Car Rental System

Deliverable#3

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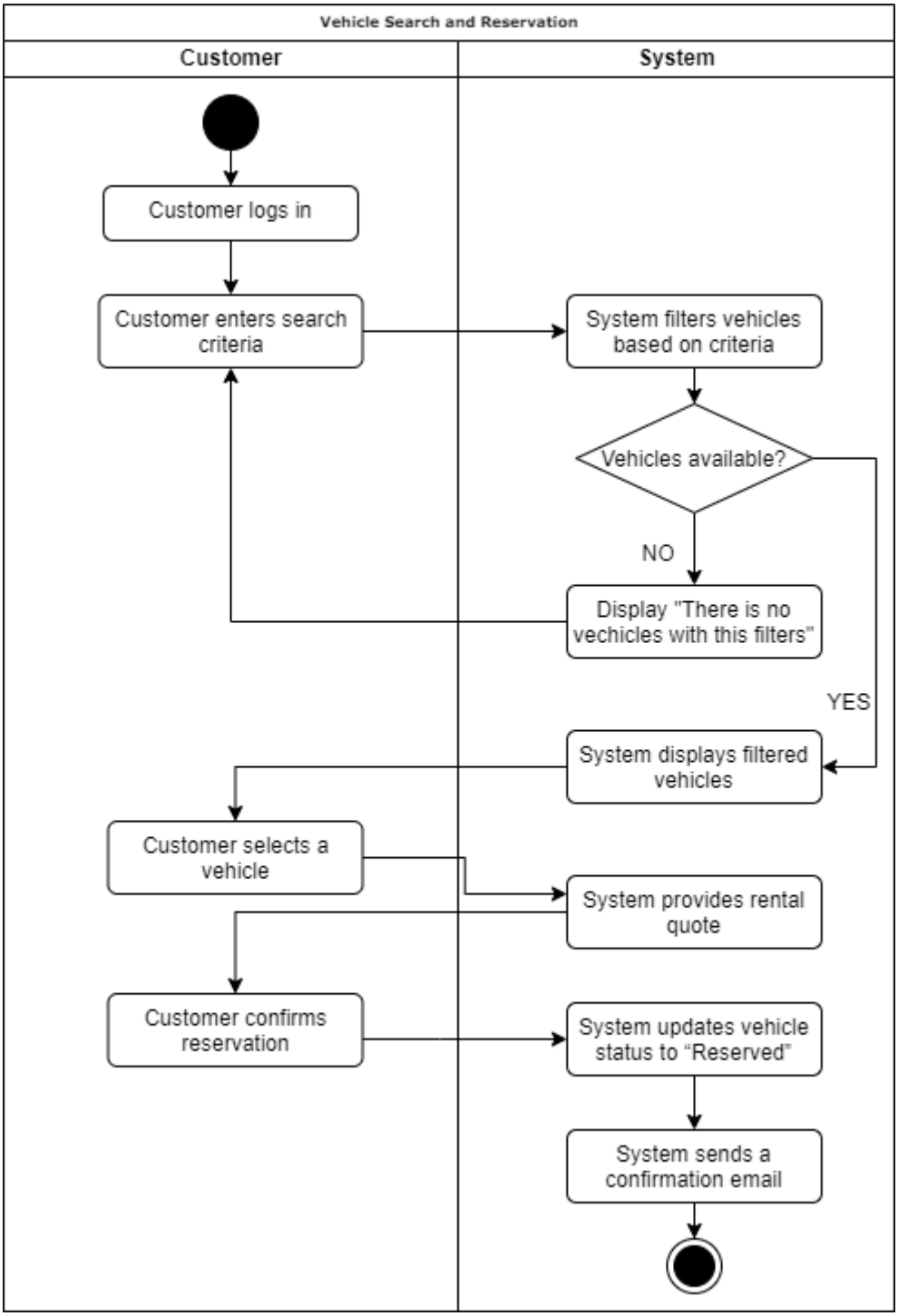
1- System activity diagram (swimlanes)

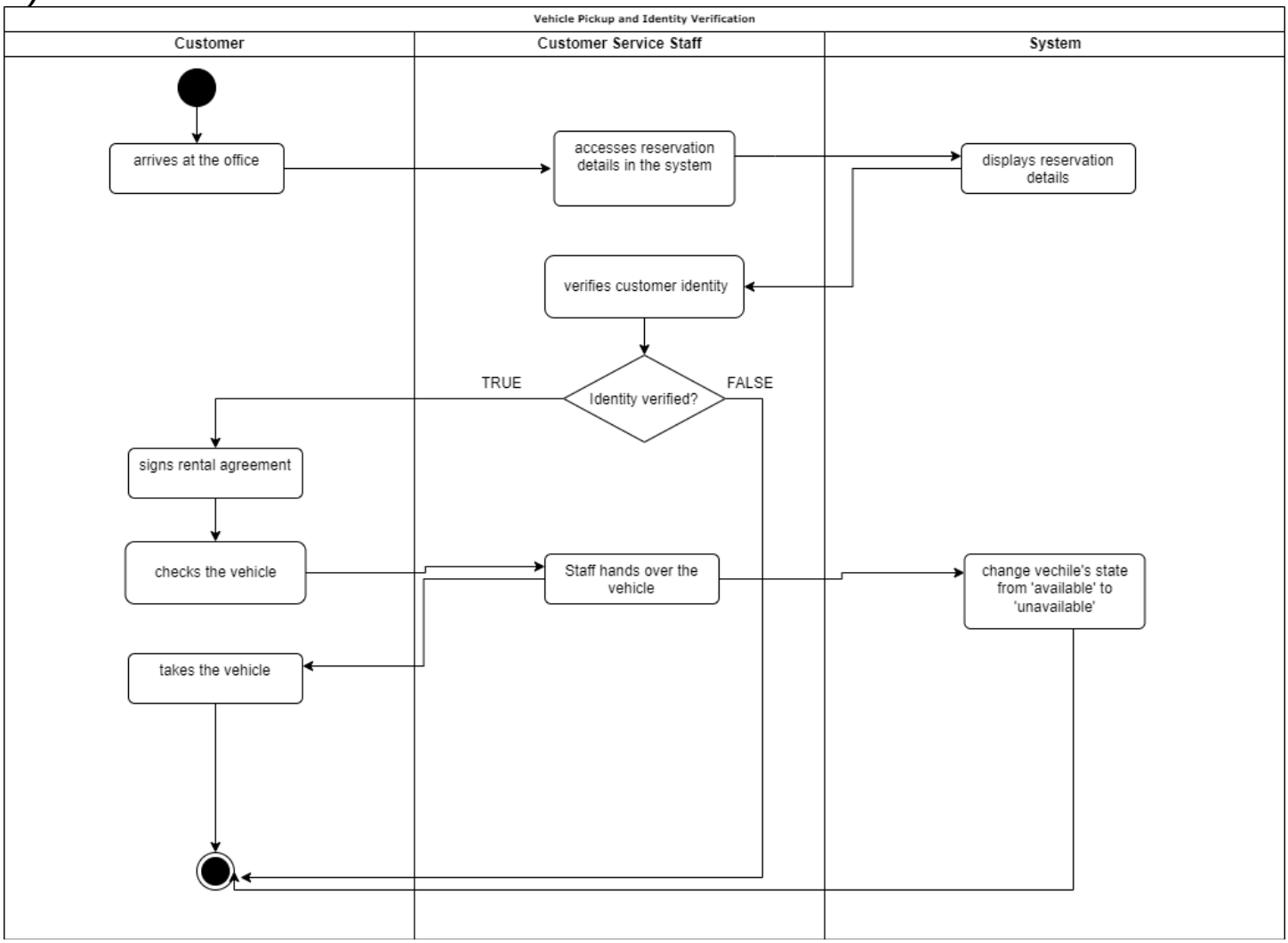
- (in a separate pdf file due to image quality issue)

