Project Proposal for CSCD 350 Spring 2024

ParkSmart

Version: 1.0

Team 2: Boolean Bros

Submitted By

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GitHub Repository: https://github.com/Sanmeet-EWU/github-teams-project-bid-boolean-bros

Part 1: User Stories Based

U1 Driver

- An individual vehicle owner who travels and needs to park at various locations.

As a Driver

I need to know of available spots

So that I can save time parking

Details and Assumptions

- There will be an ability to see how many parking spots are available in real-time.
- There will be a way to see payment fees for each parking lot.
- There will be a way to see how holidays/events/after-hours affect the fees.

Acceptance Criteria

Given there are 15 spots available,

When 10 are taken,

Then I will have 5 spots to choose from.

U2 Parking Lot Owner

- A group or individual who manages or owns a parking facility.

As a Parking Lot Owner

I need an application that checks available parking spots

So that I can notice discrepancies between paid customers and actual parked cars

Details and Assumptions

- Parking lots may have a set amount of time a car could park.
- Parking lots may only be open certain hours of the day
- Payment rates change throughout the day

Acceptance Criteria

Given there are 20 parking spots

When 15 spots are taken, but only 12 spots are paid.

Then I know 3 cars have not paid, and parking enforcement can take action.

U3 Venue Owner

- A group or individual who operates or owns a venue, such as an arena, mall, stadium, etc.

As a Venue Owner, who owns a private business where many customers come to park on my premises.

I need to be able to see that my customers have adequate parking, for a reasonable price. I would also need to ensure that my customers would be able to park during holidays/events and filter them to nearby open lots if the on-site parking is full.

So that I have more time to focus on my business and customer satisfaction. Also, if a customer arrives when the lot is full they will not be discouraged from visiting my venue due to difficult parking.

Details and Assumptions

- I'm paying the parking lot owner for clients to have quick access to my venue.
- I'm paying the parking lot owner a base price.
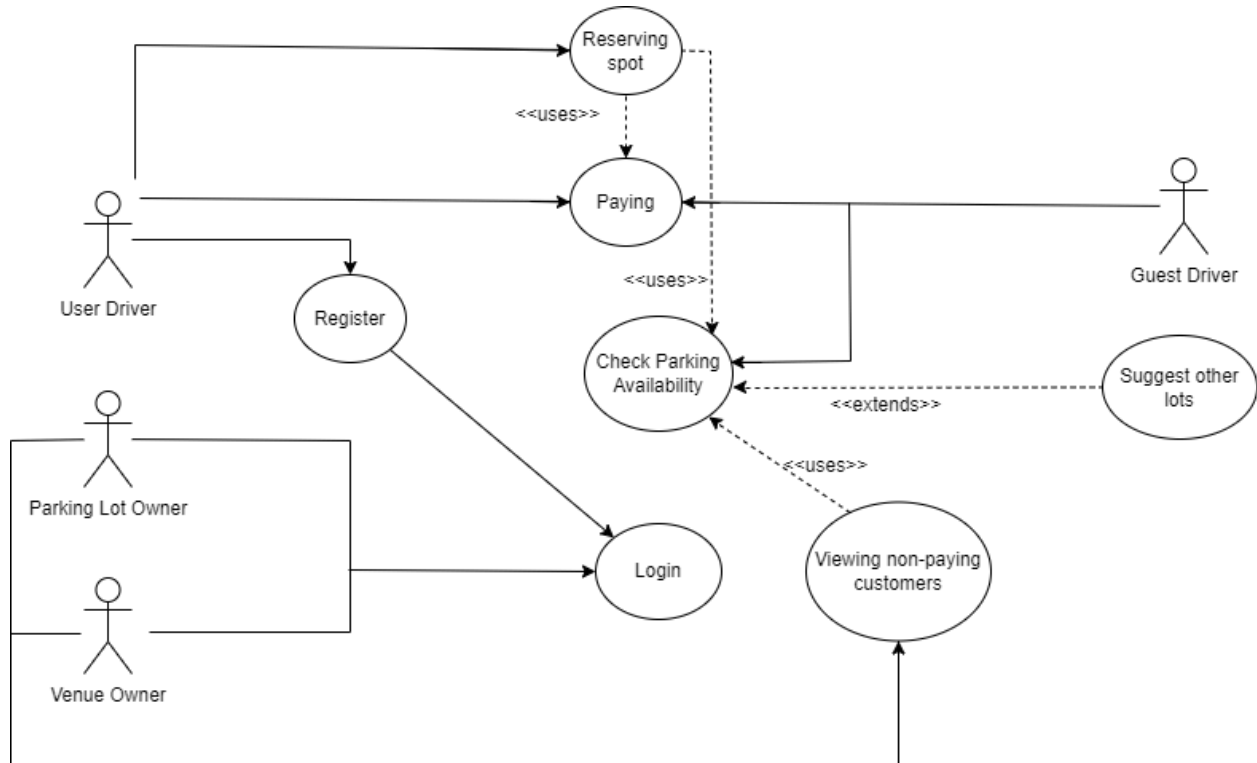- I will get notified when the parking lot is full.

Acceptance Criteria

Given there are 100 parking spots available,

When 70 spots are taken,

Then there will be at least 70 people at my venue.

Part 2: Use Case Diagrams

Guest Driver [1]

User Driver [2]

Parking Lot Owner[3]

Venue Owner[4]

Part 3: Requirements and Specifications

R1 (U1, U2, U3) There will be a constantly updating view of available parking spaces, where the current rate (respective to the hour/holiday) will be clearly shown for each spot.

R2 (U2) There will be a way for users with parking lot owner privileges to see how full a parking lot is, and to check how much time each car has paid for.

R3 (U1, U2, U3) A login system will allow users to record their assets. This could include cars and/or parking lots.

R4 (U1) Registered users will have a way to reserve spots in advance.

R5 (U1) There will be a way for users to pay for their parking spot once they park or after they reserved their spot.

Part 4: Glossary

[1] Guest Driver: A user of the ParkSmart application who has not logged in or has not created an account.

[2] User Driver: A user of ParkSmart who is registered and logged in.

[3] Parking Lot Owner: A group or individual who manages or owns a parking facility.

[4] Venue Owner: A group or individual who operates or owns a venue, such as an arena, mall, stadium, etc.