Course Assignment 1

**1、Derive UC-1 and UC-4**

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| Initiator | Initiator’s goal | Participants | Use case name |
| Tenant | Unlock and enter home | Lock  Household devices database  Bluetooth  phone | Unlock (UC-1) |
| Landlord | Retire an existing user account and disable access | Database, Bluetooth,  phone | Retire User (UC-4) |

**2、Give the use case schemas of UC-1 and UC-4**

🥥UC-1 Unlock

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| --- | --- |
| Related requirements | REQ-1\3\4\5 |
| Initiating actor | Any of :tenant landlord |
| Actor’s goal | When the guest's mobile phone turns on Bluetooth and approaches the door lock, the door lock opens automatically. And light up the smart devices in the house at the same time |
| Participating actors | Lock device , light switch, timer, Bluetooth, mobile phone |
| Preconditions | The Bluetooth of the mobile phone is bound to the door lock, and automatically recognizes and unlocks when approaching |

Flow of events for main success scenario

①The tenant or landlord carries a mobile phone at the door and turns on Bluetooth

②Lock for authentication and Bluetooth matching

③The tenant or landlord enters the residence and closes the door

🥥UC-4 Retire an existing user account and disable access

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| --- | --- |
| Related requirements | REQ-1\5\6\7 |
| Initiating actor | landlord |
| Actor’s goal | After the tenant withdraws from the rent, the landlord has the authority to delete the tenant from the Bluetooth identification pairing list, so that when the tenant approaches the lock, the lock will not automatically open. |
| Participating actors | Lock device , Bluetooth, mobile phone, database |
| Preconditions | After the landlord is authenticated, the delete interface in the database can be opened to him. However, the landlord cannot delete it while the tenant’s lease is in existence |

Flow of events for main success scenario

①Tenant withdraws in the system

②Landlord gets permission to delete tenant

③Delete it in the user interface

**3、give the acceptance tests for UC-1 and UC-4**

🥥UC-1 Unlock

Test1: Non-tenant or landlord’s mobile phone cannot be turned on when approaching

Test2: The tenant or landlord’s mobile phone does not turn on Bluetooth should not be turned on when approaching

Test3: What is the radius of the lock that the Bluetooth device can be turned on?

Test4: When the Bluetooth device is close to the lock of other users, the lock of other users should not be opened by mistake

🥥UC-4 Retire an existing user account and disable access

Test1: During the duration of the tenant’s lease, the landlord should not have the authority to delete the tenant

Test2: After the landlord deletes the permission of the tenant, the lock should not be opened when the tenant approaches the lock