

ParkSmart

Team 2: Boolean Bros



Team Details

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Project Overview

- ParkSmart: Where parking meets precision, making every spot count
- Our website will revolutionize parking by allowing you to:
 - Show availabilities of a parking lot
 - Reserve parking spots ahead of time
 - Create an account that stores your user information and vehicle information

Requirements List

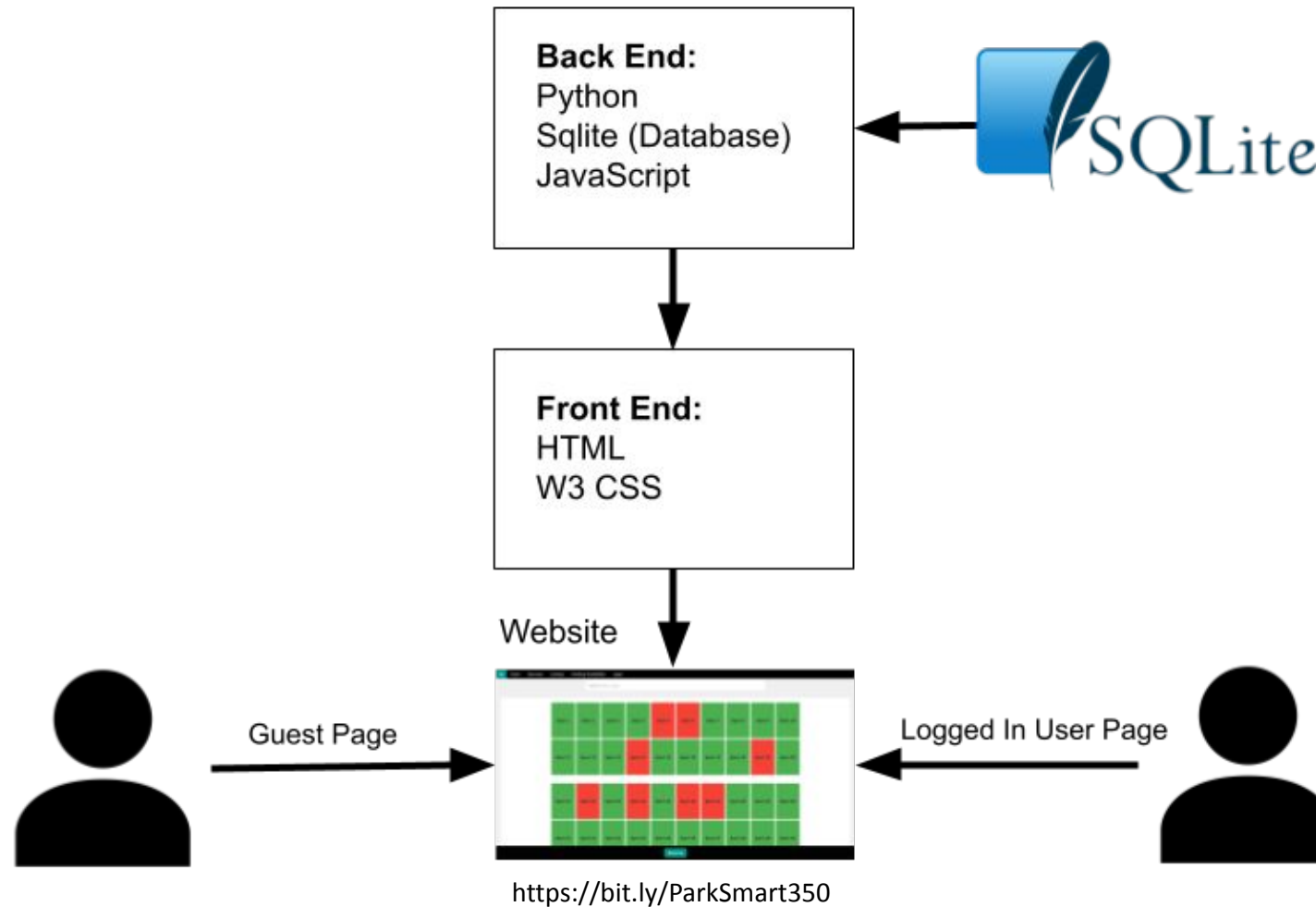
- R1: Constantly updating view of available parking spaces, with respective rates.
- R2: Users with parking lot owner privileges can see how full a parking lot is, and to check how much time each car has paid.
- R3: Login system to allow users to record their username, email, and vehicles.
- R4: Registered users will have a way to reserve spots in advance.
- R5: There will be a way for users to pay for their parking spot once they park or after they reserve their spot.

