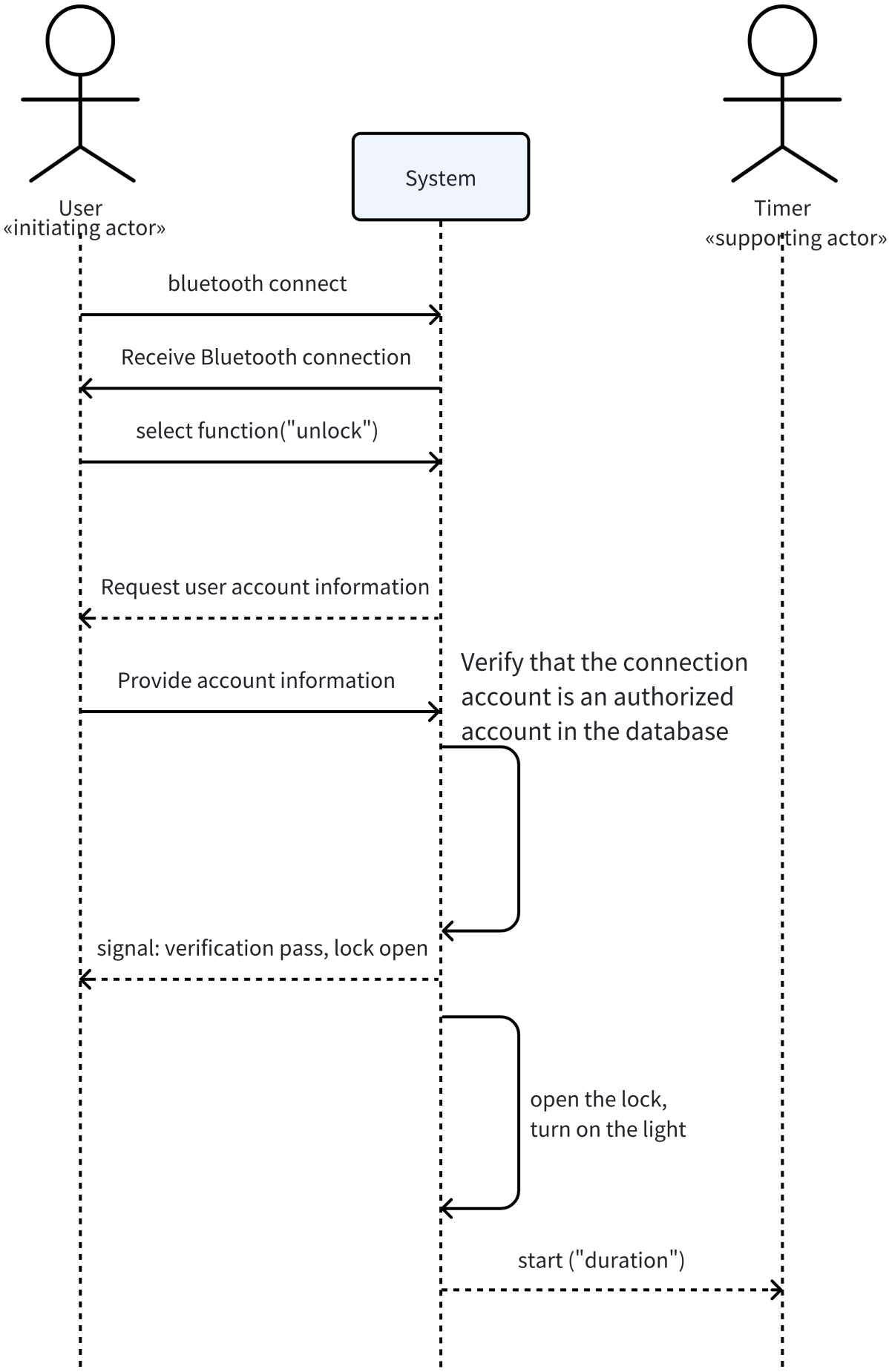