2- activity diagrams (swimlanes) for use cases

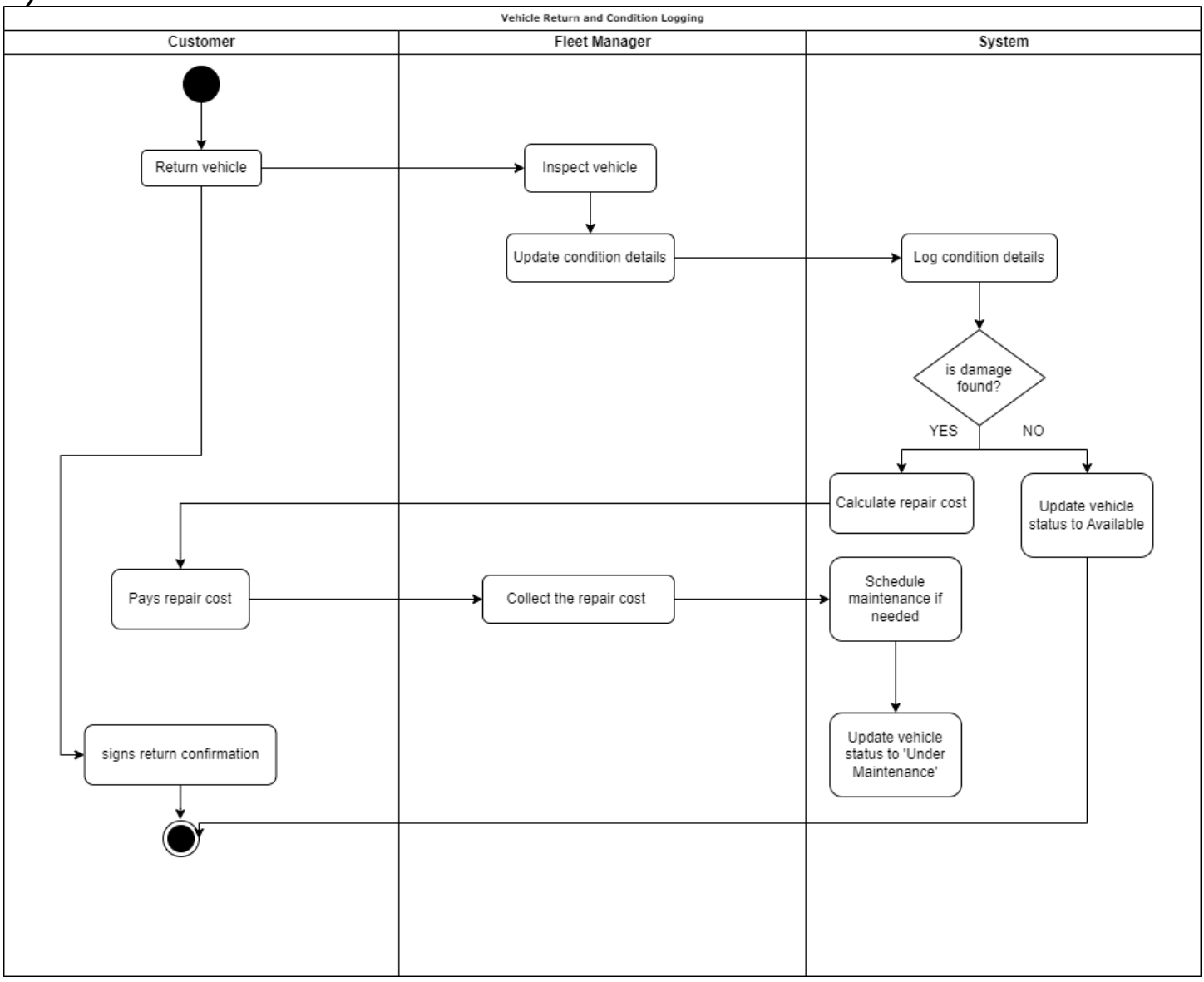
1)



