

Topic: Diagrammatic notations

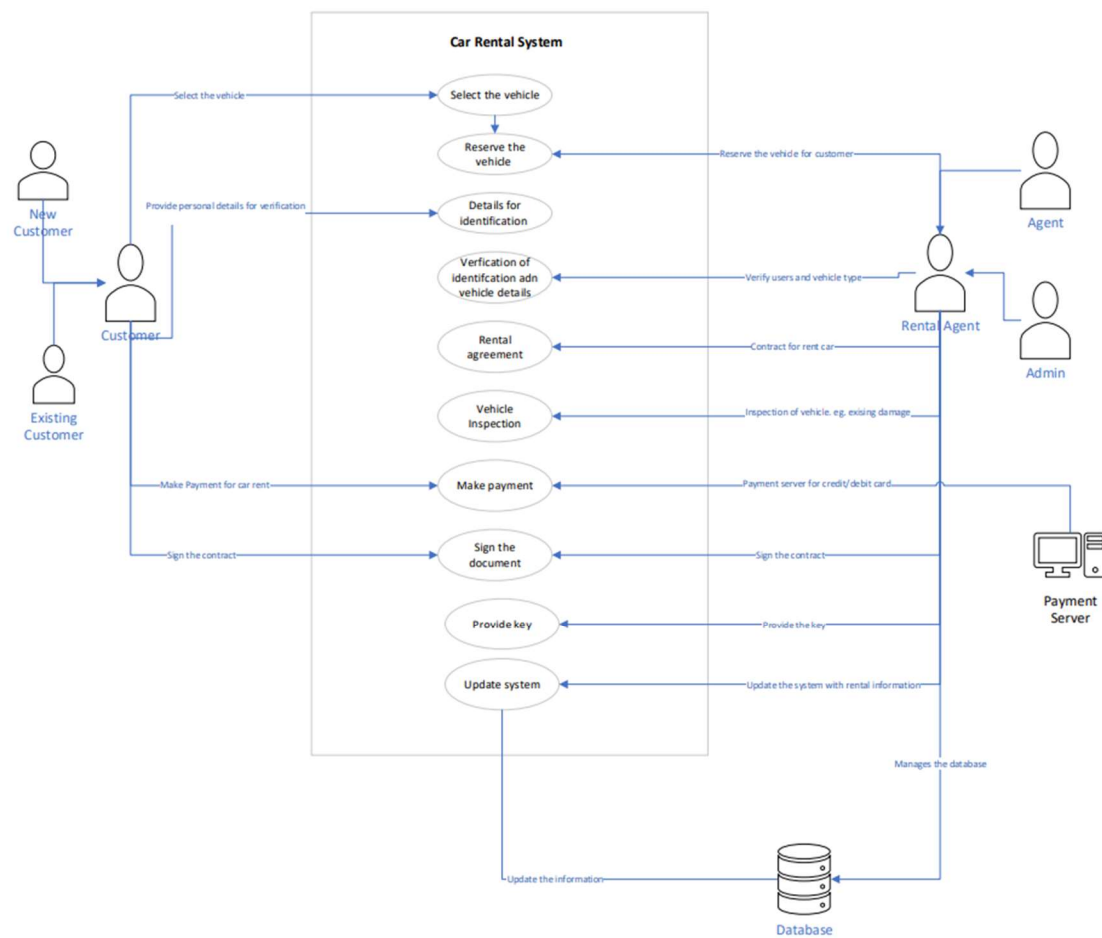
Duration: 60 minutes

Car rental system: Checkout a vehicle

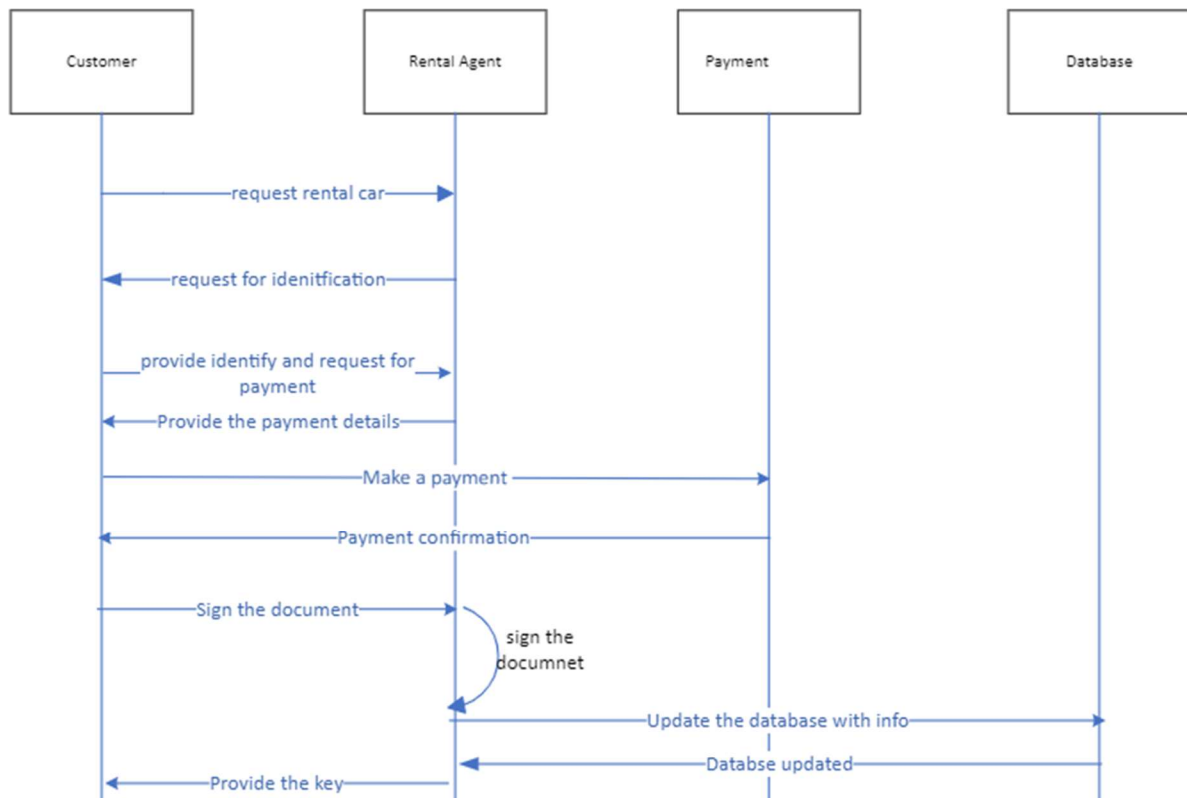
1. Customer Identification: The rental agent requests identification from the customer, usually in the form of a driver's license or passport, to verify their identity and eligibility to rent a vehicle.
2. Reservation Verification: The rental agent confirms the customer's reservation details, including the rental duration, vehicle type, and any additional services or features requested.
3. Rental Agreement Creation: The rental agent generates a rental agreement or contract that outlines the terms and conditions of the rental, including the rental period, mileage limitations, fuel policy, and insurance coverage.
4. Vehicle Inspection: The rental agent conducts a thorough inspection of the vehicle with the customer, noting any existing damage or issues in a pre-rental inspection report. This step ensures that both parties are aware of the vehicle's condition before the rental period begins.
5. Payment Processing: The rental agent calculates the total rental cost, including any additional charges or fees, and collects payment from the customer. Payment can be made through various methods, such as cash, credit card, or other accepted forms of payment.
6. Document Signing: The rental agent and customer sign the rental agreement, acknowledging their understanding and acceptance of the terms and conditions outlined in the agreement. The customer may also need to provide a signature for any additional insurance or liability waivers.
7. Keys Handover: The rental agent provides the customer with the keys to the rented vehicle, along with any necessary instructions, such as fuel type, operating instructions, and return procedures.
8. Rental Completion: The rental agent updates the system to mark the vehicle as checked out, indicating that it is no longer available for other customers. The rental period begins, and the customer is free to use the rented vehicle as per the agreed terms.

Based on the previous statements, create the following diagrams:

- a) A UML use case diagram to collect all the operations that a rental agent performs with the system.



- b) UML sequence diagram to depict the interaction between primary and secondary actors during the checkout process.



- c) The UML state machine diagram that depicts the navigation in the web app that covers the checkout process