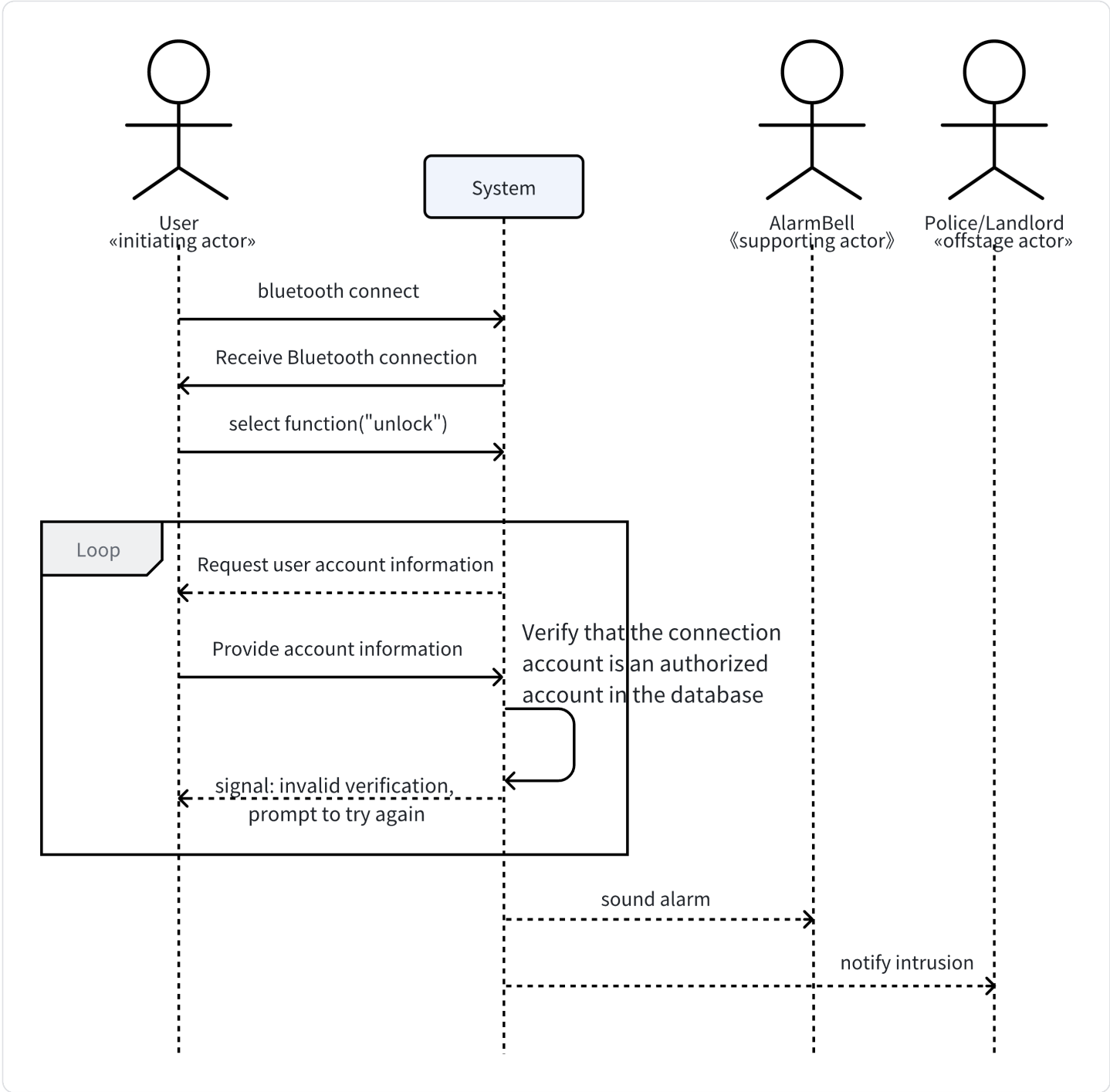
assignment_2

