ParkMe

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Functional and Non-Functional

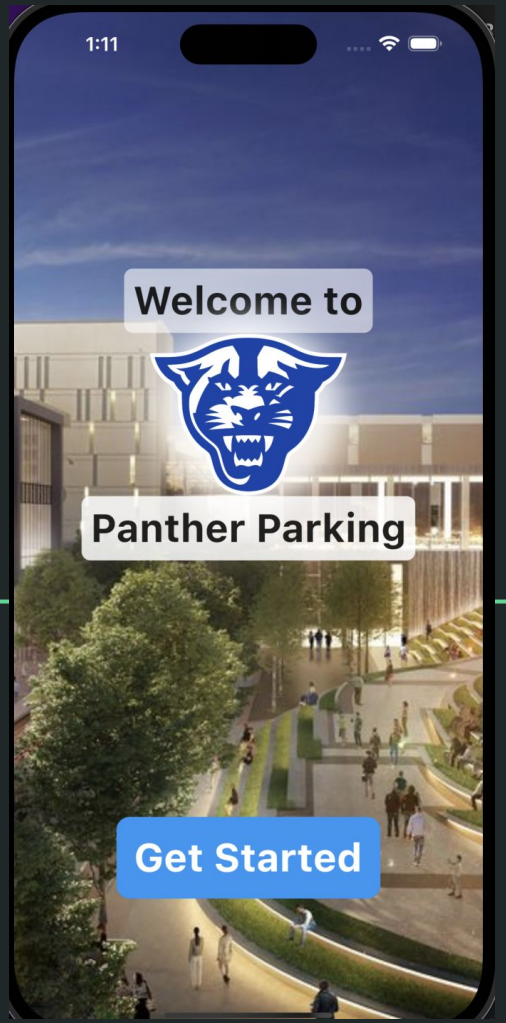
Functional

- System should direct user to the desired parking garage using GPS
- System should allow user to confirm spots that are green “available”
- Database should store the users id and car information
- System should reflect number of spot available after a user leaves
- The GSU Map on the home screen is interactable to the user

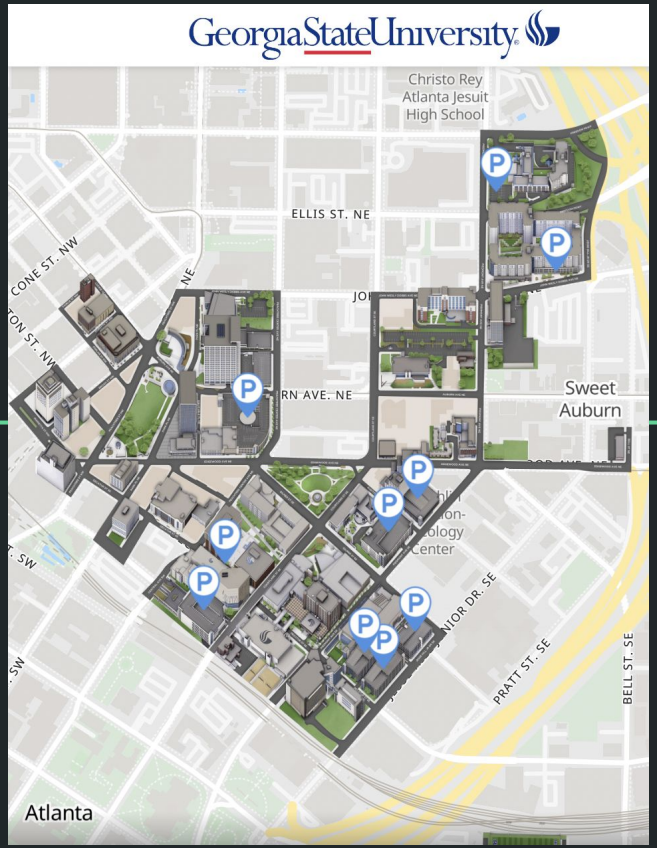
Non-Functional

- Once the user reaches the desired stop system must notify user to confirm parking spot
- System must not allow two users to reserve a spot at the same time
- System must keep track of all the spots that are taken and are not
- System must keep track of the allotted time given by the user
- GPS systems that directs the user to the parking spot in the deck
- System authenticates that the user is a GSU student

