

Use Case 1: Mark Vehicle as Rented

- **Actors:** Dealer Staff
- **Preconditions:**
 - Vehicle exists in system
 - Vehicle is currently available
 - Vehicle is not a sports car
- **Postconditions:**
 - Vehicle status changes to "ON_RENTAL"
 - Rental start date is recorded
 - Vehicle no longer appears in available inventory
- **Basic Flow:**
 - Dealer staff selects a vehicle from available inventory
 - System verifies vehicle is eligible for rental
 - Staff confirms rental action
 - System updates vehicle status to "ON_RENTAL"
 - System records rental start date
 - System confirms successful rental status change
- **Alternative Flows:**
 - If vehicle is a sports car, system displays error message about rental restriction
 - If vehicle is already rented, system displays appropriate error message

Use Case 2: Return Rented Vehicle

- **Actors:** Dealer Staff
- **Preconditions:**
 - Vehicle exists in system
 - Vehicle is currently marked as "ON_RENTAL"
- **Postconditions:**
 - Vehicle status changes to "AVAILABLE"
 - Rental end date is recorded
 - Vehicle appears in available inventory
- **Basic Flow:**
 - Dealer staff selects a vehicle from rented inventory
 - Staff selects "Return Vehicle" option
 - System prompts for confirmation
 - Staff confirms return action
 - System updates vehicle status to "AVAILABLE"
 - System records rental end date
 - System confirms successful return
- **Alternative Flows:**
 - If vehicle is not found, system displays error message
 - If vehicle is not currently rented, system displays appropriate error message

Feature 2: Enhanced Data Persistence

Use Case 3: Save Application State

- **Actors:** System
- **Preconditions:**

- o Changes made to application data
- **Postconditions:**
 - o All changes are persisted to storage
- **Basic Flow:**
 - o System detects change in application state
 - o System serializes current state to JSON
 - o System writes data to persistent storage
 - o System confirms successful save
- **Alternative Flows:**
 - o If save fails, system logs error and notifies user