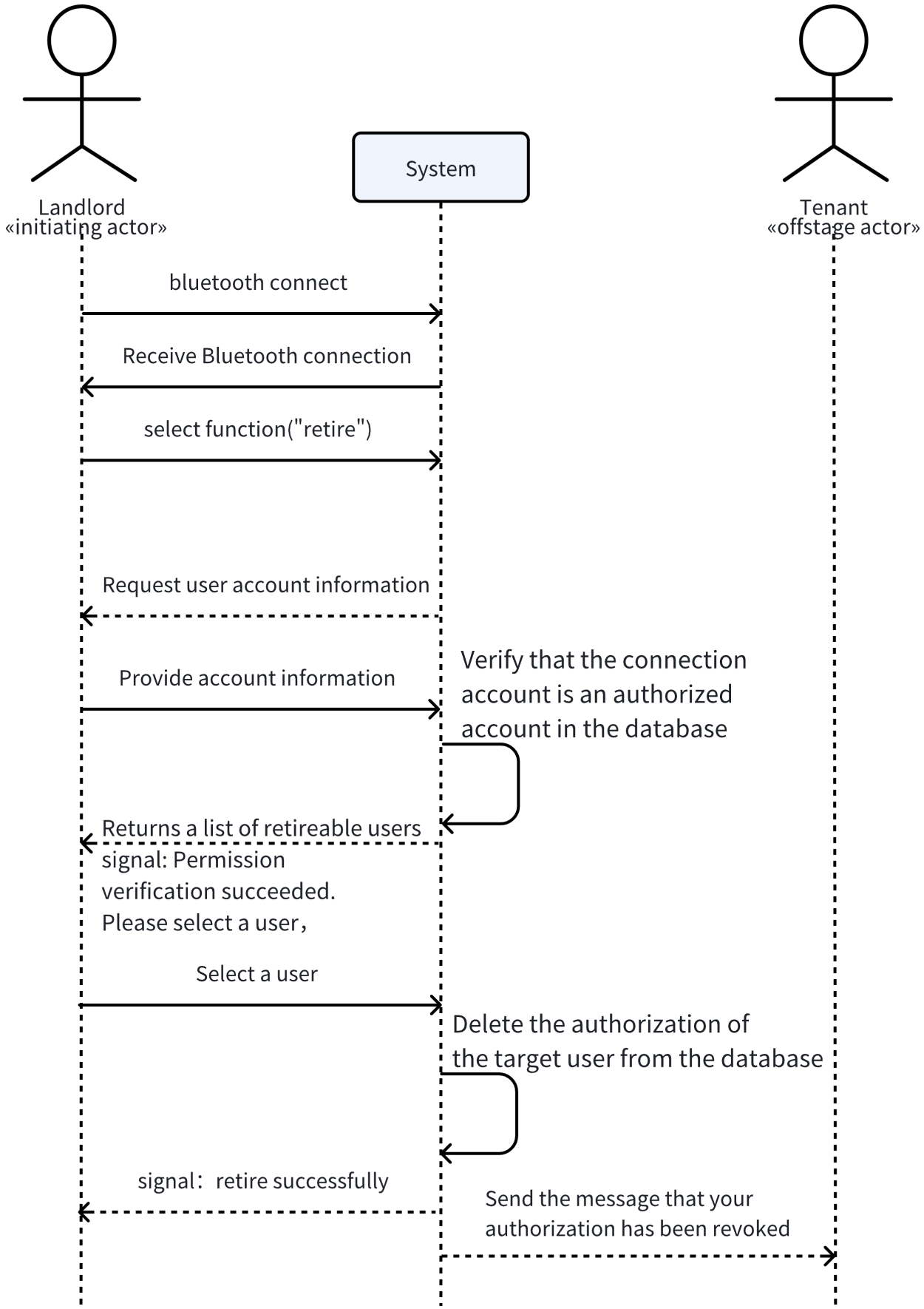
Draw system sequence diagram for UC-1 (Unlock) and UC-4 (RetireUser)

