



FPT UNIVERSITY

Capstone Project Document

UniHome

**Rental Services Platform Between Students And
Landlords In Ho Chi Minh City**

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Project code	UNH

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Table of Contents

Table of Contents.....	2
List of Tables	5
List of Figures.....	9
Acknowledgements.....	11
Definition and Acronyms.....	12
I. Project Introduction	13
1. Overview.....	13
1.1 Project Information	13
1.2 Project Team	13
2. Product Background.....	13
3. Existing Systems.....	14
3.1 App 1: Ohana (https://www.ohanaliving.vn).....	14
3.2 App 2: iTro (https://quanlynhatro.com)	14
4. Business Opportunity.....	15
5. Software Product Vision	15
6. Project Scope and Exclusions	15
6.1 Major Features	15
6.2 Limitations and Exclusions.....	16
II. Project Management Plan	17
1. Overview.....	17
1.1 WBS and Estimation.....	17
1.2 Project Objectives	19
1.3 Project Risks	19
2. Management Approach.....	20
2.1 Project Process	20
2.2 Quality Management.....	21
2.3 Training Plan.....	21
3. Project Organization	21
3.1 Team and Structure	21
3.2 Roles and Responsibilities	22
4. Project Communication.....	23
4.1 Communication.....	23
4.2 External Interface.....	23

5.	Configuration Management	24
5.1	Tools and Infrastructures	24
5.2	Document Management	24
5.3	Source Code Management	24
III.	Software Requirements Specification	25
1.	Overall Description	25
1.1	User Requirements Overview	25
1.2	Business Rules	27
2.	User Requirements	31
2.1	System Actors	31
2.2	Use Case Diagram.....	31
2.3	Use Cases List.....	34
2.4	Use Case Specification.....	39
3.	Functional Requirements	158
3.1	System Functional Overview	158
4.	Non-Functional Requirements	176
4.1	External Interfaces	176
4.2	Quality Attributes.....	176
IV.	Software Design Description	177
1.	Overall Description	177
1.1	Assumptions.....	177
2.	System Architecture Design.....	177
2.1	Overall System Architecture	177
2.2	Component Diagram	178
2.3	Package Diagram	180
2.4	Activity Diagram.....	181
3.	System Detailed Design	196
3.1	Class Diagram	196
3.2	Class Specification.....	197
3.3	State Machine Diagrams	216
3.4	Sequence Diagram	218
4.	Data and Database Design	221
4.1	Database Design.....	221
4.2	Data File Design.....	222
V.	Software Testing Documentation.....	240

1.	Overall Description.....	240
1.1	Test Model	240
1.2	Testing Levels.....	240
2.	Test Plan.....	240
2.1	Test Stages	240
2.2	Resources	240
2.3	Test Milestones	240
3.	Test Cases and Test Reports	241
VI.	Release Package and User Guides	241
1.	Deliverable Package.....	241
1.1	Source Codes and Documents.....	241
2.	Installation Guide.....	241
2.1	System Requirements.....	241
2.2	Setup Files.....	242
2.3	Installation Instruction	242
3.	User Manual.....	251
3.1	Terms and Definitions.....	251
3.2	System Requirement	251
3.3	Application Usage.....	251
VII.	リリースパッケージとユーザーガイド	354
1.	成果物パッケージ.....	354
1.1	ソースコードとドキュメント.....	354
2.	インストールガイド	354
2.1	システム要件.....	354
2.2	セットアップファイル.....	355
2.3	インストール手順.....	356
3.	ユーザーマニュアル	364
3.1	用語と定義.....	364
3.2	システム要件	364
3.3	アプリケーションの使用状況.....	365

List of Tables

Table 1: Definition and Acronyms.....	12
Table 2. Supervisor	13
Table 3. Team members.....	13
Table 4: WBS and Estimation.....	19
Table 5: Project Objectives	19
Table 6: Project Risks	20
Table 7: Training plan.....	21
Table 8: Team and Structure.....	22
Table 9: Role and Responsibilities.....	23
Table 10: Communication Plan.....	23
Table 11: FPTU Contacts.....	23
Table 12: Tool and Infrastructures.....	24
Table 13: Business Rule.....	31
Table 14: System Actors.....	31
Table 15: Renter Use Cases List.....	36
Table 16: Owner Use Cases List.....	38
Table 17: Admin Use Case List	39
Table 18: Renter Mobile Screen Description.....	162
Table 19: Renter Web Screen Description.....	163
Table 20: Owner Mobile Application	164
Table 21: Admin Web Screen Description	165
Table 22: Non-Screen Functions.....	166
Table 23: HouseType Entity	167
Table 24: Owner Entity	167
Table 25: Building Entity.....	167
Table 26: Ward Entity.....	167
Table 27: District Entity.....	168
Table 28: City Entity.....	168
Table 29: House Entity	168
Table 30: University Entity.....	169
Table 31: Slot Entity	169
Table 32: Appointment Entity	169
Table 33: Role Entity	170

Table 34: UserDevice Entity.....	170
Table 35: Service Entity.....	170
Table 36: Facility Entity	171
Table 37: RentEntityType Entity	171
Table 38: RentEntity Entity	172
Table 39: Conversation Entity	172
Table 40: User Entity	172
Table 41: Problem Entity	173
Table 42: Issue Entity	173
Table 43: Transaction Entity.....	173
Table 44:Contract Entity.....	174
Table 45: ContractHistory Entity	174
Table 46: Payment Entity.....	175
Table 47: Payment Detail.....	175
Table 48: PaymentType Entity	175
Table 49: Annoucement Entity	175
Table 50: Notification Entity	176
Table 51: NotificationType Entity	176
Table 52: Overal System Architecture Description	178
Table 53: Component Diagram Description	180
Table 54: Package Diagram Description	181
Table 55: User Class Attribute.....	198
Table 56: User Class Method.....	198
Table 57: Role Class Attribute.....	198
Table 58: Role Class Method.....	198
Table 59: Owner Class Attribute	199
Table 60: Owner Class Method	199
Table 61: UserDevice Class Attribute	199
Table 62: UserDevice Class Method	199
Table 63: RentEntity Class Attribute	200
Table 64: RentEntity Class Method	201
Table 65: RentEntityType Class Attribute.....	201
Table 66: RentEntityType Class Method.....	201
Table 67: Facility Class Attribute	201
Table 68: Facility Class Method	202

Table 69: Service Class Attribute	202
Table 70: Service Class Method	202
Table 71: RentService Class Attribute.....	203
Table 72: RentService Class Method.....	203
Table 73: Building Class Attribute	203
Table 74: Building Class Method	203
Table 75: House Class Attribute	204
Table 76: House Class Method	204
Table 77: HouseType Class Attribute	205
Table 78: HouseType Class Method	205
Table 79: University Class Attribute	205
Table 80: University Class Method	205
Table 81: UniHouse Class Attribute	206
Table 82: UniHouse Class Method	206
Table 83: City Class Attribute	206
Table 84: City Class Method	206
Table 85: District Class Attribute	207
Table 86: District Class Method	207
Table 87: Ward Class Attribute	207
Table 88: Ward Class Method	207
Table 89: Appointment Class Attribute	208
Table 90: Appointment Class Method	208
Table 91: BookingSlot Class Attribute	208
Table 92: BookingSlot Class Method	209
Table 93: Contract Class Attribute.....	209
Table 94: Contract Class Method.....	209
Table 95: ContractHistory Class Attribute.....	210
Table 96: ContractHistory Class Method.....	210
Table 97: Problem Class Attribute.....	210
Table 98: Issue Class Attribute	211
Table 99: Issue Class Method	211
Table 100: Payment Class Attribute	212
Table 101: Payment Class Method	212
Table 102: PaymentType Class Attribute	212
Table 103: PaymentType Class Method	212

Table 104: PaymentDetail Class Attribute.....	213
Table 105: PaymentDetail Class Method.....	213
Table 106: Transaction Class Attribute	213
Table 107: Transaction Class Method	214
Table 108: Conversation Class Attribute	214
Table 109: Conversation Class Method.....	214
Table 110: Notification Class Attribute	215
Table 111: Notification Class Method.....	215
Table 112: NotificationType Class Attribute.....	215
Table 113: NotificationType Class Method.....	215
Table 114: Annoucement Class Attribute	216
Table 115: Annoucement Class Method.....	216
Table 116: User Table.....	223
Table 117: Role Table.....	223
Table 118: Owner Table	224
Table 119: UserDevice Table	224
Table 120: RentEntity Table	225
Table 121: Facility Table	225
Table 122: Facility Table	226
Table 123: Service Table	226
Table 124: ServiceHistory Table	227
Table 125: RentService Table.....	227
Table 126: Building Table	228
Table 127: House Table	229
Table 128: HouseType Table.....	229
Table 129: University Table	230
Table 130: City Table	230
Table 131: District Table	230
Table 132: Ward Table	231
Table 133: Appointment Table	232
Table 134: BookingSlot Table	232
Table 135: Contract Table	233
Table 136: ContractHistory Table.....	233
Table 137: Problem Table.....	234
Table 138: Issue Table	235

Table 139: Payment Table	235
Table 140: PaymentType Table	236
Table 141: PaymentDetail Table.....	236
Table 142: Transaction Table	237
Table 143: Conversation Table.....	237
Table 144: Notification Table.....	238
Table 145: NotificationType Table.....	238
Table 146: Annoucement Table.....	238
Table 147: UseAnnoucement Table.....	239
Table 148: Source Codes and Document.....	241

List of Figures

Figure 1: Scrum framework	20
Figure 2: Product Backlog	21
Figure 3: Renter Usecase Diagram	32
Figure 4: Owner UseCase Diagram	33
Figure 5: Admin Usecase Diagram.....	34
Figure 6: Renter Mobile Screen Flow	159
Figure 7: Renter Web Screen Flow	160
Figure 8: Owner Mobile Screen Flow.....	160
Figure 9: Admin Screen Flow	161
Figure 10: Entity Relationship Diagram	166
Figure 11: Overal System Architecture	178
Figure 12: Component Diagram	179
Figure 13: Package Diagram.....	180
Figure 14: Login Activity Diagram	182
Figure 15: Create Sharing Room Activity Diagram	183
Figure 16: Booking Slot Activity Diagram.....	184
Figure 17: Request For Living Activity Diagram.....	185
Figure 18: Sign Contract Activity Diagram	186
Figure 19: Request Leaving Activity Diagram	187
Figure 20: Pay Monthly Rental Activity Diagram.....	188
Figure 21: Report Problem Activity Diagram.....	189
Figure 22: Create Rent Activity Diagram	190

Figure 23: Update Rent Activity Diagram.....	191
Figure 24: Delete Rent Activity Diagram.....	192
Figure 25: Abort Appointment Activity Diagram.....	193
Figure 26:Accept Appointment Activity Diagram.....	194
Figure 27: Update Problem Status Activity Diagram	195
Figure 28: Send Annoucement Activity Diagram.....	195
Figure 29: Create Payment Activity Diagram.....	196
Figure 30: Class Diagram	197
Figure 31: Appointment State Diagram	216
Figure 32: RentEntity State Diagram.....	217
Figure 33: Problem State Diagram.....	217
Figure 34: Contract State Diagram	218
Figure 35: Login Sequence Diagram	219
Figure 36: Create House Sequence Diagram	220
Figure 37: Create Appointment Sequence Diagram	220
Figure 38: Process Appointment Sequence Diagram.....	221
Figure 39: Database Diagram	222

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Definition and Acronyms

Acronym	Definition
BR	Business Rule
ERD	Entity Relationship Diagram
GUI	Graphical User Interface
UC	Use Case
API	Application Program Interface
UNH	Abbreviation of UniHome
UniHome	Commercial name of the mobile app and web app
Renter	Users who use mobile/web application to search and rent accomodations.
Owner	Users who use mobile application to upload their rooms/houses for rent.
Rent	The entity uploaded to Unihome system for renters to find and rent
House	The house entity uploaded to Unihome system, contains Rent entities
Appointment	The meeting between renters found their desirable rent entities with the owners who upload the rent entity posts
Problem	The issues happen when the renters live in the rent entities
Search Mode	The mode allows User to search their desirable rent entities
Living Mode	The mode allows User to report problem, process monthly payment. Unlocked when renters have their contract with "active" status

Table 1: Definition and Acronyms

I. Project Introduction

1. Overview

Project Information

- Project name: UniHome – Rental Services Platform Between Students And Landlords In Ho Chi Minh City
- Project code: UNH
- Group name: SP22SE15
- Software type: Web application, Mobile Application

Project Team

1.2.1 Supervisor

Full Name	Email	Phone Number	Title
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Table 2. Supervisor

1.2.2 Team member

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Table 3. Team members

2. Product Background

The student accommodation is an eternal problem, especially in big cities like Ho Chi Minh City. On average, each year, the city receives nearly 200,000 students from other provinces and cities across the country. Meanwhile, the number of dormitory rooms does not meet the needs of students, on average in Ho Chi Minh City, about 70% of students have to rent rooms outside to stay.

New students always have difficulty in finding accommodation that suits their needs and abilities. Choosing for yourself a hostel near the school, fully equipped, at a reasonable cost is an ideal model and it is difficult to find in a short period of time. In addition, roommates are also a difficult problem, when

one part also wants to be with friends to share the cost, the other part also hopes that the roommate will match your personality and lifestyle.

Besides the difficulties of students, the hostel owners themselves also face many difficulties to reach the students. Although the facilities are good, there is no marketing strategy, or the geographical location is not convenient for search, leading to the situation that the innkeeper is very difficult to introduce the room to their customers.

Realizing the problem, UniHome was founded with the goal of connecting landlords with students and making it easier for students to find hostels. Students and parents can look for safe accommodations near the school. Furthermore, UniHome is a service-providing platform; we aim to provide not only accommodation, but also convenience in procedures and accompanying utilities and services.

3. Existing Systems

■ App 1: Ohana (<https://www.ohanaliving.vn>)

A platform helps to connect owner and renter directly.

- Pros:
 - Help user can search room, sharing room exclusively for student, young people and worker.
 - The platform includes mobile and web app, easy to use
 - The application both benefits tenants by reducing the need to directly search for accommodation, as well as a confirmed mind of the rental room.
- Cons:
 - The app doesn't support service for renter during accommodation.
 - The app doesn't help renter and landlord make an appointment, just view an contact by phone number.
 - Since the app is quite nearly not supported anymore, don't have more choosen.

■ App 2: iTro (<https://quanlynhatro.com>)

A complete ecosystem in the field of rental housing including management software, tenant finder software for landlords and home search software for tenants.

- Pros:
 - Provide a platform for find room, rent room and manage room.
 - Reach more renter use app because of their need and receive bonus money when book room successfully.
- Cons:
 - This app is quite not reaching more owner which provide cheap room, have service package for more functional.
 - This app doesn't support web app which is hard for user to use.

4. Business Opportunity

To have a deeper understanding of UniHome's customer needs, the research team found a few issues of great concern to those selected to conduct the survey (Google Survey). Through the data from the survey along with the extraction and research, we have found several other points of interest of today's students, including accommodation options (rental price, quality, security system, surroundings, location) and rooming (number, gender, personality, habits, rent amount).

As for the target audience which is the landlords, the team has learned more and considered more issues that they are currently interested in, including in management (support intermediary application), manage availability/rented rooms, make appointment with tenants, number of occupants in the same room, maintain and secure the lease and finance (on-time collection, reservation deposit, expenses) when using the app).

5. Software Product Vision

To help modern people change their habits of rent, UniHome is an Internet-based and Smartphone-enable application that will help connect Owner (who offer a rent) and Renter (who find room for rent). Unlike the existing systems, people who use UniHome can book an appointment with owner by app.

In addition, after renting a room successfully, user can continuously use this app with services for renter like payment, report problem, give notification from owner and evaluate every month.

6. Project Scope and Exclusions

■ Major Features

6.1.1 Renter use Mobile Application / Web Application

As a user who uses Renter UniHome mobile application, I want to use these following features:

- FE-01.** Manage renter account: create account, view profile, update profile.
- FE-02.** Mange room for sharing: create room, view room, update room, delete room.
- FE-03.** Manage appointment: booking appointment, view status of appointment, accept/abort appointment.
- FE-04.** Make Q&A
- FE-05.** Search room by category: university, type of room, gender, price, district, ...
- FE-06.** Deposit room by paying fee.
- FE-07.** Manage contract: request for living, sign in contract, view contract, request for leave.
- FE-08.** Make monthly payment fee, service fee
- FE-09.** Manage problem: report problem, view status of problem, update problem.
- FE-10.** Receive announcement from owner.
- FE-11.** Switch mode between Search mode and Living mode.

6.1.2 Owner use Mobile Application

As a user who uses Owner Unihome mobile application, I want to use these following features:

- FE-12.** Manage owner account: create account, view profile, update profile
- FE-13.** Manage room: create room, view room, update room, delete room
- FE-14.** Manage house: create house, view house, update house, delete house
- FE-15.** Mange appointment: create slot for appointment, accept/abort appointment
- FE-16.** Manage problem: view problem report by renter, update status of problem
- FE-17.** Send annoucement to renter
- FE-18.** Manage request from renter

6.1.3 Admin and Moderator use System Admin Web Application

As a UniHome admin, I want to view report and manage system with the following features:

- FE-19.** Manage user account: create account, update status of account, delete account
- FE-20.** Manage room: create room, view room, accept/decline room, delete room
- FE-21.** Manage building: create building, view building, accept/decline building, delete building
- FE-22.** Manage university: create university, view university, delete university
- FE-23.** Manage facility: create facility, view facility, delete facility
- FE-24.** Manage service: create service, view service, delete service
- FE-25.** Manage issue: create issue, view issue, delete issue

Limitations and Exclusions

- LE-01.** Only develop for student, so that age of user must be greater than 17 and less than 25.
- LE-02.** Only develop for accommodation in HCM city.
- LE-03.** Renter mobile application has Search mode and Living mode, Renter web application only has Search mode.
- LE-04.** Report problem just only user report the problem, not manage facility in room.

II. Project Management Plan

1. Overview

■ WBS and Estimation

#	WBS Item	Complexity	Est. Effort
1.	<i>Initiating</i>		
1.1.	Collect requirement	Medium	14
2.	<i>Planning</i>		
2.1.	Create plan document	Complex	11
3.	<i>Executing</i>		
3.1.	Analysis		
3.1.1.	Analysis requirement	Complex	12
3.2.	Design		
3.2.1.	Design Renter mobile application	Complex	12
3.2.2.	Design Renter web application	Complex	7
3.2.3.	Design Owner mobile application	Complex	10
3.2.4.	Design Admin web application	Complex	7
3.3.	Prototyping		
3.3.1.	Mockup	Complex	14
3.4.	Implementation		
3.4.1.	<i>Implement Base feature</i>		
3.4.1.1.	Login	Simple	2
3.4.1.2.	Logout	Simple	2
3.4.1.3.	Register	Simple	3
3.4.2.	<i>Implement Renter feature</i>		

3.4.2.1.	Home Main	Medium	4
3.4.2.2.	Search	Complex	5
3.4.2.3.	Profile	Medium	4
3.4.2.4.	Manage Appointment	Complex	6
3.4.2.5.	Manage Problem	Complex	6
3.4.2.6.	Monthly Payment	Complex	6
3.4.2.7.	Monthly Survey	Medium	5
3.4.2.8.	Deposit Room	Medium	3
3.4.2.9.	Switch Mode	Simple	2
3.4.2.10.	Sharing room	Complex	7
3.4.3.	<i>Implement Owner feature</i>		
3.4.3.1.	Home Main	Medium	4
3.4.3.2.	Profile	Medium	4
3.4.3.3.	Manage House / Building	Medium	4
3.4.3.4.	Manage Room	Medium	4
3.4.3.5.	Manage Appointment	Complex	4
3.4.3.6.	Manage Payment	Complex	4
3.4.3.7.	Manage Contract	Complex	4
3.4.3.8.	Deposit room	Medium	3
3.4.3.9.	Monthly Survey	Medium	4
3.4.3.10.	Manage Transaction	Medium	4
3.4.3.11.	Manage Problem	Complex	6
3.4.4.	<i>Implement Admin feature</i>		
3.4.4.1.	Manage Room	Medium	5

3.4.4.2.	Manage House/Building	Medium	5
3.4.4.3.	Manage University	Medium	5
3.4.4.4.	Manage Facility	Medium	5
3.4.4.5.	Manage Service	Medium	5
3.4.4.6.	Manage Issue	Medium	5
3.4.4.7.	Monthly Survey	Medium	4
3.5.	Testing		
3.5.1.	Unit Test	Complex	12
3.5.2.	Integration Test	Complex	12
3.5.3.	System Test	Complex	12
4.	Monitoring and Controlling		
4.1.	Control the process	Complex	12
4.2.	Track performance a quality	Complex	12
5.	Closing		
5.1.	Report	Simple	20
Total Estimated Effort (man-days): 297			

Table 4: WBS and Estimation

■ Project Objectives

#	Quality Stage	No. of Defects	% of Defect	Notes
1	Reviewing	20	27,6%	
2	System Test	40	72,4%	
3	User Acceptance Test	X	X	
Total		60	100%	

Table 5: Project Objectives

■ Project Risks

#	Risk Description	Impact	Possibility	Response Plans
1	Technology risk: cannot find the suitable solution for technique problems, the software cannot fulfill the expectation.	High	Medium	Do more research on official resources, discuss with mentor
2	Requirement changes: requirements unexpected changes.	Critical	Medium	Chose another way of solution to respond to those changes.

Table 6: Project Risks

2. Management Approach

Project Process

SCRUM FRAMEWORK

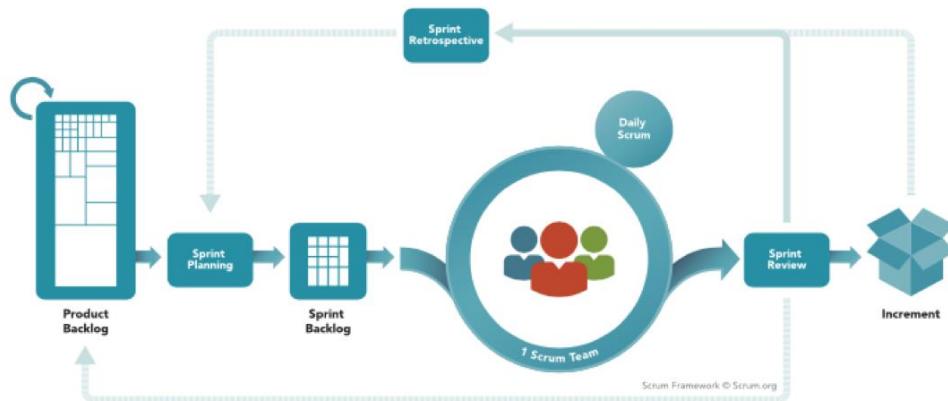


Figure 1: Scrum framework

Reference: <https://www.scrum.org/resources/what-is-scrum>

This project is developed using Scrum model – part of an Agile framework for project development because of the following reasons:

- Release and review features weekly.
- The project duration is about 16 weeks.
- Flexible to requirement changes.

Product backlog

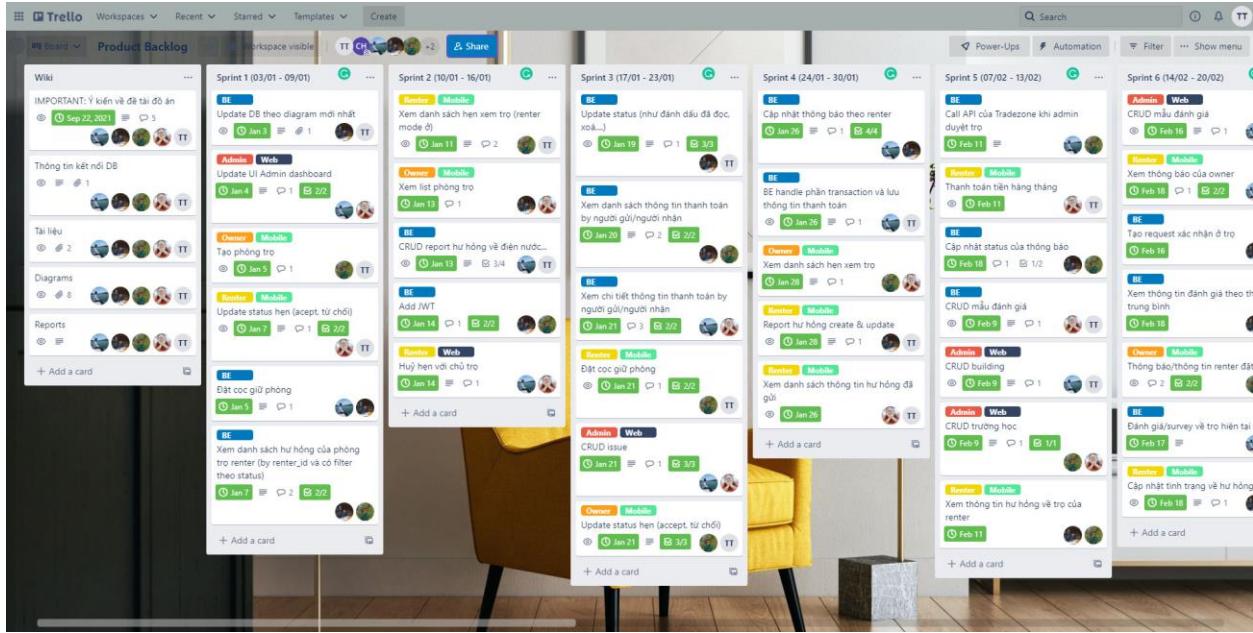


Figure 2: Product Backlog

Quality Management

To increase the project quality and user experience, UniHome team apply those:

- Do survey to understand what users wants and their need.
- Acceptance testing:
 - Do survey to understand how user receive the application and collect feedback.
 - Based on user's feedback, UniHome team fix bug and update.
- Hold daily meeting to track project progress and support each other.

Training Plan

Training Area	Participants	When, Duration	Waiver Criteria
Flutter, GetX	QueTTN, ThinhTPT, QuangDN, HuongLH	Week 1 – 3 days	Mandatory
C# Entity Framework	KhangHV, ThinhTPT	Week 1 – 6 days	Mandatory
Project flow, Git	All member	Week 1 – 2 days	Mandatory
Firebase	All member	Week 2 – 2 days	Mandatory

Table 7: Training plan

3. Project Organization

Team and Structure

Role	Full Name
Product Owner	Lâm Hữu Khánh Phương Nguyễn Thế Hoàng
Scrum Master	Trác Thanh Nguyệt Quế
Development Team	Trần Phan Trường Thịnh Hứa Vĩnh Khang Lâm Hậu Huống Đoàn Nhật Quang

Table 8: Team and Structure

■ Roles and Responsibilities

Role	Responsibility
Product Owner	<ul style="list-style-type: none"> • Specify user requirements • Control the development process • Control technical process • Support for answers on algorithms • Give out technique and business analysis support • Review the document and product
Scrum Master	<ul style="list-style-type: none"> • Analyze requirements and business rules • Clarify requirement • Sprint planning meetings • Participate in the meeting and capture feedback • Track work progress • Note areas for improvement and action items for future sprints • Write document • Divide tasks for each member
Development Team	<ul style="list-style-type: none"> • Analyze requirement and business rules • Database design • GUI design • Coding

	• Testing
--	-----------

Table 9: Role and Responsibilities

4. Project Communication

Communication

Communication Item	Who/Target	Purpose	When, Frequency	Type, Tool, Method
Texting	Supervisor + Team member	<ul style="list-style-type: none"> • Confirm Meeting time • Report Working progress • Internal conversations 	Usually	Zalo, Messenger
Meeting online	Supervisor + Team member	<ul style="list-style-type: none"> • Progress report • Report and handle problem • Review task 	Always	Google Meet
Tracking progress	Team member	<ul style="list-style-type: none"> • Check personal tasks • Tracking progress of project 		

Table 10: Communication Plan

External Interface

4.2.1 FPTU Contacts

Function	Contact Person (name, position)	Contact address (email, telephone)	Responsibility
Supervisor	Lâm Hữu Khánh Phương	phuonglhk@fpt.edu.vn	<ul style="list-style-type: none"> • Provide document template. • Guide project team with problem • Review project result • Supervise project status
Supervisor	Nguyễn Thế Hoàng	hoangnt2@fpt.edu.vn	<ul style="list-style-type: none"> • Guide project team with problem • Review project result • Supervise project status

Table 11: FPTU Contacts

5. Configuration Management

Tools and Infrastructures

Programming Languages	Dart, C#, TypeScript
Framework	Entity Framework, Flutter, React
API	ASP.NET Core 3.1
DBMS	SQL Server
IDEs/Editors	Visual Studio, Visual Studio Code, Android Studio
UML tools	Draw.io
Version Control	GitHub, SourceTree
Deployment server	Azure Web Service, Azure Database Service, Firebase Authentication, Firebase Storage
Project Management Tool	Trello

Table 12: Tool and Infrastructures

Document Management

- Use OneDrive to save document and for real-time editing on Microsoft Word.
- Use Google Drive to save meeting report, meeting record, diagram, image, design, document to each category folder

Source Code Management

- GitHub server to store source code.
- Follow the rule of team when using Git:
 - Commit and note the changes details often.
 - Review carefully before push into develop branch.
 - Fetch, review and resolve conflicts when merging usually

III. Software Requirements Specification

1. Overall Description

■User Requirements Overview

1.1.1 Renter

1.1.1.1 Guest

Users (have no account in UniHome system) who use Renter mobile and web application, can choose either mobile or web application to use these following functions:

- Sign up
- Search rents
- View rents' details
- View Questions & Answers (Q&A) about rents
- View map
- Booking appointments
- Receive information about appointments via gmail

1.1.1.2 Renter

Users (login required) who use Renter mobile application, can choose between "Search" or "Living" mode and can switch later.

- Logout
- View Profile
- Update Profile
- Switch mode to choose between "Search" or "Living" mode

a. Search mode

Users (login required) who use Renter mobile application with "Search" mode to use these following functions:

- Raise questions about rents
- Deposit rooms
- Abort appointments
- Manage rooms for sharing
- Follow problem report process
- Make monthly payments

b. Living mode

Users (login required) who use Renter mobile application with "Living" mode to use these following functions:

- Pay monthly fee payments
- Report problems
- View problems
- Update problems
- Cancel problems
- Receive notifications from owner
- Make monthly surveys
- View contracts

1.1.2 Owner

Users (login required) who use Owner mobile application, get to use these following functions:

- Create rooms
- View rooms
- Update rooms
- Delete rooms
- Create houses
- View houses
- Update houses
- Delete houses
- Receive appointments
- Accept appointments
- Reject appointments
- Cancel appointments
- Receive problem reports
- Accept problems
- Decline problems
- View contracts
- Update contracts
- Create payments
- Create announcements to renter
- Reply rent's questions from renters
- View monthly survey reports

1.1.3 Admin

Admins (login required) are capable of using these following functions:

- Manage users' accounts
- Manage rooms
- Manage buildings
- Manage universities
- Verify rooms
- View monthly survey reports
- Create facilities/services
- Update facilities/services
- Delete facilities/services
- Create issues
- Update issues
- Delete issues

Business Rules

Code	Business Definition
BR-01	User's login session lasts for 6 hours by default.
BR-02	Name length limit must be in range 1 – 50 characters.
BR-03	Name only contains alphabetical characters.
BR-04	Phone number only contains numeric characters.
BR-05	Phone number length limit must be 10 characters.
BR-06	Phone number and email must be unique.
BR-07	Renter must be greater than or equal to 17 and less than or equal to 25 years old.
BR-08	Owner must be greater than or equal to 18 years old.
BR-09	User cannot update their email and birthday.
BR-10	User can update their own profile, includes their avatar, full name, phone number, gender.
BR-11	User's avatar file must be image file format.

BR-12	User can only view their own notification.
BR-13	If renter books appointment with another phone number in profile, they must verify phone number by OTP.
BR-14	Renter must book appointment on date which is at least 2 days after current time, which mean, renter cannot book appointment during the day and the day after.
BR-15	Renter can only book appointment within the next 30 days.
BR-16	Renter who hasn't login to the system must enter contact info, include full name, phone number, email to help owner contact directly.
BR-17	Renter who hasn't login to the system must confirm phone number by OTP when booking appointment.
BR-18	Renter who hasn't login to the system cannot view status of appointment, this will be send to their email which they have provided.
BR-19	Renter who not login to the system can only book 3 appointment with 1 email in one month.
BR-20	Renter only have 5 appointments with "pending" status in appointment list. That mean, if the amount of appointments which is "pending" status is equal 5, renter cannot book anymore appointment.
BR-21	Each slot in a day can only be booked by 1-3 renter. If slot has more than 3 renters booked, slot will be unavailable.
BR-22	Appointment must be approved/rejected/canceled by owner 24 hours before the time of appointment. If time over the date of appointment, appointment will change status to "expired".
BR-23	Renter and owner can cancel the appointment 24 hours before the time of appointment.
BR-24	Renter can only book appointment with the same room 3 times with the same email.
BR-25	When renter or owner cancels the appointment, the reason must be entered.
BR-26	Owner must marked appointment as "finished" within 24 hours since the time of appointment. If the time is over 24 hours, appointment's status will be changed to "expired" and owner cannot update status of appointment.
BR-27	Renter can only request for living when appointment's status is changed to "finished" by owner.

BR-28	Owner must create or cancel the contract for renter within 3 days since the date renter request for living. If after 3 days owner doesn't do anything with request, request's status will change to "failed".
BR-29	Contract must be signed by renter within at least 3 days since the day of contract created by owner. After 3 days, if renter doesn't sign, contract's status will be changed to "failed".
BR-30	If renter declines the contract when it is already created, contract's status will be changed status to "failed".
BR-31	Expired time in contract is calculated in month(s).
BR-32	If a room/house has more than 1 renter, 1 renter will be the representative of the contract.
BR-33	Renter who has contract in 'active' status in system, can create problem report.
BR-34	Renter who has contract in 'active' status in system, can make payment monthly by system.
BR-35	Every 28 th of the month, system creates a draft payment for owner, contains rental and service fee.
BR-36	Renter must complete payment from 1 st to 7 th of the next month.
BR-37	Renter can make payment by online payment in system or by cash to owner.
BR-38	Owner must confirm the payment is finished after he/she received cash from renters
BR-39	If renter make payment by cash to owner, owner must update status of payment to "finished" and renter must keep an evidence that they have made the payment with owner.
BR-40	Renter must provide the picture of rental contract to verify their room to create sharing post and wait for admin verify.
BR-41	The basic info of sharing room must be matched with the room in rental contract.
BR-42	Renter can create sharing post quickly with the present room without admin verify if and only if they have contract in the system.
BR-43	Renter can only have one "available" sharing post at the time.
BR-44	Owner must register or log in to use owner mobile application.
BR-45	If the room/house was being rented, owner is not allowed to delete the room /house.

BR-46	Owner must provide picture of document which confirm that their room/house are their own and wait for admin verify.
BR-47	Price of rent must be more than 100,000 VND
BR-48	When user registers, phone number must be verified by OTP.
BR-49	When user updates phone number, they must be verified by OTP.
BR-50	Renter can only make request for living in case he/she don't have contract with status "requesting" / "pending" / "active" / "request_for_terminate" / "renter_wait_for_payment_terminate" at the time.
BR-51	Renter can only switch to "living" mode when he/she has "active" contract.
BR-52	User can only update rent/sharing detail while its status is available, unavailable and pending.
BR-53	Owner cannot update house type and address of house.
BR-54	Owner cannot update rent type
BR-55	Renter cannot update sharing type and address of sharing
BR-56	User must provide more than 3 picture when creating new house/rent.
BR-57	Owner must provide at least 2 pictures of certificate of owner when creating house.
BR-58	Owner can only create service, the price of which is more than 1,000 VND
BR-59	Owner must add booking slots after finishing creating house
BR-60	Owner can add facilities and services after creating room
BR-61	If room created doesn't have any services, the default rental price of contract is included services's price
BR-62	Owner must provide exactly the amount registered for fixed services equal to the number of people, who request to live while creating a contract.
BR-63	Owner must provide the exactly number in real life of non-fixed services while creating a contract.
BR-64	When owner terminate contract or accept leaving request, owner can select unpaid payment or not and provide the amount of money that will be paid back to renter.
BR-65	If the amount of unpaid payment is lower than the amount of paid back money, owner must give back money to renter by cash.

BR-66	If the amount of unpaid payment is greater than the amount of paid back money, renter must make last payment through app or by cash to owner.
BR-67	Renter must make last payment to finish terminating a contract.
BR-68	Renter cancel the reported problem must provide the reason.
BR-69	Owner cancel/reject the reported problem must provide the reason.
BR-70	Renter must update problem's status to "Fixed" when problem is fixed.
BR-71	When renter make payment, renter must pay full amount of payment.

Table 13: Business Rule

2. User Requirements

■ System Actors

#	Actor	Description
1	Guest	Users who have not logged in the UniHome Renter mobile/web application.
2	Renter	Users who have logged in the UniHome Renter mobile/web application.
3	Owner	Users who have room/house/building for rental and need to post in UniHome, must register and have account in UniHome.
4	System Handler	UniHome system.
5	Admin	Users who have logged in UniHome Admin web application.

Table 14: System Actors

■ Use Case Diagram

2.2.1 Renter

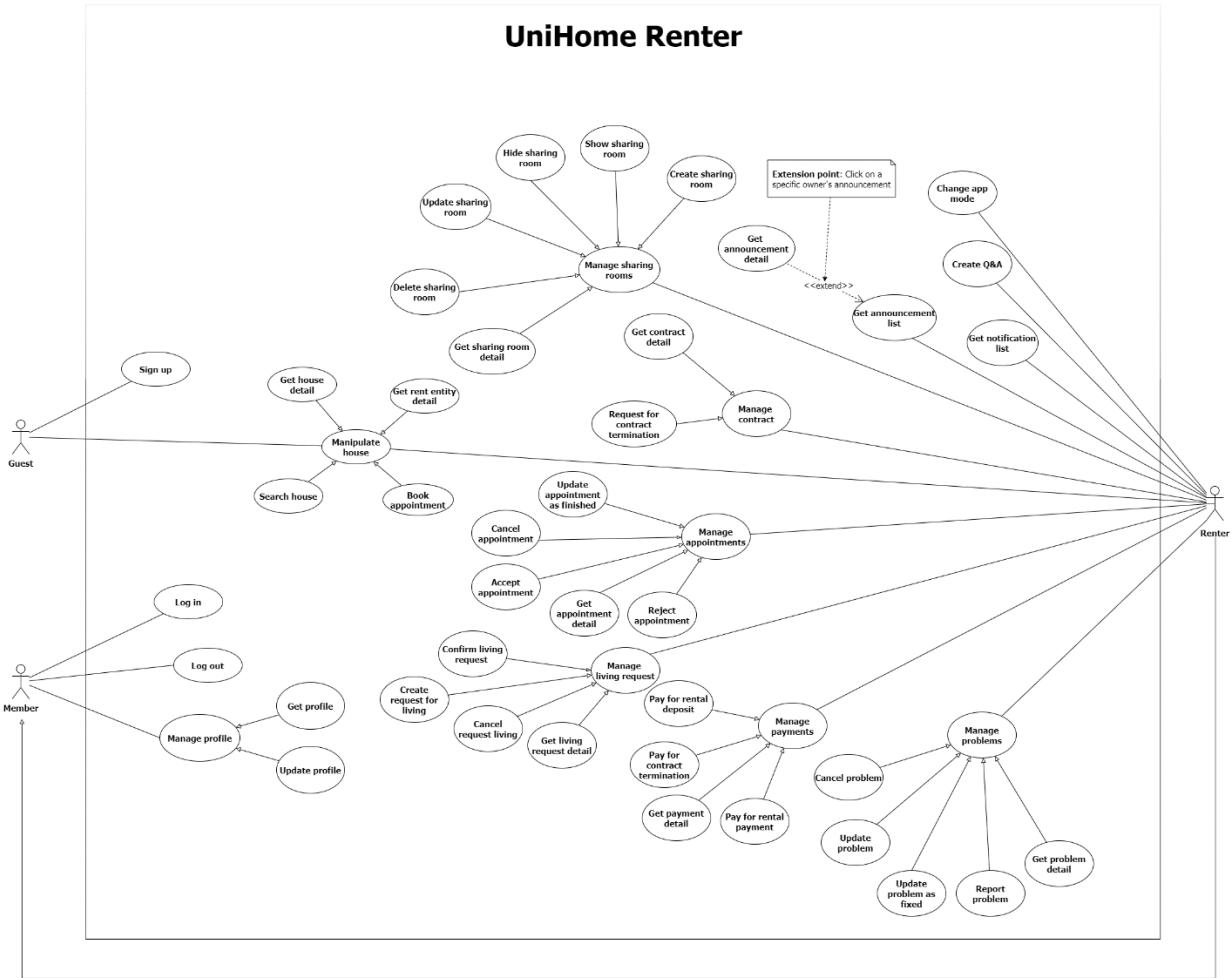


Figure 3: Renter Usecase Diagram

2.2.2 Owner

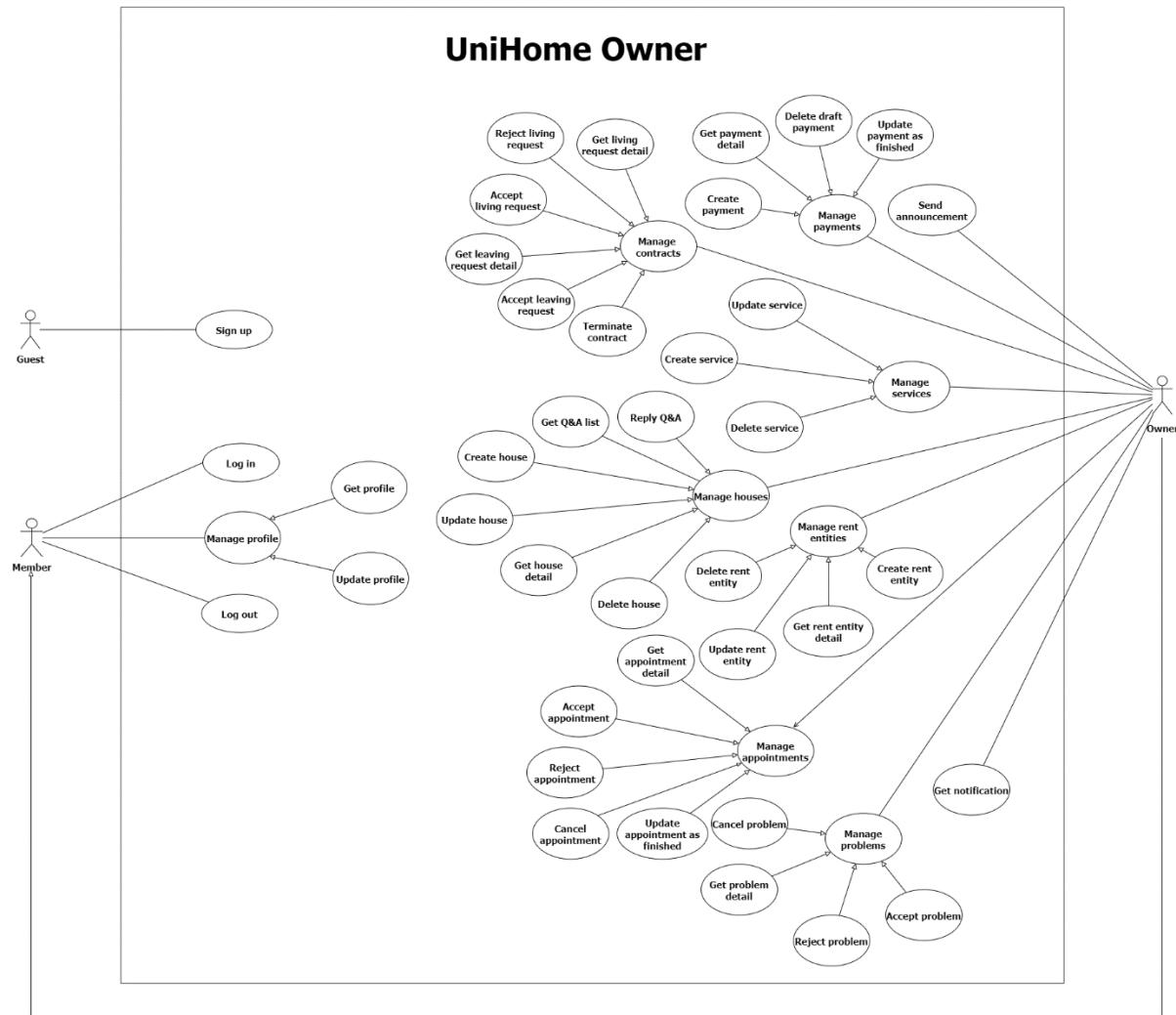


Figure 4: Owner UseCase Diagram

2.2.3 Admin and System Handler

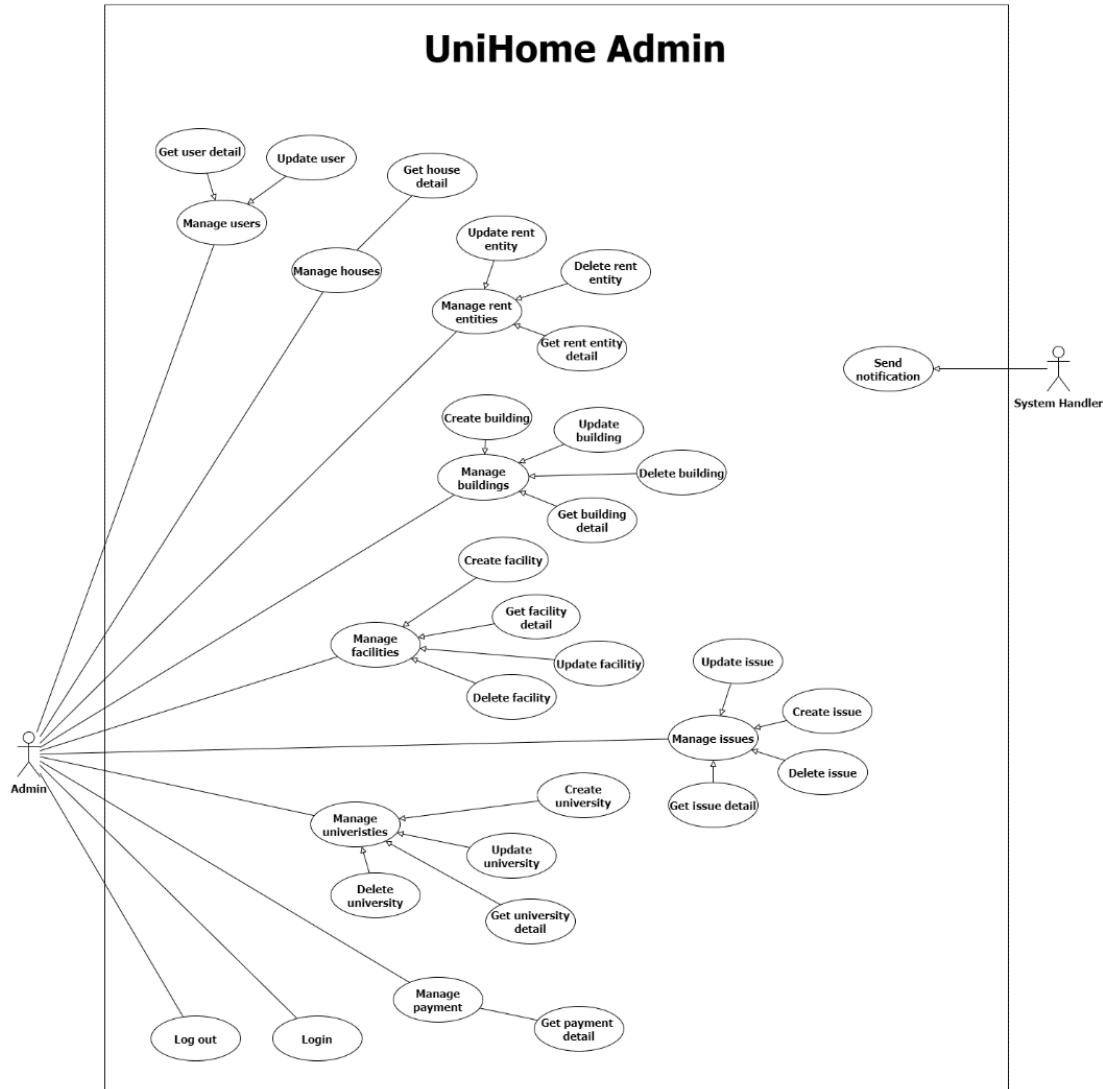


Figure 5: Admin Usecase Diagram

■ Use Cases List

2.3.1 Renter

ID	Use Case	Primary Actors	Secondary Actors
UC-01	Sign up	Guest	
UC-02	Search house	Guest	
UC-03	Get house detail	Guest	
UC-04	Get rent entity detail	Guest	

UC-05	Book appointment	Guest	
UC-06	Log in	Member	
UC-07	Log out	Member	
UC-08	Get profile	Member	
UC-09	Update profile	Member	
UC-10	Get appointment detail	Renter	
UC-11	Accept appointment	Renter	
UC-12	Cancel appointment	Renter	
UC-13	Reject appointment	Renter	
UC-14	Update appointment as finished	Renter	
UC-15	Create request for living	Renter	
UC-16	Get living request detail	Renter	
UC-17	Confirm living request	Renter	
UC-18	Cancel request living	Renter	
UC-19	Create Q&A	Renter	
UC-20	Create sharing room	Renter	
UC-21	Get sharing room detail	Renter	
UC-22	Update sharing room	Renter	
UC-23	Delete sharing room	Renter	
UC-24	Show sharing room	Renter	
UC-25	Hide sharing room	Renter	
UC-26	Report problem	Renter	
UC-27	Get problem detail	Renter	
UC-28	Cancel problem	Renter	

UC-29	Update problem	Renter	
UC-30	Update problem as fixed	Renter	
UC-31	Pay for rental deposit	Renter	
UC-32	Pay for contract termination	Renter	
UC-33	Get payment detail	Renter	
UC-34	Pay for rental payment	Renter	
UC-35	Request for contract termination	Renter	
UC-36	Get contract detail	Renter	
UC-37	Get announcement list	Renter	
UC-38	Get announcement detail	Renter	
UC-39	Get notification list	Renter	
UC-40	Change app mode	Renter	

Table 15: Renter Use Cases List

2.3.2 Owner

ID	Use Case	Primary Actors	Secondary Actors
UC-41	Sign Up	Guest	
UC-42	Log In	Guest	
UC-43	Log Out	Owner	
UC-44	Get Profile	Owner	
UC-45	Update Profile	Owner	
UC-46	Get Rent Entity List	Owner	
UC-47	Create Rent Entity	Owner	
UC-48	Get Rent Entity Detail	Owner	
UC-49	Update Rent Entity	Owner	
UC-50	Delete Rent Entity	Owner	

UC-51	Get House List	Owner	
UC-52	Create House	Owner	
UC-53	Get House Detail	Owner	
UC-54	Update House	Owner	
UC-55	Delete House	Owner	
UC-56	Get Appointment List By Status	Owner	
UC-57	Get Appointment Detail	Owner	
UC-58	Accept Appointment	Owner	
UC-59	Reject Appointment	Owner	
UC-60	Cancel Appointment	Owner	
UC-61	Update Appointment As Finished	Owner	
UC-62	Get List Of Living Request	Owner	
UC-63	Get Living Request Detail	Owner	
UC-64	Accept Living Request	Owner	
UC-65	Reject Living Request	Owner	
UC-66	Terminate Contract	Owner	
UC-67	Get Leaving Request Detail	Owner	
UC-68	Accept Leaving Request	Owner	
UC-69	Get Problem List	Owner	
UC-70	Get Problem Detail	Owner	
UC-71	Accept Problem	Owner	
UC-72	Reject Problem	Owner	
UC-73	Cancel Problem	Owner	
UC-74	Get Payment List	Owner	

UC-75	Create Payment	Owner	
UC-76	Get Payment Detail	Owner	
UC-77	Update Payment As Finished	Owner	
UC-78	Delete Draft Payment	Owner	
UC-79	Get Q&A List	Owner	
UC-80	Reply Q&A	Owner	
UC-81	Get Notification	Owner	
UC-82	Send Annoucement	Owner	

Table 16: Owner Use Cases List

2.3.3 Admin and System Handler

ID	Use Case	Primary Actors	Secondary Actors
UC-83	Log In	Guest	
UC-84	Notify User	System Handler	
UC-85	Get User List	Admin	
UC-86	Get User Detail	Admin	
UC-87	Update User	Admin	
UC-88	Get House List	Admin	
UC-89	Get House Detail	Admin	
UC-90	Get Rent Entity List	Admin	
UC-91	Get Rent Entity Detail	Admin	
UC-92	Update Rent Entity	Admin	
UC-93	Delete Rent Entity	Admin	
UC-94	Get Building List	Admin	
UC-95	Add Building	Admin	

UC-96	Get Building Detail	Admin	
UC-97	Update Building	Admin	
UC-98	Delete Building	Admin	
UC-99	Get Facility List	Admin	
UC-100	Add Facility	Admin	
UC-101	Get Facility Detail	Admin	
UC-102	Update Facility	Admin	
UC-103	Delete Facility	Admin	
UC-104	Get Issue List	Admin	
UC-105	Add Issue	Admin	
UC-106	Get Issue Detail	Admin	
UC-107	Update Issue	Admin	
UC-108	Delete Issue	Admin	
UC-109	Get University List	Admin	
UC-110	Add University	Admin	
UC-111	Get University Detail	Admin	
UC-112	Update University	Admin	
UC-113	Delete University	Admin	
UC-114	Track Payment	Admin	

Table 17: Admin Use Case List

■ Use Case Specification

2.4.1 Renter

2.4.1.1 Sign up

ID and Name	UC-01: Sign up		
Created By:	QueTTN	Date Created:	02/04/2022

Primary Actor:	Guest	Secondary Actor:	N/A
Trigger:	Actor wants to sign up UniHome renter application.		
Description:	This feature allows users to sign up UniHome renter application.		
Preconditions:	Actor has a Google account.		
Post-conditions:	<p>Success: Actor will be redirected to Home screen of the application.</p> <p>Failed: System inform “Đăng kí không thành công”.</p>		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Lịch hẹn” / “Yêu cầu” / “Tài khoản” and taps on “Đăng nhập bằng Google”	System redirects to Login screen of Google
	2	Actor chooses a Google account	<p>System checks if the gmail account has been authenticated in UniHome system yet.</p> <ul style="list-style-type: none"> Authenticated: System inform “Đăng nhập thành công”, redirects to Appointment / Request / Account screen. Unauthenticated: System redirects to Sign Up screen
	3	Actor fills in information	
	4	Actor taps on “Đăng ký”	<p>System redirects to Confirm OTP screen</p> <p>[Exception 1]</p>
	5	Actor types OTP number	<p>System inform “Đăng nhập thành công”, redirect to Appointment / Request / Account screen.</p> <p>[Exception 2]</p>
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Actor fills in invalid information: age, phone duplicate.	System inform “Số điện thoại không tồn tại”, “Email không tồn tại”

	2	Actor enters wrong OTP number	System inform “OTP không đúng”
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> • BR-02: Name length limit must be in range 1 – 50 characters. • BR-03: Name only contains alphabetical characters. • BR-04: Phone number only contains numeric characters. • BR-05: Phone number length limit must be 10 characters. • BR-06: Phone number and email must be unique. • BR-07: Renter must be greater than or equal to 17 and less than or equal to 25 years old. 		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.2 Search house

ID and Name	UC-02: Search house		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Guest	Secondary Actor:	N/A
Trigger:	Actor wants to search house.		
Description:	This feature allows users to search house.		
Preconditions:	N/A		
Post-conditions:	<p>Success: System shows list of house.</p> <p>Failed: System inform “Không có phòng trọ phù hợp. Hãy thử thay đổi bộ lọc của bạn”</p>		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “UNIHOME” tabs	
	2	Actor types keywords into Search textbox and search	System show list of rent that match with keywords.
Alternative Flows:	N/A		

Exceptions:	No	Cause	System Response
	1	There are no rent match with condition or keyword which actor require	System inform “Không có phòng trọ phù hợp. Hãy thử thay đổi bộ lọc của bạn”
Priority:	High		
Frequency of Use:	Always		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.3 Get house detail

ID and Name	UC-03: Get house detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Guest	Secondary Actor:	N/A
Trigger:	Actor wants to view detail of the house.		
Description:	This feature allows users to get house detail.		
Preconditions:	N/A		
Post-conditions:	Success: System redirects to House Detail screen, show detail of house. Failed: System inform “Trợ bạn vừa xem không khả dụng”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “UNIHOME” tabs	
	2	Actor chooses a house card	System redirects to House Detail sceen.
Alternative Flows:	N/A		
Exceptions:	N/A		
Exceptions:	No	Cause	System Response
	1	Internet connection failed	System inform “Trợ bạn vừa xem không khả dụng”

Priority:	High
Frequency of Use:	Always
Bussiness Rule:	N/A
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.1.4 Get rent entity detail

ID and Name	UC-04: Get rent entity detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Guest	Secondary Actor:	N/A
Trigger:	Actor wants to get rent detail.		
Description:	This feature allows users to		
Preconditions:	N/A		
Post-conditions:	Success: System redirects to House Detail screen, show detail of house. Failed: System inform “Trợ bạn vừa xem không khả dụng”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “UNIHOME” tabs	
	2	Actor chooses a house card	System redirects to House Detail sceen.
	3	Actor chose a rent card	System redirects to Rent Detail screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		

Assumptions:	Internet connection is available.
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2.4.1.5 Book appointment

ID and Name	UC-05: Book appointment		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Guest	Secondary Actor:	N/A
Trigger:	Actor wants to booking appointment with owner.		
Description:	This feature allows users to book appointment.		
Preconditions:	N/A		
Post-conditions:	Success: System inform “Đặt lịch hẹn thành công” Failed: System informs errors messsage of the business rules.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “UNIHOME” tabs	
	2	Actor chooses a house card	System redirects to House Detail sceen.
	3	Actor taps on “Đặt hẹn” button	System show popup “Bạn hãy đăng nhập để có những trải nghiệm tốt hơn” No: System redirects to Booking Appointment screen Login: [Alternative 1]
	4	Actor fills information and choose slot for appointment	
	5	Actor taps on “Đặt hẹn” button	System redirects to Confirm OTP screen [Exception 1]
	6	Actor types OTP number	System inform “Đặt lịch hẹn thành công”, redirect to Appointment / Reuest / Account screen. [Exception 2]

Alternative Flows:	Step	Actor Action	System Response
	1	Actor taps on “Đăng nhập” button	System redirect to Login screen.
Exceptions:	No	Cause	System Response
	1	Actor fills in invalid information	System inform “Số điện thoại không tồn tại”, “Email không tồn tại”
	2	Actor types wrong OTP number	System inform “OTP không đúng”
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> • BR-13: If renter books appointment with another phone number in profile, they must verify phone number by OTP. • BR-14: Renter must book appointment on date which is at least 2 days after current time, which mean, renter cannot book appointment during the day and the day after. • BR-15: Renter can only book appointment within the next 30 days. • BR-16: Renter who hasn't login to the system must enter contact info, include full name, phone number, email to help owner contact directly. • BR-17: Renter who hasn't login to the system must confirm phone number by OTP when booking appointment. • BR-18: Renter who hasn't login to the system cannot view status of appointment, this will be send to their email which they have provided. • BR-19: Renter who not login to the system can only book 3 appointment with 1 email in one month. • BR-20: Renter only have 5 appointments with “pending” status in appointment list. That mean, if the amount of appointments which is “pending” status is equal 5, renter cannot book anymore appointment. • BR-21: Each slot in a day can only be booked by 1-3 renter. If slot has more than 3 renters booked, slot will be unavailable. 		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.6 Log in

ID and Name	UC-06: Log in		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Member	Secondary Actor:	N/A
Trigger:	Actor wants to login UniHome renter application.		
Description:	This feature allows users to login in UniHome renter application.		
Preconditions:	Actor has authenticated into UniHome application.		
Post-conditions:	<p>Success: System inform “Đăng nhập thành công”, actor will be redirected to Home screen of the application.</p> <p>Failed: System inform “Đăng nhập không thành công”, actor will be redirected to Home screen of the application.</p>		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Lịch hẹn” / “Yêu cầu” / “Tài khoản” and taps on “Đăng nhập bằng Google”	System redirects to Login screen of Google
	2	Actor chooses a Google account	System inform “Đăng nhập thành công”, redirects to Appointment / Request / Account screen. [Exception 1]
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Google account hasn't been authenticated UniHome application	System redirects to Sign Up screen
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> BR-01: User's login session lasts for 6 hours by default. 		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.7 Log out

ID and Name	UC-07: Log out		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Member	Secondary Actor:	N/A
Trigger:	Actor wants to logout UniHome renter application.		
Description:	This feature allows users to log out UniHome renter application.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System redirects to Home screen, inform “Đã đăng xuất”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Tài khoản” tab	
	2	Actor taps on “Đăng xuất” tab	System redirects to Home screen, inform “Đã đăng xuất”
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.8 Get profile

ID and Name	UC-08: Get profile		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Member	Secondary Actor:	N/A
Trigger:	Actor wants to view his/her profile information.		
Description:	This feature allows users to get profile information.		

Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: Actor will be redirected to Profile screen of the application. Failed: System informs “Lỗi xử lí, vui lòng thử lại”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Tài khoản” tab	System redirect to Account screen
	2	Actor taps on “Thông tin tài khoản”	System redirects to Profile screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.9 Update profile

ID and Name	UC-09: Update profile		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to update user profile information.		
Description:	This feature allows users to update profile information.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: New information are updated, Failed: System informs errors message of the business rules.		
Normal Flow:	Step	Actor Action	System Response

	1	Actor taps on “Tài khoản” tab	System redirect to Account screen
	2	Actor taps on “Thông tin tài khoản”	System redirects to Profile screen
	3	Actor taps Edit icon	System redirects to Update Profile screen
	4	Actor edits new information	
	5	Actor taps on “Cập nhật”	System redirects to Profile screen, informs “Cập nhật thông tin thành công”
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	<ul style="list-style-type: none"> • BR-09: User cannot update their email and birthday. • BR-10: User can update their own profile, includes their avatar, full name, phone number, gender. • BR-48: When user updates phone number, they must be verified by OTP. 		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.10 Get appointment detail

ID and Name	UC-10: Get appointment detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to view appointment detail.		
Description:	This feature allows users to get appointment detail.		
Preconditions:	Actor has logged into UniHome application. Actor has booked appointment.		

Post-conditions:	Success: Actor will be able to view detail of appointment. Failed: System informs “Lỗi xử lí, không thể lấy thông tin cuộc hẹn”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Lịch hẹn” tab	System redirects to Appointment screen
	2	Actor taps on “Bộ lọc” and chooses a status	System gets list of appointment by status.
	3	Actor taps on appointment card	System shows Appointment Detail popup
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.11 Accept appointment

ID and Name	UC-11: Accept appointment		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to accept appointment.		
Description:	This feature allows users to accept appointment.		
Preconditions:	Actor has logged into UniHome application. Other renter has booked appointment to actor's sharing room in system.		
Post-conditions:	Success: Appointment will change status to “Chấp nhận” Failed: System informs error message of the business rules.		
Normal Flow:	Step	Actor Action	System Response

	1	Actor taps on “Lịch hẹn” tab	System redirects to Appointment screen
	2	Actor taps on “Bộ lọc” and chooses “Đang chờ” status	System get list of appointment with “waiting” status.
	3	Actor taps on appointment account	System show Appointment Detail popup
	4	Actor taps on “Chấp nhận”	System inform “Đã chấp nhận lịch hẹn”
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> BR-22: Appointment must be approved/rejected/canceled by owner 24 hours before the time of appointment. If time over the date of appointment, appointment will change status to “expired”. 		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.12 Cancel appointment

ID and Name	UC-12: Cancel appointment		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to cancel appointment.		
Description:	This feature allows users to cancel appointment.		
Preconditions:	Actor has logged into UniHome application. Appointment has status “Pending” or “Accepted” within a day before meet date.		
Post-conditions:	Success: Appointment will change status to “Huỷ bỏ” Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”		

Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Lịch hẹn” tab	System redirects to Appointment screen
	2	Actor taps on “Bộ lọc” and chooses “Đang chờ” / “Chấp nhận” status	System get list of appointment with “waiting” / “accept” status.
	3	Actor taps on appointment account	System show Appointment Detail popup
	4	Actor taps on “Huỷ”	System show Appointment Cancel Reason popup
	5	Actor choose a reason and taps on “Xác nhận”	System inform “Đã hủy lịch hẹn” [Exception 1]
	6	Actor taps on “Quay lại”	System back to show Appointment Detail popup [Exception 2]
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Empty appointment when Actor taps on “Bộ lọc” and chooses “Đang chờ”/ “Chấp nhận” status	System inform “Không tìm thấy lịch hẹn phù hợp”
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	<ul style="list-style-type: none"> BR-22: Appointment must be approved/rejected/canceled by owner 24 hours before the time of appointment. If time over the date of appointment, appointment will change status to “expired”. BR-25: When renter or owner cancels the appointment, the reason must be entered. 		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.13 Reject appointment

ID and Name	UC-13: Reject appointment		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to reject appointment.		
Description:	This feature allows users to reject appointment.		
Preconditions:	Actor has logged into UniHome application. Other renter has booked appointment to actor's sharing room in system.		
Post-conditions:	Success: Appointment will change status to "Tù chối" Failed: System informs "Lỗi xử lí, vui lòng thử lại sau"		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on "Lịch hẹn" tab	System redirects to Appointment screen
	2	Actor taps on "Bộ lọc" and chooses "Đang chờ" status	System get list of appointment with "waiting" status.
	3	Actor taps on appointment account	System show Appointment Detail popup
	4	Actor taps on "Tù chối"	System inform "Đã từ chối lịch hẹn"
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Empty appointment when Actor taps on "Bộ lọc" and chooses "Đang chờ" status	System inform "Không tìm thấy lịch hẹn phù hợp"
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	<ul style="list-style-type: none"> BR-22: Appointment must be approved/rejected/canceled by owner 24 hours before the time of appointment. If time over the date of appointment, appointment will change status to "expired". 		

	<ul style="list-style-type: none"> BR-25: When renter or owner cancels the appointment, the reason must be entered.
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.1.14 Update appointment as finished

ID and Name	UC-14: Update appointment as finished		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to reject appointment.		
Description:	This feature allows users to reject appointment.		
Preconditions:	Actor has logged into UniHome application. Other renter has booked appointment to actor's sharing room in system.		
Post-conditions:	Success: Appointment will change status to "finished" Failed: System informs "Lỗi xử lý, vui lòng thử lại sau"		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on "Lịch hẹn" tab	System redirects to Appointment screen
	2	Actor taps on "Bộ lọc" and chooses "Chấp nhận" status	System get list of appointment with "accepted" status.
	3	Actor taps an appointment account	System show Appointment Detail popup
	4	Actor taps on "Hoàn thành"	System inform "Đã hoàn thành lịch hẹn"
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Empty appointment when Actor taps on "Bộ lọc" and chooses "Chấp nhận" status	System inform "Không tìm thấy lịch hẹn phù hợp"

Priority:	Medium
Frequency of Use:	Sometimes
Bussiness Rule:	<ul style="list-style-type: none"> BR-26: Owner/Renter must marked appointment as “finished” within 24 hours since the time of appointment. If the time is over 24 hours, appointment’s status will be changed to “expired” and owner cannot update status of appointment.
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.1.15 Create request for living

ID and Name	UC-15: Create request for living		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to request for living.		
Description:	This feature allows users to request for living.		
Preconditions:	Actor has logged into UniHome application. Actor has appointment with “complete” status. The house which actor has completed appointment has available rent entity.		
Post-conditions:	Success: Request succes with “request” status and wait for owner confirm Failed: System informs error message of the business rules.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Lịch hẹn” tab	System redirects to Appointment screen
	2	Actor taps on “Bộ lọc” and choses “Hoàn thành” status	System get list of appointment with “waiting” status.
	3	Actor tapsan appointment account	System show Appointment Detail popup

	4	Actor taps on “Thuê ngay”	System redirects to Room List screen
	5	Actor chooses a rent	System redirects to Request For Living screen
	6	Actor fills information	
	7	Actor clicks “Đăng kí”	System inform “Đăng kí thành công”
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Actor hasn't updated identification card number	System inform “Bạn chưa cập nhật CMND”
	2	Empty appointment when Actor taps on “Bộ lọc” and chooses “Hoàn thành” status	System inform “Không tìm thấy lịch hẹn phù hợp”
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> BR-27: Renter can only request for living when appointment's status is changed to “finished” by owner. BR-50: Renter can only make request for living in case he/she don't have contract with status “requesting” / “pending” / “active” / “request_for_terminate” / “renter_wait_for_payment_terminate” at the time. 		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.16 Get living request detail

ID and Name	UC-16: Get living request detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to get detail of request for living.		

Description:	This feature allows users to get detail of request for living.		
Preconditions:	Actor has logged into UniHome application. Actor has requested for living.		
Post-conditions:	Success: System will be able to view detail of living request Failed: System informs “Lỗi xử lí, không thể lấy thông tin yêu cầu”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Yêu cầu” tab	System redirects to Request screen.
	2	Actor taps on “Bộ lọc” and chooses “Yêu cầu đã gửi” status	System gets list of appointment with “requesting” status.
	3	Actor taps a request card	System show Request Living popup
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Empty request for living when Actor taps on “Bộ lọc” and chooses “Yêu cầu đã gửi” status	System inform “Không tìm thấy yêu cầu”
Priority:	Mediu		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.17 Confirm living request

ID and Name	UC-17: Confirm living request		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to confirm request for living.		

Description:	This feature allows users to confirm request for living.		
Preconditions:	Actor has logged into UniHome application. Actor has requested for living and owner has accepted that request.		
Post-conditions:	Success: System updates status of contract to “wait for deposit” Failed: Systems info error messages of the business rules		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Yêu cầu” tab	System redirects to Request screen.
	2	Actor taps on “Bộ lọc” and chooses “Chờ bạn xác nhận” status	System gets list of appointment with “pending” status.
	3	Actor taps a request card	System show Request Living popup
	4	Actor presses “Xác nhận” button	System shows deposit payment info
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Empty request for living when Actor taps on “Bộ lọc” and chooses “Chờ bạn xác nhận” status	System inform “Không tìm thấy yêu cầu”
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> BR-29: Contract must be signed by renter within at least 3 days since the day of contract created by owner. After 3 days, if renter doesn't signed, contract's status will be changed to “failed”. 		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.18 Cancel request living

ID and Name	UC-18: Cancel request living
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Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to cancel request for living.		
Description:	This feature allows users to cancel request for living.		
Preconditions:	Actor has logged into UniHome application. Actor has requested for living which has status “requesting” / “pending”.		
Post-conditions:	Success: System updates status to “renter cancelled” Failed: System informs “Lỗi xử lý, vui lòng thử lại”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Yêu cầu” tab	System redirects to Request screen.
	2	Actor taps on “Bộ lọc” and chooses “Yêu cầu đã gửi” status	System gets list of appointment with “requesting” status.
	3	Actor taps a request card	System show Request Living popup
	4	Actor taps on “Huỷ bỏ” button	System inform “Hợp đồng đã được huỷ”
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Empty request for living when Actor taps on “Bộ lọc” and chooses “Yêu cầu đã gửi” status	System inform “Không tìm thấy yêu cầu”
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> BR-29: Contract must be signed by renter within at least 3 days since the day of contract created by owner. After 3 days, if renter doesn't sign, contract's status will be changed to “failed”. 		
Other Information:	N/A		

Assumptions:	Internet connection is available.
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2.4.1.19 Create Q&A

ID and Name	UC-19: Create Q&A		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to make Q&A.		
Description:	This feature allows users to make Q&A.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System inserts new records with the renter's inputted data Failed: System informs "Lỗi xử lí, vui lòng thử lại"		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on "UNIHOME" tabs	
	2	Actor chooses a house card	System redirects to House Detail screen.
	3	Actor taps on "Hỏi đáp" tab	System redirects to Q&A tab
	4	Actor taps on "Gửi tin nhắn" button	System show Question dialog
	5	Actor fill in the message and taps on "Xác nhận" button	System inform "Gửi tin nhắn thành công", message will be showed in Q&A tab
Alternative Flows:	Step	Actor Action	System Response
	1	Actor taps on "Quay lại"	System close Question dialog
Exceptions:	No	Cause	System Response
	1	Actor not fill in the message (empty message) and taps on "Xác nhận" button	System inform "Vui lòng nhập nội dung" below the message form.
Priority:	Medium		
Frequency of Use:	Usually		

Bussiness Rule:	N/A
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.1.20 Create sharing room

ID and Name	UC-20: Create sharing room		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to add sharing room.		
Description:	This feature allows users to add sharing room.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System inserts new rent entity information of the renter's request Failed: Systems inform error messages of the business rules		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Tài khoản” tab	System redirects to Account screen
	2	Actor taps on “Phòng ở ghép của bạn”	System redirects to Sharing Room List screen
	3	Actor taps Plus button.	System redirects to Create Post screen
	4	Actor taps on “Tạo thuê công” or “Tạo nhanh”	System redirects to Create screen
	5	Actor fills information	
	6	Actor taps on “Gửi thông tin”	System inform “Tạo chia sẻ trợ thành công”
Alternative Flows:	Step	Actor Action	System Response
	1	Actor taps on “Tạo nhanh”	System checks active contract and redirects to Create screen

Exceptions:	No	Cause	System Response
	1	There is no information about accommodation on UniHome. Actor taps on “Tạo nhanh”	System inform “Bạn chưa có thông tin hợp đồng trong hệ thống”
	2	Actor fills in invalid/ wrong information in “Tạo thủ công”	System inform “Số điện thoại không tồn tại”, “Vui lòng nhập tên chủ trọ”, “Vui lòng nhập địa chỉ”, “Vui lòng nhập mô tả”, “Vui lòng nhập tên phòng trọ”, “Số người không được rõ ràng”, “Vui lòng chọn ít nhất 3 ảnh về chỗ ở của bạn”, “Vui lòng bổ xung hình ảnh về hợp đồng thuê trọ của bạn”
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> BR-40: Renter must provide the picture of rental contract to verify their room to create sharing post and wait for admin verify. BR-41: The basic info of sharing room must be matched with the room in rental contract. BR-42: Renter can create sharing post quickly with the present room without admin verify if and only if they have contract in the system. BR-43: Renter can only have one “available” sharing post at the time. 		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.21 Get sharing room detail

ID and Name	UC-21: Get sharing room detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to get sharing room detail.		
Description:	This feature allows users to get sharing room detail.		

Preconditions:	Actor has logged into UniHome application. Actor has created a sharing room.		
Post-conditions:	Success: Systems shows rent detail information Failed: System informs “Trợ bạn vừa xem không khả dụng”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Tài khoản” tab	System redirects to Account screen
	2	Actor taps on “Phòng ở ghép của bạn”	System redirects to Sharing Room List screen
	3	Actor taps a rent card	System redirects to Rent Detail screen
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	List rent card empty	System inform “Danh sách phòng sharing trống!”
Priority:	Medium		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.22 Update sharing room

ID and Name	UC-22: Update sharing room		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to update Sharing Room.		
Description:	This feature allows users to update sharing room.		
Preconditions:	Actor has logged into UniHome application.		

	Actor has created a sharing room.		
Post-conditions:	Success: System updates rent entity as the renter's request with status "pending" Failed: System informs "Lỗi xử lí, vui lòng thử lại sau"		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on "Tài khoản" tab	System redirects to Account screen
	2	Actor taps on "Phòng ở ghép của bạn"	System redirects to Sharing Room List screen
	3	Actor taps a rent card	System redirects to Rent Detail screen
	4	Actor taps on "Chỉnh sửa" button	System redirects to Update Rent screen
	5	Actor edits rent's information	
Alternative Flows:	N/A		
	No	Cause	System Response
Exceptions:	1	Actor fills in invalid/ wrong information when editing rent's information	System inform "Số điện thoại không tồn tại", "Vui lòng nhập tên chủ thuê", "Vui lòng nhập địa chỉ", "Vui lòng nhập mô tả", "Vui lòng nhập tên phòng trọ", "Số người không được rỗng", "Vui lòng chọn ít nhất 3 ảnh về chỗ ở của bạn", "Vui lòng bổ xung hình ảnh về hợp đồng thuê trọ của bạn"
	2	List rent card empty	System inform "Danh sách phòng sharing trống!"
Priority:	Medium		
Frequency of Use:	Sometimes		

Bussiness Rule:	<ul style="list-style-type: none"> BR-51: User can only update rent entity/sharing detail while its status is available, unavailable and pending. BR-54: Renter cannot update sharing type and address of sharing
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.1.23 Delete sharing room

ID and Name	UC-23: Delete sharing room		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to delete sharing room.		
Description:	This feature allows users to delete sharing room.		
Preconditions:	Actor has logged into UniHome application. Actor has created a sharing room.		
Post-conditions:	Success: Systems updates status of rent entity to “deleted” Failed: Systems informs “Lỗi xử lí, vui lòng thử lại sau”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Tài khoản” tab	System redirects to Account screen
	2	Actor taps on “Phòng ở ghép của bạn”	System redirects to Sharing Room List screen
	3	Actor holds on a rent card	
	4	Actor taps on “Xoá” button	System inform “Xoá bài đăng thành công”
Alternative Flows:	N/A		
Exceptions:	Step	Cause	System Response
	1	List rent card empty	System inform “Danh sách phòng sharing trống!”
Priority:	Medium		

Frequency of Use:	Sometimes
Bussiness Rule:	N/A
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.1.24 Show sharing room

ID and Name	UC-24: Show sharing room		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to show sharing room.		
Description:	This feature allows users to delete sharing room.		
Preconditions:	Actor has logged into UniHome application. Actor has created a sharing room.		
Post-conditions:	Success: Systems updates status of rent entity to “available” Failed: Systems informs “Lỗi xử lí, vui lòng thử lại sau”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Tài khoản” tab	System redirects to Account screen
	2	Actor taps on “Phòng ở ghép của bạn”	System redirects to Sharing Room List screen
	3	Actor holds on a rent card	
	4	Actor taps on “Hiện” button	System inform “Hiện bài đăng thành công”
Alternative Flows:	N/A		
Exceptions:	Step	Cause	System Response
	1	List rent card empty	System inform “Danh sách phòng sharing trống!”
Priority:	Medium		

Frequency of Use:	Sometimes
Bussiness Rule:	N/A
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.1.25 Hide sharing room

ID and Name	UC-25: Hide sharing room		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to hide sharing room.		
Description:	This feature allows users to delete sharing room.		
Preconditions:	Actor has logged into UniHome application. Actor has created a sharing room.		
Post-conditions:	Success: Systems updates status of rent entity to “unavailable” Failed: Systems informs “Lỗi xử lí, vui lòng thử lại sau”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Tài khoản” tab	System redirects to Account screen
	2	Actor taps on “Phòng ở ghép của bạn”	System redirects to Sharing Room List screen
	3	Actor holds on a rent card	
	4	Actor taps on “Ẩn” button	System inform “Ẩn bài đăng thành công”
Alternative Flows:	N/A		
Exceptions:	Step	Cause	System Response
	1	List rent card empty	System inform “Danh sách phòng sharing trống!”
Priority:	Medium		

Frequency of Use:	Sometimes
Bussiness Rule:	N/A
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.1.26 Report problem

ID and Name	UC-26: Report problem		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to report problem.		
Description:	This feature allows users to report problem.		
Preconditions:	Actor has logged into UniHome application. Actor has available contract in UniHome system and use Living mode		
Post-conditions:	Success: System inserts new problem with renter's request Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System shows Dashboard screen
	2	Actor taps on “Báo cáo sự cố” button	System redirects to Report problem screen
	3	Actor tapsPlus icon	System shows Create report problem screen
	4	Actor fills infomation	
	5	Actor presses “Tạo mới yêu cầu” button	System inform “Tạo yêu cầu thành công”
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		

Frequency of Use:	Sometimes
Bussiness Rule:	<ul style="list-style-type: none"> BR-33: Renter who has contract in 'active' status in system, can create problem report.
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.1.27 Get problem detail

ID and Name	UC-27: Get problem detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to get problem detail.		
Description:	This feature allows users to get problem detail.		
Preconditions:	Actor has logged into UniHome application. Actor has available contract in UniHome system and use Living mode. Actor has created a problem.		
Post-conditions:	Success: Systems shows the details of the problems Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System shows Dashboard screen
	2	Actor taps on “Báo cáo sự cố” button	System redirects to Report problem screen
	3	Actor chooses status from “Bộ lọc”	System gets list of problem with request status.
	4	Actor tapson a problem card	System shows detail of the problem
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response

	1	Actor chooses status from “Bộ lọc” but the list of report is empty	System inform “Không tìm thấy yêu cầu sửa chữa”
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.28 Cancel problem

ID and Name	UC-28: Cancel problem		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to cancel problem.		
Description:	This feature allows users to cancel problem.		
Preconditions:	Actor has logged into UniHome application. Actor has available contract in UniHome system and use Living mode. Actor has created a problem.		
Post-conditions:	Success: System updates problem status to “renter cancelled” Failed: System informs “Lỗi xử lý, vui lòng thử lại sau”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System shows Dashboard screen
	2	Actor taps on “Báo cáo sự cố” button	System redirects to Report problem screen
	3	Actor chooses status from “Bộ lọc”	System gets list of problem with request status.
	4	Actor tapson a problem card	System shows detail of the problem

	5	Actor presses “Huỷ bỏ” button	System shows diaglog for enter reason
	6	Actor enters cancel reason	
	7	Actor presses “Xác nhận” button	System infroms success message “Đã huỷ yêu cầu sửa chữa”
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Actor chooses status from “Bộ lọc” but the list of report is empty Actor does not fill in cancel reason (empty)	System inform “Không tìm thấy yêu cầu sửa chữa”
	2	Actor does not fill in cancel reason (empty)	System inform “Vui lòng nhập lý do”
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	• BR-68: Renter cancel the reported problem must provide the reason.		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.29 Update problem

ID and Name	UC-29: Update problem		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to update problem.		
Description:	This feature allows users to update problem.		
Preconditions:	Actor has logged into UniHome application. Actor has available contract in UniHome system and use Living mode. Actor has created a problem.		