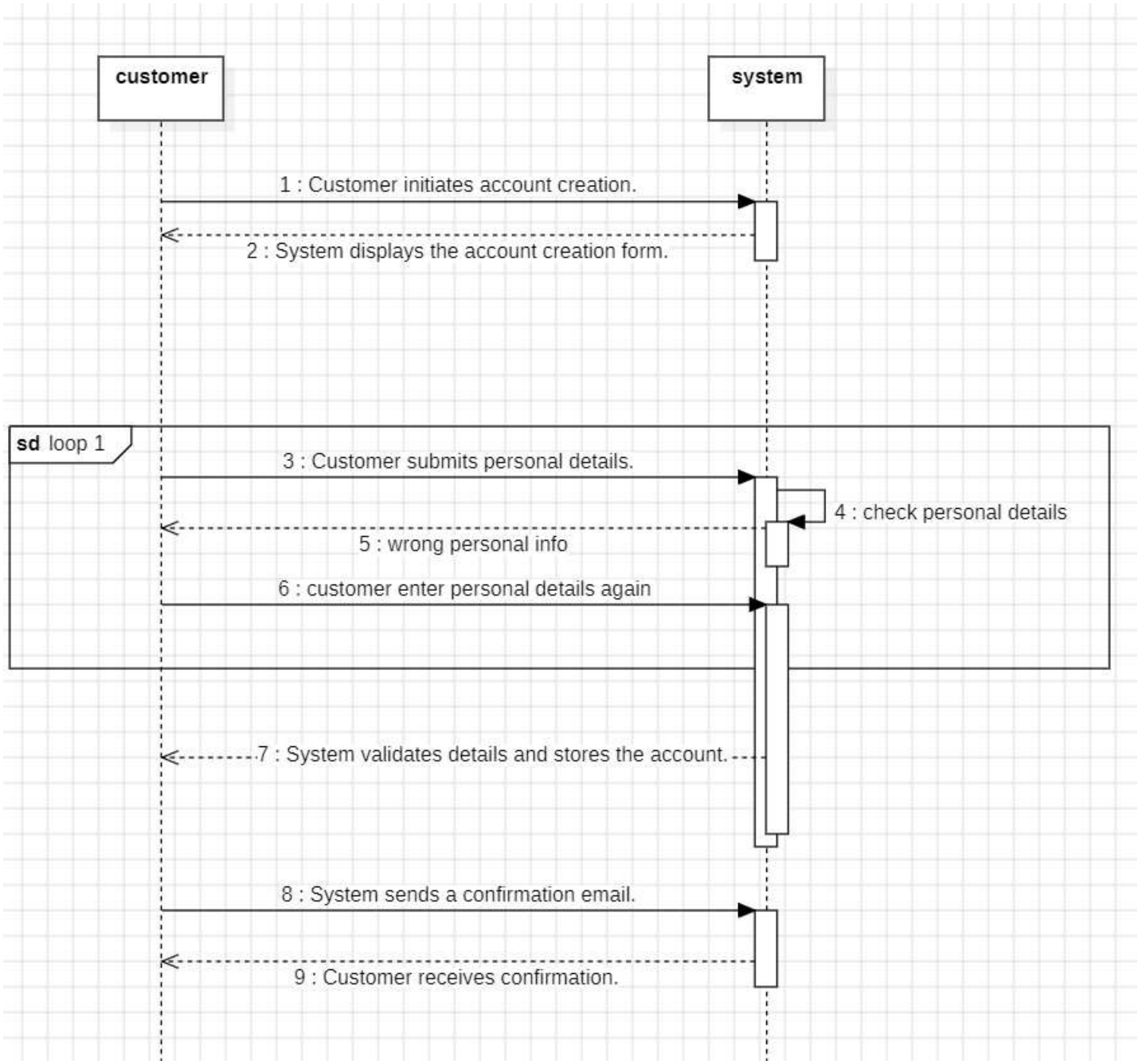
2)

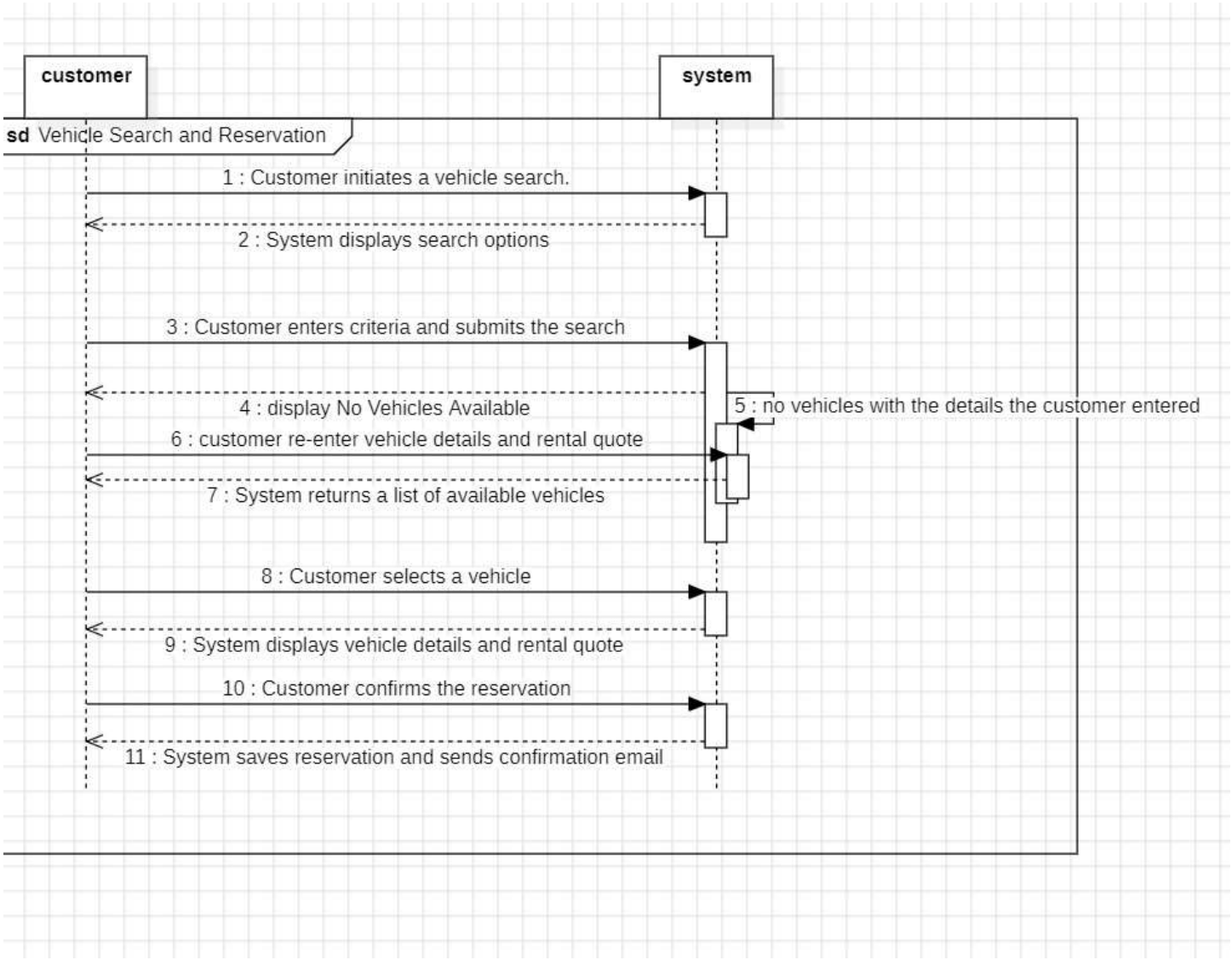

Vehicle Pickup and Identity Verification
Customer
Customer Service Staff
System
arrives at the office
accesses reservation details in the system
displays reservation details
verifies customer identity
Identity verified?
TRUE
FALSE
signs rental agreement
checks the vehicle
Staff hands over the vehicle
change vechile's state from 'available' to 'unavailable'
takes the vehicle

