

Use Case Description 1: Make Reservation

Item	Description
Use Case Name	Make Reservation
Primary Actor	Driver
Secondary Actor(s)	Payment System
Goal	To allow the driver to reserve a parking spot for a specific date and duration
Preconditions	<ul style="list-style-type: none">- Driver is registered and logged in- Parking system is available
Postconditions	<ul style="list-style-type: none">- Reservation is created and stored- Parking spot is reserved- Confirmation is sent to the driver
Main Scenario	<ol style="list-style-type: none">1. Driver selects “Make Reservation”2. Driver enters reservation details (date, duration)3. System checks parking availability4. Driver selects an available parking spot5. System calculates the reservation fee6. System processes payment via Payment System7. System generates reservation confirmation
Alternative Scenarios	<ul style="list-style-type: none">- 3a. No parking spots available: system displays unavailability message- 6a. Payment fails: system displays payment error and reservation is not created

Use Case Description 2: Enter Parking (Vehicle Entry)

Item	Description
Use Case Name	Enter Parking
Primary Actor	Driver
Secondary Actor(s)	Security Staff
Goal	To allow an authorized vehicle to enter the parking facility
Preconditions	<ul style="list-style-type: none">- Driver has a valid reservation or authorization- Parking system is operational
Postconditions	<ul style="list-style-type: none">- Entry time is recorded- Parking occupancy is updated- Vehicle is granted access
Main Scenario	<ol style="list-style-type: none">1. Driver arrives at parking entry2. System identifies the vehicle3. System verifies reservation or authorization4. System checks parking availability5. System verifies payment status6. System records entry time7. System updates parking occupancy8. System grants entry access
Alternative Scenarios	<ul style="list-style-type: none">- 3a. Unauthorized vehicle: entry is denied and call security staff- 5a. Unpaid fees: entry is denied and call security staff- Violation detected: system calls security staff

Use Case Description: Exit Parking

Item	Description
Use Case Name	Exit Parking
Primary Actor	Driver
Secondary Actor(s)	Payment System, Security Staff
Goal	To allow a parked vehicle to exit the parking facility after settling any required fees
Preconditions	<ul style="list-style-type: none">- Vehicle is currently parked in the facility- Parking system is operational
Postconditions	<ul style="list-style-type: none">- Exit time is recorded- Parking fee is settled (if required)- Parking spot is released- Vehicle exits the parking facility
Main Scenario	<ol style="list-style-type: none">1. Driver arrives at the parking exit2. Driver requests exit3. System calculates parking fee4. System verifies payment status via the Payment System5. System approves exit6. System records exit time7. System releases the parking spot8. Vehicle exits the parking facility
Alternative Scenarios	<ul style="list-style-type: none">- 4a. Payment not completed: system requests payment and denies exit until payment is completed and call security staff- Payment failure: system denies exit and call security staff- Violation or issue detected: system calls security staff

Use Case Description: Driver System Interaction (Composite Use Case)

Item	Description
Use Case Name	Driver System Interaction
Primary Actor	Driver
Secondary Actor(s)	Payment System, Security Staff
Goal	To allow the driver to interact with the parking management system to manage reservations, parking entry and exit, payments, and account information
Preconditions	<ul style="list-style-type: none">- Driver has access to the parking management system- System is operational
Postconditions	<ul style="list-style-type: none">- Driver actions are completed successfully (reservation, entry, exit, or account updates)- System records are updated accordingly
Main Scenario	<ol style="list-style-type: none">1. Driver registers or logs into the system2. Driver manages account information3. Driver makes, modifies, or cancels a reservation4. Driver enters the parking facility5. Driver makes required payments6. Driver exits the parking facility7. Driver views reservation history
Alternative Scenarios	<ul style="list-style-type: none">- Payment failure during reservation or exit- Reservation modification or cancellation request- Entry or exit denied due to unpaid fees or violations