your application, add an assets section, like this:
assets:
  - assets/
#   - images/a_dot_ham.jpeg

# An image asset can refer to one or more resolution-specific "variants", see
# https://flutter.dev/assets-and-images/#resolution-aware
```

Assets:



Class Diagram here:

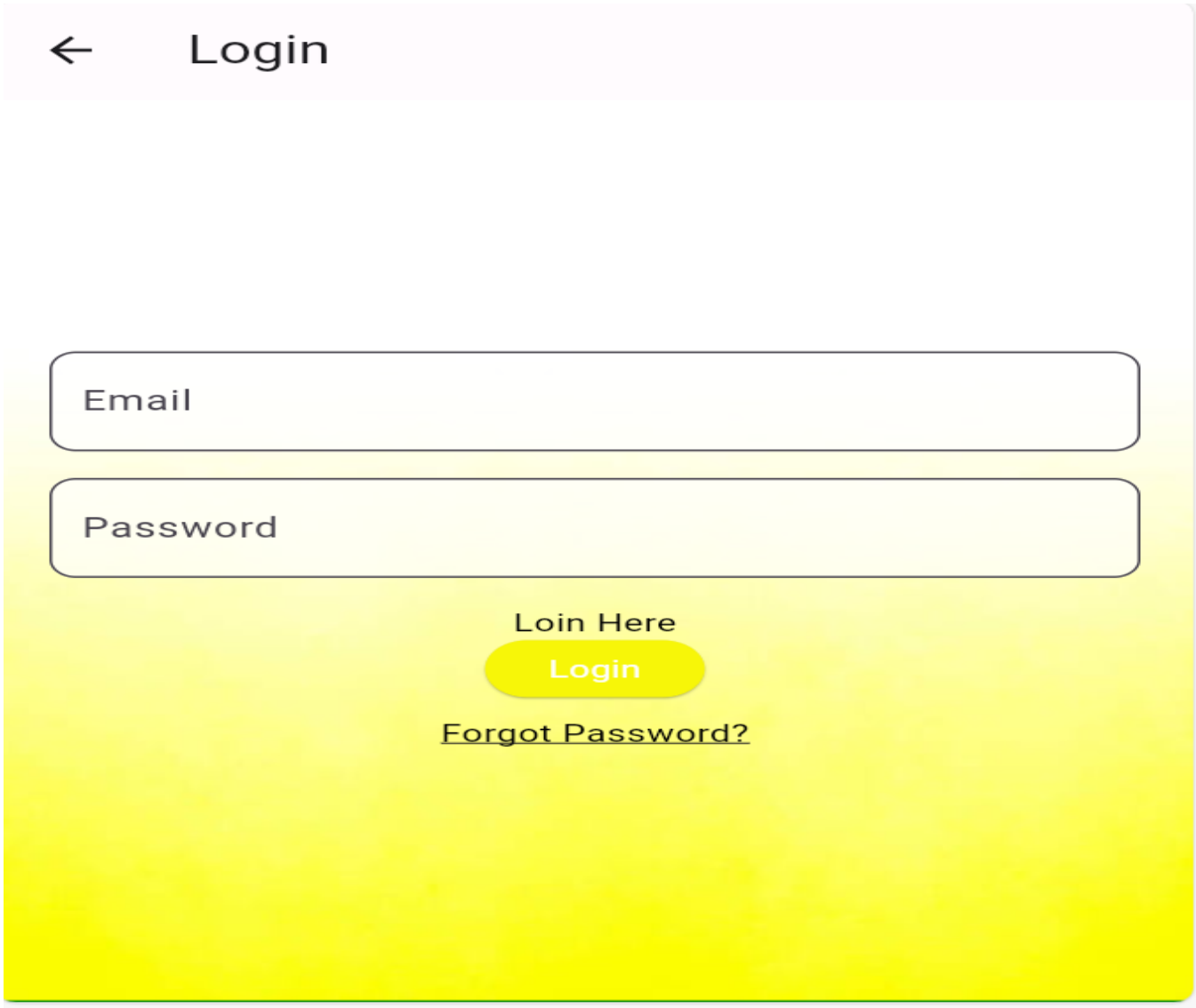


Use Case Diagram:

App Demo

Start (**LogIn)** :

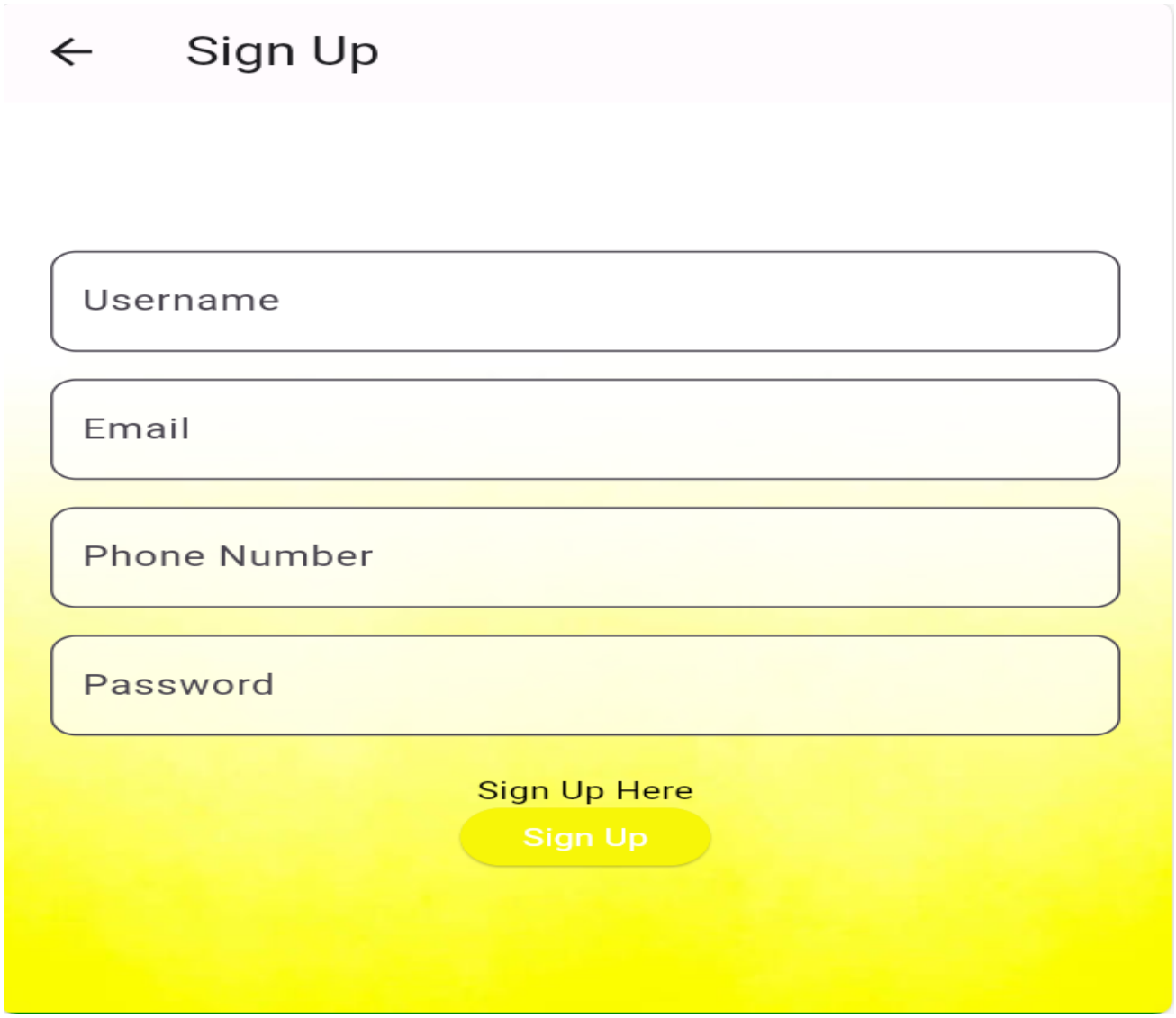
When the app launches, the login page first appears. Users must enter their email address and password to log infuser's can display the home page after logging in.