Post-conditions:	Success: System updates problem information from renter's request Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System shows Dashboard screen
	2	Actor taps on “Báo cáo sự cố” button	System redirects to Report problem screen
	3	Actor chooses status from “Bộ lọc”	System gets list of problem with request status.
	4	Actor tapson a problem card	System shows detail of the problem
	5	Actor presses “Chỉnh sửa” button	Sytem shows Update problem screen
	6	Actor fills new infomation	
Alternative Flows:	N/A		
	No	Cause	System Response
Exceptions:	1	Actor chooses status from “Bộ lọc” but the list of report is empty	System inform “Không tìm thấy yêu cầu sửa chữa”
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.30 Update problem as fixed

ID and Name	UC-30: Update problem as fixed
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Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to update problem as be fixed.		
Description:	This feature allows users to update problem as be fixed.		
Preconditions:	Actor has logged into UniHome application. Actor has available contract in UniHome system and use Living mode. Actor has created a problem.		
Post-conditions:	Success: System updates problem information from renter's request Failed: System informs "Lỗi xử lí, vui lòng thử lại sau"		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on "Trang chủ" tab	System shows Dashboard screen
	2	Actor taps on "Báo cáo sự cố" button	System redirects to Report problem screen
	3	Actor chooses status from "Bộ lọc"	System gets list of problem with request status.
	4	Actor taps on a problem card	System shows detail of the problem
	5	Actor presses "Hoàn thành" button	System shows Update problem screen
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Actor chooses status from "Bộ lọc" but the list of report is empty	System inform "Không tìm thấy yêu cầu sửa chữa"
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> BR-69: Renter must update problem's status to "Fixed" when problem is fixed. 		

Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.1.31 Pay for rental deposit

ID and Name	UC-31: Pay for rental deposit		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to make payment for rental deposit.		
Description:	This feature allows users to make payment.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows success message “Thanh toán thành công” Failed: System informs “Lỗi xử lý, vui lòng thử lại sau”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Yêu cầu” tab	System redirects to Request screen.
	2	Actor taps on “Bộ lọc” and chooses “Chờ thanh toán” status	System gets list of appointment with “wait for deposit” status.
	3	Actor taps a request card	System shows Deposit detail popup
	4	Actor presses “Thanh toán” button	System navigates to MoMo app
	5	Actor confirms payment from on MoMo app	System receives MoMo response and processes payment
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Actor taps on “Bộ lọc” and chooses “Chờ thanh toán” status but the list spending payment is empty	System informs “Không có yêu cầu”

Priority:	High
Frequency of Use:	Usually
Bussiness Rule:	<ul style="list-style-type: none"> • BR-34: Renter who has contract in ‘active’ status in system, can make payment monthly by system. • BR-36: Renter must complete payment from 1st to 7th of the next month. • BR-38: Owner must confirm the payment is finished after he/she received cash from renter. • BR-39: If renter make payment by cash to owner, owner must update status of payment to “finished” and renter must keep an evidence that they have made the payment with owner. • BR-70: When renter make payment, renter must pay full amount of payment.
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.1.32 Pay for contract termination

ID and Name	UC-32: Pay for contract termination		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to request for create contract.		
Description:	This feature allows users to request for create contract.		
Preconditions:	Actor has logged into UniHome application. Actor has available contract in UniHome system and use Living mode.		
Post-conditions:	Success: System updates contract status to “renter terminated” / “owner terminated” Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System shows Dashboard screen
	2	Actor taps on “Hợp đồng” button	System redirects to Contract screen

	3	Actor presses “Thanh toán hợp đồng” button	Systems shows payment detail infomation
	4	Actor presses “Thanh toán” button	System navigates to MoMo app
	5	Actor confirms payment from on MoMo app	System receives MoMo response and process payment
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Normally		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.33 Get payment detail

ID and Name	UC-33: Get Payment Detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to get payment detail.		
Description:	This feature allows users to get payment detail.		
Preconditions:	Actor has logged into UniHome application. Actor has contract in UniHome system and use Living mode.		
Post-conditions:	Success: System shows payment detail infomation Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System shows Dashboard screen

	2	Actor taps on “Hoá đơn” button	System redirects to Payment screen
	3	Actor taps on “Đang chờ” tab	System gets list of pending payment
	4	Actor taps payment card	System gets detail of the payment
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Actor taps on “Đang chờ” tab but the list spending payment is empty	System informs “Không tìm thấy giao dịch”
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.34 Pay for rental payment

ID and Name	UC-34: Pay for rental payment		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to make payment.		
Description:	This feature allows users to make payment.		
Preconditions:	Actor has logged into UniHome application. Actor has available contract in UniHome system and use Living mode.		
Post-conditions:	Success: System shows success message “Thanh toán thành công” Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”		
Normal Flow:	Step	Actor Action	System Response

	1	Actor taps on “Trang chủ” tab	System shows Dashboard screen
	2	Actor taps on “Hoá đơn” button	System redirects to Payment screen
	3	Actor taps on “Đang chờ” tab	System gets list of pending payment
	4	Actor taps payment card	System gets detail of the payment
	5	Actor presses “Thanh toán” button	System navigates to MoMo app
	6	Actor confirms payment from on MoMo app	System receives MoMo response and process payment
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Actor taps on “Đang chờ” tab but the list spending payment is empty	System informs “Không tìm thấy giao dịch”
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> • BR-52: Every 28th of the month, owner creates a payment for owner, contains rental and service fee. • BR-53: Renter must complete payment from 1st to 7th of the next month. • BR-54: After renter completed the payment, owner cannot update the payment detail. • BR-55: Renter can make payment by online payment in system or cash for owner. • BR-56: Renter must complete all payment before request for leave room (teminate the contract) • BR-57: If renter make payment by cash for owner, owner must update status of payment to complete and renter must have evidence to confirm that they have complete the payment with owner. 		
Other Information:	N/A		

Assumptions:	Internet connection is available.
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2.4.1.35 Request for contract termination

ID and Name	UC-35: Request for contract termination		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to request for leave room.		
Description:	This feature allows users to request for leave room.		
Preconditions:	Actor has logged into UniHome application. Actor has available contract in UniHome system and use Living mode.		
Post-conditions:	Success: System updates contract status to “request for terminate” Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System shows Dashboard screen
	2	Actor taps on “Hợp đồng” button	System redirects to Contract screen
	3	Actor presses “Yêu cầu kết thúc hợp đồng”	System shows confirm dialog
	4	Actor confirms the request	System informs success message “Đã gửi yêu cầu đến chủ trọ”
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> BR-63: When owner terminate contract or accept leaving request, owner can select unpaid payment or not and provide the amount of money that will be paid back to rent entity. 		

Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.1.36 Get contract detail

ID and Name	UC-36: Get contract detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to get contract detail.		
Description:	This feature allows users to request for create contract.		
Preconditions:	Actor has logged into UniHome application. Actor has available contract in UniHome system and use Living mode.		
Post-conditions:	Success: System shows contract detail Failed: System informs “Lỗi xử lý, vui lòng thử lại sau”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System shows Dashboard screen
	2	Actor taps on “Hợp đồng” button	System redirects to Contract screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Normally		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.37 Get announcement list

ID and Name	UC-37: Get announcement list
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Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to get announcement.		
Description:	This feature allows users to get announcement.		
Preconditions:	Actor has logged into UniHome application. Actor has available contract in UniHome system and use Living mode.		
Post-conditions:	Success: System shows list of announcement Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Tin nhắn” tab	System shows Announcement screen
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Actor taps on “Tin nhắn” tab but list of announcement are empty	System informs message “Không tìm thấy tin nhắn”
Priority:	High		
Frequency of Use:	Sometimes		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.38 Get announcement detail

ID and Name	UC-38: Get announcement detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to get announcement.		
Description:	This feature allows users to get announcement.		

Preconditions:	Actor has logged into UniHome application. Actor has available contract in UniHome system and use Living mode.		
Post-conditions:	Success: System shows list of announcement Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Tin nhắn” tab	System shows Announcement screen
	2	Actor taps an announcement card	System shows list of announcement from selected owner
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Sometimes		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.39 Get notification list

ID and Name	UC-39: Get notification list		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to get notificaiton.		
Description:	This feature allows users to get notification.		
Preconditions:	Actor has logged into UniHome application. Actor has available contract in UniHome system and use Living mode.		
Post-conditions:	Success: System shows list of notification Failed: System informs “Không có thông báo”		

Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System shows Dashboard screen
	2	Actor taps notification icon button	System shows list of notification
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.1.40 Change app mode

ID and Name	UC-40: Change app mode		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Renter	Secondary Actor:	N/A
Trigger:	Actor wants to change app mode.		
Description:	This feature allows users to change app mode.		
Preconditions:	Actor has logged into UniHome application. Actor has available contract in UniHome system and use Living mode.		
Post-conditions:	Success: System shows app with mode “Search” / “Living” Failed: System inform “Bạn không có hợp đồng phù hợp”		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Tài khoản” tab	System shows Account setting screen

	2	Actor taps on “Chuyển sang chế độ tìm kiếm” / “Chuyển sang chế độ ở” button	System shows app with mode “Search” / “Living”
Alternative Flows:	N/A		
Exceptions:	N/A		
Exceptions:	No	Cause	System Response
	1	Internet connection failed	System inform “Không có kết nối internet, vui lòng kiểm tra lại”
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	• BR-72: Only renter have contract available can switch role to living mode.		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2 Owner

2.4.2.1 Sign Up

ID and Name	UC-41: Sign Up		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Guest	Secondary Actor:	N/A
Trigger:	Actor wants to sign up.		
Description:	This feature allows users to sign up.		
Preconditions:	N/A		
Post-conditions:	Success: System informs “Đăng ký tài khoản thành công” and redirects to Home screen. Failed: System informs “Đăng ký không thành công” and redirects to Login screen.		
Normal Flow:	Step	Actor Action	System Response

	1	Actor tapson ‘Đăng nhập bằng Google’ button.	System redirects to Login screen of Gmail.
	2	Actor chooses a Gmail account.	System inform “Đăng nhập thành công”, redirects to Home screen.
	3	Actor choses a Google account.	<p>System checks if the gmail account has been authenticated in UniHome system yet.</p> <ul style="list-style-type: none"> Authenticated: System inform “Đăng nhập thành công”, redirects to Appointment / Reuquest / Account screen. <p>Unauthenticated: System redirects to Sign Up screen</p>
	4	Actor fills in information.	
	5	Actor taps on “Đăng kí”.	<p>System redirects to Confirm OTP screen.</p> <p>[Exception 1]</p>
	6	Actor types OTP number.	[Exception 2]
	7	Actor taps on “Xác nhận” button	System inform “Đăng nhập thành công”, redirect to Appointment / Request / Account screen.
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Actor fills in invalid information: age, phone duplicate.	System inform “Số điện thoại không tồn tại”, “Email không tồn tại”
	2	Actor enters wrong OTP number	System inform “OTP không đúng”
Priority:	High		
Frequency of Use:	Usually		

Bussiness Rule:	N/A
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.2.2 Log In

ID and Name	UC-42: Log In		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Guest	Secondary Actor:	N/A
Trigger:	Actor wants to log in.		
Description:	This feature allows users to log in.		
Preconditions:	N/A		
Post-conditions:	<p>Success: System inform “Đăng nhập thành công”, actor will be redirected to Home screen of the application.</p> <p>Failed: System inform “Đăng nhập không thành công”, actor will be redirected to Login screen of the application.</p>		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Đăng nhập bằng Google” button	System redirects to Login screen of Gmail
	2	Actor chooses a Gmail account	System inform “Đăng nhập thành công”, redirects to Home screen
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Gmail account hasn't authenticated UniHome application	System redirects to Sign Up screen
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> BR-01: User's login session lasts for 6 hours by default. 		

Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.3 Log Out

ID and Name	UC-43: Log Out		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to log out.		
Description:	This feature allows users to log out.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System redirects to Home screen, inform “Đã đăng xuất”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Cài đặt” button	
	2	Actor taps on “Đăng xuất” button	System informs “Đã đăng xuất”, redirects to Login screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.4 Get Profile

ID and Name	UC-44: Get Profile		
Created By:	QueTTN	Date Created:	02/04/2022

Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to get profile.		
Description:	This feature allows users to get profile.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: Actor will be redirected to Profile screen of the application.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” button	
	2	Actor taps avatar button at Home screen	System redirects to Profile screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.5 Update Profile

ID and Name	UC-45: Update Profile		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to update profile.		
Description:	This feature allows users to update profile.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: New information is updated. System informs “Cập nhật thông tin thành công”.		

	Failed: System informs “Không thể cập nhật, vui lòng thử lại”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actors taps on “Trang chủ” button	
	2	Actors taps on avatar button	System redirects to Profile screen
	3	Actors taps on “Cập nhật thông tin” button	System redirects to Update Profile screen
	4	Actors edits information	
Alternative Flows:	5	Actors taps on “Cập nhật” button	System informs “Cập nhật thông tin thành công”, redirects Profile screen
	N/A		
Alternative Flows:	Step	Actor Action	System Response
	1	Actors taps on cancel button	System redirects back to Profile screen
Exceptions:	No	Cause	System Response
	1	Internet connection failed	System inform “Không có kết nối internet, vui lòng kiểm tra lại”
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	<ul style="list-style-type: none"> • BRA-02: Name length limit must be in range 1 – 50 characters. • BR-03: Name only contains alphabetical characters. • BR-04: Phone number only contains numeric characters. • BR-05: Phone number length limit must be 10 characters. • BR-06: Phone number and email must be unique. • BR-09: User cannot update their email and birthday. • BR-10: User can update their own profile, includes their avatar, full name, phone number, gender. • BR-11: User's avatar file must be image file format. 		

	• BR-48: When user updates phone number, they must be verified by OTP.
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.2.6 Get Rent Entity List

ID and Name	UC-46: Get Rent Entity List		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to get rent entity list.		
Description:	This feature allows users to get rent entity list.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows list of rent entities.		
Normal Flow:	Step	Actor Action	System Response
	1	Actors taps on “Trang chủ” icon	
	2	Actors taps on “Nhà” icon	System redirects to House screen
	3	Actors taps on a house card	System redirects to House Detail screen
	4	Actors views list of 3 rent entities	
	5	Actors taps on right arrow icon in Rent Entity section	System redirects to Rent Entity screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Exceptions:	No	Cause	System Response
	1	Internet connection failed	System inform “Không có kết nối internet, vui lòng kiểm tra lại”
Priority:	High		

Frequency of Use:	Always
Bussiness Rule:	N/A
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.2.7 Create Rent Entity

ID and Name	UC-47: Create Rent Entity		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to add rent entity.		
Description:	This feature allows users to add rent entity.		
Preconditions:	Actor has logged into UniHome application. A house is created before creating rent entity		
Post-conditions:	Success: System informs “Tạo phòng thành công” and redirects to Rent Entity detail screen. Failed: System informs “Không thể tạo phòng, vui lòng kiểm tra lại thông tin”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Cài đặt” tab	System redirects to Setting screen
	2	Actor taps on “Thêm phòng”	System redirect to Create Rent Entity screen
	3	Actor fills information about rent entity	
	4	Actor taps on “Gửi thông tin”	System inform “Tạo phòng trợ thành công”, redirect to House screen
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response

	1	Internet connection failed	System inform “Không có kết nối internet, vui lòng kiểm tra lại”
Priority:	High		
Frequency of Use:	Always		
Bussiness Rule:	<ul style="list-style-type: none"> • BR-45: Owner must provide picture of document which confirm that their rent entity/house are their own and wait for admin verify. • BR-46: Price of rent entity must be more than 100,000 VND • BR-71: Price of deposit must be more than 100,000 VND • BR-59: Owner can adding facilities and services after creating rent entity 		
Other Information:	<ul style="list-style-type: none"> • N/A 		
Assumptions:	Internet connection is available.		

2.4.2.8 Get Rent Entity Detail

ID and Name	UC-48: Get Rent Entity Detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to get rent entity detail.		
Description:	This feature allows users to get rent entity detail.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	<p>Success: System redirects to Rent Entity detail screen.</p> <p>Failed: System informs “Không thể lấy thông tin phòng , vui lòng thử lại”.</p>		
Normal Flow:	Step	Actor Action	System Response
	1	Actors taps on “Trang chủ” icon	
	2	Actors taps on “Nhà” icon	System redirects to House screen
	3	Actors taps on a house card	System redirects to House Detail screen

	4	Actors views list of 3 rent entities	
	5	Actors taps on right arrow icon in Rent Entity section	System redirects to Rent Entity screen
	6	Actors taps on a rent entity card	System redirects to Rent Entity Detail screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.9 Update Rent Entity

ID and Name	UC-49: Update Rent Entity		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to update rent entity.		
Description:	This feature allows users to update rent entity.		
Preconditions:	Actor has logged into UniHome application. A house is created before updating rent entity		
Post-conditions:	Success: System informs “Cập nhật phòng thành công” and redirects to Rent Entity detail screen. Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actors taps on “Trang chủ” icon	
	2	Actors taps on “Nhà” icon	System redirects to House screen

	3	Actors taps on a house card	System redirects to House Detail screen
	4	Actors views list of 3 rent entities	
	5	Actors taps on right arrow icon in Rent Entity section	System redirects to Rent Entity screen
	6	Actors taps on a rent entity card	System redirects to Rent Entity Detail screen
	7	Actor taps on “Cập nhật thông tin”	System redirect to Update Information screen
	8	Actor edit information	
	9	Actor taps on “Lưu” button	System inform “Cập nhật thông tin thành công”, redirect to House Detail screen
	Alternative Flows:		
	N/A		
Exceptions:	No	Cause	System Response
	1	Internet connection failed	System inform “Không có kết nối internet, vui lòng kiểm tra lại”
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> • BR-51: User can only update rent entity/sharing detail while its status is available, unavailable and pending. • BR-53: Owner cannot update rent entity type 		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.10 Delete Rent Entity

ID and Name	UC-50: Delete Rent Entity		
Created By:	QueTTN	Date Created:	02/04/2022

Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to delete rent entity.		
Description:	This feature allows users to delete rent entity.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	<p>Success: System informs “Xoá phòng thành công” and redirects to previous screen.</p> <p>Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”.</p>		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on ‘Trang chủ’ icon	
	2	Actor taps on ‘Nhà’ icon	System redirects to House screen
	3	Actor taps on a house card	System redirects to House Detail screen
	4	Actor views list of 3 rent entities	
	5	Actor taps on right arrow icon in Rent Entity section	System redirects to Rent Entity screen
	6	Actor taps on a rent entity card	System redirects to Rent Entity Detail screen
	7	Actor taps More Action button and taps on “Xoá phòng”	System shows Confirm dialog
Alternative Flows:	Step	Actor Action	System Response
	1	Actor taps on “Quay lại”	System closes Confirm dialog
Exceptions:	N/A		
Exceptions:	No	Cause	System Response

	1	The rent entity is having contract	System inform “Không thể xoá phòng khi vẫn còn hợp đồng thuê với khách”
	2	Internet connection failed	System inform “Không có kết nối internet, vui lòng kiểm tra lại”
Priority:	Medium		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> BR-44: If the rent entity/house was being rented, owner is not allowed to delete the rent entity /house. 		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.11 Get House List

ID and Name	UC-51: Get House List		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to get house list.		
Description:	This feature allows users to get house list.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows list of houses.		
Normal Flow:	Step	Actor Action	System Response
	1	Actors taps on 'Trang chủ' icon	
	2	Actors taps on 'Nhà' icon	System redirects to House screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		

Frequency of Use:	Always
Bussiness Rule:	N/A
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.2.12 Create House

ID and Name	UC-52: Create House		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to add house.		
Description:	This feature allows users to add house.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Tạo nhà thành công” and redirects to Home detail screen. Failed: System informs “Không thể tạo nhà, vui lòng kiểm tra lại thông tin”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actors taps on ‘Trang chủ’ icon	
	2	Actors taps on ‘Nhà’ icon	System redirects to House screen
	3	Actor taps “Plus” icon button	System redirect to Create House screen
	4	Actor fills information about rent entity	
	5	Actor taps on “Gửi thông tin”	System inform “Tạo phòng trọ thành công”, redirect to House screen
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response

	1	Internet connection failed	System inform “Không có kết nối internet, vui lòng kiểm tra lại”
Priority:	High		
Frequency of Use:	Always		
Bussiness Rule:	<ul style="list-style-type: none"> • BR-55: User must provide more than 3 picture when creating new house/rent entity. • BR-56: Owner must provide at least 2 pictures of certificate of owner when creating house. • BR-58: Owner must add booking slots after finishing creating house 		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.13 Get House Detail

ID and Name	UC-53: Get House Detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to get house detail.		
Description:	This feature allows users to get house detail.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	<p>Success: System redirects to House detail screen.</p> <p>Failed: System informs “Không thể lấy thông tin nhà, vui lòng thử lại”.</p>		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on ‘Trang chủ’ icon	
	2	Actor taps on ‘Nhà’ icon	System redirects to House screen
	3	Actor taps on a house card	System redirects to House Detail screen
Alternative Flows:	N/A		

Exceptions:	N/A
Priority:	High
Frequency of Use:	Usually
Bussiness Rule:	N/A
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.2.14 Update House

ID and Name	UC-54: Update House		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to update house.		
Description:	This feature allows users to update house.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Cập nhật thành công”. New information is updated. Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actors taps on ‘Trang chủ’ icon	
	2	Actors taps on ‘Nhà’ icon	System redirects to House screen
	3	Actors taps on a house card	System redirects to House Detail screen
	4	Actor taps on “Thay đổi tên”	System shows Update dialog
	5	Actor edit information	
	6	Actor taps on “Cập nhật” button	System closes Update dialog [Alternative 1]

Alternative Flows:	Step	Actor Action	System Response
	1	Actor taps on “Huỷ bỏ”	System closes Update dialog
Exceptions:	No	Cause	System Response
	1	The house is not found	System inform “Thông tin nhà không tồn tại”
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> BR-52: Owner cannot update house type and address of house. 		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.15 Delete House

ID and Name	UC-55: Delete House		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to delete house.		
Description:	This feature allows users to delete house.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	<p>Success: System informs “Xoá nhà thành công” and redirects to previous screen.</p> <p>Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”.</p>		
Normal Flow:	Step	Actor Action	System Response
	1	Actors taps on ‘Trang chủ’ icon	
	2	Actors taps on ‘Nhà’ icon	System redirects to House screen
	3	Actors taps on a house card	System redirects to House Detail screen
	4	Actors views list of 3 rent entities	

	5	Actors taps on right arrow icon in Rent Entity section	System redirects to Rent Entity screen
	6	Actors taps on a rent entity card	System redirects to Rent Entity Detail screen
	7	Actor taps More Action button and taps on "Xoá phòng"	System shows Confirm dialog
	8	Actor taps on "Xác nhận"	System informs "Xoá phòng thành công" [Alternative 1] [Exception 1]
Alternative Flows:	Step	Actor Action	System Response
	1	Actor taps on "Quay lại"	System closes Confirm dialog
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> BR-44: If the rent entity/house was being rented, owner is not allowed to delete the rent entity /house. 		
Other Information:	N/A		
Assumptions:	<p>Internet connection is available.</p> <p>The status of selected appointment is "Pending"</p>		

2.4.2.16 Get Appointment List

ID and Name	UC-56: Get Appointment List		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to get appointment list by status.		
Description:	This feature allows users to get appointment list by status.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: Systems show list of appointments.		

Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Lịch hẹn” tab	System redirect to Appointment screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.17 Get Appointment Detail

ID and Name	UC-57: Get Appointment Detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to get appointment detail.		
Description:	This feature allows users to get appointment detail.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: Systems shows detail of an appointment. Failed: System informs “Không thể lấy thông tin cuộc hẹn, vui lòng thử lại”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Lịch hẹn” tab	System redirect to Appointment screen
	2	Actor taps on appointment card	System shows Appointment Detail popup
Alternative Flows:	N/A		

Exceptions:	N/A
Priority:	High
Frequency of Use:	Usually
Bussiness Rule:	N/A
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.2.18 Accept Appointment

ID and Name	UC-58: Accept Appointment		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to accept appointment.		
Description:	This feature allows users to accept pending appointment.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Chấp nhận cuộc hẹn thành công”. Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Lịch hẹn” tab	System redirect to Appointment screen
	2	Actors swipe left/right or presses on “Đang chờ” tab below the “Danh sách lịch hẹn” title	System shows the list of Pending appointments
	3	Actor taps a pending appointment card	System shows Appointment Detail popup
	4	Actor taps on “Chấp nhận” button	System shows “Chấp nhận cuộc hẹn thành công”
Alternative Flows:	Step	Actor Action	System Response
	1	Actor taps on “Lịch hẹn” tab	System redirect to Appointment screen

	2	Actors swipe left/right or presses on “Đang chờ” tab below the “Danh sách lịch hẹn” title	System shows the list of Pending appointments
	3	Actor taps on “Chấp nhận” button on an appointment card	System shows “Chấp nhận cuộc hẹn thành công”
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> BR-22: Appointment must be approved/rejected/canceled by owner 24 hours before the time of appointment. If time over the date of appointment, appointment will change status to “expired”. 		
Other Information:	N/A		
Assumptions:	<p>Internet connection is available.</p> <p>The status of selected appointment is “Pending”</p>		

2.4.2.19 Reject Appointment

ID and Name	UC-59: Reject Appointment		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to reject appointment.		
Description:	This feature allows users to reject appointment.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	<p>Success: Systems informs “Đã từ chối cuộc hẹn”.</p> <p>Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”.</p>		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Lịch hẹn” tab	System redirect to Appointment screen

	2	Actors swipe left/right or presses on “Đang chờ” below the “Danh sách lịch hẹn” title	System shows the list of Pending appointments
	3	Actor taps on a pending appointment card	System shows Appointment Detail popup
	4	Actor tabs “Tù chối” button	System shows a reason menu popup
	5	Actor chooses a reason and tap “Xác nhận” button	System shows “Đã từ chối cuộc hẹn”
Alternative Flows:	Step	Actor Action	System Response
	1	Actor taps on “Lịch hẹn” tab	System redirect to Appointment screen
	2	Actors swipe left/right or presses on “Đang chờ” tab below the “Danh sách lịch hẹn” title	System shows the list of Pending appointments
	3	Actor taps on “Tù chối” button on an appointment card	System shows a reason menu popup
	4	Actor chooses a reason and taps on “Xác nhận” button	System shows “Đã từ chối cuộc hẹn”
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	<ul style="list-style-type: none"> BR-31: Appointment must be rejected by owner 24 hours before the time of appointment. If time over the date of appointment, appointment will change status to “expired”. 		
Other Information:	N/A		
Assumptions:	<p>Internet connection is available.</p> <p>The status of selected appointment is “Pending”.</p>		

2.4.2.20 Cancel Appointment

ID and Name	UC-60: Cancel Appointment
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Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to cancel an accepted appointment.		
Description:	This feature allows users to cancel an accepted appointment.		
Preconditions:	Actor has logged into UniHome application. The appointment is accepted and must be in “Accepted” status.		
Post-conditions:	Success: System informs “Đã huỷ cuộc hẹn”. Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Lịch hẹn” tab	System redirect to Appointment screen
	2	Actors swipe left/right or presses on “Chấp nhận” tab below the “Danh sách lịch hẹn” title	System shows the list of Accepted appointments
	3	Actor taps on a accepted appointment card	System shows Appointment Detail popup
	4	Actor taps on “Hủy” button from the appointment detail card	System shows a reason menu popup
	5	Actor chooses a reason and tap “Xác nhận”	System shows “Đã hủy cuộc hẹn”
Alternative Flows:	Step	Actor Action	System Response
	1	Actor taps on “Lịch hẹn” tab	System redirect to Appointment screen
	2	Actors swipe left/right or presses on “Chấp nhận” tab below the “Danh sách lịch hẹn” title	System shows the list of Accepted appointments
	3	Actor taps on “Hủy” button on an appointment card	System shows a reason menu popup
	4	Actor chooses a reason and taps on “Xác nhận” button	System shows “Đã hủy cuộc hẹn”

Exceptions:	N/A
Priority:	Medium
Frequency of Use:	Sometimes
Bussiness Rule:	<ul style="list-style-type: none"> BR-22: Appointment must be approved/rejected/canceled by owner 24 hours before the time of appointment. If time over the date of appointment, appointment will change status to “expired”. BR-23: Renter and owner can cancel the appointment 24 hours before the time of appointment. BR-25: When renter or owner cancels the appointment, the reason must be entered.
Other Information:	N/A
Assumptions:	<p>Internet connection is available.</p> <p>The status of selected appointment is “Pending”</p>

2.4.2.21 Update Appointment As Finished

ID and Name	UC-61: Update Appointment As Finished		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to update appointment as finished.		
Description:	This feature allows users to update appointment as finished.		
Preconditions:	<p>Actor has logged into UniHome application.</p> <p>The appointment is accepted and must be in “Accepted” status.</p>		
Post-conditions:	<p>Success: System informs “Đã hoàn thành cuộc hẹn”.</p> <p>Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”.</p>		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Lịch hẹn” tab	System redirect to Appointment screen
	2	Actors swipe left/right or presses on “Chấp nhận” tab below the “Danh sách lịch hẹn” title	System shows the list of Accepted appointments

	3	Actor taps on a accepted appointment card	System shows Appointment Detail popup
	4	Actor taps on “Hoàn thành” button from the appointment detail card	System informs “Đã hoàn thành cuộc hẹn”
Alternative Flows:	Step	Actor Action	System Response
	1	Actor taps on “Lịch hẹn” tab	System redirect to Appointment screen
	2	Actors swipe left/right or presses on “Chấp nhận” tab below the “Danh sách lịch hẹn” title	System shows the list of Accepted appointments
	3	Actor taps on “Hoàn thành” button on an appointment card	System shows “Đã hoàn thành cuộc hẹn”
Exceptions:	No	Cause	System Response
	1	Internet connection failed	System inform “Không có kết nối internet, vui lòng kiểm tra lại”
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> BR-26: Owner/Renter must marked appointment as “finished” within 24 hours since the time of appointment. If the time is over 24 hours, appointment’s status will be changed to “expired” and owner cannot update status of appointment. 		
Other Information:	N/A		
Assumptions:	Internet connection is available. The status of selected appointment is “Accepted”		

2.4.2.22 Get List Of Living Request

ID and Name	UC-62: Get List Of Living Request		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A

Trigger:	Actor wants to get list of living request.		
Description:	This feature allows users to get list of living request.		
Preconditions:	Actor has logged into UniHome application. Actor must have his/her citizen number information in profile.		
Post-conditions:	Success: System shows list of living requests.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System redirects to Home screen
	2	Actor taps on “Hợp đồng” icon button	System redirects to Contract screen, show list of request
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Always		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.23 Get Living Request Detail

ID and Name	UC-63: Get Living Request Detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to get detail of living request.		
Description:	This feature allows users to get detail of living request.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows detail of living request.		

	Failed: System informs “Không thể lấy thông tin yêu cầu vào ở, vui lòng thử lại”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System redirects to Home screen.
	2	Actor taps on “Hợp đồng” icon button.	System redirects to Contract screen, show list of request
	3	Actor taps on a contract card	System shows Contract Detail popup
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.24 Accept Living Request

ID and Name	UC-64: Accept Living Request		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to accept living request.		
Description:	This feature allows users to accept living request.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Tạo hợp đồng thành công”. Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”.		
Normal Flow:	Step	Actor Action	System Response

	1	Actor taps on “Trang chủ” tab	System redirects to Home screen
	2	Actor taps on “Hợp đồng” icon button	System redirects to Contract screen, show list of request
	3	Actor taps on “Chấp nhận” button on a living request	System shows Request Confirm popup
	4	Actor taps on “Tạo hợp đồng” button	System inform “Tạo hợp đồng thành công”
Alternative Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab.	System redirects to Home screen.
	2	Actor taps on “Hợp đồng” icon button.	System redirects to Contract screen, show list of request.
	3	Actor taps on a contract card.	System shows Contract Detail popup.
	4	Actor taps on “Chấp nhận” button.	System shows Request Confirm popup.
	5	Actor taps on “Tạo hợp đồng” button.	System inform “Tạo hợp đồng thành công”.
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> • BR-60: If rent entity created doesn't have any services, the default rental price of contract is included services's price • BR-28: Owner must create or reject the contract for renter within 3 days since the date renter request for living. If after 3 days owner doesn't do anything with request, request's status will change to “failed”. • BR-61: Owner must provide exactly the amount registered for fixed services equal to the number of people, who request to live while creating a contract. • BR-62: Owner must provide the exactly number in real life of non-fixed services while creating a contract. 		

Other Information:	N/A
Assumptions:	Internet connection is available. The status of the selected contract is “Requesting”

2.4.2.25 Reject Living Request

ID and Name	UC-65: Reject Living Request		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to reject living request.		
Description:	This feature allows users to reject living request.		
Preconditions:	Actor has logged into UniHome application. Actor must have his/her citizen number information in profile.		
Post-conditions:	Success: System informs “Đã từ chối hợp đồng”. Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System redirects to Home screen
	2	Actor taps on “Hợp đồng” icon button	System redirects to Contract screen, show list of request
	3	Actor taps on a contract card	System shows Contract Detail popup
	4	Actor taps on “Từ chối” button	System shows Confirm dialog
	5	Actor taps on “Xác nhận” button	System inform “Đã từ chối hợp đồng” [Alternative Flow 1]
Alternative Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System redirects to Home screen

	2	Actor taps on “Hợp đồng” icon button	System redirects to Contract screen, show list of request
	3	Actor taps on “Từ chối” button on a living request card	System shows Confirm dialog
	4	Actor taps on “Xác nhận” button	System inform “Đã từ chối hợp đồng” [Alternative Flow 1]
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Sometimes		
Bussiness Rule:	<ul style="list-style-type: none"> BR-28: Owner must create or reject the contract for renter within 3 days since the date renter request for living. If after 3 days owner doesn't do anything with request, request's status will changed to “failed”. 		
Other Information:	N/A		
Assumptions:	<p>Internet connection is available.</p> <p>The status of the selected contract is “Requesting”</p>		

2.4.2.26 Terminate Contract

ID and Name	UC-64: Terminate Contract		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to request renter leave rent entity.		
Description:	This feature allows users to request renter leave rent entity.		
Preconditions:	<p>Actor has logged into UniHome application.</p> <p>The contract is accepted and must be in “Available” status.</p> <p>Actor must have his/her citizen number information in profile.</p>		
Post-conditions:	<p>Success: System informs “Gửi yêu cầu rời đi thành công”.</p> <p>Failed: System informs “Lỗi xử lý, vui lòng thử lại sau”.</p>		
Normal Flow:	Step	Actor Action	System Response

	1	Actor taps on “Trang chủ” tab	System redirects to Home screen
	2	Actor taps on “Hợp đồng” icon button	System redirects to Contract screen
	3	Actor swipe left/right or presses on “Hoạt động” below Contract screen title	System shows list of available contracts
	4	Actor taps on “Yêu cầu rời đi” button on an available contract card	System shows Request leaving dialog
	5	Actor inputs required information	System calculates the amount of canceling the contract
	6	Actor taps on “Gửi yêu cầu” button	System informs “Gửi yêu cầu thành công”
Alternative Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System redirects to Home screen
	2	Actor taps on “Hợp đồng” icon button	System redirects to Contract screen
	3	Actor swipe left/right or presses on “Hoạt động” below Contract screen title	System shows list of available contracts
	4	Actor taps on an available contract	System shows detail of an available contract
	5	Actor taps on “Yêu cầu rời đi” button	System shows Request leaving dialog
	6	Actor inputs required information	System calculate the amount of canceling the contract
	7	Actor taps on “Gửi yêu cầu” button	System informs “Gửi yêu cầu thành công”
Exceptions:	N/A		
Priority:	Medium		

Frequency of Use:	Sometimes
Bussiness Rule:	<ul style="list-style-type: none"> BR-63: When owner terminate contract or accept leaving request, owner can select unpaid payment or not and provide the amount of money that will be paid back to renter. BR-64: If the amount of unpaid payment is lower than the amount of paid back money, owner must give back money to renter by cash. BR-65: If the amount of unpaid payment is greater than the amount of paid back money, renter must make last payment through app or by cash to owner.
Other Information:	N/A
Assumptions:	<p>Internet connection is available.</p> <p>The status of the selected contract is “Available”</p>

2.4.2.27 Get Leaving Request Detail

ID and Name	UC-67: Get Living Request Detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to get detail of living request.		
Description:	This feature allows users to get detail of living request.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	<p>Success: System shows detail of leaving request.</p> <p>Failed: System informs “Không thể lấy thông tin hợp đồng, vui lòng thử lại”.</p>		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System redirects to Home screen.
	2	Actor taps on “Hợp đồng” icon button.	System redirects to Contract screen
	3	Actor swipes right/left or presses on “Yêu cầu kết thúc” below Contract screen title	System shows list of leaving request

	4	Actor taps on a contract card	System shows Contract Detail popup
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.28 Accept Leaving Request

ID and Name	UC-68: Accept Leaving Request		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to get problem list.		
Description:	This feature allows users to get problem list.		
Preconditions:	Actor has logged into UniHome application. Actor must have his/her citizen number information in profile.		
Post-conditions:	Success: Systems shows “Thanh lí hợp đồng thành công”. Failed: System shows “Lỗi xử lý, vui lòng thử lại sau”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System redirects to Home screen
	2	Actor taps on “Hợp đồng” icon button	System redirects to Contract screen
	3	Actor swipe left/right or presses on “Yêu cầu rời đi” below Contract screen title	System shows list of available contracts

	4	Actor taps on “Thanh lí hợp đồng” button on a leaving request card	System shows Confirm leaving dialog
	5	Actor inputs required information	System calculates the amount of canceling the contract
	6	Actor taps on “Thanh lí hợp đồng” button	System informs “Thanh lí hợp đồng thành công”
Alternative Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System redirects to Home screen
	2	Actor taps on “Hợp đồng” icon button	System redirects to Contract screen
	3	Actor swipe left/right or presses on “Yêu cầu rời đi” below Contract screen title	System shows list of available contracts
	4	Actor taps on a leaving request card	System shows detail of a leaving request
	5	Actor taps on “Thanh lí hợp đồng” button	System shows Request leaving dialog
	6	Actor inputs required information	System calculate the amount of canceling the contract
	7	Actor taps on “Thanh lí hợp đồng” button	System informs “Thanh lí hợp đồng thành công”
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> BR-63: When owner terminate contract or accept leaving request, owner can select unpaid payment or not and provide the amount of money that will be paid back to rent entity. 		

	<ul style="list-style-type: none"> BR-64: If the amount of unpaid payment is lower than the amount of paid back money, owner must give back money to renter by cash. BR-65: If the amount of unpaid payment is greater than the amount of paid back money, renter must make last payment through app or by cash to owner.
Other Information:	N/A
Assumptions:	<p>Internet connection is available.</p> <p>The status of the selected contract is “Requesting_for_terminate”</p>

2.4.2.29 Get Problem List

ID and Name	UC-69: Get Problem List		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to get problem list.		
Description:	This feature allows users to get problem list.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows list of problems		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	
	2	Actor taps on “Sự cố” icon button	System redirects to Problem screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.30 Get Problem Detail

ID and Name	UC-70: Get Problem Detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to get problem detail.		
Description:	This feature allows users to get problem detail.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows detail of problem. Failed: System informs “Không thể lấy thông tin sự cố, vui lòng thử lại”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	System redirects to main screen
	2	Actor taps on “Sự cố” icon button	System redirects to Problem screen
	3	Actor taps on a problem card	System show Problem Detail popup
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.31 Accept Problem

ID and Name	UC-71: Accept Problem		
Created By:	QueTTN	Date Created:	02/04/2022

Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to accept problem.		
Description:	This feature allows users to accept problem.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Tiếp nhận sự cố thành công”. Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	
	2	Actor taps on “Sự cố” icon button	System redirects to Problem screen
	3	Actor taps on a problem card	System show Problem Detail popup
	4	Actor taps on “Tiếp nhận” button	System inform “Tiếp nhận sự cố thành công”
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available. The status of the selected problem is “Pending”		

2.4.2.32 Reject Problem

ID and Name	UC-72: Reject Problem		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A

Trigger:	Actor wants to reject problem.		
Description:	This feature allows users to reject pending problem.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Đã từ chối yêu cầu sửa chữa”. Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Trang chủ” tab	
	2	Actor taps on “Sự cố” icon button	System redirects to Problem screen
	3	Actor taps a problem card	System show Problem Detail popup
	4	Actor taps on “Từ chối” button	System shows Reason dialog
	5	Actor inputs rejection reason	
Alternative Flows:	6	Actor taps on “Xác nhận” button	System informs “Đã từ chối yêu cầu sửa chữa”.
	N/A		
	N/A		
	Medium		
	Usually		
	<ul style="list-style-type: none"> BR-68: Owner cancels/rejects the reported problem must provide the reason. 		
Other Information:	N/A		
Assumptions:	Internet connection is available. The status of the selected problem is “Pending”		

2.4.2.33 Cancel Problem

ID and Name	UC-73: Cancel Problem		
Created By:	QueTTN	Date Created:	02/04/2022

Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to cancel problem.		
Description:	This feature allows users to cancel problem.		
Preconditions:	Actor has logged into UniHome application. A problem is accepted and must be in 'Processing' status		
Post-conditions:	Success: System informs "Đã huỷ yêu cầu sửa chữa". Failed: System informs "Lỗi xử lý, vui lòng thử lại sau".		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on "Trang chủ" tab	
	2	Actor taps on "Sự cố" icon button	System redirects to Problem screen
	3	Actor taps on a problem card	System shows Problem Detail popup
	4	Actor taps on "Huỷ bỏ" button	System shows Reason dialog
	5	Actor inputs cancellation reason	
	6	Actor taps on "Xác nhận" button	System informs "Đã huỷ yêu cầu sửa chữa".
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Usually		
Bussiness Rule:	<ul style="list-style-type: none"> BR-68: Owner cancel/reject the reported problem must provide the reason. 		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.34 Get Payment List

ID and Name	UC-74: Get Payment List
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Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to get payment list.		
Description:	This feature allows users to get payment list.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows list of payments		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Hóa đơn” tab	System redirects to Payment screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.35 Create Payment

ID and Name	UC-75: Add Payment		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to add payment.		
Description:	This feature allows users to add payment.		
Preconditions:	Actor has logged into UniHome application. Actor must have his/her citizen number information in profile.		
Post-conditions:	Success: System informs “Tạo hóa đơn thành công”.		

	Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on Plus icon button	System redirects to Create Payment screen
	2	Actor fills payment information	System calculates the amount of payment
	3	Actor taps on “Xác nhận” button	System shows Confirmation dialog
	4	Actor taps on “Tạo hoá đơn” button	System informs “Tạo hoá đơn thành công”
Alternative Flow:	Step	Actor Action	System Response
	1	Actor taps on “Hoá đơn” tab	System redirects to Payment screen
	2	Actor swipes right/left or presses on “Tạo sẵn” below Payment screen title	System shows list of auto-generated payments
	3	Actor taps on “Tạo hoá đơn” button	System redirects to Create Payment screen
	4	Actor fills payment information	System calculates the amount of payment
	5	Actor taps on “Xác nhận” button	System shows Confirmation dialog
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Always		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.36 Get Payment Detail

ID and Name	UC-76: Get Payment Detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to get payment detail.		
Description:	This feature allows users to get payment detail.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows detail of payment. Failed: System informs “Không tìm thấy chi tiết hóa đơn, vui lòng thử lại”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Hóa đơn” tab	System redirects to Payment screen
	2	Actor taps on a Payment card	System show Payment Detail popup
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.37 Update Payment As Finished

ID and Name	UC-77: Update Payment As Finished		
Created By:	QueTTN	Date Created:	02/04/2022

Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to update payment as finished.		
Description:	This feature allows users to update payment as finished.		
Preconditions:	Actor has logged into UniHome application. A payment is created and must be “Pending” status		
Post-conditions:	Success: System informs “Thanh toán đã hoàn tất”. Failed: Systems “Lỗi xử lí, vui lòng thử lại sau”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Hoá đơn” tab	System redirects to Payment screen
	2	Actor swipes right/left or presses on “Đang chờ” below Payment screen title	System shows list of pending payments
	3	Actor taps on a Payment card	System show Payment Detail popup
	4	Actor taps on “Đã nhận” button	System informs “Thanh toán đã hoàn tất”.
Alternative Flows:	Step	Actor Action	System Response
	1	Actor taps on “Hoá đơn” tab	System redirects to Payment screen
	2	Actor swipes right/left or presses on “Đang chờ” below Payment screen title	System shows list of pending payments
	3	Actor taps on “Đã nhận” button on a pending payment	System informs “Thanh toán đã hoàn tất”.
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Sometimes		
Bussiness Rule:	<ul style="list-style-type: none"> BR-38: Owner must confirm the payment is finished after he/she received cash from renter 		

	<ul style="list-style-type: none"> BR-39: If renter make payment by cash to owner, owner must update status of payment to “finished” and renter must keep an evidence that they have made the payment with owner.
Other Information:	N/A
Assumptions:	<p>Internet connection is available.</p> <p>The status of the selected payment is “Pending”</p>

2.4.2.38 Get Q&A List

ID and Name	UC-78: Get Q&A List		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to get Q&A list.		
Description:	This feature allows users to get Q&A list.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows list of Q&As		
Normal Flow:	Step	Actor Action	System Response
	1	Actors taps on ‘Trang chủ’ icon	
	2	Actors taps on ‘Nhà’ icon	System redirects to House screen
	3	Actors taps on a house card	System redirects to House Detail screen
	4	Actor taps on “Hỏi đáp” tab	System shows list of Q&As
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		

Assumptions:	Internet connection is available.
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2.4.2.39 Reply Q&A

ID and Name	UC-79: Reply Q&A		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to reply Q&A.		
Description:	This feature allows users to reply Q&A.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Trả lời thành công”. Failed: System informs “Lỗi xử lí, vui lòng thử lại sau”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actors taps on ‘Trang chủ’ icon	
	2	Actors taps on ‘Nhà’ icon	System redirects to House screen
	3	Actors taps on a house card	System redirects to House Detail screen
	4	Actor taps on “Hỏi đáp” tab	System shows list of Q&As
	5	Actor taps on “Trả lời” button	System shows Answer dialog
	6	Actor fills content of answer	
	7	Actor taps on “Xác nhận”	System inform “Trả lời thành công”
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		

Other Information:	N/A
Assumptions:	Internet connection is available. The Question to Reply is Available

2.4.2.40 Get Notification

ID and Name	UC-80: Get Notification		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A
Trigger:	Actor wants to get notification.		
Description:	This feature allows users to get notification.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows list of notifications		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on Bell icon	System redirect to Notification screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Usually		
Bussiness Rule:	• BR-12: User can only view their own notification.		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.41 Send Annoucement

ID and Name	UC-81: Send Annoucement		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Owner	Secondary Actor:	N/A

Trigger:	Actor wants to send announcement.		
Description:	This feature allows users to send announcement.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows “Gửi thông báo thành công” Failed: System shows “Lỗi xử lí, vui lòng thử lại sau”.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Cài đặt” tab	System redirect to Setting screen
	2	Actor taps on “Gửi thông báo” button	System redirect to Send Announcement screen
	3	Actor fills content of announcement and chooses who will receive the announcement	
	4	Actor taps on “Gửi” button	System informs “Gửi thông báo thành công”
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

1. Admin & System Handler

2.4.2.1 Send Notification

ID and Name	UC-82: Send Notification		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	System Handler	Secondary Actor:	N/A

Trigger:	System sends user notification		
Description:	This feature allows system to notify users via notification		
Preconditions:	System handler		
Post-conditions:	Success: User received notification Failure: System informs error message		
Normal Flow:	Step	Actor Action	System Response
	1	System handler sends user notification	System handler sends user notification
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.2 Log In

ID and Name	UC-83: Login		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Guest	Secondary Actor:	N/A
Trigger:	Actor wants to login as system admin		
Description:	This feature allows users to login as the system administrator		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Đăng nhập thành công”, redirects to Home screen Failed: The system will inform: “Đăng nhập thất bại. Vui lòng thử lại sau”. User stays at Login page.		

Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Đăng nhập với Google” button	System redirects to Login screen of Gmail
	2	Actor chooses a Gmail account	System informs “Đăng nhập thành công”, redirects to Home screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.3 Get User List

ID and Name	UC-84: Get User List		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to get user list.		
Description:	This feature allows users to get user list.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows list of users. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Người dùng” tab	System shows list of users
Alternative Flows:	N/A		
Exceptions:	N/A		

Priority:	High
Frequency of Use:	Usually
Bussiness Rule:	N/A
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.2.4 Get User Detail

ID and Name	UC-85: Get User Detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to get user detail.		
Description:	This feature allows users to get user detail.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System redirects to User Detail screen Failed: System informs error message		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Người dùng” tab	System shows list of users screen
	2	Actor chooses a User card	System redirects to User Detail screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.5 Update User

ID and Name	UC-86: Update User		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to update user.		
Description:	This feature allows users to update user.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: Systems informs “Cập nhật thành công”, user's status is updated. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Người dùng” tab	System shows list of users
	2	Actor chooses a User card	System redirects to User Detail screen
	3	Actor clicks on “Cập nhật trạng thái”	System shows Update Status popup
	4	Actor selects User Status	
	5	Actor clicks on “Lưu” button	System updates User Status
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.6 Get House List

ID and Name	UC-84: Get House List

Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to get house list.		
Description:	This feature allows users to get house list.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows list of houses. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on "Nhà" tab	System shows list of houses
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.7 Get House Detail

ID and Name	UC-85: Get Houose Detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to get house detail.		
Description:	This feature allows users to get house detail.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System redirects to House Detail screen. Failed: System informs error message.		

Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Nhà” tab	System shows list of houses
	2	Actor chooses a House card	System redirects to House Detail screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.8 Get Rent Entity List

ID and Name	UC-86: Get Rent Entity List		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to get rend list.		
Description:	This feature allows users to get rend list.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows list of rent entities. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Phòng” tab	System shows list of rent entities
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		

Frequency of Use:	Usually
Bussiness Rule:	N/A
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.2.9 Get Rent Entity Detail

ID and Nme	UC-87: Get Rent Entity Detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to get rent entity detail.		
Description:	This feature allows users to get rent entity detail.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System redirects to Rent Entity Detail screen. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Phòng” tab	System shows list of rent entities
	2	Actor chooses a Rent Entity card	System redirects to Rent Entity Detail screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.10 Update Rent Entity

ID and Name	UC-88: Update Rent Entity																				
Created By:	QueTTN	Date Created:	02/04/2022																		
Primary Actor:	Admin	Secondary Actor:	N/A																		
Trigger:	Actor wants to update rent entity.																				
Description:	This feature allows user to update rent entity.																				
Preconditions:	Actor has logged into UniHome application.																				
Post-conditions:	<p>Success: System informs “Cập nhật trạng thái thành công”, rent entity's status is updated.</p> <p>Failed: System informs error message.</p>																				
Normal Flow:	<table border="1"> <thead> <tr> <th>Step</th> <th>Actor Action</th> <th>System Response</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Actor clicks on “Phòng” tab</td> <td>System shows list of rent entities</td> </tr> <tr> <td>2</td> <td>Actor chooses a “Pending” status Rent Entity card</td> <td>System redirects to Rent Entity Detail screen</td> </tr> <tr> <td>3</td> <td>Actor clicks on “Thay đổi” button</td> <td>System shows Rent Entity Update popup</td> </tr> <tr> <td>4</td> <td>Actor selects Rent Entity status</td> <td></td> </tr> <tr> <td>5</td> <td>Actor clicks on “Lưu thay đổi” button</td> <td>System informs “Cập nhật trạng thái thành công”</td> </tr> </tbody> </table>	Step	Actor Action	System Response	1	Actor clicks on “Phòng” tab	System shows list of rent entities	2	Actor chooses a “Pending” status Rent Entity card	System redirects to Rent Entity Detail screen	3	Actor clicks on “Thay đổi” button	System shows Rent Entity Update popup	4	Actor selects Rent Entity status		5	Actor clicks on “Lưu thay đổi” button	System informs “Cập nhật trạng thái thành công”		
Step	Actor Action	System Response																			
1	Actor clicks on “Phòng” tab	System shows list of rent entities																			
2	Actor chooses a “Pending” status Rent Entity card	System redirects to Rent Entity Detail screen																			
3	Actor clicks on “Thay đổi” button	System shows Rent Entity Update popup																			
4	Actor selects Rent Entity status																				
5	Actor clicks on “Lưu thay đổi” button	System informs “Cập nhật trạng thái thành công”																			
Alternative Flows:	N/A																				
Exceptions:	N/A																				
Priority:	Medium																				
Frequency of Use:	Usually																				
Bussiness Rule:	N/A																				
Other Information:	N/A																				
Assumptions:	Internet connection is available.																				

2.4.2.11 Get Building List

ID and Name	UC-89: Get Building List		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to get building list.		
Description:	This feature allows user to get building list.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows list of buildings. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Tòa nhà” tab	System shows list of buildings
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.12 Create Building

ID and Name	UC-90: Create Building		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to create building.		
Description:	This feature allows users to create building.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Tạo nhà / tòa nhà thành công” message.		

	Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Tòa nhà” tab	System shows list of buildings
	2	Actor clicks on “Tạo mới tòa nhà / chung cư” button.	System redirects to Add Building screen
	3	Actor fills in information about building	
	4	Actor taps on “Submit” button	System informs “Tạo nhà / tòa nhà thành công”
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Filling null information	System informs “Không được bỏ trống”, “Chọn quận/ huyện”, “Chọn phường, xã”, “Chọn ít nhất một hình ảnh”
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.13 Get Building Detail

ID and Name	UC-91: Get Building Detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to get building detail.		
Description:	This feature allows users to get building detail.		
Preconditions:	Actor has logged into UniHome application.		

Post-conditions:	Success: System redirects to Building Detail screen. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Tòa nhà” tab	System shows list of buildings
	2	Actor chooses Building card	System shows Building Detail screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.14 Update Building

ID and Name	UC-92: Update Building		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to update building.		
Description:	This feature allows users to update building.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Cập nhật thành công” message, building detail is updated. Failed: System informs error message		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Tòa nhà” tab	System shows list of buildings

	2	Actor chooses Building card	System shows Building Detail screen
	3	Actor clicks on "Cập nhật" button	System shows Update Building screen
	4	Actor fills in information about Building	
	5	Actor clicks on "Lưu" button	System redirects to Building detail screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Exceptions:	No	Cause	System Response
	1	Filling null some information	System informs “Không được bỏ trống”, “Chọn quận/huyện”, “Chọn phường, xã”, “Chọn ít nhất một hình ảnh”
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.15 Delete Building

ID and Name	UC-93: Delete Building		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to delete building.		
Description:	This feature allows users to delete building.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Xóa chung cư thành công” message.		

	Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on "Tòa nhà" tab	System shows list of buildings
	2	Actor chooses Building card	System shows Building Detail screen
	3	Actor taps on "Cập nhật" button	System inform "Xóa chung cư thành công" and redirect to Building List screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.16 Get Facility List

ID and Name	UC-94: Get Facility List		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to get facility list.		
Description:	This feature allows users to get facility building.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows list of facilities. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on "Vấn đề - CSVC - Dịch vụ" tab	

	2	Actor clicks on “Cơ sở vật chất” tab	System shows list of facilities
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	When waiting the list	System informs “Đang load dữ liệu”
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.17 Create Facility

ID and Name	UC-95: Create Facility		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to create facility.		
Description:	This feature allows user to create facility.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Tạo CSVC thành công” message. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Vấn đề - CSVC - Dịch vụ” tab	
	2	Actor clicks on “Cơ sở vật chất” tab	System shows list of facilities
	3	Actor clicks on “Thêm mới”	System shows Add Facility screen

	4	Actor fills Facility name	
	5	Actor clicks on “Add”	System informs “Tạo CSVC thành công”
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Empty Facility name	System informs “Name can not empty”
Priority:	High		
Frequency of Use:	Sometimes		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.18 Get Facility Detail

ID and Name	UC-96: Get Facility Detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to get facility detail.		
Description:	This feature allows users to get facility detail.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System redirects Facility Detail screen. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Vấn đề - CSVC - Dịch vụ” tab	
	2	Actor clicks on “Cơ sở vật chất” tab	System shows list of facilities

	3	Actor chooses Facility card	System redirects to Facility Detail screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.19 Update Facility

ID and Name	UC-97: Update Facility		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to update facility.		
Description:	This feature allows users to update facility.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Cập nhật thành công” message. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Vấn đề - CSVC - Dịch vụ” tab	
	2	Actor clicks on “Cơ sở vật chất” tab	System shows list of facilities
	3	Actor chooses Facility card and taps on “Cập nhật” button	System redirects to Update Facility screen

	4	Actor fills in information about Facility	
	5	Actor clicks on “Cập nhật”	System informs “Cập nhật CSVC thành công”
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Medium		
Frequency of Use:	Sometimes		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.20 Delete Facility

ID and Name	UC-98: Delete Facility		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to delete facility.		
Description:	This feature allows users to delete facility.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Cập nhật CSVC thành công” message. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Vấn đề - CSVC - Dịch vụ” tab	
	2	Actor clicks on “Cơ sở vật chất” tab	System shows Facility List screen

	3	Actor chooses Facility card and taps on “Cập nhật” button	System redirects to Update Facility screen
	4	Actor changes status into “Không có sẵn”	
	5	Actor clicks on “Cập nhật”	System informs “Cập nhật CSVC thành công”
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	H		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.21 Get Issue List

ID and Name	UC-99: Get Issue List		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to get issue list.		
Description:	This feature allows users to get issue list.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows list of issues. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Vấn đề - CSVC - Dịch vụ” tab	
	2	Actor clicks on “Vấn đề” tab	Systems show list of issues

Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High
Frequency of Use:	Usually
Bussiness Rule:	N/A
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.2.22 Create Issue

ID and Name	UC-100: Create Issue		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to create issue.		
Description:	This feature allows users to create issue.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Tạo vấn đề thành công” message. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Vấn đề - CSVC - Dịch vụ” tab	
	2	Actor clicks on “Vấn đề” tab	System shows list of issues
	3	Actor clicks on “Thêm mới”	System shows Add issues
	4	Actor fills in Issue name	
	5	Actor clicks on “Add”	System informs “Tạo vấn đề thành công”
Alternative Flows:	N/A		

Exceptions:	No	Cause	System Response
	1	Not fill in Issue name	System informs “không được bỏ trống”
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.23 Get Issue Detail

ID and Name	UC-101: Get Issue Detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to get issue detail.		
Description:	This feature allows users to get issue detail.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System redirects to Issue Detail screen. Failed: System shows error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Vấn đề - CSVC - Dịch vụ” tab	
	2	Actor clicks on “Vấn đề” tab	System shows list of issues
	3	Actor chooses Issue card and taps on “Chi tiết”	System shows Issue Detail screen
Alternative Flows:	N/A		
Exceptions:	N/A		

Priority:	High
Frequency of Use:	Usually
Bussiness Rule:	N/A
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.2.24 Update Issue

ID and Name	UC-102: Update Issue		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to update issue.		
Description:	This feature allows users to update issue.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Cập nhật thành công” message. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Vấn đề - CSVC - Dịch vụ” tab	
	2	Actor clicks on “Vấn đề” tab	System shows list of issues
	3	Actor chooses Issue card and taps on “Chi tiết”	System shows Issue Detail screen
	4	Actor clicks on “Cập nhật”	System shows Update Issue screen
	5	Actor fills in Issue name	
	6	Actor clicks on “Cập nhật”	System informs “Cập nhật vấn đề thành công”
Alternative Flows:	N/A		
Exceptions:	N/A		

Priority:	High
Frequency of Use:	Usually
Bussiness Rule:	N/A
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.2.25 Delete Issue

ID and Name	UC-103: Delete Issue		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to delete issue.		
Description:	This feature allows users to delete issue.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Cập nhật vấn đề thành công” message. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Vấn đề - CSVC - Dịch vụ” tab	
	2	Actor clicks on “Vấn đề” tab	System shows Issue List screen
	3	Actor chooses Issue card and taps on “Chi tiết”	System shows Issue Detail screen
	4	Actor clicks on “Cập nhật”	System shows Update Issue screen
	5	Actor changes status into “Unavailable”	
	6	Actor clicks on “Cập nhật”	System informs “Cập nhật vấn đề thành công”

Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High
Frequency of Use:	Usually
Bussiness Rule:	N/A
Other Information:	N/A
Assumptions:	Internet connection is available.

2.4.2.26 Get University List

ID and Name	UC-104: Get University List		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to get university list.		
Description:	This feature allows users to get university list.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows list of universities. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Trường Đại học” tab	System shows list of universities
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		

Assumptions:	Internet connection is available.
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2.4.2.27 Create University

ID and Name	UC-105: Create University		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to create university.		
Description:	This feature allows users to create university.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Tạo trường thành công” message. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Trường Đại học” tab	System shows list of universities
	2	Actor clicks on “Thêm mới”	System redirects to Add University screen
	3	Actor fills in information about school	
	4	Actor clicks on “Thêm” button	System informs “Tạo trường thành công”
Alternative Flows:	N/A		
Exceptions:	No	Cause	System Response
	1	Not fills information about school	System informs “Không được bỏ trống”, “Chọn một hình của trường đại học”
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		

Assumptions:	Internet connection is available.
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2.4.2.28 Get University Detail

ID and Name	UC-105: Get University Detail		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to get university detail.		
Description:	This feature allows users to get university detail.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System redirects to University Detail screen. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Trường Đại học” tab	System shows list of universities
	2	Actor chooses University card	System redirects to University Detail screen
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.29 Update University

ID and Name	UC-106: Update University		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A

Trigger:	Actor wants to update university.		
Description:	This feature allows users to update university.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Cập nhật trường thành công” message Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Trường Đại học” tab	System shows list of universities
	2	Actor chooses University card	System redirects to University Detail screen
	3	Actor fills in information about University	
	4	Actor clicks on “Lưu” button	System informs “Cập nhật trường thành công”
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.30 Delete University

ID and Name	UC-107: Delete University		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to delete university.		
Description:	This feature allows users to delete university.		

Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System informs “Xoá trường thành công” message. Failed: System informs error message.		
Normal Flow:	Step	Actor Action	System Response
	1	Actor clicks on “Trường Đại học” tab	System shows list of universities
	2	Actor chooses University card	System redirects to University Detail screen
	3	Actor clicks “Xoá” button	System informs “Xoá trường thành công”.
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

2.4.2.31 Track Payment

ID and Name	UC-108: Track Payment		
Created By:	QueTTN	Date Created:	02/04/2022
Primary Actor:	Admin	Secondary Actor:	N/A
Trigger:	Actor wants to track payment.		
Description:	This feature allows users to track payment.		
Preconditions:	Actor has logged into UniHome application.		
Post-conditions:	Success: System shows list of payments. Failed: System informs error message.		

Normal Flow:	Step	Actor Action	System Response
	1	Actor taps on “Thanh toán” tab	System shows list of payments
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High		
Frequency of Use:	Usually		
Bussiness Rule:	N/A		
Other Information:	N/A		
Assumptions:	Internet connection is available.		

3. Functional Requirements

■ System Functional Overview

3.1.1 Screen Flow

3.1.1.1 Renter Mobile Application

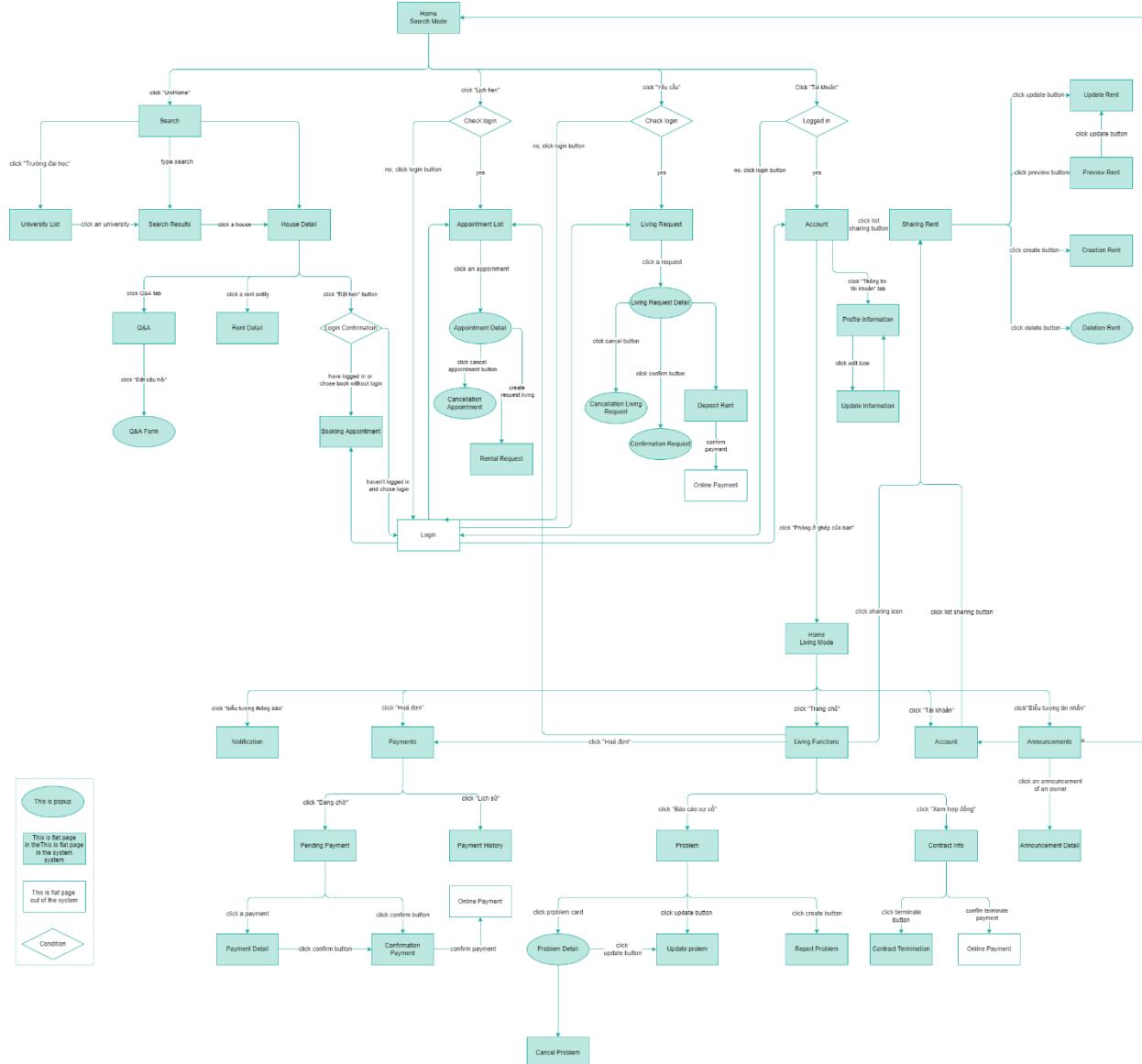


Figure 6: Renter Mobile Screen Flow

3.1.1.2 Renter Web Application

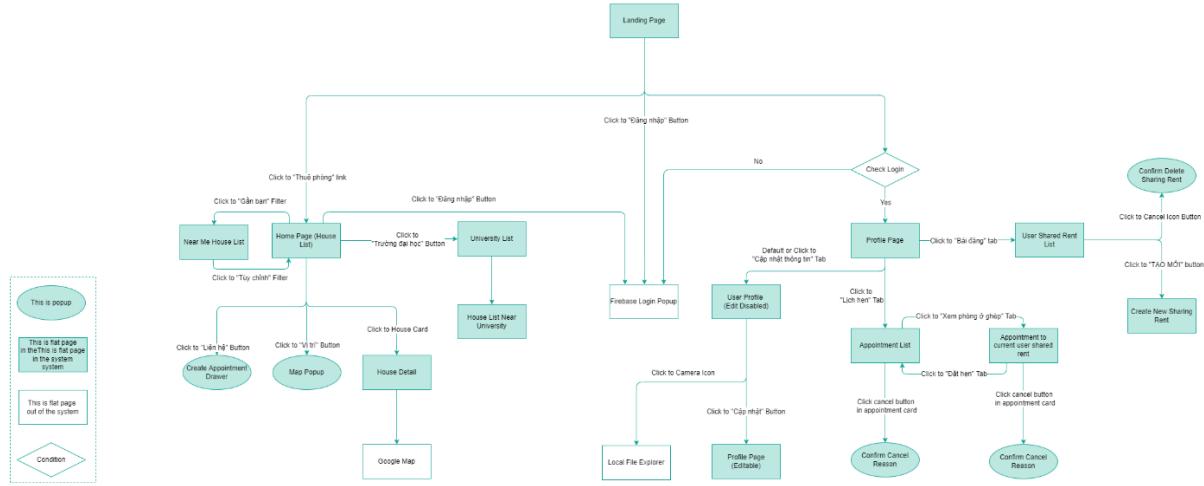


Figure 7: Renter Web Screen Flow

3.1.1.3 Owner Mobile Application

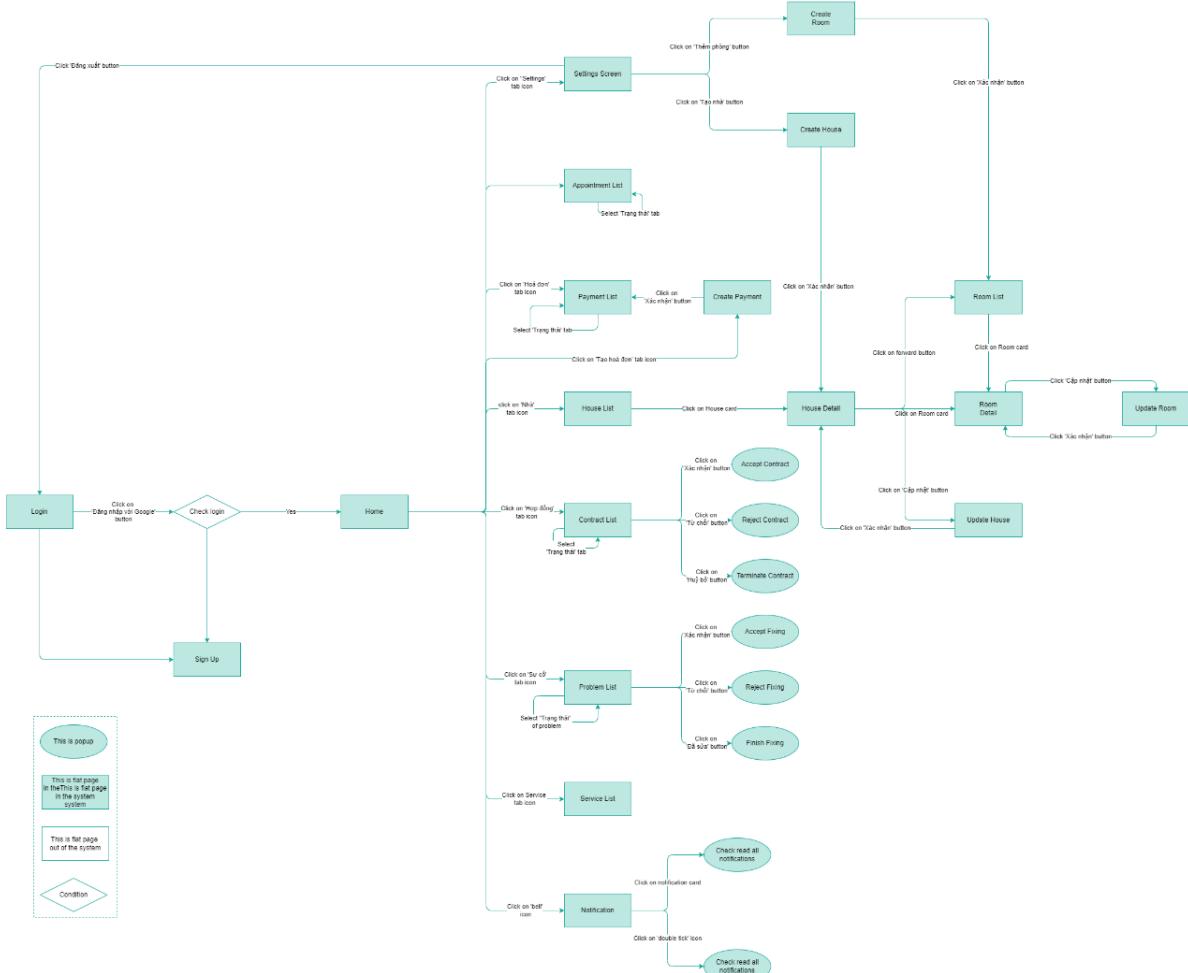


Figure 8: Owner Mobile Screen Flow

3.1.1.4 Admin Web Application

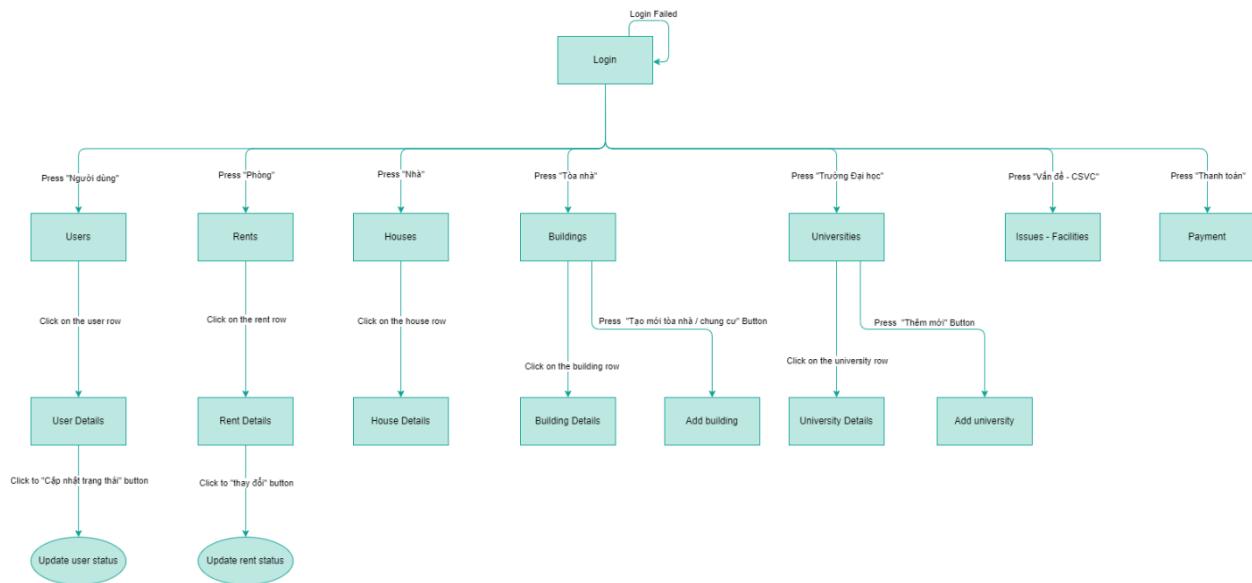


Figure 9: Admin Screen Flow

3.1.2 Screen Description

3.1.2.1 Renter Mobile Application

ID	Feature	Screen	Description
UNH-01	View Renter's Home in "Search mode"	Home Search Mode	Contains search bar, search action buttons, house item cards, appointment tab, request living tab, account tab.
UNH-02	View Search screen	Search	Contains search box, quick search actions to search house.
UNH-03	Get university list	University List	Contains list of university in UniHome.
UNH-04	Get list house	Search Result	List of houses which are found by conditions such as price, area, address, etc.
UNH-05	Get house detail	House Detail	Contains house's details about with booking button, map buttons.
UNH-06	Get rent entity detail	Rent Detail	Contain rent entity's detail about area, price, services,...
UNH-07	Make deposit payment to active contract	Deposit Rent	Contains pay button which navigate to MoMo app, payment details info.
UNH-08	Create an appointment	Booking Appointment	Renter can create an appointment to view owner's house / rent entities.

UNH-09	Make a Q&A	Q&A	Renter can create a Q&A to ask owner about house and rent entites.
UNH-10	Get list appointment	Appointment List	List of appointment.
UNH-11	Get appointment detail	Appointment Detail	Contains appointment details and its action button to update appointment status.
UNH-12	Cancel appointment	Cancellation Appointment	Renter can cancel appointment with thier reason.
UNH-13	Request for living	Rental Request	Renter can request for living through the finished appointment.
UNH-14	View listing request detail	Living Request Detail	Contains details of request living about the time, prices,... and some action buttons.
UNH-15	Cancel request living	Cancellation Living Request	Renter can cancel request living with their comment.
UNH-16	Get list of living request	Living Request	List of living request.
UNH-17	View account setting screen	Account	Contains account settings such as profile, sharing room, change application mode, log out.
UNH-18	Get list sharing room by renter	Sharing Rent	List of sharing room created by renter.
UNH-19	Create a sharing room	Creation Rent	Renter can create sharing room.
UNH-20	Get account profile	Profile Information	Contains account information.
UNH-21	Update account profile	Update Infomation	Renter can update profile information.
UNH-22	View Renter's Home in "Living mode"	Home Living Mode	Contains action buttons: invoice button, problem button, contract button, etc; user's image and profile.
UNH-23	Get list notification	Notification	List of notification.
UNH-24	Get list payment	Payments	List of payments.
UNH-25	Get payment detail	Payment Detail	Contains payment details.

Table 18: Renter Mobile Screen Description

3.1.2.2 Renter Web Application

ID	Feature	Screen	Description
UNH-01	View landing page about UniHome	Landing Page	Contains an introduction about UniHome and the main features of the application..
UNH-02	Get list of house near renters' location	Near Me House List	List of houses which are near renters' location within 5 kilometers.
UNH-03	Get list of house	Home Page (House List)	List of houses which are found by conditions such as price, area, address, etc.
UNH-04	Get house detail	House Detail	Contains house's details about with booking button, map buttons.
UNH-05	Get university list	University List	Contains list of university in UniHome.
UNH-06	Get list of house by the selected university	House List Near University	List of houses that are associated with the selected university.
UNH-07	View account management	Profile Page	Contains profile tab, appointment tab and sharing tab.
UNH-08	Get account profile	User Profile (Edit Disabled)	Contains account information.
UNH-09	Update account profile	Profile Page (Editable)	Renter can update profile information.
UNH-10	Get list booked appointment	Appointment List	List of booked appointment by renter.
UNH-11	Get list request appointment	Appointment to current user shared rent	List of requested appointment by other renter.
UNH-12	Get list sharing room by renter	User Shared Rent List	List of sharing room created by renter.
UNH-13	Create a sharing room	Create New Sharing Rent	Renter can create sharing room.