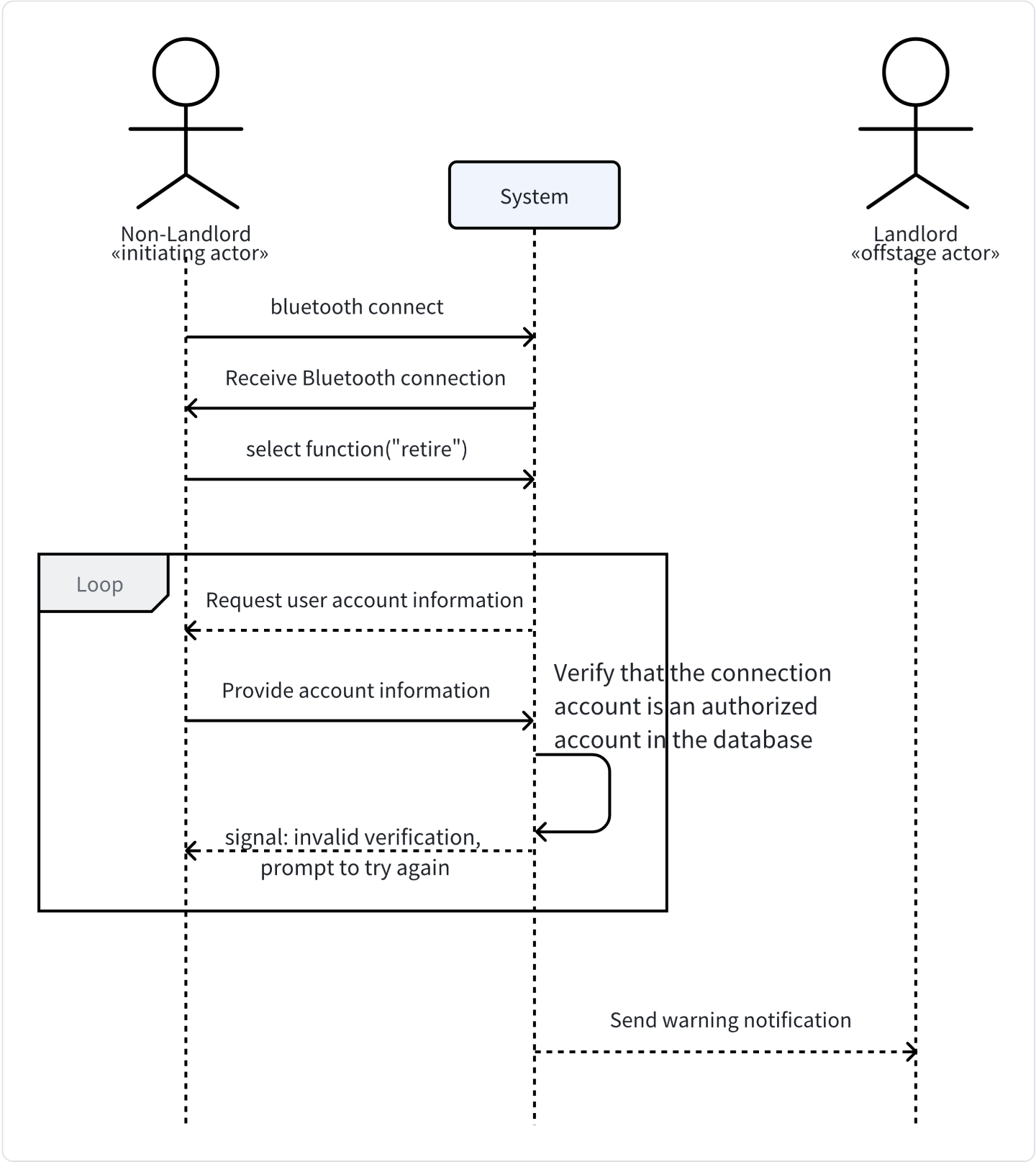
UC-1:


User
«initiating actor»
System
Timer
«supporting actor»
bluetooth connect
Receive Bluetooth connection
select function("unlock")
Request user account information
Provide account information
Verify that the connection account is an authorized account in the database
signal: verification pass, lock open
open the lock, turn on the light
start ("duration")


User
«initiating actor»
System
AlarmBell
《supporting actor》
Police/Landlord
«offstage actor»
bluetooth connect
Receive Bluetooth connection
select function("unlock")
Loop
Request user account information
Provide account information
Verify that the connection account is an authorized account in the database
signal: invalid verification, prompt to try again
sound alarm
notify intrusion

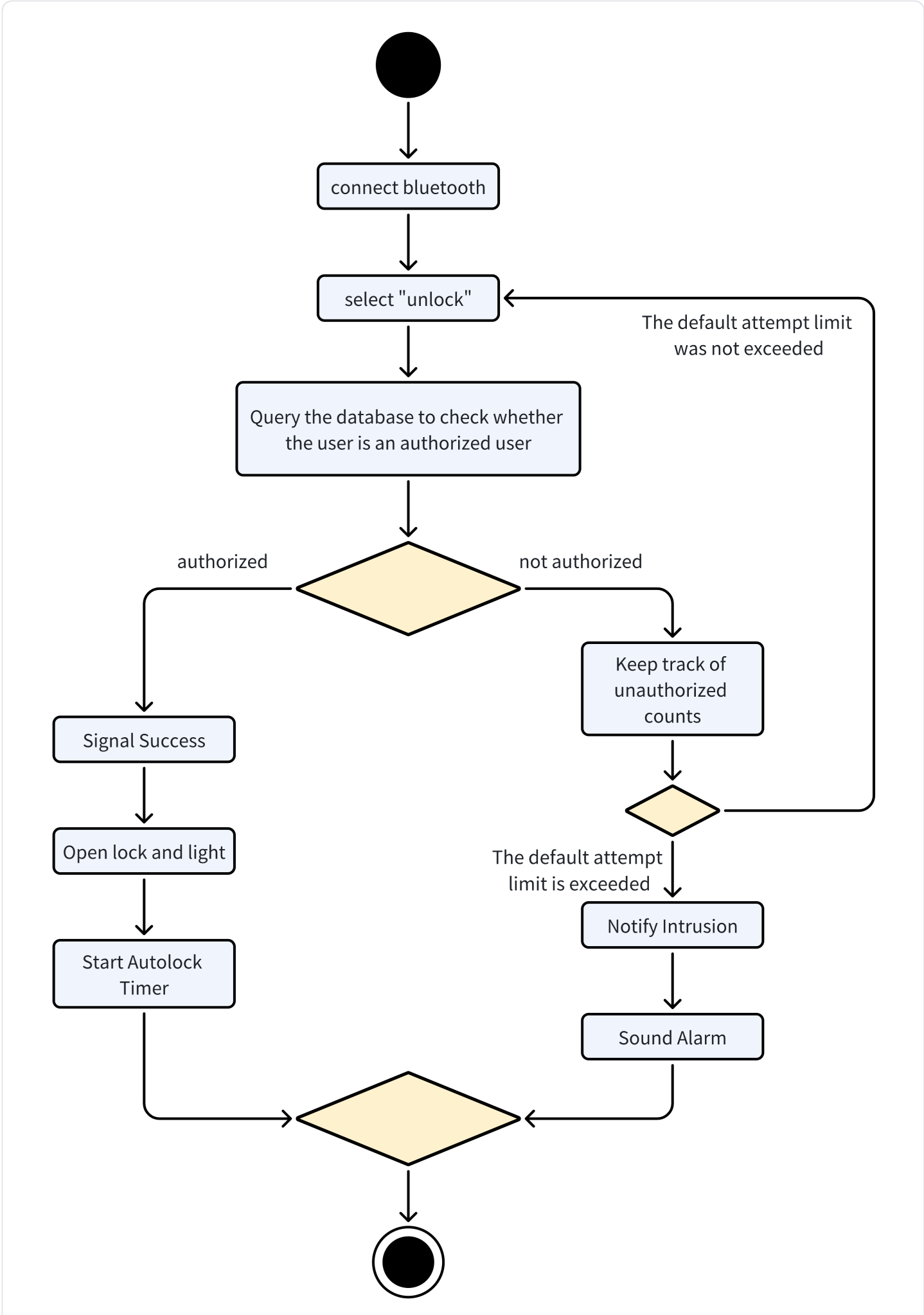
UC-4


Landlord
«initiating actor»
System
Tenant
«offstage actor»
bluetooth connect
Receive Bluetooth connection
select function("retire")
Request user account information
Provide account information
Verify that the connection account is an authorized account in the database
Returns a list of retireable users
signal: Permission verification succeeded. Please select a user，
Select a user
Delete the authorization of the target user from the database
signal：retire successfully
Send the message that your authorization has been revoked