ParkMe App

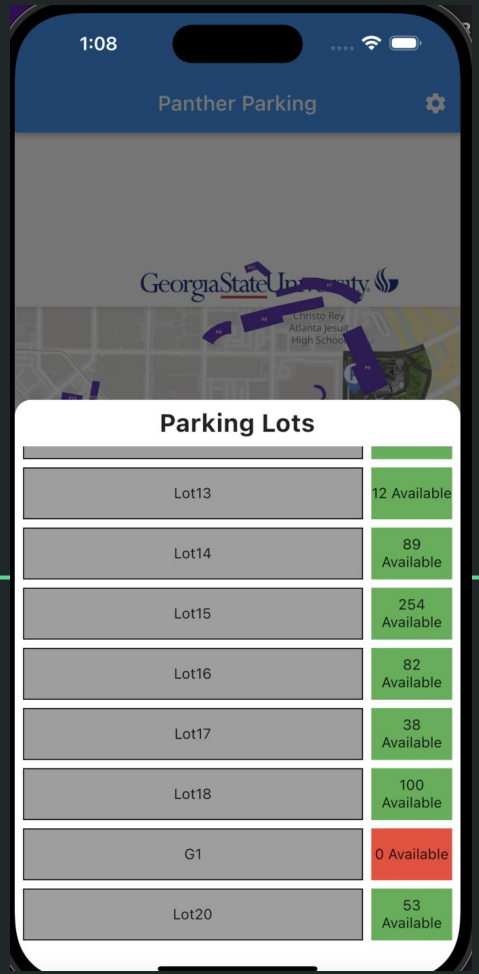


Campus Map

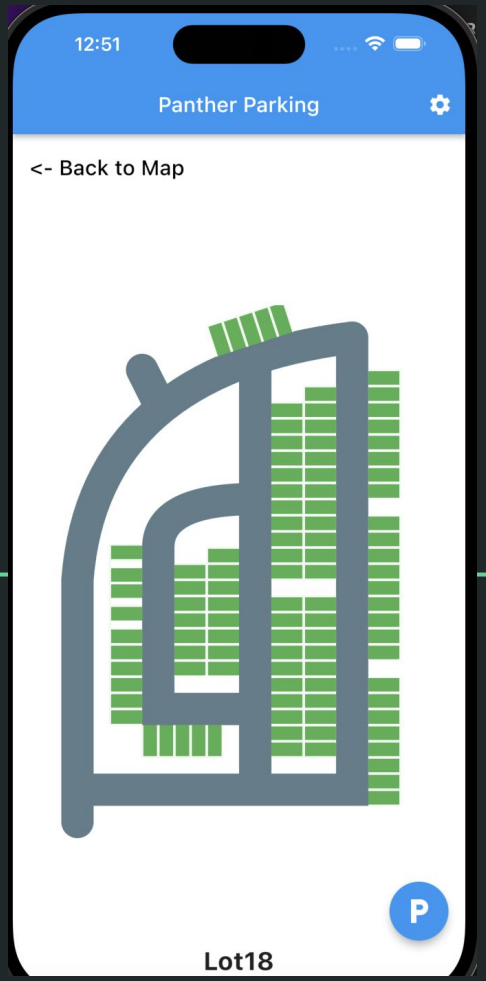

GeorgiaStateUniversity
Christo Rey
Atlanta Jesuit
High School
ELLIS ST. NE
Sweet
Auburn
PRATT ST. SE
BELL ST. SE
Atlanta