Methodology

Explain the software development process, tools, and technologies used.

- Moved to local flask server
 - Running in a docker container on a server on the EWU network.
 - Can be accessed by anyone on the EWU network.
- Front end: W3.css, HTML
- Backend: Python, JS

System Architecture Diagram



Key Features

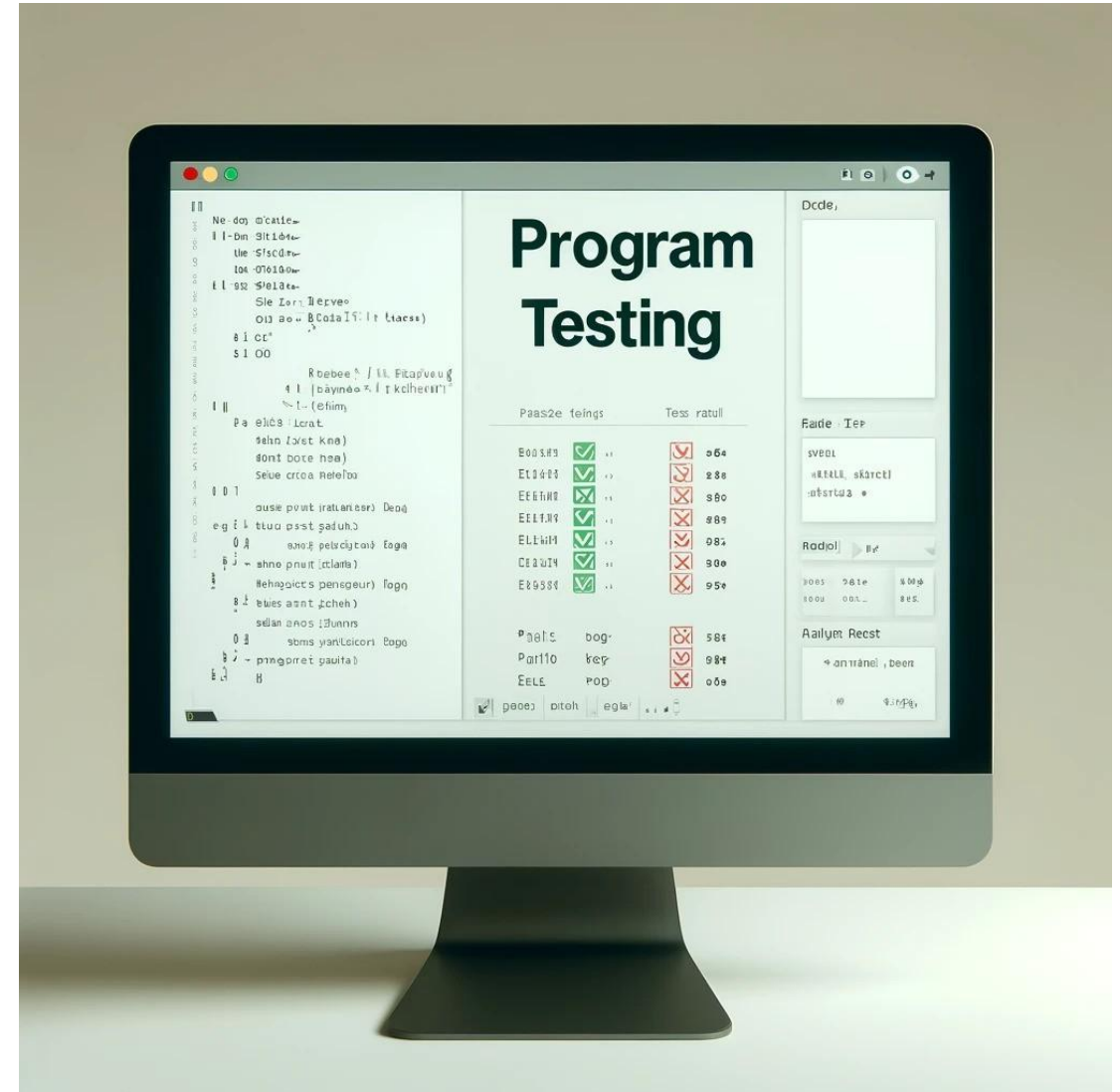
Core functionalities of our project:

