Car Rental System

SSE 657

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1. Abstract Use Cases

1.1. UC1: Login (Actor: User)
1.2. UC2: Create New Reservation (Actor: User)
1.3. UC3: Book New Reservation (Actor: User)
1.4. UC4: View Current Reservations (Actor: User)
1.5. UC5: Add New Vehicle (Actor: Car Rental Company Employee)
1.6. UC6: Remove Existing Vehicle (Actor: Car Rental Company Employee)
1.7. UC7: Update Vehicle Information (Actor: Car Rental Company Employee)
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2. Requirement Use-Case Traceability Matrix

Table 1 below shows the Requirement Use-Case Traceability Matrix for this car rental system's given requirements R01-R07 and use-cases UC1-UC7.

Table 1: Requirement Use-Case Traceability Matrix

Requirement	Priority	UC1	UC2	UC3	UC4	UC5	UC6	UC7
R01	2	X						
R02	1				X			
R03	1		X					
R04	1			X				
R05	3					X		
R06	3						X	
R07	3							X
UC Priority		2	1	1	1	3	3	3

3. High-Level Use Cases

UC1: Login
TUCBW the user opening the application and viewing the login page.
TUCEW the user logging in successfully and seeing their current list of reservations on the Current Reservation page.

UC2: Create New Reservation
TUCBW the user clicking the “Create New Reservation” button on the “View Reservations” page.
TUCEW the user entering information about the vehicle reservation they want to create and clicking the “See Availability” button to view a list of available vehicles based on their reservation information.

UC3: Book New Reservation
TUCBW the user clicking an available vehicle reservation on the “Create New Reservation” page and clicking the “Book Reservation” button.
TUCEW the user seeing a confirmation message after booking the vehicle and being brought back to their list of current reservations.

UC4: View Current Reservations
TUCBW the user clicking a list item on their current reservations list.
TUCEW the user seeing the information about that reservation, such as vehicle make and model, start and end date, and pickup/return locations.

UC5: Add New Vehicle
TUCBW the *Car Rental Company* employee logging into the database and seeing all the current vehicles.
TUCEW the *Car Rental Company* employee adding a new vehicle to the database by entering all of the information about the vehicle, such as make, model, locations, and number of passengers.

UC6: Remove Existing Vehicle
TUCBW the *Car Rental Company* employee logging into the database and seeing all of the current vehicles.
TUCEW the *Car Rental Company* employee removing a vehicle from the database that may be out of use.

UC7: Update Vehicle Information
TUCBW the *Car Rental Company* employee logging into the database and seeing the current vehicles.
TUCEW the *Car Rental Company* employee updating the information such as the mileage and pricing information that may change about a currently included vehicle.

4. Use Case Diagram

Figure 1 below shows a use case diagram for this system. The two actors for the system are the customer, who would attempt to rent a car, and the Car Rental Company Employee, who would attempt to keep the database updated with an accurate reflection of the vehicles available. The two subsystems have been partitioned based on the roles of the actors involved. The primary system the customer will interact with is the actual car rental system, and the primary system the Car Rental Company Employee will interact with is the database.

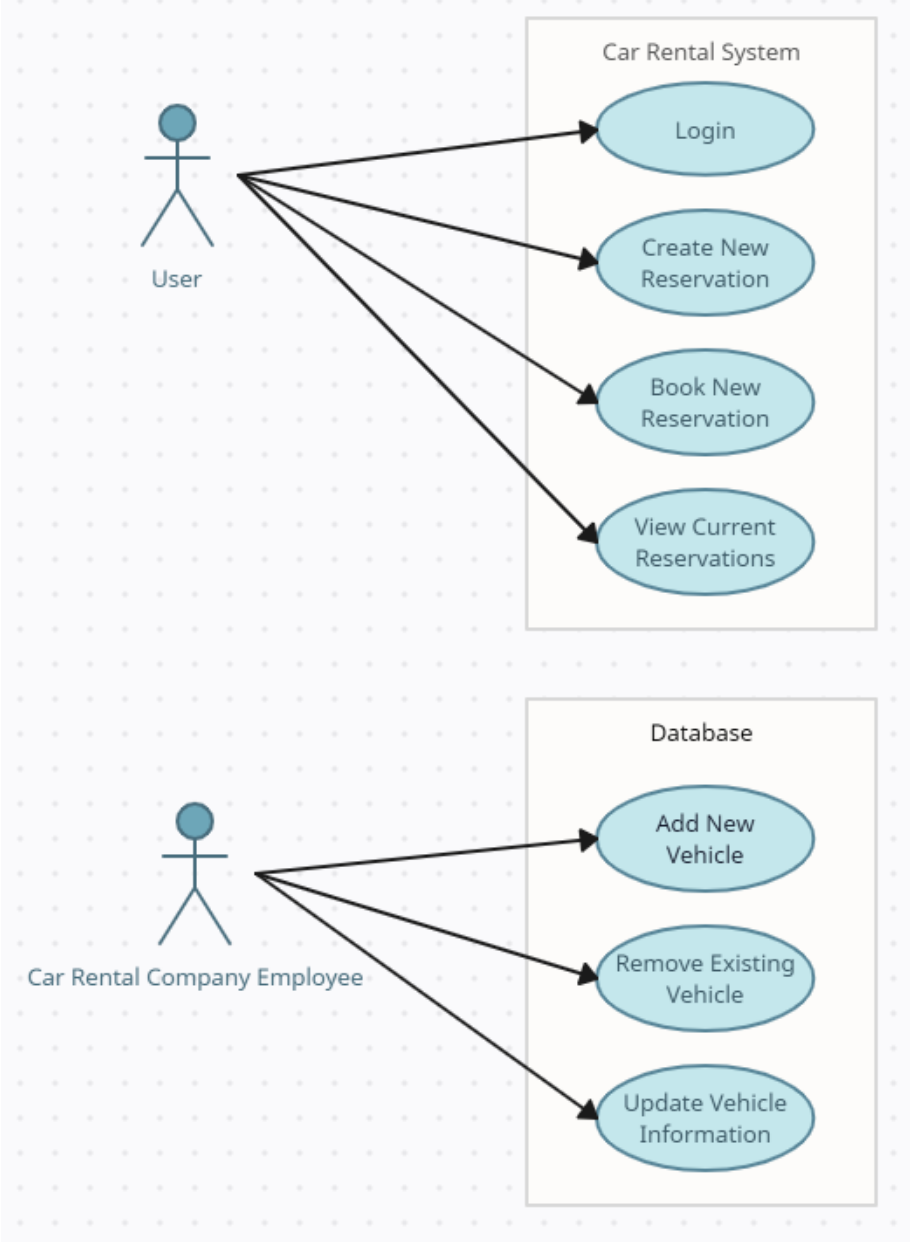

Figure 1: Use Case Diagram, Car Rental System