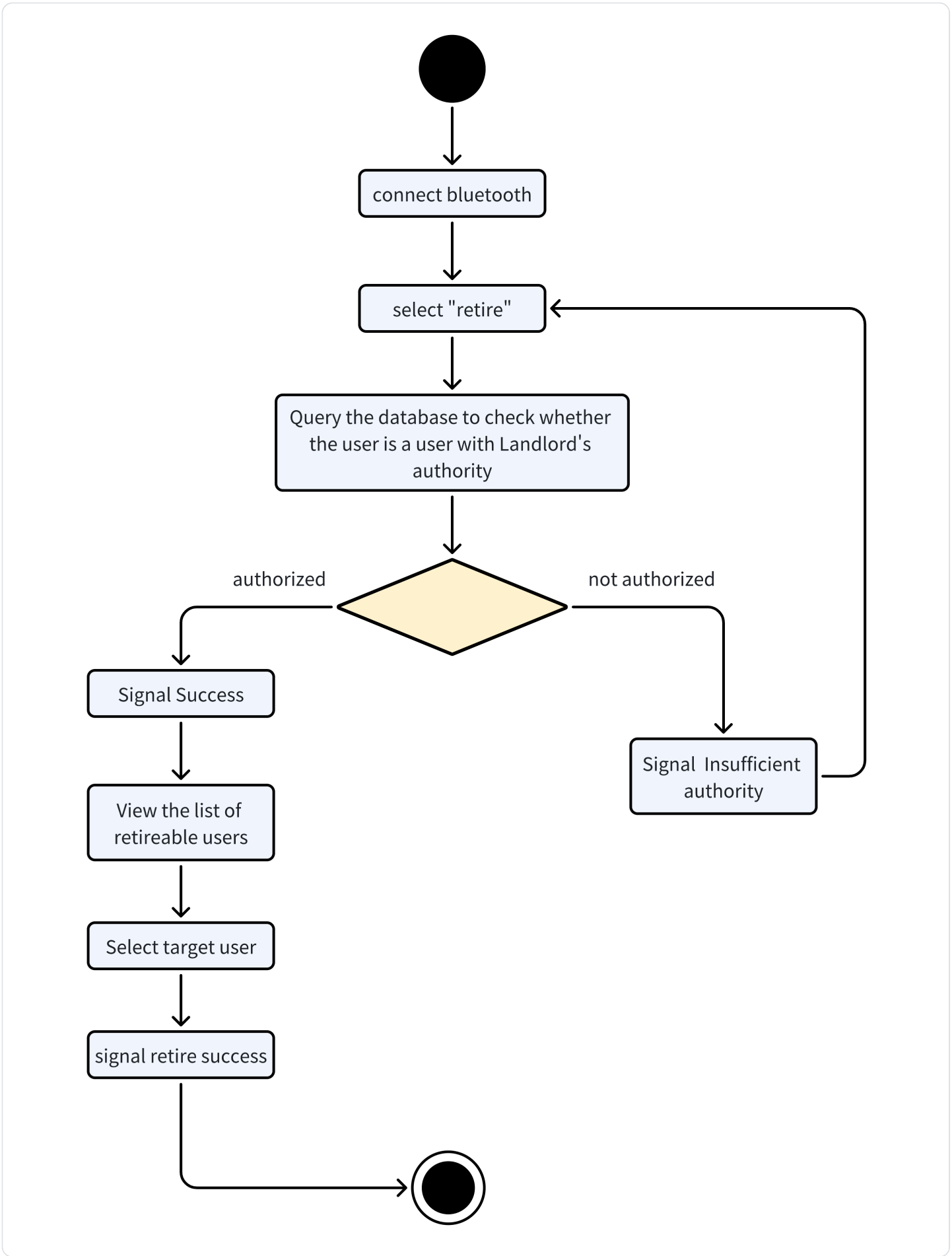


Draw activity diagram for UC-1 (Unlock) and UC-4 (RetireUser)

