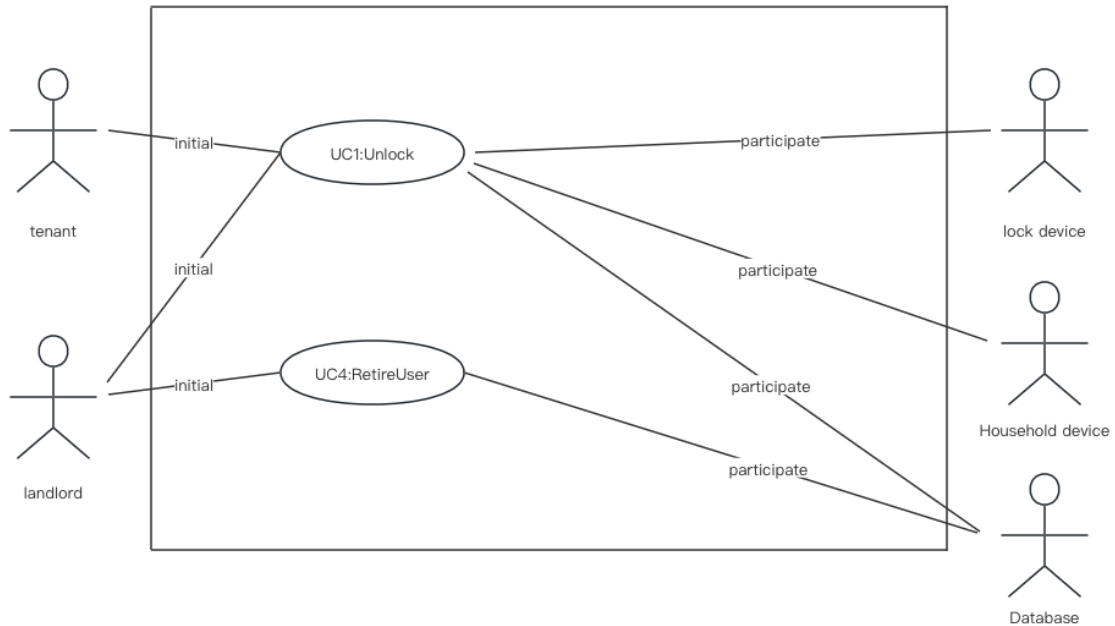


Use case

Mission 1



Mission 2

Use Case UC-1: Unlock	
Related Requirements:	REQ-2, REQ-3, REQ-4 and REQ-5 stated in the table of REQs.
Initiating Actor:	Any of: Tenant, Landlord
Actor's Goal:	Unlock and enter home
Participating Actors:	Lock, household devices, Database
Preconditions:	1.The set of valid account stored in the system database is not empty. 2.At the door keypad the menu choices are "Lock" and "Unlock".
Postconditions:	The auto-lock timer has started countdown.
Flow of Events for Main Success Scenario:	
→	1. Tenant/Landlord arrives at the door and selects the menu item "Unlock". And use the phone to disarm the lock;
←	2. System (a) signals to the Tenant/Landlord the lock status, e.g., "disarmed", (b) signals to LockDevice to disarm the lock if the phone is valid.
←	3. Add successful or unsuccessful access log to database.
←	4. System signals to the Timer to start the auto-lock timer countdown.
→	5. Tenant/Landlord opens the door, enters the home (and shuts the door and locks).

Use Case UC-4: RetireUser	
Related Requirements:	REQ-7 stated in the table of REQs.
Initiating Actor:	Landlord
Actor's Goal:	Retire an existing user account and disable access.
Participating Actors:	Database
Preconditions:	The user to be retired exists in the database.
Postconditions:	The motified data has been stored in the database.
Flow of Events for Main Success Scenario:	
→	1. Landlord selects the menu item "Manage user accounts".
←	2. System (a) displays the options of activities availables to the landlord(Including "Add User" and "Remove User"), and (b) prompt the landlord to make a selection.
→	3. Landlord select "Remove User", and choose the certain user to be retired.
←	4. System (a) stored the operation result and (b) signals completion.

Mission 3

Test-case Identifier:	TC-1
Use Case Tested:	UC-1
Pass/fail Criteria:	The test passes if the user use his own phone that is contained in the database, with less than a maximum allowed number of unsuccessful attempts
Input Data:	Bluetooth signal
Test Procedure:	Expected Result:
Step 1. Use the invalid phone to disarm the lock.	System beeps to indicate failure; records unsuccessful attempt in the database; prompts the user to try again.
Step 2. Use the valid phone to disarm the lock.	System flashes a green light to indicate success; records successful access in the database; disarms the lock device

Test-case Identifier:	TC-2
Use Case Tested:	UC-4
Pass/fail Criteria:	The test passes if the landlord retired the user in the database, this user can not disarm the lock anymore.
Input Data:	Numeric keycode, door identifier
Test Procedure:	Expected Result:
Step 1. Before retiring the user, use this user's phone to disarm the lock.	System flashes a green light to indicate success; records successful access in the database; disarms the lock device
Step 2. Retire the user and then use the user's phone to disarm the lock again.	System flashes a red light to indicate failure; signals "Invalid User"; record illegal access in the database; lock remains locked.