

Parkour: A Parking Sharing System

Team: sddec20-20 | Fall 2020

Motivation

Parking is tough to find/expensive when big events take place. Our app makes it possible for users to rent their extra space on their property, making parking cheaper and more accessible to guests.

Design Requirements

Standards:

Agile project development

IEEE 802.11 Wireless Internet Standard

IEEE 802.21 Cellular Data Standard

Open Source License(s) Compliances

Mozilla Development Network JavaScript Standards

Functional:

- List and reserve parking spot
- Individual profile view
- Secure wallet with payment information

Nonfunctional:

- Less than 3 second loading screen
- Easy to navigate for new users
- Render in different size phones
- Encrypt all sensitive information

Operation Environment

- Android and iOS application

Technical Details

The MERN Stack was used as the technology stack of our project.

Frontend:

- React Native for the framework of the mobile applications
- TypeScript for simplification of JavaScript code
- Axios for API communications with the backend

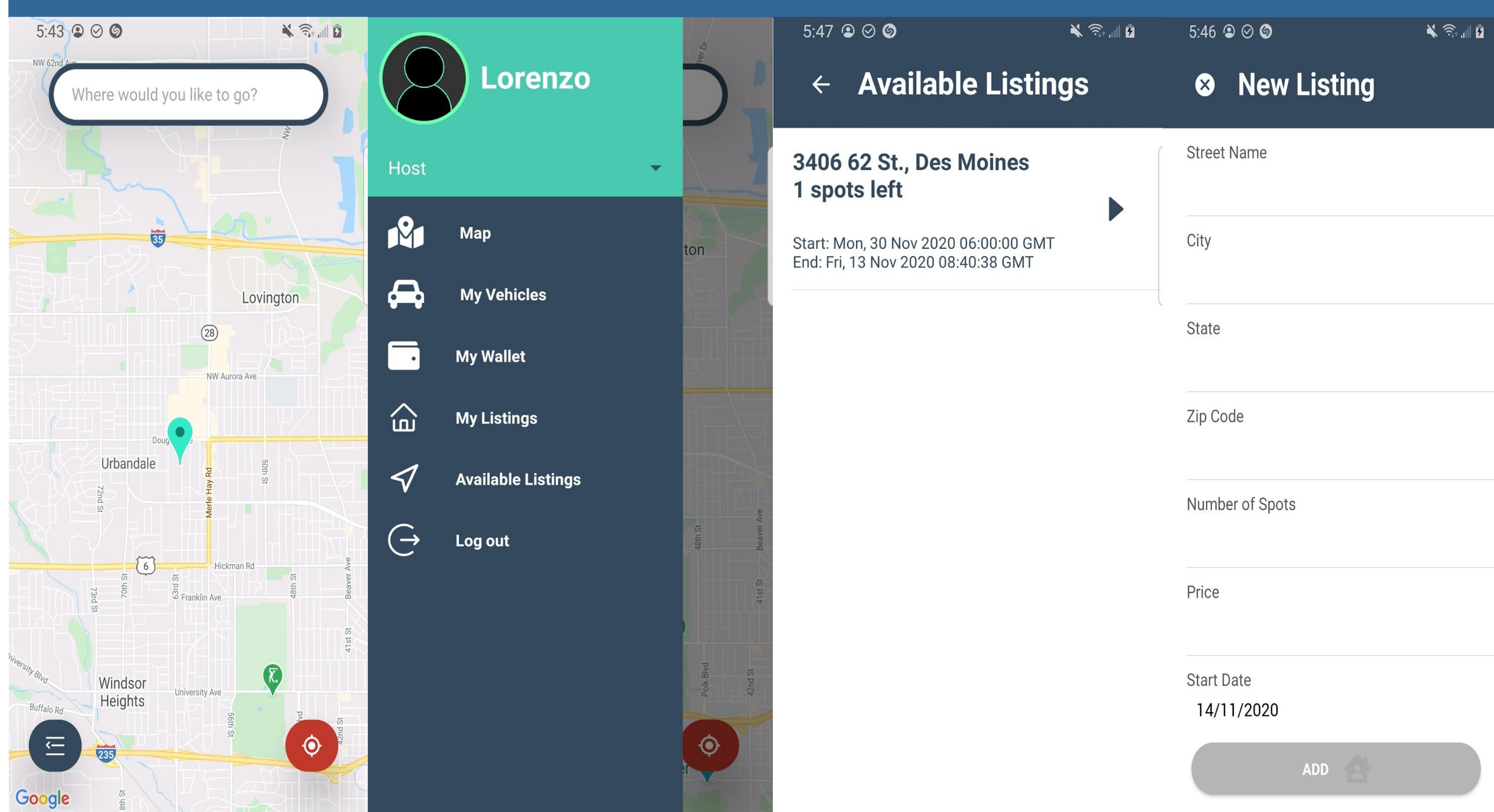
Backend:

- Node.js with Express for the server
- Data stored in MongoDB database
- Bcrypt used for encrypting sensitive information

Testing

- Jest for unit testing for the backend and frontend
- Postman for API testing and general documentation for the team
- Manual testing for UI evaluations and general usability

Application Screenshots



Team Members:

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Client & Advisor:

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Design Approach

Our solution is split into 3 main sections; the frontend, backend, and database. The frontend consists of the Android/iOS application users will download to their mobile device. The backend is made up of communication APIs. Finally, the database holds all user and listing data.



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