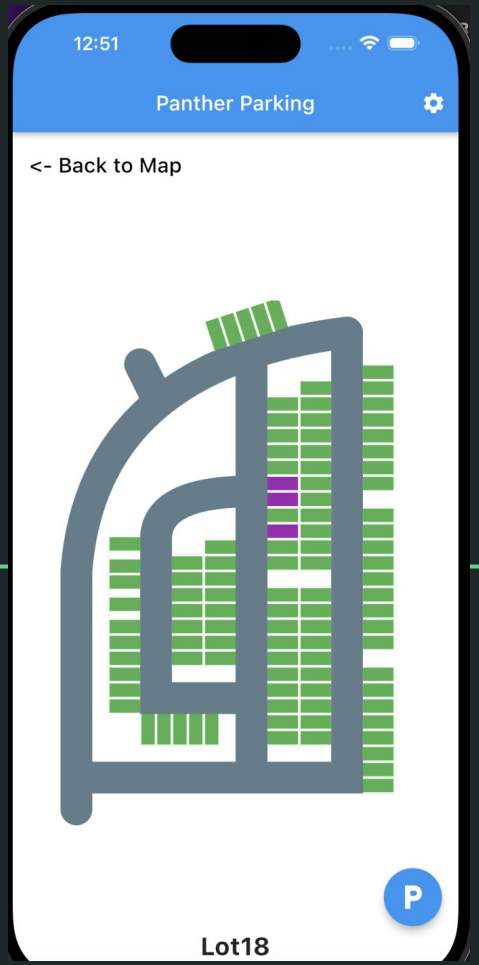

12:49
Panther Parking
Sweet
Auburn
Atlanta
Campus Map

Parking

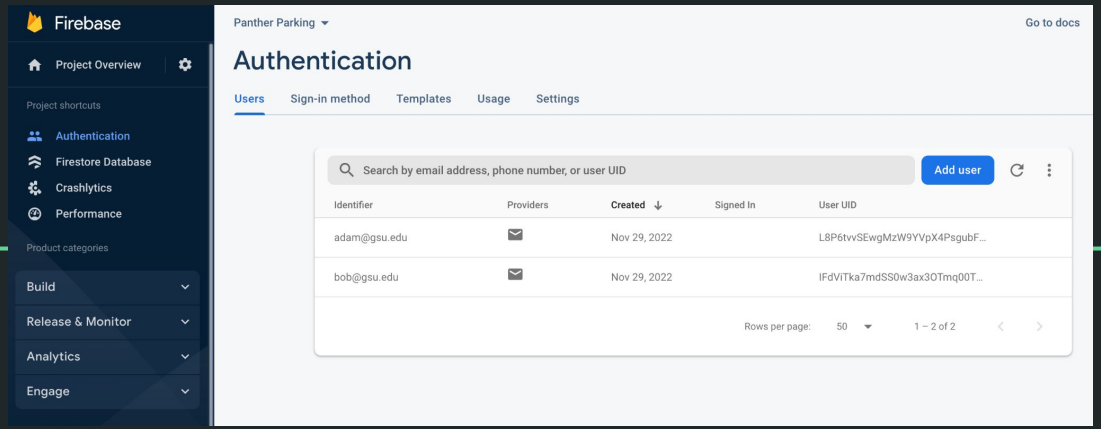

1:08
Panther Parking
Parking Lots
Lot13
12 Available
Lot14
89 Available
Lot15
254 Available
Lot16
82 Available
Lot17
38 Available
Lot18
100 Available
G1
0 Available
Lot20
53 Available

Parking


12:51
Panther Parking
<- Back to Map
P
Lot18


12:51
Panther Parking
<- Back to Map
P
Lot18

Backend



main.dart

```dart
import 'package:flutter/material.dart';
import 'package:firebase_core/firebase_core.dart';
import 'package:panther_parking/firebase_options.dart';
import 'package:panther_parking/pages/parking_page.dart';
import 'package:panther_parking/pages/welcome_page.dart';
import 'package:panther_parking/resources/app_state.dart';
import 'package:panther_parking/resources/firebase/auth_methods.dart';
import 'package:panther_parking/resources/locator.dart';
import 'package:provider/provider.dart';
import 'package:panther _parking/models/Statistical_Data.dart';



void main() async {
  WidgetsFlutterBinding.ensureInitialized();
  await Firebase.initializeApp(
    options: DefaultFirebaseOptions.currentPlatform,
  );
  setUpLocator();
  runApp(MultiProvider(providers: [
    Provider<StatisticalData>(
        create: (context) => StatisticalData(
              total: 0,
              available: 0,
              occupied: 0,
              parkingLotName: 'Lot18',
            ))
  ], child: const MyApp()));
}
```

Goals and Achievements

Goals

- Purpose
  - To create a mobile app that allows students and faculty to know that parking situation around campus
  - Students/Faculty to reserve and be directed to any available parking spot

Achievements

- Create a functioning home screen that displays the garages
- Create the UI for the parking lots that is interactable
- Display availability of each spot
- Attempted and learned a lot of how Cloud FireStore worked

Team Experience