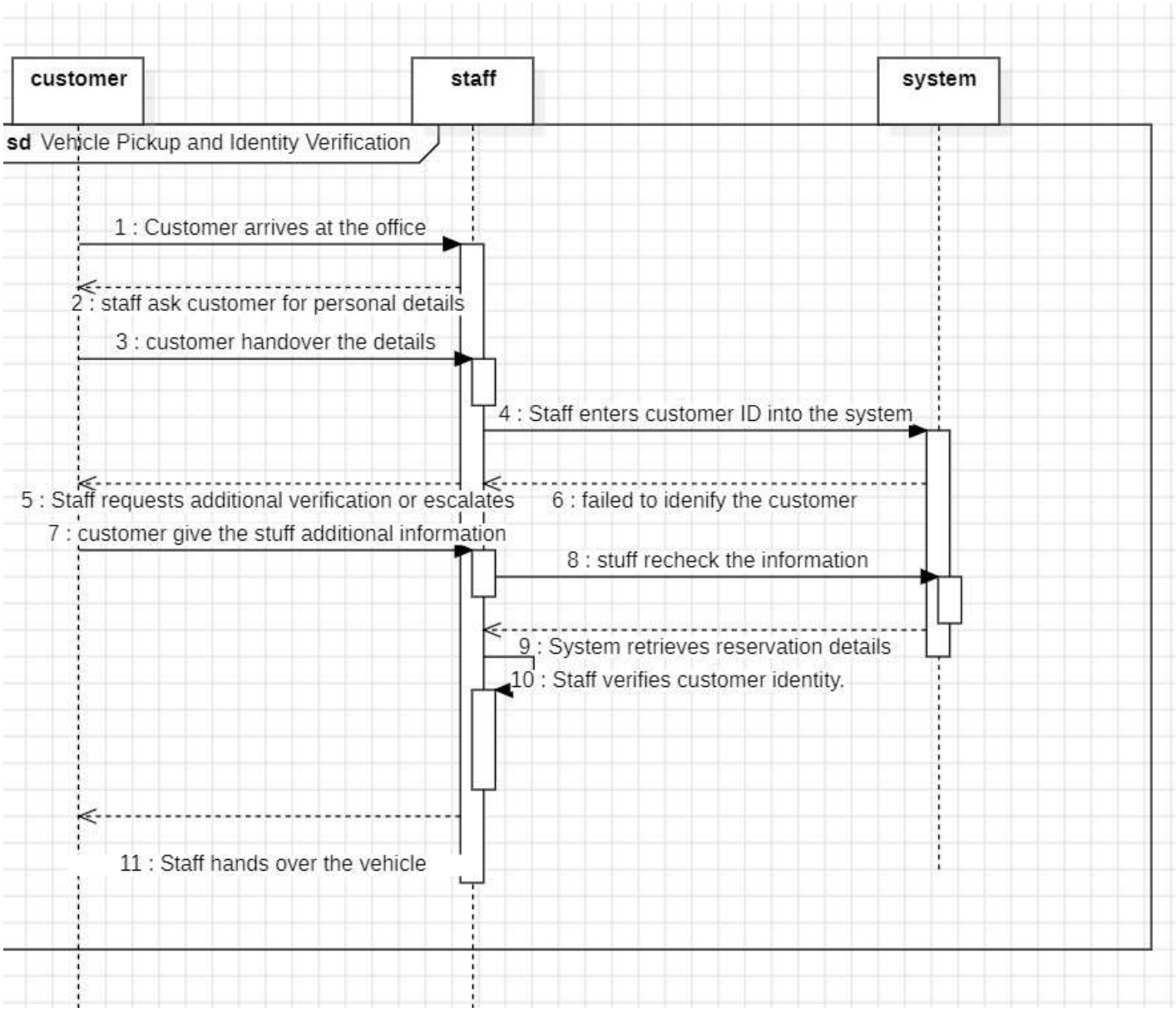
3)