Table 19: Renter Web Screen Description

3.1.2.3 Owner Mobile Application

ID	Feature	Screen	Description
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UNH-01	Login account	Login	Contains button login by Google.
UNH-02	Sign up account	Sign Up	Owner can sign up for using application.
UNH-03	View owner's home screen	Home	Contains action buttons house management, contract management, report management, etc.
UNH-04	View account setting screen	Settings Screen	Contains account settings such as profile, create house, create room, send announcement, etc.
UNH-05	Get list request appointment	Appointment List	List of requested appointment by other renter.
UNH-06	Get list payment	Payment List	List of payment.
UNH-07	Get list house	House List	List of house created by owner
UNH-08	Get list contract	Contract List	List of contract.
UNH-09	Get list problem	Problem List	List of problem.
UNH-10	Get list service	Service List	List of service.
UNH-11	Get list notification	Notification	List of notification.
UNH-12	Get account profile	Profile	Contains account information.
UNH-13	Get house detail	House Detail	Owner create preview their house detail.

Table 20: Owner Mobile Application

3.1.2.4 Admin Web Application

ID	Feature	Screen	Description
1	Login page	Login	Contains Login by Google account button.
2	Get list user	Users	List of user.
3	Get user details	User Details	Admin can view user profile.
4	Get list rent entity	Rents	List of rent entity.
5	Get rent entity detail	Rent Details	Admin can view rent entity detail.
6	Get list house	Houses	List of houses.

7	Get house detail	House Details	Admin can view house detail.
8	Get list building	Buildings	List of buildings.
9	Get buiding detail	Building Details	Admin can view building detail.
10	Create a building	Add building	Admin can create new building.
11	Get list university	Universities	List of university.
12	Get university detail	University Details	Admin can view university detail.
13	Create university	Add university	Admin can create new university.
14	Track payment	Payments	Admin can track payment report through system.
15	Manage issues and facilities	Issues - Facilities	Admin can manage default isssues and facilities of system.

Table 21: Admin Web Screen Description

3.1.3 Non-Screen Functions

#	System Function	Description
1	Update Appointments to “Expired”	Update “Pending” and “Accepted” Appointments to “Expired” status when they keep the status for more than 1 days. This function runs at 1:15AM everyday
2	Update Contracts Status to “Expired”	Update “Requesting” and “Pending” Contracts to “Expired” status when they keep the status for more than 3 days. This function runs at 0:15AM everyday
3	Send Mails to User	Sends mails to users when there are updates about the information of Appointment, Contract, Payment and Problem. These services run every 10 seconds to track the queue of changing, then send mail until the “event” queue is empty
4	Update Deposit Payment Status to “Expired”	Update “Pending” Payment to “Expired” status when they keep the status for more than 1 days. This service run every 1 minute
5	Update Payment Status to “Pending”	Update “Failed” Payment to “Expired” status when they keep the status for more than 15 seconds. This service run every 1 minute.

6	Update Deposit Rent Entity Status to "Available"	Update “Depositing” Payment to “Available” status when they keep the status for more than 5 minutes or failed to be deposited. This service run every 1 minute.
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Table 22: Non-Screen Functions

3.1.4 Entity Relationship Diagram

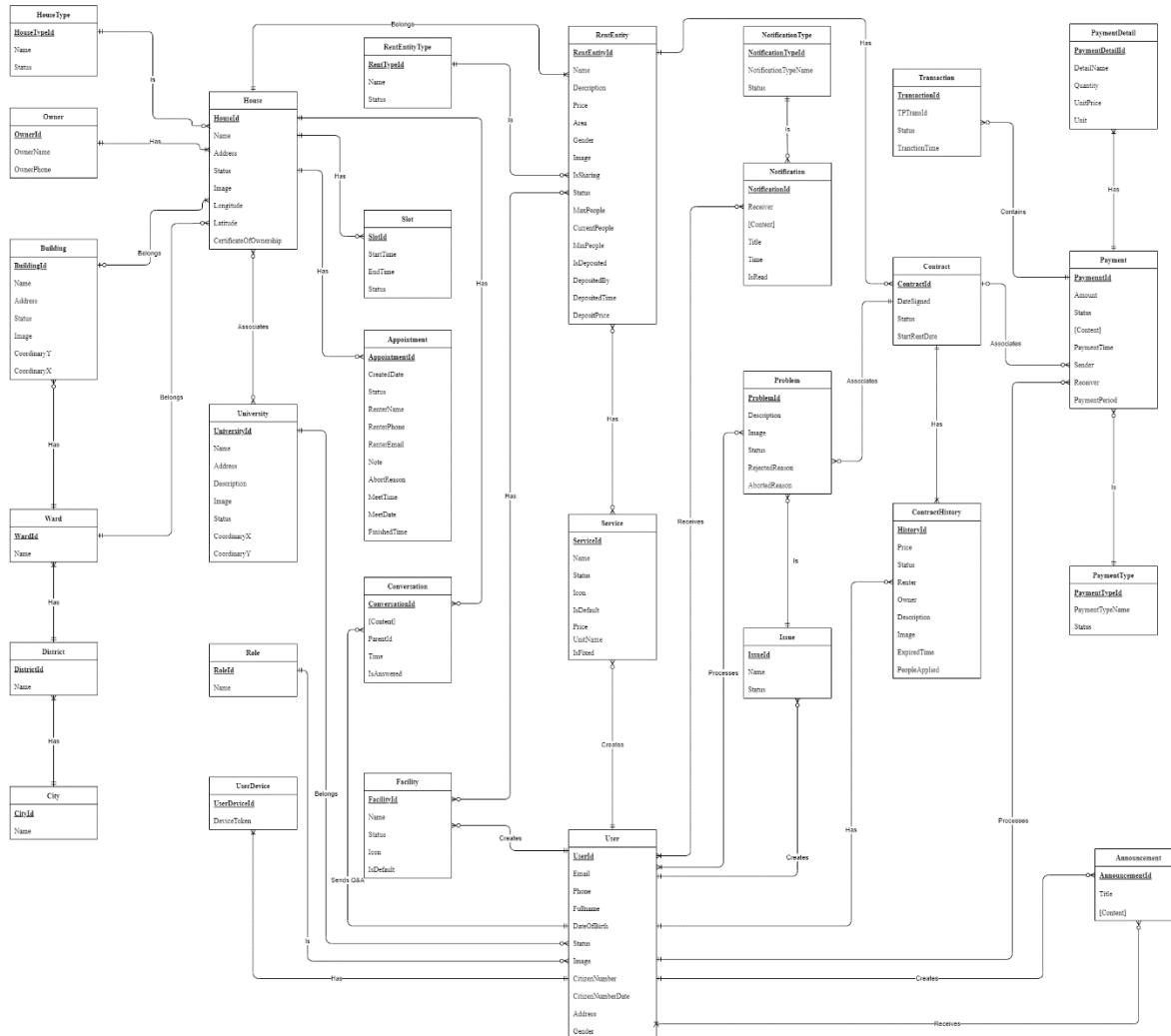


Figure 10: Entity Relationship Diagram

3.1.4.1 HouseType Entity

No	Attribute	Description
1	HouseTypeId	Unique definition of House Type
2	Name	Name

3	Status	Status of House Type
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*Table 23: HouseType Entity***3.1.4.2 Owner Entity**

No	Attribute	Description
1	OwnerId	Unique definition of Owner
2	OwnerName	Name of Owner
3	OwnerPhone	Phone Number of Owner

*Table 24: Owner Entity***3.1.4.3 Building Entity**

No	Attribute	Description
1	BuildingId	Unique definition of Building
2	Name	Name of Building
3	Address	Address of the Building
4	Status	Status of the Building
5	Image	Image of the Building
6	CoordinaryX	Longitude of the Building
7	CoordinaryY	Latitude of the Building

*Table 25: Building Entity***3.1.4.4 Ward Entity**

No	Attribute	Description
1	WardId	Unique definition of Ward
2	Name	Name of Ward

*Table 26: Ward Entity***3.1.4.5 District Entity**

No	Attribute	Description
1	DistrictId	Unique definition of District

2	Name	Name of District
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*Table 27: District Entity***3.1.4.6 City Entity**

No	Attribute	Description
1	CityId	Unique definition of City
2	Name	Name of City

*Table 28: City Entity***3.1.4.7 House Entity**

No	Attribute	Description
1	Houseld	Unique definition of House
2	Name	Name of House
3	Address	Address of the House
4	Status	Status of the House
5	Image	Image of the Building
6	Longitude	Longitude of the House
7	Latitude	Latitude of the House
8	CertificateOfOwnership	Image of Certificate Of Ownership of the House

*Table 29: House Entity***3.1.4.8 University Entity**

No	Attribute	Description
1	UniversityId	Unique definition of University
2	Name	Name of University
3	Address	Address of University
4	Description	Description of University
5	Image	Images of University

6	Status	Status of University
7	CoordinateX	Longitude of University
8	CoordinateY	Latitude of University

*Table 30: University Entity***3.1.4.9 Slot Entity**

No	Attribute	Description
1	SlotId	Unique definition of Slot
2	StartTime	Start time of the Slot
3	EndTime	End time of the Slot
4	Status	Status of the Slot

*Table 31: Slot Entity***3.1.4.10 Appointment Entity**

No	Attribute	Description
1	AppointmentId	Unique definition of Appointment
2	CreatedDate	The Date create of the Appointment
3	Status	The status of the Appointment
4	RenterName	The name of Renter booking Appointment
5	RenterPhone	The phone of Renter booking Appointment
6	RenterEmail	The email of Renter booking Appointment
7	Note	The note of Renter booking Appointment
8	AbortedReason	The reason of the renter aborting Appointment
9	MeetTime	The meet time of the Appointment
10	MeetDate	The meet date of the Appointment
11	FinishedTime	The finished time of the Appointment

*Table 32: Appointment Entity***3.1.4.11 Role Entity**

No	Attribute	Description
1	Role	Unique definition of Role
2	Name	Name of Role

*Table 33: Role Entity***3.1.4.12 UserDevice Entity**

No	Attribute	Description
1	UserDeviceId	Unique definition of User Device
2	DeviceToken	The token of the device

*Table 34: UserDevice Entity***3.1.4.13 Service Entity**

No	Attribute	Description
1	ServiceId	Unique definition of Service
2	Name	Name of Service
3	Status	Status of Service
4	Icon	Icon of Service
5	IsDefault	Define is the Service Default
6	Price	Unit price of the Service
7	UnitName	The name of the Unit of the Service
8	IsFixed	Define is the Service Fixed price

*Table 35: Service Entity***3.1.4.14 Facility Entity**

No	Attribute	Description
1	FacilityId	Unique definition of Facility
2	Name	Name of Facility
3	Status	Status of Facility

4	Icon	Icon of Facility
5	IsDefault	Define is the Facility Default

*Table 36: Facility Entity***3.1.4.15 RentEntityType Entity**

No	Attribute	Description
1	RentTypeId	Unique definition of Rent type
2	Name	Name of Rent Entity Type
3	Status	Status of Rent Entity Type

*Table 37: RentEntityType Entity***3.1.4.16 RentEntity Entity**

No	Attribute	Description
1	RentEntityId	Unique definition of Rent Entity
2	Name	Name of Rent Entity
3	Description	Description of Rent Entity
4	Price	Price of the Rent Entity
5	Area	Area of RentEntity
6	Gender	Gender which is allowed to stay in the Rent Entity
7	Image	The image of the RentEntity
8	IsSharing	Define whether the Rent Entity is upload for shaing purpose
9	Status	The status of the Rent Entity
10	MaxPeople	The maximum of people allowed to stay in the Rent Entity
11	CurrentPeople	The current number of people staying currently in the Rent Entity
12	MinPeople	The minimum of people allowed to stay in the Rent Entity
13	IsDeposited	Define whether the Rent Entity is already deposited or not
14	DepositedBy	Define user who deposited the Rent Entity

15	DepositedTime	Define the time when the Rent Entity is deposited
16	DepositedPrice	Define the depositing price of the Rent Entity

*Table 38: RentEntity Entity***3.1.4.17 Conversation Entity**

No	Attribute	Description
1	ConversationId	Unique definition of Conversation
2	Content	The content of the Conversation
3	ParentId	Define the Id of the Conversation which is the question
4	Time	The time when the conversation was made
5	IsAnswered	Check if the conversation is answered yet if it is a question

*Table 39: Conversation Entity***3.1.4.18 User Entity**

No	Attribute	Description
1	UserId	Unique definition of the User
2	Email	Email of the User
3	Phone	Phone number of the User
4	Fullscreen	Full name of the User
5	DateOfBirth	The Date of birth of the User
6	Status	The Status of the User
7	Image	The image (avatar) of the User
8	CitizenNumber	The Citizen Number of the User
9	CitizenNumberDate	The date when the User got his/her Citizen Card
10	Address	The address of the User
11	Gender	The gender of the User

*Table 40: User Entity***3.1.4.19 Problem Entity**

No	Attribute	Description
1	ProblemId	Unique definition of Problem
2	Description	The description of the Problem
3	Image	The image describing the Problem
4	Status	The status of the Problem
5	RejectedReason	The reason of Owner who rejected the Problem request
6	AbortedReason	The reason of User who aborted the Problem request

*Table 41: Problem Entity***3.1.4.20 Issue Entity**

No	Attribute	Description
1	IssueId	Unique definition of the Issue
2	Name	Name of Issue
3	Status	Status of Issue

*Table 42: Issue Entity***3.1.4.21 Transaction Entity**

No	Attribute	Description
1	TransactionId	Unique definition of Transaction
2	TPTransId	The Id of TP (Third – party) that associates with the payment's process
3	Status	Status of Transaction
4	TransactionTime	The time when the transaction processed

*Table 43: Transaction Entity***3.1.4.22 Contract Entity**

No	Attribute	Description
1	ContractId	Unique definition of Contract
2	DateSigned	The date when the contract signed

3	Status	Status of Contract
4	StartRentDate	The date when the Renter start to live after signed the contract

*Table 44:Contract Entity***3.1.4.23 ContractHistory Entity**

No	Attribute	Description
1	HistoryId	Unique definition of Contract History
2	Price	The monthly price which is written in the Contract
3	Status	Status of Contract History
4	Renter	The renter who signed the contract
5	Owner	The owner who create or approve the request of the contract
6	Description	The description of the Contract
7	Image	The image of the Contract
8	ExpriedTime	The expired time of the Contract (in month)
9	PeopleApplied	The number of people who is applied in the Contract

*Table 45: ContractHistory Entity***3.1.4.24 Payment Entity**

No	Attribute	Description
1	PaymentId	Unique definition of Payment
2	Amount	The total price of the Payment
3	Status	Status of Payment
4	Content	Content of Payment
5	PaymentTime	The time when the Payment is processed
6	Sender	The User who paid the Payment
7	Receiver	The User who receive the money through the Payment
8	PaymentPeriod	The period of Payment

*Table 46: Payment Entity***3.1.4.25 PaymentDetail Entity**

No	Attribute	Description
1	PaymentDetailId	Unique definition of Payment Detail
2	DetailName	The name of the Payment Detail
3	Quantity	The quantity of the item in Payment Detail
4	UnitPrice	The price of a unit of Payment Detail
5	Unit	The name of unit of Payment Detail

*Table 47: Payment Detail***3.1.4.26 PaymentType Entity**

No	Attribute	Description
1	PaymentTypeId	Unique definition of Payment Type
2	PaymentTypeName	The name of the Payment Type
3	Status	Status of Payment Type

*Table 48: PaymentType Entity***3.1.4.27 Announcement Entity**

No	Attribute	Description
1	AnnouncementId	Unique definition of Announcement
2	Title	Title of Announcement
3	Content	Content of Announcement

*Table 49: Annoucement Entity***3.1.4.28 Notification Entity**

No	Attribute	Description
1	NotificationId	Unique definition of Notification
2	Receiver	User who receives Notification
3	Content	The content of Notification

4	Title	The title of Notification
5	Time	The time when the Notification was made
6	IsRead	Define whether the Notification is read

Table 50: Notification Entity

3.1.4.29 NotificationType Entity

No	Attribute	Description
1	NotificationTypeId	Unique definition of Notification Type
2	NotificationTypeName	Name of Notification Type
3	Status	Status of Notification Type

Table 51: NotificationType Entity

4. Non-Functional Requirements

External Interfaces

4.1.1 User Interfaces

- The authenticated users UI must be fully shown in mobile app.

4.1.2 Communications Interfaces

- Authenticatio Service:The system can be integrated with Firebase Authentication framework.
- The system can call API through data transferred by HTTP.

Quality Attributes

4.2.1 Usability

- All text, label and message should be uniformly written in Vietnamese.
- The application should be friendly and easy for users to use without training.
- The web application for admin should require no more than 2 days of training of use.

4.2.2 Security

- UniHome users is divided into 3 roles: Renter, Owner and Admin.
- All input data are validated before saving to the database.
- Each role only access to a group of functions.
- The system always checks authentication and authorization before doing any features.

IV. Software Design Description

1. Overall Description

Assumptions

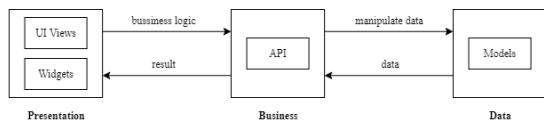
This system is designed basing on these following assumptions:

- Window 10
- Chrome 96
- Microsoft Edge 96
- SQL Server 2019
- Android 8+
- End-User: FPT University Students, Rent Owners, UniHome team
- Security requirement: prevent users from cheating as much as possible.
- Network communication: This system depends on network connections.

2. System Architecture Design

Overall System Architecture

UniHome mobile app software architecture



UniHome server architecture

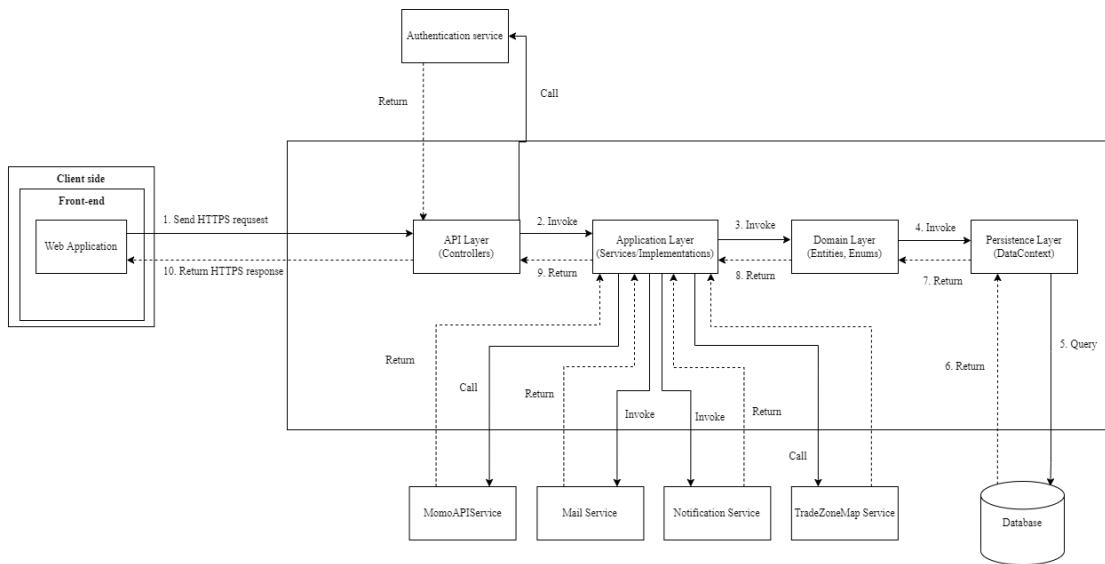


Figure 11: Overall System Architecture

No.	Name	Description
1	Authentication service	It oversees authenticating 3rd party account of the user and send the result to our system.
2	Email Service	It handles sending emails.
3	Notification service	It handles sending notification to users.
4	UI	<p>Client components to render and display data from the server. Client components provide functions:</p> <p>For admin: verify room, manage accounts, buildings, facilities, etc.</p> <p>For renter: manage appointments, contracts, sharing rooms, etc.</p> <p>For owner: manage rooms, houses, appointments, etc.</p>
5	Business logic process	It handles the business logic of the system.
6	Provider/DAO	It handles reading and writing data in the system.
7	UniHome API	It handles requests from mobile, web application and responses from the system.
8	Database	It stores the data of the system.

Table 52: Overall System Architecture Description

■ Component Diagram

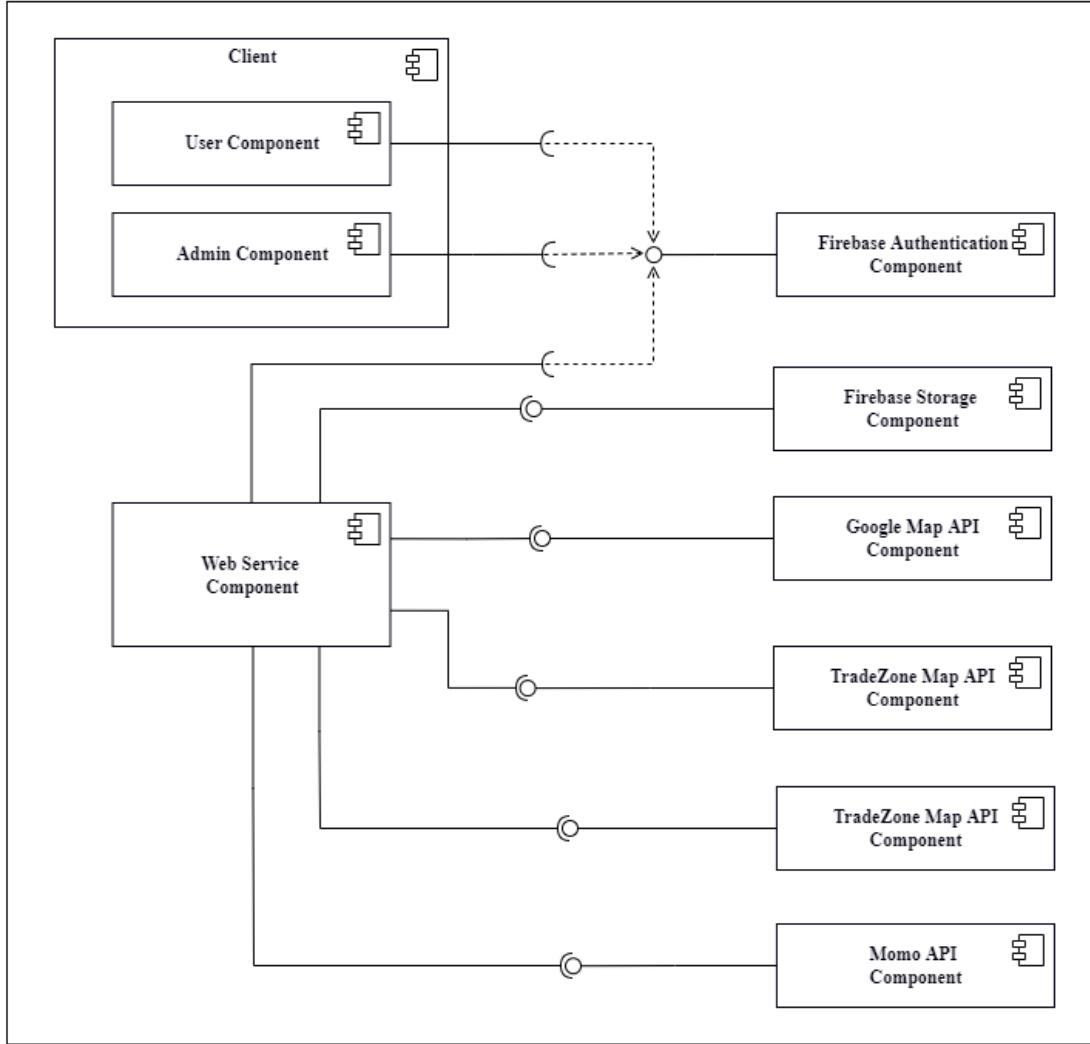


Figure 12: Component Diagram

No.	Name	Description
1	Firebase Authentication	User use gmail account to be authenticated in the UniHome system. This component oversees authenticating the account of the user and send the result to our system.
2	Client Component	Client component to render and display data from the server. Client component provides functions: For admin: verify rooms, manage accounts, buildings, facilities, etc. For renter: manage appointments, contracts, sharing rooms, etc. For owner: manage rooms, houses, appointments, etc.

3	Admin Component	It provides features include verifying rooms, managing accounts, buildings, facilities, etc.
4	User Component	It provides features include managing rooms, houses, appointments, payments, contracts, etc.
5	Firebase Storage	Stores and serves user-generated contents, contains photo.
6	Google Map API	Service to direct users from their locations to room which they make appointments or wants to rent.
7	TradeZone Map API	Service provides Point of Interest to show out in Map.
8	Open Street Map API	Service to show POI which get from TradeZone Map and shows this in map in system.
9	Momo API	Service to make in-app purchase.

Table 53: Component Diagram Description

■ Package Diagram

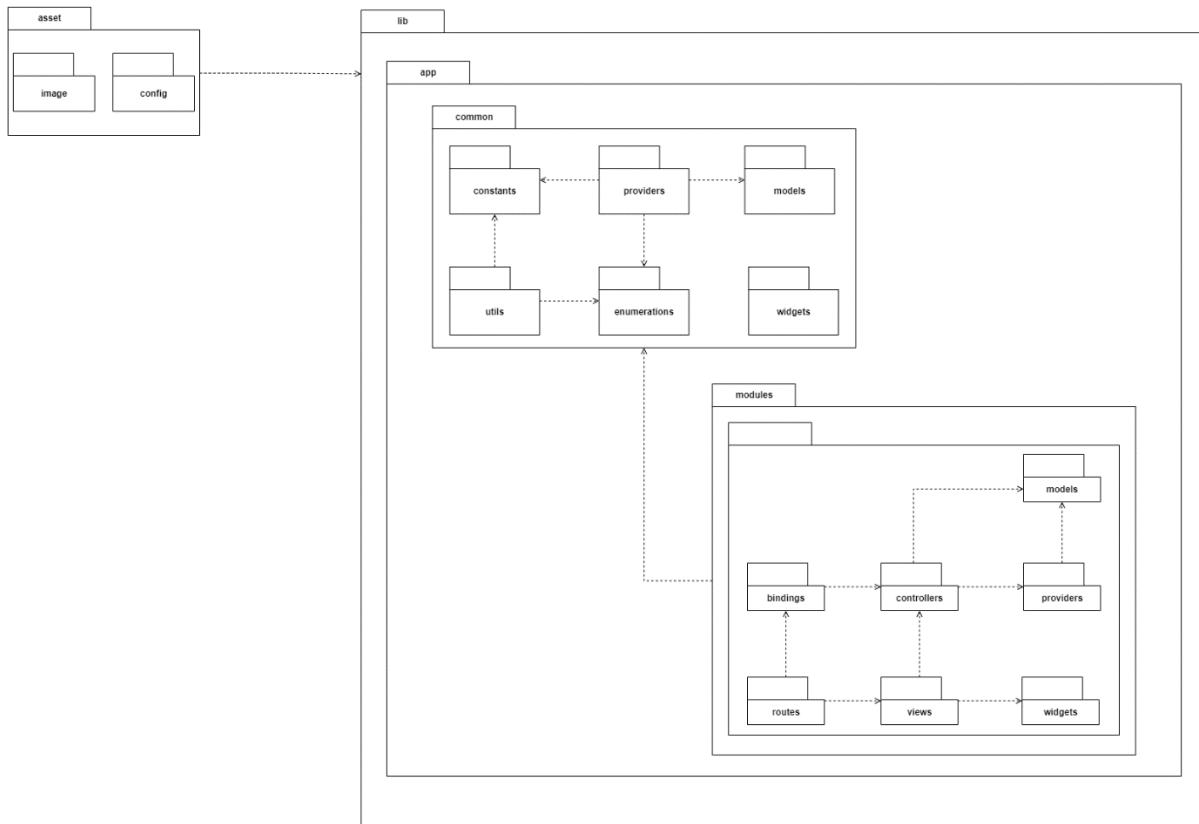


Figure 13: Package Diagram

No.	Package	Description
1	Lib	This package contains folders of different layers in app.
2	Images	This package contains images using in app.
3	Config	This package contains configurations of environment variables which are used to run the application.
4	App	This package contains classes for app UI and business layers and main class.
5	Common	This package contains folders of common values and functions.
6	Constants	This package contains classes for common constants.
7	Providers	This package contains classes to send and receive HTTP requests from API.
8	Models	This package contains classes to map objects to/from json from API.
9	Utils	This package contains classes for common functions.
10	Enumerations	This package contains classes for enum data.
11	Widgets	This package contains classes for widget using in screen.
12	Bindings	This package contains classes to bind ui, controllers, providers.
13	Controllers	This package contains classes for controllers in app.
14	Views	This package contains classes for screen UI.

Table 54: Package Diagram Description

Activity Diagram

2.4.1 Renter Mobile Application

2.4.1.1 Login/Register

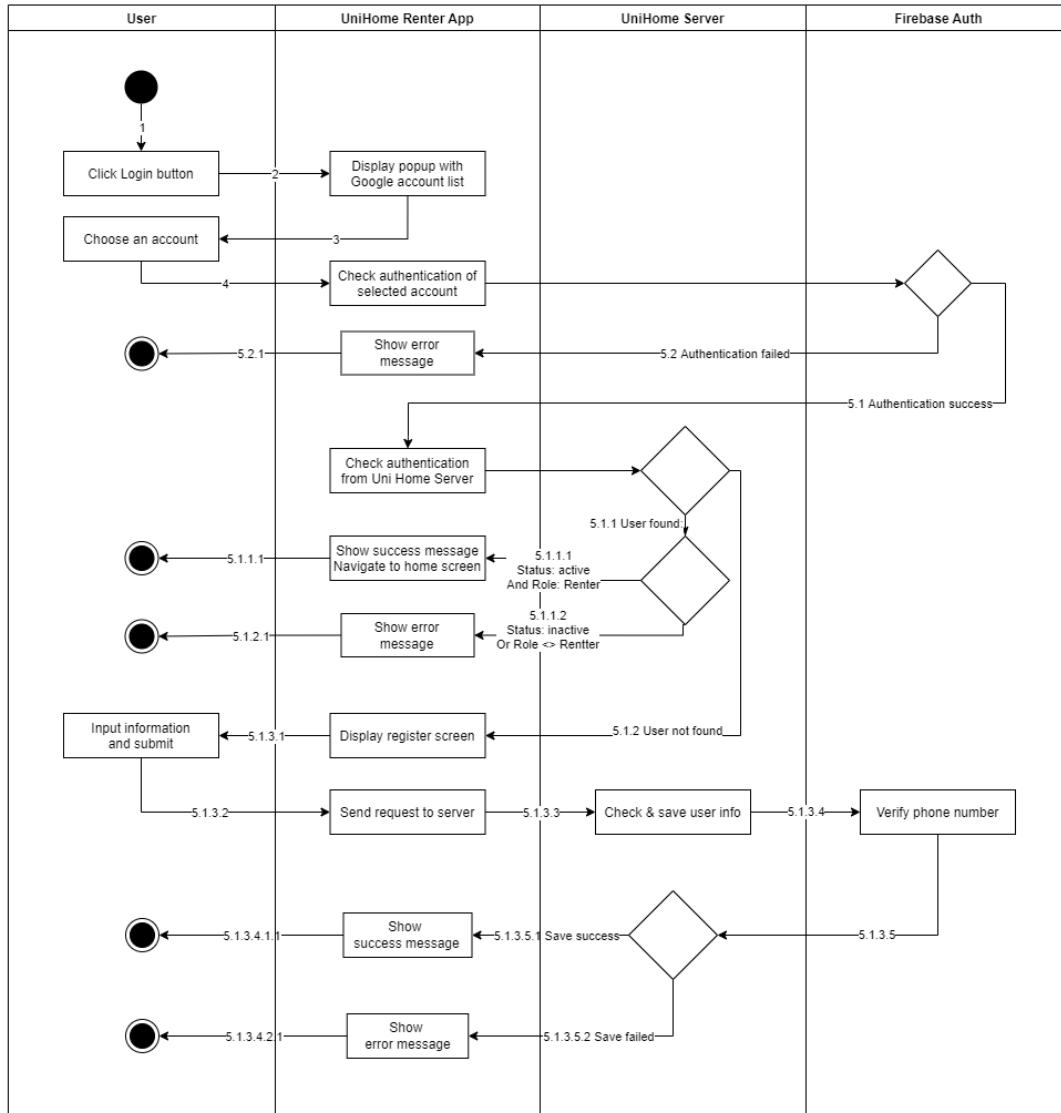


Figure 14: Login Activity Diagram

2.4.1.2 Create Sharing Room

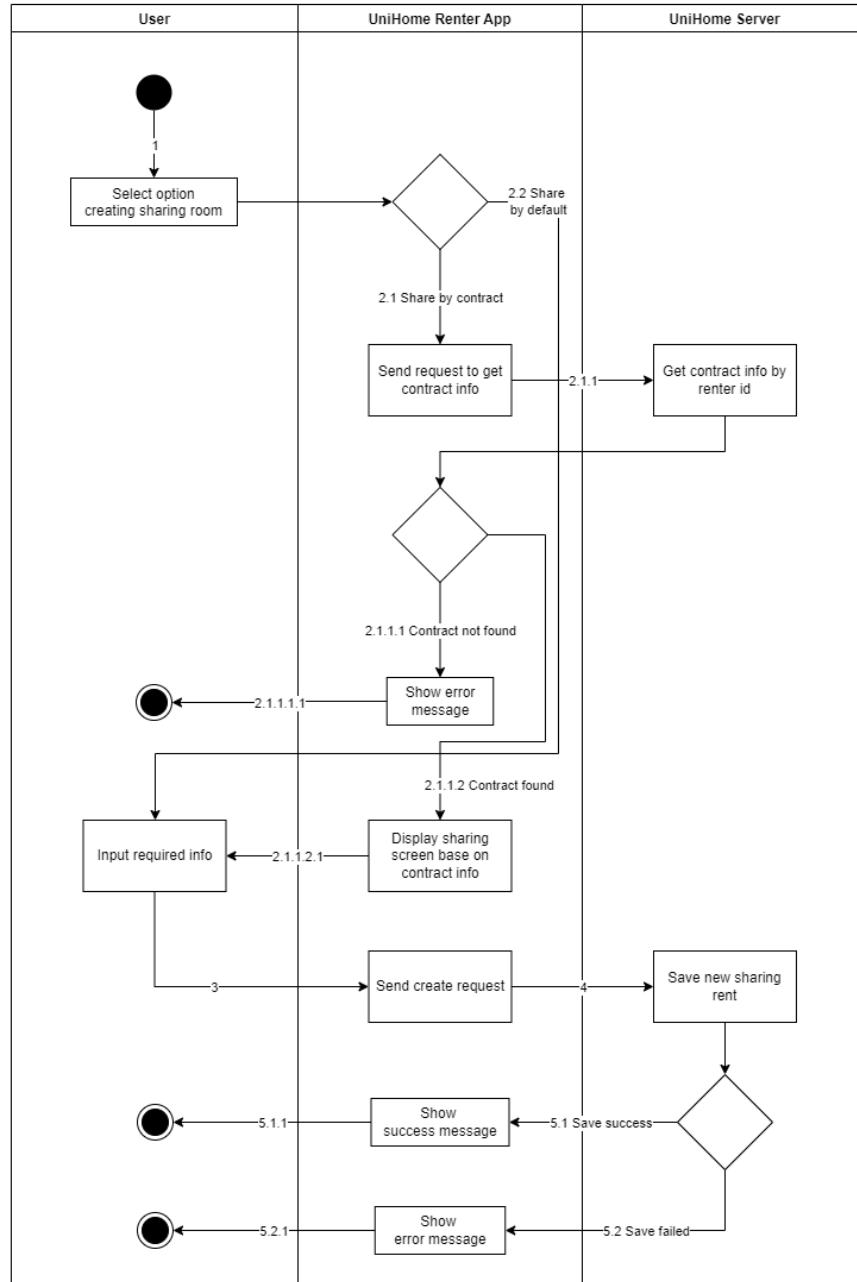


Figure 15: Create Sharing Room Activity Diagram

2.4.1.3 Booking Appointment

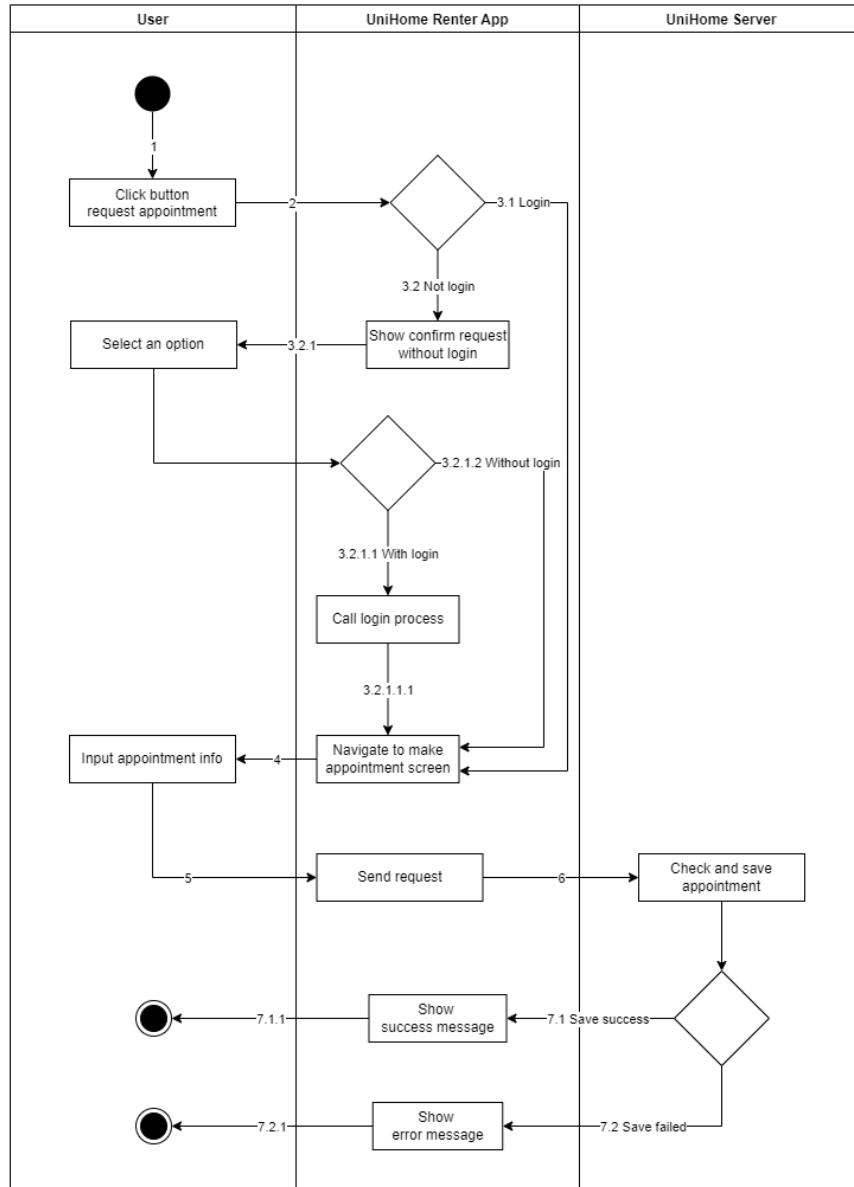


Figure 16: Booking Slot Activity Diagram

2.4.1.4 Request For Living

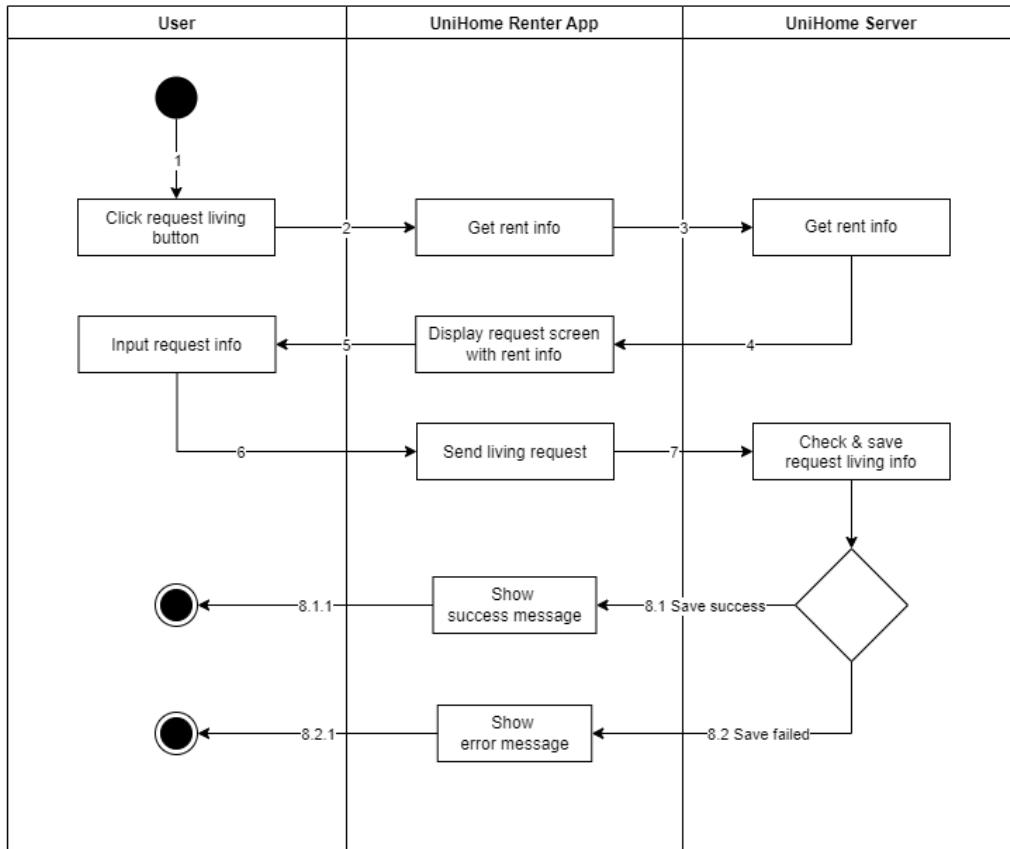


Figure 17: Request For Living Activity Diagram

2.4.1.5 Sign Contract

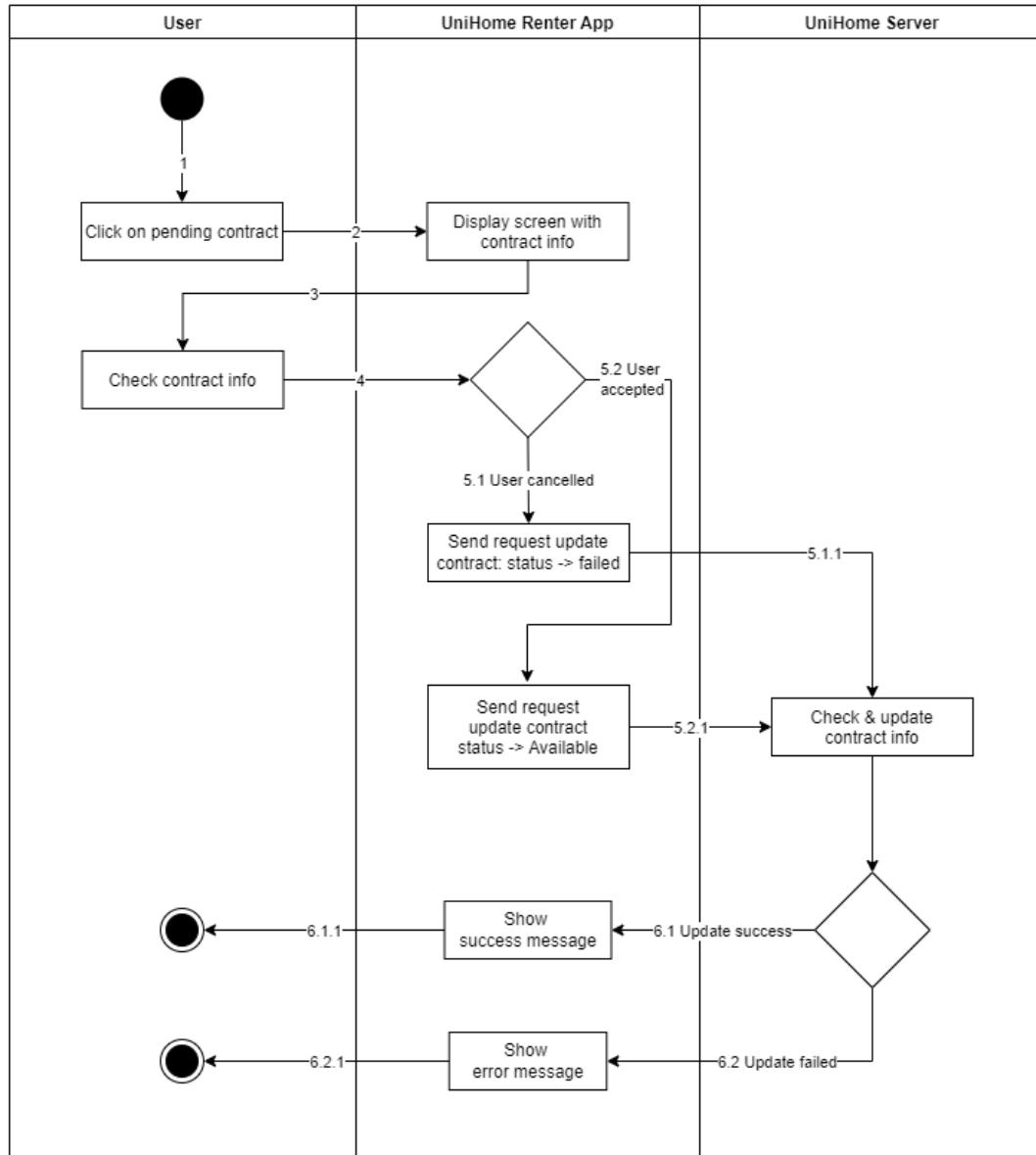


Figure 18: Sign Contract Activity Diagram

2.4.1.6 Request Leaving

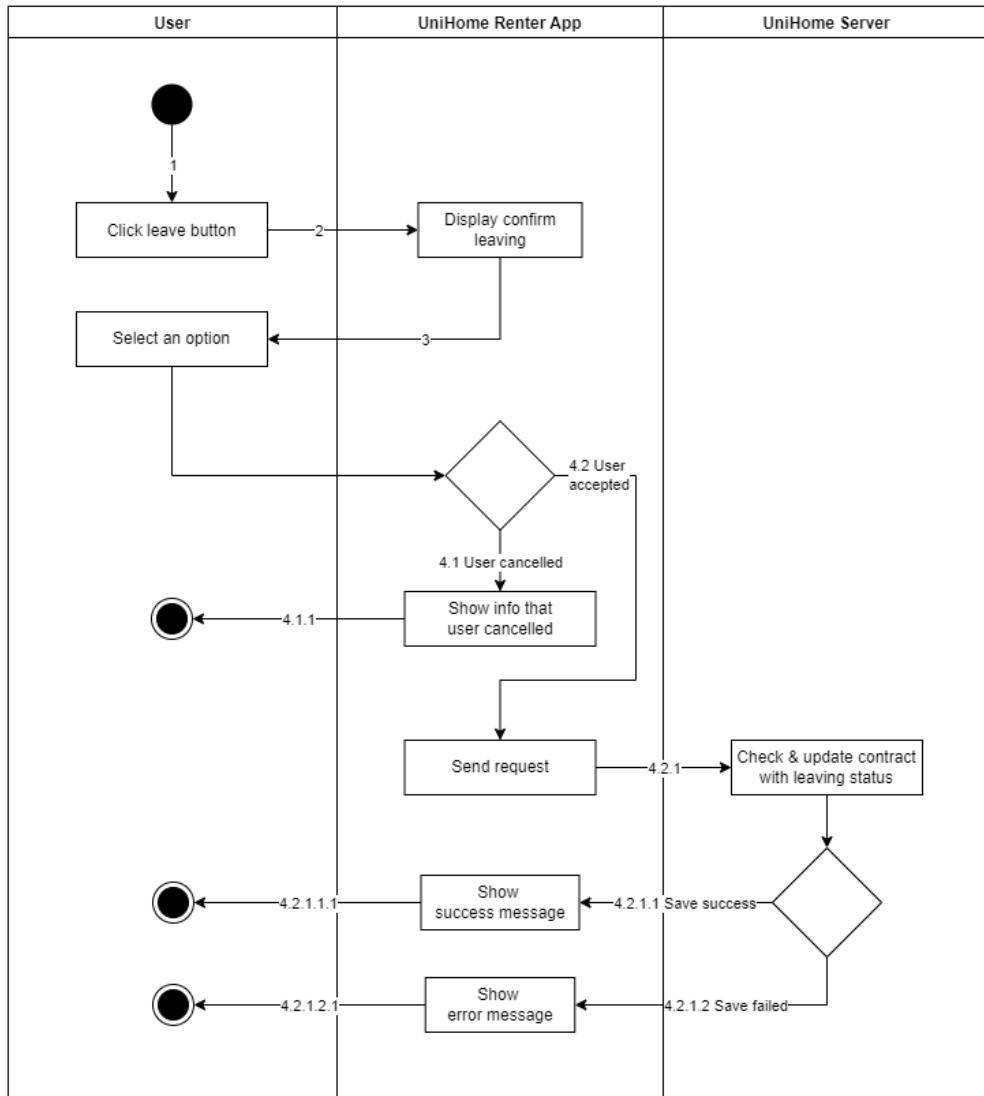


Figure 19: Request Leaving Activity Diagram

2.4.1.7 Pay Monthly Rental

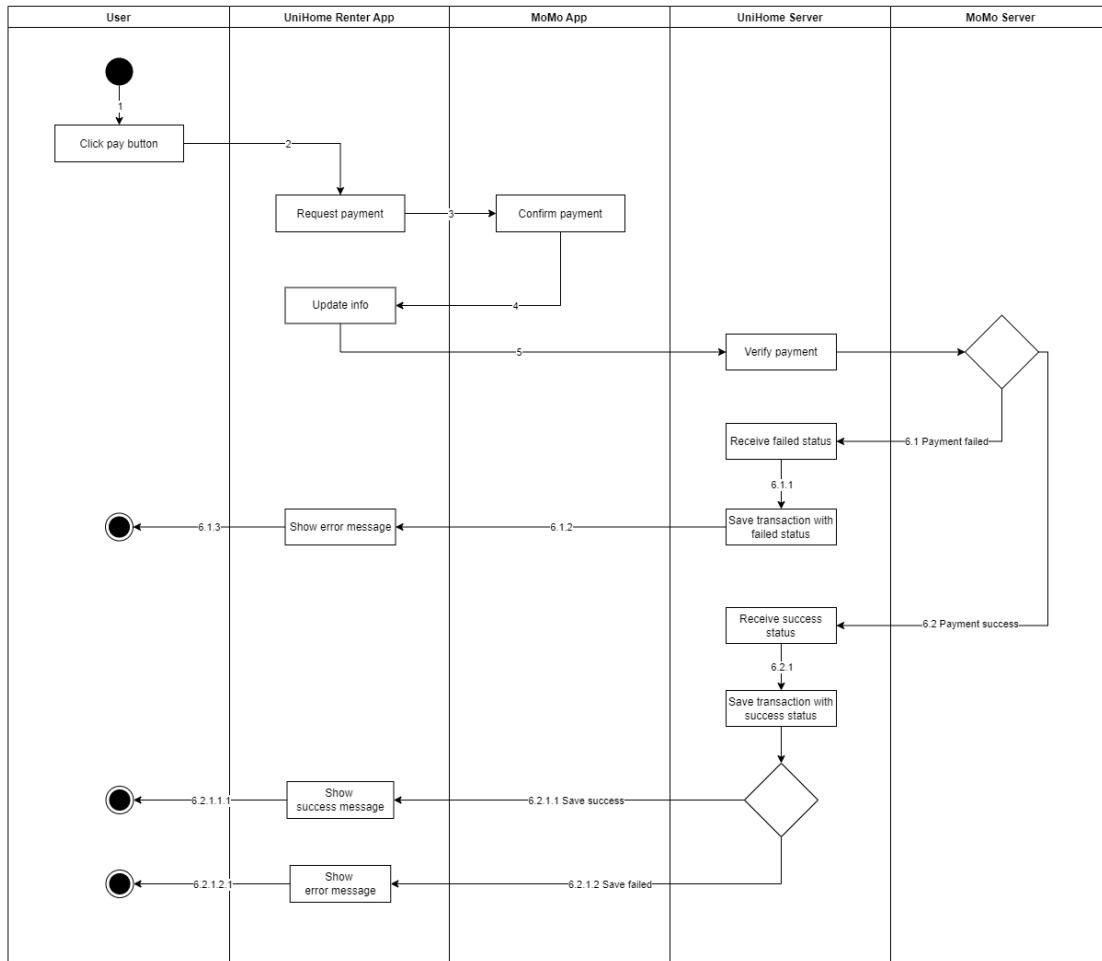


Figure 20: Pay Monthly Rental Activity Diagram

2.4.1.8 Report Problem

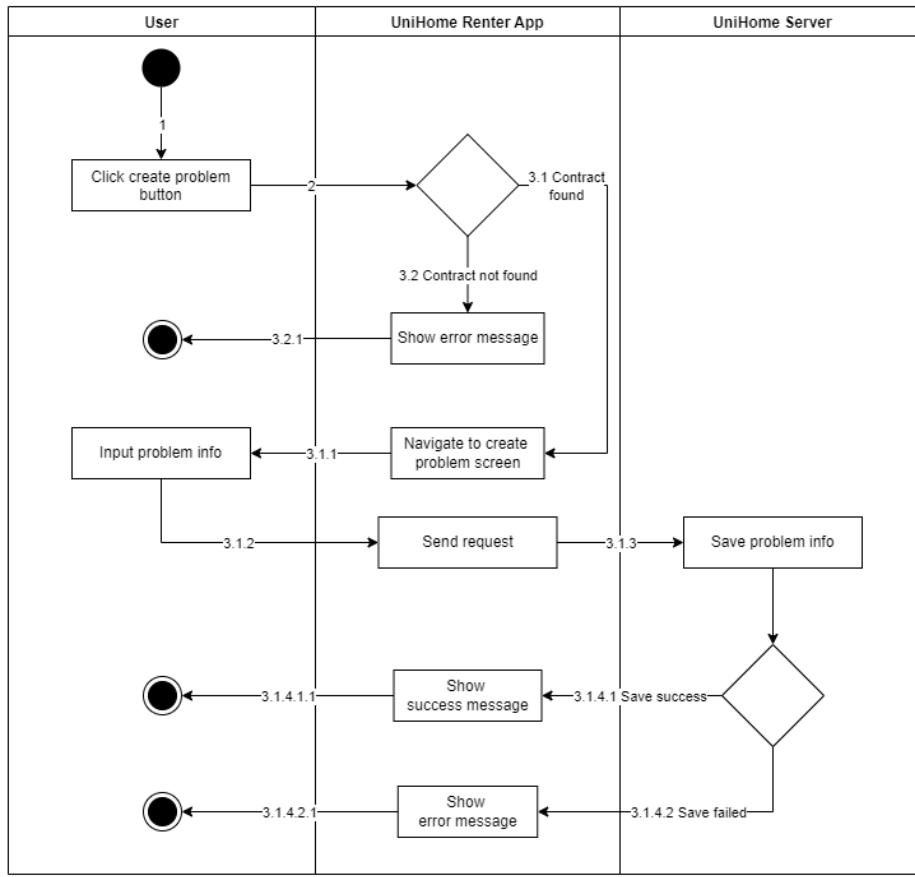


Figure 21: Report Problem Activity Diagram

2.4.2 Owner Mobile Application

2.4.2.1 Create Rent

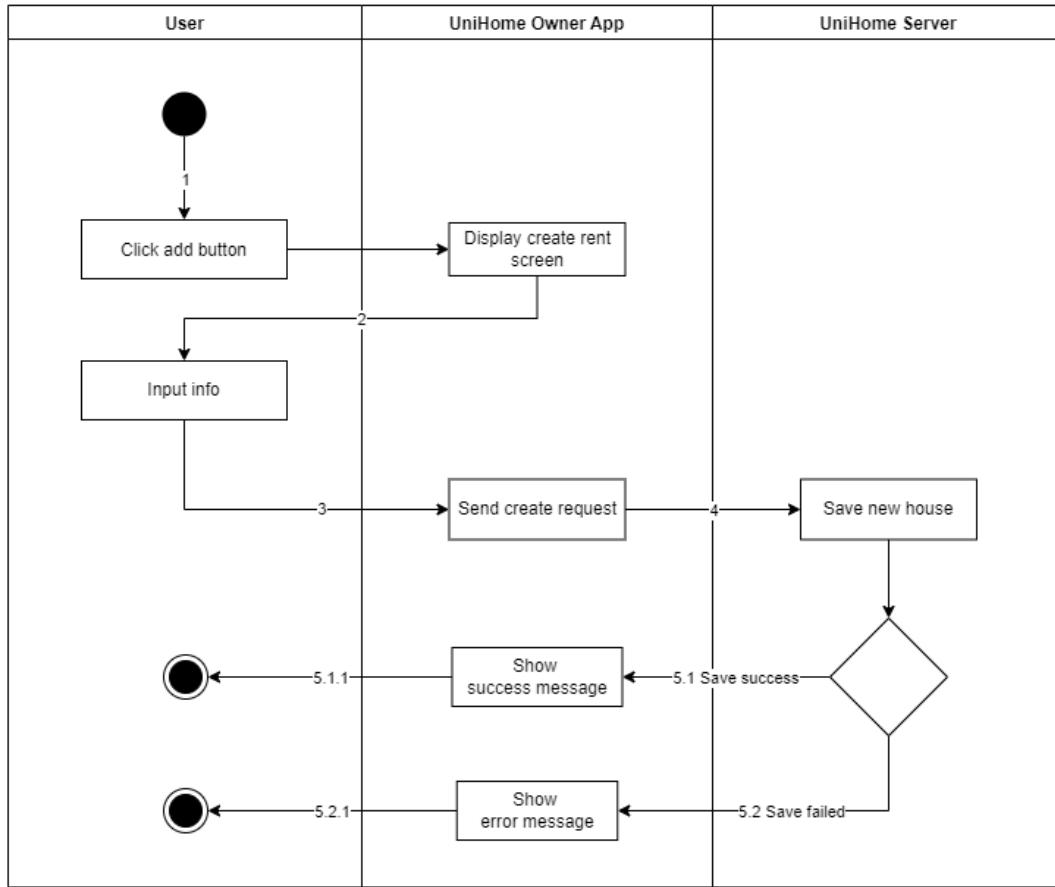


Figure 22: Create Rent Activity Diagram

2.4.2.2 Update Rent

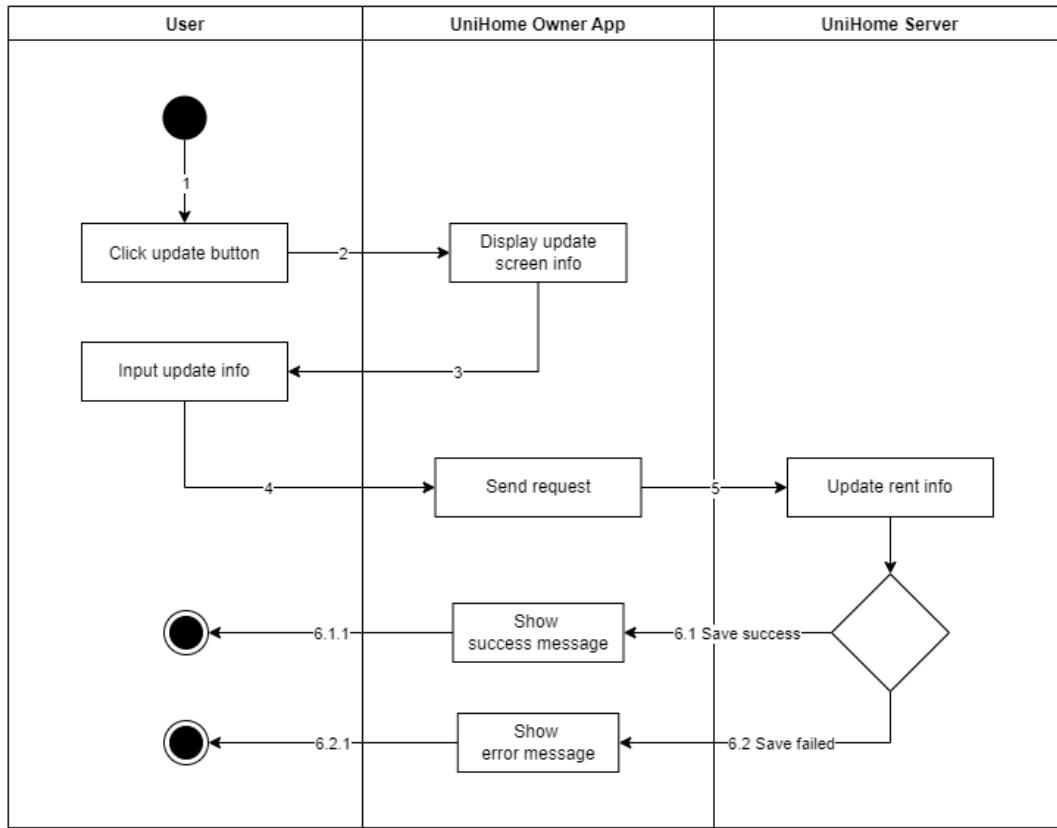


Figure 23: Update Rent Activity Diagram

2.4.2.3 Delete Rent

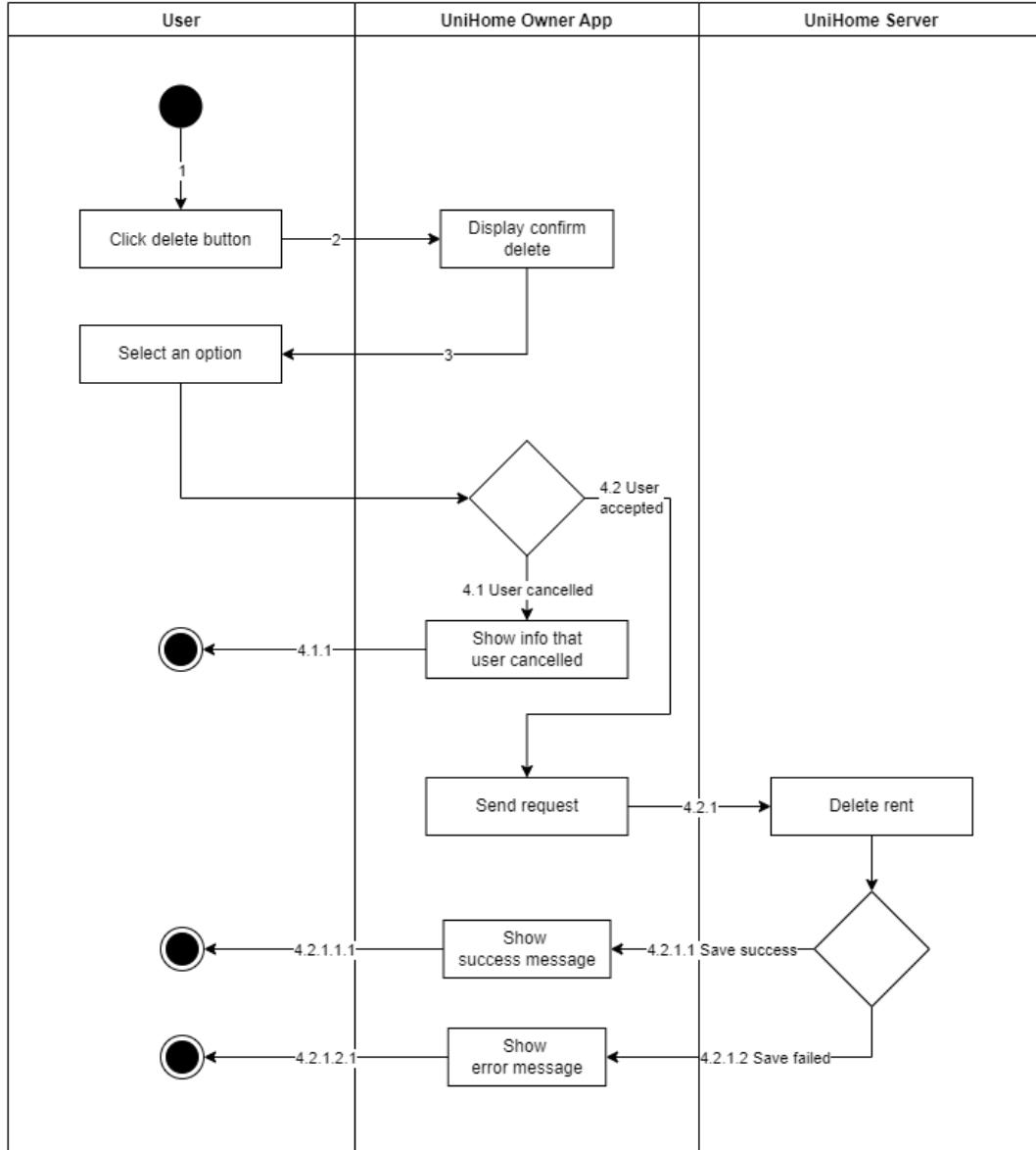


Figure 24: Delete Rent Activity Diagram

2.4.2.4 Abort Appointment

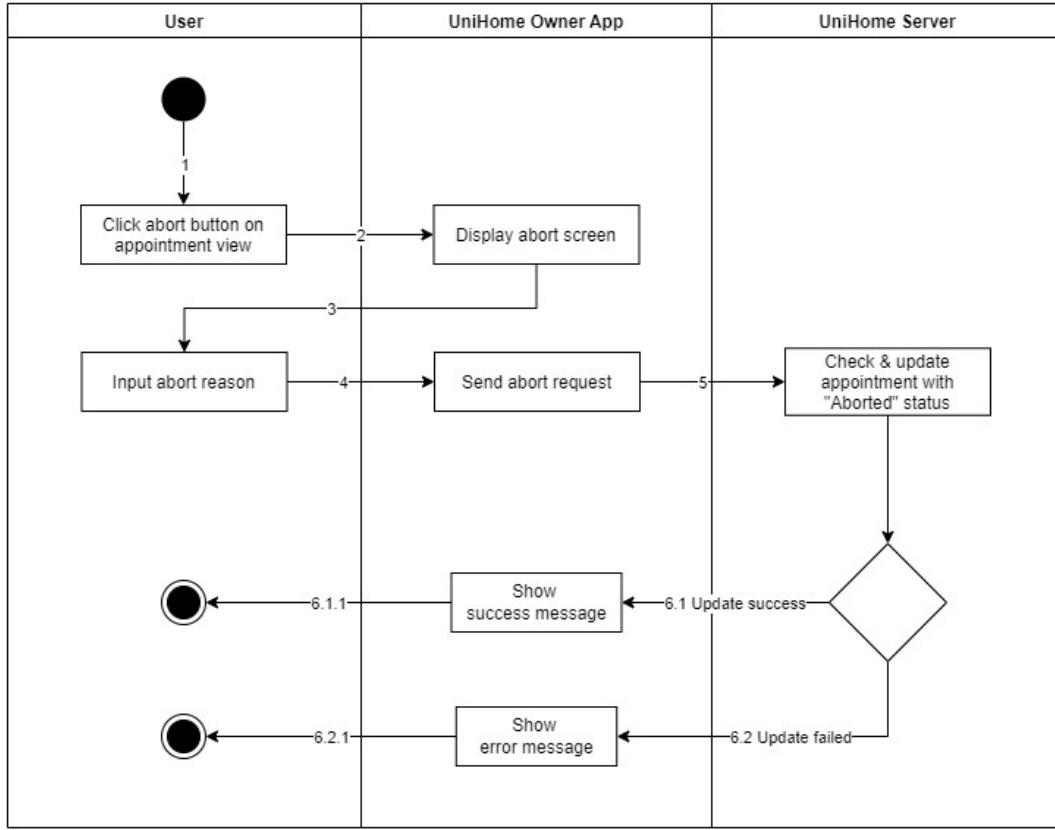


Figure 25: Abort Appointment Activity Diagram

2.4.2.5 Accept Appointment

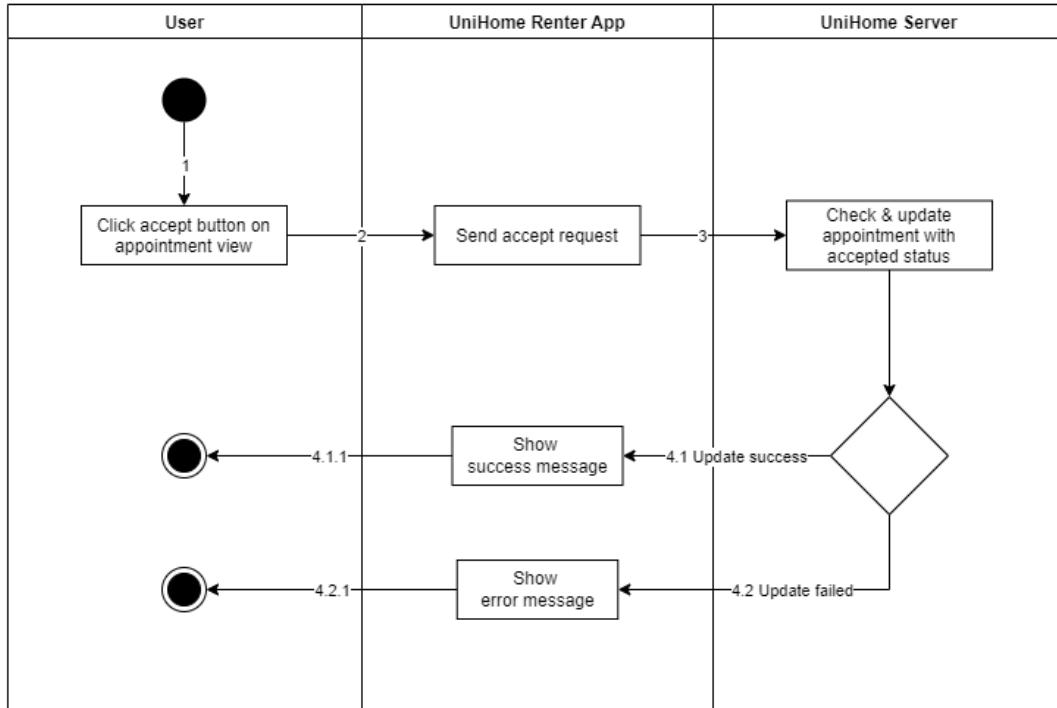


Figure 26:Accept Appointment Activity Diagram

2.4.2.6 Update Problem Status

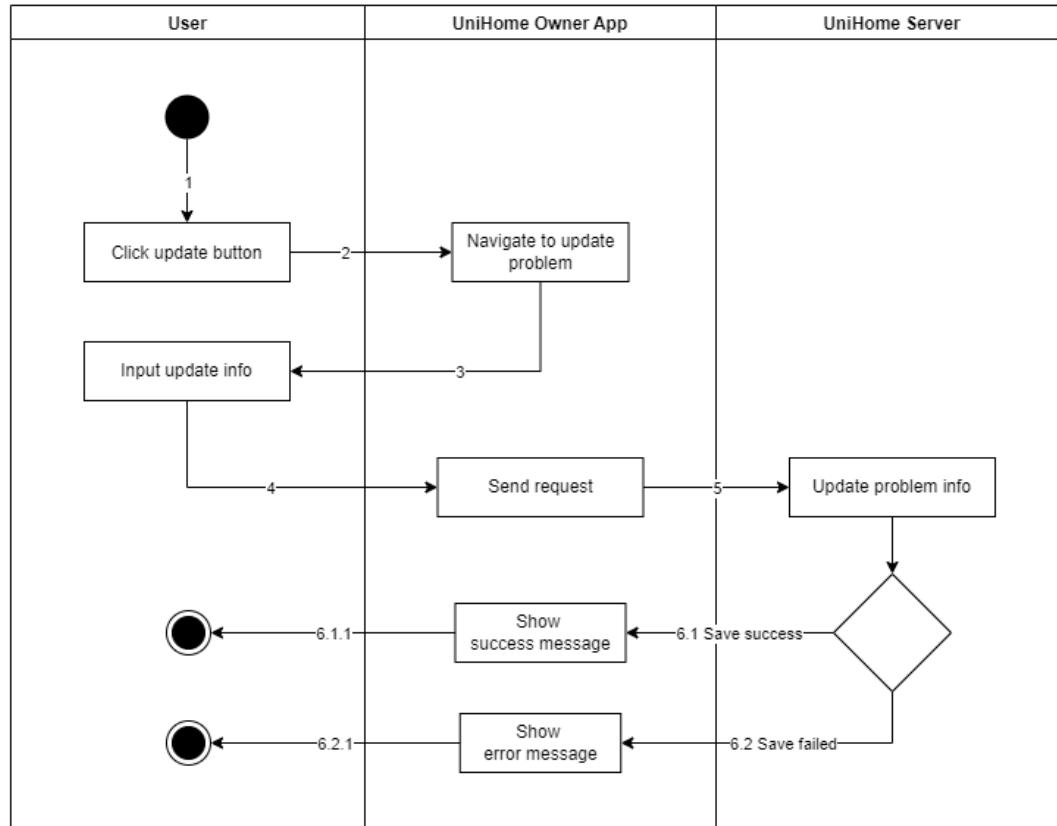


Figure 27: Update Problem Status Activity Diagram

2.4.2.7 Send Announcement

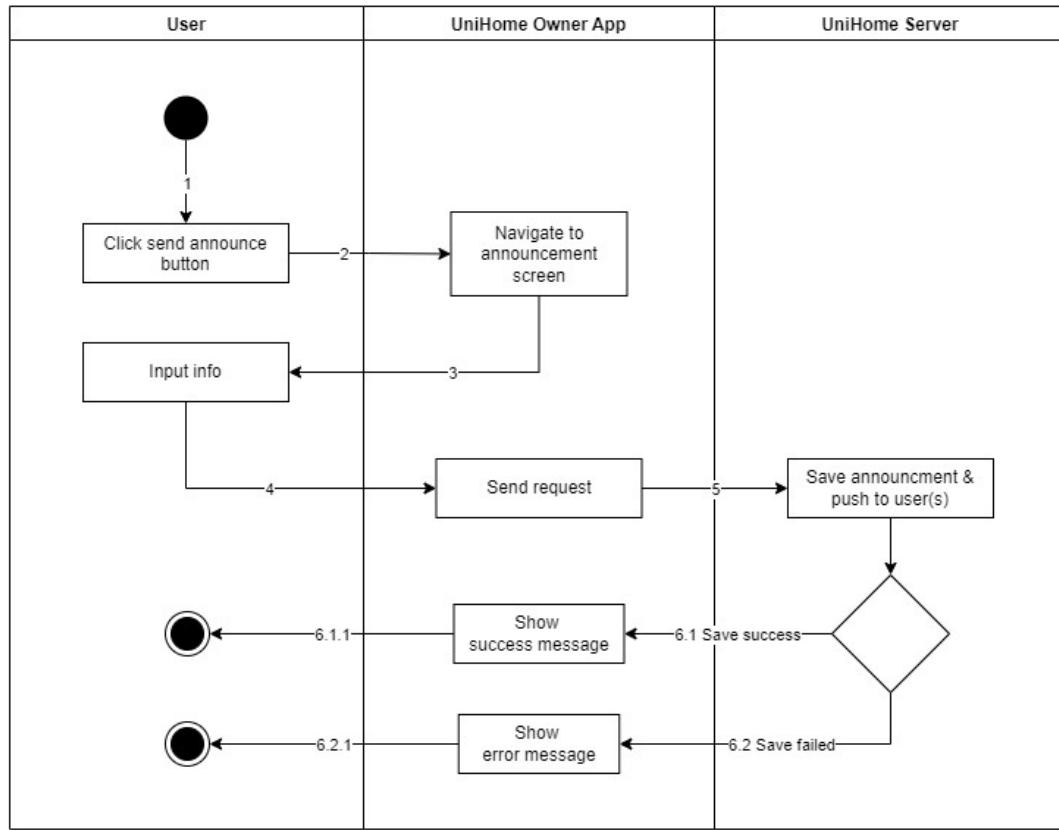


Figure 28: Send Announcement Activity Diagram

2.4.2.8 Create Payment

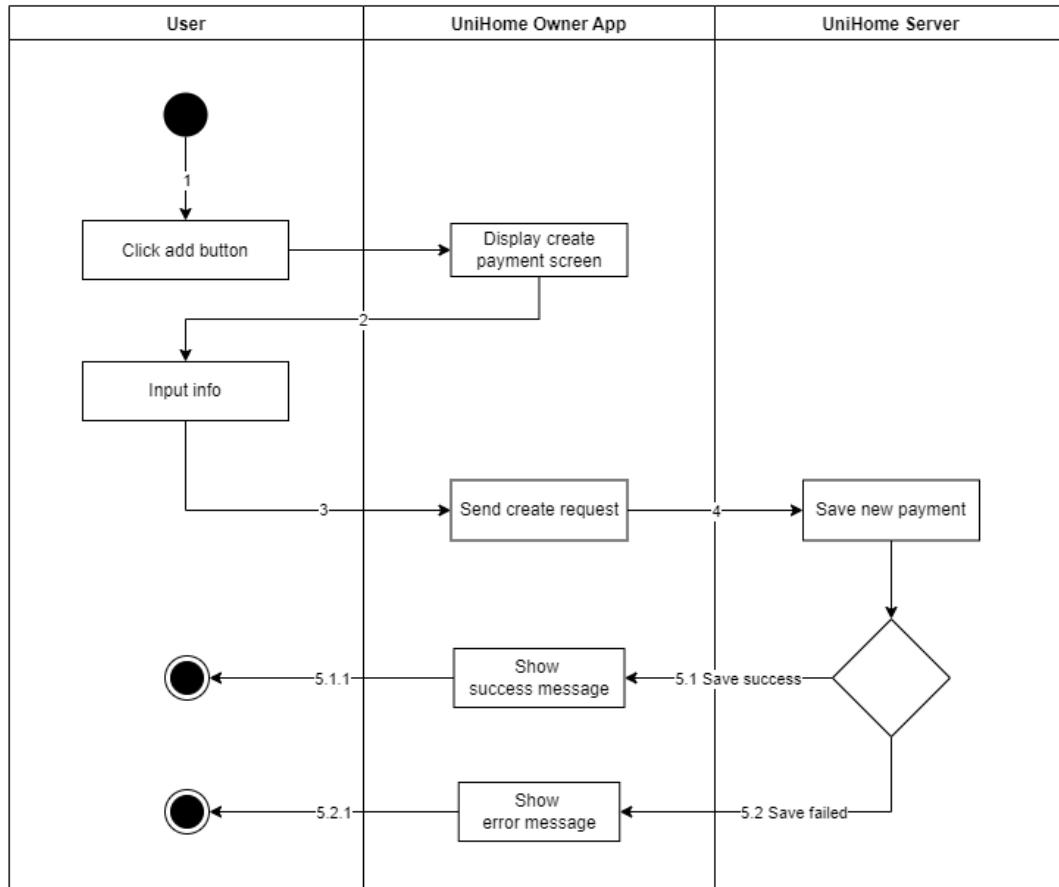


Figure 29: Create Payment Activity Diagram

3. System Detailed Design

Class Diagram

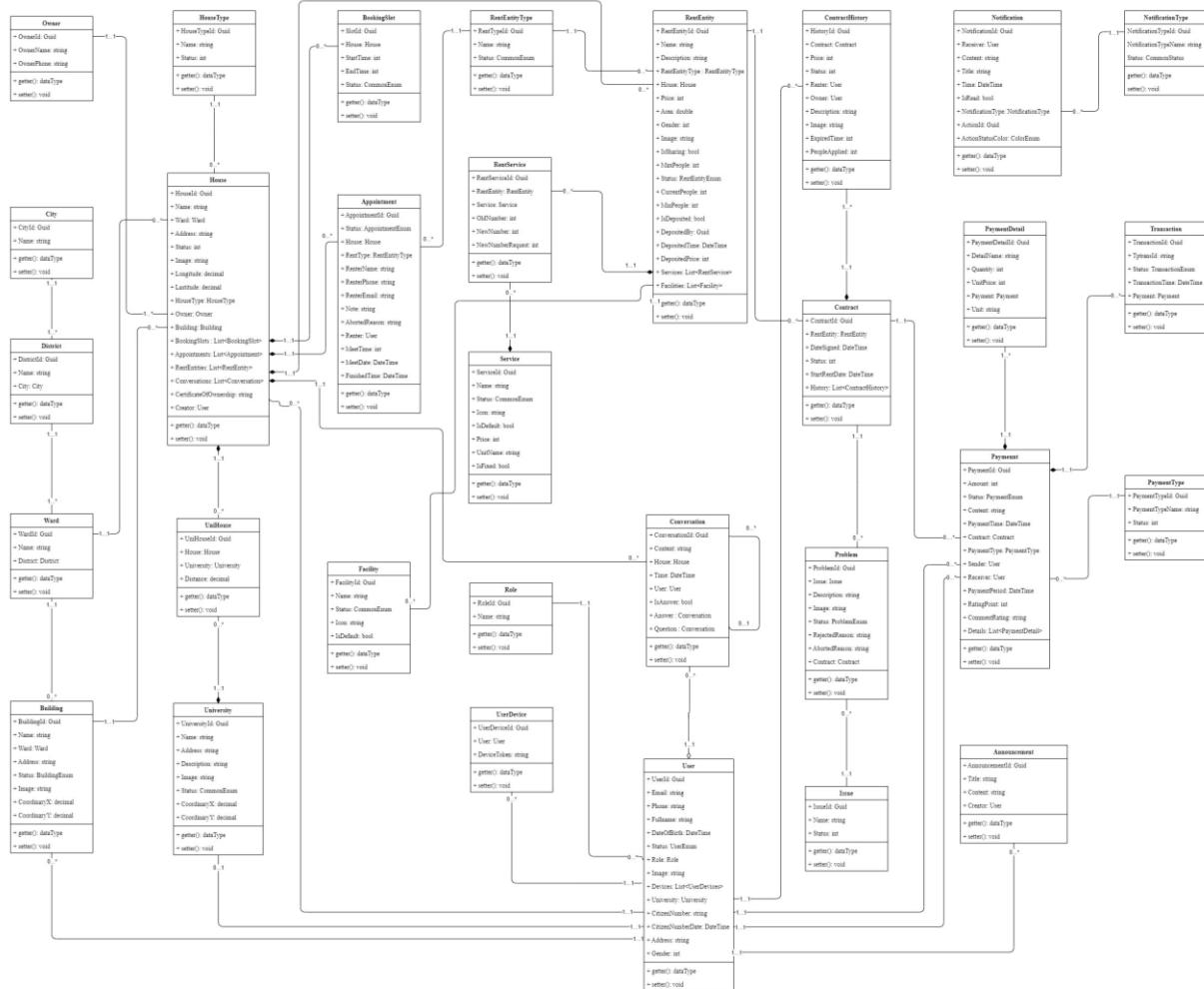


Figure 30: Class Diagram

Class Specification

3.2.1 User Class

No	Attribute	Data Type	Visibility	Description
1	UserId	Guid	Public	Unique define of user
2	Email	String	Public	Email of the user
3	Phone	String	Public	Phone number of the user
4	Fullname	String	Public	Fullscreen of the user
5	DateOfBirth	DateTime	Public	Date of birth of user

