

SW Engineering CSC648/848 Spring 2020

The Garage



Group 06

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Table of Contents

Data Definitions V2	3
Functional Requirements V2	6
Wireframes based on Mockups / Storyboards	13
High Level Database Architecture and Organization	14
High Level UML Diagram	15
High Level Application Network Diagram	16
High Level Deployment Diagram	17

Data Definitions V3

Data Name	Definition
Occupancy	A location on a map that has been created by a Host to offer Parking Spots for rent
• Parking Spot	The measure of what the app is selling. This indicates a place where the driver can park their car.
1. Available	a parking spot that is available for reservation.
2. Occupied	a parking spot that has been reserved by a different user.
3. Reserved	a parking spot that has been booked by the current user.
4. Blocked	a parking spot is blocked and cannot be occupied
Vehicle	Any automobile of a supported size. This can include different sub-categories that indicate the size of said vehicle.
• Categories	

1. Motorcycle	an automobile with two wheels.
2. Compact	a smaller automobile that will fit in tighter spaces. (Volkswagen Jetta)
3. Full Size	a standard size automobile. (Toyota Camry)
4. SUV	larger automobiles that require more space (Chevrolet Suburban)
Users	All users of The Garage. Each sub-classification is not mutually exclusive from others, meaning a user can be both a Host and a Guest.
• Host	a user that posts a parking spot for reservation by Guests. This user has privileges to create parking spot listings, edit parking spot listings, and report Guests.
• Guest	a user with a registered vehicle that is looking for a parking spot. This user has privileges to access the database to search for parking spots, report parking spots, and reserve parking spots.
• Admin	a user with moderation privileges. This user has the capability to take action on hosts, Guests, and parking spots. Given the nature of this role, this will likely only consist of Garage employees.

• Rating	the credibility of any registered user using The Garage.
Web Application	The visual presentation of The Garage.
• Listing	the visual representation of the parking spot posted by a host.
• Time Table	a visual representation of the reservation availability.

Functional Requirements V2

	requirement
Priority 1:	
1. Users:	
1.1	Users shall be able to create an account.
1.2	The system shall enable users to edit their own information.

1.3	Users shall be able to view additional information about the listing.
1.4	Users shall be able to search a location to view available spots nearby.
1.5	Users shall be able to reserve a parking spot
1.6	Users shall be able to sort listings by availability.
1.7	users shall be able to reserve parking spots by adding payment information.
1.8	Users shall be able to filter the search result based on price range.
1.9	Users shall be able to filter the search result based on availability.
1.10	Users shall be able to filter the search result based on vehicle size.
1.11	Users shall be able to filter the search result based on distance
2. Guests:	

2.1	Guests shall be able to cancel the parking spot booking.
2.2	Guests shall receive a confirmation email when they have Reserved a Parking Spot.
2.3	Guests shall be able to interact with the parking spot's respective time table during reservation.
2.4	Guests shall be able to view the dates and times of previous bookings.
2.5	Guests shall be able to manage vehicles under their account
2.6	Guests shall be able to edit their payment information
2.7	Guests shall be able to leave the comment for the hosts when guests make a reservation.
2.8	Guests and Hosts shall be able to rate each other.
2.9	Guests shall be able to review payment summaries.
2.10	Guests shall be able to view previously booked spots.
2.11	Guests shall be able to extend more time for parking.

2.12	Guests shall receive an alert when the end time is approaching.
3. Hosts:	
3.1	Hosts shall be able to upload their own available parking spots.
3.2	The system shall be able to verify the parking spot Host's ID.
3.3	Hosts shall be able to adjust the pricing of their parking spot.
3.4	Host shall be able to change the availability status of a parking spot.
3.5	Hosts shall be able to remove their own listings from the application
3.6	Hosts shall be able to upload pictures of their parking spot listing.
3.7	Hosts shall be able to cancel the parking spot booking.
3.8	Before a reservation can take effect, hosts must confirm it.