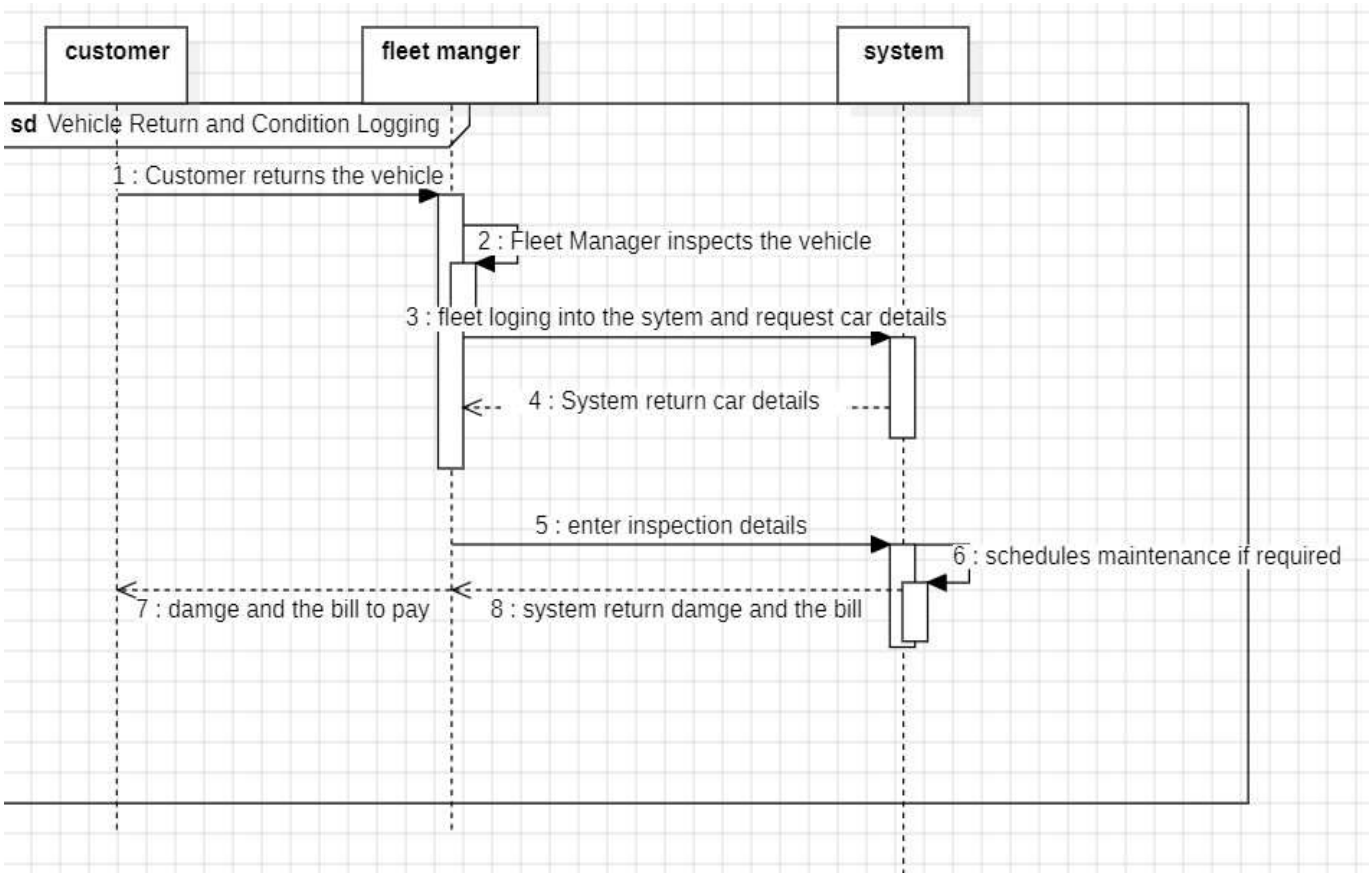


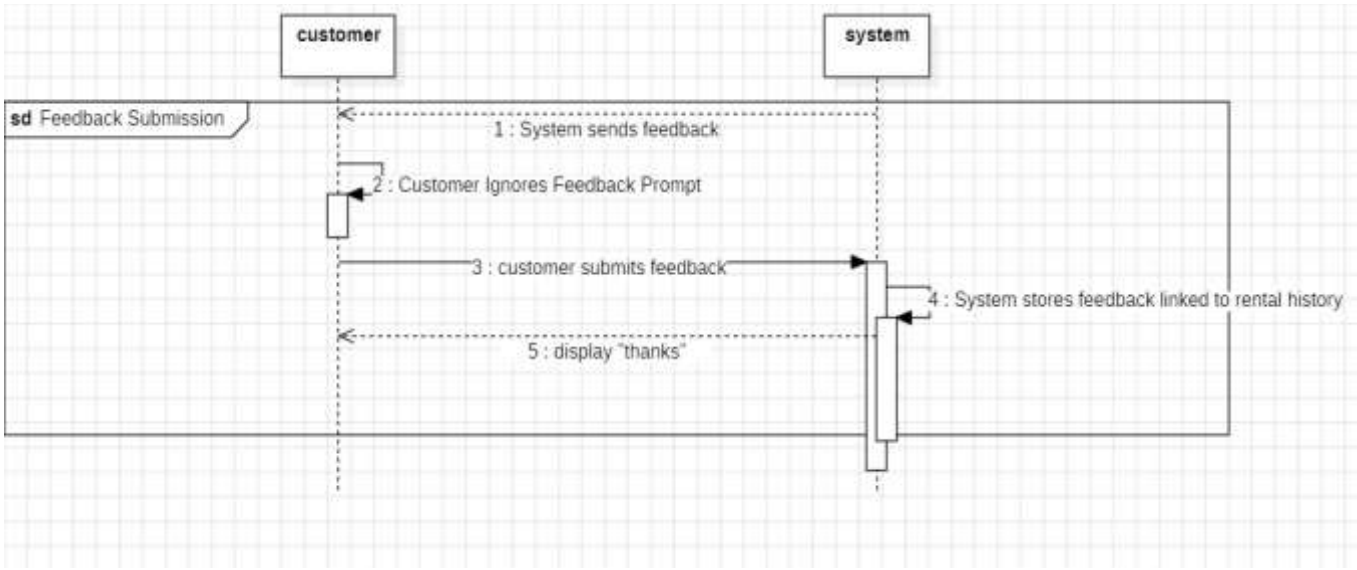
3-System Sequence Diagram (SSD)