6	Status	UserEnum	Public	Status of user
7	Role	Role	Public	Define the role of user
8	Image	String	Public	Link avatar picture of user
9	Devices	List<UserDevice>	Public	Define the university which user belongs to
10	University	University	Public	Define the list of devices belongs to User
11	CitizenNumber	String	Public	User's number of citizen on the citizen card
12	CitizenNumberDate	DateTime	Public	The date of citizen card
13	Address	String	Public	Address of user
14	Gender	Int	Public	Gender of user

Table 55: User Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 56: User Class Method

3.2.2 Role Class

No	Attribute	Data Type	Visibility	Description
1	RoleId	Guid	Public	Unique define of the role of user
2	Name	String	Public	Name of the role

Table 57: Role Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 58: Role Class Method

3.2.3 Owner Class

No	Attribute	Data Type	Visibility	Description
1	OwnerId	Guid	Public	Unique define of owner
2	OwnerName	String	Public	Name of the owner
3	OwnerPhone	String	Public	Phone of the owner

Table 59: Owner Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 60: Owner Class Method

3.2.4 UserDevice Class

No	Attribute	Data Type	Visibility	Description
1	UserDeviceId	Guid	Public	Unique define of user's device
2	User	User	Public	Define the user
3	DeviceToken	String	Public	Define the token of the device

Table 61: UserDevice Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 62: UserDevice Class Method

3.2.5 RentEntity Class

No	Attribute	Data Type	Visibility	Description
1	RentEntityId	Guid	Public	Unique define of rent entity
2	Name	String	Public	Name of the rent entity
3	Description	String	Public	Detail of rent entity

4	RentEntityType	RentEntityType	Public	Define the type of rent entity
5	House	House	Public	Define the house which rent belongs
6	Price	Int	Public	The price for rent
7	Area	Double	Public	
8	Gender	Int	Public	Define the gender available for this room
9	Image	String	Public	Link of pictures describe about this room
10	IsSharing	bool	Public	To check if this room is sharing type or not
11	MaxPeople	Int	Public	Number of people maximum in the room
12	Status	RentEntityEnum	Public	Status of the room
13	CurrentPeople	int	Public	To show the current people were rented this room
14	MinPeople	Int	Public	Number of people minimum in the room
15	IsDeposited	bool	Public	To check if the room is deposited or not
16	DepositedBy	Guid	Public	Define the user who deposit the room
17	DepositedTime	DateTime	Public	The time when user deposit the room
18	DepositePrice	Int	Public	The price to deposit the room
19	Services	List<RentService>	Public	The list of services of the rent entity
20	Facilities	List<Facility>	Public	The list of facilities of the rent entity

Table 63: RentEntity Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 64: RentEntity Class Method

3.2.6 RentEntityType Class

No	Attribute	Data Type	Visibility	Description
1	RentTypeld	Guid	Public	Unique define of type of the room
2	Name	String	Public	Name of the room's type
3	Status	CommonEnum	Public	Status of the room's type

Table 65: RentEntityType Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 66: RentEntityType Class Method

3.2.7 Facility Class

No	Attribute	Data Type	Visibility	Description
1	FacilityId	Guid	Public	Unique define of facility
2	Name	String	Public	Name of the facility
3	Status	CommonEnum	Public	Status of the facility
4	Icon	String	Public	Link of the facility's icon
5	IsDefault	bool	Public	To check if the icon created by admin

Table 67: Facility Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 68: Facility Class Method

3.2.8 Service Class

No	Attribute	Data Type	Visibility	Description
1	ServiceId	Guid	Public	Unique define of service
2	Name	String	Public	Name of the service
3	Status	CommonEnum	Public	Status of the service
4	Icon	String	Public	Link of the service's icon
5	IsDefault	Bool	Public	To check if the service is created by admin or user
6	Price	Int	Public	Price of service
7	UnitName	String	Public	The unit name of the price
8	IsFixed	bool	Public	To check if the price is fixed or can change

Table 69: Service Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 70: Service Class Method

3.2.9 RentService Class

No	Attribute	Data Type	Visibility	Description
1	RentServiceId	Guid	Public	Unique define of room's service
2	RentEntity	RentEntity	Public	Define the RentEntity which this RentService belongs to
3	Service	Service	Public	Define the Service which this RentService belongs to
4	OldNumber	Int	Public	The old number of the service meter
5	NewNumber	Int	Public	The new number of the service meter

6	NewNumberRequest	Int	Public	The new number before owner confirm
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Table 71: RentService Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 72: RentService Class Method

3.2.10 Building Class

No	Attribute	Data Type	Visibility	Description
1	BuildingId	Guid	Public	Unique define of building
2	Name	String	Public	The name of the building
3	Ward	Ward	Public	Define the ward of the building
4	Address	String	Public	The address of the building
5	Status	BuildingEnum	Public	The status of building
6	Image	String	Public	The url of the image of building
7	CoordinaryX	decimal	Public	The point of building's location
8	CoordinaryY	decimal	Public	The point of building's location

Table 73: Building Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 74: Building Class Method

3.2.11 House Class

No	Attribute	Data Type	Visibility	Description
1	Houseld	Guid	Public	Unique define of house
2	Name	String	Public	Name of the house

3	Ward	Ward	Public	Define the ward of the house's address
4	Address	String	Public	Address of the house
5	Status	Int	Public	Status of the house
6	Image	String	Public	Link of image about house
7	Longitude	Decimal	Public	The point of the house's location
8	Lastitude	Decimal	Public	The point of the house's location
9	HouseType	HouseType	Public	Define the type of the house
10	Building	Building	Public	Define the building which the house belongs
11	Owner	Owner	Public	Define the owner of the house
12	CertificateOfOwnership	string	Public	Link of image which proof of ownership or use of the house
13	Appointments	List<Appointment>	Public	The list of appointments which belongs to the house
14	BookingSlots	List<BookingSlot>	Public	The list of booking slots which belongs to the house
15	RentEntitiies	List<RentEntity>	Public	The list of rent entities which belongs to the house
16	Conversations	List<Conversation>	Public	The list of conversations which belongs to the house
17	Creator	User	Public	The User who create the House on Unihome System

Table 75: House Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 76: House Class Method

3.2.12 HouseType Class

No	Attribute	Data Type	Visibility	Description
1	HouseTypeId	Guid	Public	Unique define of type of house
2	Name	String	Public	Name of the house type
3	Status	Int	Public	Status of the type of house

Table 77: HouseType Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 78: HouseType Class Method

3.2.13 University Class

No	Attribute	Data Type	Visibility	Description
1	UniversityId	Guid	Public	Unique define of university
2	Name	String	Public	Name of the university
3	Address	String	Public	Address of the university
4	Description	String	Public	Detail of the university
5	Image	String	Public	Link of the image about university
6	Status	CommonEnum	Public	Status of the university
7	CoordinaryX	Decimal	Public	The point of university's location
8	CoordinaryY	Decimal	Public	The point of university's location

Table 79: University Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 80: University Class Method

3.2.14 UniHouse Class

No	Attribute	Data Type	Visibility	Description
1	UniHouseld	Guid	Public	Unique define of house which linked with university
2	House	House	Public	The House which this 'UniHouse' entity belongs to
3	UniversityId	University	Public	Define the university
4	Distance	Decimal	Public	Destance between the current location of user to the house

Table 81: UniHouse Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 82: UniHouse Class Method

3.2.15 City Class

No	Attribute	Data Type	Visibility	Description
1	CityId	Guid	Public	Unique define of city
2	Name	String	Public	The name of the city

Table 83: City Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 84: City Class Method

3.2.16 District Class

No	Attribute	Data Type	Visibility	Description
1	DistrictId	Guid	Public	Unique define of district
2	Name	String	Public	Name of the district

3	City	City	Public	Define the city which the ward belongs
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Table 85: District Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 86: District Class Method

3.2.17 Ward Class

No	Attribute	Data Type	Visibility	Description
1	WardId	Guid	Public	Unique define of ward
2	Name	String	Public	Name of the ward
3	District	District	Public	Define the district which ward belongs

Table 87: Ward Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 88: Ward Class Method

3.2.18 Appointment Class

No	Attribute	Data Type	Visibility	Description
1	AppointmentId	Guid	Public	Unique define of appointment
2	Status	AppointmentEnum	Public	Status of appointment
3	House	House	Public	Define the house of appointment
4	RentType	RentType	Public	Define the rent type of appointment
5	RenterName	String	Public	Name of renter
6	RenterPhone	String	Public	Phone of renter

7	RenterEmail	String	Public	Email of renter
8	Note	String	Public	Note of appointment
9	AbortReason	String	Public	Reason of abort appointment
10	CreatedTime	DateTime	Public	The time when appointment created
11	Renter	Guid	Public	Define the renter who wants to make appointment
12	MeetTime	Int	Public	The time of appointment
13	MeetDate	DateTime	Public	The date of appointment
14	FinishedTime	DateTime	Public	The time when appointment finish

Table 89: Appointment Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 90: Appointment Class Method

3.2.19 BookingSlot Class

No	Attribute	Data Type	Visibility	Description
1	SlotId	Guid	Public	Unique define of Slot
2	House	House	Public	Define the House of slot
3	StartTime	int	Public	The time when the slot start
4	EndTime	int	Public	The time when the slot end
5	Status	CommonEnum	Public	The status of the slot

Table 91: BookingSlot Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value

2	Setter()	Void	Public	To set attribute value
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Table 92: BookingSlot Class Method

3.2.20 Contract Class

No	Attribute	Data Type	Visibility	Description
1	ContractId	Guid	Public	Unique define of contract
2	RentEntity	RentEntity	Public	Define the rent entity in contract
3	DateSigned	DateTime	Public	The date when renter sign in the contract
4	Status	Int	Public	The status of the contract
5	StartRentDate	DateTime	Public	The date when the renter start rent the room
6	History	List<ContractHistory>	Public	The history of the contract

Table 93: Contract Class Attribute

No	Method	Return Type	Accessibility	Description
1	getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 94: Contract Class Method

3.2.21 ContractHistory Class

No	Attribute	Data Type	Visibility	Description
1	HistoryId	Guid	Public	Unique define of history of the contract
2	Contract	Contract	Public	Define the contract of history
3	Price	Int	Public	The price of the room write in the contract
4	Status	Int	Public	The status of the contract
5	Renter	User	Public	Unique the renter who is applied in the contract

6	Owner	User	Public	Unique the owner of the room in the contract
7	Description	String	Public	The content of the contract
8	Image	String	Public	Image of the contract
9	ExpiredTime	Int	Public	The date when the contract expired
10	PeopleApplied	int	Public	The number of the people general apply in the contract

Table 95: ContractHistory Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 96: ContractHistory Class Method

3.2.22 Problem Class

No	Attribute	Data Type	Visibility	Description
1	Problemid	Guid	Public	Unique define of problem
2	Issue	Issue	Public	Define the issue of the problem
3	Description	String	Public	Description of the problem
4	Image	String	Public	Link of the image to report the problem
5	Status	ProblemEnum	Public	Status in process of problem
6	RejectReason	String	Public	Reason when owner reject the problem
7	AbortReason	String	Public	Reason when user abort the problem
8	Contract	Contract	Public	Define the contract which rent is belongs

Table 97: Problem Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

3.2.23 Issue Class

No	Attribute	Data Type	Visibility	Description
1	IssueId	Guid	Public	Unique define of issue
2	Name	String	Public	Name of the issue
3	Status	Int	Public	Status of the issue

Table 98: Issue Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter(0)	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 99: Issue Class Method

3.2.24 Payment Class

No	Attribute	Data Type	Visibility	Description
1	PaymentId	Guid	Public	Unique define of payment
2	Amount	int	Public	Identify the amount of the payment
3	Status	PaymentEnum	Public	Status of the payment
4	Content	String	Public	Content of the payment
5	PaymentTime	DateTime	Public	The time when payment complete
6	Contract	Contract	Public	Define the contract in case payment for rental and service payment
7	PaymentType	PaymentType	Public	Define the type of the payment

8	Sender	User	Public	Define user who make the payment
9	Receiver	User	Public	Define user who receive the payment
10	PaymentPeriod	DateTime	Public	The period of the payment time
11	RatingPoint	Int	Public	Renter rating about the payment they made
12	CommentRating	String	Public	Renter comment about the payment they made
13	Details	List<PaymentDetail>	Public	The payment details list of the payment

Table 100: Payment Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 101: Payment Class Method

3.2.25 PaymentType Class

No	Attribute	Data Type	Visibility	Description
1	PaymentTypeId	Guid	Public	Unique define type of the payment
2	PaymentTypeName	String	Public	Name of the payment's name
3	Status	Int	Public	Status of the payment's type

Table 102: PaymentType Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 103: PaymentType Class Method

3.2.26 PaymentDetails Class

No	Attribute	Data Type	Visibility	Description
1	PaymentDetailId	Guid	Public	Unique define detail of the payment
2	DetailName	String	Public	Name of the payment's detail
3	Quantity	Int	Public	Quantity in payment
4	UnitPrice	Int	Public	Unit Price in payment
5	Payment	Payment	Public	Define the payment has this detail
6	Unit	String	Public	Unit of each service

Table 104: PaymentDetail Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 105: PaymentDetail Class Method

3.2.27 Transaction Class

No	Attribute	Data Type	Visibility	Description
1	TransactionId	Guid	Public	Unique define of transaction
2	TptransId	String	Public	Define the id of payment by payment gateway
3	Status	TransactionEnum	Public	Status of the payment
4	TransactionTime	DateTime	Public	The time when the transaction was done
5	Payment	Payment	Public	Define the payment of transaction

Table 106: Transaction Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

*Table 107: Transaction Class Method***3.2.28 Conversation Class**

No	Attribute	Data Type	Visibility	Description
1	ConversationId	Guid	Public	Unique define of conversation
2	Content	String	Public	The content of the conversation
3	House	House	Public	Defines the house of the conversation
4	Time	DateTime	Public	Time of the conversation
5	User	User	Public	Define the user who make the question
6	IsAnswer	bool	Public	To check the question has been answered or not
7	Answer	Conversation	Public	The answer follows if this conversation is a question
8	Question	Conversation	Public	The question follows if this conversation is an answer

Table 108: Conversation Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

*Table 109: Conversation Class Method***3.2.29 Notification Class**

No	Attribute	Data Type	Visibility	Description
1	NotificationId	Guid	Public	Unique define of notification
2	Receiver	User	Public	Define the user who receive the notification
3	Content	String	Public	Content of the notification
4	Title	String	Public	Title of the notification

5	Time	DateTime	Public	The time of the notification
6	IsRead	bool	Public	To check if the notification was read by user
7	NotificationType	NotiicationType	Public	Define the type of the notification
8	ActionId	Guid	Public	Define the action of the notification
9	ActionStatusColor	ColorEnum	Public	The color of the notification to show for user

Table 110: Notification Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 111: Notification Class Method

3.2.30 NotificationType Class

No	Attribute	Data Type	Visibility	Description
1	NotifcationTypId	Guid	Public	Unique define of type of notification
2	NotificationTypeName	String	Public	Name of the notification's type
3	Status	CommonStatus	Public	Status of the notification's type

Table 112: NotificationType Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 113: NotificationType Class Method

3.2.31 Announcement Class

No	Attribute	Data Type	Visibility	Description
1	AnnouncementId	Guid	Public	Unique define of anoucement
2	Title	String	Public	Title of the annoucement

3	Content	String	Public	Description of announcement
4	Creator	User	Public	Define of create user

Table 114: Announcement Class Attribute

No	Method	Return Type	Accessibility	Description
1	Getter()	DataType	Public	To get attribute value
2	Setter()	Void	Public	To set attribute value

Table 115: Announcement Class Method

State Machine Diagrams

3.3.1 Appointment State

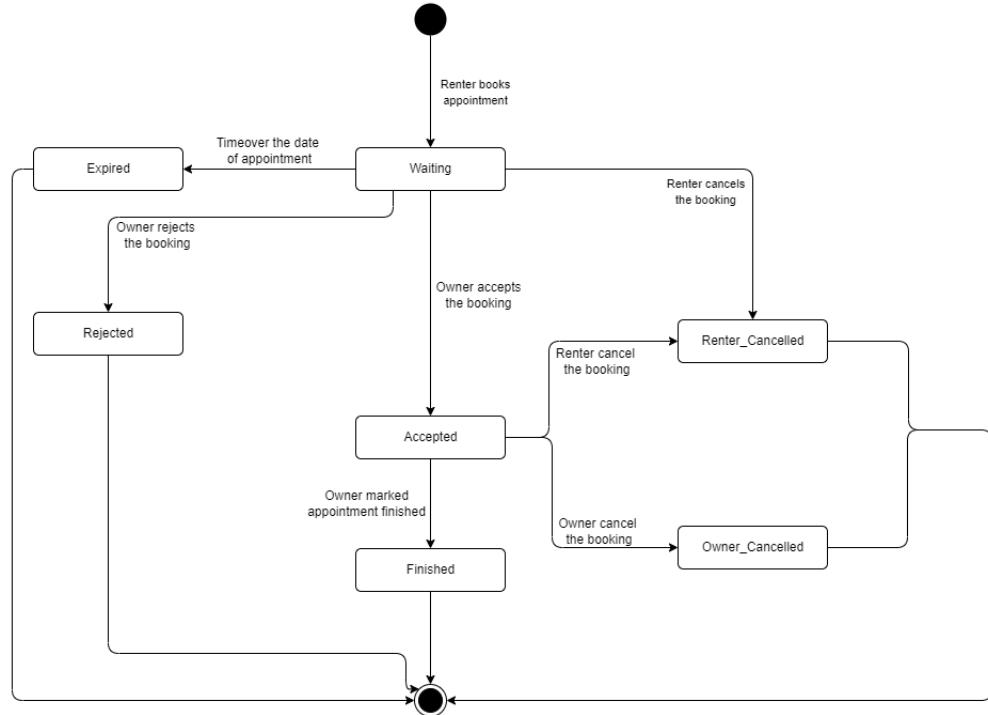


Figure 31: Appointment State Diagram

3.3.2 RentEntity State

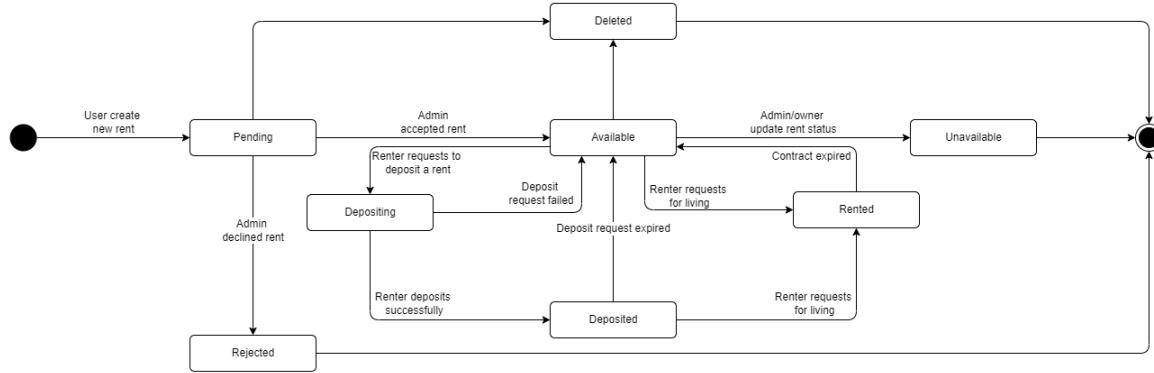


Figure 32: RentEntity State Diagram

3.3.3 Problem State

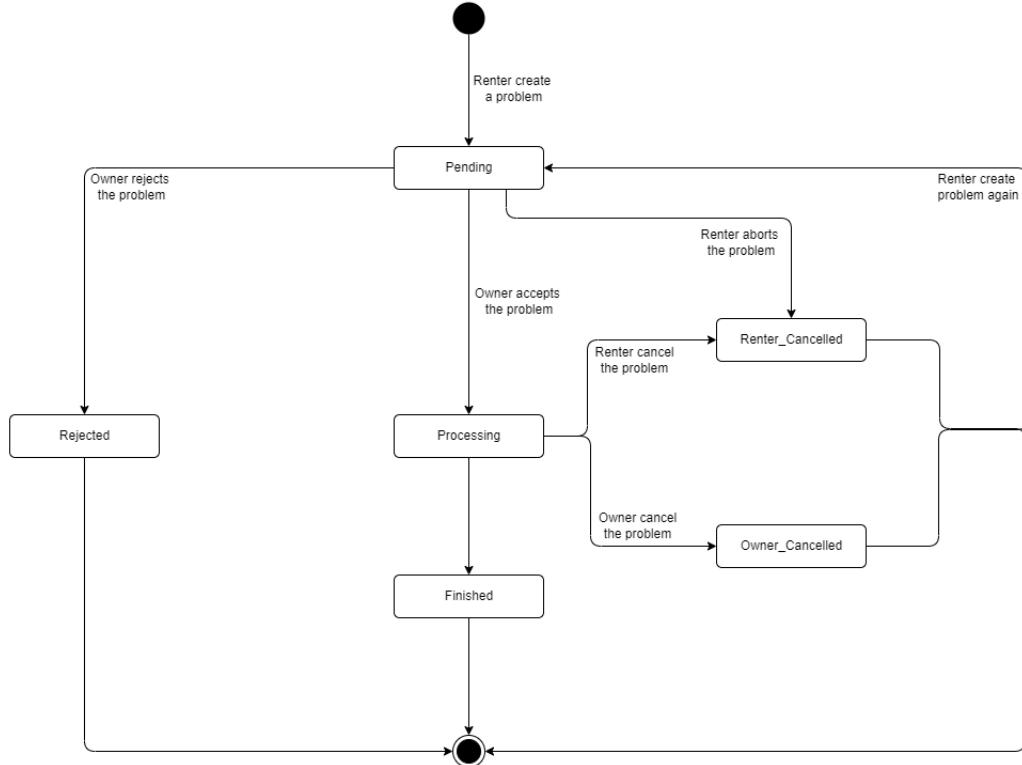


Figure 33: Problem State Diagram

3.3.4 Contract State

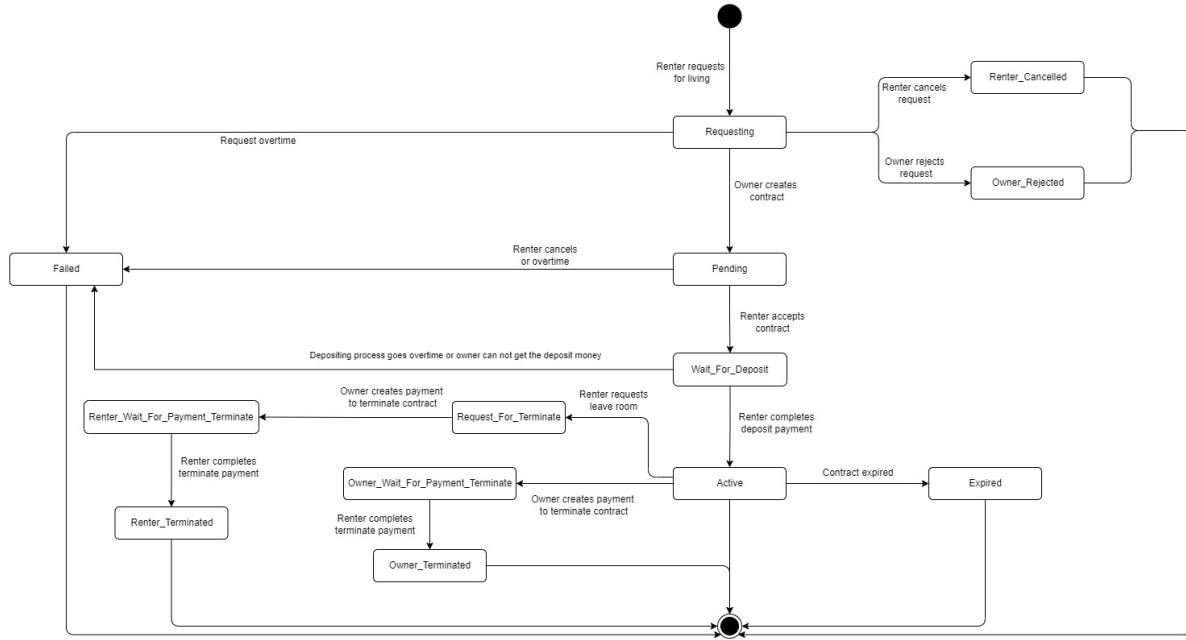


Figure 34: Contract State Diagram

Sequence Diagram

3.4.1 Login

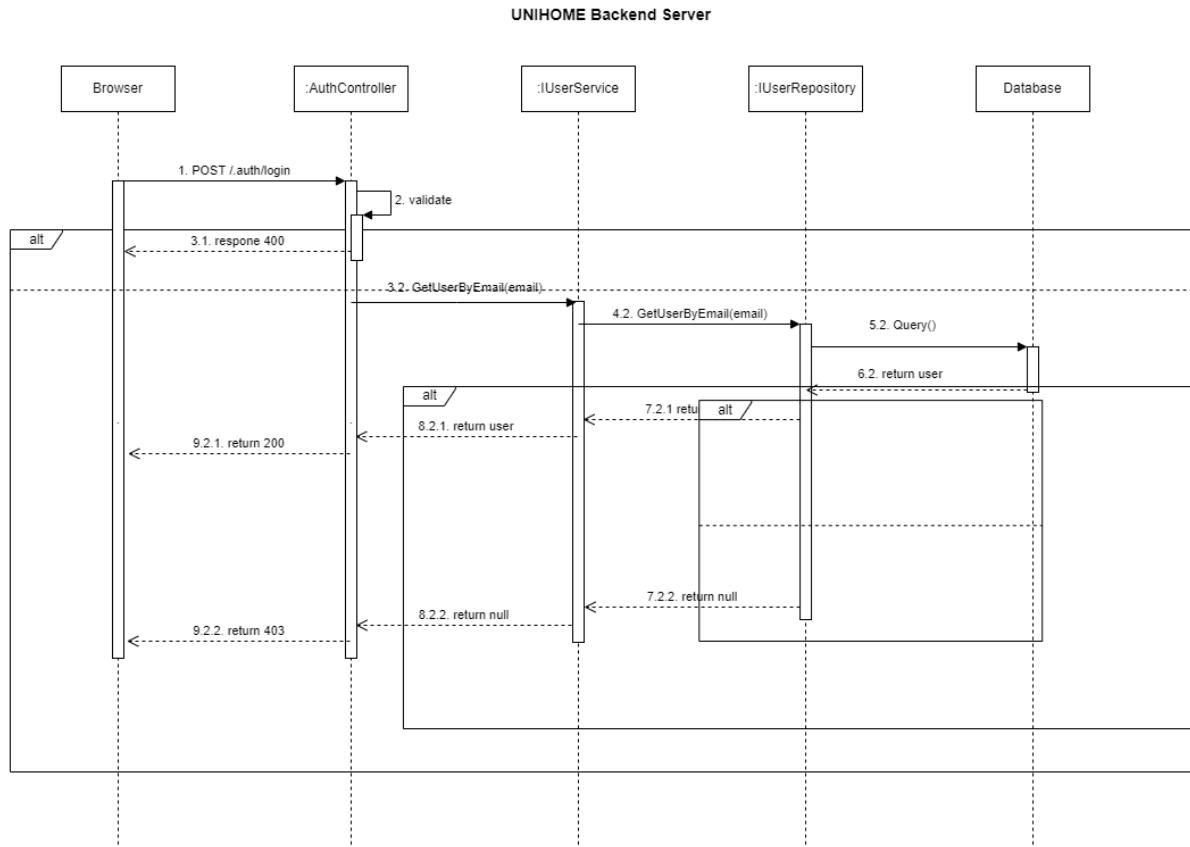


Figure 35: Login Sequence Diagram

3.4.2 Create House

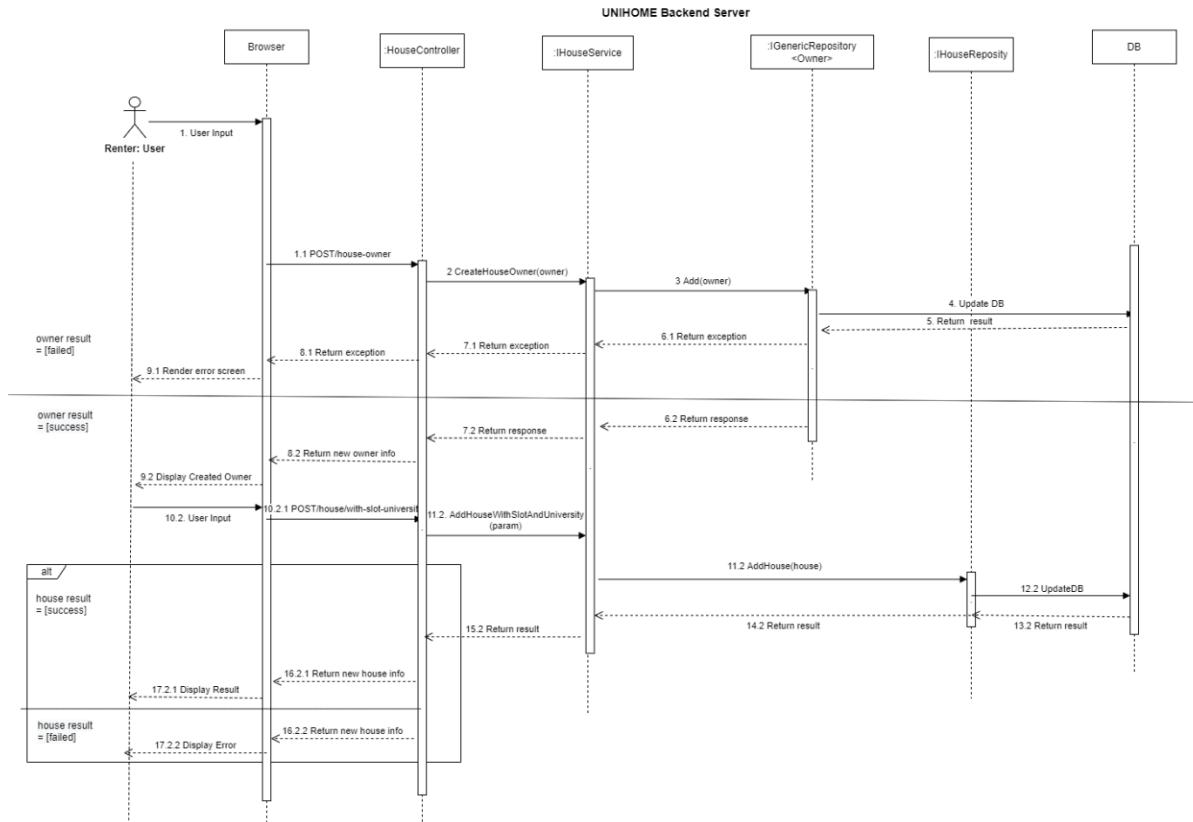


Figure 36: Create House Sequence Diagram

3.4.3 Create Appointment

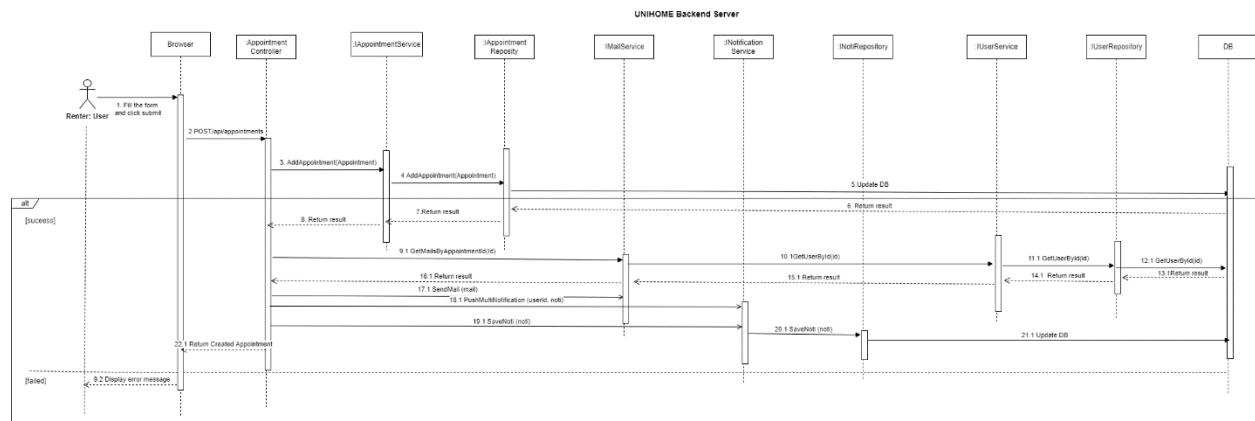


Figure 37: Create Appointment Sequence Diagram

3.4.4 Process Payment

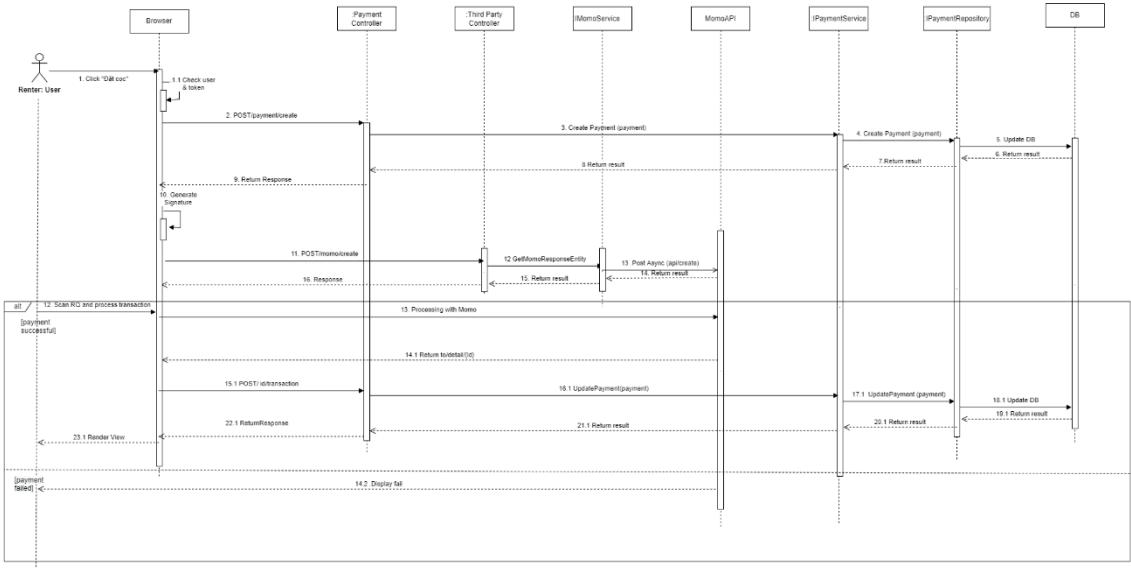


Figure 38: Process Appointment Sequence Diagram

4. Data and Database Design

Database Design

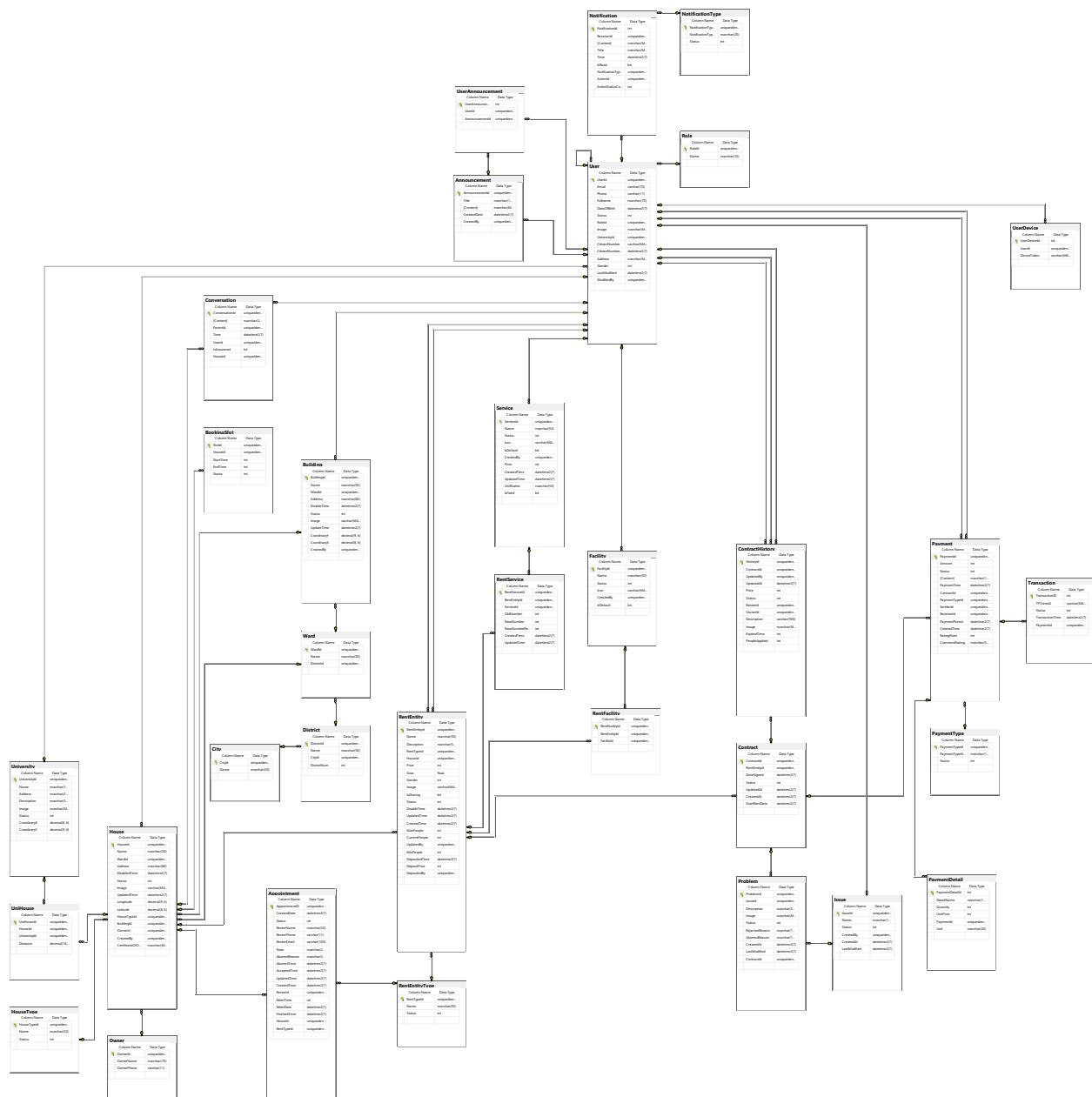


Figure 39: Database Diagram

Data File Design

4.2.1 User Table

Field name	Type	Description	Unique	Not Null	PK/FK
UserId	uniqueidentifier	Unique define of user	Yes	Yes	PK
Email	Varchar(70)	Email of the user	No	Yes	No
Phone	Varchar(11)	Phone number of the user	No	Yes	No

Fullscreen	Nvarchar(70)	Fullscreen of the user	No	Yes	No
DateOfBirth	Datetime2(7)	Date of birth of user	No	Yes	No
Status	Int	Status of user	No	Yes	No
RoleId	uniqueidentifier	Define the role of user	No	Yes	No
Image	Nvarchar(max)	Link avatar picture of user	No	Yes	No
UniversityId	uniqueidentifier	Define the university which user belongs	No	No	No
CitizenNumber	varchar(max)	User's number of citizen card	No	No	No
CitizenNumberDate	Datetime2(7)	The date of citizen card	No	No	No
Address	Nvarchar(max)	Address of user	No	No	No
Gender	Int	Gender of user	No	Yes	No
LastModified	Datetime2(7)	The last time since user is modified	No	No	No
ModifiedBy	uniqueidentifier	Define the user who modified the user	No	No	No

Table 116: User Table

4.2.2 Role Table

Field name	Type	Description	Unique	Not Null	PK/FK
RoleId	uniqueidentifier	Unique define of the role of user	Yes	Yes	PK
Name	Nvarchar(10)	Name of the role	No	Yes	No

Table 117: Role Table

4.2.3 Owner Table

Field name	Type	Description	Unique	Not Null	PK/FK
OwnerId	uniqueidentifier	Unique define of owner	Yes	Yes	PK
OwnerName	Nvarchar(70)	Name of the owner	No	Yes	No

OwnerPhone	Varchar(11)	Phone of the owner	No	Yes	No
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Table 118: Owner Table

4.2.4 UserDevice Table

Field name	Type	Description	Unique	Not Null	PK/FK
UserDeviceId	int	Unique define of user's device	Yes	Yes	PK
UserId	uniqueidentifier	Define the user	No	Yes	FK
DeviceToken	Varchar(max)	Define the token of the device	No	No	No

Table 119: UserDevice Table

4.2.5 RentEntity Table

Field name	Type	Description	Unique	Not Null	PK/FK
RentEntityId	uniqueidentifier	Unique define of rent entity	Yes	Yes	PK
Name	Nvarchar(50)	Name of the rent entity	No	Yes	No
Description	Nvarchar(500)	Detail of rent entity	No	Yes	No
RentTypeId	Uniqueidentifier	Define the type of rent entity	No	No	FK
Houseld	Uniqueidentifier	Define the house which rent belongs	No	No	FK
Price	Int	The price for rent	No	Yes	No
Area	Float		No	Yes	No
Gender	Int	Define the gender available for this room	No	Yes	No
Image	Varchar(max)	Link of pictures describe about this room	No	Yes	No
IsSharing	Bit	To check if this room is sharing type or not	No	Yes	No
Status	Int	Status of the room	No	Yes	No

DisableTime	Datetime2(7)	The time when user disable the room	No	No	No
UpdatedTime	Datetime2(7)	The time when user update the room	No	No	No
CreatedTime	Datetime2(7)	The time when user create the room	No	Yes	No
MaxPeople	Int	Number of people maximun in the room	No	Yes	No
CurrentPeople	Int	To show the current people were rented this room	No	Yes	No
UpdatedBy	Uniqueidentifier	Define the user who update the room	No	No	FK
MinPeople	Int	Number of people minimum in the room	No	Yes	No
DepositedBy	Uniqueidentifier	Define the user who deposit the room	No	No	FK
DepositedTime	Datetime2(7)	The time when user deposit the room	No	No	No
DepositedPrice	Int	The price to deposit the room	No	Yes	No

Table 120: RentEntity Table

4.2.6 RentEntityType Table

Field name	Type	Description	Unique	Not Null	PK/FK
RentTypeid	Uniqueidentifier	Unique define of type of the room	Yes	Yes	PK
Name	Nvarchar(50)	Name of the room's type	No	No	No
Status	Int	Status of the room's type	No	Yes	No

Table 121: Facility Table

4.2.7 Facility Table

Field name	Type	Description	Unique	Not Null	PK/FK

FacilityId	Uniqueidentifier	Unique define of facility	Yes	Yes	PK
Name	Nvarchar(50)	Name of the facility	No	Yes	No
Status	Int	Status of the facility	No	Yes	No
Icon	Varchar(max)	Link of the facility's icon	No	Yes	No
CreatedBy	Uniqueidentifier	Define the user who create the facility	No	Yes	FK
IsDefault	Bit	To check if the icon created by admin	No	Yes	No

Table 122: Facility Table

4.2.8 Service Table

Field name	Type	Description	Unique	Not Null	PK/FK
ServiceId	Uniqueidentifier	Unique define of service	Yes	Yes	PK
Name	Nvarchar(50)	Name of the service	No	Yes	No
Status	Int	Status of the service	No	Yes	No
Icon	Vachar(max)	Link of the service's icon	No	Yes	No
IsDefault	Bit	To check if the service is cretaed by admin or user	No	Yes	No
CreatedBy	Uniqueidentifier	Define the user who create the service	No	Yes	FK

Table 123: Service Table

4.2.9 ServiceHistory Table

Field name	Type	Description	Unique	Not Null	PK/FK
HistoryId	Int	Unique define of service's history	Yes	Yes	PK
RentServiceId	Uniqueidentifier	Define the room's service	Yes	Yes	FK
Quantity	Int	Number of the service	Yes	Yes	No
CreatedDate	Datetime2(7)	The time when the history was created	Yes	Yes	No

IsWritten	Bit	To check if the service have been payment before	Yes	Yes	No
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Table 124: ServiceHistory Table

4.2.10 RentService Table

Field name	Type	Description	Unique	Not Null	PK/FK
RentServiceId	Uniqueidentifier	Unique define of room's service	Yes	Yes	PK
RentEntityId	Uniqueidentifier	Define the room	Yes	No	FK
ServiceId	Uniqueidentifier	Define the service	Yes	No	FK
OldNumber	Int	The old number of service used had been recorded since last month	No	No	No
NewNumber	Int	The number of service used had been recorded this month	No	No	No
NewNumberRequest	Int	The number of service used had been temporarily recorded this month	No	No	No
CreatedTime	Datetime2(7)	The time when the rent service record was created	No	Yes	No
UpdateTime	Datetime2(7)	The time when the rent service record was updated	No	No	No
UnitName	Nvarchar(50)	Name of the unit	Yes	Yes	No
UnitPrice	Int	Price of each service	Yes	Yes	No
Quantity	Int	Number of each service	Yes	Yes	No

Table 125: RentService Table

4.2.11 Building Table

Field name	Type	Description	Unique	Not Null	PK/FK
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BuildingId	Uniqueidentifier	Unique define of building	Yes	Yes	PK
Name	Nvarchar(50)	The name of the building	No	Yes	No
WardId	Uniqueidentifier	Define the ward of the building	No	Yes	No
Address	Nvarchar(80)	The address of the building	No	Yes	No
DisableTime	Datetime2(7)	The time when admin disable the building	No	No	No
Status	Int	The status of building	No	Yes	No
Image	Varchar(max)	The url of the image of building	No	Yes	No
UpdateTime	Datetime2(7)	The time when admin update information of the building	No	No	No
CoordinatyY	Decimal(9,6)	The point of building's location	No	Yes	No
CoordinatyX	Decimal(8,6)	The point of building's location	No	Yes	No
CreatedBy	Uniqueidentifier	Define the user who create the building	No	Yes	FK

Table 126: Building Table

4.2.12 House Table

Field name	Type	Description	Unique	Not Null	PK/FK
Houseld	Uniqueidentifier	Unique define of house	Yes	Yes	PK
Name	Nvarchar(50)	Name of the house	No	Yes	No
WardId	Uniqueidentifier	Define the ward of the house's address	No	No	FK
Address	Nvarchar(80)	Address of the house	No	Yes	No
DisableTime	Datetime2(7)	The time when user (owner/admin) disable	No	No	No

		the house in the system			
Status	Int	Status of the house	No	Yes	No
Image	Varchar(max)	Link of image about house	No	Yes	No
UpdatedTime	Datetime2(7)	The time when user update the house	No	No	No
Longitude	Decimal(9,6)	The longitude of the house's location	No	Yes	No
Latitude	Decimal(8,6)	The latitude of the house's location	No	Yes	No
HouseTypeld	Uniqueidentifier	The point of the house's location	No	Yes	FK
BuildingId	Uniqueidentifier	Define the building which the house belongs	No	No	FK
OwnerId	Uniqueidentifier	Define the owner of the house	No	Yes	FK
CreatedBy	Uniqueidentifier	Define the user who create the house	No	Yes	FK
CertificateOfOwnership	Nvarchar(max)	Link of image which proof of ownership or use of the house	No	Yes	No

Table 127: House Table

4.2.13 HouseType Table

Field name	Type	Description	Unique	Not Null	PK/FK
HouseTypeld	Uniqueidentifier	Unique define of type of house	Yes	Yes	PK
Name	Nvarchar(50)	Name of the house type	No	Yes	No
Status	Int	Status of the type of house	No	Yes	No

Table 128: HouseType Table

4.2.14 University Table

Field name	Type	Description	Unique	Not Null	PK/FK
UniversityId	Uniqueidentifier	Unique define of university	Yes	Yes	PK
Name	Nvarchar(50)	Name of the university	No	Yes	No
Address	Nvarchar(200)	Address of the university	No	Yes	No
Description	Nvarchar(500)	Detail of the university	No	No	No
Image	Nvarchar(max)	Link of the image about university	No	Yes	No
Status	Int	Status of the university	No	Yes	No
CoordinaryX	Decimal(8,6)	The point of university's location	No	Yes	No
CoordinaryY	Decimal(9,6)	The point of university's location	No	Yes	No

Table 129: University Table

4.2.15 City Table

Field name	Type	Description	Unique	Not Null	PK/FK
CityId	Uniqueidentifire	Unique define of city	Yes	Yes	PK
Name	Nvarchar(50)	The name of the city	No	Yes	No

Table 130: City Table

4.2.16 District Table

Field name	Type	Description	Unique	Not Null	PK/FK
DistrictId	Uniqueidentifier	Unique define of district	Yes	Yes	PK
Name	Nvarchar(50)	Name of the district	No	Yes	No
CityId	Uniqueidentifier	Define the city which the ward belongs	No	No	FK
DistrictNum	Int	Number of the district	No	No	No

Table 131: District Table

4.2.17 Ward Table

Field name	Type	Description	Unique	Not Null	PK/FK
WardId	Uniqueidentifier	Unique define of ward	Yes	Yes	PK
Name	Nvarchar(50)	Name of the ward	No	Yes	No
DistrictId	Uniqueidentifier	Define the district which ward belongs	No	No	FK

Table 132: Ward Table

4.2.18 Appointment Table

Field name	Type	Description	Unique	Not Null	PK/FK
AppointmentId	Uniqueidentifier	Unique define of appointment	Yes	Yes	PK
CreatedDate	Datetime2(7)	Identify the date of create appointment	No	Yes	No
Status	Int	Status of appointment	No	Yes	No
RentEntityId	Uniqueidentifier	Define the rentEntity of appointment	No	No	FK
RenterName	Nvarchar(50)	Name of renter	No	Yes	No
RenterPhone	Varchar(11)	Phone of renter	No	Yes	No
RenterEmail	Varchar(100)	Email of renter	No	Yes	No
Note	Nvarchar(200)	Note of appointment	No	No	No
AbortedReason	Nvarchar(500)	Reason of abort appointment	No	No	No
AbortedTime	Datetime2(7)	The time when user abort appointment	No	No	No
AcceptedTime	Datetime2(7)	The time when owner accept appointment	No	No	No
UpdatedTime	Datetime2(7)	The time when appointment is updated	No	No	No

CreatedTime	Datetime2(7)	The time when appointment created	No	Yes	No
RenterId	Uniqueidentifier	Define the renter who wants to make appointment	No	No	No
MeetTime	Int	The time of appointment	No	Yes	No
MeetDate	Datetime2(7)	The date of appointment	No	No	No
FinishedTime	Datetime2(7)	The time when appointment finish	No	Yes	No

Table 133: Appointment Table

4.2.19 BookingSlot Table

Field name	Type	Description	Unique	Not Null	PK/FK
SlotId	Uniqueidentifier	Unique define of Slot	Yes	Yes	PK
Houseld	Uniqueidentifier	Define the House of slot	No	No	FK
StartTime	Int	The time when the slot start	No	Yes	No
EndTime	Int	The time when the slot end	No	Yes	No
Status	Int	The status of the slot	No	Yes	No

Table 134: BookingSlot Table

4.2.20 Contract Table

Field name	Type	Description	Unique	Not Null	PK/FK
ContractId	Uniqueidentifier	Unique define of contract	Yes	Yes	PK
RentEntityId	Uniqueidentifier	Define the rent in contract	No	No	FK
DateSigned	Datetime2(7)	The date when renter sign in the contract	No	No	No
Status	Int	The status of the contract	No	Yes	No
UpdatedAt	Datetime2(7)	The time when user update the contract	No	No	No

CreatedAt	Datetime2(7)	The time when renter create the contract	No	Yes	No
StartRentDate	Datetime2(7)	The date when the renter start rent the room	No	No	No

Table 135: Contract Table

4.2.21 ContractHistory Table

Field name	Type	Description	Unique	Not Null	PK/FK
HistoryId	Uniqueidicator	Unique define of history of the contract	Yes	Yes	PK
ContractId	Uniqueidicator	Define the contract of history	No	No	FK
UpdatedBy	Uniqueidicator	Unique define the user who update the contract	No	No	FK
UpdatedAt	Datetime2(7)	The time when user update the contract	No	Yes	No
Price	Int	The price of the room write in the contract	No	Yes	No
Status	Int	The status of the contract	No	Yes	No
RenterId	Uniqueidicator	Unique the renter who is applied in the contract	No	No	FK
OwnerId	Uniqueidicator	Unique the owner of the room in the contract	No	No	FK
Description	Vachar(500)	The content of the contract	No	No	No
Image	Nvarchar(max)	Image of the contract	No	No	No
ExpiredTime	Int	The date when the contract expired	No	Yes	No
PeopleApplied	Int	The number of the people general apply in the contract	No	Yes	No

Table 136: ContractHistory Table

4.2.22 Problem Table

Field name	Type	Description	Unique	Not Null	PK/FK
ProblemId	Uniqueidentifier	Unique define of problem	Yes	Yes	PK
IssueId	Uniqueidentifier	Define the issue of the problem	No	Yes	FK
Description	Nvarchar(500)	Description of the problem	No	No	No
Image	Nvarchar(max)	Link of the image to report the problem	No	No	No
Status	Int	Status in process of problem	No	Yes	No
RejectedReason	Nvarchar(100)	Reason when owner reject the problem	No	No	No
AbortedReason	Nvarchar(100)	Reason when user abort the problem	No	No	No
CreateAt	Datetime2(7)	The time when renter report the problem	No	Yes	No
LastModified	Datetime2(7)	The last time since user modified the problem	No	No	No
ContractId	Uniqueidentifier	Define the contract which rent is belongs	No	Yes	FK

Table 137: Problem Table

4.2.23 Issue Table

Field name	Type	Description	Unique	Not Null	PK/FK
IssueId	Uniqueidentifier	Unique define of issue	Yes	Yes	PK
Name	Nvarchar(100)	Name of the issue	No	Yes	No
Status	Int	Status of the issue	No	Yes	No
CreatedBy	Uniqueidentifier	Define the user who create the issue	No	No	FK
CreatedAt	Datetime2(7)	The time when user create the issue	No	Yes	No

LastModified	Datetime2(7)	The last time since user modified the issue	No	No	No
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Table 138: Issue Table

4.2.24 Payment Table

Field name	Type	Description	Unique	Not Null	PK/FK
PaymentId	Uniqueidentifier	Unique define of payment	Yes	Yes	PK
Amount	Int	Identify the amount of the payment	No	Yes	No
Status	Int	Status of the payment	No	Yes	No
[Content]	Nvarchar(100)	Content of the payment	No	Yes	No
PaymentTime	Datetime2(7)	The time when payment complete	No	Yes	No
ContractId	Uniqueidentifier	Define the contract in case payment for rental and service payment	No	No	No
PaymentTypeId	Uniqueidentifier	Define the type of the payment	No	No	No
SenderId	Uniqueidentifier	Define user who make the payment	No	Yes	No
ReceiverId	Uniqueidentifier	Define user who receive the payment	No	Yes	No
PaymentPeriod	Datetime2(7)	Define the period of the payment creation	No	No	No
CreatedTime	Datetime2(7)	The time when user create the payment	No	Yes	No
RatingPoint	Int	The rating made by user after finish a payment	No	No	No
CommentRating	Nvarchar(500)	The comment made by user after finish a payment	No	No	No

Table 139: Payment Table

4.2.25 PaymentType Table

Field name	Type	Description	Unique	Not Null	PK/FK
PaymentTypeid	Uniqueidentifier	Unique define type of the payment	Yes	Yes	PK
PaymentTypeName	Nvarchar(100)	Name of the payment's name	No	No	No
Status	Int	Status of the payment's type	No	Yes	No

Table 140: PaymentType Table

4.2.26 PaymentDetail Table

Field name	Type	Description	Unique	Not Null	PK/FK
PaymentDetailId	Int	Unique define detail of the payment	Yes	Yes	PK
DetailName	Nvarchar(100)	Name of the payment's detail	No	Yes	No
Quantity	Int	Quantity in payment	No	Yes	No
UnitPrice	Int	Unit Price in payment	No	Yes	No
PaymentId	Uniqueidentifier	Define the payment have this detail	No	Yes	No
Unit	Nvarchar(20)	Unit of each service	No	Yes	No

Table 141: PaymentDetail Table

4.2.27 Transaction Table

Field name	Type	Description	Unique	Not Null	PK/FK
TransactionId	Int	Unique define of transaction	Yes	Yes	PK
TPTransId	Varchar(max)	Define the id of payment by payment gateway	No	Yes	No
Status	Int	Status of the payment	No	Yes	No
TransactionTime	Datetime2(7)	The time when the transaction was done	No	No	No

PaymentId	Uniqueidentifier	Define the payment of transaction	No	Yes	FK
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Table 142: Transaction Table

4.2.28 Conversation Table

Field name	Type	Description	Unique	Not Null	PK/FK
ConversationId	Uniqueidentifier	Unique define of conversation	Yes	Yes	PK
[Content]	Nvarchar(200)	The content of the conversation	No	Yes	No
ParentId	Uniqueidentifier	Use for mapping the question of renter and the answer of this question by owner	No	No	No
Time	Datetime2(7)	Time of the conversation	No	Yes	No
UserId	Uniqueidentifier	Define the user who make the question	No	Yes	FK
IsAnswer	Bit	To check the question have been answered or not	No	Yes	No
Houseld	Uniqueidentifier	Unique define of the house where the conversation belongs to	No	Yes	FK

Table 143: Conversation Table

4.2.29 Notification Table

Field name	Type	Description	Unique	Not Null	PK/FK
NotificationId	Int	Unique define of notification	Yes	Yes	PK
ReceiverId	Uniqueidentifier	Define the user who receive the notification	No	No	No
[Content]	Nvarchar(max)	Content of the notification	No	No	No
Title	Nvarchar(max)	Title of the notification	No	No	No
Time	Datetime2(7)		No	No	No

IsRead	Bit	To check if the notification was read by user	No	No	No
NotificationId	Uniqueidentifier	Define the type of the notification	No	Yes	FK
ActionId	Uniqueidentifier	Define the action of the notification	No	Yes	No
ActionStatusColor	Int	The color of the notification to show for user	No	Yes	No

Table 144: Notification Table

4.2.30 NotificationType Table

Field name	Type	Description	Unique	Not Null	PK/FK
NotificationTypeId	Uniqueidentifier	Unique define of type of notification	Yes	Yes	PK
NotificationTypeName	Nvarchar(20)	Name of the notification's type	No	No	No
Status	int	Status of the notification's type	No	Yes	No

Table 145: NotificationType Table

4.2.31 Annoucement Table

Field name	Type	Description	Unique	Not Null	PK/FK
AnnoucementId	Uniqueidentifier	Unique difine of anouncement	Yes	Yes	PK
Title	Nvarchar(100)	Title of annoucement	No	Yes	No
[Content]	Nvarchar(max)	Description of annoucement	No	Yes	No
CreatedDate	Datetime2(7)	Identify the date of create annoucement	No	Yes	No
CreatedBy	Uniqueidentifier	Define of create user	No	Yes	FK

Table 146: Annoucement Table

4.2.32 UserAnnoucement Table

Field name	Type	Description	Unique	Not Null	PK/FK
UserAnnoucementId	Int	Unique define of user's annoucement	Yes	Yes	PK
UserId	Uniqueidentifier	Define the user	No	Yes	FK
AnnoucementId	Uniqueidentifier	Define the annoucement	No	Yes	FK

Table 147: UseAnnoucement Table

V. Software Testing Documentation

1. Overall Description

Test Model

In UniHome project, we apply Incremental testing for many purposes:

- Each Module provides a definitive role to play in the project structure.
- Some function testing can start at early step of the development process.

Testing Levels

- Testing Level: System Test, User Acceptance Test
- Testing Types: Functional Testing, user Interface Testing

2. Test Plan

Test Stages

Type of Test	State of Test		
	Unit	System	Acceptance
Function Testing		x	
User Interface Testing		x	

Resources

Worker	Role	Specific Responsibilities
Trác Thành Nguyệt Quế	Leader	Planning, verify test result assign test function to members.
Trần Phan Trường Thịnh	Member	Execute test and report as planned
Hứa Vĩnh Khang	Member	Execute test and report as planned
Lâm Hậu Huống	Member	Execute test and report as planned
Đoàn Nhật Quang	Member	Execute test and report as planned

Test Milestones

No.	Deliverables	Due Date

1	Test Document	02/04/2022
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3. Test Cases and Test Reports

Testing Level	File Name
System Test	UniHome - TestPlan - Admin Web App UniHome - TestPlan - Owner Mobile App UniHome - TestPlan - Renter Mobile App

VI. Release Package and User Guides

1. Deliverable Package

Source Codes and Documents

No.	Items	Sub-Items	Type	Version
Code Package				
1	Mobile Module	UNH.RenterApp UNH.OwnerApp	New	1.0.0 1.0.0
2	Web Module	UNH.WebRenterApplication UNH.WebAdminApplication	New	1.0.0 1.0.0
3	Web API Module	UNH.UniHomeAPI	New	16.0
Database				
1	Initialize Database	UNH.UniHomeScript	New	
Documents				
1	Final Project Report	Unihome Report Final.docx		

Table 148: Source Codes and Document

2. Installation Guide

System Requirements

2.1.1 Hardware Requirement

- Web Application

PC	Minimum	Recommended
Internet connection	Cable, Wi-fi (4 Mbps)	Cable, Wi-fi (8 Mbps)
Processor	Intel Core i3 1.4Ghz	Intel Core i7 2.5Ghz
Memory	2GB RAM	4GB RAM up
Storage	2GB	4GB up
Web Browser	Chromes (v69 or higher)	Chrome latest stable version

- Mobile Application

Operating System	Android 10 or higher
Processor	Intel(R) Atom(TM) CPU Z3580 @ 1.33GHz, or faster processor
Storage	Minimum 256 MB
RAM	Minimum of 1GB, 2GB is recommend

2.1.2 Software Requirement

Component	Name and Version	Description
Operating System	Windows 7 SP1/8.1/10/Window Server 2016 or above (Web application) Android 10 Android or above (Mobile application)	
DBMS	SQL Server 2019	Used to manage database
.Net Core Runtime	3.1	Used to hosting API server

Setup Files

- unihome_renter_v1_0_0.apk
- unihome_owner_v1_0_0.apk

Installation Instruction

2.3.1 Setup Environments

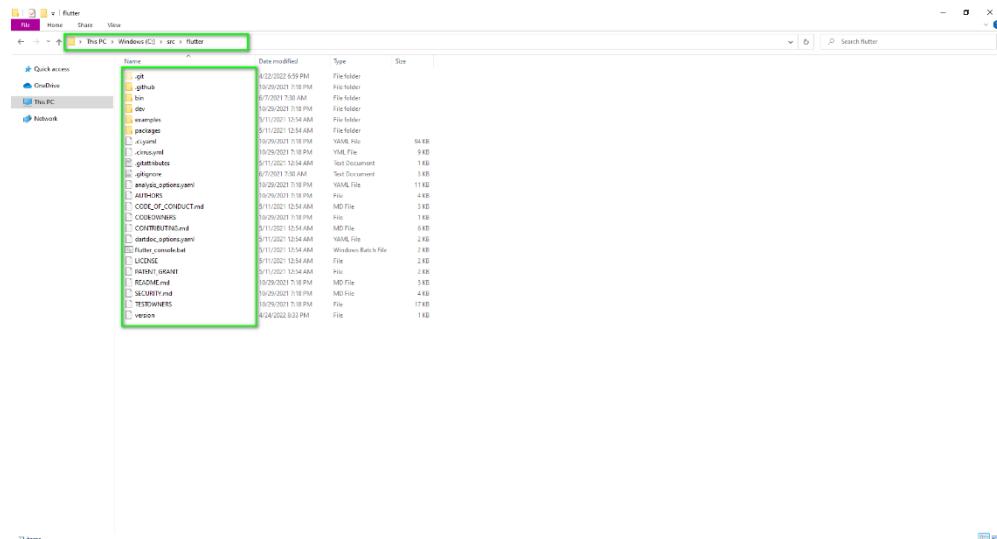
2.3.1.1 Mobile Application

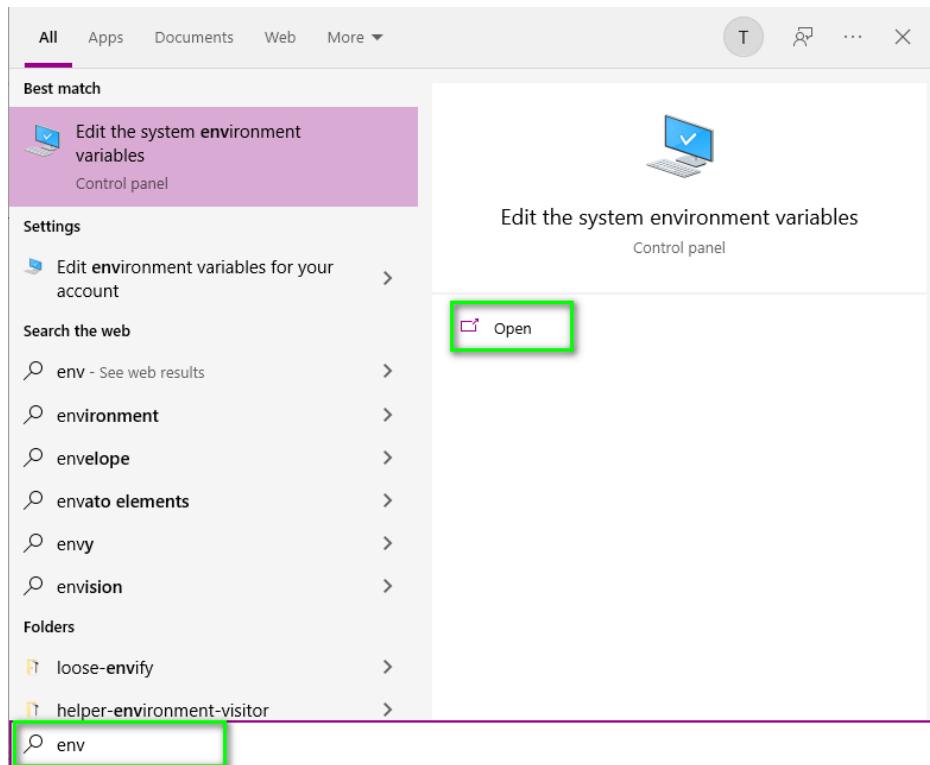
Download the following installation bundle to get the latest stable release of the Flutter SDK from [here](#).

Extract the zip file and place the contained flutter in the desired installation location for the Flutter SDK (for example, C:\src\flutter).

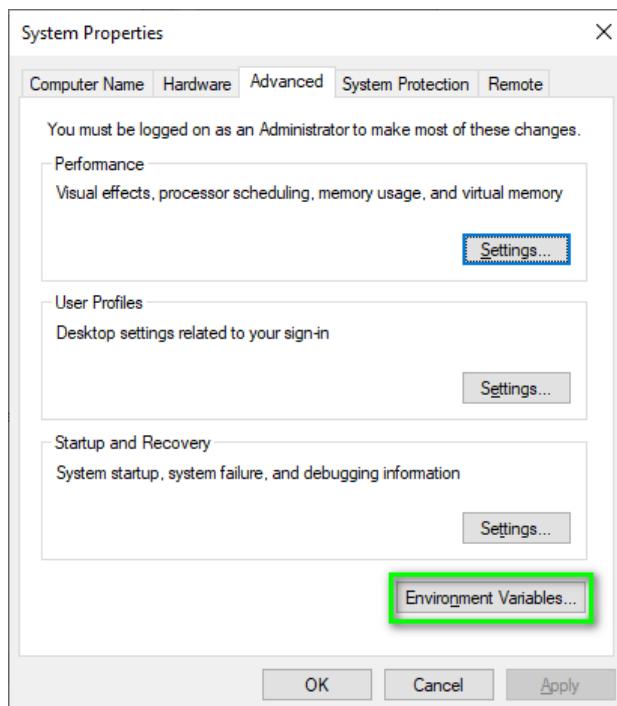
Update the path:

From the Start search bar, enter 'env' and select **Edit environment variables for your account**.

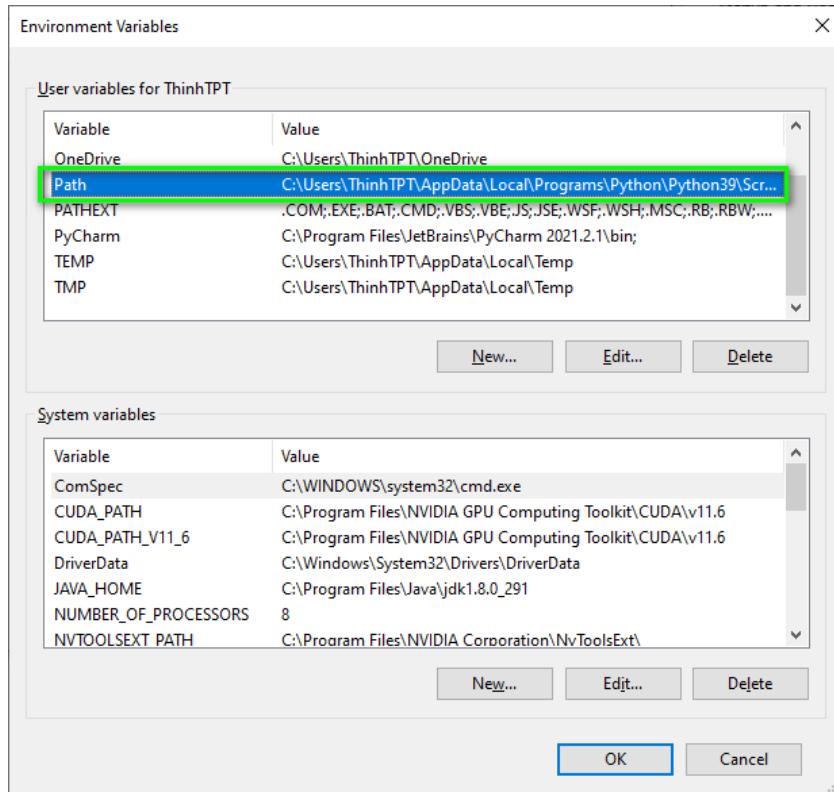




Click **Environment Variable** button:

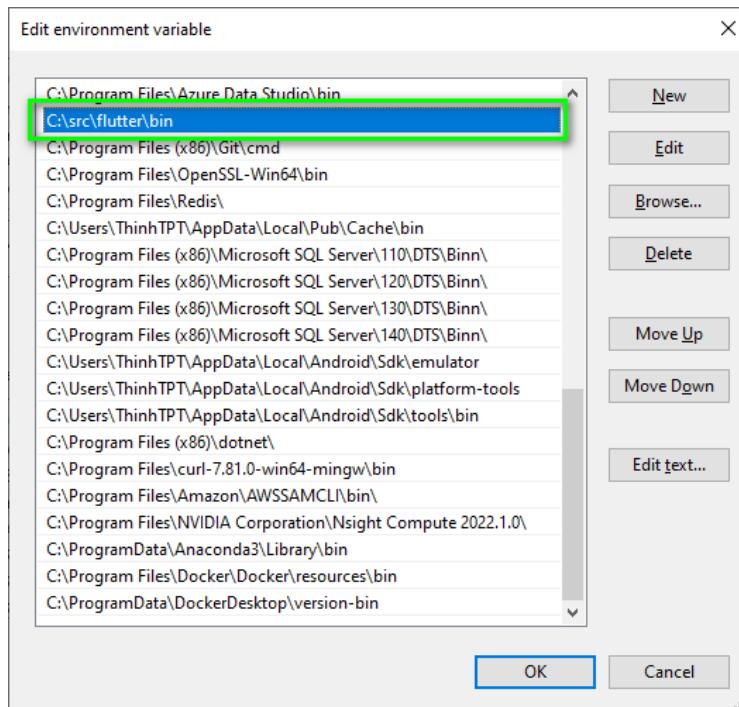


Under User variables check if there is an entry called **Path**:



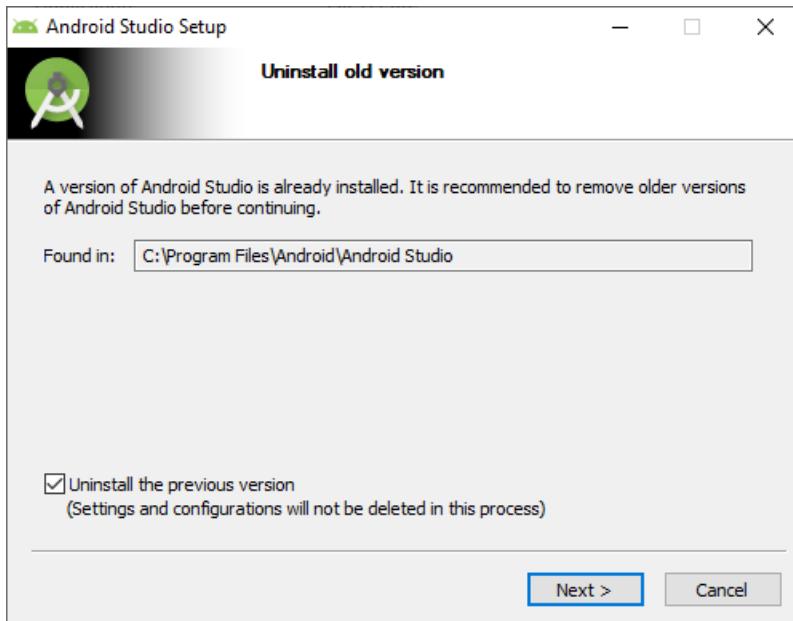
If the entry exists, append the full path to flutter\bin using ";" as a separator from existing values.

If the entry does not exist, create a new user variable named Path with the full path to flutter\bin as its value.



Download and install [Android Studio](#).

Start Android Studio and go through the “Android Studio Setup Wizard”. This installs the latest Android SDK, Android SDK Command-line Tools, and Android SDK Build-Tools, which are required by Flutter when developing for Android.

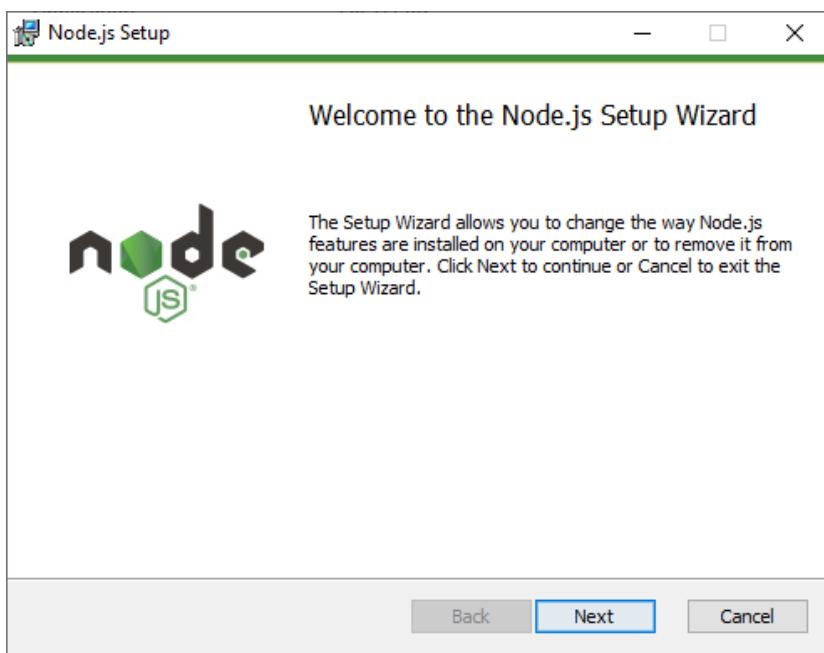


For more detail, see [here](#).

Web Application

Install Nodejs [here](#).

Start the Nodejs downloaded file and go through install.



Open cmd and check the node version by run command *node-v*.

API Server Application

Download .Net Core SDK x64 and .NET Core 3.1 Runtime [here](#).

^ 3.1.24

[Release notes](#) Latest release date April 12, 2022

Build apps - SDK

SDK 3.1.418

OS	Installers	Binaries
Linux	Package manager instructions	Arm32 Arm64 x64 x64 Alpine
macOS	x64	x64
Windows	x64 x86	Arm32 x64 x86
All	dotnet-install scripts	

Visual Studio support

Visual Studio 2019 (v16.7)
Visual Studio 2019 for Mac (v8.10)

Included in

Visual Studio 16.7.27

Included runtimes

.NET Runtime 3.1.24
.NET Core Runtime 3.1.24
.NET Desktop Runtime 3.1.24

Language support

C# 8.0
F# 4.7
Visual Basic 15.9

[Localized IntelliSense](#)

Run apps - Runtime

ASP.NET Core Runtime 3.1.24

The ASP.NET Core Runtime enables you to run existing web/server applications. **On Windows**, we recommend installing the **Hosting Bundle**, which includes the .NET Runtime and IIS support.

IIS runtime support (ASP.NET Core Module v2)

3.1.22089.24

OS	Installers	Binaries
Linux	Package manager instructions	Arm32 Arm64 Arm64 Alpine x64 x64 Alpine
macOS		x64
Windows	Hosting Bundle x64 x86	Arm32 x64 x86

.NET Desktop Runtime 3.1.24

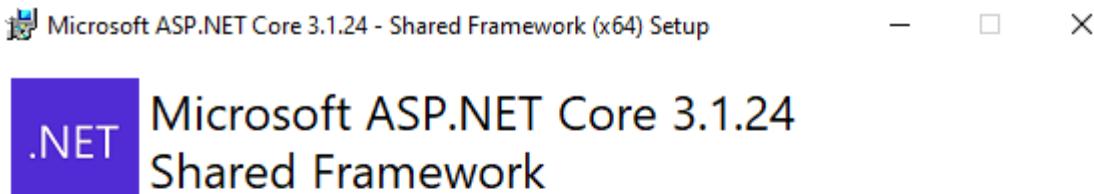
The .NET Desktop Runtime enables you to run existing Windows desktop applications. **This release includes the .NET Runtime; you don't need to install it separately.**

OS	Installers	Binaries
Windows		x64 x86

.NET Runtime 3.1.24

The .NET Runtime contains just the components needed to run a console app. Typically, you'd also install either the ASP.NET Core Runtime or .NET Desktop Runtime.