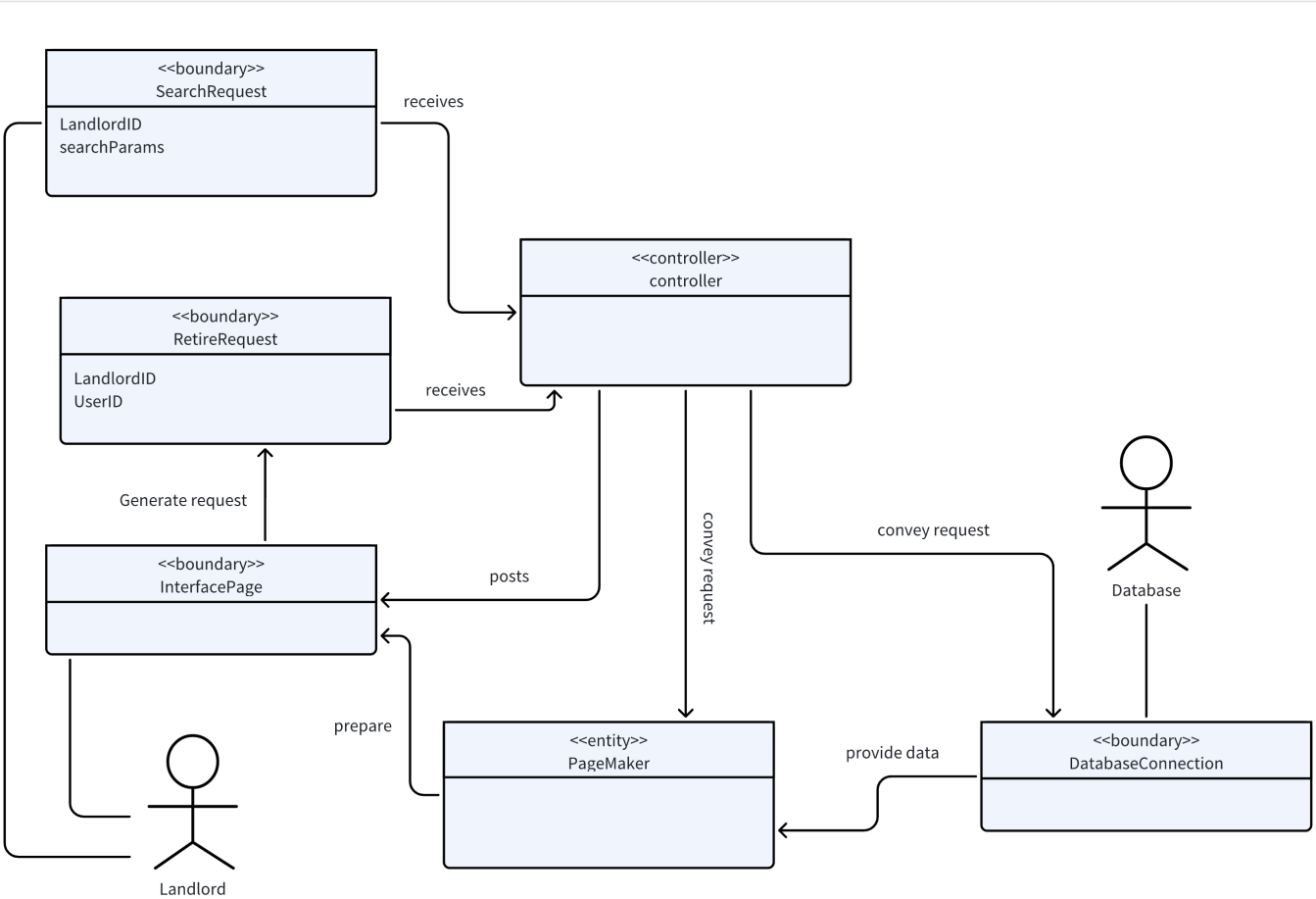
UC-1


connect bluetooth
select "unlock"
The default attempt limit was not exceeded
Query the database to check whether the user is an authorized user
authorized
not authorized
Keep track of unauthorized counts
Signal Success
Open lock and light
Start Autolock Timer
The default attempt limit is exceeded
Notify Intrusion
Sound Alarm

UC-4



Domain model for UC-4 (RetireUser): CRC分析(ref. Lec-6, P23/24/26)


<<boundary>>
SearchRequest
LandlordID
searchParams
receives
<<controller>>
controller
<<boundary>>
RetireRequest
LandlordID
UserID
receives
Generate request
<<boundary>>
InterfacePage
posts
convey request
convey request
Database
prepare
<<entity>>
PageMaker
provide data
<<boundary>>
DatabaseConnection
Landlord