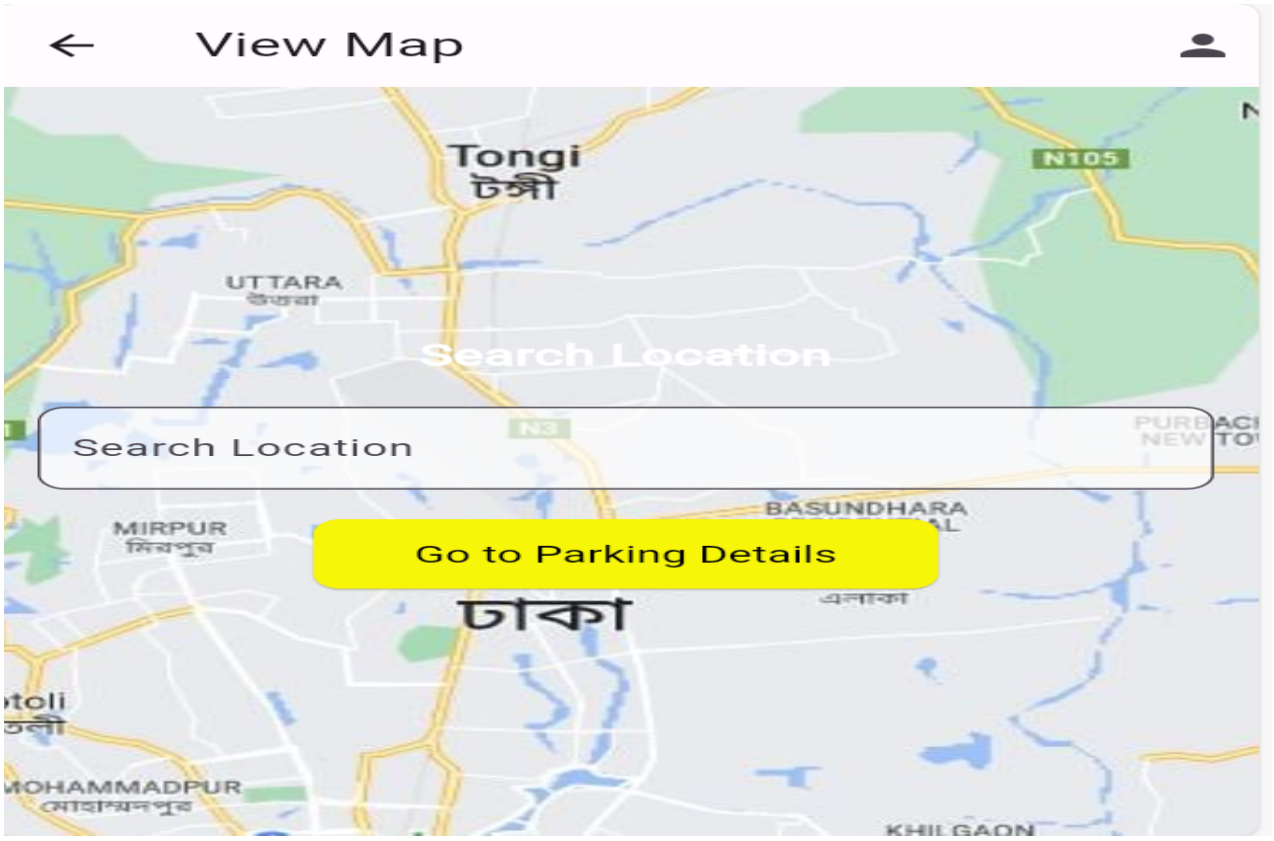
Sign up :

page for new users to register. Users need to provide an email address, a password, and a second password confirmation in order to create an account. When