Run the installer.



Welcome to the Microsoft ASP.NET Core 3.1.24 - Shared Framework (x64) Setup.

Microsoft ASP.NET Core 3.1.24 - Shared Framework (x64) [license terms](#) and [privacy statement](#).

I agree to the license terms and conditions

Install

Close

Setup Application

Mobile Application

Mobile Renter Application

Open command-line in source code folder.

Clean project with the command: “`flutter clean`”.

Get project package with the command: “`flutter pub get`”.

Get the `google-service.json` file from Firebase project console ([See detail](#))

Add file to project folder to use Firebase authentication.

Build apk file with the command: “`flutter build apk`”.

Mobile Owner Application

Open command-line in source code folder.

Clean project with the command: “`flutter clean`”.

Get project package with the command: “`flutter pub get`”.

Get the `google-service.json` file from Firebase project

console

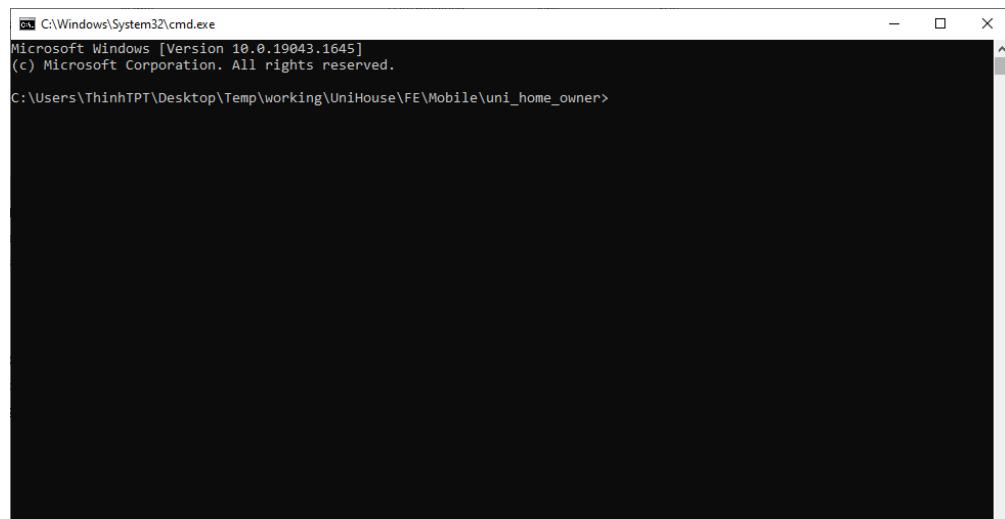
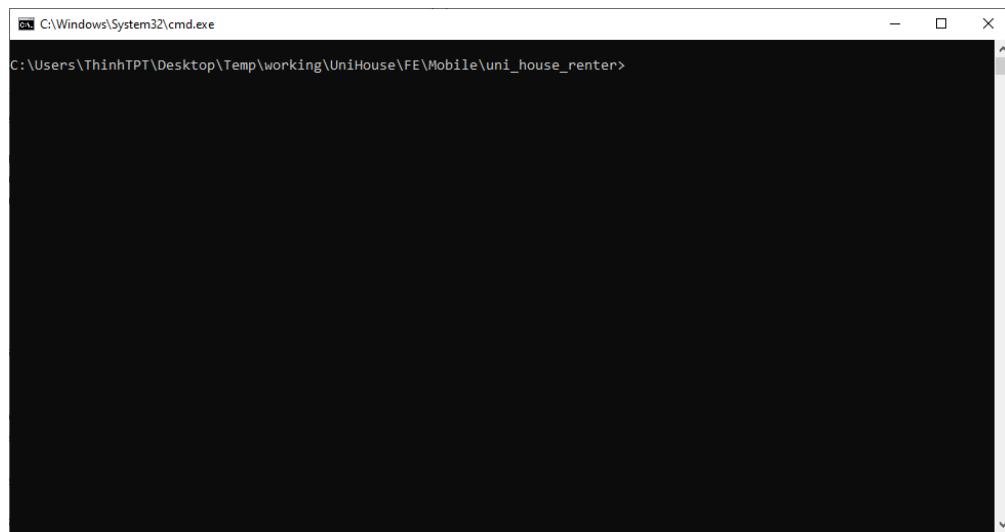
([See detail](#))

Add file to project folder to use Firebase authentication.

Build apk file with the command: “`flutter build apk`”.

Web Application

Web Renter Application



Open command-line in source code folder.

Get project package with the command: “[npm install](#)”.

Build the project with the command: “[npm run build](#)”. The final source folder is the [build](#) folder.

Web Admin Application

Open command-line in source code folder.

Get project package with the command: “[npm install](#)”.

Build the project with the command: “[npm run build](#)”. The final source folder is the [build](#) folder.

API Server Application

Go to the source code folder.

Open SQL Server Management Studio (SSMS) and modify connection string to match with your local connection string in [appsettings.Development.json](#).

Build and run.

```
"ConnectionStrings": {
    "DefaultConnection": "Data Source = 127.0.0.1,1433; Initial Catalog = UniHome; User ID = sa; Password = 1234"
    "LocalConnection": "Data Source = SE140097,1433; Initial Catalog = BeHome; User ID = sa; Password = 1234"
}
```

The diagram shows the `appsettings.Development.json` file with a red box highlighting the `LocalConnection` section. Four arrows point from labels to specific parts of the connection string:

- Server Name, Port**: Points to the `Data Source` value: `SE140097,1433`.
- Database Name**: Points to the `Initial Catalog` value: `BeHome`.
- Username**: Points to the `User ID` value: `sa`.
- Password**: Points to the `Password` value: `1234`.

3. User Manual

■ Terms and Definitions

N/A

■ System Requirement

3.2.1 Hardware Requirement

Type	Part/Component	Minimum	Recommended
Computer	OS supported	Windows7 SP1 or later (64-bit), Linux	–
Computer	Network	LAN	LAN and Internet
Computer	RAM	4GB	>= 8GB
Computer	HDD	100 GB	>= 200 GB
Computer	Ports	USB, Network	–
Mobile	Camera	5MP	–
Mobile	Network	Wi-Fi / Mobile Network	–

3.2.2 Software Requirement

- Git v2.3
- .NET Core Runtime 3.1 Hosting bundles
- Node.js v14
- Android SDK, Flutter SDK v2.5.3

■ Application Usage

3.3.1 Overview

3.3.2 Admin Module

3.3.2.1 Admin login to system



No.	Function	Description	Validation	Outcome
1	Login	Toggle login with Gmail popup	No	User is authenticated

3.3.2.2 View user list

Họ và Tên	Role	Trạng thái
△○○○△○△○	Owner	Đang hoạt động
An Pham Truong	Renter	Đang hoạt động
Bui Vinh Khoi	Renter	Đang hoạt động
Dao Nhu Mai (K17 HCM)	Renter	Đang hoạt động
Doan Nhiet Quang	Renter	Đang hoạt động

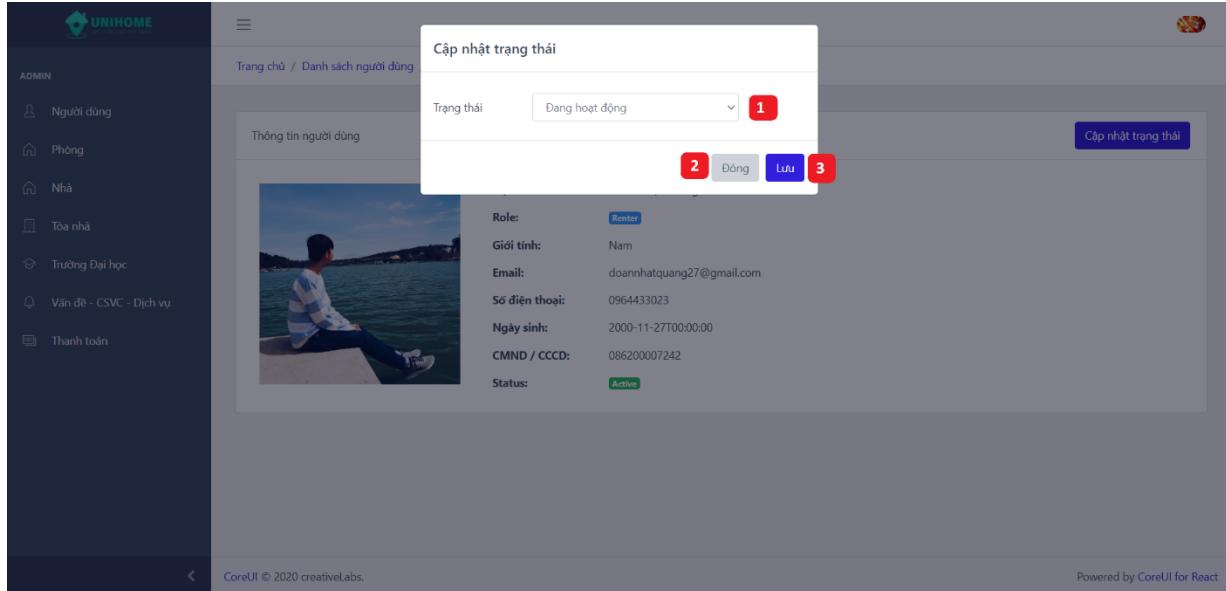
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No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Filter	Value which user wants to search	No	No	Text Box	String

3.3.2.3 View user detail information

No.	Function	Description	Validation	Outcome
1	Update user status	Click to display update status popup	No	Update status popup

3.3.2.4 Update user status popup



No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	User status	Select user status	No	Yes	Dropdown	String

No.	Function	Description	Validation	Outcome
2	Close popup	Click to close update status popup	No	Popup is closed
3	Update user status	Click to update user status	Yes	User status is updated

3.3.2.5 View rent list

Trang chủ / Danh sách phòng

Danh sách phòng

Tất cả

Tên	Thời gian tạo	Loại phòng	Địa chỉ	Trạng thái
1	2022-01-13T20:14:33.4732879	Phòng trọ	387 Church Van An, Xã An Phú Tây, Huyện Bình Chánh	Available
1234	2022-01-13T20:18:06.9559764	Phòng trọ	387 Church Van An, Xã An Phú Tây, Huyện Bình Chánh	Available
234	2022-03-27T23:23:16.5965475	Phòng trọ	352/30 Nguyễn Dinh Chiểu, Phường Hiệp Phú, Quận 9	
A	2022-01-13T23:27:05.5928619	Phòng trọ	387 Church Van An, Xã An Phú Tây, Huyện Bình Chánh	Rejected
ABC	2021-09-18T18:57:37.4101034	Nhà	111, Phường Long Thành Mỹ, Quận 9	Available
Ahihi	2021-10-30T02:48:23.8818285	Phòng trọ	HobaHome 58/3 Tân Lập 1v, Phường Hiệp Phú, Quận 9	Unavailable
AVC	2022-03-29T00:25:47.7339884	Phòng trọ	387 ABC, Thị Trấn Tân Trúc, Huyện Bình Chánh	Unavailable
Bò Lmao	2021-09-24T00:54:51.1321883	Phòng trọ	Cao Lô, Phường Phước Long A, Quận 9	Unavailable
Bùi Vĩnh Khoái	2021-09-21T15:50:44.6495214	Phòng trọ	Nguyễn Chí Thanh, Phường 13, Quận 5	Available
Căn hộ 609	2021-07-17T13:47:04.83	Căn hộ	702 Xa Lộ Hà Nội, Phường Hiệp Phú, Quận 9	Unavailable

1 2 3 4 ... >

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No.	Function	Description	Validation	Outcome
1	Filter house list with status	Filter house list by selected status	No	House list with selected status

3.3.2.6 View rent detail information

Trang chủ / Danh sách phòng / Thông tin phòng

THÔNG TIN RENT ENTITY

Tên:	Phòng 203
Mô tả:	Phòng ngủ trẻ em
Giá phòng:	500000
Diện tích:	14m ²
Giới tính:	Nam
Share phòng:	Không
Status:	Pending

Image 1

Thông tin Nhà

Tên:	Nhà 3
Địa chỉ:	1 Lê Duẩn, Phường Bến Nghé, Quận 1
Status:	Available

Thông tin liên hệ

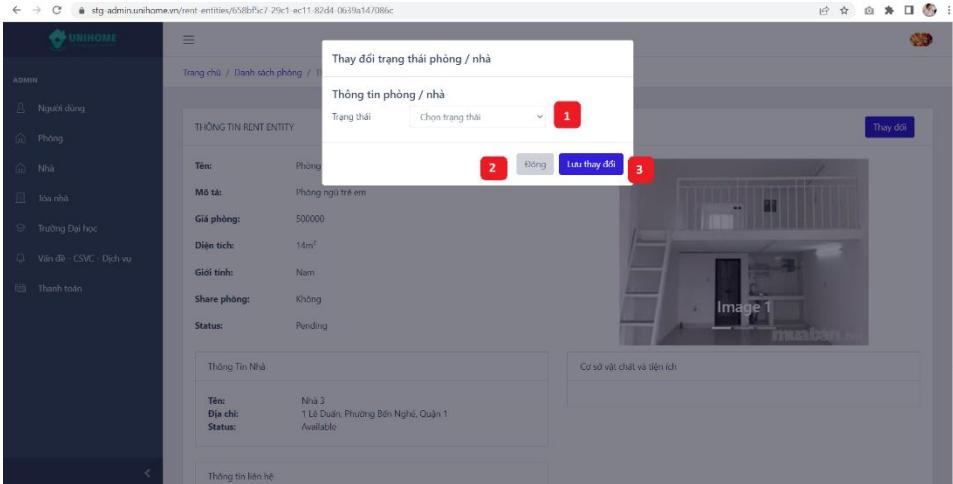
Chủ trọ:	Lam Hau Huongg
SĐT chủ trọ:	0919159531
Người đăng:	Lam Hau Huongg
SĐT người đăng:	0919315951

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No.	Function	Description	Validation	Outcome
-----	----------	-------------	------------	---------

1	Update rent status	Click to display update rent popup	Yes	Update rent status popup
---	--------------------	------------------------------------	-----	--------------------------

3.3.2.7 Admin accepts or rejects rent



No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Rent status	Select rent status	No	Yes	Dropdown	String

No.	Function	Description	Validation	Outcome
2	Close popup	Click to close update status popup	No	Popup is closed
3	Update rent status	Click to update rent status	Yes	Rent status is updated

3.3.2.8 View house list

The screenshot shows the UniHome Admin dashboard. On the left, there's a sidebar with navigation links: ADMIN, Người dùng, Phòng, Nhà, Tòa nhà, Trường Đại học, Văn phòng - CSV - Dịch vụ, and Thành toán. The main area is titled 'Danh sách nhà' (House List). It includes a 'Filter' input field containing '1'. Below it is a table with columns: Tên Nhà (Name), Loại Nhà (Type), Địa Chỉ (Address), and Trạng Thái (Status). There are 10 rows of data, each showing a house name like 'Trọ AVC', address like 'Thị trấn Tân Trúc, Huyện Bình Chánh', type like 'Nhà trọ', and status like 'Available'. At the bottom, there are page navigation buttons.

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Filter	Value which user wants to search	No	No	Text Box	String

3.3.2.9 View house detail

This screenshot shows the detailed view of a house. The sidebar and top navigation are identical to the previous screenshot. The main content area is titled 'Thông tin nhà' (House Information). It displays various details: Tên (Name) is 'Nhà số 12'; Giá phòng (Room price) is '50000 - 600000 đồng'; Diện tích (Area) is '10m²'; Share phòng (Share room) is 'Không' (No); and Status is 'Available'. To the right, there's a 'Hình ảnh' (Image) section with a thumbnail labeled 'Image 1' showing an interior view of a room with a balcony. Below the image is a caption 'Ảnh xác thực' (Verification photo) with another thumbnail labeled 'Image 1' showing a hallway. At the bottom, there are two side-by-side tables: 'Thông tin nhà' (House information) and 'Danh sách phòng trọ' (List of rental rooms). The house information table shows 'Tên: Nhà số 12', 'Địa chỉ: 1 Lê Duẩn, Phường Bến Nghé, Quận 1', and 'Status: Available'. The room list table shows 'Phòng 112', 'Phòng 123', and 'Room 101'.

No.	Function	Description	Validation	Outcome
1	View rent of this house	Click to navigate to detail information of rent of house	Yes	Rent detail screen

3.3.2.10 View building list

No.	Function	Description	Validation	Outcome
1	Create new building	Click to navigate to create building screen	No	Create building screen

3.3.2.11 View building detail

No.	Function	Description	Validation	Outcome
1	Turn back to building list page	Click to navigate to building list page	No	Building list page
2	Update building	Click to navigate to update building page	Yes	Update building page
3	Delete building	Click to delete building	Yes	Building is deleted

3.3.2.12 Add new building

The screenshot shows the UniHome Admin interface for adding a new building. The left sidebar has a dark theme with white text and icons for User, Room, Building, Building List, CSV Import, and Logout. The main area has a light gray background. At the top, it says 'Trang chủ / Danh sách tòa nhà / Thêm tòa nhà'. The form is titled 'Tạo mới nhà / tòa nhà'. It contains several input fields and dropdowns:

- Tên nhà / tòa nhà * (Building Name) with a red box around the input field (1).
- Địa chỉ * (Address) with a red box around the input field (2).
- Quận/huyện * (District/City) with a red box around the dropdown (3) and another for the selected item (4).
- Nhà chính chủ checkbox (5) with a red box around it.
- Thông tin owner (Owner Information) section with fields for Tên * (Name) (6), Số điện thoại * (Phone Number) (7), and Hình đại diện (Avatar) (8) with a red box around the file input.

Below the form is a map of Ho Chi Minh City with various districts and neighborhoods labeled. A blue button labeled 'Cập nhật vị trí trên bản đồ' (Update location on map) has a red box around it (10). On the right side of the map are controls for zooming (+/-), a location marker, and buttons for 'Hủy' (Cancel) (11) and 'Thêm' (Add) (12). The bottom of the screen shows copyright information: 'CoreUI © 2020 creativeLabs.' and 'Powered by CoreUI for React'.

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Building name	Name of new building	No	Yes	Text Box	String
2	Building address	Address of new building	No	Yes	Text Box	String
3	Building district	District of new building	No	Yes	Dropdown	String
4	Building ward	Ward of new building	No	Yes	Dropdown	String
5	Is owner	Check this building is belonged with current person	No	No	Checkbox	Boolean
6	Owner name	Name of building's owner	No	No	Text box	String
7	Owner phone	Phone of building's owner	No	No	Text box	String
8	Owner avatar	Avatar of building's owner	No	No	Image Picker	Image
9	Building imaged	Images of building	No	Yes	Image Picker	Image

No.	Function	Description	Validation	Outcome
10	Update coordinates	Update coordinates of building base on input address	No	New coordinates of building
11	Cancel	Do not save and turn back to building list page	No	Building list page

12	Save	Click to add building	Yes	Building is added to system
----	------	-----------------------	-----	-----------------------------

3.3.2.13 Update building

UNIHOME

- Trang chủ / Danh sách tòa nhà / Thông tin tòa nhà

ADMIN

- Người dùng**
- Phòng**
- Nhà**
- Tòa nhà**
- Trường Đại học**
- Văn phòng - CSVC - Dịch vụ**
- Thanh toán**

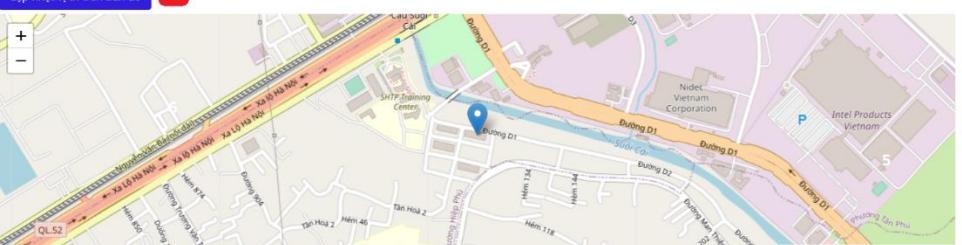
Cập nhật tòa nhà

Tên nhà / tòa nhà * 1 Chung cư C4

Địa chỉ * 2 Chung cư C4 Man Thiện

Quận/huyện * 3 Quận 9 4 Phường/xã * Phường Hiệp Phú

Hình ảnh* 5 Choose Files... 6 

Cập nhật vị trí trên bản đồ 7 8 

Hủy bỏ Lưu

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Building name	Name of new building	No	Yes	Text Box	String
2	Building address	Address of new building	No	Yes	Text Box	String
3	Building district	District of new building	No	Yes	Dropdown	String
4	Building ward	Ward of new building	No	Yes	Dropdown	String
5	Building imaged	Images of building	No	Yes	Image Picker	Image

No.	Function	Description	Validation	Outcome
6	Update coordinates	Update coordinates of building base on input address	No	New coordinates of building
7	Cancel	Do not save and turn back to building list page	No	Building list page
8	Save	Click to update building information	Yes	Building information is updated

3.3.2.14 View university list

The screenshot shows the UniHome application's university management interface. On the left, a dark sidebar lists administrative functions: Người dùng, Phòng, Nhà, Tòa nhà, Trường Đại học (which is highlighted), Văn đề - CSVC - Dịch vụ, and Thanh toán. The main area is titled 'Danh sách trường Đại học' and contains a table with the following data:

Tên Trường	Địa Chỉ
Trường Đại học Văn Lang - Cơ sở 2	Hẻm 69 Đặng Thùy Trâm
Trường Đại học Văn Lang - Cơ sở 4	Hẻm 69 Đặng Thùy Trâm 2
Trường Đại học Văn Lang - Cơ sở 2	Hẻm 69 Đặng Thùy Trâm
Trường Đại học Văn Lang - Cơ sở 4	Hẻm 69 Đặng Thùy Trâm 3
Đại học HUTECH cơ sở R	Khu Công Nghệ Cao, TP Thủ Đức
Đại học FPT Hồ Chí Minh	Lô E2a-7, Đường D1, Khu Công Nghệ Cao
Trường Đại học Văn Lang - Cơ sở 3	Hẻm 69 Đặng Thùy Trâm
Trường Đại Học Nguyễn Tất Thành - Cơ sở Quận 9	Đường Võ Chí Công, Long Thạnh Mỹ, Thành phố Thủ Đức, Thành phố Hồ Chí Minh, Vietnam
Trường Đại Học Kinh tế-Luật TPHCM	669 QL1A, khu phố 3, Thủ Đức, Thành phố Hồ Chí Minh

At the bottom left is the text 'CoreUI © 2020 creativeLabs.' and at the bottom right is 'Powered by CoreUI for React'.

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
2	Filter	Value which user wants to search	No	No	Text Box	String

No.	Function	Description	Validation	Outcome
1	Add new university	Click to navigate to add new university page	No	Add new university page

3.3.2.15 University detail

The screenshot shows the UniHome application's interface. On the left is a dark sidebar with a navigation menu under 'ADMIN' containing links: Người dùng, Phòng, Nhà, Tòa nhà, Trường Đại học, Văn đê - CSVC - Dịch vụ, and Thanh toán. The main content area has a header 'Trang chủ / Danh sách trường Đại học'. Below the header is a large image of a modern building complex. The text 'Đại học FPT Hồ Chí Minh' is displayed, along with its description 'Mô tả: Đại học FPT nè' and address 'Địa chỉ: Lô E2a-7, Đường D1, Khu Công Nghệ Cao'. At the bottom right of the content area are two buttons: 'Quay lại' (numbered 1) and 'Cập nhật' (numbered 2). The footer of the page includes the text 'CoreUI © 2020 creativeLabs.' and 'Powered by CoreUI for React'.

No.	Function	Description	Validation	Outcome
1	Turn back	Click to navigate to view university list page	No	View university list page
2	Update	Click to navigate to update university page	Yes	Update university page

3.3.2.16 Add new university

The screenshot shows the UniHome application's interface for adding a new university. The left sidebar is identical to the previous screenshot. The main content area has a header 'Trang chủ / Danh sách trường Đại học / Thêm trường Đại học'. Below the header is a large image of two students sitting on a grassy lawn. The form fields are labeled: 'Tên Trường *' (numbered 1), 'Mô tả *' (numbered 2), 'Địa chỉ *' (numbered 3), and 'Hình ảnh*' (numbered 4). There is a 'Choose Files...' button and a 'Browse' button next to the image input field. At the bottom left is a 'Quay lại' button (numbered 5) and at the bottom right is a 'Thêm' button (numbered 6). The footer of the page includes the text 'CoreUI © 2020 creativeLabs.' and 'Powered by CoreUI for React'.

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	University name	Name of new university	No	Yes	Text Box	String
2	University description	Description of new university	No	Yes	Text Box	String
3	University address	Address of new university	No	Yes	Text Box	String
4	University images	Images of new university	No	Yes	Image picker	Image

No.	Function	Description	Validation	Outcome
5	Turn back	Click to navigate to view university list page	No	View university list page
6	Add	Click to add new university to system	Yes	University is added

3.3.2.17 Update university

The screenshot shows the UniHome application's 'Update university' form. The left sidebar has a dark blue background with the 'ADMIN' logo at the top and a navigation menu below it. The main area has a light gray background. At the top, there is a breadcrumb navigation: 'Trang chủ / Danh sách trường Đại học'. Below this is a large image of a modern building complex under a blue sky. The form itself has several input fields:

- Tên Trường ***: A dropdown menu with three options: 1. Đại học FPT Hồ Chí Minh, 2. Đại học FPT Đà Nẵng, and 3. Lô E2a-7, Đường D1, Khu Công Nghệ Cao.
- Mô tả ***: An input field with placeholder text 'Mô tả'.
- Địa chỉ ***: An input field with placeholder text 'Địa chỉ'.
- Hình ảnh***: A file input field with the placeholder 'Choose Files...' and a 'Browse' button.

At the bottom of the form are two buttons: a blue 'Quay lại' (Back) button and a red 'Lưu' (Save) button. The footer of the page includes the copyright notice 'CoreUI © 2020 creativeLabs.' and the text 'Powered by CoreUI for React'.

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	University name	Updated university name	No	Yes	Text Box	String
2	University description	Updated university description	No	Yes	Text Box	String
3	University address	Updated university address	No	Yes	Text Box	String
4	University images	Updated university image	No	Yes	Image picker	Image

No.	Function	Description	Validation	Outcome
5	Turn back	Click to navigate to view university list page	No	View university list page
6	Save	Click to update university information	Yes	University is updated

3.3.2.18 View problems, issue list

The screenshot shows the UniHome application's interface for managing issues. On the left, there's a dark sidebar with 'ADMIN' navigation. Under 'Văn đề - CSV', there are two tabs: 'Văn đề' (selected) and 'Cơ sở vật chất'. The main content area is titled 'Danh sách issue' and contains a table with columns for 'Tên Issue' and 'Trạng Thái'. A red box labeled '1' is over the 'Văn đề' tab. A red box labeled '2' is over the 'Cơ sở vật chất' tab. A red box labeled '3' is over the 'Thêm mới' (Add new) button. A red box labeled '4' is over the 'Filter' input field. A red box labeled '5' is over the 'Chi tiết' (Details) button next to an issue row. At the bottom, there's a navigation bar with page numbers from 1 to 4, where '4' is highlighted in red.

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
4	Filter	Value which user wants to search	No	No	Text Box	String

No.	Function	Description	Validation	Outcome
1	Display issue list	Click to display issue tab	No	Display Issue list
2	Display facility list	Click to display facility tab	No	Display Facility list
3	Add new issue	Click to show add form	No	Display add issue form
5	Toggle display issue detail	Click to toggle display issue detail	Yes	Display issue detail

3.3.2.19 Issue detail

The screenshot displays the UniHome application's interface. On the left, a dark sidebar menu lists various administrative and operational functions: ADMIN, Người dùng (User), Phòng (Room), Nhà (House), Tòa nhà (Building), Trường Đại học (University), Văn đề - CSV/C (Document), and Thanh toán (Calculation). The main content area is titled 'Trang chủ / Văn đề - CSV/C'. It shows a list of 'Danh sách Issue' with a 'Thêm mới' (Add new) button. A specific issue titled 'Nước' is highlighted. Its details are shown in a modal: 'Tên Issue: Nước', 'Trạng Thái: Đóng' (Status: Closed), 'Được tạo bởi: Uni Home Admin', 'Ngày tạo: 9/1/2022', 'Được cập nhật bởi: (unspecified)', and 'Ngày cập nhật: (unspecified)'. At the bottom of the modal are 'Cập nhật' (Update) and 'Close' buttons.

No.	Function	Description	Validation	Outcome
1	Close issue detail	Click to close issue detail	No	Issue detail is closed

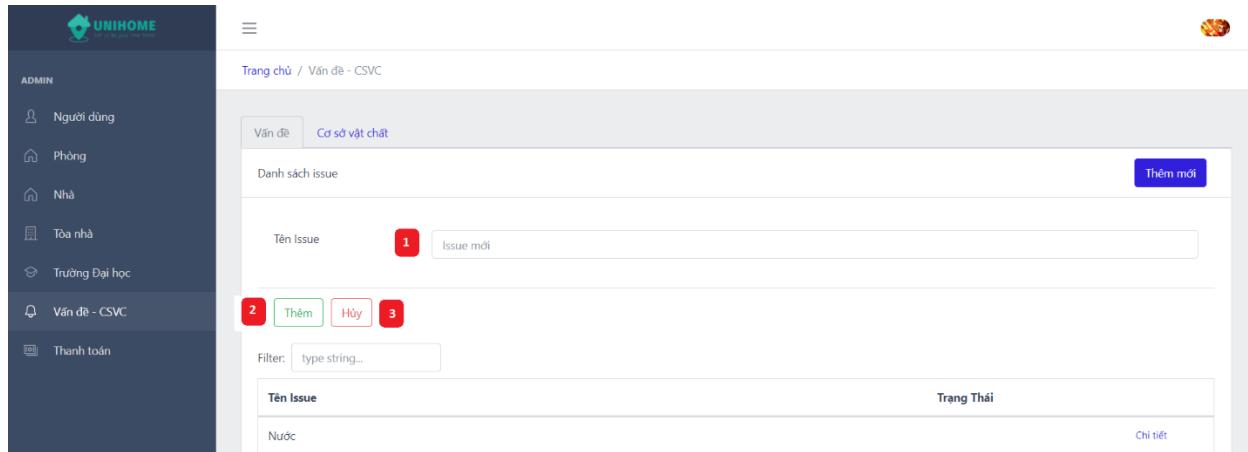
2	Update issue	Click to change issue detail to update mode	No	Display update issue mode
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3.3.2.20 Update issue

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Issue name	Updated issue name	No	Yes	Text Box	String

No.	Function	Description	Validation	Outcome
2	Update	Click to update issue	Yes	Issue is updated
3	Cancel	Click to cancel update	No	Update form is closed

3.3.2.21 Create new issue



No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Issue name	New issue name	No	Yes	Text Box	String

No.	Function	Description	Validation	Outcome
2	Add	Click to add issue	Yes	Issue is added
3	Cancel	Click to cancel add	No	Add form is closed

3.3.2.22 View facility list

The screenshot shows the UniHome application's facility management module. The sidebar on the left includes sections for Admin, User, Room, Apartment, University, Office, and CSV documents. The main content area is titled 'Trang chủ / Văn phòng - CSV'. It displays a list of facilities with the following data:

Tên	Trạng thái	Mật định
1 nhà vệ sinh	Available	Cập nhật
1 phòng ngủ	Available	Cập nhật
2 nhà vệ sinh	Available	Cập nhật
2 phòng ngủ	Available	Cập nhật
An ninh 24/7	Available	Cập nhật
Bàn bếp	Available	Cập nhật
Ban công	Available	Cập nhật
Bể chứa	Available	Cập nhật
Bệnh viện	Available	Cập nhật
Bồn tắm	Available	Cập nhật

A navigation bar at the bottom includes icons for back, forward, and search.

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
2	Filter	Value which user wants to search	No	No	Text Box	String

No.	Function	Description	Validation	Outcome
1	Add new facility	Click to show add form	No	Display add facility form
3	Toggle update facility form	Click to display update facility form	Yes	Display update facility form

3.3.2.23 Update facility

The screenshot shows the UniHome application's interface for managing facilities. The left sidebar has a dark blue background with white icons and text. Under 'ADMIN', 'Trường Đại học' is selected. Other options include 'Người dùng', 'Phòng', 'Nhà', 'Tòa nhà', and 'Văn phòng - CSV/C'. The main content area has a light gray background. At the top, it says 'Trang chủ / Văn phòng - CSV/C'. Below this is a navigation bar with tabs 'Văn phòng' (selected) and 'Cơ sở vật chất'. A sub-header 'Danh sách cơ sở vật chất' is followed by a search bar 'Filter: type string...'. A large table lists facilities with columns: 'Tên' (Name), 'Trạng thái' (Status), and 'Mặc định' (Default). The first row shows '1 nhà vệ sinh' with status 'Available' and a red button '1'. Below the table are two buttons: 'Cập nhật' (Update) and 'Đóng' (Close). The table contains several other rows with facility names like '1 phòng ngủ', '2 nhà vệ sinh', etc., each with its status and update/cancel buttons.

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
2	Facility name	Updated facility name	No	Yes	Text Box	String
3	Facility status	Updated facility status	No	Yes	Dropdown	String

No.	Function	Description	Validation	Outcome
1	Cancel	Click to cancel update	No	Update form is closed
4	Update	Click to update facility	Yes	Facility is updated
5	Cancel	Click to cancel update	No	Update form is closed

3.3.2.24 Create new facility

The screenshot shows the UniHome application's payment history list. The left sidebar has a dark blue background with the UniHome logo at the top. Below it, under the 'ADMIN' section, are links: Người dùng, Phòng, Nhà, Tòa nhà, Trường Đại học, Văn đề - CSV, and Thanh toán. The main content area has a light gray header with 'Trang chủ / Thanh toán'. Below this is a search bar titled 'Danh sách giao dịch' with fields for 'Khoảng thời gian' (Time range), 'Trạng thái' (Status), and 'ID người dùng' (User ID). There are also 'Tìm' (Search) and 'Làm mới' (Reset) buttons. Below the search bar is a summary table with columns: Tổng giao dịch (Total transactions), Tổng tiền (Total amount), Tổng chi (Total expense), and Tổng nhận (Total received). The total transaction count is 22, total amount is 12,380,000 VND, total expense is 0 VND, and total received is 0 VND. Below this is a table listing individual transactions with columns: Payment Id, Thời gian (Time), Loại giao dịch (Transaction type), Nội dung (Content), Người gửi (Sender), Người nhận (Recipient), Số tiền (Amount), and Trạng thái (Status). The transactions listed are:

Payment Id	Thời gian	Loại giao dịch	Nội dung	Người gửi	Người nhận	Số tiền	Trạng thái
abb01c7e-e3be-ec11-82d3-0639a147086c	18-04-2022	Tiền cọc giữ chỗ	Tiền cọc giữ trọ phòng 1	Thịnh Renter	Lam Hau Huongg	200,000đ	Successfully
8c04ea93-aabe-ec11-82d3-0639a147086c	18-04-2022	Tiền cọc giữ chỗ	Tiền cọc giữ trọ Phòng trọ 80% [Test]	Thịnh Renter	Uni Home Admin	2,500,000đ	Successfully
b9b8025d-a3bd-ec11-82d3-0639a147086c	16-04-2022	Tiền cọc giữ chỗ	Tiền cọc giữ trọ Phong 2	Thịnh Renter	Lam Hau Huongg	400,000đ	Successfully
ab683001-a244-ec11-82d3-0639a147086c	16.04.	Tiền cọc giữ	Tiền cọc giữ trọ Room 101	Thịnh	Lam Hau	10,000đ	Successful

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Facility name	New facility name	No	Yes	Text Box	String

No.	Function	Description	Validation	Outcome
2	Add	Click to add facility	Yes	Facility is added
3	Cancel	Click to cancel add	No	Add form is closed

3.3.2.25 View payment list

The screenshot shows the UniHome application's payment history page. On the left is a dark sidebar with navigation links: ADMIN, Người dùng, Phòng, Nhà, Tòa nhà, Trường Đại học, Văn đề - CSV.CSV, and Thanh toán. The main content area has a header "Trang chủ / Thanh toán" and a sub-header "Danh sách giao dịch". It displays search filters for "Khoảng thời gian" (Time range) from 01-04-2022 to 30-04-2022, "Trạng thái" (Status) set to "Successfully", and search fields for "ID người dùng" (User ID). Below the filters is a summary table with four rows: "Tổng giao dịch" (Total transactions) 22, "Tổng tiền" (Total amount) 12,380,000 VND, "Tổng chi" (Total expense) 0 VND, and "Tổng nhận" (Total received) 0 VND. A large table below lists individual transactions with columns: Payment Id, Thời gian (Time), Loại giao dịch (Transaction type), Nội dung (Description), Người gửi (Sender), Người nhận (Recipient), Số tiền (Amount), and Trạng thái (Status). The transactions listed are:

Payment Id	Thời gian	Loại giao dịch	Nội dung	Người gửi	Người nhận	Số tiền	Trạng thái
abb01c7e-e3be-ec11-82d3-0639a147086c	18-04-2022	Tiền cọc giữ chỗ	Tiền cọc giữ trọ phòng 1	Thịnh Renter	Lam Hau Huongg	200,000đ	Successfully
8c04ea93-aabe-ec11-82d3-0639a147086c	18-04-2022	Tiền cọc giữ chỗ	Tiền cọc giữ trọ Phòng trọ 80% [Test]	Thịnh Renter	Uni Home Admin	2,500,000đ	Successfully
b9b8025d-a3bd-ec11-82d3-0639a147086c	16-04-2022	Tiền cọc giữ chỗ	Tiền cọc giữ trọ Phong 2	Thịnh Renter	Lam Hau Huongg	400,000đ	Successfully
... (truncated)	... (truncated)	... (truncated)	... (truncated)	Thịnh	Lam Hau	10,000đ	Successfully

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	From date	Search payments from date	No	Yes	Date picker	String
2	To date	Search payments to date	No	Yes	Date picker	String
3	Status	Search payments with status	No	Yes	Dropdown	String
4	With user	Search payments of user	No	No	Checkbox	Boolean
5	User ID	ID of user	No	No	Text box	String
7	Filter	Value which user wants to search	No	No	Text Box	String

No.	Function	Description	Validation	Outcome
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1	Search	Click to search payments with input conditions	Yes	Display payments that meet conditions
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3.3.3 Renter Module

3.3.3.1 Renter login



Đăng nhập để sử dụng được nhiều tính năng hơn

Đăng nhập bằng Google



No.	Function	Description	Validation	Outcome
1	Login	Click to display login with Gmail popup	No	Display login with Gmail popup

3.3.3.2 View profile screen



No.	Function	Description	Validation	Outcome
1	Display profile screen	Click to navigate to profile screen	Yes	Profile screen
2	Display my sharing room screen	Click to navigate to my sharing screen	Yes	My sharing room screen
3	Switch to living mode	Click to switch to living mode	Yes	Living mode
4	Logout	Click to logout	No	Renter loged out

3.3.3.3 Registration

The image displays two screenshots of a mobile application interface for account registration. Both screenshots are titled "Đăng kí tài khoản".

Left Screenshot (Profile Setup):

- A large green circular button labeled "THÊM ẢNH" with a red notification badge showing "11".
- A text input field for "Họ tên *:" containing "Tran Phan Truong Thinh (K14 HCM)" with a red notification badge showing "1".
- A text input field for "Email *:" containing "thinhhtptse140092@fpt.edu.vn" with a red notification badge showing "2".
- A text input field for "Số điện thoại *:" with a red notification badge showing "3".
- A text input field for "Địa chỉ:" with a red notification badge showing "4".
- A green "Đăng kí" button at the bottom right with a red notification badge showing "10".

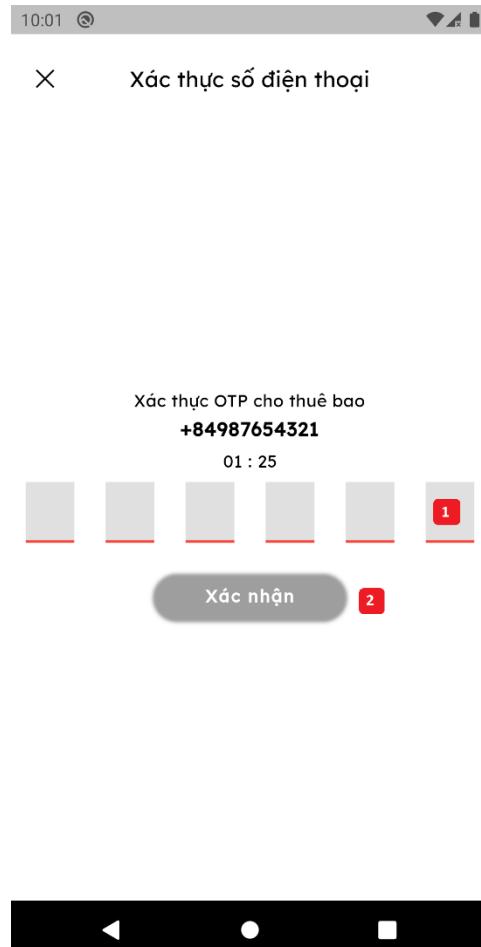
Right Screenshot (Personal Information):

- A text input field for "Địa chỉ:".
- A section titled "Thông tin cá nhân" with the following fields:
 - "CMND/CCCD:" with a red notification badge showing "5".
 - "Ngày cấp:" with a red notification badge showing "6".
 - "Giới tính *:" with a dropdown menu showing "Nam" and a red notification badge showing "7".
 - "Ngày sinh *:" with a red notification badge showing "8".
 - "Trường:" with a dropdown menu showing "Không thuộc trường nào" and a red notification badge showing "9".
- A green "Đăng kí" button at the bottom right with a red notification badge showing "10".

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Fullscreen	Fullscreen of user	No	Yes	Text box	String
2	Email	Email of user	Yes	Yes	Text box	String
3	Phone number	Phone number of user	No	Yes	Text box	String
4	Address	Address of user	No	No	Text box	String
5	Citizen number	Citizen number of user	No	No	Text box	String
6	Date of issuance	Date of issuance of citizen's identity card	No	No	Date Picker	String
7	Gender	Gender of user	No	Yes	Dropdown	String
8	Date of birth	Date of birth of user	No	Yes	Date Picker	String
9	University	University of user	No	No	Dropdown	String

No.	Function	Description	Validation	Outcome
10	Sign up	Click to sign up user	Yes	User is authenticated
11	Choose user avatar	Profile image of user	No	User profile image

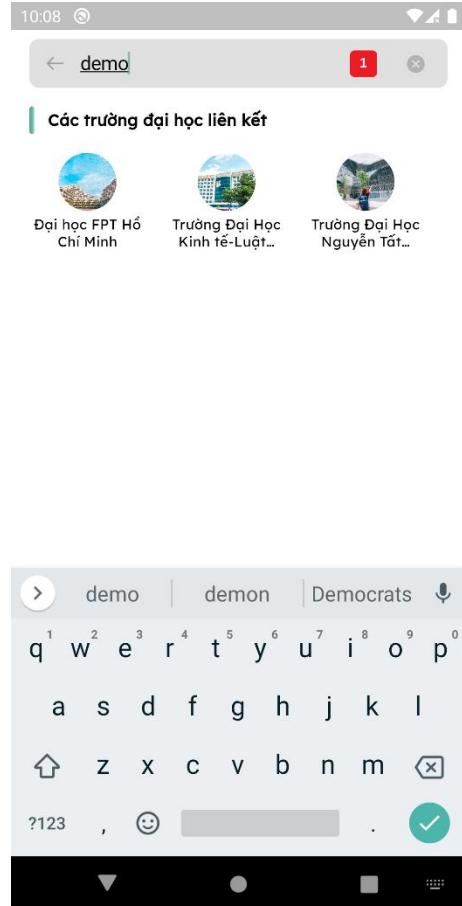
3.3.3.4 Confirm OTP



No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	OTP	Confirm OTP sent to user's phone	No	Yes	Text box	String

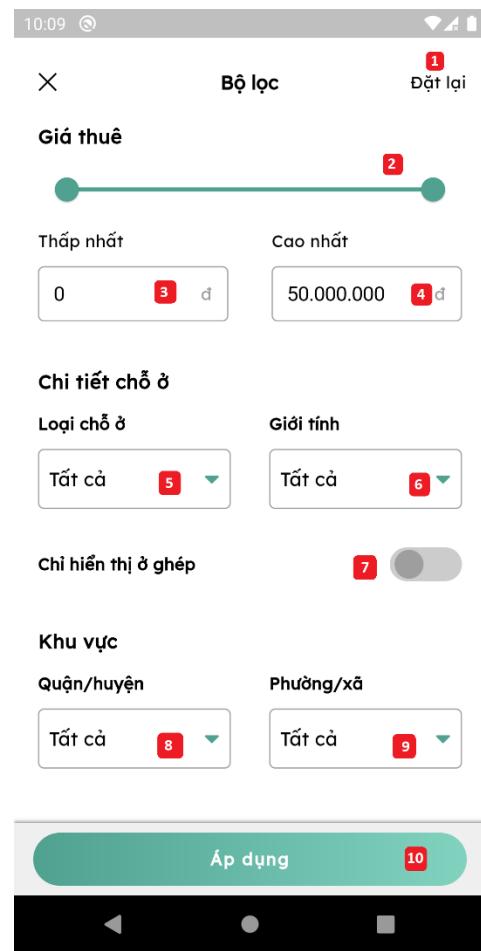
No.	Function	Description	Validation	Outcome
2	Confirm	Click to confirm OTP	No	Confirm status

3.3.3.5 Search house with name



No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Search value	Value which user wants to search	No	No	Text box	String

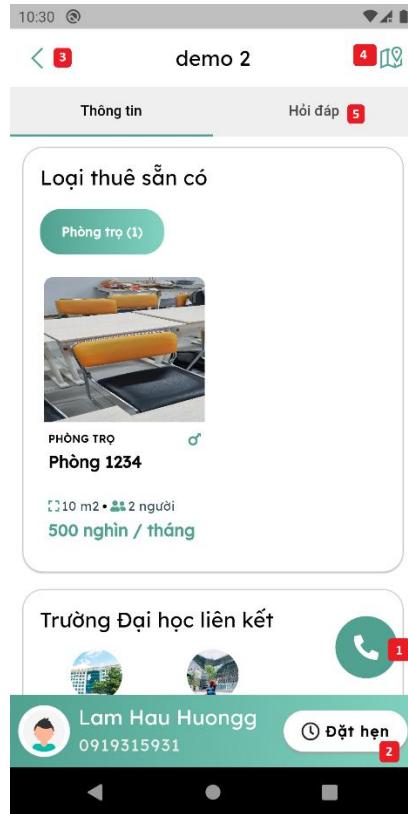
3.3.3.6 Search house with conditions



No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
2	Price	Search with the range of price	No	Yes	Slider	String
3	Min price	Search with min price	No	Yes	Text box	String
4	Max price	Search with max price	No	Yes	Text box	String
5	House type	Search with house type	No	No	Dropdown	String
6	Gender	Search with gender	No	No	Dropdown	String
7	Is Sharing	Toggle to search with sharing house or not	No	Yes	Checkbox	Boolean
8	District	Search with district of house	No	No	Dropdown	String
9	Ward	Search with ward of house	No	No	Dropdown	String

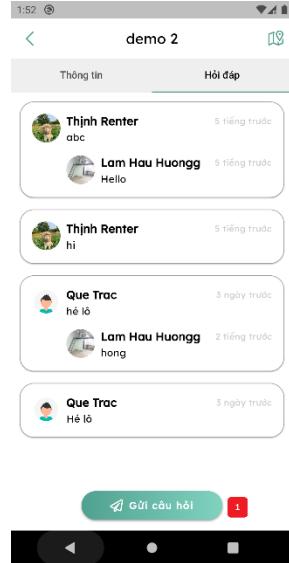
No.	Function	Description	Validation	Outcome
10	Search	Search houses with conditions	No	Houses meet conditions
11	Reset	Reset search to default	No	Search fields is reseted to default

3.3.3.7 View house detail



No.	Function	Description	Validation	Outcome
1	Contact owner	Click to contact with house's owner	No	Navigate to device phone to start to contact
2	Book appointment	Book appointment with owner	Yes	Book appointment with owner
3	Return	Click to return to house list screen	No	House list screen
4	Open map	Click to open map of house	No	Map of house screen
5	Move to Q&A	Click to open Q&A tab	No	Q&A tab

3.3.3.8 View Q&A



No.	Function	Description	Validation	Outcome
1	Send question	Toggle send question form	No	Display send question form popup

3.3.3.9 Book appointment

The screenshots show the 'Đặt hẹn' (Book appointment) form. The left screenshot shows the 'Thông tin liên hệ' (Contact information) section with fields for Name (Thinh Renter), Phone number (0378693111), and Email (thinhptpt.temp@gmail.com). The right screenshot shows the 'Thông tin hẹn' (Appointment information) section with fields for Type (Phòng trọ), Date (APR 26 TUE), Time (07:00), and a 'Đặt hẹn' (Book) button. Red numbers 1 through 8 are overlaid on specific fields and buttons to indicate their sequence or importance.

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
2	Name	Current renter name	No	Yes	Text box	String
3	Phone number	Current renter phone number	No	Yes	Text box	String
4	Gmail	Current renter gmail	No	Yes	Text box	String
5	Rent type	Rent type appointment	No	Yes	Dropdown	String
6	Appointment date	The day renter wants to meet owner	No	Yes	Select	String
7	Appointment time	Time renter wants to meet owner	No	Yes	Select	String

No.	Function	Description	Validation	Outcome
2	Return	Click to return to house detail screen	No	House detail screen
8	Book appointment	Book appointment with input data	Yes	New appointment is created

3.3.3.10 View profile information



No.	Function	Description	Validation	Outcome
1	Update profile	Click to navigate to update profile screen	No	Display update profile screen

3.3.3.11 Update profile

The image displays two side-by-side screenshots of the UniHome app's update profile screen. Both screenshots have a header 'Cập nhật thông tin' and a close button 'X'.

Left Screenshot (Contact Information):

- Placeholder for profile picture with a lion.
- Buttons: 'ĐỔI ẢNH' (Change Photo) [2] and 'XÓA ẢNH' (Delete Photo) [3].
- Section: 'Thông tin liên lạc' (Contact information).
- Fields:
 - Họ tên *: Thịnh Renter [4]
 - Số điện thoại *: 0378693111 [5]
 - Địa chỉ: Chu Văn An, Bình Thạnh [6]
- Bottom: 'Cập nhật' (Update) button [12].

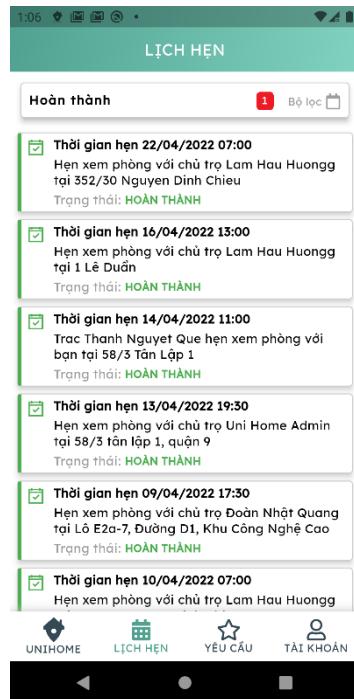
Right Screenshot (Personal Information):

- Placeholder for profile picture with a lion.
- Section: 'Thông tin cá nhân' (Personal information).
- Fields:
 - CMND/CCCD: 321724233 [7]
 - Ngày cấp: 01/07/2015 [8]
 - Giới tính *: Nam [9]
 - Ngày sinh *: 19/11/2000 [10]
 - Trường: Đại học FPT Hồ Chí Minh [11]
- Bottom: 'Cập nhật' (Update) button [12].

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
4	Fullscreen	Fullscreen of user	No	Yes	Text box	String
5	Phone number	Phone number of user	No	Yes	Text box	String
6	Address	Address of user	No	No	Text box	String
7	Citizen number	Citizen number of user	No	No	Text box	String
8	Date of issuance	Date of issuance of citizen's identity card	No	No	Date Picker	String
9	Gender	Gender of user	No	Yes	Dropdown	String
10	Date of birth	Date of birth of user	No	Yes	Date Picker	String
11	University	University of user	No	No	Dropdown	String

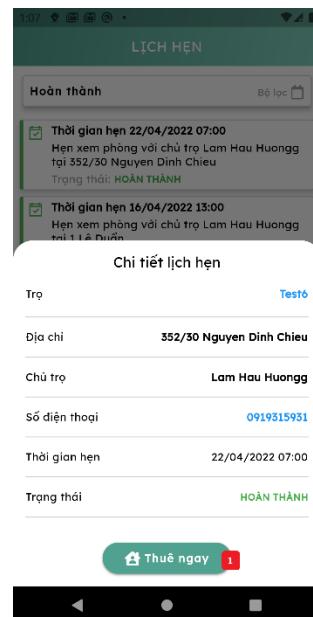
No.	Function	Description	Validation	Outcome
1	Cancel update	Click to cancel update and return to profile screen	No	Display profile screen
2	Change avatar	Click to choose new avatar	No	Display file explorer to choose image
3	Remove avatar	Click to remove avatar	No	Avatar is removed
12	Update	Click to update profile with input field	Yes	User profile is updated

3.3.3.12 View Appointment list



No.	Function	Description	Validation	Outcome
1	Change filter appointment status	Click to choose appointment status to display	No	Filtered appointment list

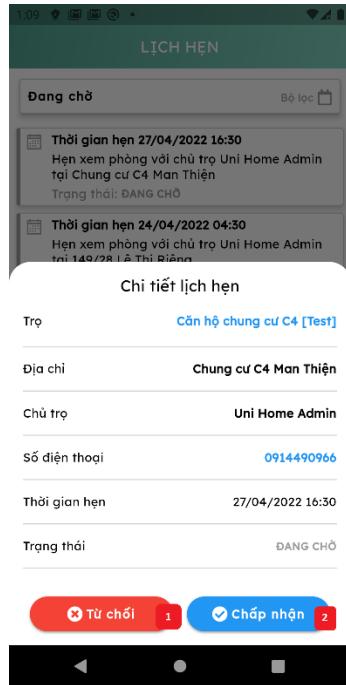
3.3.3.13 View appointment detail



No.	Function	Description	Validation	Outcome
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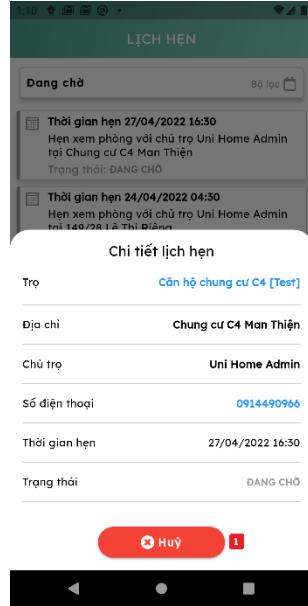
1	Rent room	Click to rent room of this appointment	No	Rent room
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3.3.3.14 Accept / reject appointment



No.	Function	Description	Validation	Outcome
1	Reject appointment	Click to reject this appointment	No	Appointment is rejected
2	Accept appointment	Click to accept this appointment	No	Appointment is accepted

3.3.3.15 Cancel appointment



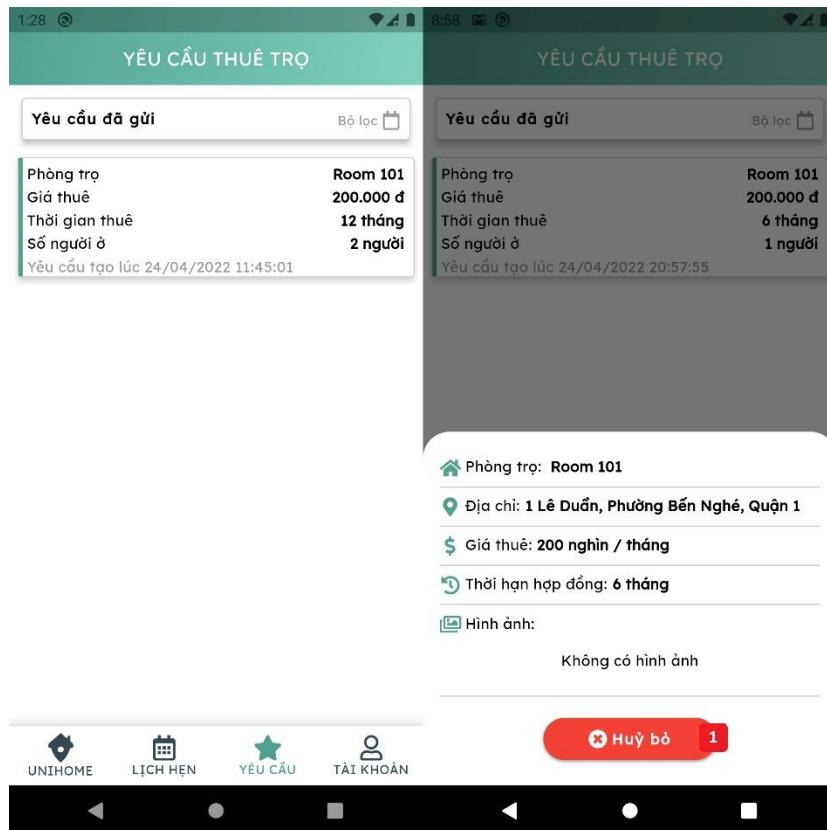
No.	Function	Description	Validation	Outcome
1	Cancel appointment	Click to cancel this appointment	No	Appointment is cancel

3.3.3.16 Request for living

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
4	Rent time	How long renter wants to rent	No	Yes	Text box	String
5	Number of living member	Number of people will come to live	No	Yes	Text box	Number
6	Join date	The day renter starts living	No	Yes	Date picker	String
7	Note	Renter note	No	No	Text box	String

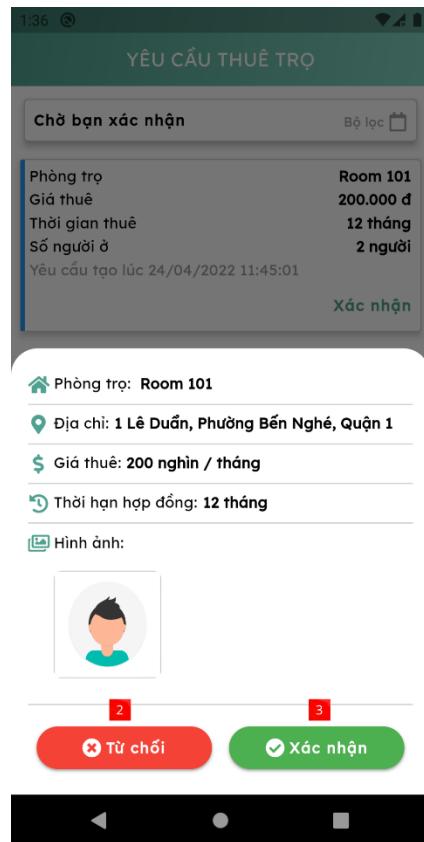
No.	Function	Description	Validation	Outcome
1	Register	Click to register to live	Yes	Allow to live in room

3.3.3.17 Get list request for living



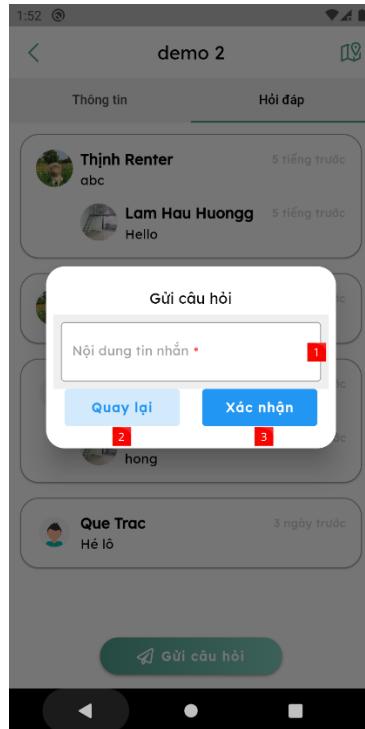
No.	Function	Description	Validation	Outcome
1	Cancel	Click to cancel living request	No	Living request is canceled

3.3.3.18 Confirm request for living



No.	Function	Description	Validation	Outcome
1	Reject	Click to reject request for living	No	Request is rejected
2	Accept	Click to accept request for living	No	Request is accepted

3.3.3.19 Send question



No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Question content	Question content	No	Yes	Text box	String

No.	Function	Description	Validation	Outcome
3	Return	Click to close popup without post question	No	Popup is closed
4	Confirm	Click to post this question	Yes	Question is posted

3.3.3.20 Add sharing room

The screenshots illustrate the step-by-step creation of a room information card (Thủ Công) in UniHome:

- Step 1: Chọn 1 trong 2 cách để tạo bài ở ghép** (Choose 1 of 2 ways to create a combined post). Options: Tạo nhanh (Quick Create) [1] or Tạo thủ công (Create manually) [2].
- Step 2: Tạo mới thủ công** (Create new room card).
- Step 3: Tạo mới thủ công - 1. Thông tin cơ bản** (Create new room card - 1. Basic information).
 - Form fields (labeled 4-10):
 - Tên phòng trọ *
 - Loại thuê *
 - Giới tính *
 - Phòng trọ [5]
 - Gia thuê *
 - Diện tích *
 - Số người hiện tại *
 - Số người tối đa *
 - Buttons: Tiếp tục [3] and Gửi thông tin.
- Step 4: Tạo mới thủ công - 2. Địa chỉ, vị trí** (Create new room card - 2. Address, location).
 - Form fields (labeled 12-15):
 - Quận/Huyện: Huyện Bình Chánh [12]
 - Phường/xã: Thị Trấn Tân Trúc [13]
 - Mô tả: [16]
 - Vị trí trên bản đồ [14]
 - Địa chỉ *
 - Buttons: Tiếp tục [11] and + THÊM.
- Step 5: Tạo mới thủ công - 3. Mô tả chi tiết** (Create new room card - 3. Detailed description).
 - Form fields (labeled 17-20):
 - Tiện nghi phòng:
 - 1 nhà vệ sinh [18]
 - 1 phòng ngủ
 - 2 nhà vệ sinh
 - 2 phòng ngủ
 - Tiền điện:
 - 200.000đ / mét khối (số lượng theo mức sử dụng) [20]
 - 150.000đ / người (số lượng cố định mỗi tháng)
 - 1.000đ / tháng (số lượng cố định mỗi tháng)
 - Buttons: Tiếp tục [19] and + THÊM.
- Step 6: Tạo mới thủ công - 4. Tiện nghi, dịch vụ** (Create new room card - 4. Amenities, services).
 - Form fields (labeled 21-25):
 - Hình ảnh chổ ở [21]
 - Ảnh xác thực hợp đồng [22]
 - Chưa có lịch hẹn được cài đặt
 - Chưa có lịch hẹn được cài đặt
 - Khoảng thời gian *:
 - 07:00 - 07:30
 - Chọn khung giờ người xem trọ có thể hẹn
 - Buttons: Tiếp tục [23] and Tạo slot [25].

Tạo mới thủ công

7. Thông tin chủ trọ

Họ tên chủ trọ * 26

SĐT chủ trọ * 27

Tạo mới thủ công

8. Thông tin trường Đại học

+ THÊM TRƯỜNG 28

Chưa có trường được chọn

Chọn trường đại học

Trường Đại Học Nguyễn Tất Thành - Cơ sở Quận 9

Trường Đại học Văn Lang - Cơ sở 3

Trường Đại học Văn Lang - Cơ sở 4

Trường Đại học Văn Lang - Cơ sở 4

Đại học FPT Hồ Chí Minh

Đại học HUTECH cơ sở R

Tiếp tục **Tiếp tục** **TRỞ LẠI** 30 **XÁC NHẬN** 31

Tạo mới thủ công

1. Thông tin cơ bản	✓
2. Địa chỉ, vị trí	✓
3. Mô tả chi tiết	✓
4. Tiện nghi, dịch vụ	✓
5. Hình ảnh	✓
6. Lịch hẹn	✓
7. Thông tin chủ trọ	✓
8. Thông tin trường Đại học	✓

Gửi thông tin 32

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
4	Room name	Room name	No	Yes	Text box	String
5	Rent type	Rent type	No	Yes	Dropdown	String
6	Gender	Gender	No	Yes	Dropdown	String
7	Price	Price	No	Yes	Text box	Number
8	Area	Area	No	Yes	Text box	Number
9	Amount of living people	Amount of living people	No	Yes	Text box	Number
10	Amount of maximum people	Amount of maximum people	No	Yes	Text box	Number
12	District	District	No	Yes	Dropdown	String
13	Ward	Ward	No	Yes	Dropdown	String
15	Address	Adddress	No	Yes	Text box	String
16	Description	Description	No	Yes	Text box	String
18	Facility item	Facility item	No	No	Checkbox	String
20	Service item	Service item	No	No	Select	String
21	Room images	Room images	No	Yes	Image picker	Image
22	Certificate images	Certificate images	No	Yes	Image picker	Image
24	Appointment slot range	Appointment slot range	No	Yes	Dropdown	String
26	Owner name	Owner name	No	Yes	Text box	String
27	Owner phone	Owner phone	No	Yes	Text box	String

29	Chosen university	Chosen university	No	No	Checkbox	String
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No.	Function	Description	Validation	Outcome
1	Quick Add	Add new sharing room with data from current contract	No	Popup is closed
2	Add sharing room manual	Add new sharing room by fill form	No	Add sharing room manual screen
3	Move to next step	Click to move to next step	No	Display next step
11	Move to next step	Click to move to next step	No	Display next step
14	Get coordinates from input address	Click to get coordinates from input	Yes	Coordinates of address
17	Add new facility	Click to navigate to add new facility screen	No	Add new facility screen
19	Add new service	Click to navigate to add new service screen	No	Add new service screen
23	Add new slot	Click to toggle new slot popup	No	New slot popup
25	Add slot	Click to add slot	Yes	New slot is added
28	Add university	Click to add university	No	Display university select popup
30	Turn back	Click to turn back to previous screen	No	Display previous screen
31	Confirm	Click to finish select university	No	Close select university popup

32	Send information	Click to add new sharing room to system	Yes	New sharing room is added
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3.3.3.21 Update sharing room

The screenshots show the process of updating a room listing (Bài đăng) on the UniHome platform. The steps are:

- Step 1: Thông tin cơ bản (Basic Information)**
Fields include: Tên phòng trọ * (Room name: Trọ của tui), Loại thuê * (Type: Phòng trọ), Phòng trọ (Room type: Phòng), Giá thuê * (Rent price: 1500000 d/người), Diện tích * (Area: 25 m2), Số người hiện tại * (Current number of people: 1), and Số người tối đa * (Max number of people: 2).
- Step 2: Mô tả chi tiết (Detailed Description)**
Field: Mô tả * (Description: Phòng trọ cao cấp HobaHome).
- Step 3: Hình ảnh chỗ ở (Accommodation photo)**
Shows a camera icon and a thumbnail of a room interior.

The screenshots show the process of scheduling a viewing appointment (Lịch hẹn) on the UniHome platform. The steps are:

- Step 1: Hình ảnh chỗ ở (Accommodation photo)**
Shows a camera icon and a thumbnail of a room interior.
- Step 2: Lịch hẹn (Appointment)**
Fields include: Khoảng thời gian * (Time range: 07:00 - 07:30), and a note: Chọn khung giờ người xem trọ có thể hẹn (Select time slot the tenant can schedule).
- Step 3: Thông tin trường Đại học (University information)**
Fields include: + THÊM TRƯỜNG (Add University) and Đại học HUTECH cơ sở R, Đại học FPT Hồ Chí Minh.

The screenshot shows a summary of the listing update process (Cập nhật bài đăng) with five steps checked off:

1. Thông tin cơ bản
2. Mô tả chi tiết
3. Hình ảnh
4. Lịch hẹn
5. Thông tin trường Đại học

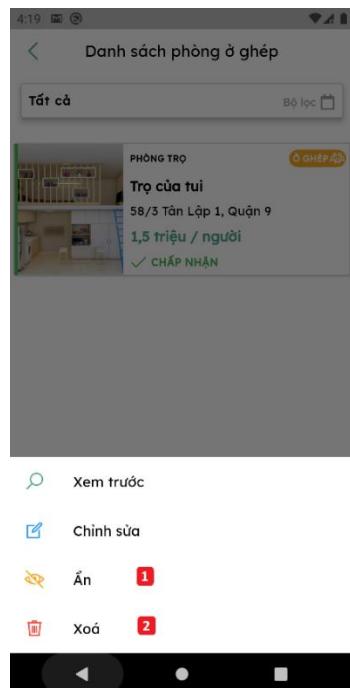
At the bottom, there is a note: Chọn trường đại học (Select university) followed by two checkboxes:

- Trường Đại Học Kinh tế-Luật TPHCM
- Trường Đại Học Nguyễn Tất Thành - Cơ sở Quận 9

Buttons at the bottom: TRỞ LẠI (Back), XÁC NHẬN (Confirm), and Gửi thông tin (Send information).

No.	Function	Description	Validation	Outcome
1	Delete image	Click to delete this image	No	Image is deleted
2	Send information	Click to send updated information to update sharing room	Yes	Sharing room is updated

3.3.3.22 Hide / delete sharing room



No.	Function	Description	Validation	Outcome
1	Hide sharing room	Click to hide this sharing room	No	Sharing room is hidden
2	Delete sharing room	Click to delete this sharing room	No	Sharing room is deleted

3.3.3.23 Report problem

Tạo mới yêu cầu

Thông tin hư hỏng

Phân loại *: Nước 1

Mô tả *:

Hình ảnh *:

TẠO MỚI YÊU CẦU 4

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Category	Category of problem	No	Yes	Dropdown	String
2	Description	Problem description	No	Yes	Textbox	String
3	Image	Problem images	No	Yes	Image picker	Image

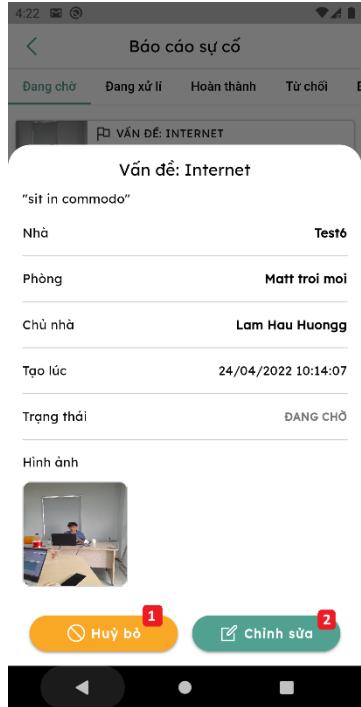
No.	Function	Description	Validation	Outcome
4	Add new report problem	Click to add report problem	Yes	Problem is added

3.3.3.24 Get list problem



No.	Function	Description	Validation	Outcome
1	Change problem category	Click to display other categories	No	problems meet category
2	Add new problem	Click to navigate to add new problem screen	No	Display add new problem screen

3.3.3.25 Get problem detail



No.	Function	Description	Validation	Outcome
1	Cancel problem	Click to toggle cancel problem popup	No	Display cancel problem popup
2	Update problem	Click to navigate to update problem screen	No	Display update problem screen

3.3.3.26 Cancel problem



No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Reason	Reason cancel this problem	No	Yes	Textbox	String

No.	Function	Description	Validation	Outcome
2	Return	Click to close popup	No	Popup is closed and display problem detail
3	Confirm	Click to confirm cancel this problem	Yes	Problem is canceled

3.3.3.27 Update problem

4:25 4G ⓘ

Chỉnh sửa yêu cầu

Thông tin hư hỏng

Phân loại * : Internet 1

Mô tả * : sit in commodo 2

Hình ảnh * :

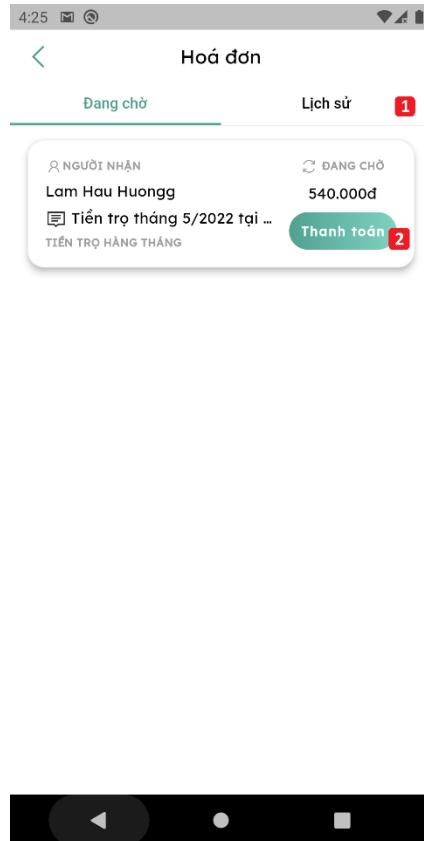
LƯU YÊU CẦU 5

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Category	Category of problem	No	Yes	Dropdown	String
2	Description	Problem description	No	Yes	Textbox	String
3	Image	Problem images	No	Yes	Image picker	Image

No.	Function	Description	Validation	Outcome
4	Delete image	Click to delete this image	No	Image is deleted

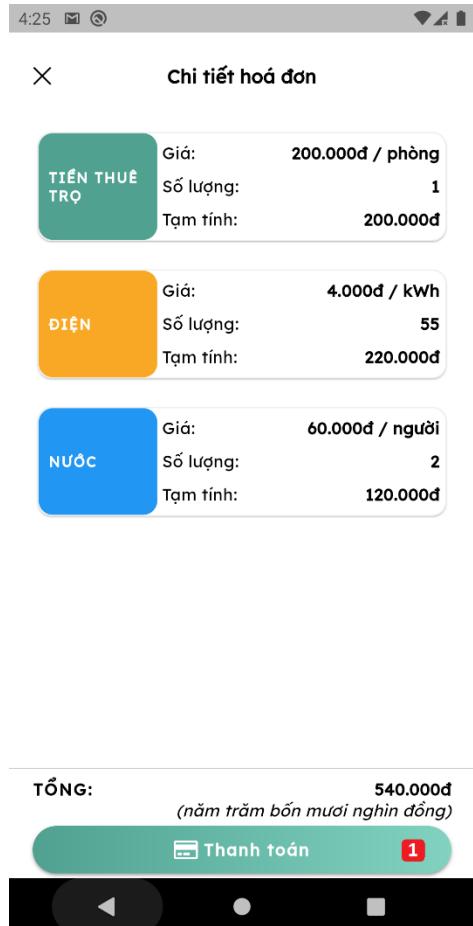
5	Save	Click to update this problem	Yes	Problem is updated
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3.3.3.28 Get payment list



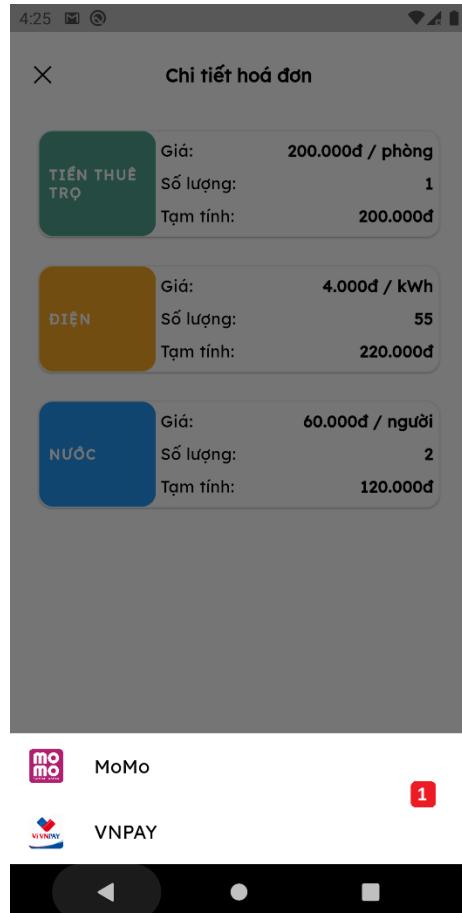
No.	Function	Description	Validation	Outcome
1	Move to history	Click to navigate to history tab	No	Display payment history tab
2	Payment	Click to start paying this invoice	No	Display payment detail

3.3.3.29 Get payment detail



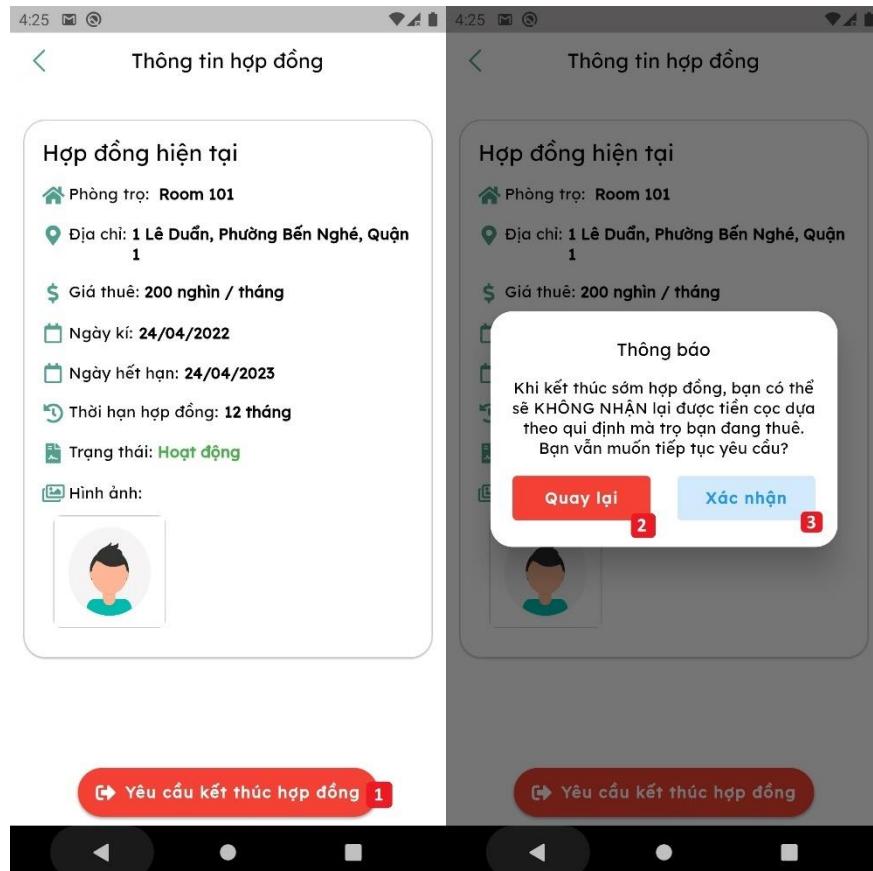
No.	Function	Description	Validation	Outcome
1	Make bill payment	Click to make bill payment	No	Bill is paid

3.3.3.30 Make payment



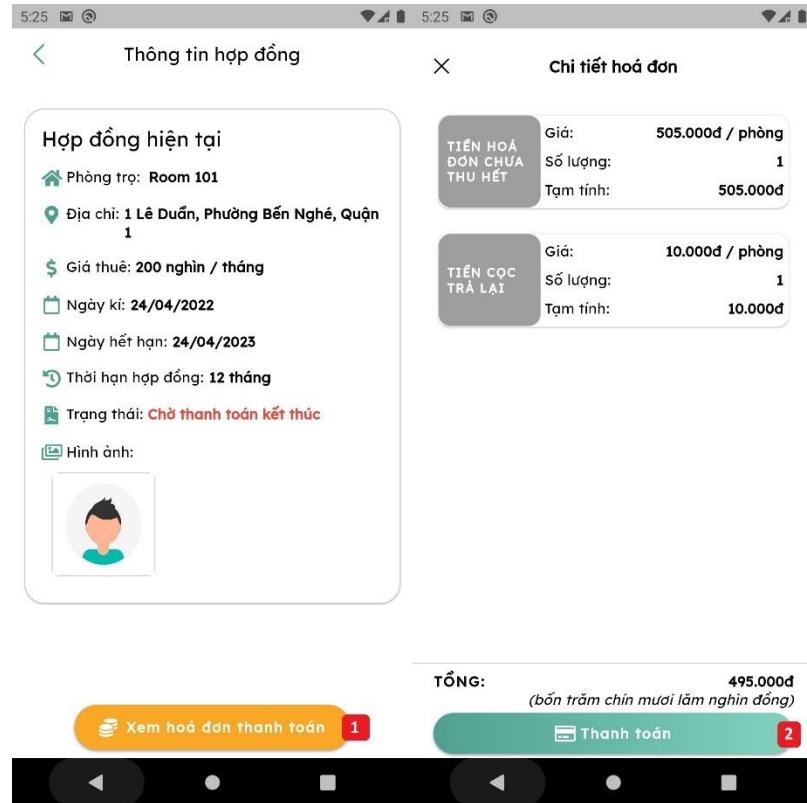
No.	Function	Description	Validation	Outcome
1	Choose payment method	Click to choose payment method	No	Payment method is chosen

3.3.3.31 Request leaving



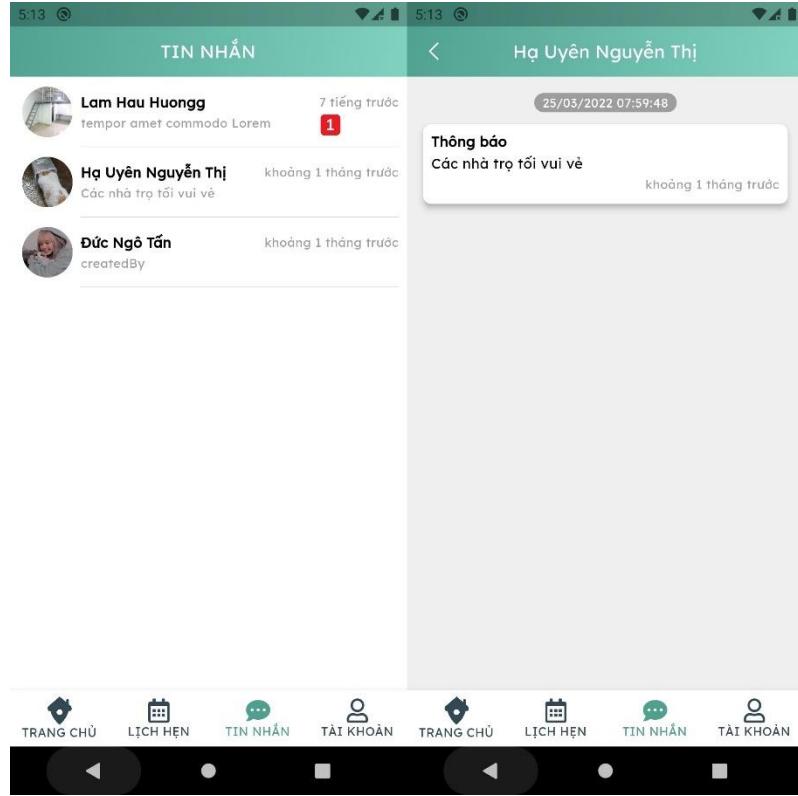
No.	Function	Description	Validation	Outcome
1	Request leaving room	Click to toggle confirm leaving popup	No	Display confirm living popup
2	Return	Click to close popup with send leaving request	No	Popup is closed
3	Confirm	Click to confirm leaving request	No	Leaving request is sent

3.3.3.32 Make payment for terminate



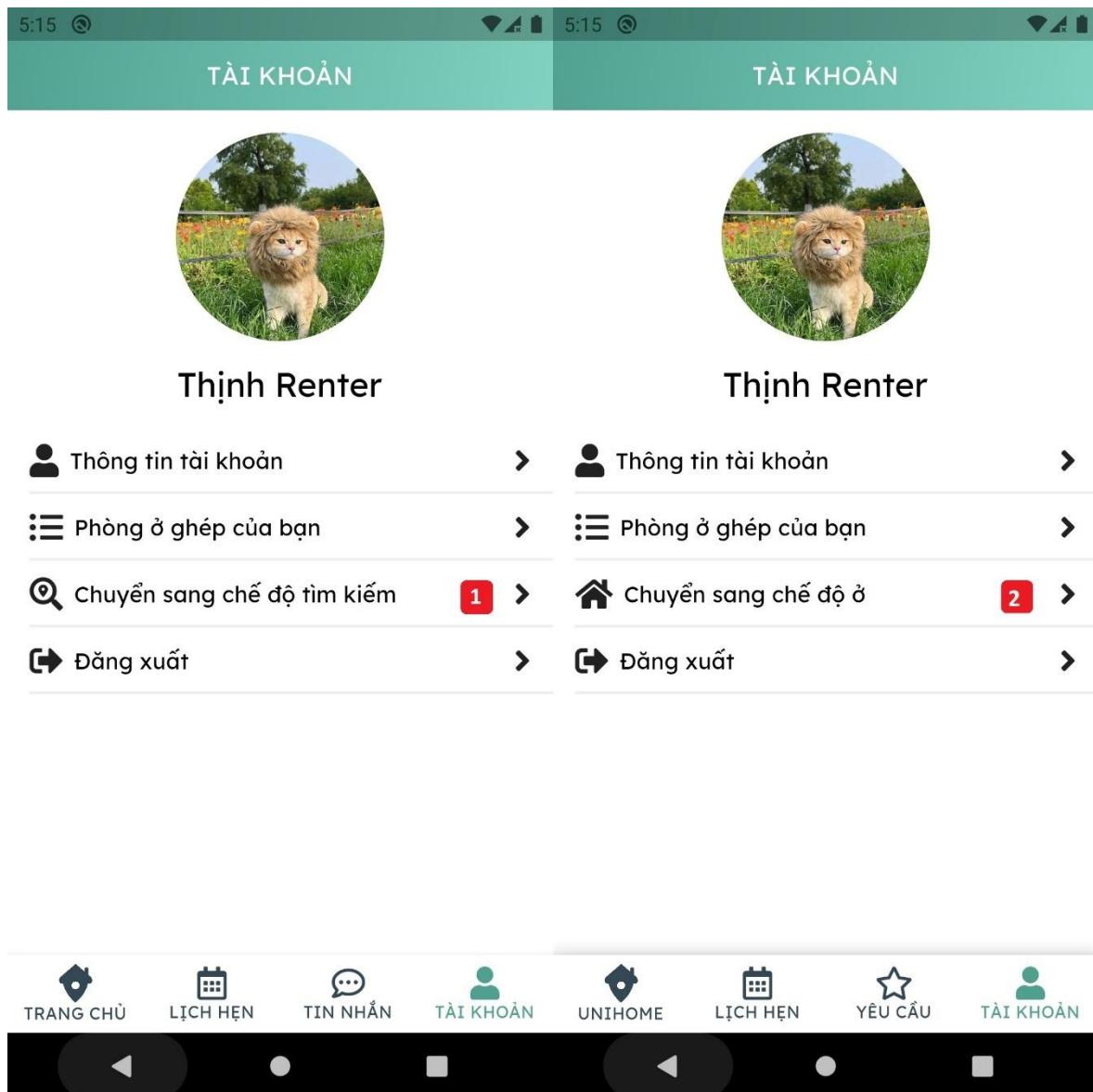
No.	Function	Description	Validation	Outcome
1	View invoices	Click to view invoice detail	No	Display invoice detail
2	Make bill payment	Click to make bill payment	No	Bill is paid

3.3.3.33 Get announcement



No.	Function	Description	Validation	Outcome
1	View detail	Click to view announcement detail	No	Display announcement detail

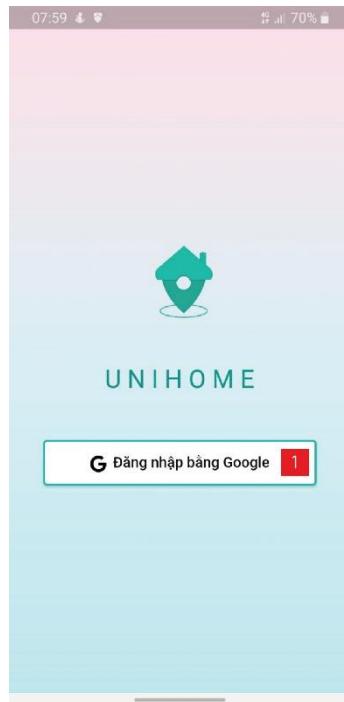
3.3.3.34 Change mode



No.	Function	Description	Validation	Outcome
1	Change to living mode	Click to change to living mode	No	Application is in living mode
2	Change to search mode	Click to change to search mode	No	Application is in search mode

3.3.4 Owner Module

3.3.4.1 Owner sign in



No.	Function	Description	Validation	Outcome
1	Login	Click to display login with Gmail popup	No	Display login with Gmail popup

3.3.4.2 Owner sign up

The figure consists of three screenshots of a mobile application interface for account registration, labeled 1, 2, and 3 from left to right.