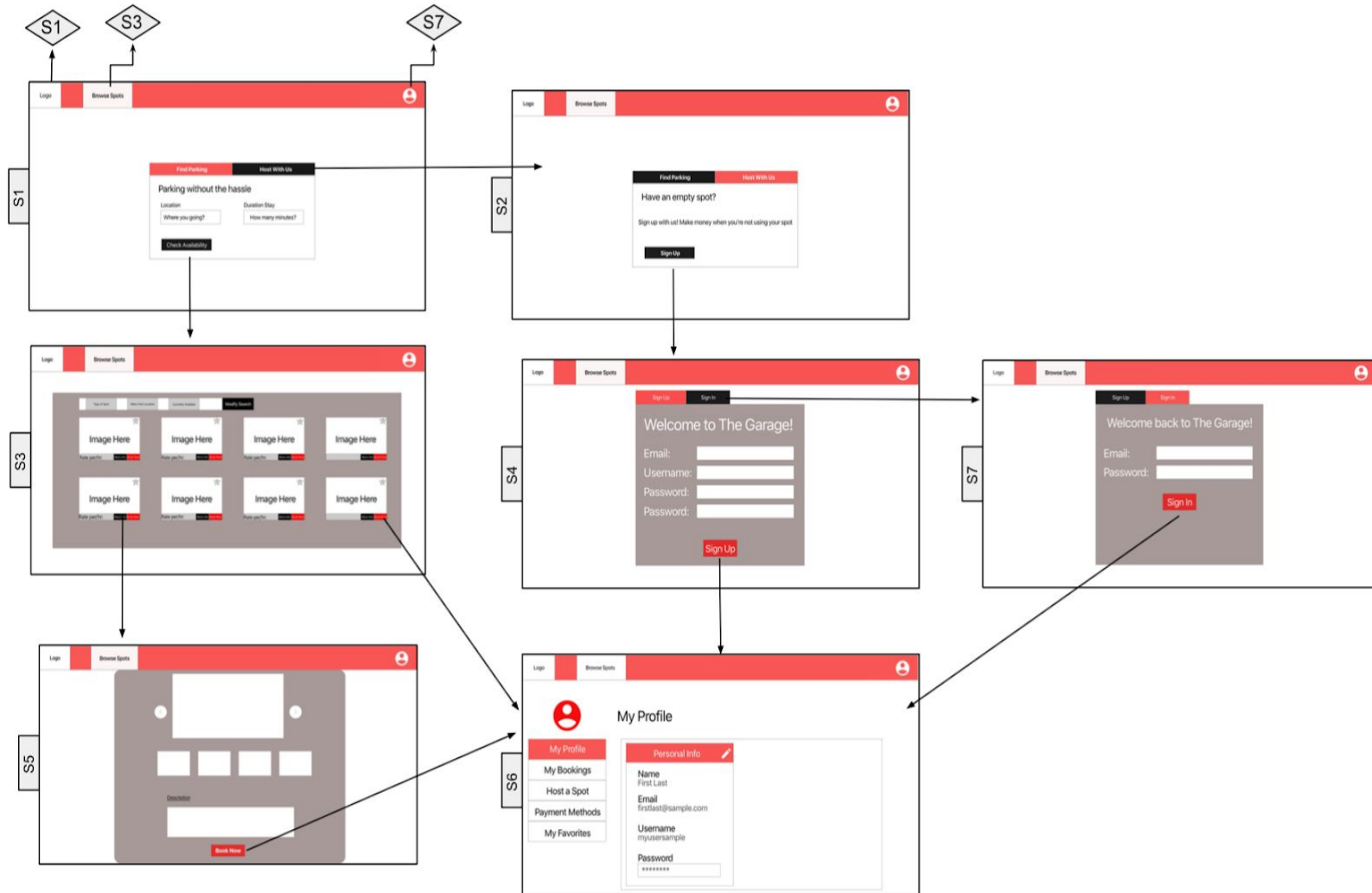
3.9	Hosts shall be able to rate Guests.
3.10	Hosts shall be able to set user viewing restrictions based on rating. e.g; A user with a 3.5 star rating looks for a parking spot, but cannot see Jim's listing, as he set his spot to only be visible to people with a 4 star rating or above.
Priority 2:	
4. Users:	
4.1	Users shall be able to receive an email when they signed up
4.2	Users shall be able to contact the customer support
4.3	Users shall be able to save the parking spots as a mark, such as my favorite, my office or my home.
4.4	The system shall be able to edit/remove any listing.
4.5	The system shall be able to block or delete users' accounts, if for some reason, such as breach of user agreement.
4.6	The system shall be able to handle refunds or bill changes requirements.

