



SOFE 3650U

Software Design & Architecture

Project Progress Report

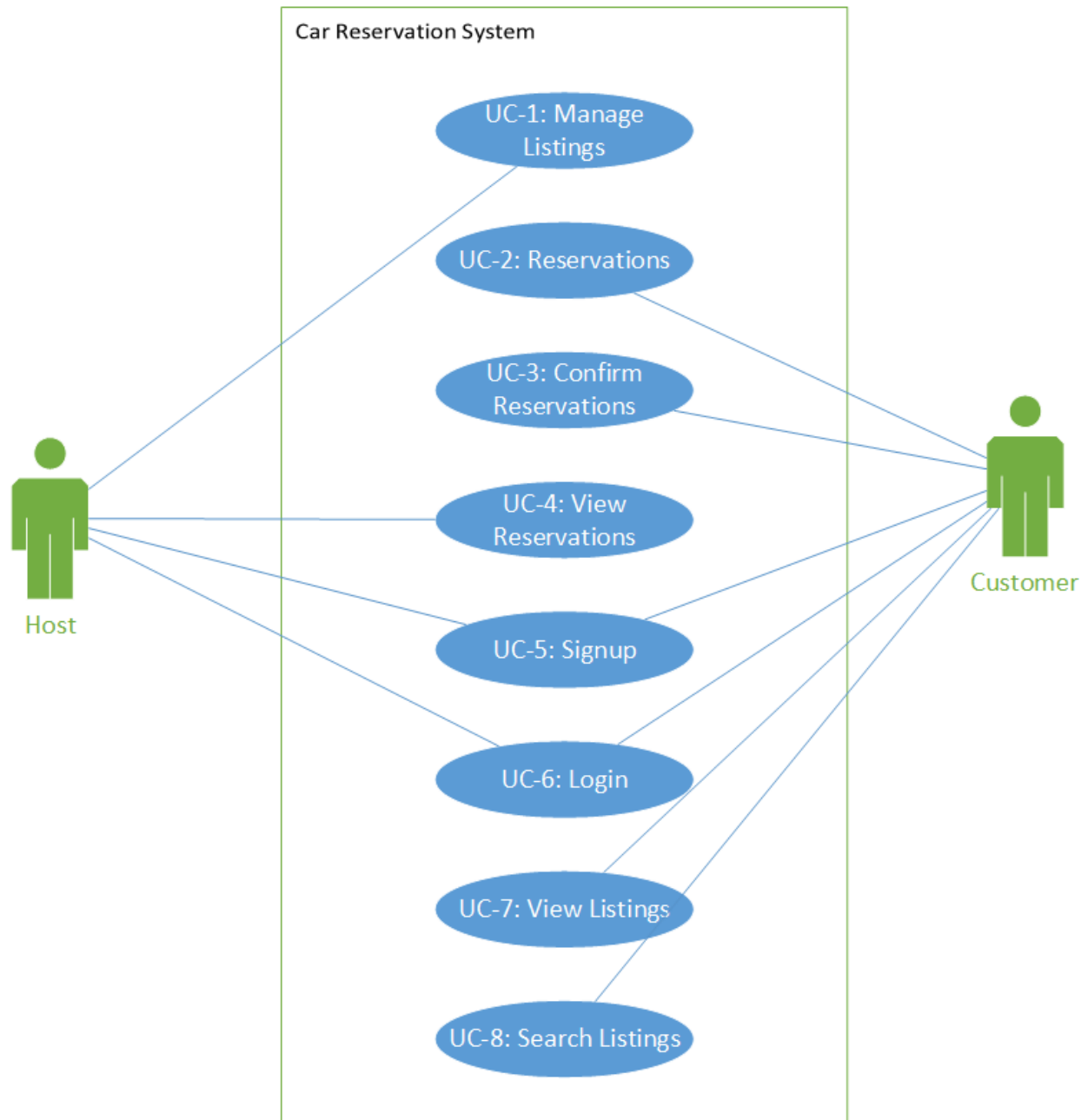
Online Community-Based Car Reservation Platform

Group: 12

Due Date: November 8th, 2021

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Use Case Model



Use Case	Description	Associated Requirements
UC-1: Manage Listings	The host is able to create new car listings by providing information such as the car model, location, availability, etc. Listings can be deleted by the host at any time. Information can also be modified by the host.	1,8,12

UC-2: Reservations	Customers are able to make reservations for a car rental. This reservation can be deleted at any time before the date of the reservation.	3
UC-3: Confirm Reservations	An email confirmation should be sent to a customer when making or removing a reservation.	2
UC-4: View Reservations	Hosts should be able to view reservations made for their car.	4
UC-5: Signup	Users should be able to create an account and input their information to use the reservation system.	5
UC-6: Login	Users should be able to login to the system with a username and password.	6
UC-7: View Listings	Customers should be able to view available cars, and the relevant information about each listing should be displayed.	7,9,11
UC-8: Search Listings	Customers should be able to search for specific cars using different categories such as car model, location, availability, etc.	10

Quality Attributes

ID	Quality Attribute	Scenario	Associated Use Case
QA-1	Performance	Performance data should be collected on the return rate of queries. The rate of query should not exceed 1 second.	All
QA-2	Usability	An optional survey should be provided to users to measure UI/UX satisfaction and to provide feedback.	All
QA-3	Usability	A new user can configure their account and be operating in less than 1 hour.	All
QA-3	Availability	A failure occurs in the management system during normal operations. The management system should resume operations within 30 seconds.	All

QA-4	Security	User authentication ensures 99.999% of unauthorized login attempts are detected and prevented.	UC-6
QA-5	Modifiability	A new parameter such as discounts is introduced to the database as part of an update. The new parameter is added successfully without any changes to core components of the system.	UC-1, UC-2

System Constraints

ID	Constraint
CON-1	The database should be accessible using a web browser
CON-2	A minimum of 1000 users should be supported.
CON-3	Network connection can have low bandwidth but should be reliable
CON-4	The database should be created using MySQL