

Use Case UC-1: Unlock

Related Requirements: REQ1, 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 valid keys 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]

Use Case UC-4:

Retire User

Related Requirements: REQ6 stated in Error.

Initiating Actor: Landlord.

Actor's Goal: To remove departed residents at runtime.

Participating Actors: Tenant

Preconditions: Tenants want to check out.

Postconditions: The modified data is stored into the database.

Flow of Events for Main Success Scenario:

- 1. Landlord selects the menu item "ManageUsers"
- 2. Landlord identification.
- 3. System(a) displays the option of activities available to the Landlord, and (b) prompts the Landlord to make selection.
- 4. Landlord selects "Remove User" and delete the data from the Tenant list.
- 5. System(a) delete the data and (b) singles completion.

Flow of Events for Extensions (Alternate Scenarios):

- 4b. Selected activity entails removing users: Including *RemoveUser* (UC-4).