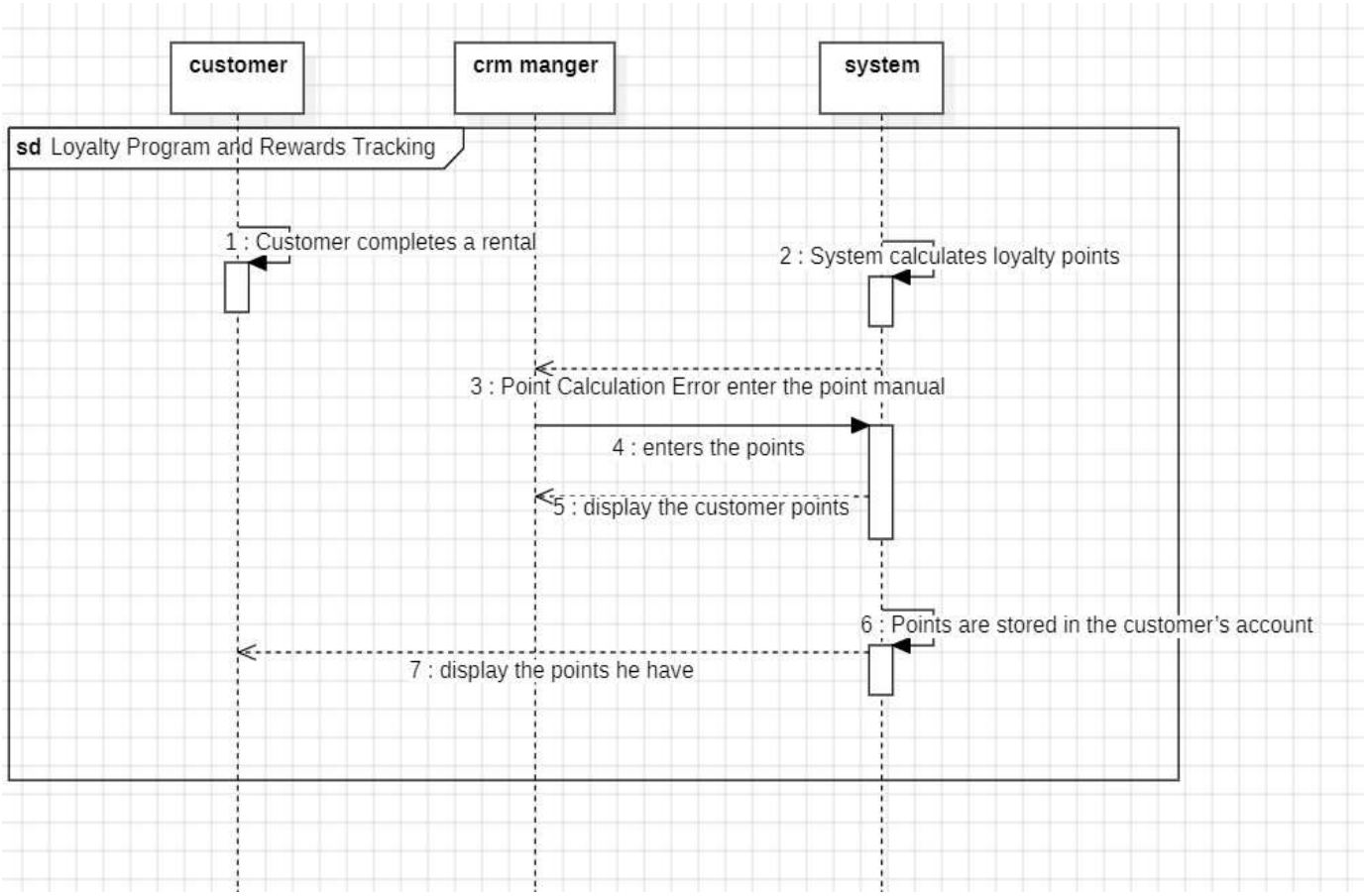

customer
system
1 : Customer initiates account creation.
2 : System displays the account creation form.
sd loop 1
3 : Customer submits personal details.
4 : check personal details
5 : wrong personal info
6 : customer enter personal details again
7 : System validates details and stores the account.
8 : System sends a confirmation email.
9 : Customer receives confirmation.

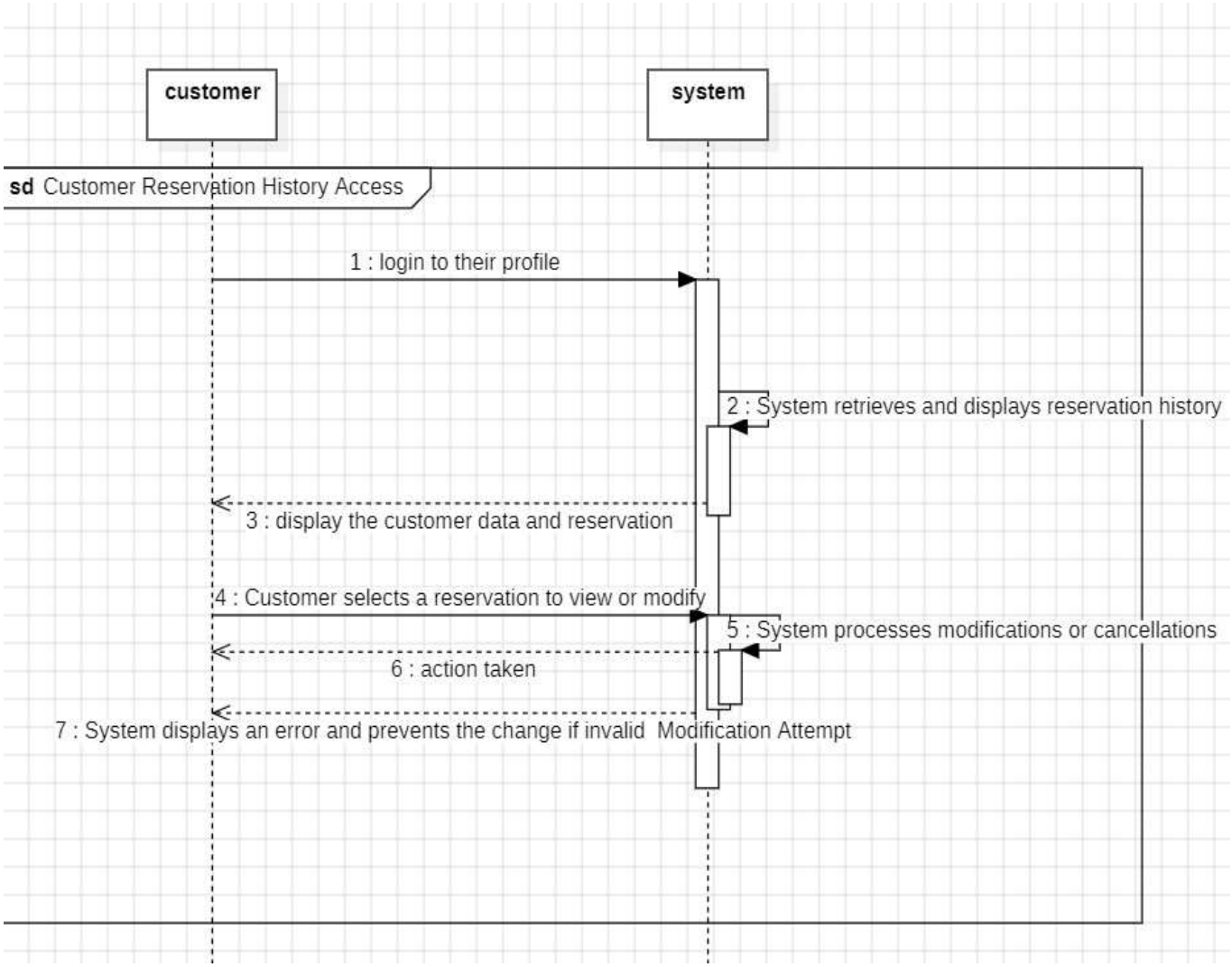

customer
system
sd Vehicle Search and Reservation
1 : Customer initiates a vehicle search.
2 : System displays search options
3 : Customer enters criteria and submits the search
4 : display No Vehicles Available
5 : no vehicles with the details the customer entered
6 : customer re-enter vehicle details and rental quote
7 : System returns a list of available vehicles
8 : Customer selects a vehicle
9 : System displays vehicle details and rental quote
10 : Customer confirms the reservation
11 : System saves reservation and sends confirmation email

