Identifier	User Story
REQ-1	As a user, I can be sure that the doors by default will be locked.
REQ-2	As a user, I will be able to unlock the doors using a mobile phone
REQ-3	An intruder will not be able to unlock the doors by using his own mobile phone; the system will block when it detects multiple lock-phone pairing failures
REQ-4	As a user, I can be sure that the doors will be automatically locked at all times.
REQ-5	The door keypad will be backlit when dark for visibility.
REQ-6	Anyone will be able to lock the doors on demand.
REQ-7	As a user, I will be able to manage additional user accounts (by user mobile device info, e.g., phone number)
REQ-8	As a user, I will be able to view the history of accesses to my home.
REQ-9	As a user, I will be able to configure the preferences for how my household devices will be activated on my arrival.

Use Case UC-1:   Unlock

Related Requirem'ts:	REQ1, REQ2,REQ3, REQ4, and REQ5 stated in the table of REQs
Initiating Actor:	Any of: Tenant, Landlord
Actor's Goal:	To disarm the lock and enter, and get space lighted up automatically.
Participating Actors:	LockDevice, LightSwitch, Timer
Preconditions:	• The set of mobile phone stored in the system database is non-empty. • The system displays the menu of available functions; at the door keypad the menu choices are "Lock" and "Unlock."
Postconditions:	The auto-lock timer has started countdown from autoLockInterval.

Flow of Events for Main Success Scenario:

→ 1. **Tenant/Landlord** arrives at the door and selects the menu item "Unlock"

2. include::*AuthenticateUser* (UC-7)

← 3. **System** (a) signals to the **Tenant/Landlord** the lock status, e.g., "disarmed," (b) signals to **LockDevice** to disarm the lock, and (c) signals to **LightSwitch** to turn the light on

← 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]

Identifier	User Story
REQ-1	As a user, I can be sure that the doors by default will be locked.
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REQ-9	As a user, I will be able to configure the preferences for how my household devices will be activated on my arrival.

Use Case UC-4:   RetireUser

Related Requirem'ts:	REQ7 stated in the table of REQs
Initiating Actor:	Any of: Tenant, Landlord
Actor's Goal:	Retire an existing user account and disable access.
Participating Actors:	LockDevice, LightSwitch, Timer
Preconditions:	• Do not know the number of users
Postconditions:	Redundant users can be deleted

Flow of Events for Main Success Scenario:

→   1. **Landlord** add or subtract users

←   2. **System** manage the database

←   1a. **The user deleted the wrong person**

→   2a. **System deletion failure**

Test-case Identifier:	TC-1
Use Case Tested:	UC-1
Pass/fail Criteria:	Whether the account is unlocked successfully
Input Data:	phone, door identifier

Test Procedure:	Expected Result:
Step 1. take another phone and a valid door identifier	System beeps to indicate failure; records unsuccessful attempt in the database; prompts the user to try again
Step 2. take user's phone and door identifier	System flashes a green light to indicate success; records successful access in the database; disarms the lock device

Test-case Identifier:	TC-4
Use Case Tested:	UC-1
Pass/fail Criteria:	The test passes The deleted user cannot open the door, the added user can open the door, with less than a maximum allowed number of unsuccessful attempts
Input Data:	door identifier,The deleted user's and the added user's phone

Test Procedure:	Expected Result:
use the deleted and added user's phones and a valid door identifier	System beeps to indicate failure; records unsuccessful attempt in the database; prompts the user to try again