5. Guests:	
5.1	Guests shall be able to rebook their parking spots in the history.
5.2	Guests shall be able to apply for refund transactions.
5.3	If guests encounter any security issues in the parking spots, they shall be able to contact the system immediately for help.
6. Hosts:	
6.1	Hosts shall be able to change the reservation time if the time that guests choose doesn't work for them.
6.2	Hosts can leave a comment for cancel reservation for the customer to see
6.3	If a guest's vehicle has any problem, hosts shall be able to send an emergency message to the guest and system.
Priority 3:	
7. Users:	

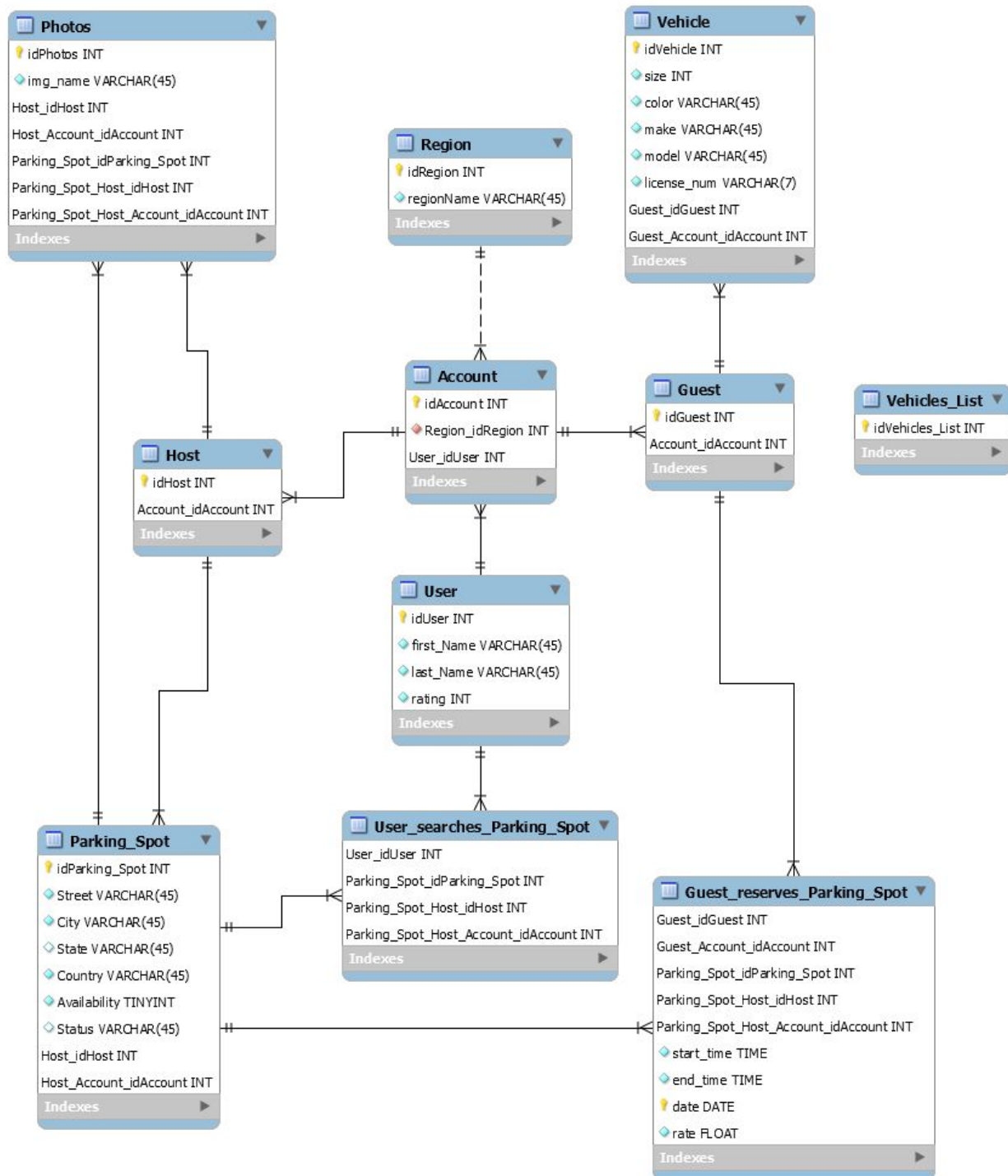
7.1	The system shall enable the user to reset their password.
7.2	The system shall enable users to view a report of fees.
7.3	The system shall enable users to view a report of rental fee income.
7.4	Users are warned by system when their ratings are too low.
7.5	Users shall be able to sort by security.
8. Guests:	
8.1	Guests and Hosts shall be able to communicate with each other regarding the booked parking spot.
8.2	Guests shall be able to subscribe to the same parking spots for a longer period of time. For example, subscribe to one-year parking spots from 9am to 5pm each weekday.
8.3	Guests shall be able to sort the collected parking spots according to the distance, rating, price and security.
9. Hosts:	