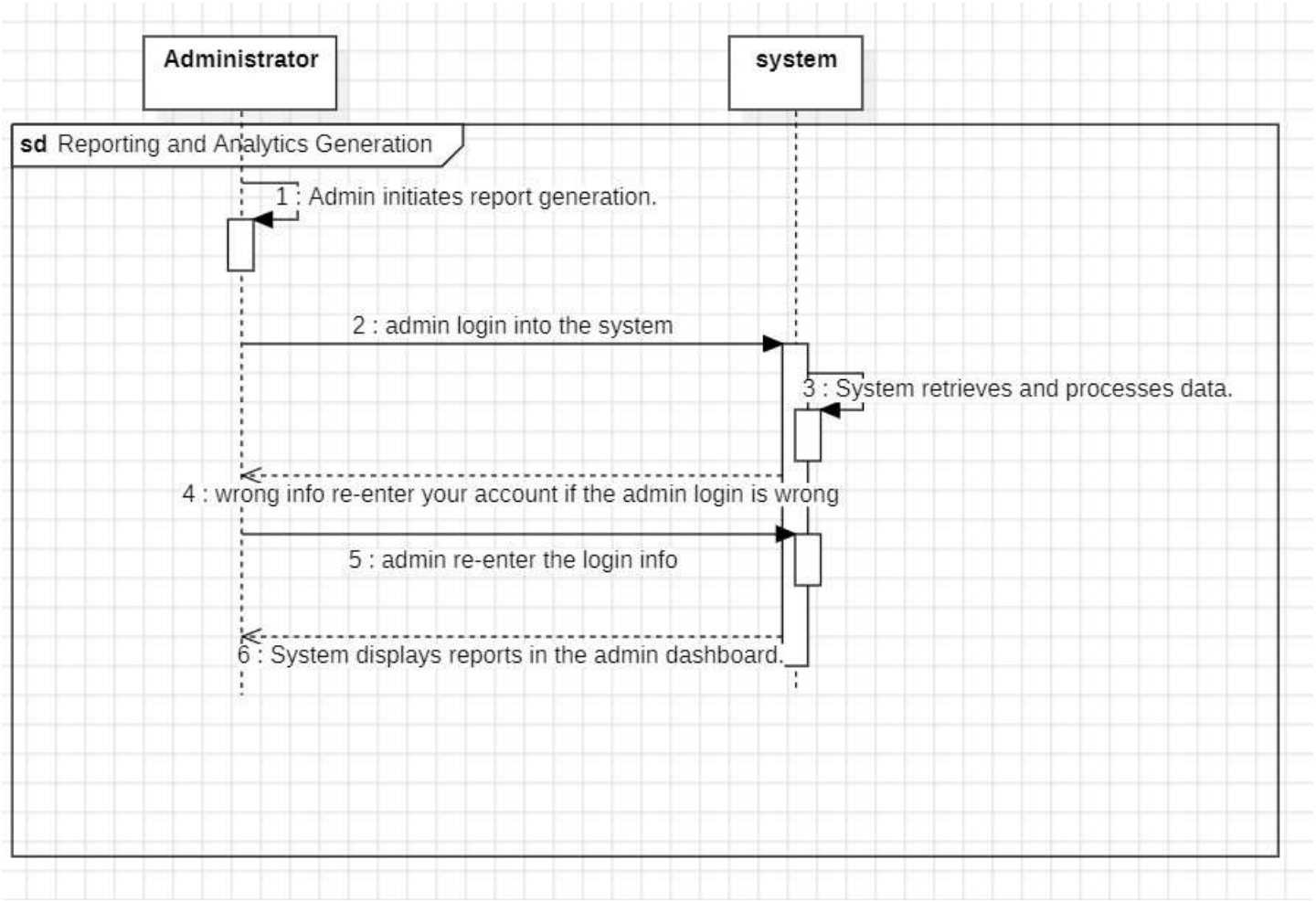

customer
staff
system
sd Vehicle Pickup and Identity Verification
1 : Customer arrives at the office
2 : staff ask customer for personal details
3 : customer handover the details
4 : Staff enters customer ID into the system
5 : Staff requests additional verification or escalates
6 : failed to idenify the customer
7 : customer give the stuff additional information
8 : stuff recheck the information
9 : System retrieves reservation details
10 : Staff verifies customer identity.
11 : Staff hands over the vehicle


customer
fleet manger
system
sd Vehicle Return and Condition Logging
1 : Customer returns the vehicle
2 : Fleet Manager inspects the vehicle
3 : fleet loging into the sytem and request car details
4 : System return car details
5 : enter inspection details
6 : schedules maintenance if required
7 : damge and the bill to pay
8 : system return damge and the bill