users click the signup button, their account is created after they have filled out the "Email Address," "Password," and "Confirm

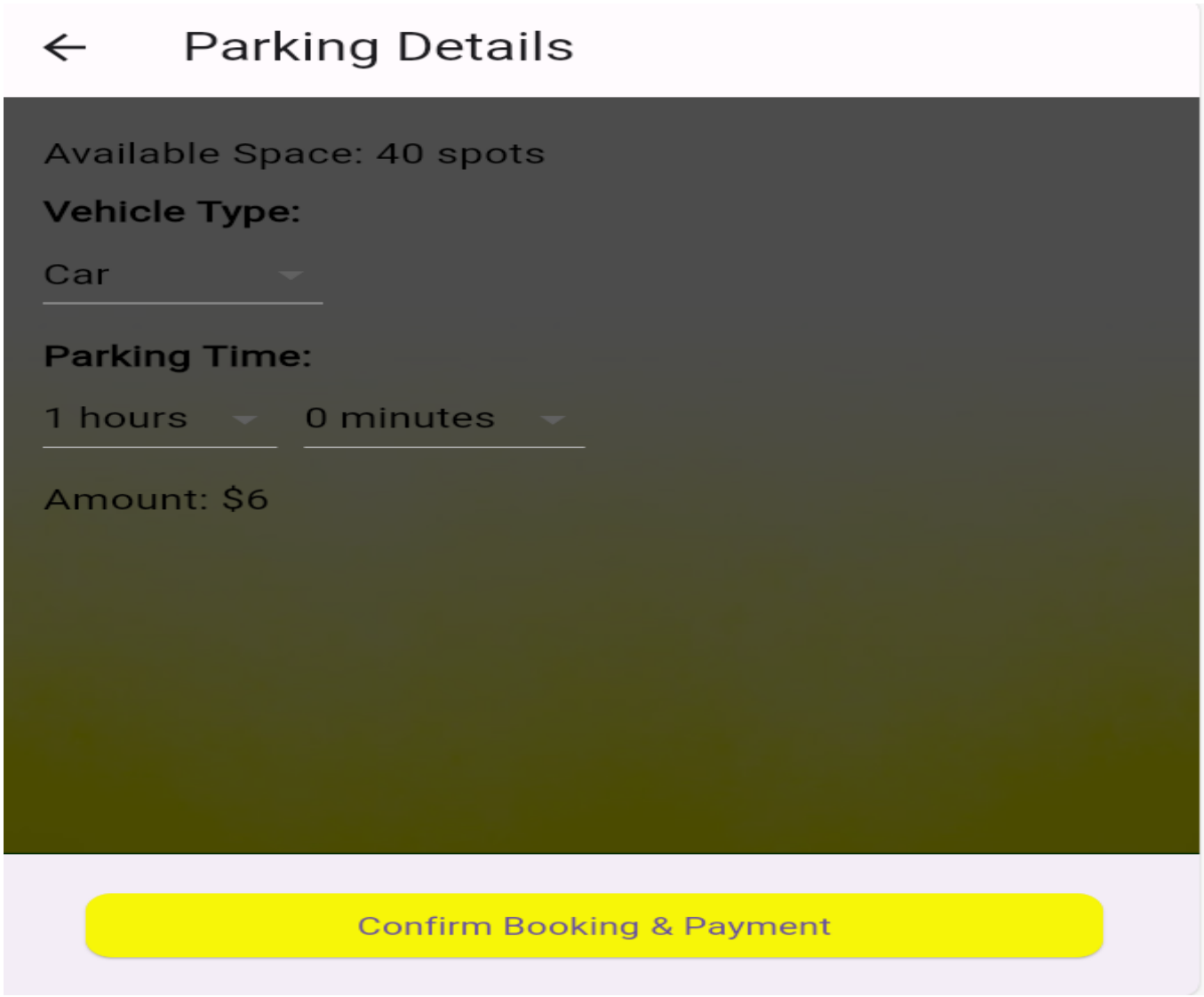
Password" fields. The signup button