9.1	Hosts shall be able to use the money from the parking spots as collateral for his rental of other parking spots.
9.2	Hosts shall be able to edit the parking spots for one time rental or subscribe rental.
9.3	Hosts shall be able to add restrictions to their parking spots, such as prohibiting guests with ratings below 1 from renting their spot.

Wireframes based on Mockups / Storyboards V2

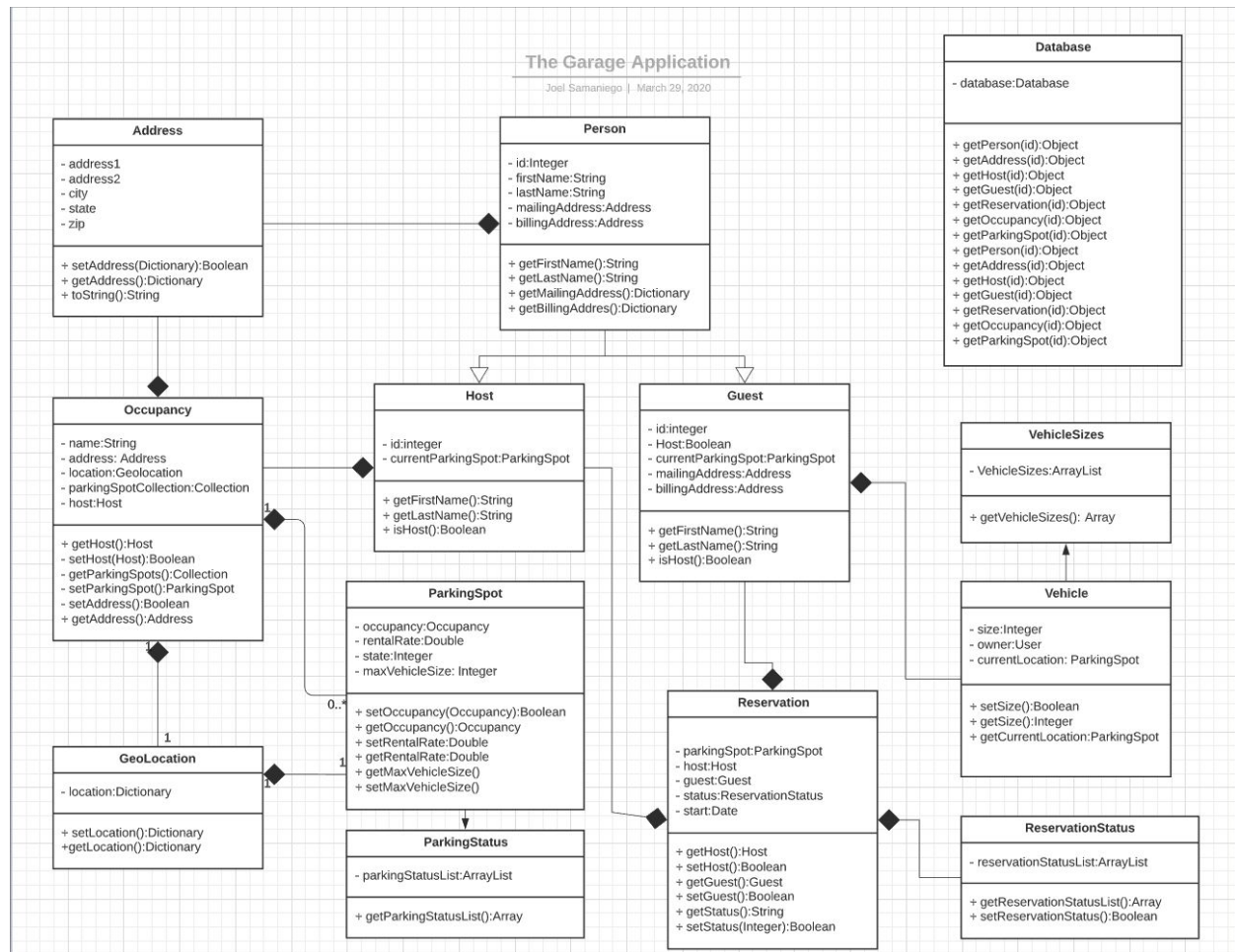


High Level Database Architecture and Organization V2

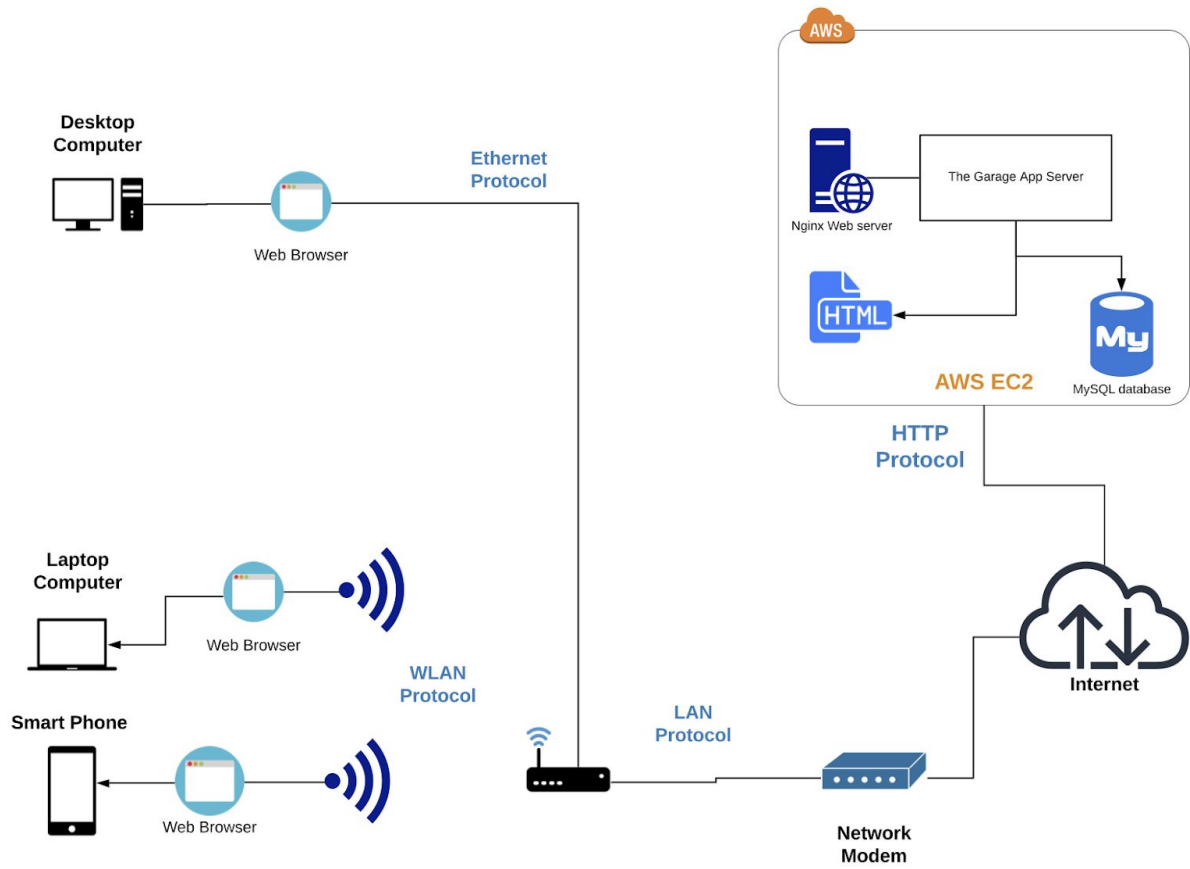


High Level Diagrams

UML Diagram



Network Diagram



Deployment Diagram