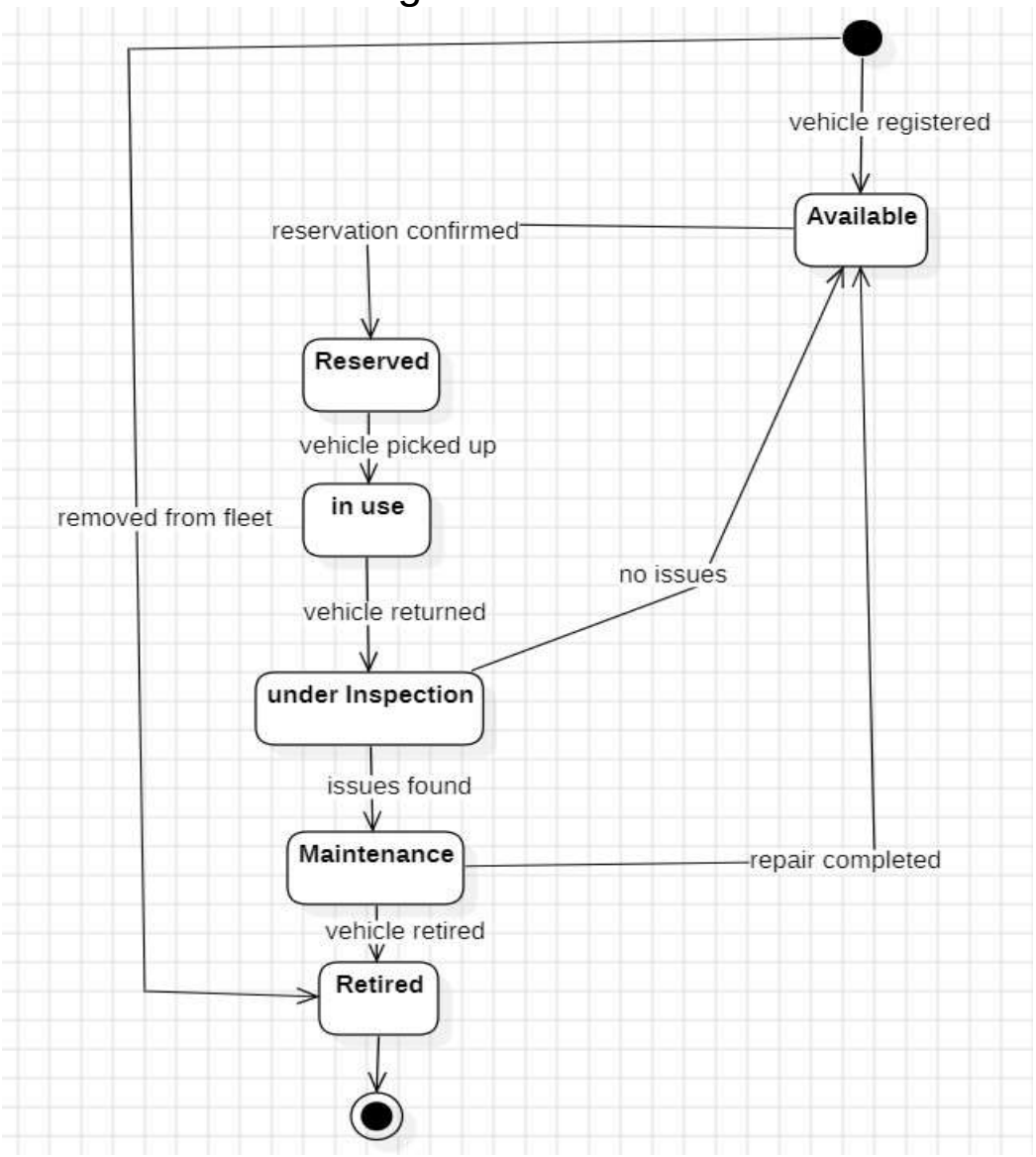

customer
system
sd Feedback Submission
1 : System sends feedback
2 : Customer Ignores Feedback Prompt
3 : customer submits feedback
4 : System stores feedback linked to rental history
5 : display "thanks"

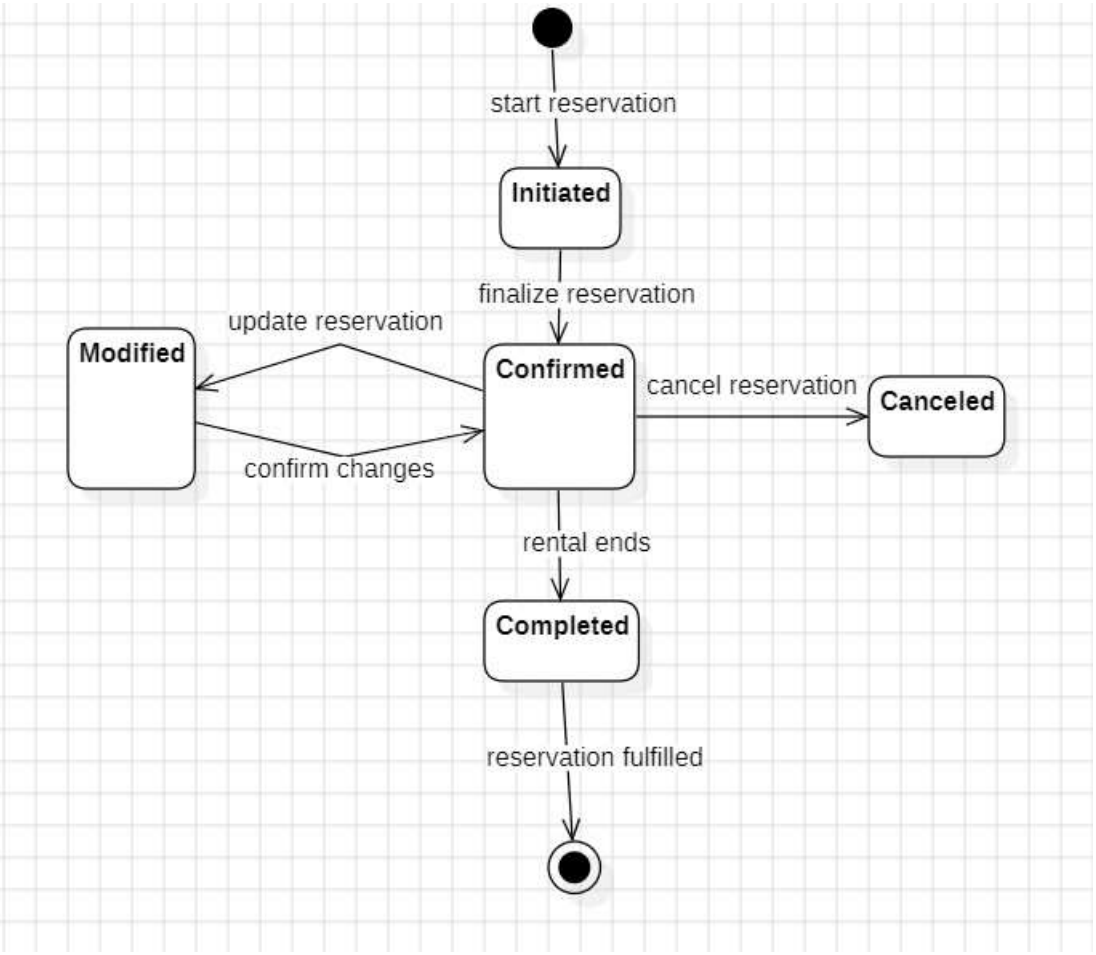

customer
crm manger
system
sd Loyalty Program and Rewards Tracking
1 : Customer completes a rental
2 : System calculates loyalty points
3 : Point Calculation Error enter the point manual
4 : enters the points
5 : display the customer points
6 : Points are stored in the customer's account
7 : display the points he have


customer
system
sd Customer Reservation History Access
1 : login to their profile
2 : System retrieves and displays reservation history
3 : display the customer data and reservation
4 : Customer selects a reservation to view or modify
5 : System processes modifications or cancellations
6 : action taken
7 : System displays an error and prevents the change if invalid Modification Attempt


Administrator
system
sd Reporting and Analytics Generation
1 : Admin initiates report generation.
2 : admin login into the system
3 : System retrieves and processes data.
4 : wrong info re-enter your account if the admin login is wrong
5 : admin re-enter the login info
6 : System displays reports in the admin dashboard.

4-state machine diagrams




start reservation
Initiated
finalize reservation
update reservation
Modified
Confirmed
cancel reservation
Canceled
confirm changes
rental ends
Completed
reservation fulfilled