

CSE 343

SOFTWARE ENGINEERING

PROJECT REPORT

Problem definition

Nowadays, the number of vehicles is increasing in metropolitan cities. The gradual increase in the number of vehicles, naturally, causes the car park problem. Especially in cities like Istanbul, the time spent on finding vacant parking spaces & car parking areas increases significantly.

Project definition

With the Car Park Scanner project, reducing the time drivers spend to find suitable parking lots is planned. Thanks to this project, the driver can download an application to his mobile phone in order to search available parking spaces in contracted parking lots and parking spaces that will be available soon to make a reservation for parking. Thus, drivers, instead of visiting the surrounding parking lots one by one, it avoids wasting time by making a reservation in the parking lot available.

Predicted working principle

- The driver scans the surrounding parking spaces with the mobile application.
- The application shows the available or soon available parking lots to the user on the map.
- The driver can reserve a parking space at any parking lot (autopark).
- When the driver comes to the parking lot, he says "login" on the application to read the QR code at the parking lot entrance.
- After the driver says sign in, the camera opens and the driver reads the QR code at the parking lot entrance. Login process finished.
- When the driver is exiting the car park, he says "exit" on the application.

- After the driver says exit, the camera turns on and the driver reads the QR code at the parking lot exit. After receiving online payment the parking process is finished.

Team members and their predicted working areas :

- **Göktuğ Ali Akın** : Android system development, backend programming
- **Berke Belgin** : Web services
- **Dilara Karakaş** : UI / UX development and maintenance
- **Ozan Yeşiller** : Android system development, backend programming
- **Elif Öztürk** : UI / UX development and maintenance