Screenshot 1: Shows the initial step of account registration. It includes a placeholder profile picture (1), a "THÊM ẢNH" button (2), and a section for personal information ("Thông tin cá nhân") containing fields for: Họ và tên * (Kall Hes), Giới tính * (Nam), Ngày sinh * (dd/mm/yyyy), CMND/CCCD * (empty), and Ngày cấp * (dd/mm/yyyy).

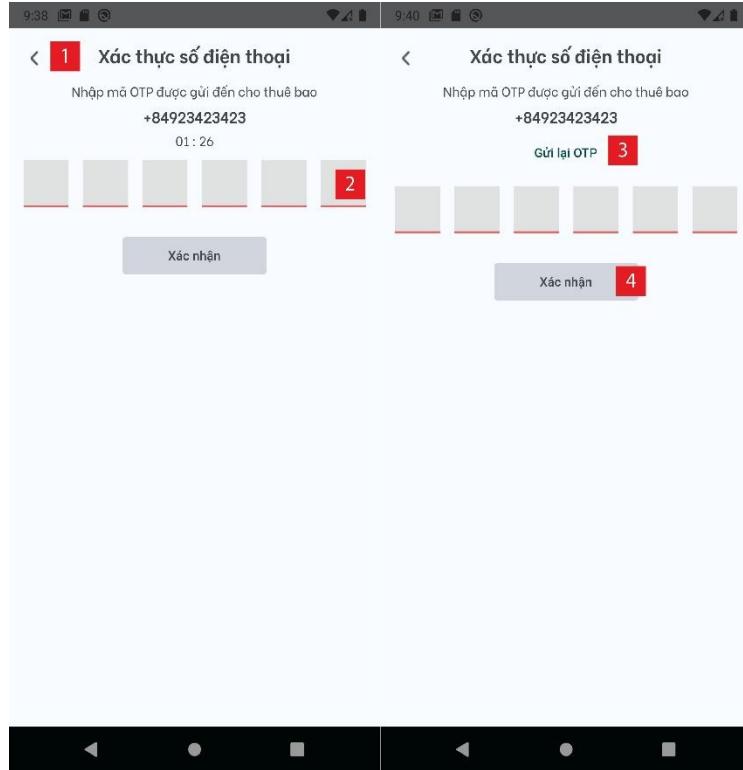
Screenshot 2: Shows the continuation of account registration. It includes a profile picture (3), a "ĐỔI ẢNH" button (4), and a section for personal information ("Thông tin cá nhân") containing fields for: Họ và tên * (Kall Hes), Giới tính * (Nam), Ngày sinh * (dd/mm/yyyy), CMND/CCCD * (empty), and Ngày cấp * (dd/mm/yyyy).

Screenshot 3: Shows the final step of account registration. It includes a profile picture (5), a "XÓA ẢNH" button (6), and a section for personal information ("Thông tin cá nhân") containing fields for: Họ và tên * (Kall Hes), Giới tính * (Nam), Ngày sinh * (dd/mm/yyyy) (7), CMND/CCCD * (empty) (8), Ngày cấp * (dd/mm/yyyy) (9), and a "Địa chỉ" field (10). It also includes sections for "Thông tin liên lạc" with fields for: Email * (hes.kallus@gmail.com) (11) and Số điện thoại * (empty) (12), and a "Đăng kí" button (13).

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
5	Fullscreen	Fullscreen of user	No	Yes	Text box	String
6	Gender	Gender of user	No	Yes	Dropdown	String
7	Date of birth	Date of birth of user	No	Yes	Date Picker	String
8	Citizen number	Citizen number of user	No	No	Text box	String
9	Date of issuance	Date of issuance of citizen's identity card	No	No	Date Picker	String
10	Address	Address of user	No	No	Text box	String
11	Email	Email of user	Yes	Yes	Text box	String
12	Phone number	Phone number of user	No	Yes	Text box	String

No.	Function	Description	Validation	Outcome
1	Return	Cancel sign up and back to previous screen	No	Display previous screen
2	Choose user avatar	Profile image of user	No	User profile image
3	Change avatar	Click to choose new avatar	No	Display file explorer to choose image
4	Remove avatar	Click to remove avatar	No	Avatar is removed
13	Sign up	Click to sign up user	Yes	User is authenticated

3.3.4.3 OTP confirm



No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
2	OTP	Confirm OTP sent to user's phone	No	Yes	Text box	String

No.	Function	Description	Validation	Outcome
1	Return	Cancel sign up and back to previous screen	No	Display previous screen
3	Send new OTP	Send new OTP	No	New OTP is sent
4	Confirm	Click to confirm OTP	No	Confirm status

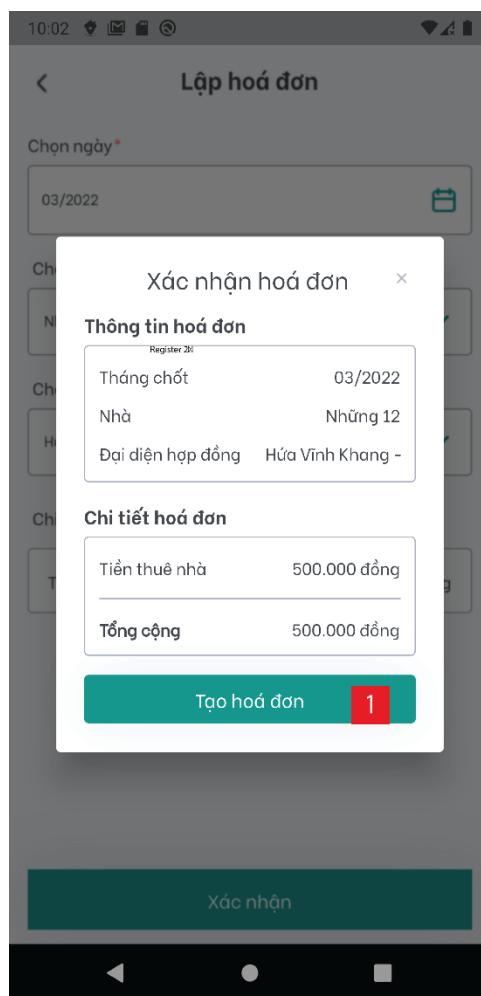
3.3.4.4 Display home screen



No.	Function	Description	Validation	Outcome
1	Navigate to profile screen	Click to navigate to profile screen	No	Display profile screen
2	Navigate to notification screen	Click to navigate to notification screen	No	Display notification screen
3	Navigate to house list screen	Click to navigate to house list screen	No	Display house list screen
4	Navigate to contract screen	Click to navigate to contract screen	No	Display contract screen
5	Navigate to problem screen	Click to navigate to problem screen	No	Display problem screen
6	Navigate to service screen	Click to navigate to service screen	No	Display service screen
7	Navigate to home screen	Click to navigate to home screen	No	Display home screen
8	Navigate to view invoice screen	Click to navigate to view invoice screen	No	Display view invoice screen

9	Navigate to add invoice screen	Click to navigate to add invoice screen	No	Display add invoice screen
10	Navigate to appointment screen	Click to navigate to appointment screen	No	Display appointment screen
11	Navigate to setting screen	Click to navigate to setting screen	No	Display setting screen

3.3.4.5 Confirm creating



No.	Function	Description	Validation	Outcome
1	Navigate to add invoice screen	Click to navigate to add invoice screen	No	Display add invoice screen

3.3.4.6 Create new invoice

The image consists of two side-by-side screenshots of a mobile application interface. Both screens have a header 'Lập hóa đơn' and a back arrow.

- Left Screen (Step 1):** Shows a date picker with '04/2022'. A red box labeled '1' is over the date input field.
- Left Screen (Step 2):** Shows a dropdown menu for 'Những 12' (12 houses). A red box labeled '2' is over the dropdown icon.
- Right Screen (Step 3):** Shows a dropdown menu for 'Thịnh Renter - Room 101'. A red box labeled '3' is over the dropdown icon.
- Left Screen (Step 4):** Shows electricity details: 'Điện' (Electricity), '4.000 đồng/kWh', 'Số cũ' (Old meter reading) '1589', and 'Số mới' (New meter reading) '4'. A red box labeled '4' is over the new meter reading field.
- Right Screen (Step 5):** Shows water details: 'Nước' (Water), '60.000 đồng/người', '1' (quantity), and a red 'x' button. A red box labeled '5' is over the quantity input field.
- Right Screen (Step 6):** Shows a summary: 'Tổng cộng' (Total) '260.000 đồng' and a green 'Xác nhận' (Confirm) button. A red box labeled '6' is over the 'Xác nhận' button.

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Date create invoice	Date create invoice	No	Yes	Date picker	Date
2	House	House	No	Yes	Dropdown	String
3	Contract	Contract	No	Yes	Dropdown	String
4	New number	New number	No	Yes	Textbox	Number
5	New number	New number	No	Yes	Textbox	Number

No.	Function	Description	Validation	Outcome
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1	Update profile	Click to navigate to update profile screen	No	Update profile screen is displayed
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3.3.4.7 Get profile



No.	Function	Description	Validation	Outcome
2	Update profile	Click to navigate to update profile screen	No	Update profile screen is displayed

3.3.4.8 Update profile

The image consists of two side-by-side screenshots of a mobile application interface. Both screens have a header bar at the top showing the time (11:04 and 11:05), signal strength, battery level, and other standard icons.

Left Screenshot (Profile Information):

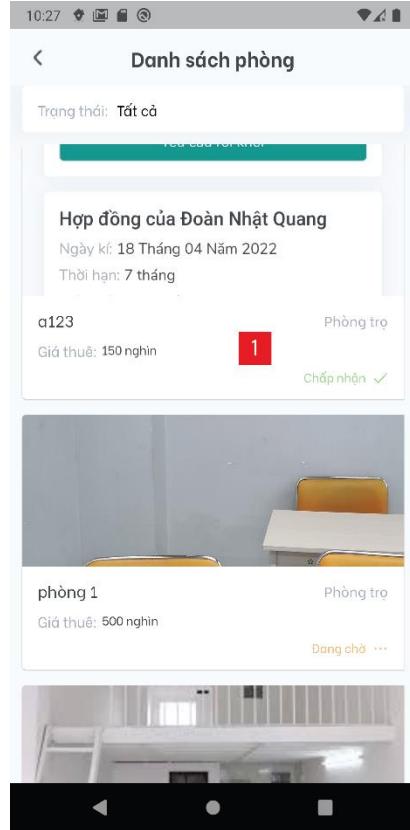
- Header:** Cập nhật thông tin
- Image:** Placeholder image of a staircase.
- Buttons:** ĐỔI ẢNH (Change Photo) and XÓA ẢNH (Delete Photo).
- Section:** Thông tin cá nhân (Personal Information)
- Fields:**
 - Họ và tên *: Lam Hau Huongg
 - Giới tính *: Nam
 - Ngày sinh *: 24/03/2000
 - Địa chỉ *: 1 Lê Duẩn
 - CMND/CCCD *: 321654789

Right Screenshot (Contact Information):

- Header:** Cập nhật thông tin
- Fields:**
 - Ngày sinh *: 24/03/2000
 - Địa chỉ *: 1 Lê Duẩn
 - CMND/CCCD *: 321654789
 - Ngày cấp *: 12/01/2022
 - Số điện thoại *: 0919315931
 - Email *: huonglhse140728@fpt.edu.vn
- Buttons:** Cập nhật (Update) and a red button labeled '1'.

No.	Function	Description	Validation	Outcome
1	Update profile	Click to save updated user information	No	User information is updated

3.3.4.9 Get room list



No.	Function	Description	Validation	Outcome
2	View room detail	Click to navigate to room detail screen	No	Room detail screen is displayed

3.3.4.10 Add room

The image displays three screenshots of a mobile application's 'Thêm phòng' (Add Room) form. The interface is a three-step wizard.

Step 1: Thông tin phòng

- Top navigation: 'Thêm phòng' (1), back arrow (2).
- Section: 'Thông tin phòng' (3).
- Fields:
 - 'Nhà*' dropdown (Nhà chung) (5)
 - 'Tên phòng trọ*' (6)
 - 'Loại thuê*' dropdown (Căn hộ) (7)
 - 'Giá thuê*' dropdown (đồng) (8)
- Buttons: 'Tiếp tục' (Next) (15).

Step 2: Mô tả & Hình ảnh

- Top navigation: 'Thêm phòng' (1), back arrow (2).
- Section: 'Mô tả & Hình ảnh' (3).
- Fields:
 - 'Diện tích*' (9)
 - 'Số người hiện có*' (10)
 - 'Số người tối đa*' (11)
 - 'Giới tính*' dropdown (-) (12)
- Buttons: 'Tiếp tục' (Next) (15).

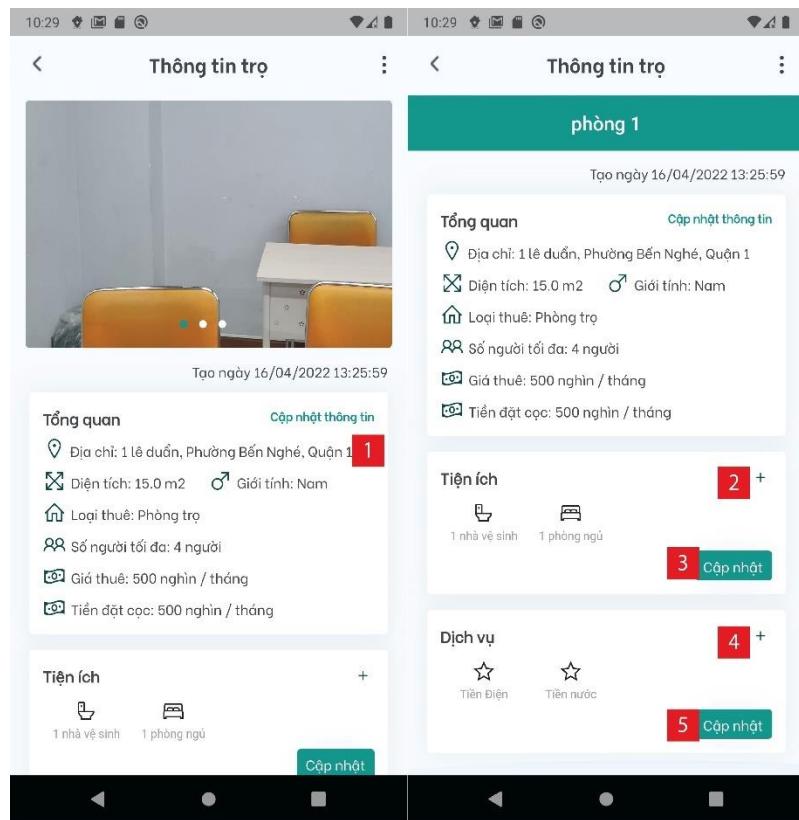
Step 3: Thêm phòng

- Top navigation: 'Thêm phòng' (1), back arrow (2).
- Section: 'Thông tin phòng' (3).
- Fields:
 - 'Mô tả' (13)
 - 'Hình ảnh phòng trọ' (14)
- Buttons: 'Gửi thông tin' (Send information) (15).

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
11	Room type	Room type	No	Yes	Dropdown	String
12	Room name	Room name	No	Yes	Textbox	String
13	House type	House type	No	Yes	Dropdown	String
14	Price	Price	No	Yes	Textbox	String
15	Area	Area	No	Yes	Textbox	Number
16	Amount of living people	Amount of living people	No	Yes	Text box	Number
17	Amount of maximum people	Amount of maximum people	No	Yes	Text box	Number
18	Gender	Gender	No	Yes	Dropdown	String
14	Description	Description	No	No	Textbox	String
15	Room images	Room images	No	Yes	Image picker	Image

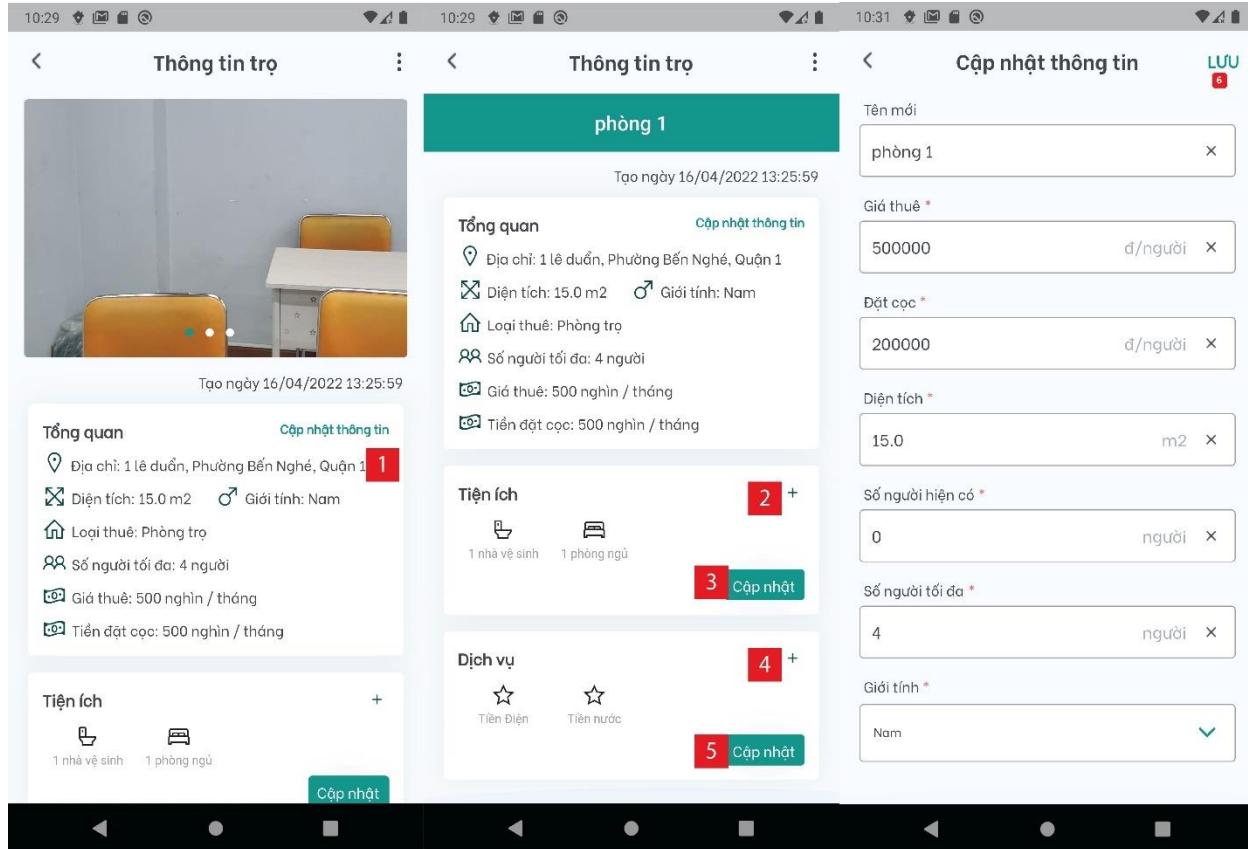
No.	Function	Description	Validation	Outcome
1	Return	Click to turn back to previous screen	No	Display previous screen
2	Input room information	Click to show input room information part	No	Input room information is displayed
3	Description and image	Click to input description and image part	No	Input description and image part is displayed
33	Send information	Click to add new room	Yes	New room is added

3.3.4.11 Get room detail



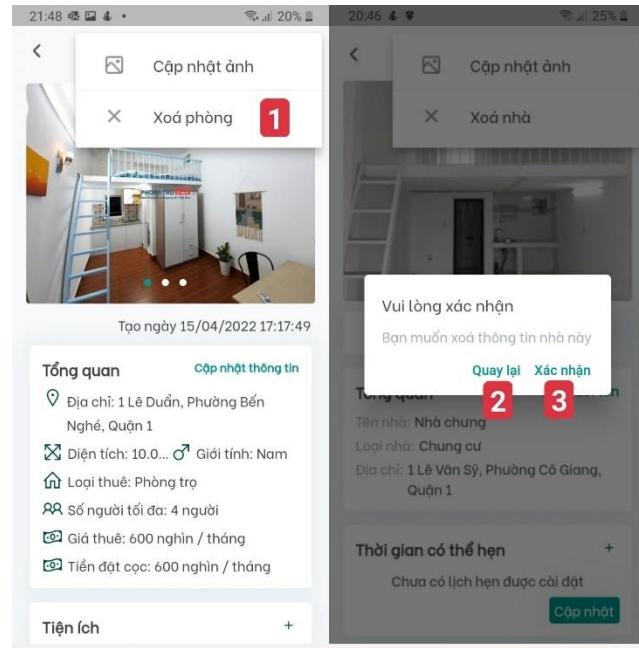
No.	Function	Description	Validation	Outcome
4	Update information	Click to navigate to update information screen	No	Update information screen is displayed
5	Add new facilities	Click to add new facilities	No	New facility list is displayed for owner choose
6	Update facility	Click to update facility list after added	No	Updated facility list is saved
7	Add new services	Click to add new services	No	New service list is displayed for owner choose
8	Update service	Click to update service list after added	No	Updated service list is saved

3.3.4.12 Update room



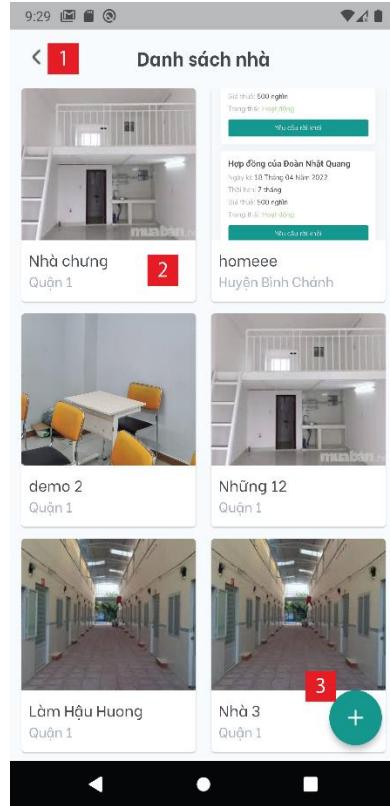
No.	Function	Description	Validation	Outcome
9	Update information	Click to navigate to update information screen	No	Update information screen is displayed
10	Add new facilities	Click to add new facilities	No	New facility list is displayed for owner choose
11	Update facility	Click to update facility list after added	No	Updated facility list is saved
12	Add new services	Click to add new services	No	New service list is displayed for owner choose
13	Update service	Click to update service list after added	No	Updated service list is saved
14	Save	Click to save updated information	Yes	Updated information is saved

3.3.4.13 Delete room



No.	Function	Description	Validation	Outcome
1	Delete room	Click to toggle confirm delete room popup	No	Confirm delete popup is displayed
2	Return	Click to cancel delete and close popup	No	Popup is closed
3	Confirm delete	Click to delete room	No	Room is deleted

3.3.4.14 Get house list



No.	Function	Description	Validation	Outcome
15	Return	Click to turn back to previous screen	No	Display previous screen
16	View house detail	Click to navigate to house detail screen	No	House detail screen is displayed
17	Add new house	Click to navigate to add new house screen	No	Add new house screen is displayed

3.3.4.15 Add house

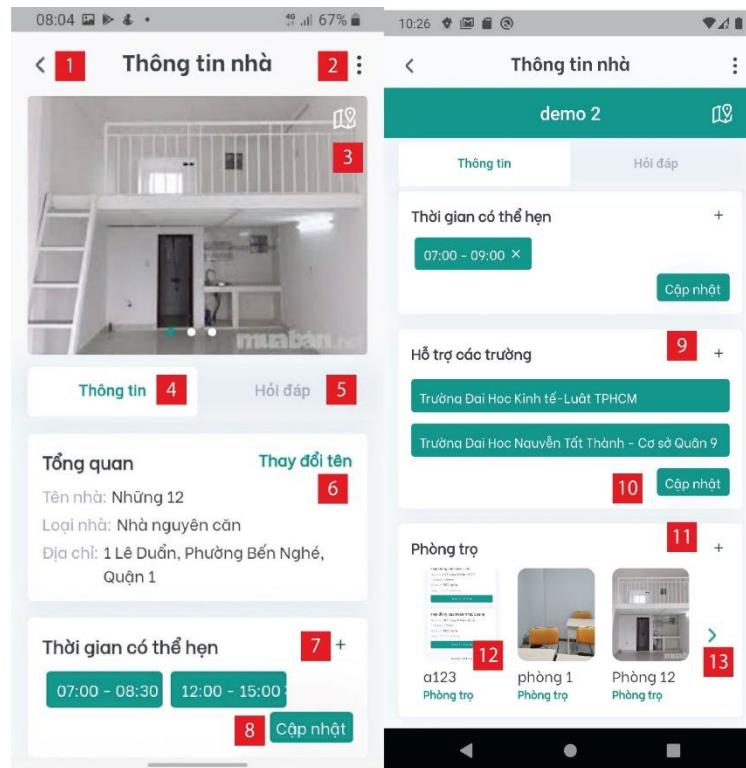
The image consists of two side-by-side screenshots of a mobile application interface for adding a house. The left screenshot shows the main form with fields for basic information: house name, type, address, and images. The right screenshot shows a detailed view of the address and certificate image sections. Numbered callouts point to specific fields: 1 (Title), 2 (House name), 3 (House type), 4 (District), 5 (Ward), 6 (Address), 7 (Image placeholder), 8 (Building), 9 (Add building button), 10 (Image placeholder), 11 (Image placeholder), and 12 (Send button).

No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	House name	House name	No	Yes	Text box	String
2	House type	House type	No	Yes	Dropdown	String
3	District	District	No	Yes	Dropdown	String
4	Ward	Ward	No	Yes	Dropdown	String
5	Address	Address	No	Yes	Text box	String
6	Building	Building	No	No	Dropdown	String
7	House images	House images	No	Yes	Image picker	Image
16	Certificate images	Certificate images	No	Yes	Image picker	Image

No.	Function	Description	Validation	Outcome
1	Return	Click to turn back to previous screen	No	Display previous screen

2	Get coordinates from input address	Click to get coordinates from input	Yes	Coordinates of address
3	Add new building	Click to toggle add new building popup	Yes	Add new building popup is displayed
4	Send information	Click to add new sharing room to system	Yes	New sharing room is added

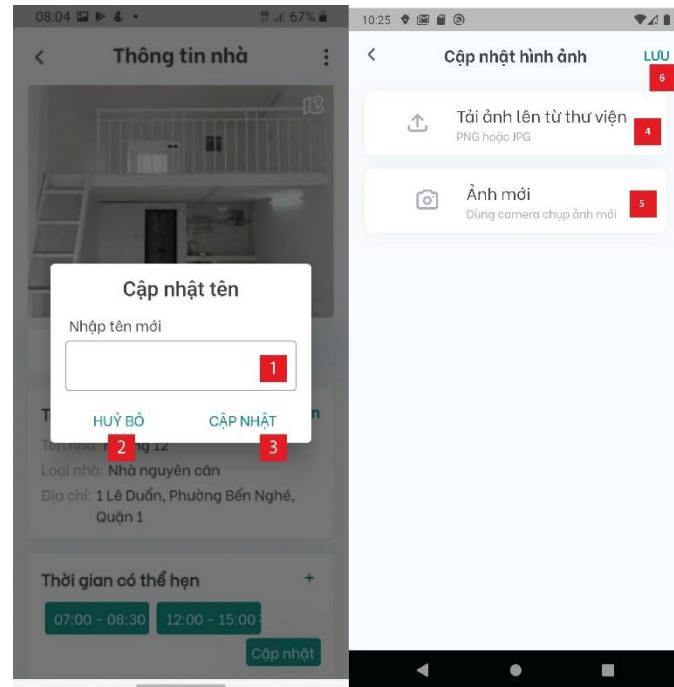
3.3.4.16 Get House Detail



No.	Function	Description	Validation	Outcome
1	Turn back	Click to turn back to previous screen	No	Display previous screen
2	Toggle house select	Click to open house detail select	No	House detail select is displayed
3	Open house map	Click to view house map	No	House map is displayed

4	View information tab	Click to view house information	No	House information is displayed
5	View Q&A tab	Click to view Q&A	No	Q&A list is displayed
6	Change house name	Click to toggle change house name popup	No	Change house name popup is displayed
7	Add appointment slot	Click to add appointment slot	No	Add new slot popup is displayed
8	Update appointment slot	Click to Update appointment slot	No	New appointment slots is saved
9	Add university	Click to add university	No	Select new university popup is displayed
10	Update university	Click to save university list relative to this house	No	New university list relative with this house is saved
11	Add new room	Click to add new room	No	Add new rent screen is displayed
12	View room of this house	Click to navigate to rent detail	No	Rent detail screen is displayed
13	Next room	Click to view next rooms	No	Other rent of this house is displayed

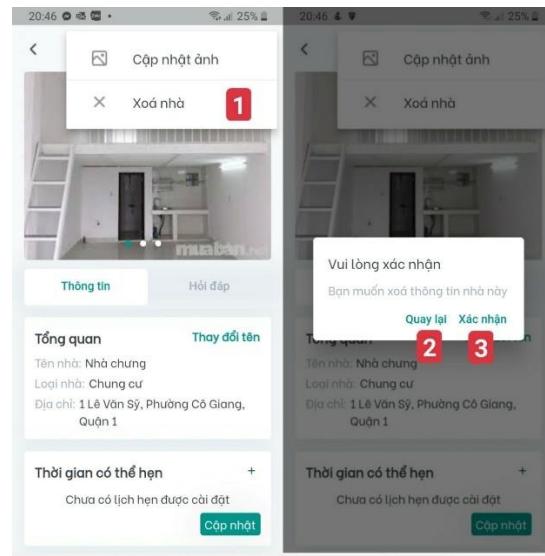
3.3.4.17 Update House



No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	New house name	New house name	No	Yes	Textbox	String

No.	Function	Description	Validation	Outcome
1	Cancel	Click to close update name popup with save	No	Update name pop is closed
2	Update	Click to update house name	Yes	House name is updated
3	Load images from gallery	Click to navigate to phone's image gallery to choose images	No	New images are selected
4	Take pictures by camera	Click to turn on camera	No	New images are selected
5	Save	Click to save house images	No	New house images are saved

3.3.4.18 Delete House



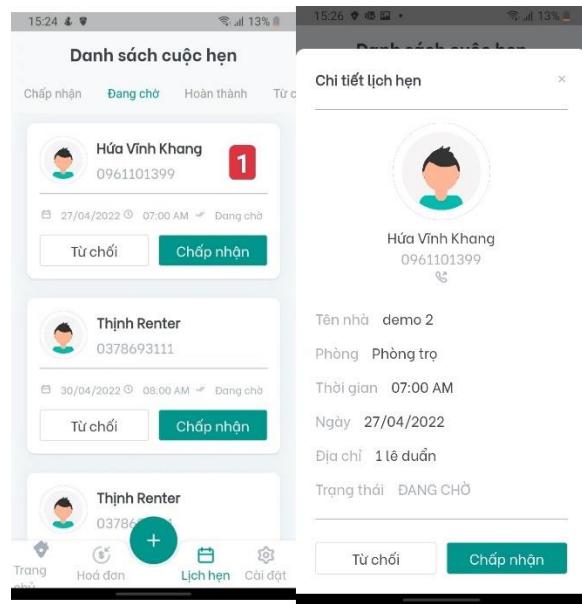
No.	Function	Description	Validation	Outcome
1	Delete house	Click to toggle confirm delete house popup	No	Confirm delete popup is displayed
2	Return	Click to cancel delete and close popup	No	Popup is closed
3	Confirm delete	Click to delete house	No	House is deleted

3.3.4.19 Get Appointment List By Status



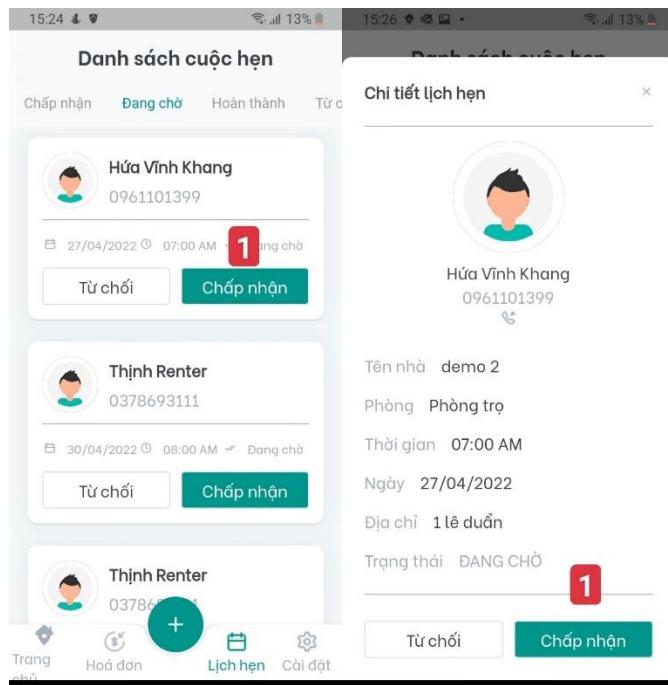
No.	Function	Description	Validation	Outcome
1	Change filter living request status	Click to change appointment status to display appointment list meet this status	No	Display appointment list meet this status

3.3.4.20 Get Appointment Detail



No.	Function	Description	Validation	Outcome
1	View appointment detail	Owner clicks to navigate to appointment detail screen	No	Appointment detail screen is displayed

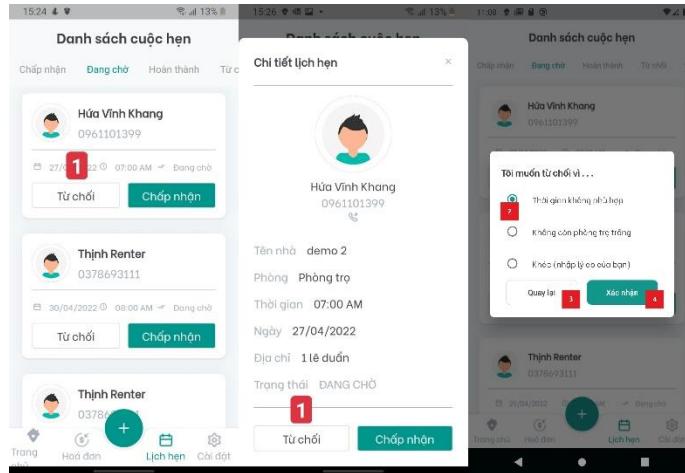
3.3.4.21 Accept Appointment



No.	Function	Description	Validation	Outcome
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1	Accept	Owner accepts appointment	No	Appointment is accepted
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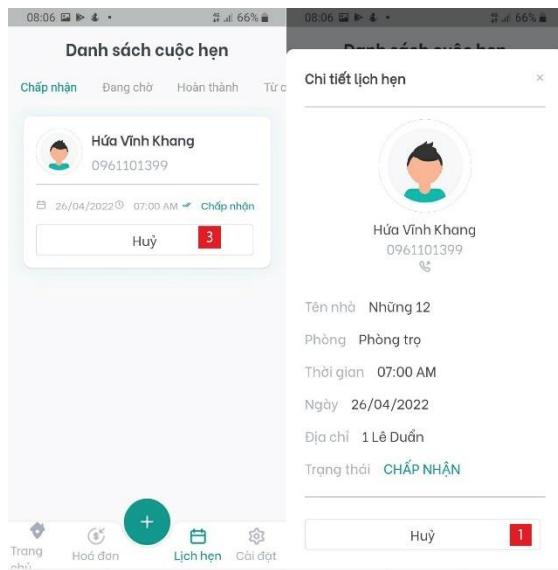
3.3.4.22 Reject Appointment



No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Reject reason	Reject reason	No	Yes	Checkbox	String

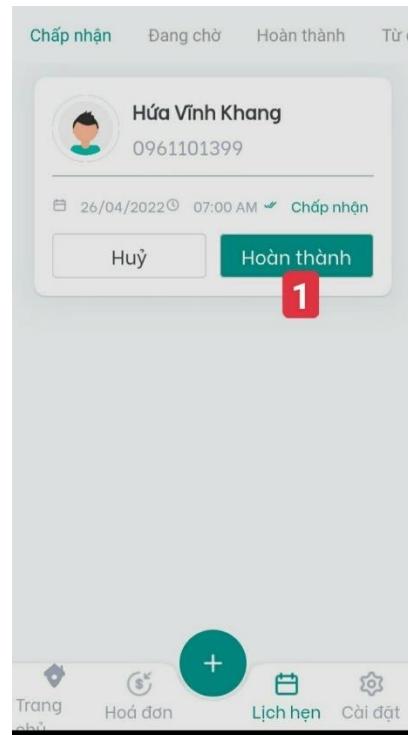
No.	Function	Description	Validation	Outcome
1	Reject	Owner rejects appointment	No	Appointment is rejected
2	Return	Click to cancel reject popup	No	Reject popup is closed
3	Confirm	Click to reject this appointment	Yes	Appointment is rejected

3.3.4.23 Cancel Appointment



No.	Function	Description	Validation	Outcome
1	Cancel	Owner cancel appointment	No	Appointment is canceled

3.3.4.24 Update Appointment As Finished



No.	Function	Description	Validation	Outcome
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1	Complete	Click to mark this appointment is done	Yes	Appointment is mark as done
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3.3.4.25 Get List Of Living Request



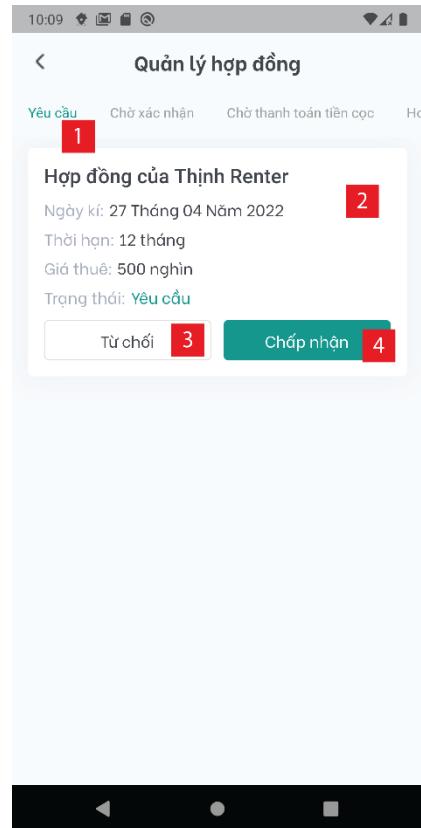
No.	Function	Description	Validation	Outcome
1	View living request detail	Click to toggle living request detail popup	No	Living request detail popup is displayed

3.3.4.26 Get Detail Of Living Request



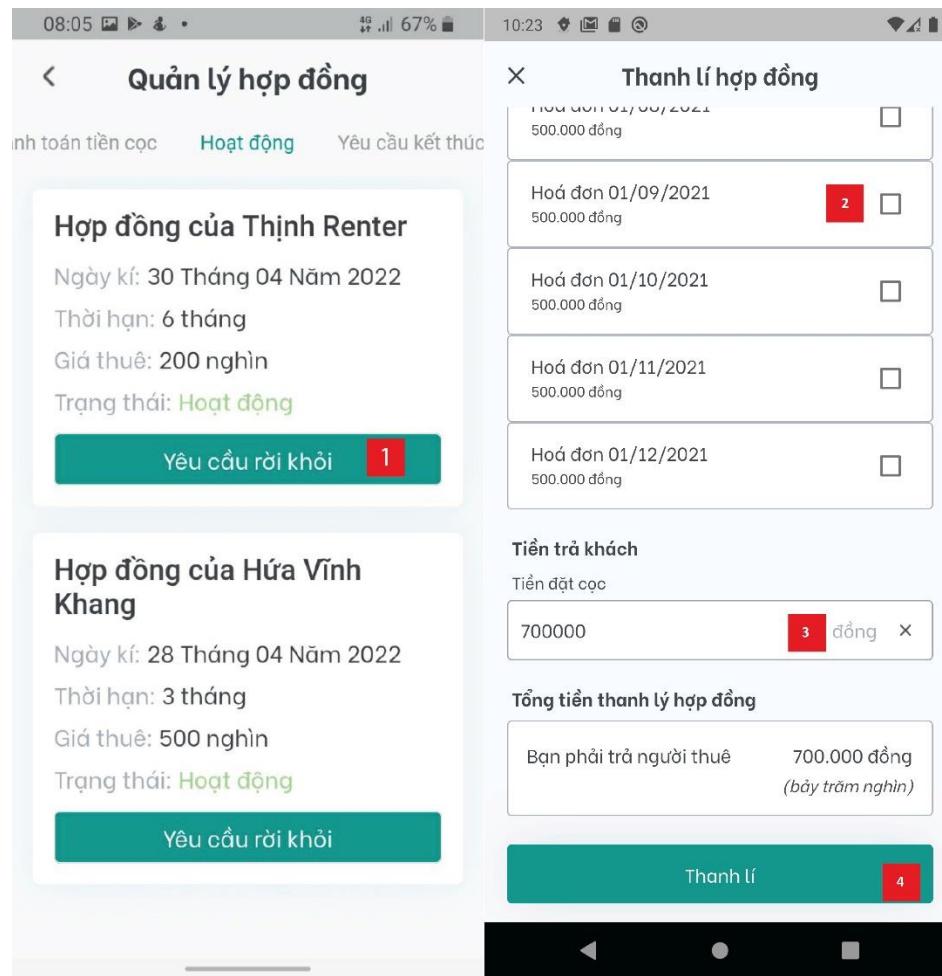
No.	Function	Description	Validation	Outcome
1	Close	Click to close living request detail popup	No	Popup ids closed
2	Reject	Owner reject living request	No	Living request is rejected
3	Accept	Owner accept living request	No	Living request id accepted

3.3.4.27 Accept / Reject Living Request



No.	Function	Description	Validation	Outcome
1	Change filter living request status	Click to change living request status to display living request list meet this status	No	Display living request list meet this status
2	View living request detail	Click to toggle living request detail popup	No	Living request detail popup is displayed
3	Reject	Owner reject living request	No	Living request is rejected
4	Accept	Owner accept living request	No	Living request id accepted

3.3.4.28 Request Renter Leave Room



No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Unpaid invoice	Unpaid invoice	No	No	Checkbox	String
2	Deposit	Deposit	No	Yes	Textbox	Number

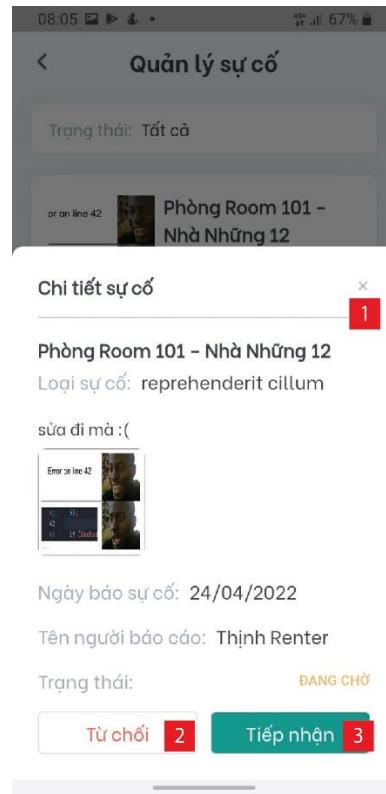
No.	Function	Description	Validation	Outcome
1	Request leave	Owner clicks to create request leave room	No	Navigate to liquidate room screen
2	Liquidate	Liquidate money for renter	Yes	Liquidation money is transferred to renter

3.3.4.29 Get Problem List



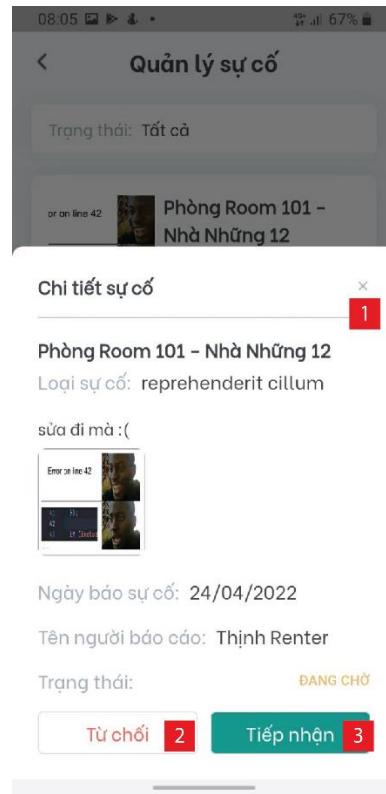
No.	Function	Description	Validation	Outcome
1	Change status	Change status to filter problem	No	Problem list is filtered
2	Display problem detail	Click to show problem detail popup	No	Problem detail popup is displayed

3.3.4.30 Get Problem Detail



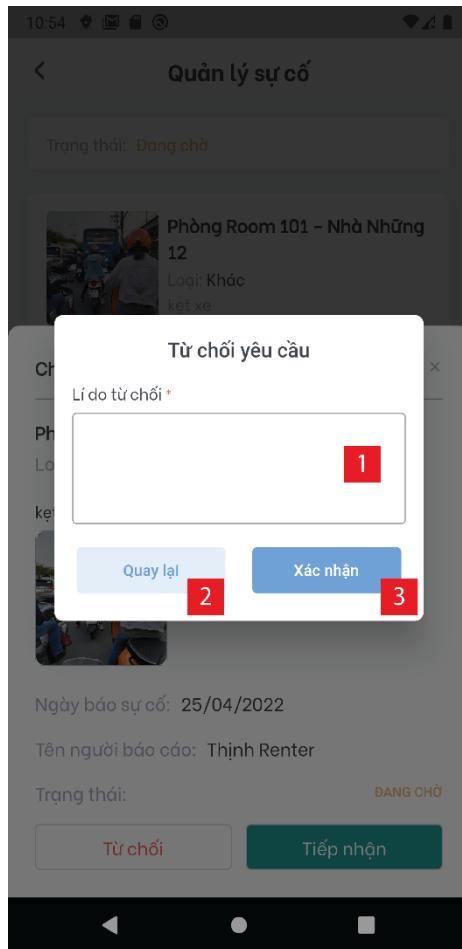
No.	Function	Description	Validation	Outcome
1	Cancel	Close problem detail popup	No	Problem detail is closed
2	Reject	Owner reject problem	No	Problem is rejected
3	Accept	Owner accept problem	No	Problem is accepted

3.3.4.31 Accept Problem



No.	Function	Description	Validation	Outcome
1	Cancel	Close problem detail popup	No	Problem detail is closed
2	Reject	Owner reject problem	No	Problem is rejected
3	Accept	Owner accept problem	No	Problem is accepted

3.3.4.32 Reject Problem



No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Reject reason	Reason owner rejects this problem	No	Yes	Textbox	String

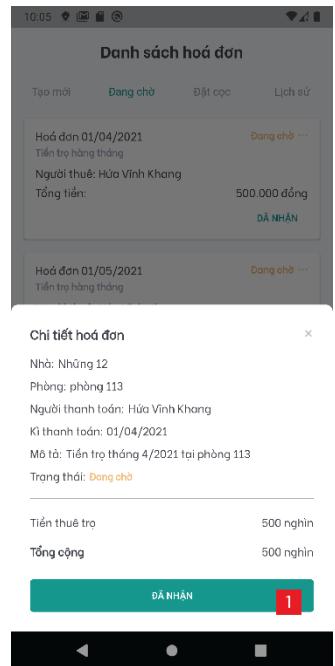
No.	Function	Description	Validation	Outcome
1	Return	Click to cancel reject popup	No	Reject popup is closed
2	Confirm	Click to reject this problem	Yes	Problem is rejected

3.3.4.33 Cancel Problem



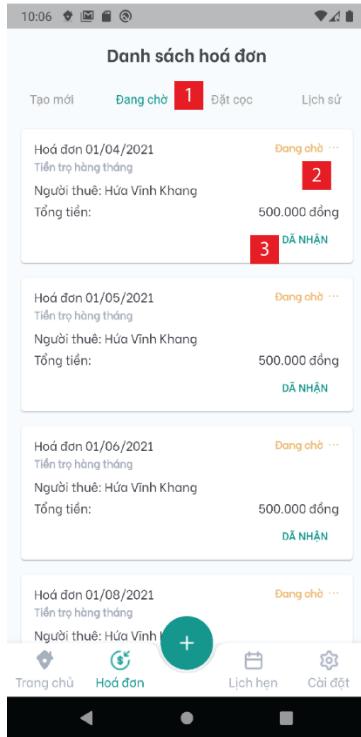
No.	Function	Description	Validation	Outcome
1	Cancel	Owner cancel processing problem	No	Problem is canceled

3.3.4.34 Update Problem As Finished



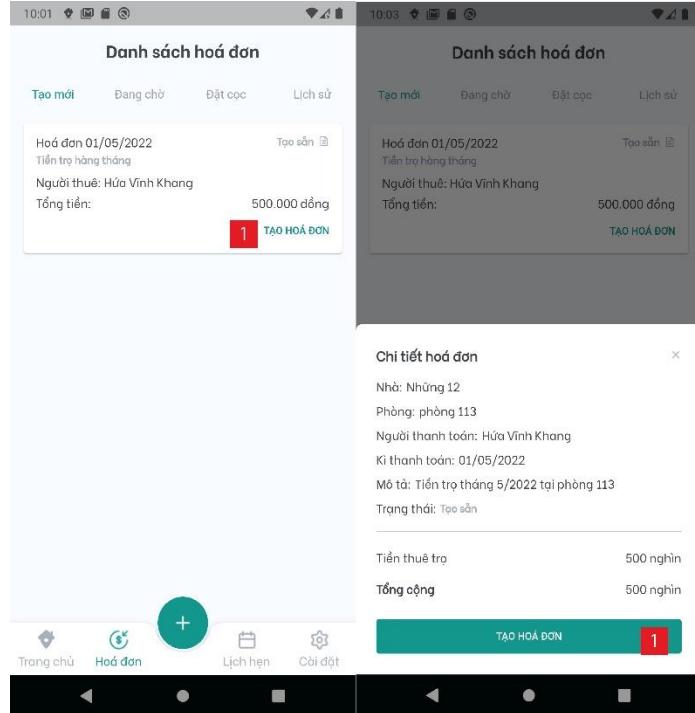
No.	Function	Description	Validation	Outcome
1	Mark payment is received	Click to mark payment is received	No	Mark payment is received

3.3.4.35 Get Payment List



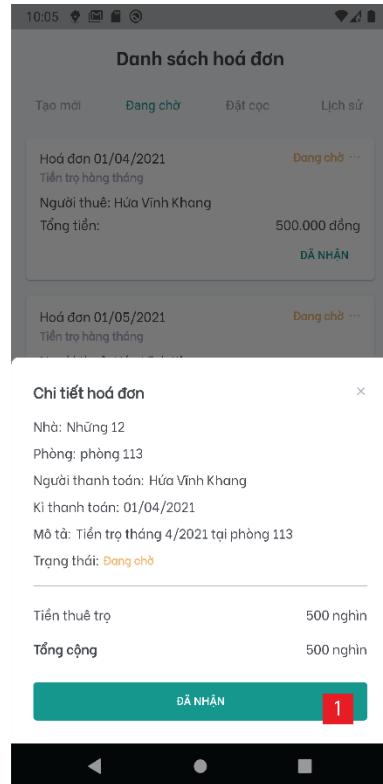
No.	Function	Description	Validation	Outcome
1	Change filter payment status	Click to change payment status to display payment list meet this status	No	Display payment list meet this status
2	View payment detail	Click to toggle payment detail popup	No	Display payment detail popup
3	Mark payment is received	Click to mark payment is received	No	Mark payment is received

3.3.4.36 Add Payment



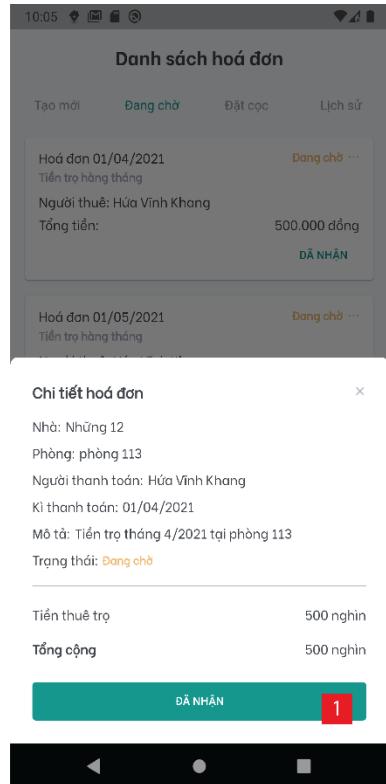
No.	Function	Description	Validation	Outcome
1	Create new invoice	Click to create new invoice	No	New invoice is created

3.3.4.37 Get Payment Detail



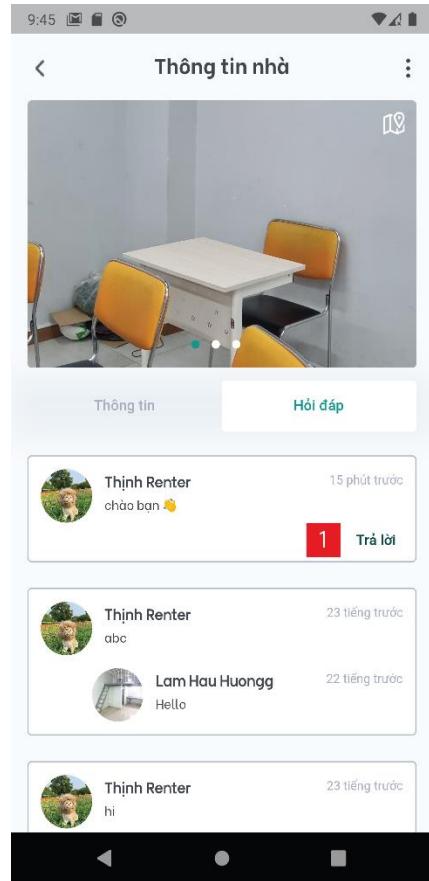
No.	Function	Description	Validation	Outcome
1	Mark payment is received	Click to mark payment is received	No	Payment status changed to received

3.3.4.38 Update payment as finished



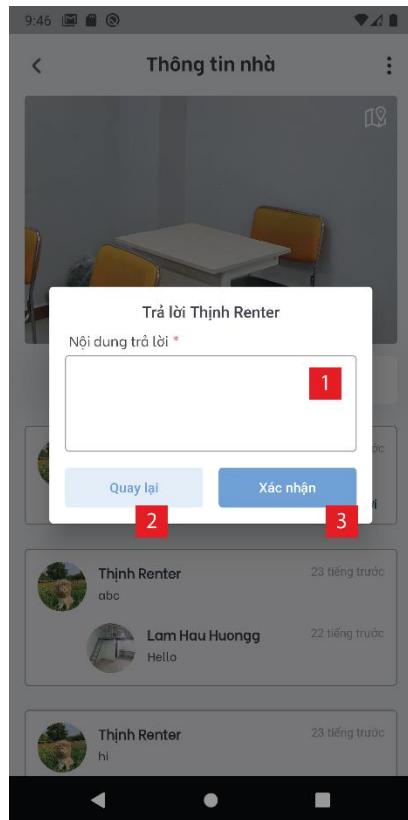
No.	Function	Description	Validation	Outcome
1	Mark payment is received	Click to mark payment is received	No	Payment status changed to received

3.3.4.39 Get Q&A list



No.	Function	Description	Validation	Outcome
1	Reply	Click to reply Q&A	No	Reply popup is displayed

3.3.4.40 Reply Q&A



No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Reply content	Reply content	No	Yes	Textbox	String

No.	Function	Description	Validation	Outcome
1	Return	Click to cancel reply popup	No	Reply popup is closed
2	Confirm	Click to reply this question	Yes	Question is replied

3.3.4.41 Get notification



No.	Function	Description	Validation	Outcome
1	Return	Click to return to previous screen	No	Previous screen is displayed
2	Read all	Click to mark all notifications are read	No	All notifications are marked as read
3	Go to notification detail	Click to go to notification detail	No	Go to the screen corresponding to the notification

3.3.4.42 Send announcement



No.	Field Name	Description	Read only	Mandatory	Control Type	Data Type
1	Members who will receive announcement	Members who will receive announcement	No	Yes	Textbox	String
2	Label	Label of announcement	No	Yes	Textbox	String
3	Content	Content of announcement	No	Yes	Textbox	String

No.	Function	Description	Validation	Outcome
1	Send announcement	Click to send announcement to members	Yes	Announcement is sent to members

VII. リリースパッケージとユーザーガイド

1. 成果物パッケージ

■ソースコードとドキュメント

番号。	項目	サブアイテム	種類	バージョン
コードパッケージ				
4	モバイルモジュール	UNH.RenterApp UNH.OwnerApp	新機能	1.0.0 1.0.0
5	ウェブモジュール	UNH.WebRenterApplication UNH.WebAdminApplication	新機能	1.0.0 1.0.0
6	ウェブ API モジュール	UNH.UniHomeAPI	新機能	16.0
データベース				
2	データベースの初期化	UNH.UniHomeScript	新機能	
書類				
2	プロジェクト紹介と管理計画	Unihome_Report 1&2.docx		
3	ソフトウェア要件仕様	UniHome_Report 3.docx		
4	プロジェクト最終報告書	Unihome Report Full.docx		

2. インストールガイド

■システム要件

2.1.1 ハードウェア要件

- ウェブアプリケーション

パソコン	最低限	推奨
インターネット接続	ケーブル、無線(4 Mbps)	ケーブル、無線(8 Mbps)
プロセッサー	インテルコアi3 1.4ギガズ	インテルコアi7 2.5ギガズ
記憶	2ギガバイトのメモリ	4GBのRAMアップ
貯蔵	2ギガバイト	4GB以上
ブラウザ	クローム(v69以降)	Chromeの最新の安定版

- モバイルアプリケーション

オペレーティングシステム	Android 10以上
プロセッサー	インテル(R) Atom(TM) CPU Z3580 @ 1.33GHz 以上のプロセッサ
貯蔵	最小 256 MB
ラム	最低1GB、2GBを推奨

2.1.2 ソフトウェア要件

コンポーネント	名前とバージョン	形容
オペレーティングシステム	Windows 7 SP1/8.1/10/Windows Server 2016 以上 (Web アプリケーション) Android 10 Android Q以上 (モバイルアプリケーション)	
ティッカー	SQL Server 2019	データベースの管理に使用
.Net Core ランタイム	3.1	APIサーバのホスティングに使用

■セットアップファイル

- unihome_renter_v1_0.apk
- unihome_owner_v1_0.apk

■インストール手順

2.3.1 セットアップ環境

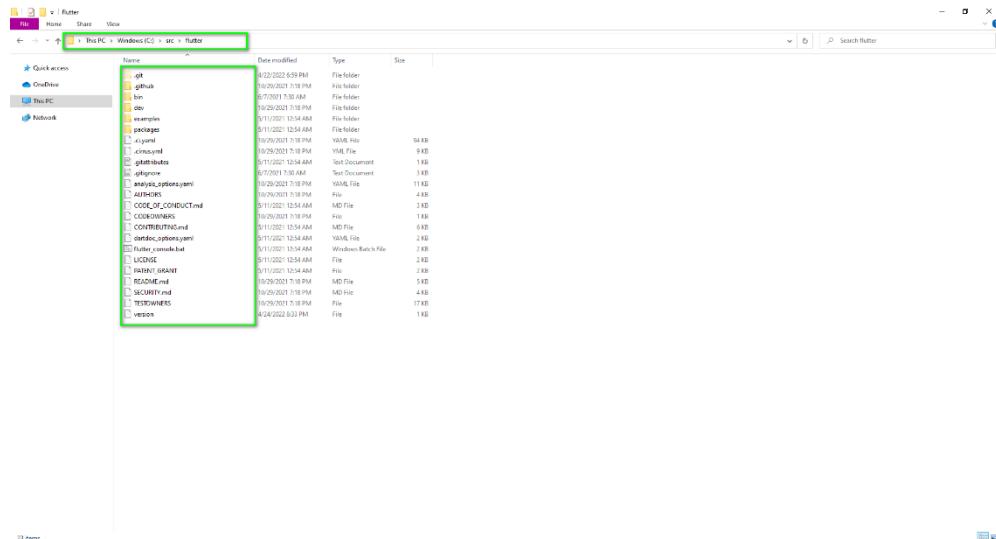
2.3.1.1 モバイルアプリケーション

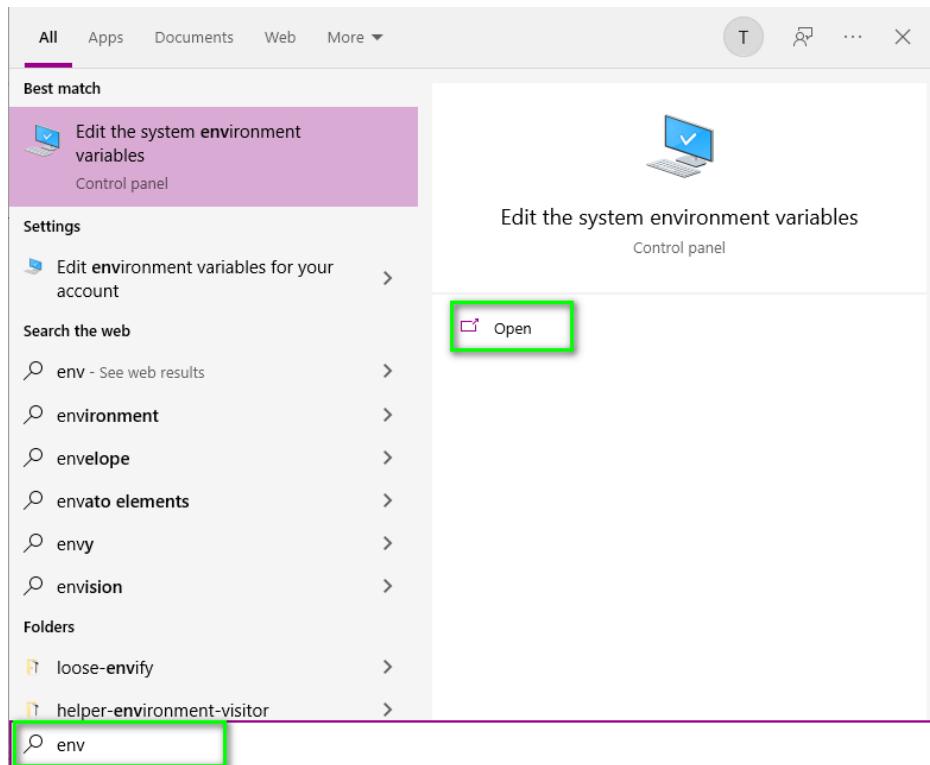
以下のインストールバンドルをダウンロードして、Flutter SDKの最新の安定版リリースを[こちら](#)から入手してください。

zip ファイルを抽出し、含まれているフラッターを Flutter SDK のインストール場所 (C:\src\flutter など) に配置します。

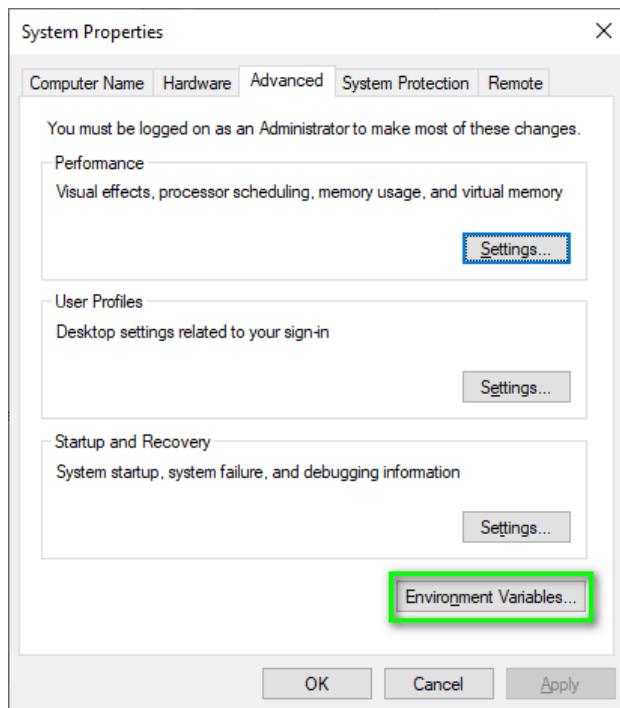
パスを更新します。

スタート検索バーから「env」と入力し、アカウントの環境変数の編集を選択します。

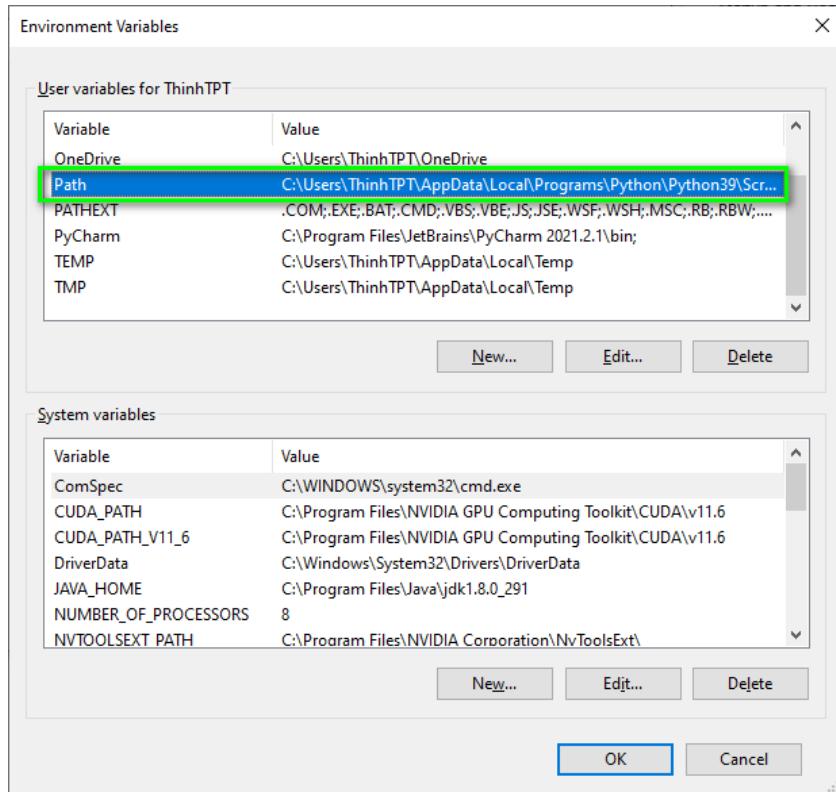




[環境変数] ボタンをクリックします。

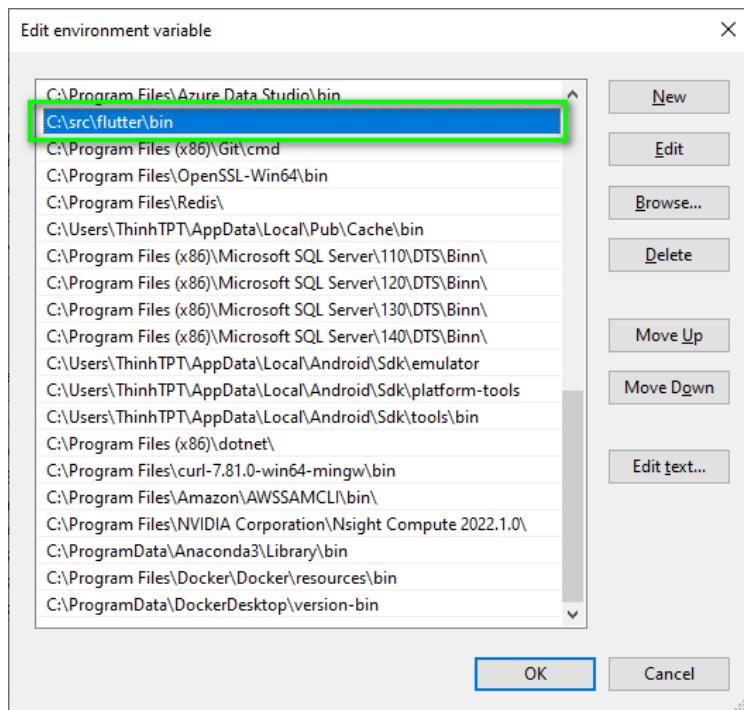


ユーザー変数で、パスというエントリがあるかどうかを確認します。



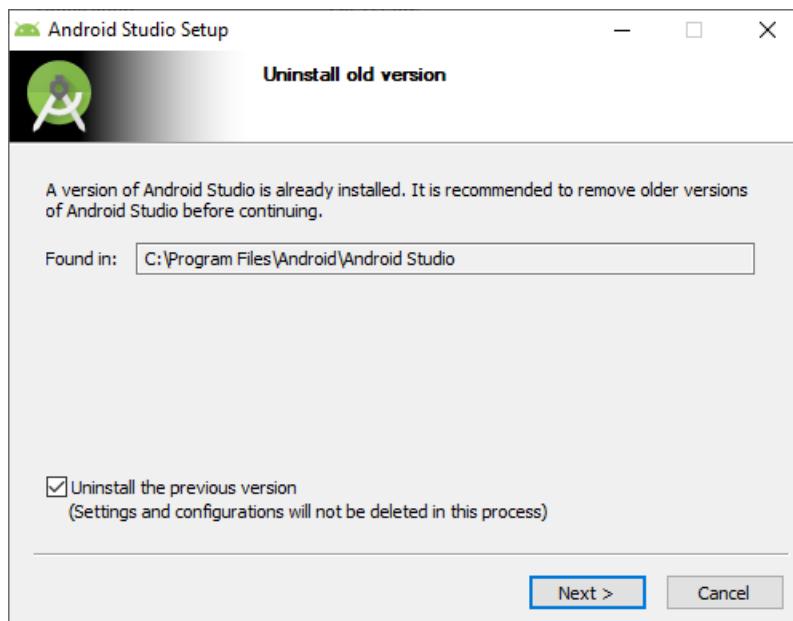
エントリが存在する場合は、既存の値からの区切り文字として ";" を使用して、 flutter\bin に完全パスを追加します。

エントリが存在しない場合は、 flutter\bin への完全パスを値として Path という名前の新しいユーザー変数を作成します。



アンドロイドスタジオをダウンロードしてインストールします。

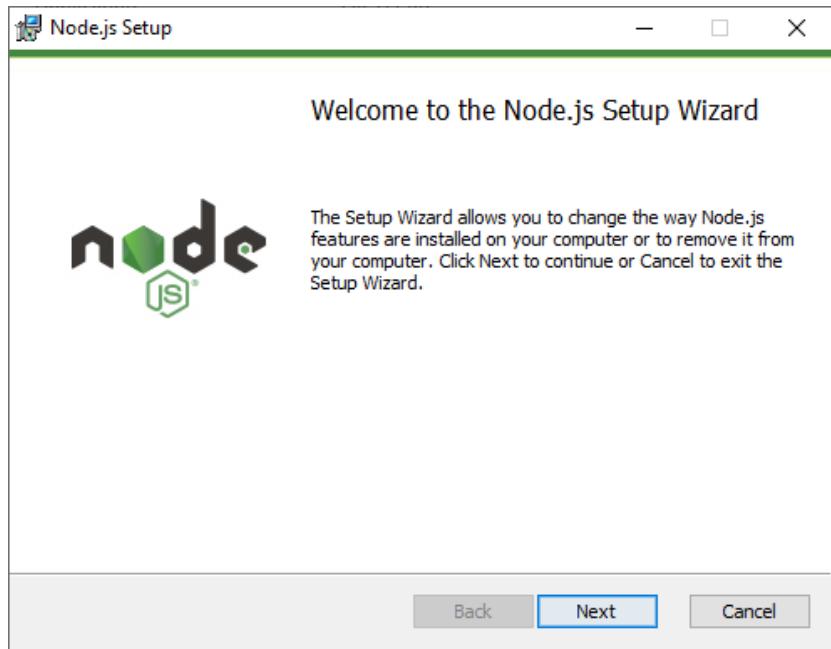
アンドロイドスタジオを起動し、「アンドロイドスタジオセットアップウィザード」を通過します。これにより、最新の Android SDK、Android SDK Command-line Tools、Android SDK Build-Tools がインストールされますが、これらは Android 用の開発時に Flutter が必要とするものです。



詳細については、こちらを参照してください。

2.3.1.2 ウェブアプリケーション

1. ここにNodejsをインストールしてください。
2. ダウンロードしたNodejsファイルを起動し、インストールを実行します
 -



cmdを開き、*node-v*コマンドを実行してノードのバージョンを確認します。

2.3.1.3 API サーバー・アプリケーション

1. .Net Core SDK x64 および .NET Core 3.1 ランタイムは

△ 3.1.24

[Release notes](#) Latest release date April 12, 2022

Build apps - SDK

SDK 3.1.418

OS	Installers	Binaries
Linux	Package manager instructions	Arm32 Arm64 x64 x64 Alpine
macOS	x64	x64
Windows	x64 x86	Arm32 x64 x86
All	dotnet-install scripts	

Visual Studio support

Visual Studio 2019 (v16.7)
Visual Studio 2019 for Mac (v8.10)

Included in

Visual Studio 16.7.27

Included runtimes

.NET Runtime 3.1.24
.NET Core Runtime 3.1.24
.NET Desktop Runtime 3.1.24

Language support

C# 8.0
F# 4.7
Visual Basic 15.9

[Localized IntelliSense](#)

Run apps - Runtime

ASP.NET Core Runtime 3.1.24

The ASP.NET Core Runtime enables you to run existing web/server applications. On Windows, we recommend installing the Hosting Bundle, which includes the .NET Runtime and IIS support.

