



Use Case UC-1: Unlock

Related Requirements: REQ1, REQ2, REQ3, and REQ5, REQ8

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, Bluetooth&NFC

Preconditions:

- Bluetooth&NFC Unlocking unsuccessfully requires inputting password by hand.
- 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."

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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: RetireUsers

Related Requirements: REQ7

Initiating Actor: Only Landlord

Actor's Goal: To cancel the entry of retired-users.

Actors:

Database

Preconditions:1、需要房东输入独立安全密码或者生物学认证才能有更改权限
2、可以在手机或者电脑上操作

后置条件：认证通过

- 1、房东启动 app，输入独立密码或者生物学认证成功后进入管理员模式
- 2、点击租户管理，查找已退房的租户
- 3、删除租户使用权，点确认，这里可以再加一步验证
- 4、退出程序，此时退房租户不能再进入房内

Test-case Identifier: Use Case Tested:

Pass/fail Criteria: Input Data: Test Procedure: TC-1 UC-1, main success scenario, and UC-7
The test passes if the user enters a key that is contained in the database, with less than a maximum allowed number of unsuccessful attempts 且手机能正确解锁

Numeric keycode, door identifier Expected Result:

Step 1. Type in an incorrect keycode and a valid door identifier

Step 2. Type in the correct keycode and door identifier

Step3.Use identified Bluetooth or NFC to unlock

Step4.Use unacquainted Bluetooth or NFC to unlock

Step1: System beeps to indicate failure; records unsuccessful attempt in the database; prompts the user to try again

Step 4: System beeps to indicate failure; records unsuccessful attempt in the database; prompts the user to try again. Once overtime the system requires keycode input.

Step 2、3: System flashes a green light to indicate success; records successful access in the database; disarms the lock device.

UC-4

通过/失败判断标准:输入数据:测试过程:TC-2 UC-4、主成功场景、UC-7

如果用户输入数据库中包含的键，且失败次数小于允许的最大次数，旧租户不再能解锁，则测试通过

步骤一：在管理 app 中输入不正确独立密码或者错误识别

步骤二：在管理 app 中输入正确独立密码或者正确识别

步骤三：删除后在登入看信息是否已被修改

步骤四：用删除的租户设备登入

1: 无法访问

2: 正确访问，进入页面

- 3: 跳出操作提示, 操作后显示操作成功
- 4: 无法进入