sends the user back to the login page. When you've logged in, clicking the user's menu page



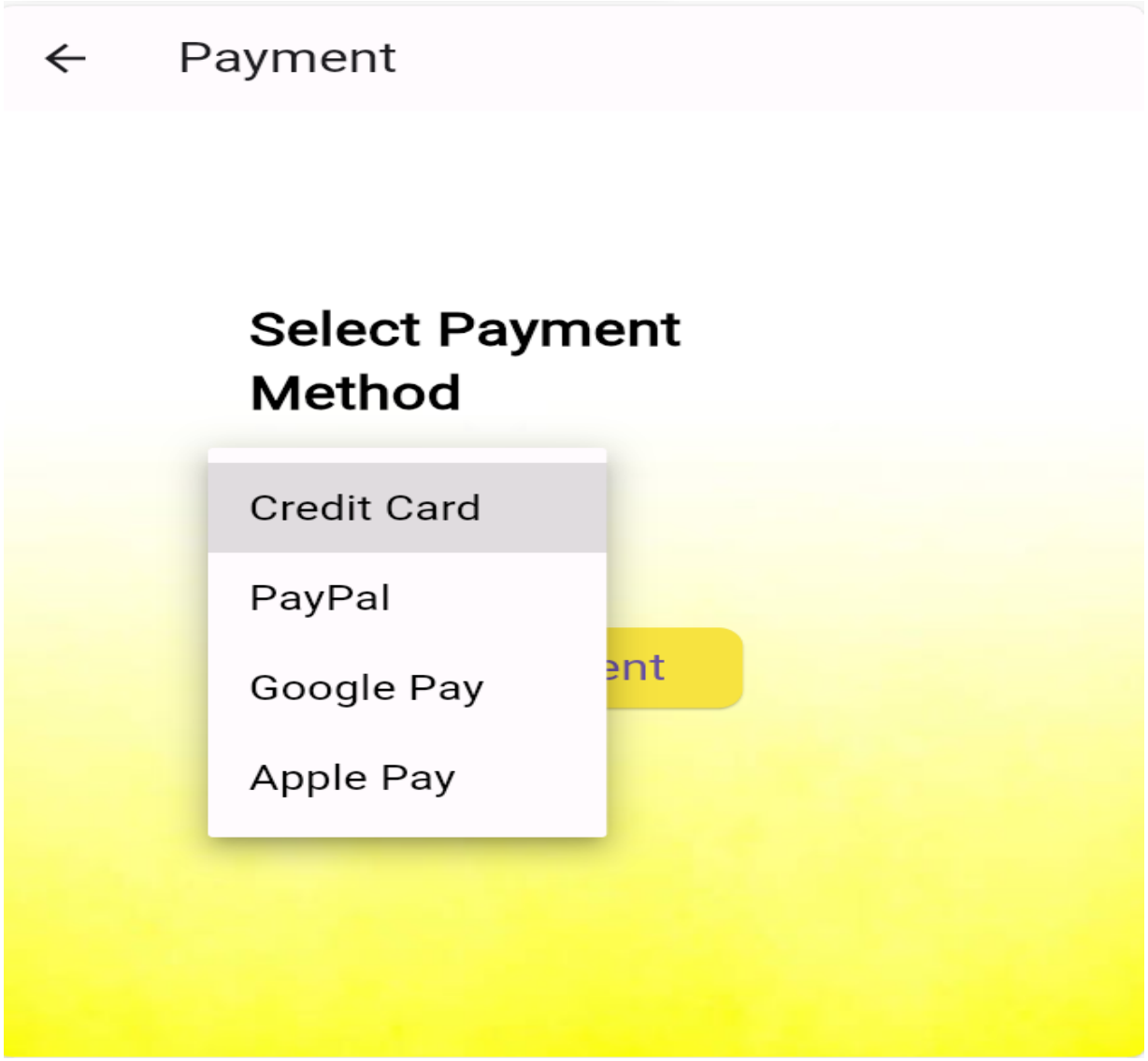
View Map:

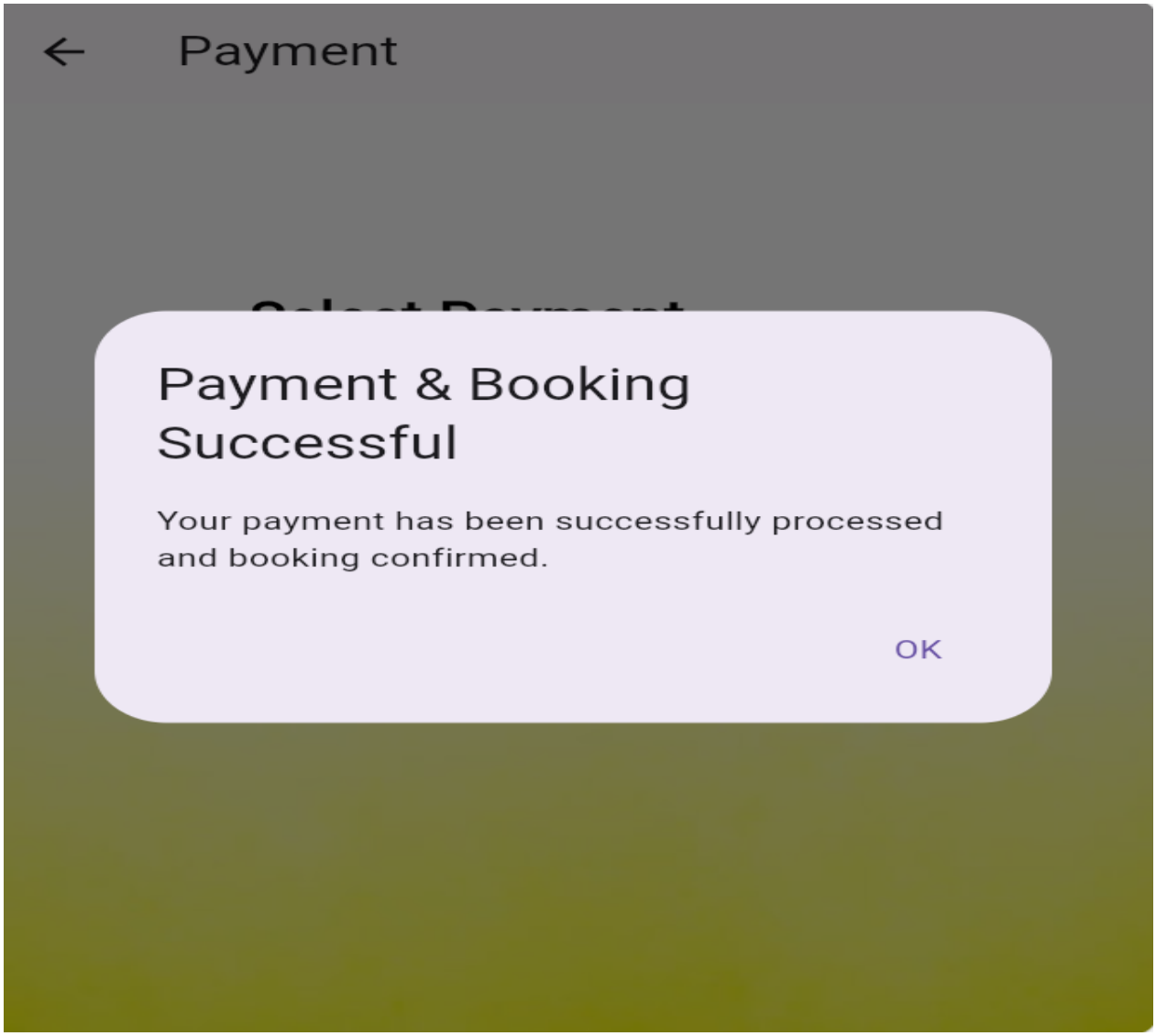


View parking details:



Payment method:


Payment
Select Payment Method
Credit Card
PayPal
Google Pay
Apple Pay


Payment
Payment & Booking Successful
Your payment has been successfully processed and booking confirmed.
OK