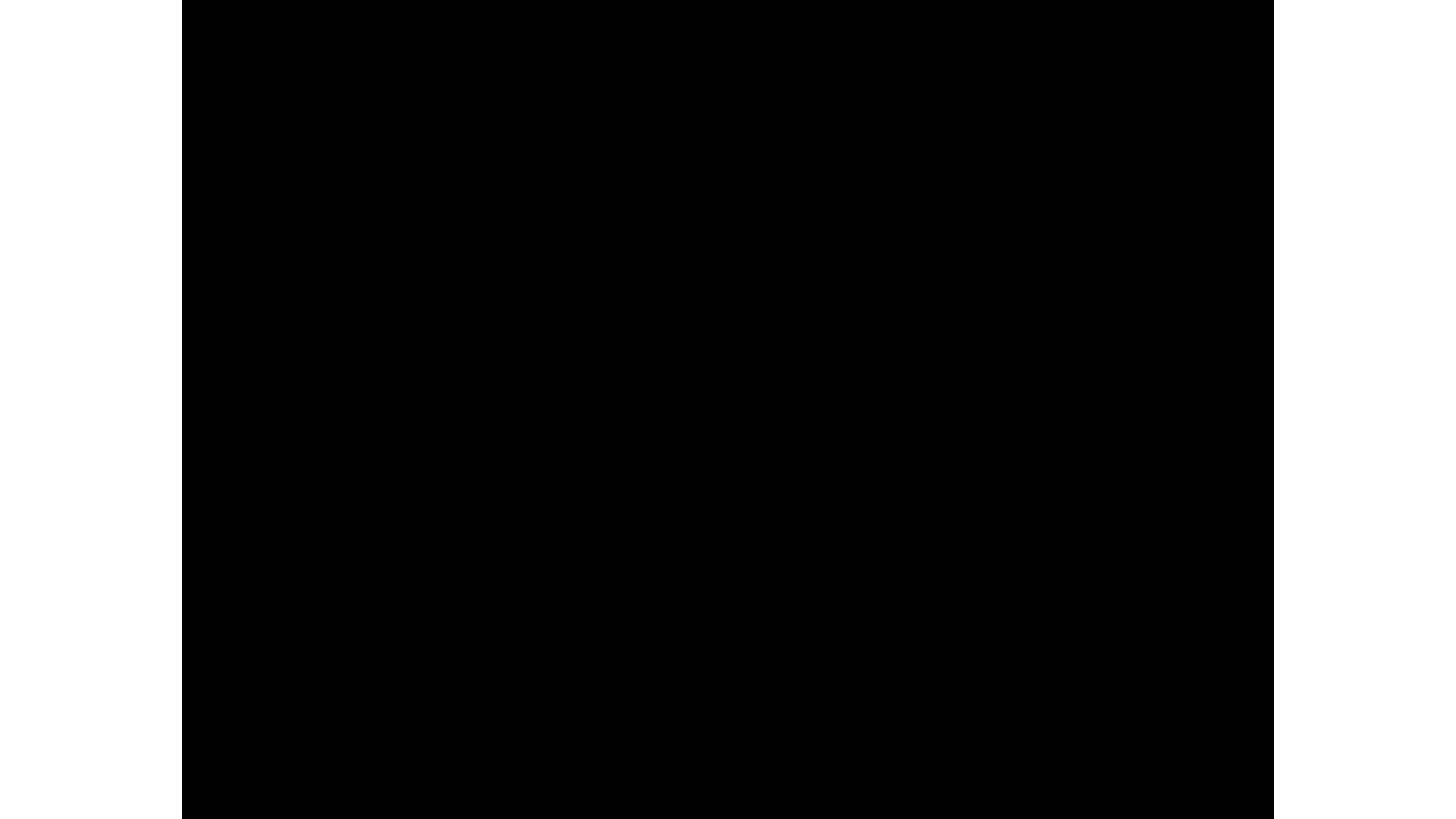
- Login/Register
- Save user information
- Save vehicle information
- Reserve spot
- View/edit profile
- Databases for reservations, vehicle, and registered user
- Future databases set up for parking lot, parking spot, and owner
(These will be implemented in the future)



Testing

- Around 20 tests
- Checking various features
- EXAMPLE NEXT





Demo



<https://bit.ly/ParkSmart350>

Challenges and Solutions

Discuss any challenges faced during the project and how you overcame them.

- Dillon explain DB struggles
- Stripe Payment API issues
- Had to move away from QR code parking lot scanning

Future Work

- Stripe Payment API
- Get a flask DB working
- Add QR scanner functionality
- Add vehicle recognition to ensure a vehicle is parked
- Display vehicle visualization for parked cars
- Display time remaining for reserved parking spots
- Add owner profiles

Questions



<https://bit.ly/ParkSmart350>