IIS runtime support (ASP.NET Core Module v2)

3.1.22089.24

OS	Installers	Binaries
Linux	Package manager instructions	Arm32 Arm64 Arm64 Alpine x64 x64 Alpine
macOS		x64
Windows	Hosting Bundle x64 x86	Arm32 x64 x86

.NET Desktop Runtime 3.1.24

The .NET Desktop Runtime enables you to run existing Windows desktop applications. This release includes the .NET Runtime; you don't need to install it separately.

OS	Installers	Binaries
Windows		x64 x86

.NET Runtime 3.1.24

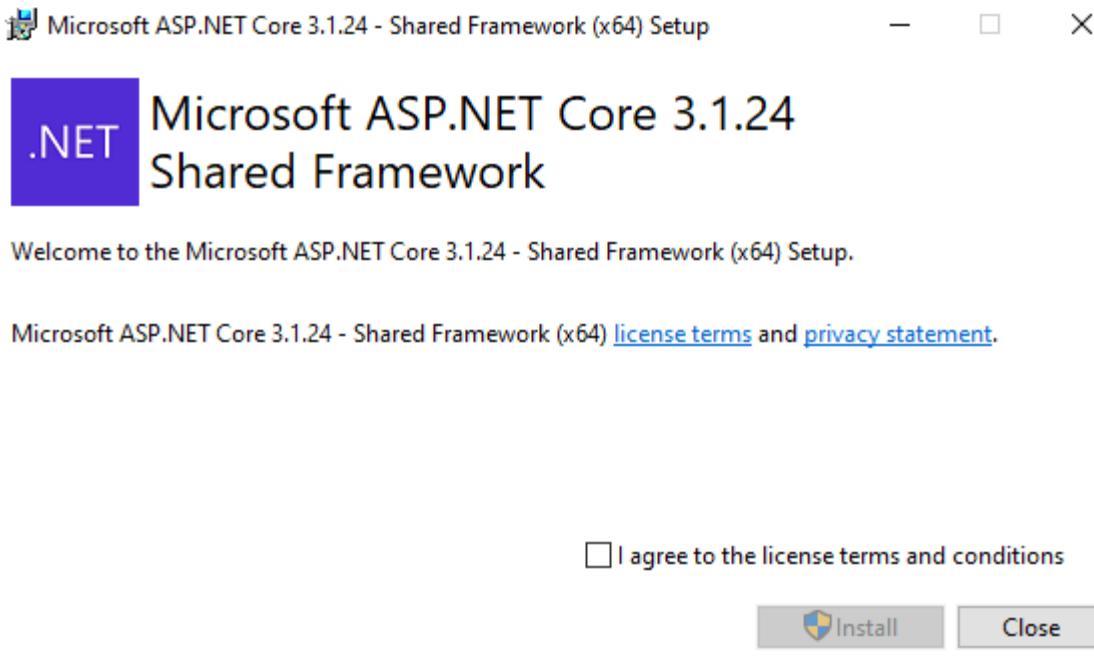
The .NET Runtime contains just the components needed to run a console app. Typically, you'd also install either the ASP.NET Core Runtime or .NET Desktop Runtime.

こちらからダウンロードできます。

2. インストーラを実行します。

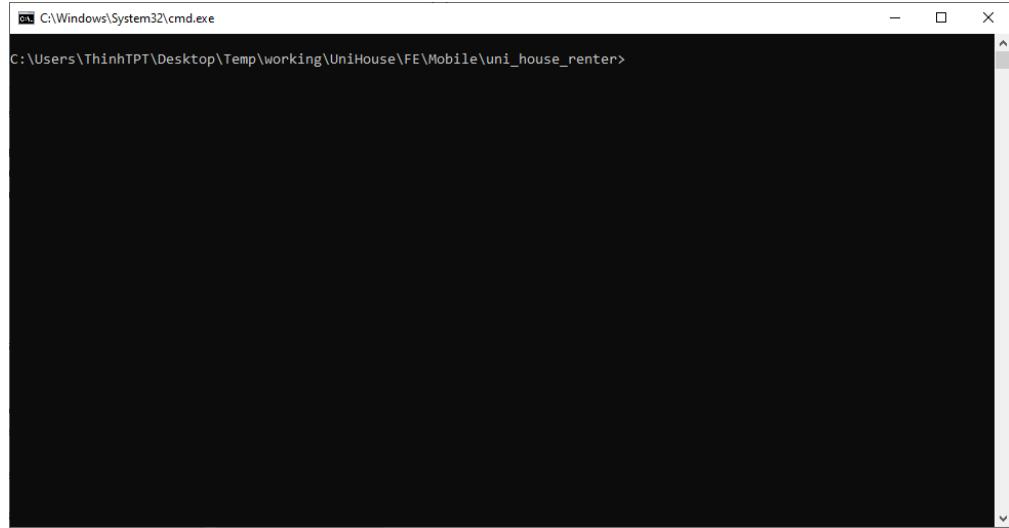
2.3.2 セットアップアプリケーション

2.3.2.1 モバイルアプリケーション



1. モバイルレンターアプリケーション

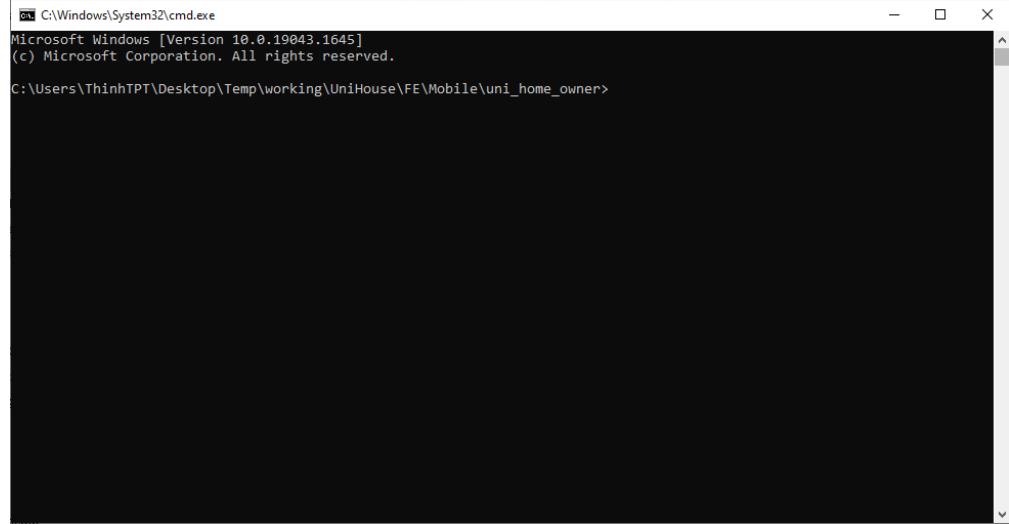
- ソースコードフォルダでコマンドラインを開きます。



- コマンドでプロジェクトをきれいにします: "flutter clean"。
- コマンドでプロジェクトパッケージを取得します: "フラッターパブゲット"。
- Firebase プロジェクト コンソールから [google-service.json](#) ファイルを取得します ([詳細を参照](#)) Firebase 認証を使用するには、プロジェクトフォルダーにファイルを追加します。
- コマンドでAPKファイルをビルド: "フラッタービルドapk"。

2. モバイル所有者アプリケーション

- ソースコードフォルダでコマンドラインを開きます。



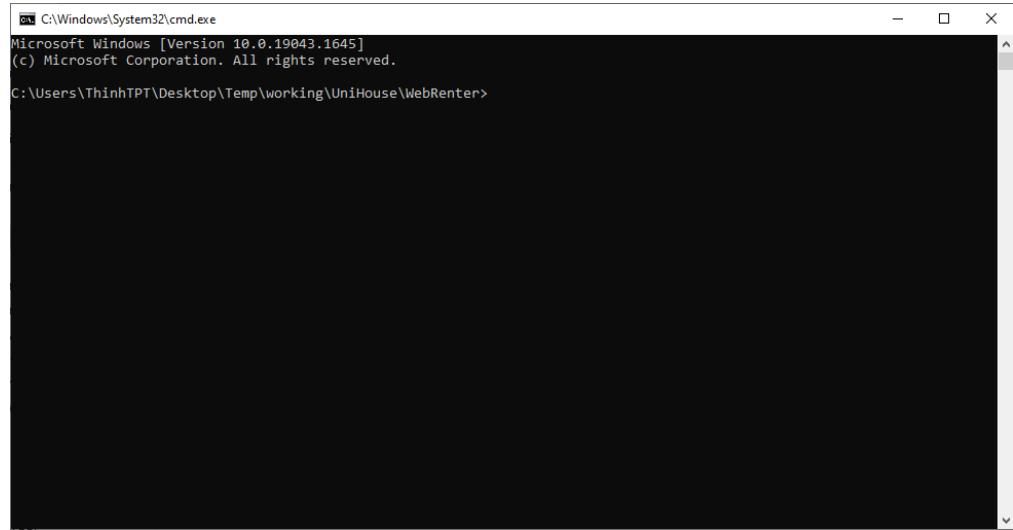
- コマンドでプロジェクトをきれいにします: "flutter clean"。
- コマンドでプロジェクトパッケージを取得します: "フラッターパブゲット"。

- Firebase プロジェクト コンソールから `google-service.json` ファイルを取得します ([詳細を参照](#)) Firebase 認証を使用するには、プロジェクト フォルダーにファイルを追加します。
- コマンドで APK ファイルをビルド: "フラッタービルド apk"。

2.3.2.2 ウェブアプリケーション

1. ウェブ賃借人 アプリケーション

- ソースコード フォルダでコマンドラインを開きます。



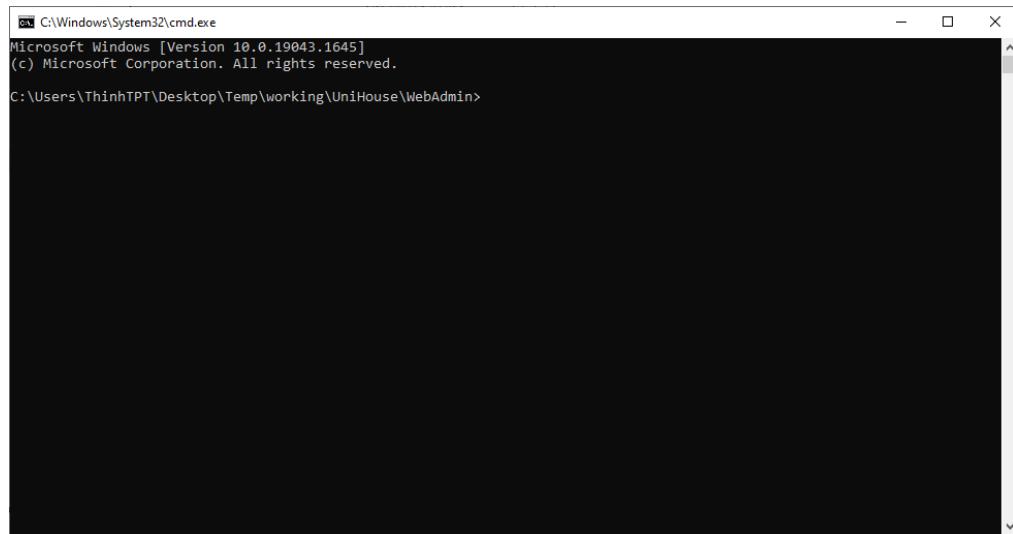
```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19043.1645]
(c) Microsoft Corporation. All rights reserved.

C:\Users\ThinhTPT\Desktop\Temp\working\UniHouse\WebRenderer>
```

- コマンドでプロジェクト パッケージを取得します: "npm install"。
- コマンドでプロジェクトをビルドします: "npm run build"。最後のソース フォルダは ビルド フォルダです。

2. ウェブ管理 アプリケーション

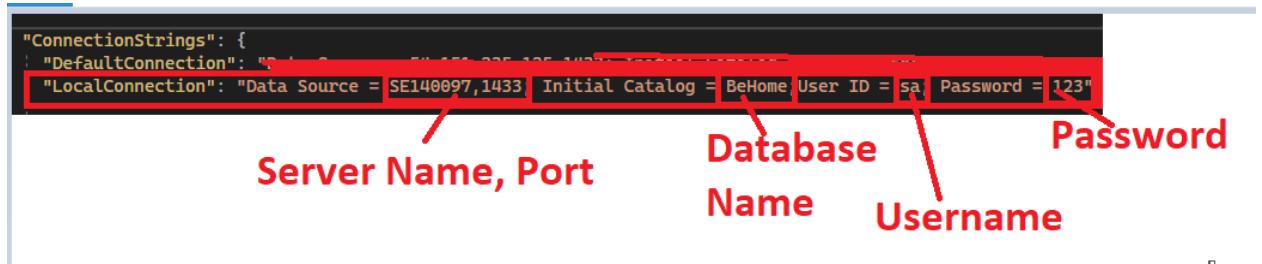
- ソースコードフォルダでコマンドラインを開きます。



- コマンドでプロジェクトパッケージを取得します: "npm install"。
- コマンドでプロジェクトをビルドします: "npm run build"。最後のソースフォルダは ビルド フォルダです。

2.3.2.3 API サーバー・アプリケーション

- ソースコードフォルダーに移動します。
- SQL Server 管理スタジオ(SSMS)を開き、アプリ設定でローカル接続文字列と一致するように接続文字列を変更します。`Development.json`.



- ビルドして実行します。

3. ユーザーマニュアル

■用語と定義

該当なし

■システム要件

3.2.1 ハードウェア要件

種類	部品/コンポーネント	最低限	推奨
コンピュータ	サポートされている OS	Windows7 SP1 以降 (64 ビット)、Linux	-
コンピュータ	ネットワーク	ティッカー	LAN とインターネット
コンピュータ	ラム	4ギガバイト	>= 8ギガバイト
コンピュータ	ハードディスク	100 ギガバイト	>= 200 GB
コンピュータ	ポート	USB, ネットワーク	-
モバイル	カメラ	5メガピクセル	-
モバイル	ネットワーク	Wi-Fi / モバイルネットワーク	-

3.2.2 ソフトウェア要件

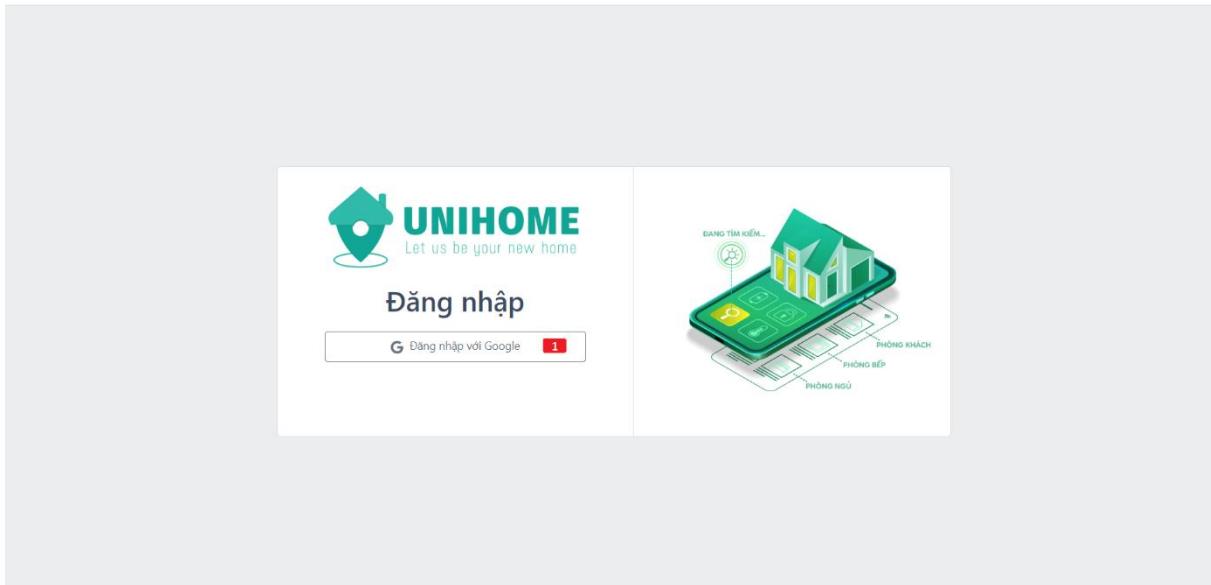
- ・ ギットv2.3の
- ・ .NET Core ランタイム 3.1 ホスティング バンドル
- ・ ノード.js v14
- ・ Android SDK, Flutter SDK v2.5.3

■アプリケーションの使用状況

3.3.1 概要

3.3.2 管理モジュール

3.3.2.1 システムへの管理者ログイン



番号。	機能	形容	検証	結果
2	ログイン	Gmail ポップアップでログインを切り替える	いいえ	ユーザーが認証されている

3.3.2.2 ユーザーリストの表示

Họ và Tên	Role	Trạng Thái
Đỗ Văn Chung	Owner	Dang hoat dong
An Pham Truong	Renter	Dang hoat dong
Bui Vinh Khoi	Renter	Dang hoat dong
Dao Nhu Mai (K17 HCM)	Renter	Dang hoat dong
Doan Nhiet Quang	Renter	Dang hoat dong

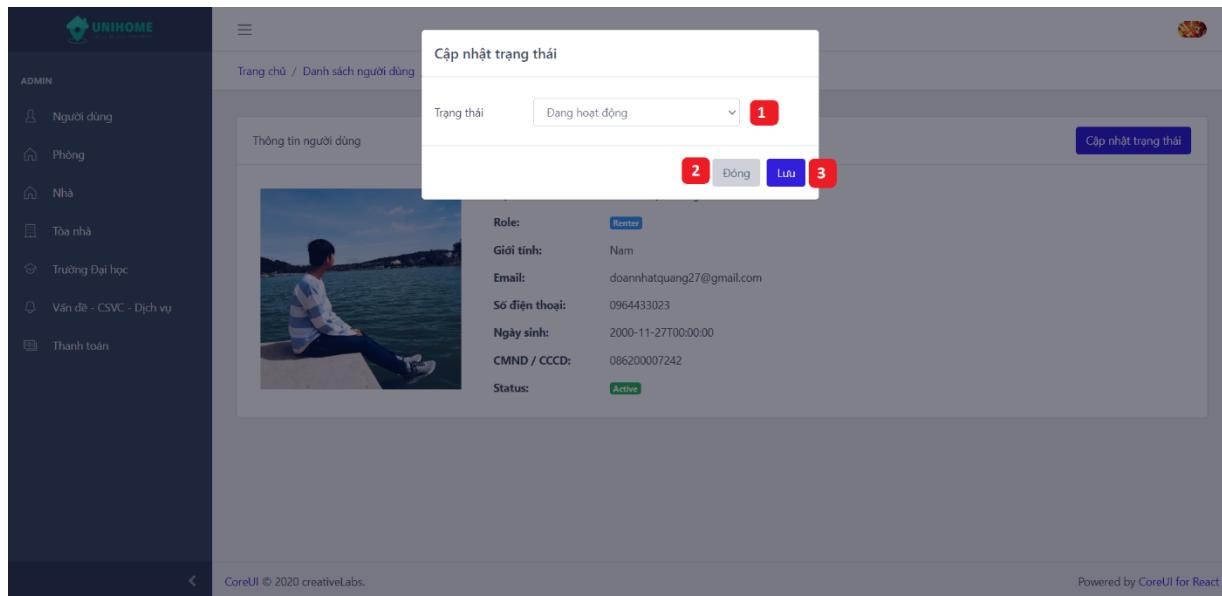
番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
2	フィルター	ユーザーが検索したい値	いいえ	いいえ	テキストボックス	糸

3.3.2.3 ユーザー詳細情報の表示

The screenshot shows the UniHome application's user profile page. On the left is a dark sidebar with navigation links: ADMIN, Người dùng, Phòng, Nhà, Tòa nhà, Trường Đại học, Văn đề - CSVC - Dịch vụ, and Thanh toán. The main content area shows the user profile for 'Đoàn Nhật Quang'. The profile includes a photo of a person sitting by a body of water, basic information like name, gender, email, phone number, birth date, ID card number, and status, and a red button labeled 'Cập nhật trạng thái'.

番号。	機能	形容	検証	結果
2	ユーザーステータスの更新	クリックすると、更新ステータスのポップアップが表示されます。	いいえ	更新ステータスボップアップ

3.3.2.4 ユーザーステータスの更新ポップアップ



番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
2	ユーザーステータス	ユーザーステータスの選択	いいえ	はい	ドロップダウン	糸

番号。	機能	形容	検証	結果
4	ポップアップを閉じる	クリックして更新ステータスポップアップを閉じます	いいえ	ポップアップが閉じています
5	ユーザーステータスの更新	クリックしてユーザーの状態を更新します。	はい	ユーザーステータスが更新されました

3.3.2.5 家賃リストを見る

Danh sách phòng

Tên	Thời gian tạo	Loại phòng	Địa chỉ	Trạng thái
1	2022-01-13T20:14:33.4732879	Phòng trọ	387 Church Van An, Xã An Phú Tây, Huyện Bình Chánh	Available
1234	2022-01-13T20:18:06.9559764	Phòng trọ	387 Church Van An, Xã An Phú Tây, Huyện Bình Chánh	Available
234	2022-03-27T23:23:16.5965475	Phòng trọ	352/30 Nguyễn Dinh Chieu, Phường Hiệp Phú, Quận 9	
A	2022-01-13T23:27:05.5928619	Phòng trọ	387 Church Van An, Xã An Phú Tây, Huyện Bình Chánh	Rejected
ABC	2021-09-18T18:57:37.4101034	Nhà	111, Phường Long Thạnh Mỹ, Quận 9	Available
Ahihi	2021-10-30T02:48:23.8818285	Phòng trọ	HobaHome 58/3 Tân Lập 1v, Phường Hiệp Phú, Quận 9	Unavailable
AVC	2022-03-29T00:25:47.7339894	Phòng trọ	387 ABC, Thị Trấn Tân Trúc, Huyện Bình Chánh	Unavailable
Bò Lmao	2021-09-24T00:54:51.1321883	Phòng trọ	Cao Lỗ, Phường Phước Long A, Quận 9	Unavailable
Bùi Vĩnh Khởi	2021-09-21T15:50:44.6495214	Phòng trọ	Nguyễn Chí Thanh, Phường 13, Quận 5	Available
Căn hộ 609	2021-07-17T13:47:04.83	Căn hộ	702 Xa Lộ Hà Nội, Phường Hiệp Phú, Quận 9	Unavailable

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番号。	機能	形容	検証	結果
2	ステータスで住宅リストをフィルタリングする	選択したステータスで住宅リストをフィルタリングする	いいえ	選択したステータスの住宅リスト

3.3.2.6 家賃の詳細情報を見る

Thông tin phòng

THÔNG TIN RENT ENTITY

Tên:	Phòng 203
Mô tả:	Phòng ngủ trẻ em
Giá phòng:	500000
Diện tích:	14m ²
Giới tính:	Nam
Share phòng:	Không
Status:	Pending

Thông tin Nhà

Tên:	Nhà 3
Địa chỉ:	1 Lê Duẩn, Phường Bến Nghé, Quận 1
Status:	Available

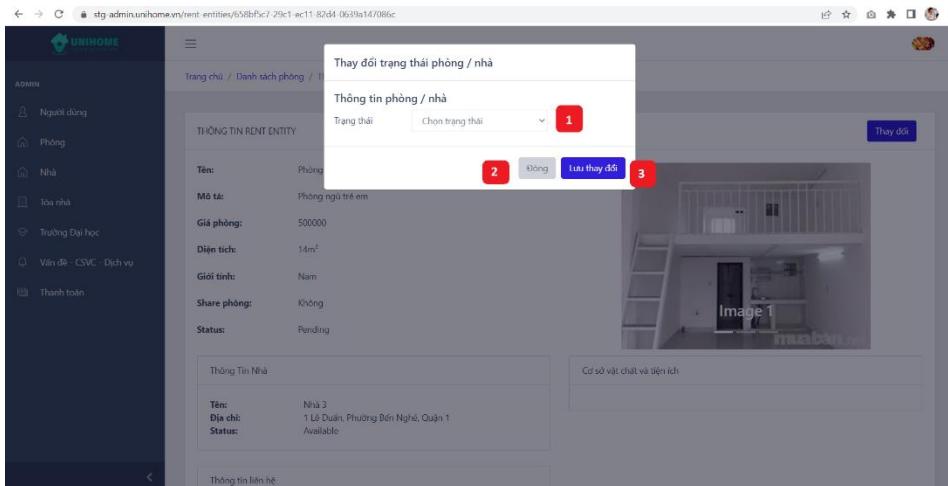
Thông tin liên hệ

Chủ trọ:	Lam Hau Huongg
SDT chủ trọ:	0919315931
Người đăng:	Lam Hau Huongg
SDT người đăng:	0919315931

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番号。	機能	形容	検証	結果
2	家賃状況の更新	クリックすると、更新賃料のポップアップが表示されます。	はい	家賃状況の更新ポップアップ

3.3.2.7 管理者が家賃を承認または拒否する



番号	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
2	家賃状況	賃貸状況の選択	いいえ	はい	ドロップダウン	糸

番号。	機能	形容	検証	結果
4	ポップアップを閉じる	クリックして更新ステータスポップアップを閉じます	いいえ	ポップアップが閉じています
5	家賃状況の更新	クリックして家賃のステータスを更新	はい	家賃状況が更新されました

3.3.2.8 家のリストを見る

Trang chủ / Danh sách nhà

Danh sách nhà

Filter type-string... 1

Tên Nhà	Loại Nhà	Địa Chỉ	Trạng Thái
Tro AVC	Nhà trọ	Thị trấn Tân Trúc, Huyện Bình Chánh	Available
minim eu	Nhà trọ	Phường 15, Quận 11	Available
minim eu	Nhà trọ	Phường 15, Quận 11	Available
minim eu	Nhà trọ	Phường 15, Quận 11	Available
minim eu	Nhà trọ	Phường 15, Quận 11	Available
minim eu	Nhà trọ	Phường 15, Quận 11	Available
minim eu	Nhà trọ	Phường 15, Quận 11	Available
minim eu	Nhà trọ	Phường 15, Quận 11	Available
minim eu	Nhà trọ	Phường 15, Quận 11	Available
minim eu	Nhà trọ	Phường 15, Quận 11	Available

1 2 3 4 ... >

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番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
2	フィルター	ユーザーが検索したい値	いいえ	いいえ	テキストボックス	糸

3.3.2.9 家の詳細を見る

The screenshot shows the UniHome Admin interface. On the left is a sidebar with navigation links: ADMIN, Người dùng, Phòng, Nhà, Tòa nhà, Trường Đại học, Văn phòng - CSVN - Dịch vụ, and Thành toán. The main content area is titled "HOUSE INFORMATION". It displays the following details:

- Tên: Nhà trọ 12
- Giá phòng: 50000 - 600000 đồng
- Diện tích: 10m²
- Share phòng: Không
- Status: Available

On the right, there are two images labeled "Image 1": one showing the interior of a room with a bunk bed and a ladder, and another showing a long hallway with multiple doors. Below the images is a section titled "Ảnh xác thực".

At the bottom left is a "Thông tin Nhà" panel with the same basic information. To the right is a "Danh sách phòng trọ" panel showing a list of rooms:

Số	Tên phòng	Mã phòng
1	Nhà trọ 12	Phòng 123
		Room 101

At the bottom center is the text "Powered by CoreUI for React".

番号。	機能	形容	検証	結果
2	この家の家賃を見る	クリックして家の家賃の詳細情報に移動します	はい	レンタル詳細画面

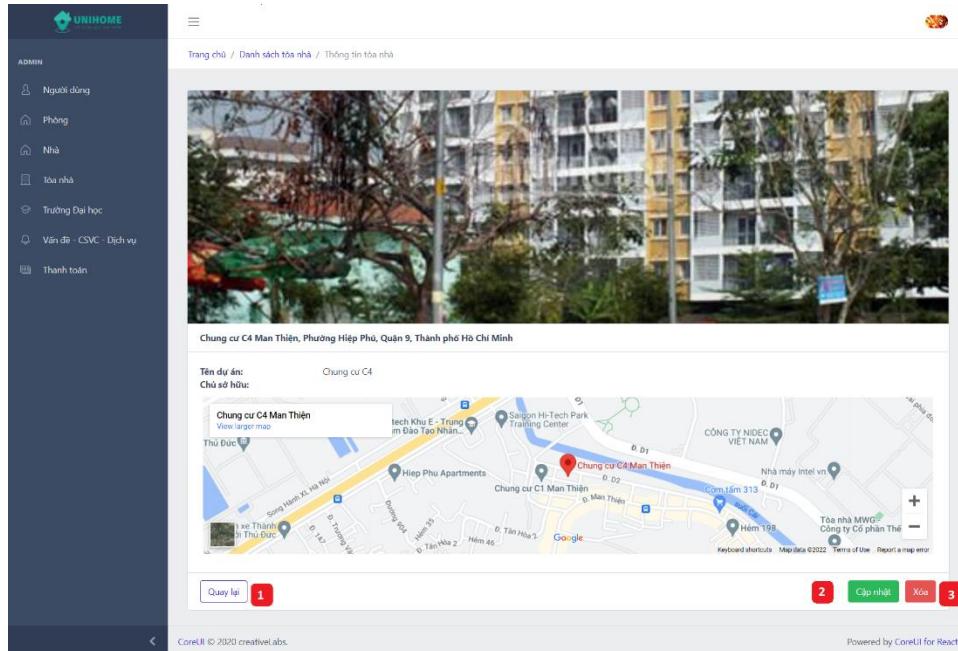
3.3.2.10 建物リストを見る

The screenshot shows the UniHome Admin interface. On the left is a sidebar with navigation links: ADMIN, Người dùng, Phòng, Nhà, Tòa nhà, Trường Đại học, Văn phòng - CSVN - Dịch vụ, and Thành toán. The main content area is titled "Danh sách tòa nhà / chung cư". It displays a list of buildings:

Tên Tòa Nhà	Địa Chỉ	Trạng Thái
123	384, Thị trấn Tân Trúc, Huyện Bình Chánh	Pending
2	387 ABC, Thị trấn Tân Trúc, Huyện Bình Chánh	Pending
3	387 ABC, Thị trấn Tân Trúc, Huyện Bình Chánh	Pending
4	387 ABC, Thị trấn Tân Trúc, Huyện Bình Chánh	Pending
Ahiihi	387 ABC, Thị trấn Tân Trúc, Huyện Bình Chánh	Pending
BCD	387 ABC, Thị trấn Tân Trúc, Huyện Bình Chánh	Pending
Căn hộ Bùi Đình Túy	32/11 Bùi Đình Túy, PHƯỜNG 12, BÌNH THÂN TP.HCM, Phường 12, Quận Bình Thạnh	Available
Căn hộ Bùi Đình tuy	32/11 Bùi Đình Túy, PHƯỜNG 12, BÌNH THÂN TP.HCM, Phường 14, Quận Bình Thạnh	Available
Căn hộ Nguyễn Xí	144 Phố Nguyễn Xí, Phường 26, Quận Bình Thạnh	Available

番号。	機能	形容	検証	結果
2	新しい建物を作成する	クリックして移動し、建物画面を作成します。	いいえ	建物画面の作成

3.3.2.11 建物の詳細を見る



番号。	機能	形容	検証	結果
4	建物リストページに戻る	クリックして建物リストページに移動します。	いいえ	建物リストページ
5	建物を更新する	クリックして建物ページを更新するために移動します。	はい	建物ページの更新
6	建物の削除	クリックして建物を削除します。	はい	建物が削除されました

3.3.2.12 新しい建物を追加する

UNIHOME
DỊCH VỤ BẤT ĐỘNG SẢN

ADMIN

- Người dùng
- Phòng
- Nhà
- Tòa nhà
- Trường Đại học
- Văn phòng - CSVC - Dịch vụ
- Thanh toán

Trang chủ / Danh sách tòa nhà / Thêm tòa nhà

Tạo mới nhà / tòa nhà

Tên nhà / tòa nhà* 1 Nhập tên phòng / nhà

Địa chỉ* 2 Nhập địa chỉ

Quận/huyện* 3 Chọn phường Phường/số* 4 Chọn xã

Nhà chính chủ checkbox 5 Đây là nhà chính chủ

Thông tin owner

Tên* 6 Nhập tên owner

Số điện thoại* 7 Nhập số điện thoại

Ảnh đại diện 8 Choose File No file chosen

Hình ảnh* Choose Files.. Browse 9

Cập nhật vị trí trên bản đồ 10

LesLeaflet | OpenStreetMap commutators

11 | Ở đây | Thêm | 12

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
10	建物名	新棟名	いいえ	はい	テキストボックス	糸
11	建物の住所	新棟の住所	いいえ	はい	テキストボックス	糸
12	建築地区	新棟地区	いいえ	はい	ドロップダウン	糸
13	建築病棟	新棟区	いいえ	はい	ドロップダウン	糸
14	所有者です	この建物が現在の人のものであることを確認する	いいえ	いいえ	チェックボックス	ブーリアン
15	所有者名	建物の所有者の名前	いいえ	いいえ	テキストボックス	糸
16	所有者の電話	建物所有者の電話番号	いいえ	いいえ	テキストボックス	糸
17	所有者アバター	建物の所有者のアバター	いいえ	いいえ	画像ピッカー	画像
18	イメージ化された建物	建物のイメージ	いいえ	はい	画像ピッカー	画像

番号。	機能	形容	検証	結果
13	座標の更新	入力住所に基づく建物ベースの更新座標	いいえ	建物の新しい座標
14	キャンセル	保存せずに建物リストページに戻る	いいえ	建物リストページ
15	セーブ	クリックして建物を追加	はい	ビルがシステムに追加される

3.3.2.13 建物を更新する

The screenshot shows the UniHome Admin interface for updating a building. On the left is a sidebar with navigation links: ADMIN, Người dùng, Phòng, Nhà, Tòa nhà, Trường Đại học, Văn phòng - CSVN - Dịch vụ, and Thanh toán. The main area has a header: Trang chủ / Danh sách tòa nhà / Thông tin tòa nhà. Below is a 'Cập nhật tòa nhà' form:

- Tên nhà / tòa nhà * (Field 1: Chung cư C4)
- Địa chỉ * (Field 2: Chung cư C4 Man Thiện)
- Quận/huyện * (Field 3: Quận 9)
- Phường/xã * (Field 4: Phường Hiệp Phú)
- Hình ảnh* (Field 5: Choose Files... with two preview images of the building)
- Cập nhật vị trí trên bản đồ (Field 6: Map button)
- Leaflet | OpenStreetMap contributors (Map credits)
- Hủy bỏ (Field 7: Cancel button)
- Lưu (Field 8: Save button)

At the bottom left is CoreUI © 2020 creativeLabs. At the bottom right is Powered by CoreUI for React.

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
9	建物名	新棟名	いいえ	はい	テキストボックス	糸
10	建物の住所	新棟の住所	いいえ	はい	テキストボックス	糸
11	建築地区	新棟地区	いいえ	はい	ドロップダウン	糸
12	建築病棟	新棟区	いいえ	はい	ドロップダウン	糸
13	イメージ化された建物	建物のイメージ	いいえ	はい	画像ピッカー	画像

番号。	機能	形容	検証	結果
14	座標の更新	入力住所に基づく建物ベースの更新座標	いいえ	建物の新しい座標
15	キャンセル	保存せずに建物リストページに戻る	いいえ	建物リストページ
16	セーブ	クリックして建物情報を更新します。	はい	建物情報を更新しました

3.3.2.14 大学一覧を見る

The screenshot shows a web-based application interface for managing university data. On the left is a dark sidebar with a navigation menu labeled 'ADMIN' containing items like 'Người dùng', 'Phòng', 'Nhà', 'Tòa nhà', 'Trường Đại học', 'Văn đề - CSV/C - Dịch vụ', and 'Thanh toán'. The main content area has a header 'Trang chủ / Danh sách trường Đại học'. Below this is a table titled 'Danh sách trường Đại học' with columns 'Tên Trường' and 'Địa Chỉ'. A red box labeled '2' highlights a search bar at the top of the table. A red box labeled '1' highlights a 'Thêm mới' (Add new) button in the top right corner of the table header. The table lists several universities with their addresses:

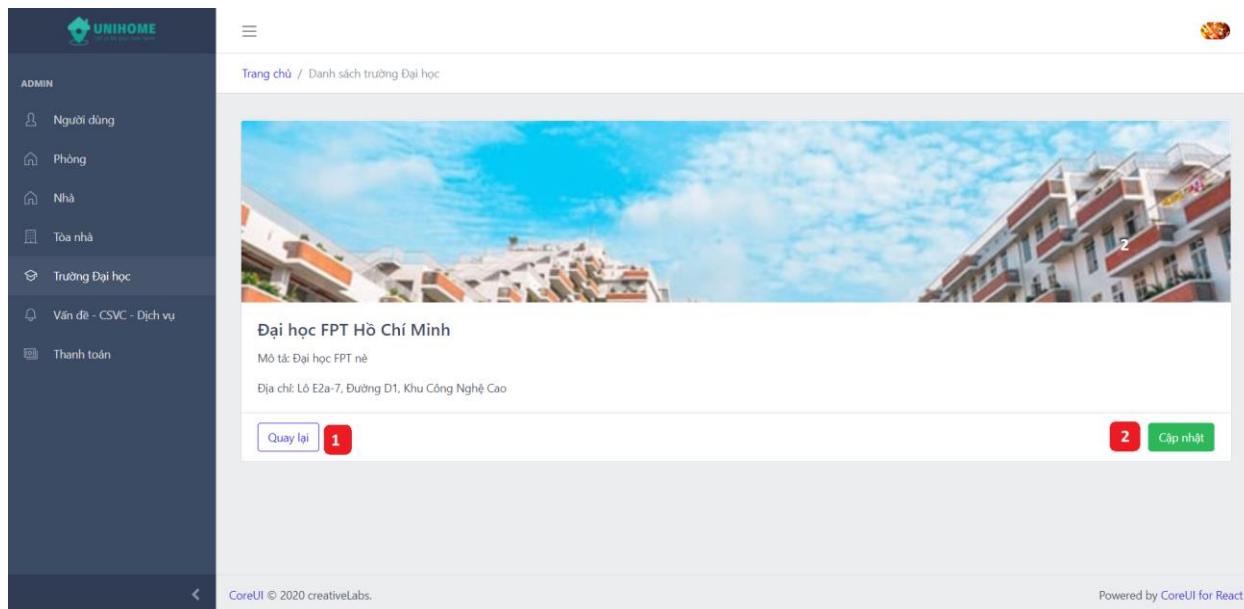
Tên Trường	Địa Chỉ
Trường Đại học Văn Lang - Cơ sở 2	Hẻm 69 Đặng Thùy Trâm
Trường Đại học Văn Lang - Cơ sở 4	Hẻm 69 Đặng Thùy Trâm 2
Trường Đại học Văn Lang - Cơ sở 2	Hẻm 69 Đặng Thùy Trâm
Trường Đại học Văn Lang - Cơ sở 4	Hẻm 69 Đặng Thùy Trâm 3
Đại học HUTECH cơ sở R	Khu Công Nghệ Cao, TP Thủ Đức
Đại học FPT Hồ Chí Minh	Lô E2a-7, Đường D1, Khu Công Nghệ Cao
Trường Đại học Văn Lang - Cơ sở 3	Hẻm 69 Đặng Thùy Trâm
Trường Đại Học Nguyễn Tất Thành - Cơ sở Quận 9	Đường Võ Chí Công, Long Thành Mỹ, Thành phố Thủ Đức, Thành phố Hồ Chí Minh, Vietnam
Trường Đại Học Kinh tế-Luật TPHCM	669 QL1A, khu phố 3, Thủ Đức, Thành phố Hồ Chí Minh

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番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
3	フィルター	ユーザーが検索したい値	いいえ	いいえ	テキストボックス	糸

番号。	機能	形容	検証	結果
2	新しい大学を追加する	クリックして移動し、新しい大学のページを追加します。	いいえ	新しい大学のページを追加する

3.3.2.15 大学デタイ



番号。	機能	形容	検証	結果
3	引き返す	クリックして移動し、大学リストページを表示します。	いいえ	大学一覧ページを見る
4	更新	クリックして移動し、大学のページを更新します。	はい	大学のページを更新する

3.3.2.16 新しい大学を追加する

Trang chủ / Danh sách trường Đại học / Thêm trường Đại học

Tên Trường *

Mô tả *

Địa chỉ *

Hình ảnh*

Choose Files...

Quay lại 1

2 3

4 Browse

5 6 Thêm

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番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
5	大学名	新大学名	いいえ	はい	テキストボックス	糸
6	大学概要	新大学の説明	いいえ	はい	テキストボックス	糸
7	大学の住所	新大学の住所	いいえ	はい	テキストボックス	糸
8	大学の画像	新大学のイメージ	いいえ	はい	画像ピッカー	画像

番号。	機能	形容	検証	結果
7	引き返す	クリックして移動し、大学リストページを表示します。	いいえ	大学一覧ページを見る

8	足す	クリックして新しい大学をシステムに追加します。	はい	大学が追加されました
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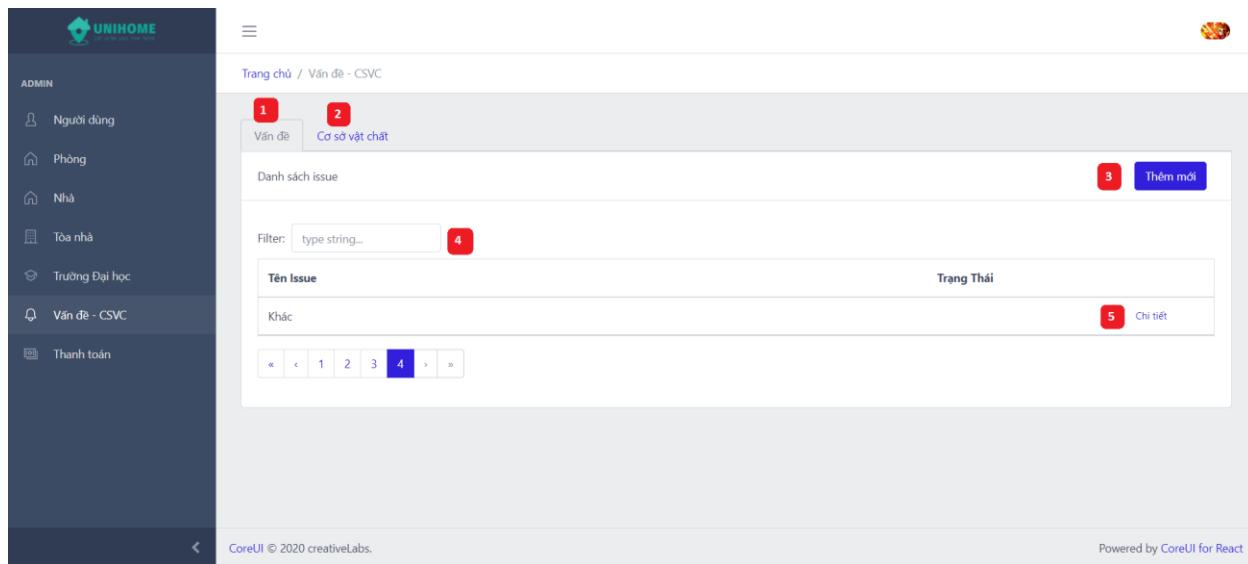
3.3.2.17 大学を更新

The screenshot shows the UniHome software's 'Update University' form. On the left is a dark sidebar with navigation links: ADMIN, Người dùng, Phòng, Nhà, Tòa nhà, Trường Đại học, Văn đài - CSVC - Dịch vụ, and Thanh toán. The main area has a header 'Trang chủ / Danh sách trường Đại học'. It features a large image of a modern building complex under a blue sky. Below the image are input fields: 'Tên Trường *' (University Name) with a dropdown menu showing 'Đại học FPT Hồ Chí Minh' (number 1), 'Mô tả *' (Description) with a dropdown menu showing 'Đại học FPT nè' (number 2), 'Địa chỉ *' (Address) with a dropdown menu showing 'Lô E2a-7, Đường D1, Khu Công Nghệ Cao' (number 3), and 'Hình ảnh*' (Image) with a 'Choose Files...' button and a 'Browse' button (number 4). At the bottom are two buttons: 'Quay lại' (number 5) and 'Lưu' (Save) (number 6). The footer includes 'CoreUI © 2020 creativeLabs.' and 'Powered by CoreUI for React'.

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
7	大学名	大学名を更新	いいえ	はい	テキストボックス	糸
8	大学概要	更新された大学の説明	いいえ	はい	テキストボックス	糸
9	大学の住所	大学の住所を更新しました	いいえ	はい	テキストボックス	糸
10	大学の画像	大学イメージを更新しました	いいえ	はい	画像ピッカー	画像

番号。	機能	形容	検証	結果
11	引き返す	クリックして移動し、大学リストページを表示します。	いいえ	大学一覧ページを見る
12	セーブ	クリックして大学情報を更新します。	はい	大学を更新しました

3.3.2.18 問題の表示、問題リスト



番号	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
5	フィルター	ユーザーが検索したい値	いいえ	いいえ	テキストボックス	糸

番号。	機能	形容	検証	結果
4	問題リストの表示	クリックして問題タブを表示します。	いいえ	問題リストの表示
5	施設一覧の表示	クリックして施設タブを表示する	いいえ	表示設備一覧
6	新しい問題を追加する	クリックして追加フォームを表示する	いいえ	問題の追加フォームの表示
6	表示の問題の詳細を切り替える	クリックして問題の詳細の表示を切り替えます。	はい	問題の詳細の表示

3.3.2.19 問題の詳細

番号。	機能	形容	検証	結果
3	問題の詳細を閉じる	クリックして問題の詳細を閉じます	いいえ	問題の詳細はクローズされています
4	アップデートの問題	クリックして問題の詳細を更新モードに変更します。	いいえ	更新問題モードの表示

3.3.2.20 アップデートの問題

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
4	問題名	更新された問題名	いいえ	はい	テキストボックス	糸

番号。	機能	形容	検証	結果
5	更新	クリックして問題を更新	はい	問題が更新されました
6	キャンセル	クリックして更新をキャンセルします	いいえ	更新フォームは閉じています

3.3.2.21 新しい問題を作成する

The screenshot shows the UniHome software interface. On the left, there's a dark sidebar with a logo and navigation links: 'ADMIN', 'Người dùng', 'Phòng', 'Nhà', 'Tòa nhà', 'Trường Đại học', 'Vấn đề - CSV', and 'Thanh toán'. The main content area has a header 'Trang chủ / Vấn đề - CSV'. It shows a table titled 'Danh sách issue' with columns 'Tên Issue' (Issue Name) and 'Trạng Thái' (Status). There are buttons for 'Thêm mới' (Create New), 'Thêm' (Add), 'Hủy' (Cancel), and a number '3'. A search bar at the bottom says 'Filter: type string...'. The status column shows 'Nước' (Water) and 'Chi tiết' (Details).

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
4	問題名	新しい問題名	いいえ	はい	テキストボックス	糸

番号。	機能	形容	検証	結果
5	足す	クリックして問題を追加	はい	問題が追加されます
6	キャンセル	クリックして追加をキャンセル	いいえ	追加フォームが閉じています

3.3.2.22 施設一覧を見る

Tên	Trạng Thái	Mật Định
1 nhà vệ sinh	Available	Cập nhật
1 phòng ngủ	Available	Cập nhật
2 nhà vệ sinh	Available	Cập nhật
2 phòng ngủ	Available	Cập nhật
An ninh 24/7	Available	Cập nhật
Bàn bếp	Available	Cập nhật
Bàn công	Available	Cập nhật
Bể chứa	Available	Cập nhật
Bệnh viện	Available	Cập nhật
Bồn tắm	Available	Cập nhật

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
3	フィルター	ユーザーが検索したい値	いいえ	いいえ	テキストボックス	糸

番号。	機能	形容	検証	結果
2	新しい施設の追加	クリックして追加フォームを表示する	いいえ	施設追加フォームの表示
4	「更新機能の切り替え」フォーム	クリックすると、更新ファシリティティブームが表示されます	はい	更新機能フォームの表示

3.3.2.23 更新機能

The screenshot shows the UniHome software interface. On the left is a dark sidebar with navigation links: ADMIN, Người dùng, Phòng, Nhà, Tòa nhà, Trường Đại học, Văn đề - CSV, and Thanh toán. The main area is titled 'Trang chủ / Văn đề - CSV' and shows a list of facilities under 'Danh sách cơ sở vật chất'. A modal window is open for updating a facility named '1 nhà vệ sinh'. The modal has fields for 'Tên' (Name) and 'Trạng thái' (Status). The status dropdown shows 'Available' (Available) and 'Có sẵn' (Available). At the bottom of the modal are two buttons: 'Cập nhật' (Update) and 'Đóng' (Close).

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
4	施設名	施設名を更新しました	いいえ	はい	テキストボックス	糸
5	施設状況	更新された施設の状態	いいえ	はい	ドロップダウン	糸

番号。	機能	形容	検証	結果
2	キャンセル	クリックして更新をキャンセルします	いいえ	更新フォームは閉じています
6	更新	クリックして施設を更新	はい	施設を更新しました
7	キャンセル	クリックして更新をキャンセルします	いいえ	更新フォームは閉じています

3.3.2.24 新しい施設の作成

The screenshot shows the UniHome application's payment history list. The left sidebar has a dark blue background with white icons and text for 'ADMIN' and various modules: Người dùng, Phòng, Nhà, Tòa nhà, Trường Đại học, Văn đề - CSV, and Thanh toán. The main area has a light gray header with 'Trang chủ / Thanh toán'. Below it is a search bar titled 'Danh sách giao dịch' with fields for 'Khoảng thời gian' (Time range), 'Trạng thái' (Status), and 'ID người dùng' (User ID). Buttons include '1', '2', '3', '4', '5', '6', and a green 'Tìm' (Search) button. Below the search bar is a summary table with columns: Tổng giao dịch (Total transactions), Tổng tiền (Total amount), Tổng chi (Total expense), and Tổng nhận (Total received). The total transaction count is 22, total amount is 12,380,000 VND, total expense is 0 VND, and total received is 0 VND. At the bottom is a table with columns: Payment Id, Thời gian (Time), Loại giao dịch (Type of service), Nội dung (Content), Người gửi (Sender), Người nhận (Recipient), Số tiền (Amount), and Trạng thái (Status). The table lists four transactions, all marked as 'Successful'.

番号	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
4	施設名	新施設名	いいえ	はい	テキストボックス	糸

番号。	機能	形容	検証	結果
5	足す	クリックして施設を追加	はい	施設追加
6	キャンセル	クリックして追加をキャンセル	いいえ	追加フォームが閉じています

3.3.2.25 支払いリストの表示

The screenshot shows the UniHome Admin dashboard with the following interface elements:

- Left Sidebar (ADMIN):**
 - Người dùng
 - Phòng
 - Nhà
 - Tòa nhà
 - Trường Đại học
 - Văn đề - CSV/C
 - Thanh toán
- Top Header:** Trang chủ / Thanh toán
- Search Bar:** Danh sách giao dịch
- Filter Options:**
 - Khoảng thời gian: Từ ngày 01-04-2022 (1) Đến ngày 30-04-2022 (2)
 - Trạng thái: Successfully (3) ID người dùng (4) ID người nhận (5)
 - Tìm (6)
- Summary Row:**

Tổng giao dịch	Tổng tiền	Tổng chi	Tổng nhận
22	12,380,000 VNĐ	0 VNĐ	0 VNĐ
- Table:** Filter: type string... (7)

Payment Id	Thời gian	Loại giao dịch	Nội dung	Người gửi	Người nhận	Số tiền	Trạng thái
abb01c7e-e3be-ec11-82d3-0639a147086c	18-04-2022	Tiền cọc giữ chỗ	Tiền cọc giữ trọ phòng 1	Thịnh Renter	Lam Hau Huongg	200,000đ	Successfully
8c04ea93-aabe-ec11-82d3-0639a147086c	18-04-2022	Tiền cọc giữ chỗ	Tiền cọc giữ trọ Phòng trọ 80% [Test]	Thịnh Renter	Uni Home Admin	2,500,000đ	Successfully
b9b8025d-a3bd-ec11-82d3-0639a147086c	16-04-2022	Tiền cọc giữ chỗ	Tiền cọc giữ trọ Phong 2	Thịnh Renter	Lam Hau Huongg	400,000đ	Successfully
ab683001-a244-ec11-82d3-	16.04.	Tiền cọc giữ	Tiền cọc giữ trọ Room 101	Thịnh	Lam Hau	10,000đ	Successful

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
6	開始日	日付から支払いを検索する	いいえ	はい	日付ピッカー	糸
7	現在までに	現在までのお支払いを検索	いいえ	はい	日付ピッcker	糸
8	地位	ステータスで支払いを検索する	いいえ	はい	ドロップダウン	糸
9	ユーザーと	ユーザーの支払いを検索する	いいえ	いいえ	チェックボックス	ブーリアン
10	ユーザー ID	ユーザーの ID	いいえ	いいえ	テキストボックス	糸
8	フィルター	ユーザーが検索したい値	いいえ	いいえ	テキストボックス	糸

番号。	機能	形容	検証	結果
2	検索	クリックして入力条件で支払いを検索します。	はい	条件を満たす支払の表示

3.3.3 レンターモジュール

3.3.3.1 賃借人ログイン



番号。	機能	形容	検証	結果
2	ログイン	クリックすると、Gmail のポップアップでログイン情報が表示されます。	いいえ	Gmailのポップアップでログインを表示する

3.3.3.2 プロフィール画面を見る



番号。	機能	形容	検証	結果
5	プロファイル画面の表示	クリックしてプロファイル画面に移動します。	はい	プロフィール画面
6	シェアーム画面を表示する	クリックして共有画面に移動します。	はい	マイシェアーム画面
7	リビングモードに切り替える	クリックしてリビングモードに切り替える	はい	リビングモード
8	ログアウト	クリックしてログアウト	いいえ	借受人がログアウトしました

3.3.3.3 登録

The image displays two screenshots of a mobile application interface for account registration. Both screenshots are titled "Đăng kí tài khoản".

Left Screenshot (Profile Setup):

- A large green circular button labeled "THÊM ẢNH" with a red "11" badge.
- A text input field for "Địa chỉ" (Address).
- A section titled "Thông tin liên lạc" (Contact Information) containing:
 - Họ tên*: "Tran Phan Truong Thinh (K14 HCM)" with a red "1" badge.
 - Email*: "thinhhtptse140092@fpt.edu.vn" with a red "2" badge.
 - Số điện thoại*: An empty input field with a red "3" badge.
 - Địa chỉ: An empty input field with a red "4" badge.
- A green "Đăng kí" button with a user icon and a red "10" badge.

Right Screenshot (Personal Information):

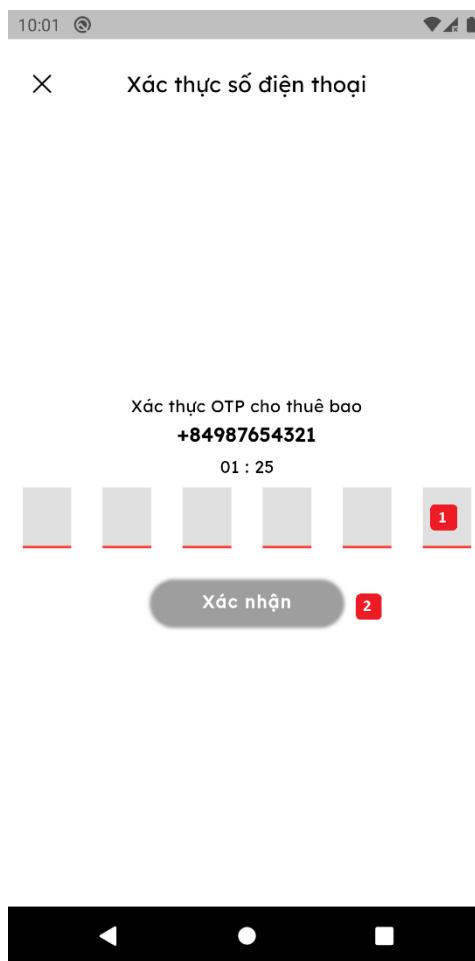
- A text input field for "CMND/CCCD" with a red "5" badge.
- A text input field for "Ngày cấp" (Issued Date) in dd/mm/yyyy format with a red "6" badge.
- A dropdown for "Giới tính*" (Gender) set to "Nam" with a red "7" badge.
- A text input field for "Ngày sinh*" (Date of Birth) in dd/mm/yyyy format with a red "8" badge.
- A dropdown for "Trường*" (School) set to "Không thuộc trường nào" (Not belong to any school) with a red "9" badge.
- A green "Đăng kí" button with a user icon and a red "10" badge.

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
10	フルネーム	ユーザーのフルネーム	いいえ	はい	テキストボックス	糸
11	電子メール	ユーザーのメールアドレス	はい	はい	テキストボックス	糸
12	電話番号	ユーザーのフォン番号	いいえ	はい	テキストボックス	糸
13	住所	ユーザーの住所	いいえ	いいえ	テキストボックス	糸
14	市民番号	市民ユーザー数	いいえ	いいえ	テキストボックス	糸
15	発行日	市民証の発行日	いいえ	いいえ	日付ピッカー	糸
16	ジェンダー	ユーザーの性別	いいえ	はい	ドロップダウン	糸
17	生年月日	ユーザーの生年月日	いいえ	はい	日付ピッカー	糸
18	大学	ユーザーの大学	いいえ	いいえ	ドロップダウン	糸

番号。	機能	形容	検証	結果
-----	----	----	----	----

12	サインアップ	クリックしてユーザーをサインアップする	はい	ユーザーが認証されている
13	ユーザー アバターを選択	ユーザーのプロフィール画像	いいえ	ユーザー プロファイル画像

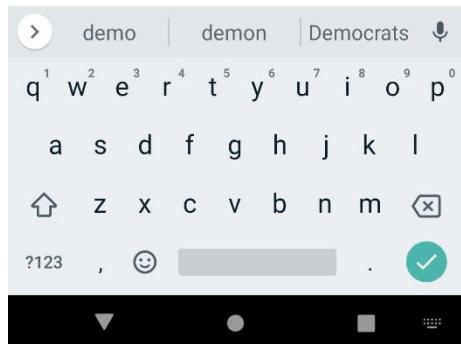
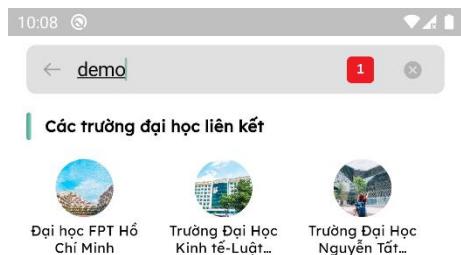
3.3.3.4 OTP の確認



番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
3	ティッカー	ユーザーの電話に送信された OTP を確認する	いいえ	はい	テキストボックス	糸

番号。	機能	形容	検証	結果
4	確認する	クリックして OTP を確定します。	いいえ	ステータスの確認

3.3.3.5 名前で家を検索



番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
10	検索値	ユーザーが検索したい値	いいえ	いいえ	テキストボックス	糸

3.3.3.6 条件で家を検索

The screenshot shows the search interface for finding houses. It includes the following sections:

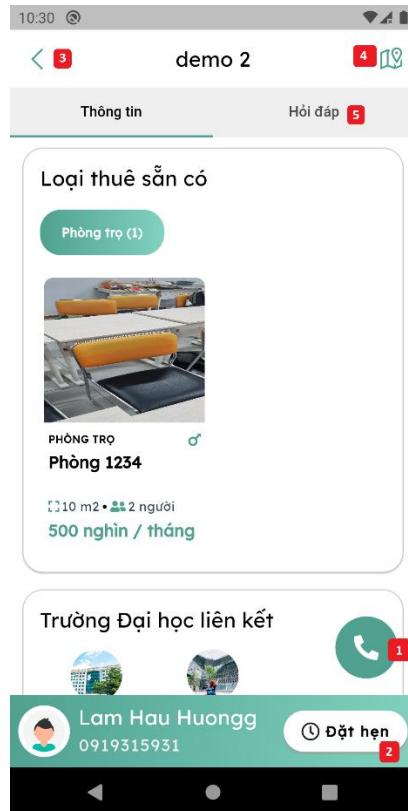
- Giá thuê**: Price range filter. A slider from "Thấp nhất" (Lowest) to "Cao nhất" (Highest) is shown with two red numbered boxes: 2 at the right end and 1 at the top right corner.
- Chi tiết chỗ ở**: Room details filter. It includes dropdowns for "Loại chỗ ở" (Type of accommodation) and "Giới tính" (Gender), both set to "Tất cả" (All), with red numbered boxes 5 and 6 respectively.
- Chỉ hiển thị ở ghép**: Filter to show only combined listings, with a red numbered box 7 next to the toggle switch.
- Khu vực**: Area filter. It includes dropdowns for "Quận/huyện" and "Phường/xã", both set to "Tất cả" (All), with red numbered boxes 8 and 9 respectively.
- Áp dụng**: Apply button at the bottom right, with a red numbered box 10 above it.

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
11	価格	価格帯で探す	いいえ	はい	スライダー	糸
12	最小価格	最小価格で検索	いいえ	はい	テキストボックス	糸
13	最大価格	最大価格で検索	いいえ	はい	テキストボックス	糸
14	ハウスタイプ	住宅タイプで検索	いいえ	いいえ	ドロップダウン	糸
15	ジェンダー	性別で検索	いいえ	いいえ	ドロップダウン	糸
16	共有している	シェアリングハウスで検索するかどうかを切り替える	いいえ	はい	チェックボックス	ブーリアン
17	区	家の地区で検索	いいえ	いいえ	ドロップダウン	糸
18	区	家の病棟で探す	いいえ	いいえ	ドロップダウン	糸

番号。	機能	形容	検証	結果
12	検索	条件付きの住宅を検索	いいえ	住宅は条件を満たしています

13	リセット	検索をデフォルトにリセットする	いいえ	検索フィールドがデフォルトにリセットされる
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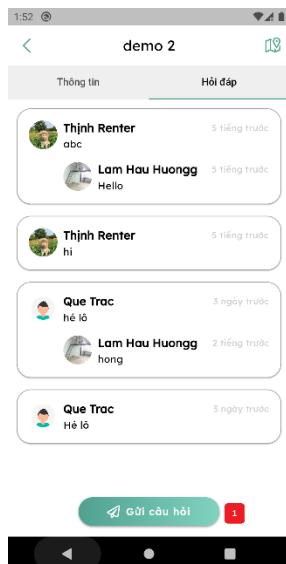
3.3.3.7 家の詳細を見る



番号。	機能	形容	検証	結果
6	所有者に連絡する	クリックして家の所有者と連絡を取る	いいえ	デバイスの電話に移動して連絡を開始する
7	Book appointment	オーナーとの予約予約	はい	オーナーとの予約予約
8	帰る	クリックして住宅一覧画面に戻る	いいえ	住宅一覧画面
9	地図を開く	クリックして家の地図を開きます	いいえ	ハウススクリーンの地図

10	Q&A に移動	クリックして Q&A タブを開きます。	いいえ	Q&A タブ
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3.3.3.8 Q&A を見る



番号。	機能	形容	検証	結果
3	質問を送信する	質問フォームの送信を切り替える	いいえ	質問送信フォームのポップアップを表示する

3.3.3.9 予約予約

The image displays two side-by-side screenshots of a mobile application's booking interface. The left screenshot shows the 'Thông tin liên hệ' (Contact Information) section, which includes fields for 'Họ tên*' (Name*) with 'Thịnh Renter' entered, 'Số điện thoại*' (Phone Number*) with '0378695111' entered, and 'Email*' (Email) with 'thinhptpt.temp@gmail.com' entered. The right screenshot shows the 'Thông tin hẹn' (Appointment Information) section, which includes fields for 'Loại thuê*' (Rental Type) set to 'Phòng trọ', 'Ngày hẹn*' (Booking Date) showing April 26, Tuesday, and a grid of time slots from 07:00 to 19:30. A green button at the bottom right labeled 'Đặt hẹn' (Book) is highlighted.

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
8	名前	現在の賃借人名	いいえ	はい	テキストボックス	糸
9	電話番号	現在の賃借人の電話番号	いいえ	はい	テキストボックス	糸
10	Gmail	現在の賃借人のGmailの	いいえ	はい	テキストボックス	糸
11	家賃の種類	家賃型予約	いいえ	はい	ドロップダウン	糸
12	予約日	賃借人がオーナーに会いたい日	いいえ	はい	選ぶ	糸
13	予約時間	時間賃借人が所有者に会いたい	いいえ	はい	選ぶ	糸

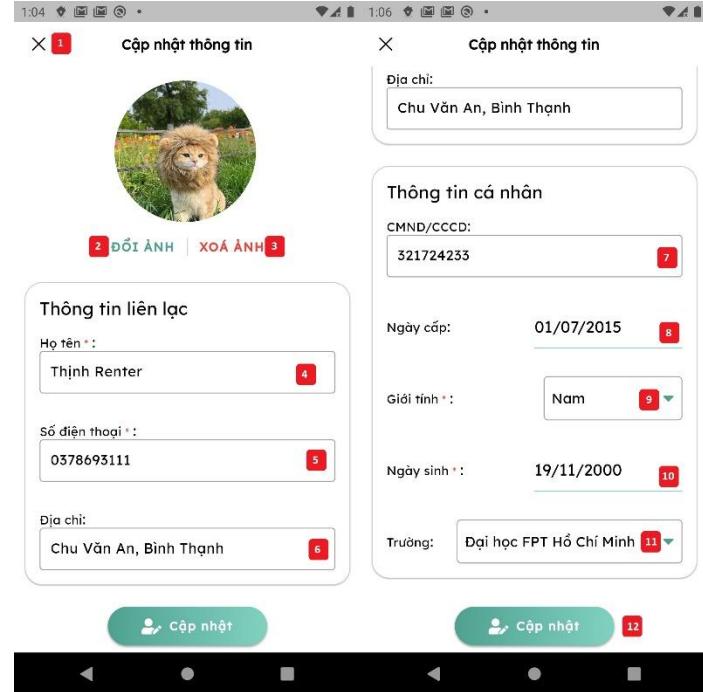
番号。	機能	形容	検証	結果
4	帰る	クリックして家の詳細画面に戻る	いいえ	家の詳細画面
9	予約予約	入力データによるブックアポイントメント	はい	新しい予定が作成されます

3.3.3.10 プロフィール情報の表示



番号。	機能	形容	検証	結果
2	プロファイルの更新	クリックして移動し、プロファイル画面を更新します。	いいえ	プロファイル更新画面の表示

3.3.3.11 プロファイルの更新

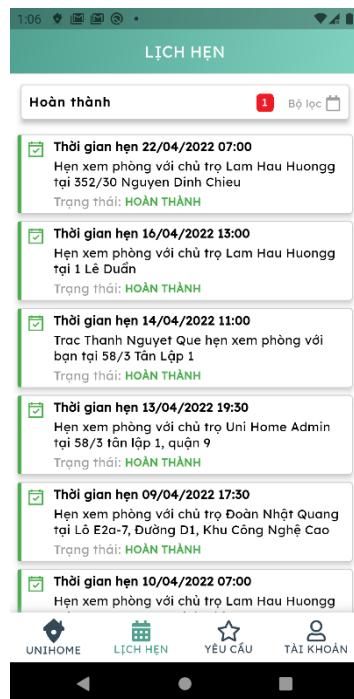


番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
12	フルネーム	ユーザーのフルネーム	いいえ	はい	テキストボックス	糸
13	電話番号	ユーザーのフォン番号	いいえ	はい	テキストボックス	糸
14	住所	ユーザーの住所	いいえ	いいえ	テキストボックス	糸
15	市民番号	市民ユーザー数	いいえ	いいえ	テキストボックス	糸
16	発行日	市民証の発行日	いいえ	いいえ	日付ピッカー	糸
17	ジェンダー	ユーザーの性別	いいえ	はい	ドロップダウン	糸
18	生年月日	ユーザーの生年月日	いいえ	はい	日付ピッカー	糸
19	大学	ユーザーの大学	いいえ	いいえ	ドロップダウン	糸

番号。	機能	形容	検証	結果
4	更新のキャンセル	クリックして更新をキャンセルし、プロファイル画面に戻ります	いいえ	プロファイル画面の表示

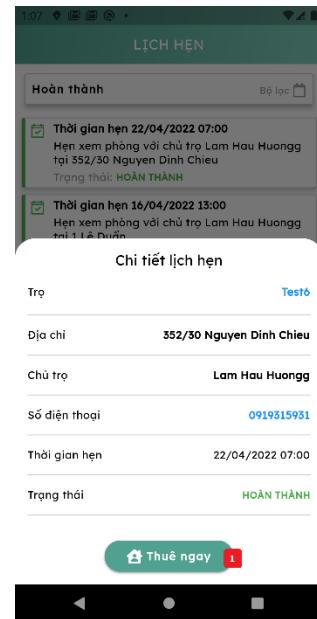
5	アバターの変更	クリックして新しいアバターを選択	いいえ	画像を選択するためのファイルエクスプローラを表示する
6	アバターを削除する	クリックしてアバターを削除します	いいえ	アバターが削除されます
13	更新	クリックして入力フィールドを持つプロファイルを更新します。	はい	ユーザー プロファイルが更新されます。

3.3.3.12 予定リストの表示



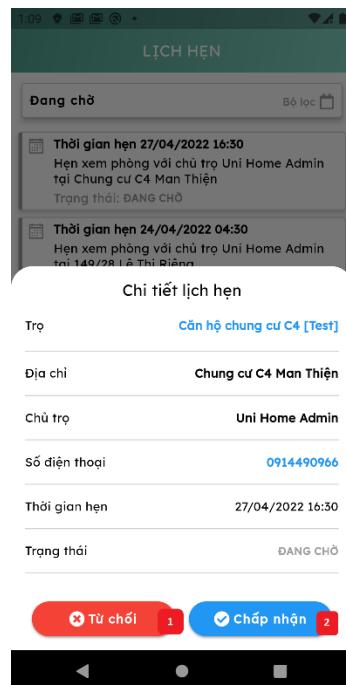
番号。	機能	形容	検証	結果
2	フィルターの予定の状態を変更する	クリックして、表示する予定の状態を選択します。	いいえ	フィルター処理された予定リスト

3.3.3.13 予定の詳細を表示する



番号。	機能	形容	検証	結果
2	部屋を借りる	クリックしてこの予定の部屋を借りる	いいえ	部屋を借りる

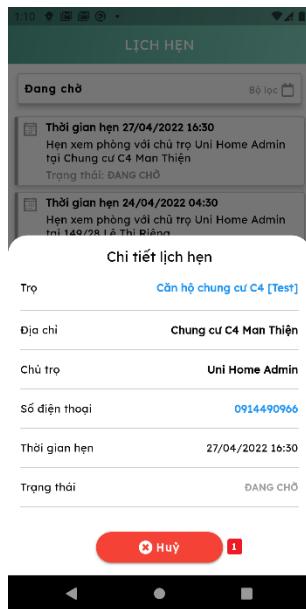
3.3.3.14 予定の承諾/拒否



番号。	機能	形容	検証	結果
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3	予定の却下	クリックしてこの予定を却下します。	いいえ	予定が却下されました
4	予定を承諾する	クリックしてこの予定を承諾します。	いいえ	アポインメントは受け入れられます

3.3.3.15 予定をキャンセルする



番号。	機能	形容	検証	結果
2	予定をキャンセルする	クリックしてこの予定をキャンセルします。	いいえ	予定はキャンセルです

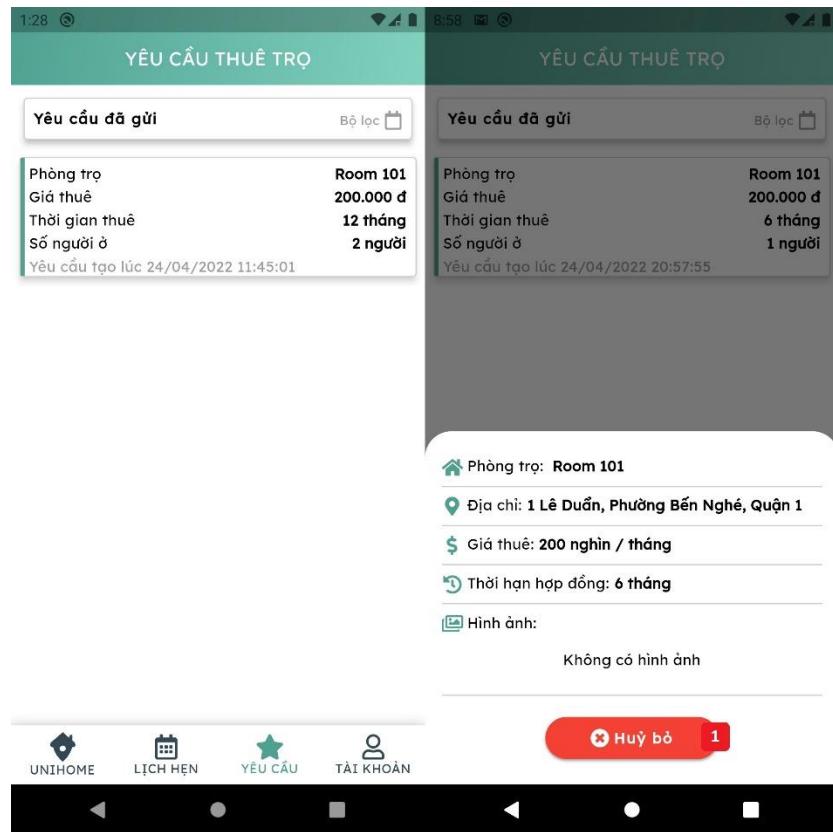
3.3.3.16 生活費のお願い

The screenshot shows a mobile application interface for a rental service. At the top, it says "Đăng ký thuê trọ". Below that is a section titled "Thông tin thuê trọ" with fields for "Thời gian thuê:" (rental time), "Số người ở:" (number of people), and "Ngày vào ở:" (check-in date). There is also a "Ghi chú:" (notes) field. Below this is another section titled "Thông tin trọ" with fields for "Chủ trọ" (landlord) set to "Lam Hau Huongg" and "Trọ" (room) set to "Room 101". At the bottom is a green "Đăng ký" (register) button.

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
8	レンタル時間	賃借人が賃貸したい期間	いいえ	はい	テキストボックス	糸
9	会員数	住みに来る人数	いいえ	はい	テキストボックス	数
10	参加日	賃借人が生活を始める日	いいえ	はい	日付ピッカー	糸
11	手記	賃借人メモ	いいえ	いいえ	テキストボックス	糸

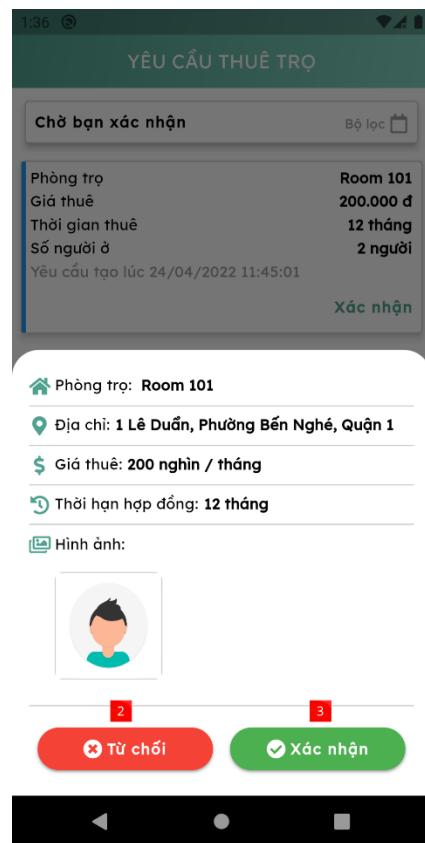
番号。	機能	形容	検証	結果
2	登録する	クリックして登録してライブ	はい	部屋に住むことを許可する

3.3.3.17 生活のためのリスト要求を取得する



番号。	機能	形容	検証	結果
2	キャンセル	クリックして生活費要求をキャンセル	いいえ	生活依頼が取り消されました

3.3.3.18 生活費の確認



番号。	機能	形容	検証	結果
5	リジェクト	クリックして生活費の申請を拒否	いいえ	要求は拒否されました
6	受け入れる	クリックして生活費の申請を承諾	いいえ	要求は受け入れられます

3.3.3.19 質問を送信する



番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
2	質問内容	質問内容	いいえ	はい	テキストボックス	糸

番号。	機能	形容	検証	結果
7	帰る	クリックして投稿の質問なしでポップアップを閉じる	いいえ	ポップアップが閉じています
8	確認する	クリックしてこの質問を投稿します	はい	質問が投稿されました

3.3.3.20 共有ルームの追加

The screenshots illustrate the step-by-step process of creating a new room (Tạo mới phòng trọ) in the UniHome app:

- Screenshot 1: Chọn 1 trong 2 cách để tạo bài ở ghép**

 - Options: Tạo nhanh (1) or + Tạo thủ công (2).

- Screenshot 2: Tạo mới thủ công**

 - Step 1: Thông tin cơ bản** (11)
 - Tên phòng trọ * (4)
 - Loại thuê *: Phòng trọ (5), Giới tính *: Nữ (6)
 - Gia thuê * (7)
 - Diện tích * (8)
 - Số người hiện tại * (9)
 - Số người tối đa * (10)
 - Step 2: Địa chỉ, vị trí** (12)
 - Quận/Huyện: Huyện Bình Chánh (12)
 - Phường/xã: Thị Trấn Tân Trúc (13)
 - Vị trí trên bản đồ (14)
 - Dịa chỉ * (15)
 - Step 3: Mô tả chi tiết** (16)
 - Step 4: Tiện nghi, dịch vụ** (17)
 - Tiện nghi phòng:
 - 1 nhà vệ sinh (18)
 - 1 phòng ngủ (19)
 - 2 nhà vệ sinh (20)
 - 2 phòng ngủ (21)
 - Dịch vụ:
 - Tiền nước: 200.000đ / mét khối (số lượng theo mức sử dụng) (22)
 - Tiền nước: 150.000đ / người (số lượng cố định mỗi tháng) (23)
 - Tiền điện: 1.000đ / tháng (số lượng cố định mỗi tháng) (24)
 - Step 5: Hình ảnh** (25)
 - Hình ảnh chổ ở (25)
 - Ảnh xác thực hợp đồng (26)
 - Step 6: Lịch hẹn** (27)
 - + THÊM SLOT (27)
 - Chưa có lịch hẹn được cài đặt (28)
 - Step 7: Khoảng thời gian *** (29)
 - 07:00 - 07:30 (29)
 - Step 8: Chọn khung giờ người xem trọ có thể hẹn** (30)
 - Step 9: Tạo slot** (31)

Tạo mới thủ công

7. Thông tin chủ trọ

Họ tên chủ trọ *

SĐT chủ trọ *

26

8. Thông tin trường Đại học

+ THÊM TRƯỜNG **28**

Chưa có trường được chọn

27

X **Tạo mới thủ công**

8. Thông tin trường Đại học

+ THÊM TRƯỜNG

Chưa có trường được chọn

Chọn trường đại học

29 Trường Đại Học Nguyễn Tất Thành - Cơ sở Quận 9

Trường Đại học Văn Lang - Cơ sở 3

Trường Đại học Văn Lang - Cơ sở 4

Trường Đại học Văn Lang - Cơ sở 4

Đại học FPT Hồ Chí Minh

Đại học HUTECH cơ sở R

Tiếp tục

Tiếp tục

TRỞ LẠI **30**

XÁC NHẬN **31**

◀ ● ■ ◀ ● ■ ◀ ● ■ ◀

1. Thông tin cơ bản ✓

2. Địa chỉ, vị trí ✓

3. Mô tả chi tiết ✓

4. Tiện nghi, dịch vụ ✓

5. Hình ảnh ✓

6. Lịch hẹn ✓

7. Thông tin chủ trọ ✓

8. Thông tin trường Đại học ✓

Gửi thông tin **32**

◀ ● ■ ◀ ● ■ ◀

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
19	ルーム名	ルーム名	いいえ	はい	テキストボックス	糸
20	家賃の種類	家賃の種類	いいえ	はい	ドロップダウン	糸
21	ジェンダー	ジェンダー	いいえ	はい	ドロップダウン	糸
22	価格	価格	いいえ	はい	テキストボックス	数
23	面積	面積	いいえ	はい	テキストボックス	数
24	生きている人の量	生きている人の量	いいえ	はい	テキストボックス	数
25	最大人数	最大人数	いいえ	はい	テキストボックス	数
17	区	区	いいえ	はい	ドロップダウン	糸
18	区	区	いいえ	はい	ドロップダウン	糸
17	住所	アドドレス	いいえ	はい	テキストボックス	糸

18	形容	形容	いいえ	はい	テキストボックス	糸
19	施設項目	施設項目	いいえ	いいえ	チェックボックス	糸
23	サービス項目	サービス項目	いいえ	いいえ	選ぶ	糸
24	部屋の画像	部屋の画像	いいえ	はい	画像ピッカー	画像
25	証明書イメージ	証明書イメージ	いいえ	はい	画像ピッカー	画像
25	アポイントメントスロット範囲	アポイントメントスロット範囲	いいえ	はい	ドロップダウン	糸
28	所有者名	所有者名	いいえ	はい	テキストボックス	糸
29	所有者の電話	所有者の電話	いいえ	はい	テキストボックス	糸
30	選択された大学	選択された大学	いいえ	いいえ	チェックボックス	糸

番号。	機能	形容	検証	結果
4	クイック追加	現在の契約のデータを含む新しいシェアルームの追加	いいえ	ポップアップが閉じています

5	シェアルームマニュアルの追加	記入フォームによる新しいシェアルームの追加	いいえ	共有ルームの手動画面を追加
6	次のステップに進む	クリックして次のステップに進む	いいえ	次のステップの表示
12	次のステップに進む	クリックして次のステップに進む	いいえ	次のステップの表示
15	入力アドレスから座標を取得する	クリックして入力から座標を取得する	はい	住所の座標
18	新しい施設の追加	クリックして移動し、新しい施設を追加する画面	いいえ	新規施設追加画面
20	新しいサービスの追加	クリックして移動し、新しいサービスを追加する画面	いいえ	新規サービス追加画面
24	新しいスロットの追加	クリックして新しいスロットポップアップを切り替えます	いいえ	新しいスロットポップアップ
26	スロットの追加	クリックしてスロットを追加	はい	新しいスロットが追加されました
29	大学を追加する	クリックして大学を追加	いいえ	大学選択ポップアップの表示
34	引き返す	クリックして前の画面に戻ります	いいえ	前の画面を表示する
35	確認する	クリックして選択した大学を終了します	いいえ	選択した大学のポップアップを閉じる
36	情報を送信する	クリックして新しい共有ルームをシステムに追加します。	はい	新しいシェアルームが追加されました

3.3.3.21 シェアルームの更新

The screenshots show the process of updating a room listing (Bài đăng) in the UniHome app. The steps are:

- Step 1: Thông tin cơ bản (Basic Information)**
Fields include: Phòng trọ (Room Type: Trọ của tui), Giới tính (Gender: Nam), Giá thuê (Rent Price: 1500000đ), Diện tích (Area: 25 m2), Số người hiện tại (Current Occupants: 1), and Số người tối đa (Max Occupants: 2).
- Step 2: Mô tả chi tiết (Detailed Description)**
Field: Mô tả (Description: Phòng trọ cao cấp HobaHome).
- Step 3: Hình ảnh (Image)**
Section: Hình ảnh chỗ ở (Image of the room). It shows a camera icon and a thumbnail of a room interior.

The screenshots show the process of scheduling a viewing slot (Lịch hẹn) in the UniHome app. The steps are:

- Step 1: Hình ảnh chỗ ở (Image of the room)**
- Step 2: Lịch hẹn (Appointment)**
Fields: Khoảng thời gian (Time Range: 07:00-11:30), and a note: Chọn khung giờ người xem trọ có thể hẹn (Select time range the tenant can schedule).
- Step 3: Thông tin trường Đại học (University Information)**
Section: + THÊM TRƯỜNG (Add University). Options shown: Đại học HUTECH cơ sở R, Đại học FPT Hồ Chí Minh.

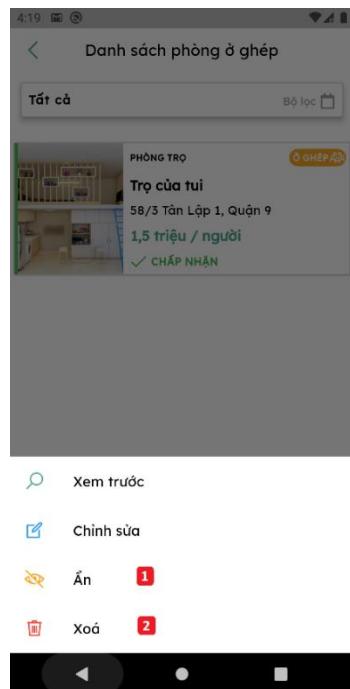
The screenshot shows the selection of a university (Trường đại học) in the UniHome app. The list includes:

- Trường Đại Học Kinh tế-Luật TPHCM
- Trường Đại Học Nguyễn Tất Thành - Cơ sở Quận 9

Buttons at the bottom: TRỞ LẠI (Back), XÁC NHẬN (Confirm), and Gửi thông tin (Send information).

番号。	機能	形容	検証	結果
3	画像の削除	クリックしてこの画像を削除します	いいえ	画像が削除されま
4	情報を送信する	クリックして更新情報を送信し、共有ルームを更新します。	はい	シェアルームを更新しました

3.3.3.22 共有ルームの非表示/削除



番号。	機能	形容	検証	結果
3	共有ルームを非表示にする	クリックしてこの共有ルームを非表示にします。	いいえ	シェアルームは非表示
4	共有ルームの削除	クリックしてこの共有ルームを削除します。	いいえ	共有ルームが削除されました

3.3.3.23 問題の報告

Tạo mới yêu cầu

Thông tin hư hỏng

Phân loại *: Nước 1

Mô tả *:

Hình ảnh *:

TẠO MỚI YÊU CẦU 4

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
5	カテゴリ	問題のカテゴリ	いいえ	はい	ドロップダウン	糸
6	形容	問題の説明	いいえ	はい	テキストボックス	糸
7	画像	問題のある画像	いいえ	はい	画像ピッカー	画像

番号。	機能	形容	検証	結果
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8	新しいレポートの問題を追加する	クリックしてレポートの問題を追加	はい	問題が追加されます
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3.3.3.24 リストの問題を取得する



番号。	機能	形容	検証	結果
3	問題のカテゴリを変更する	クリックすると、他のカテゴリが表示されます。	いいえ	問題がカテゴリを満たす
4	新しい問題の追加	クリックして移動し、新しい問題画面を追加	いいえ	ディスプレイ新しい問題の追加画面

3.3.3.25 問題の詳細を取得する



番号。	機能	形容	検証	結果
3	問題のキャンセル	クリックして問題のポップアップをキャンセルに切り替える	いいえ	不払いキャンセル 問題のポップアップ
4	更新の問題	クリックして問題の更新画面に移動します。	いいえ	更新問題画面の表示

3.3.3.26 問題のキャンセル



番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
4	理由	理由 この問題をキャンセルする	いいえ	はい	テキストボックス	糸

番号。	機能	形容	検証	結果
5	帰る	クリックしてポップアップを閉じる	いいえ	ポップアップが閉じ、問題の詳細が表示されます
6	確認する	クリックして確認します この問題をキャンセルする	はい	問題は取り消されました

3.3.3.27 更新の問題

Chỉnh sửa yêu cầu

Thông tin hư hỏng

Phân loại *: Internet 1

Mô tả *: sit in commodo 2

Hình ảnh *:

3 4

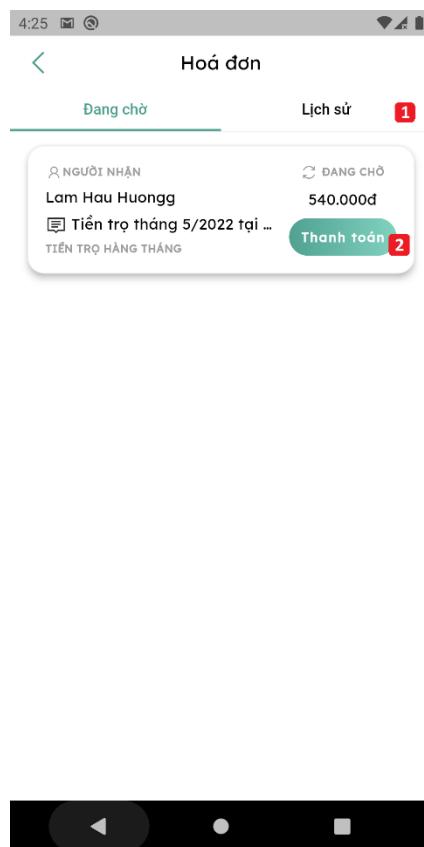
LƯU YÊU CẦU 5

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
6	カテゴリ	問題のカテゴリ	いいえ	はい	ドロップダウン	糸
7	形容	問題の説明	いいえ	はい	テキストボックス	糸
8	画像	問題のある画像	いいえ	はい	画像ピッカー	画像

番号。	機能	形容	検証	結果
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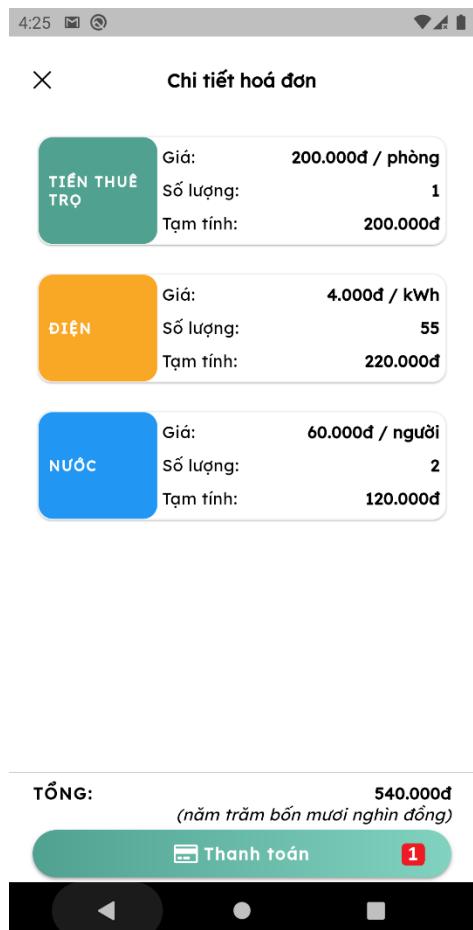
9	画像の削除	クリックしてこの画像を削除します	いいえ	画像が削除されま
10	セーブ	クリックしてこの問題を更新します。	はい	問題が更新されました

3.3.3.28 支払いリストを取得する



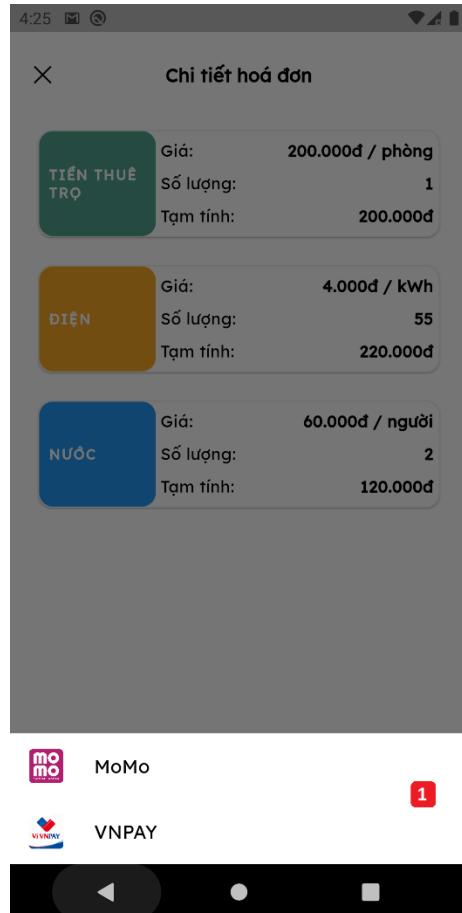
番号。	機能	形容	検証	結果
3	履歴に移動	クリックして履歴タブにナギブする	いいえ	支払い履歴タブの表示
4	支払い	クリックしてこの請求書の支払いを開始します。	いいえ	支払詳細の表示

3.3.3.29 支払いの詳細を取得する



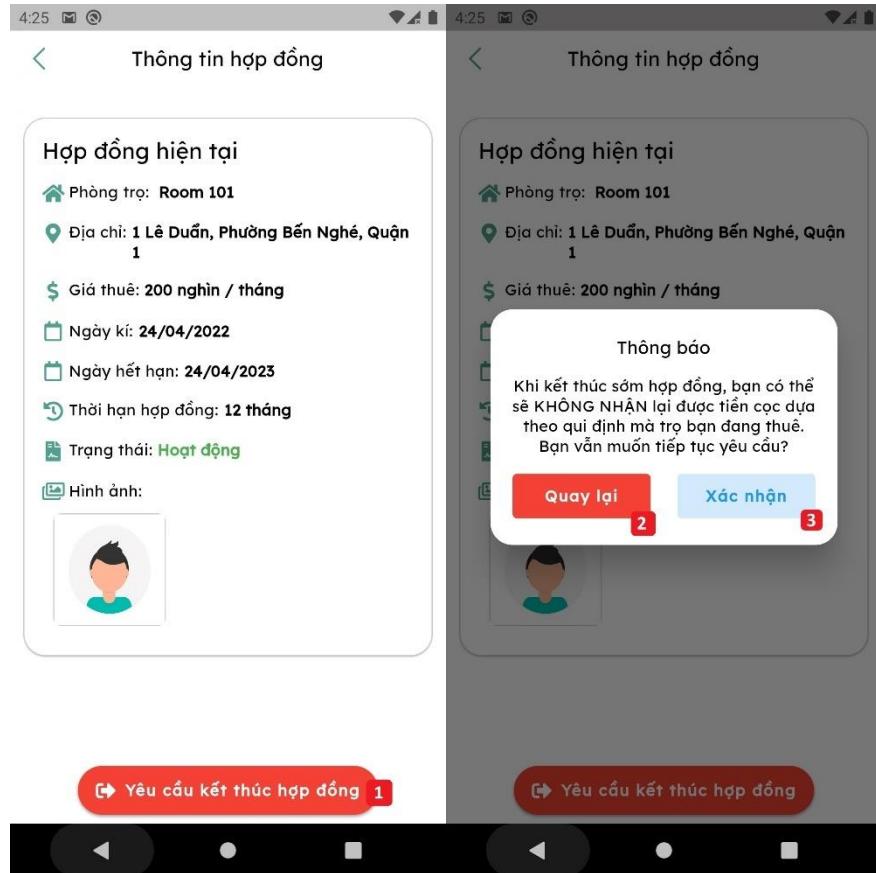
番号。	機能	形容	検証	結果
2	請求書の支払いを行う	クリックして請求書の支払いを行います	いいえ	請求書が支払われます

3.3.3.30 支払いを行う



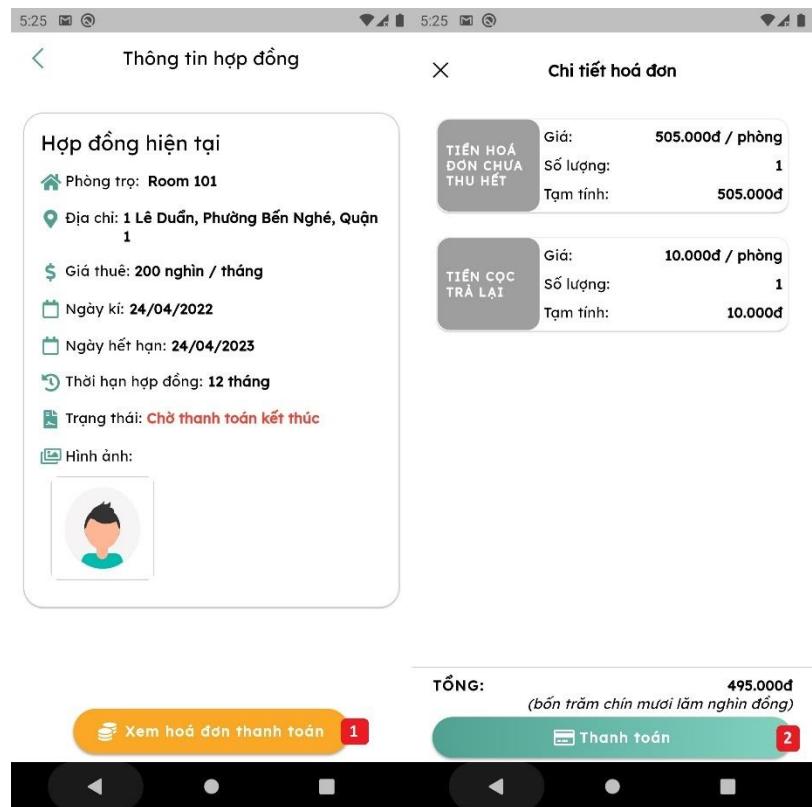
番号。	機能	形容	検証	結果
2	お支払い方法の選択	クリックしてお支払い方法を選択します。	いいえ	お支払い方法が選択されている

3.3.3.31 退去の要求



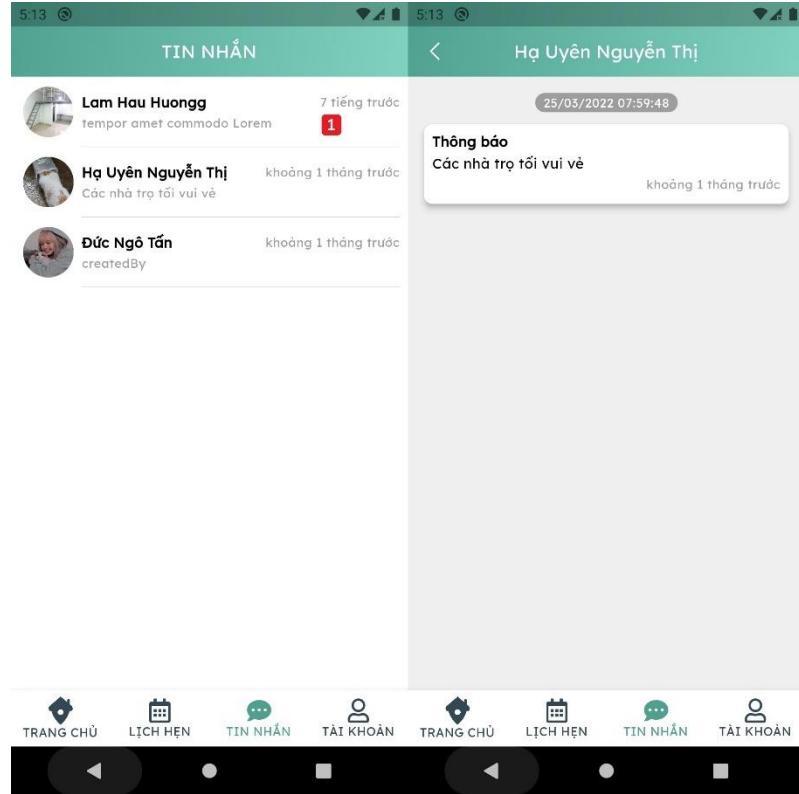
番号。	機能	形容	検証	結果
4	退室要請	クリックしてポップアップの退出確認を切り替えます	いいえ	表示確認ライブポップアップ
5	帰る	クリックすると、ポップアップが終了要求の送信で閉じます。	いいえ	ポップアップが閉じています
6	確認する	クリックして退会申請を確定します。	いいえ	退出要求が送信される

3.3.3.32 解約金の支払い



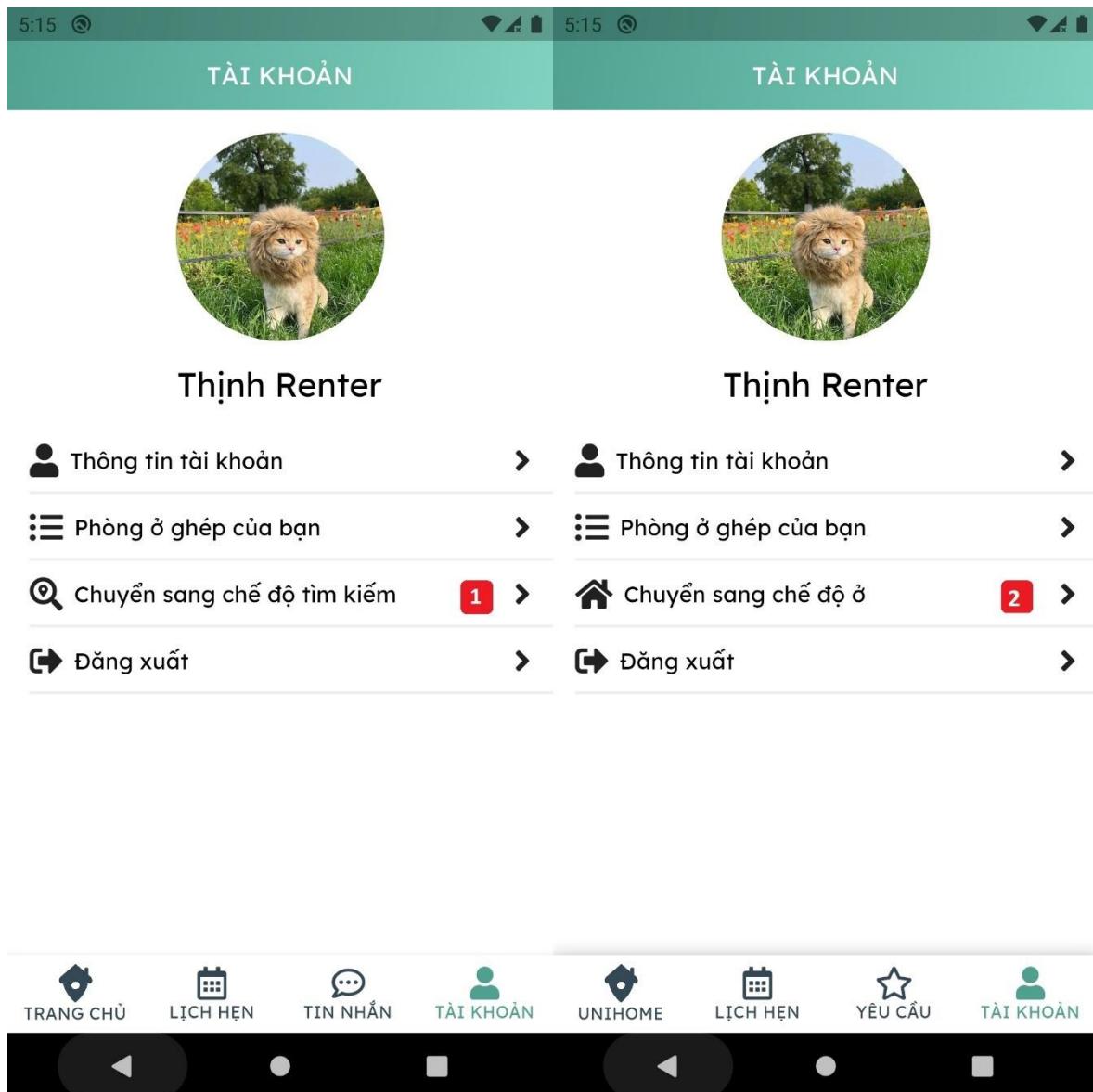
番号。	機能	形容	検証	結果
3	請求書の表示	クリックして請求書の詳細を表示します。	いいえ	請求書詳細の照会
4	請求書の支払いを行う	クリックして請求書の支払いを行います	いいえ	請求書が支払われます

3.3.3.33 お知らせを受け取る



番号。	機能	形容	検証	結果
2	詳細を見る	クリックしてお知らせの詳細を表示します。	いいえ	アナウンスの詳細を表示する

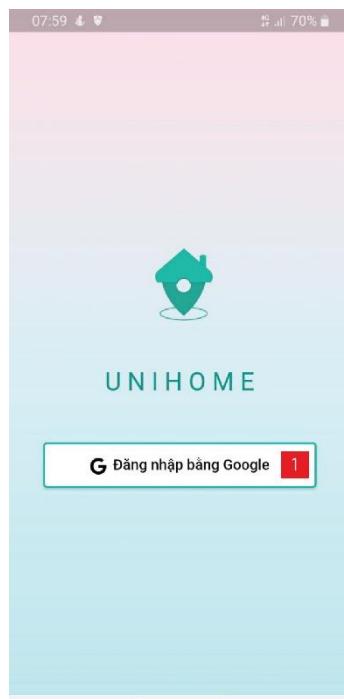
3.3.3.34 モードの変更



番号。	機能	形容	検証	結果
3	リビングモードへの変更	クリックしてリビングモードに変更	いいえ	アプリケーションはライブモードです
4	検索モードへの変更	クリックして検索モードに変更します	いいえ	アプリケーションが検索モードになっている

3.3.4 所有者モジュール

3.3.4.1 所有者のサインイン



番号。	機能	形容	検証	結果
3	ログイン	クリックすると、 Gmail のポップアップ でログイン情報が 表示されます。	いいえ	Gmailのポップアップで ログインを表示する

3.3.4.2 所有者のサインアップ

The image consists of three side-by-side screenshots of a mobile application interface, likely from an Android device, showing the steps of creating a new account.

Screenshot 1: Shows the initial screen for account creation. It features a large teal circular button labeled "THÊM ẢNH" (Add Photo) with a camera icon. Above it is a smaller placeholder circular image. At the top left is a red box labeled "1". Below the main area are fields for "Thông tin cá nhân" (Personal Information): "Họ và tên" (Name) with input "Kall Hes", "Giới tính" (Gender) with dropdown "Nam", "Ngày sinh" (Birth Date) with input "dd/mm/yyyy", "CMND/CCCD" (ID Card), and "Ngày cấp" (Issuing Date) with input "dd/mm/yyyy".

Screenshot 2: Shows the profile setup screen. It displays a circular profile picture placeholder. At the top left is a red box labeled "2". Below the image are buttons for "ĐỔI ẢNH" (Change Photo) and "XOÁ ẢNH" (Delete Photo). The "Thông tin cá nhân" section is identical to Screenshot 1.

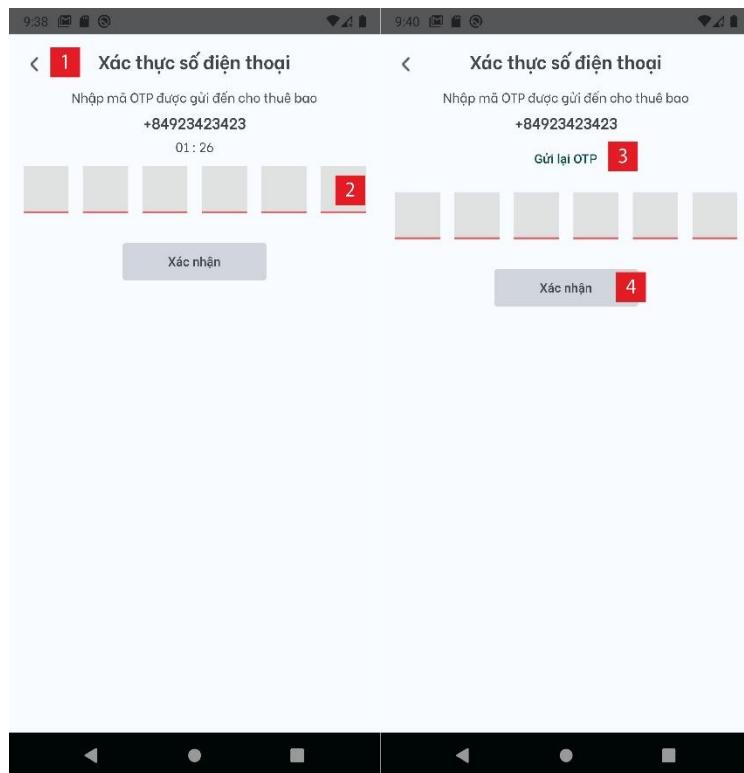
Screenshot 3: Shows the final personal information entry screen. It includes fields for "Ngày sinh" (Birth Date) with input "dd/mm/yyyy", "CMND/CCCD" (ID Card), and "Ngày cấp" (Issuing Date) with input "dd/mm/yyyy". At the top left is a red box labeled "3". Below these are fields for "Ngày sinh" (Birth Date) with input "dd/mm/yyyy", "CMND/CCCD" (ID Card), and "Ngày cấp" (Issuing Date) with input "dd/mm/yyyy". At the bottom right is a green "Đăng kí" (Sign Up) button with a user icon. Red boxes labeled "4", "5", "6", "7", "8", and "9" are placed over the "Ngày sinh", "CMND/CCCD", and "Ngày cấp" fields respectively. Red boxes labeled "10", "11", and "12" are placed over the "Email" field, "Số điện thoại" (Phone Number) field, and the "Đăng kí" button.

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
13	フルネーム	ユーザーのフルネーム	いいえ	はい	テキストボックス	糸
14	ジェンダー	ユーザーの性別	いいえ	はい	ドロップダウン	糸
15	生年月日	ユーザーの生年月日	いいえ	はい	日付ピッカー	糸
16	市民番号	市民ユーザー数	いいえ	いいえ	テキストボックス	糸
17	発行日	市民証の発行日	いいえ	いいえ	日付ピッカー	糸
18	住所	ユーザーの住所	いいえ	いいえ	テキストボックス	糸
19	電子メール	ユーザーのメールアドレス	はい	はい	テキストボックス	糸
20	電話番号	ユーザーのフォン番号	いいえ	はい	テキストボックス	糸

番号。	機能	形容	検証	結果
5	帰る	サインアップをキャンセルして前の画面に戻る	いいえ	前の画面を表示する
6	ユーザーアバターを選択	ユーザーのプロフィール画像	いいえ	ユーザー プロファイル画像
7	アバターの変更	クリックして新しいアバターを選択	いいえ	画像を選択するためのファイルエクスプローラを表示する

8	アバターを削除する	クリックしてアバターを削除します	いいえ	アバターが削除されます
14	サインアップ	クリックしてユーザーをサインアップする	はい	ユーザーが認証されている

3.3.4.3 OTP 確認



番号。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
4	ティッカー	ユーザーの電話に送信されたOTPを確認する	いいえ	はい	テキストボックス	糸

番号。	機能	形容	検証	結果
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2	帰る	サインアップをキャンセルして前の画面に戻る	いいえ	前の画面を表示する
5	新しい OTP を送信する	新しい OTP を送信する	いいえ	新しい OTP が送信される
6	確認する	クリックして OTP を確定します。	いいえ	ステータスの確認

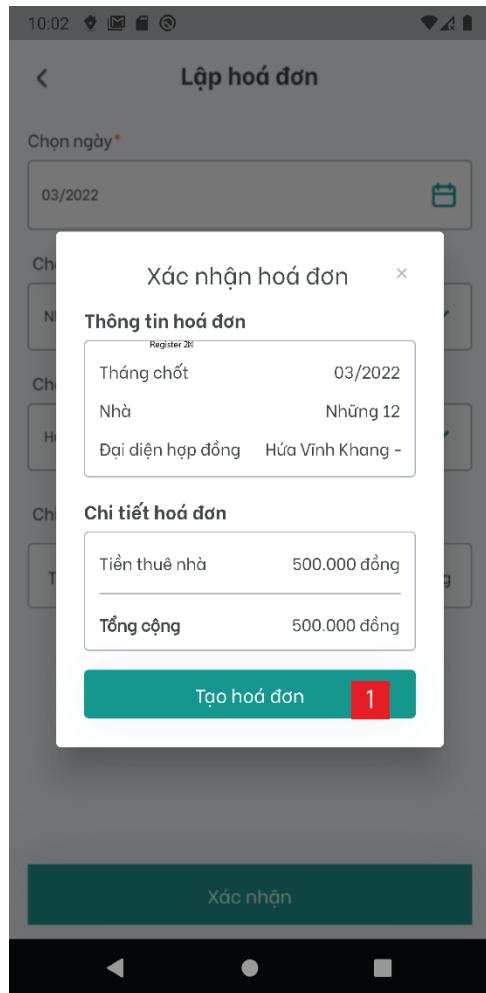
3.3.4.4 ホーム画面の表示



番号。	機能	形容	検証	結果
2	プロファイル画面に移動する	クリックしてプロファイル画面に移動します。	いいえ	プロファイル画面の表示
12	通知画面に移動する	クリックして通知画面に移動します。	いいえ	通知画面の表示

13	住宅一覧画面へ移動	クリックして住宅リスト画面に移動します。	いいえ	住宅一覧画面の表示
14	契約画面へ移動	クリックして 契約画面に移動します。	いいえ	契約画面の表示
15	問題画面に移動する	クリックして問題画面に移動します。	いいえ	問題の表示画面
16	サービス画面に移動します。	クリックしてサービス画面に移動します。	いいえ	サービス画面の表示
17	ホーム画面に移動します	クリックしてホーム画面に移動します。	いいえ	ホーム画面の表示
18	請求書の表示画面に移動します。	クリックして移動し、請求書画面を表示します。	いいえ	請求書表示画面の表示
19	請求書の追加画面に移動します。	クリックして移動し、請求書の追加画面	いいえ	請求書追加画面の表示
20	予定画面に移動する	クリックして予定画面に移動します。	いいえ	予定画面の表示
21	設定画面へ移動	クリックして設定画面に移動します	いいえ	表示 設定 画面

3.3.4.5 作成の確認



番号。	機能	形容	検証	結果
2	請求書の追加画面に移動します。	クリックして navigate して請求書画面を追加	いいえ	請求書追加画面の表示

3.3.4.6 新しい請求書を作成する

Lập hóa đơn

Chọn ngày*
04/2022 1 CALENDAR

Chọn hợp đồng*
Thịnh Renter - Room 101 ✓

Chọn nhà*
Những 12 2 ✓

Chọn hợp đồng*
Thịnh Renter - Room 101 3 ✓

Chi tiết hóa đơn

Tiền thuê nhà	200.000 đồng
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Điện
4.000 đồng/kWh

Số cũ	Số mới *
1589	4

Thành tiền: 0 đồng

Nước
60.000 đồng/người

1	5 X
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Thành tiền: 60.000 đồng

Tổng cộng 260.000 đồng

Xác nhận 6

◀ ● ■ ▶

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
6	請求書作成日	請求書作成日	いいえ	はい	日付ピッカー	日付
7	家	家	いいえ	はい	ドロップダウン	糸
8	契約	契約	いいえ	はい	ドロップダウン	糸
9	新しい番号	新しい番号	いいえ	はい	テキストボックス	数
10	新しい番号	新しい番号	いいえ	はい	テキストボックス	数

番号。	機能	形容	検証	結果
3	プロファイルの更新	クリックして移動し、プロファイル画面を更新します。	いいえ	プロファイルの更新画面が表示される

3.3.4.7 プロフィールの取得



番号。	機能	形容	検証	結果
4	プロファイルの更新	クリックして移動し、プロファイル画面を更新します。	いいえ	プロファイルの更新画面が表示される

3.3.4.8 プロファイルの更新

The image consists of two side-by-side screenshots of a mobile application interface. Both screenshots show a top navigation bar with time (11:04 and 11:05), signal strength, battery level, and other icons.

Left Screenshot (Profile View):

- Header: Cập nhật thông tin
- Profile picture placeholder: A circular image of a staircase.
- Buttons: ĐỔI ÁNH (Change Photo) and XÓA ÁNH (Delete Photo).
- Section: Thông tin cá nhân (Personal Information)
- Fields:
 - Họ và tên *: Lam Hau Huongg
 - Giới tính *: Nam (Male)
 - Ngày sinh *: 24/03/2000
 - Địa chỉ *: 1 Lê Duẩn
 - CMND/CCCD *: 321654789

Right Screenshot (Edit View):

- Header: Cập nhật thông tin
- Fields:
 - Ngày sinh *: 24/03/2000
 - Địa chỉ *: 1 Lê Duẩn
 - CMND/CCCD *: 321654789
 - Ngày cấp *: 12/01/2022
- Section: Thông tin liên lạc (Contact Information)
- Fields:
 - Số điện thoại *: 0919315931
 - Email *: huonglhse140728@fpt.edu.vn
- Buttons:
 - Cập nhật (Update) button with a red counter '1' indicating pending changes.
 - Back and forward navigation buttons at the bottom.

番号。	機能	形容	検証	結果
3	プロファイルの更新	クリックして更新されたユーザー情報を保存します。	いいえ	ユーザー情報が更新されます

3.3.4.9 会議室リストの取得



番号。	機能	形容	検証	結果
4	部屋の詳細を見る	クリックして部屋の詳細画面に移動します。	いいえ	部屋詳細画面が表示される

3.3.4.10 部屋を追加

The image displays three sequential screens from a mobile application for adding a room (Thêm phòng). The top navigation bar shows the time as 08:06, battery level at 66%, and signal strength. The bottom navigation bar shows the time as 10:58, battery level at 66%, and signal strength.

Step 1: Thông tin phòng

- Address: Nhà * (Nhà chung) [5]
- Room Type: Tên phòng trọ * [6]
- Rental Type: Loại thuê * (Căn hộ) [7]
- Rent Price: Giá thuê * (đồng) [8]
- Next Step: Tiếp tục

Step 2: Mô tả & Hình ảnh

- Area: Diện tích * [9]
- Occupants: Số người hiện có * [10]
- Occupants: Số người tối đa * [11]
- Gender: Giới tính * [-] [12]
- Next Step: Tiếp tục

Step 3: Mô tả & Hình ảnh

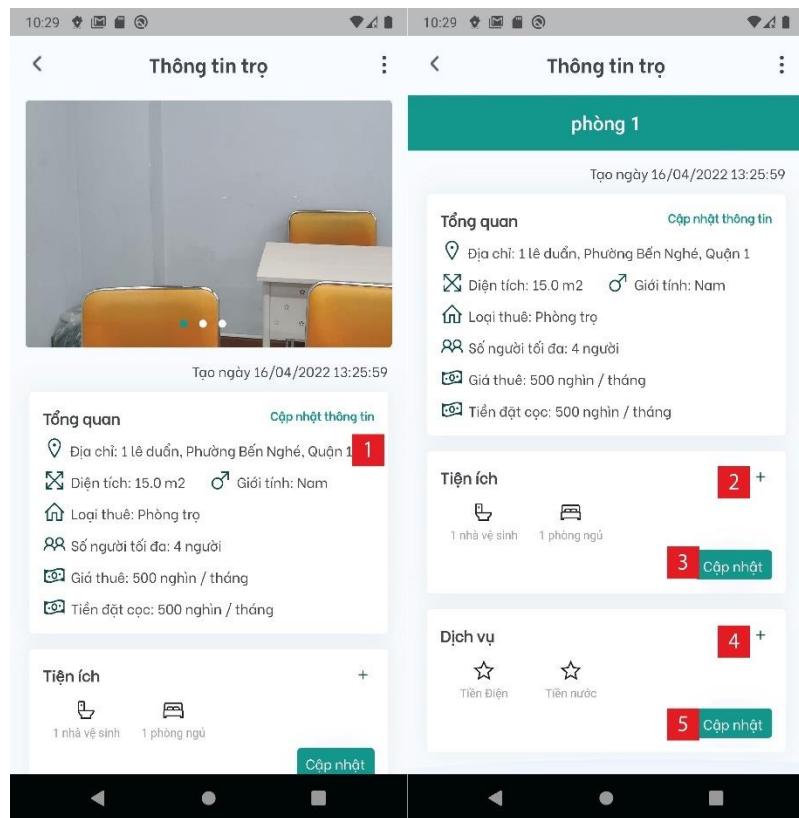
- Description: Mô tả
- Photo: Hình ảnh phòng trọ [14] (with camera icon)
- Send: Gửi thông tin [15]
- Bottom Navigation: Back, Home, Forward

番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
26	部屋のタイプ	部屋のタイプ	いいえ	はい	ドロップダウン	糸
27	ルーム名	ルーム名	いいえ	はい	テキストボックス	糸
28	ハウスタイプ	ハウスタイプ	いいえ	はい	ドロップダウン	糸
29	価格	価格	いいえ	はい	テキストボックス	糸
30	面積	面積	いいえ	はい	テキストボックス	数
31	生きている人の量	生きている人の量	いいえ	はい	テキストボックス	数
32	最大人数	最大人数	いいえ	はい	テキストボックス	数
33	ジェンダー	ジェンダー	いいえ	はい	ドロップダウン	糸
19	形容	形容	いいえ	いいえ	テキストボックス	糸
20	部屋の画像	部屋の画像	いいえ	はい	画像ピッカー	画像

番号。	機能	形容	検証	結果
18	帰る	クリックして前の画面に戻ります	いいえ	前の画面を表示する
19	入力ルーム情報	クリックして入力ルーム情報部分を表示	いいえ	入力ルーム情報が表示されます

20	説明と画像	クリックして説明と画像部分を入力	いいえ	入力説明と画像部分が表示される
37	情報を送信する	クリックして新しいルームを追加	はい	新しい部屋が追加されました

3.3.4.11 部屋の詳細を取得する



番号。	機能	形容	検証	結果
21	更新情報	クリックして情報更新画面に移動します。	いいえ	更新情報画面が表示される
22	新しい施設を追加する	クリックして新しい施設を追加	いいえ	所有者選択に対して新しい施設一覧が表示される
23	更新機能	追加後に施設リストを更新するにはクリックします	いいえ	更新された施設一覧が保存される

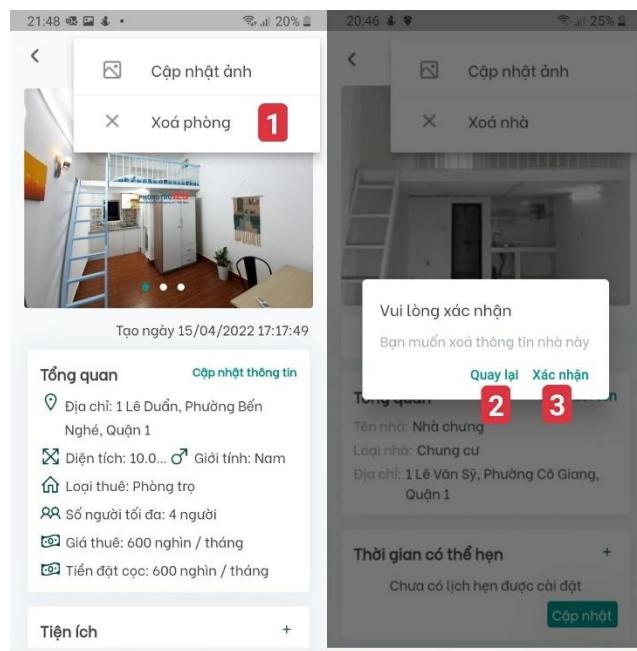
24	新しいサービスを追加する	クリックして新しいサービスを追加します。	いいえ	所有者選択に対し て新しいサービス一覧が表示されま す。
25	更新 サービス	追加後にクリックし てサービスリストを 更新します	いいえ	更新されたサービ スリストが保存さ れます

3.3.4.12 アップデートルーム

番号。	機能	形容	検証	結果
26	更新情報	クリックして情報更 新画面に移動します	いいえ	更新情報画面が表 示される

27	新しい施設を追加する	クリックして新しい施設を追加	いいえ	所有者選択に対して新しい施設一覧が表示される
28	更新機能	追加後に施設リストを更新するにはクリックします	いいえ	更新された施設一覧が保存される
29	新しいサービスを追加する	クリックして新しいサービスを追加します。	いいえ	所有者選択に対して新しいサービス一覧が表示されます。
30	更新 サービス	追加後にクリックしてサービスリストを更新します	いいえ	更新されたサービスリストが保存されます
31	セーブ	クリックして更新情報を保存します	はい	更新された情報が保存されます

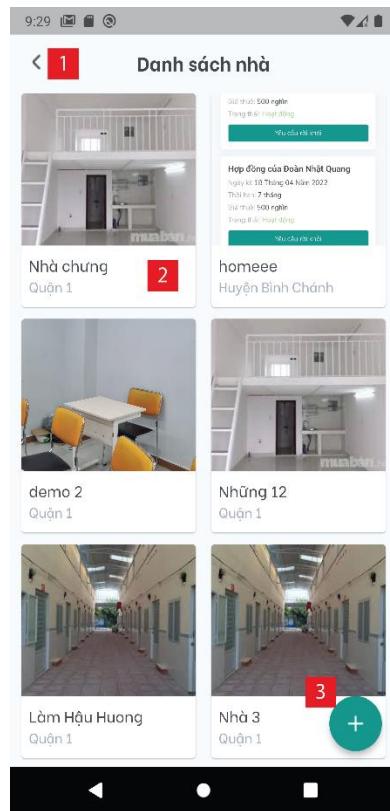
3.3.4.13 ルームの削除



番号。	機能	形容	検証	結果
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4	ルームの削除	クリックしてルームの削除ポップアップの確認を切り替えます	いいえ	削除確認ポップアップが表示されます
5	帰る	クリックして削除をキャンセルし、ポップアップを閉じる	いいえ	ポップアップが閉じています
6	削除の確認	クリックしてルームを削除する	いいえ	ルームが削除されました

3.3.4.14 住宅リストを取得する



番号。	機能	形容	検証	結果
32	帰る	クリックして前の画面に戻ります	いいえ	前の画面を表示する

33	家の詳細を見る	クリックして家の詳細画面に移動します。	いいえ	家の詳細画面が表示される
34	新しい家を追加する	クリックして移動し、新しいハウススクリーンを追加します。	いいえ	新しい家の追加画面が表示されます

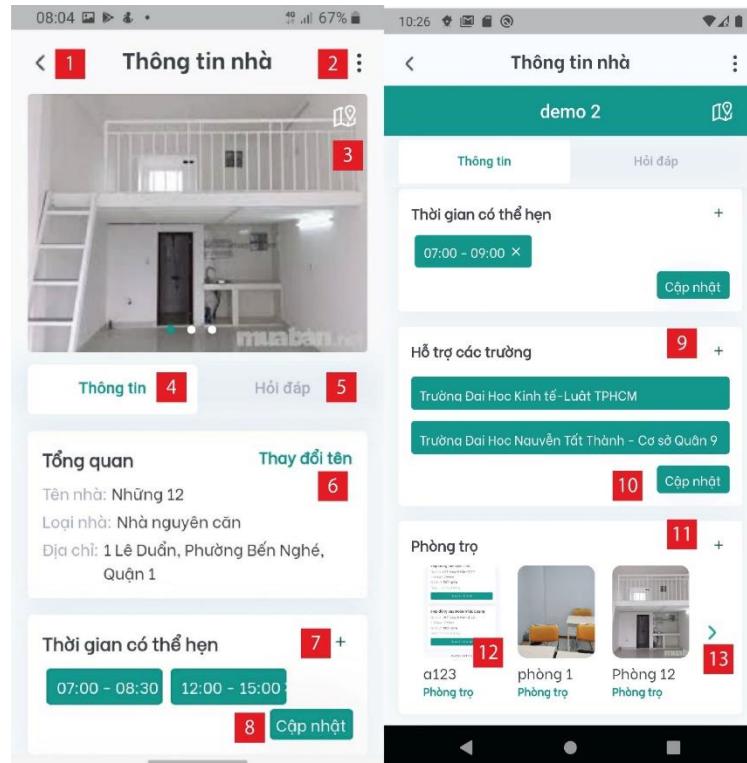
3.3.4.15 家を追加

番号。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
34	家名	家名	いいえ	はい	テキストボックス	糸
35	ハウスタイプ	ハウスタイプ	いいえ	はい	ドロップダウン	糸
36	区	区	いいえ	はい	ドロップダウン	糸
37	区	区	いいえ	はい	ドロップダウン	糸
38	住所	アドドレス	いいえ	はい	テキストボックス	糸
39	建物	建物	いいえ	いいえ	ドロップダウン	糸
40	家の画像	家の画像	いいえ	はい	画像ピッカー	画像
21	証明書イメージ	証明書イメージ	いいえ	はい	画像ピッカー	画像

番号。	機能	形容	検証	結果
35	帰る	クリックして前の画面に戻ります	いいえ	前の画面を表示する
36	入力アドレスから座標を取得する	クリックして入力から座標を取得する	はい	住所の座標
37	新しい建物を追加する	クリックして新しい建物の追加ポップアップを切り替えます	はい	新しい建物を追加 ポップアップが表示されます

38	情報を送信する	クリックして新しい共有ルームをシステムに追加します。	はい	新しいシェアルームが追加されました
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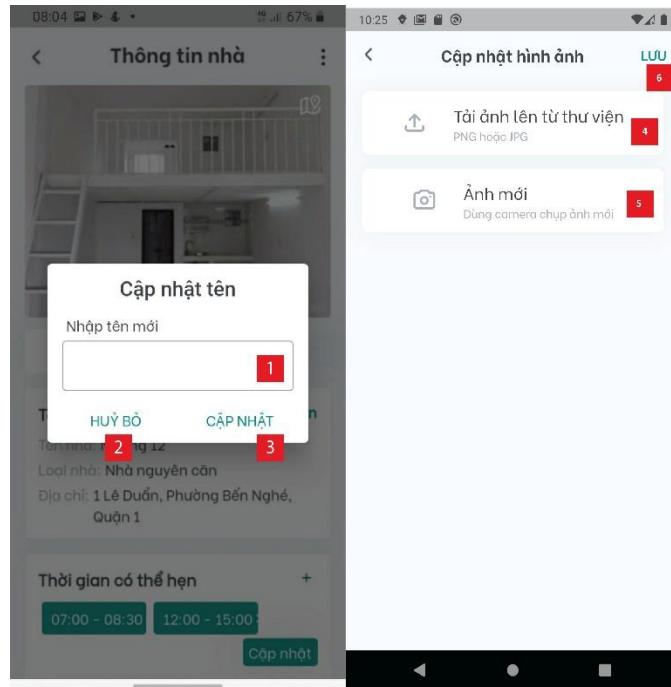
3.3.4.16 家の詳細を取得する



番号。	機能	形容	検証	結果
7	引き返す	クリックして前の画面に戻ります	いいえ	前の画面を表示する
8	トグルハウス選択	クリックしてオープントグルハウス詳細選択	いいえ	家の詳細選択が表示されます
9	オープントグルハウスマップ	クリックして家の地図を表示します。	いいえ	住宅マップが表示されます
14	情報タブの表示	クリックして住宅情報を表示します。	いいえ	住宅情報が表示される
15	Q&A タブの表示	クリックして Q&A を表示する	いいえ	Q&A リストが表示されます。

16	家名の変更	クリックして家名の変更ポップアップを表示	いいえ	家名変更ポップアップが表示される
17	予定スロットの追加	クリックして予定スロットを追加します。	いいえ	新しいスロットの追加ポップアップが表示されます
18	予定スロットの更新	クリックして予定スロットを更新	いいえ	新しい予定スロットが保存される
19	大学を追加する	クリックして大学を追加	いいえ	新しい大学選択ポップアップが表示されます
20	大学を更新	クリックすると、この家を基準にした大学リストを保存できます。	いいえ	この家との親戚の新しい大学リストが保存されます
21	新しいルームを追加	クリックして新しいルームを追加	いいえ	新規賃貸料追加画面が表示される
22	この家のビュールーム	クリックしてレンタルの詳細に移動します。	いいえ	賃貸詳細画面が表示される
23	次の部屋	クリックして次の部屋を表示	いいえ	この家のその他の家賃が表示されています

3.3.4.17 アップデートハウス

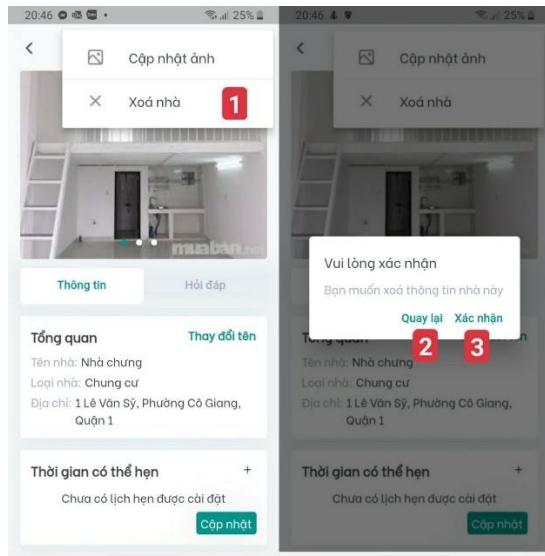


番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
2	新しい家の名前	新しい家の名前	いいえ	はい	テキストボックス	糸

番号。	機能	形容	検証	結果
10	キャンセル	クリックすると、更新名のポップアップが保存で閉じます	いいえ	更新名ポップが閉じています
11	更新	クリックして家の名前を更新	はい	家名を更新しました
12	ギャラリーから画像を読み込む	クリックして電話の画像ギャラリーに移動し、画像を選択します	いいえ	新しい画像が選択される
24	カメラで写真を撮る	クリックしてカメラの電源を入れます	いいえ	新しい画像が選択される

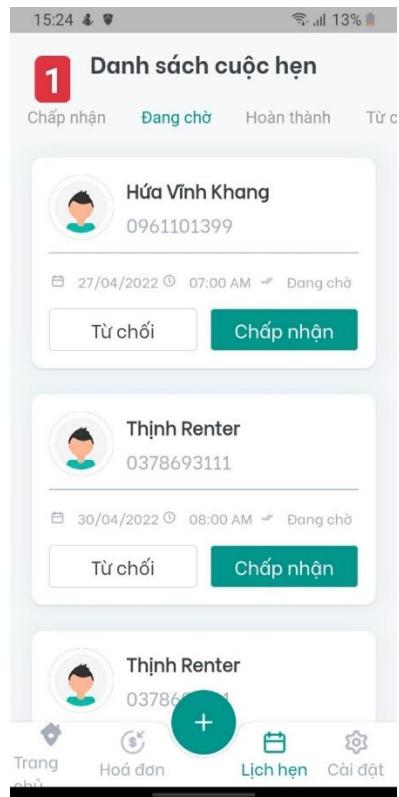
25	セーブ	クリックして家の画像を保存します	いいえ	新しい家の画像が保存されます
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3.3.4.18 ハウスの削除



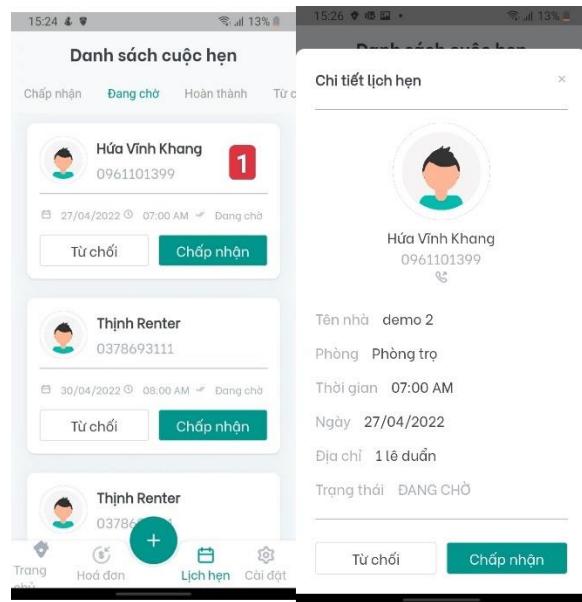
番号。	機能	形容	検証	結果
13	家を削除する	クリックして家の削除ポップアップの確認を切り替えます	いいえ	削除確認ポップアップが表示される
14	帰る	クリックして削除をキャンセルし、ポップアップを閉じる	いいえ	ポップアップが閉じています
15	削除の確認	クリックして家を削除します	いいえ	家は削除されました

3.3.4.19 ステータス別に予定リストを取得する



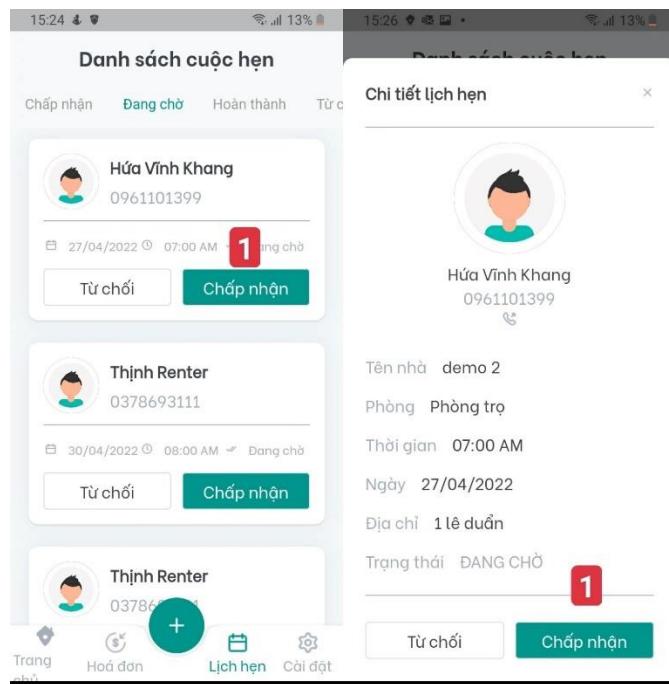
番号。	機能	形容	検証	結果
2	フィルターのライブ要求の状態を変更する	クリックして予定の状態を変更し、予定リストがこの状態を満たしている状態を表示します。	いいえ	このステータスを満たす予定リストを表示する

3.3.4.20 予定の詳細を取得する



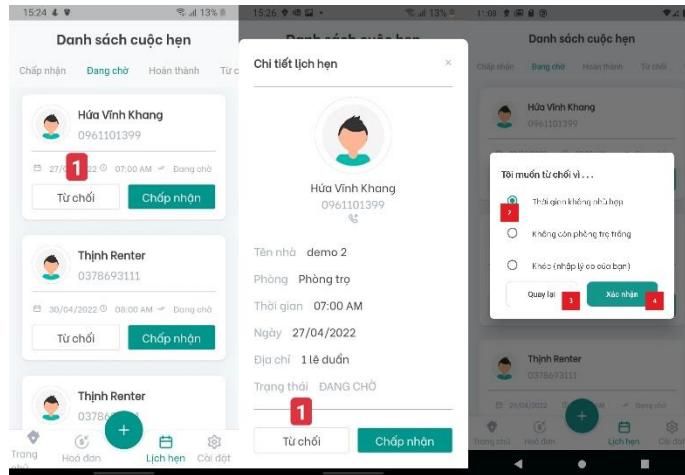
番号。	機能	形容	検証	結果
2	予定の詳細を表示する	所有者がクリックして予定の詳細画面に移動する	いいえ	予定の詳細画面が表示されます

3.3.4.21 予定の承諾



番号。	機能	形容	検証	結果
2	受け入れる	所有者が予定を承諾する	いいえ	予約受付中

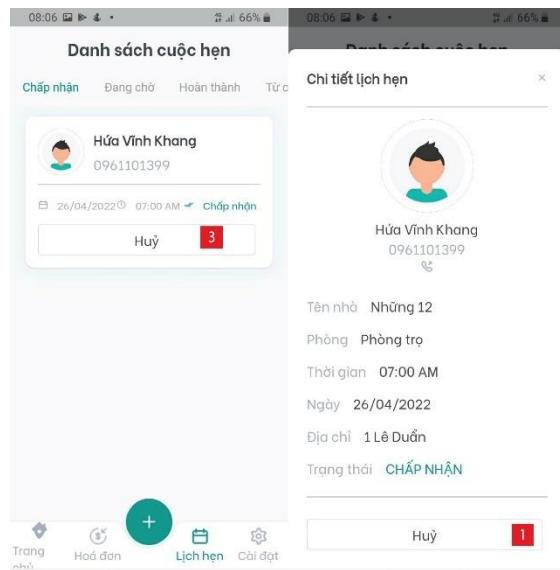
3.3.4.22 予定の却下



番号	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
2	拒否理由	拒否理由	いいえ	はい	チェックボックス	糸

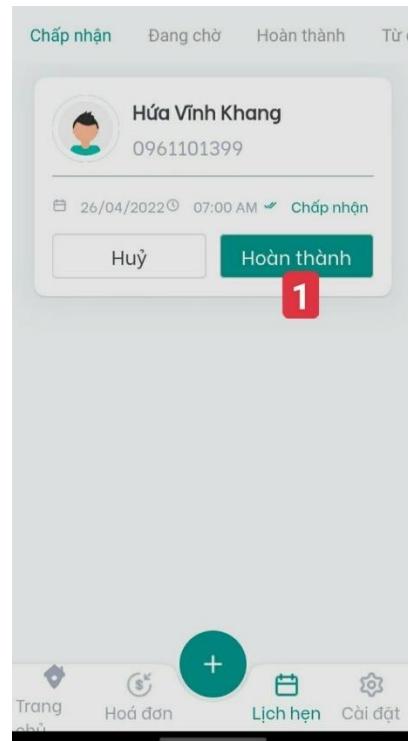
番号。	機能	形容	検証	結果
4	リジェクト	所有者が予定を却下する	いいえ	予定が却下されました
5	帰る	クリックして拒否ボップアップをキャンセルします。	いいえ	拒否ボップアップが閉じられています
6	確認する	クリックしてこの予定を却下します。	はい	予定が却下されました

3.3.4.23 予定のキャンセル



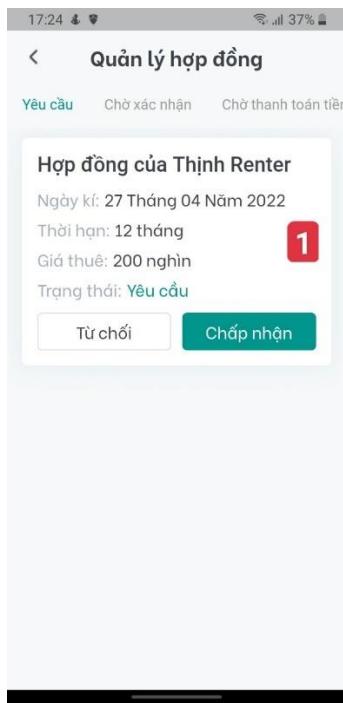
番号。	機能	形容	検証	結果
2	キャンセル	所有者が予定をキャンセルする	いいえ	予定が取り消されました

3.3.4.24 完了時に予定を更新する



番号。	機能	形容	検証	結果
2	完成	クリックしてこの予定が完了したことをマークします	はい	予定は完了としてマークされます

3.3.4.25 リビングリクエストのリストを取得



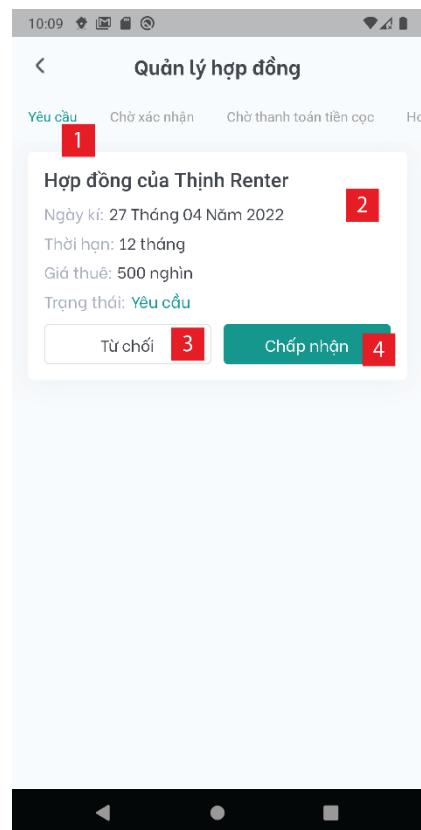
番号。	機能	形容	検証	結果
2	リビングリクエストの詳細を見る	クリックしてリビングリクエストの詳細ポップアップを切り替えます	いいえ	リビングリクエスト 詳細ポップアップが表示されます

3.3.4.26 リビングリクエストの詳細を取得する



番号。	機能	形容	検証	結果
4	閉める	クリックしてリビングリクエストの詳細ポップアップを閉じます	いいえ	ポップアップ ID が閉じられました
5	リジェクト	所有者は生活要求を拒否する	いいえ	リビングリクエストが拒否されました
6	受け入れる	所有者は生きている要求を受け入れる	いいえ	リビングリクエスト ID が受け入れられました

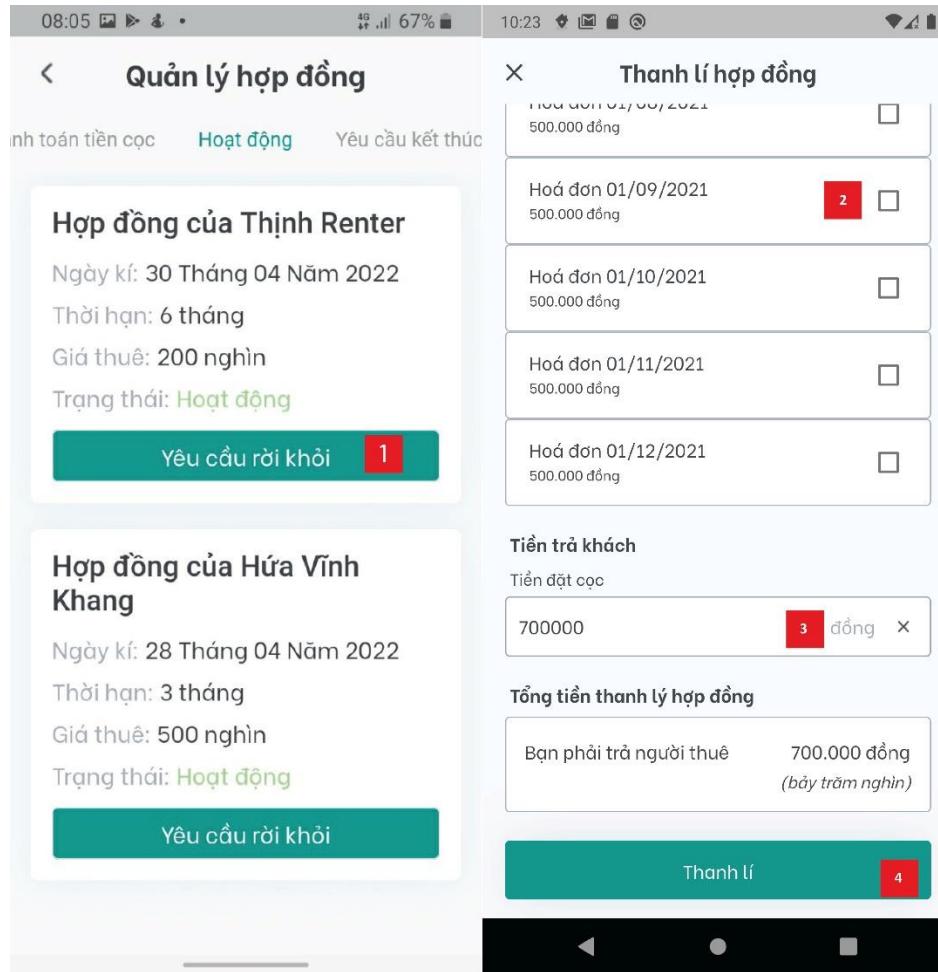
3.3.4.27 リビングリクエストの承諾/拒否



番号。	機能	形容	検証	結果
7	フィルターのライブ要求の状態を変更する	クリックしてリビングリクエストステータスを変更し、このステータスを満たすリビングリクエストリストを表示します。	いいえ	このステータスを満たす生活要求リストの表示
8	リビングリクエストの詳細を見る	クリックしてリビングリクエストの詳細ポップアップを切り替えます	いいえ	リビングリクエスト詳細ポップアップが表示されます
9	リジェクト	所有者は生活要求を拒否する	いいえ	リビングリクエストが拒否されました

10	受け入れる	所有者は生きている 要求を受け入れる	いいえ	リビングリクエス ト IDが受け入れられました
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3.3.4.28 賃借人退室の依頼



番号 。	フィールド名	形容	読み取 り専用	必須	コントロ ールの種 類	データ 型
3	未払いの請求 書	未払いの請求書	いいえ	いいえ	チェック ボックス	糸
4	預金	預金	いいえ	はい	テキスト ボックス	数

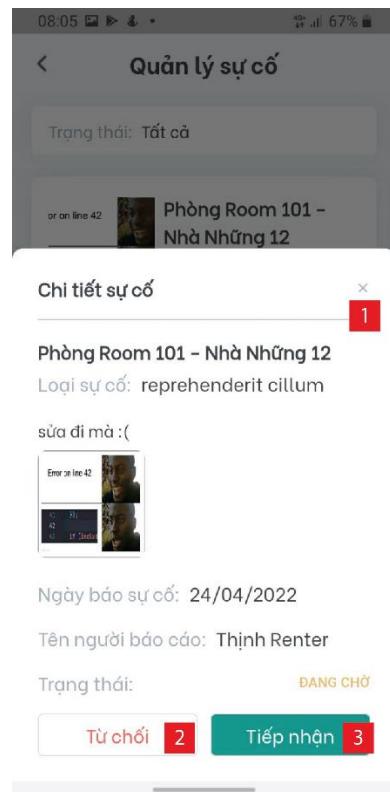
番号。	機能	形容	検証	結果
11	休暇の申請	所有者がクリックして [ルームからの退室] 要求を作成する	いいえ	[部屋の清算] 画面に移動します。
12	清算する	貸借人のための資金を清算する	はい	清算金は借受人に振り込まれます

3.3.4.29 問題リストの取得



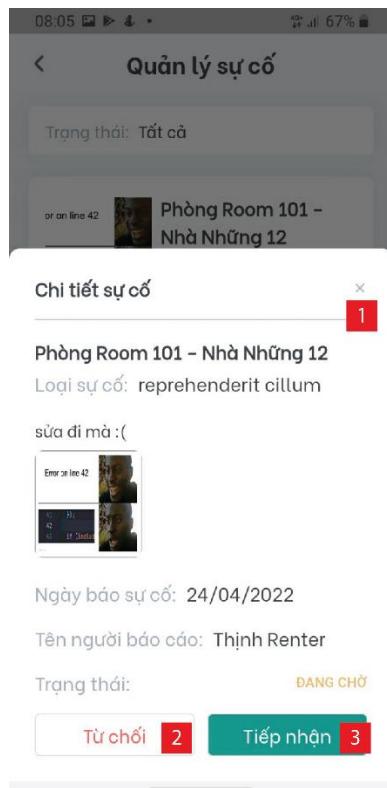
番号。	機能	形容	検証	結果
13	ステータスの変更	ステータスをフィルタの問題に変更する	いいえ	問題リストがフィルタリングされる
14	問題の詳細を表示する	クリックすると、問題の詳細ポップアップが表示されます。	いいえ	問題の詳細ポップアップが表示されます

3.3.4.30 問題の詳細を取得する



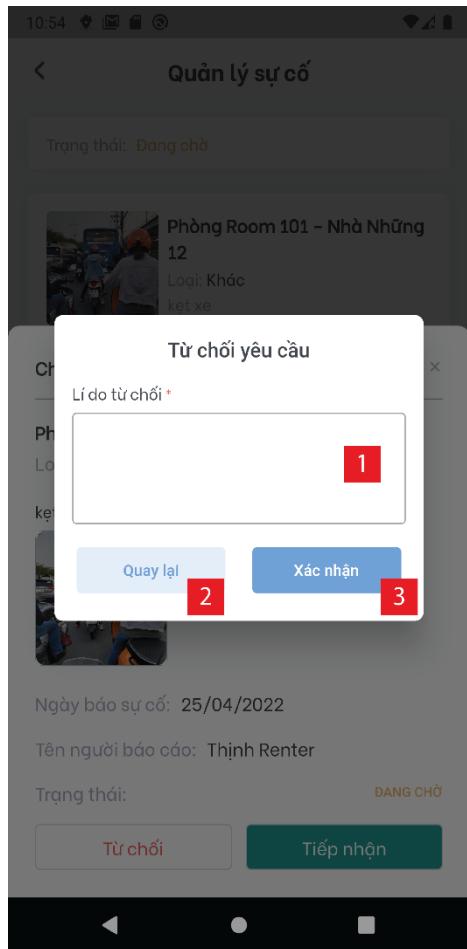
番号。	機能	形容	検証	結果
15	キャンセル	問題の詳細ポップアップを閉じる	いいえ	問題の詳細はクローズされています
16	リジェクト	所有者拒否の問題	いいえ	問題は拒否されました
17	受け入れる	所有者が問題を受け入れる	いいえ	問題が受け入れられました

3.3.4.31 問題を受け入れる



番号。	機能	形容	検証	結果
18	キャンセル	問題の詳細ポップアップを閉じる	いいえ	問題の詳細はクローズされています
19	リジェクト	所有者拒否の問題	いいえ	問題は拒否されました
20	受け入れる	所有者が問題を受け入れる	いいえ	問題が受け入れられました

3.3.4.32 拒否の問題



番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
5	拒否理由	所有者がこの問題を拒否する理由	いいえ	はい	テキストボックス	糸

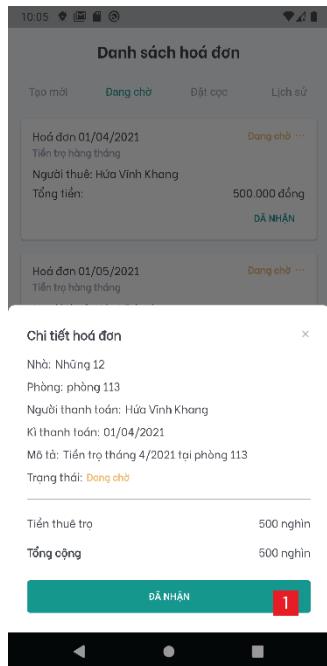
番号。	機能	形容	検証	結果
3	帰る	クリックして拒否popupアップをキャンセルします。	いいえ	拒否popupアップが閉じられています
4	確認する	クリックしてこの問題を拒否します。	はい	問題は拒否されました

3.3.4.33 問題のキャンセル



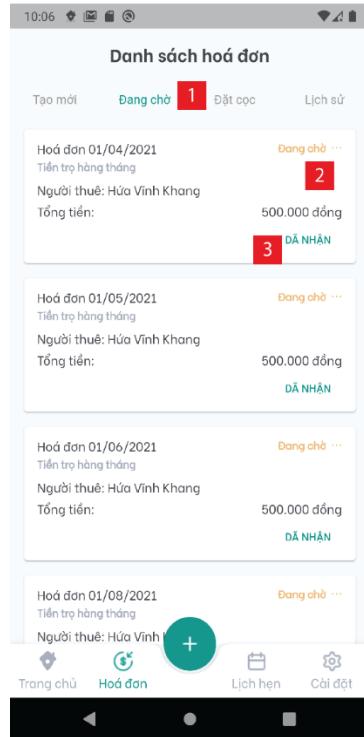
番号。	機能	形容	検証	結果
5	キャンセル	所有者キャンセル処理の問題	いいえ	問題は取り消されました

3.3.4.34 終了時に問題を更新する



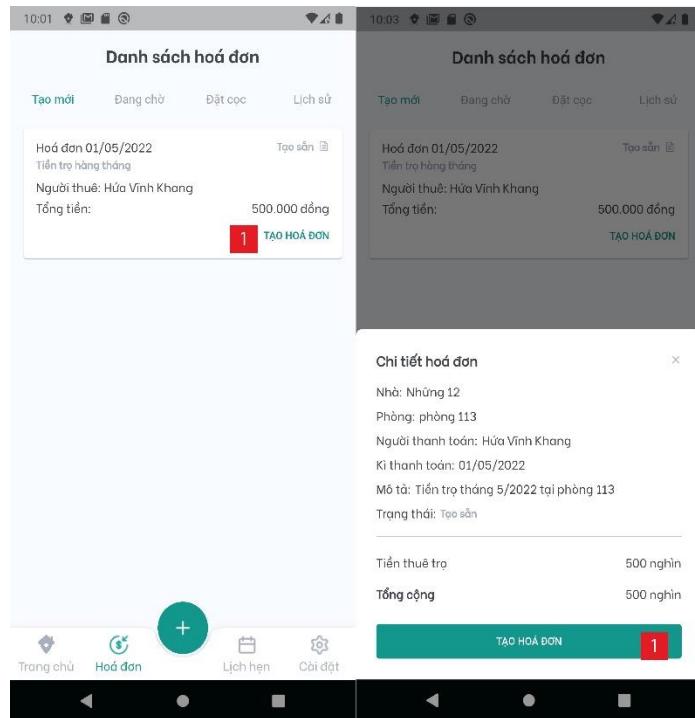
番号。	機能	形容	検証	結果
2	マーク支払いが届きます	クリックして支払いが受領されたことを示す	いいえ	マーク支払いが届きます

3.3.4.35 支払いリストの取得



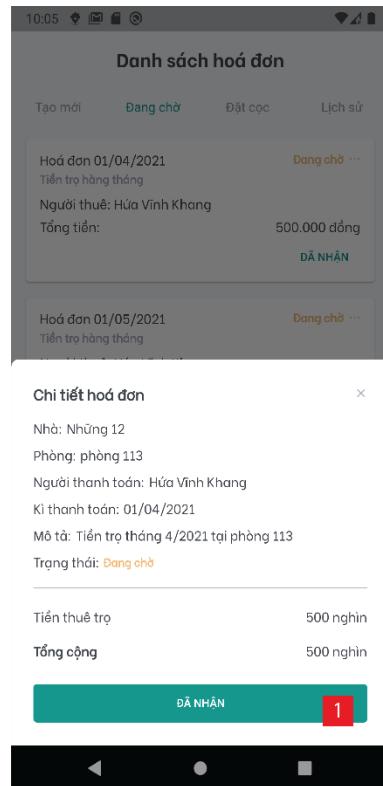
番号。	機能	形容	検証	結果
4	支払いの支払いステータスの変更	クリックして支払いステータスを変更し、このステータスを満たす支払いリストを表示します。	いいえ	このステータスを満たす支払リストの表示
5	支払いの詳細を表示する	クリックして支払いの詳細ポップアップを切り替えます	いいえ	支払い詳細ポップアップの表示
6	マーク支払いが届きます	クリックして支払いが受領されたことを示す	いいえ	マーク支払いが届きます

3.3.4.36 支払いの追加



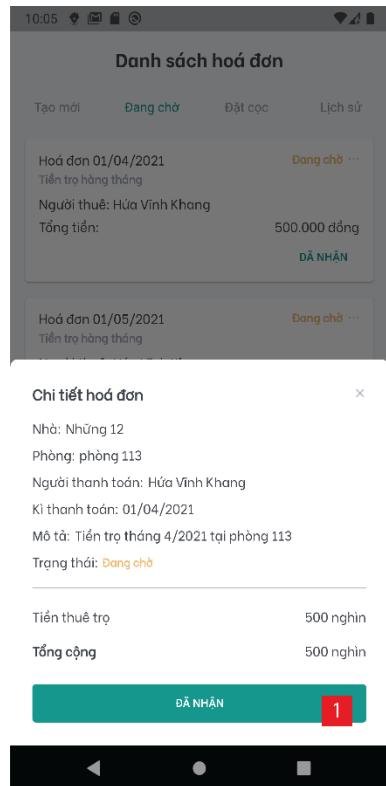
番号。	機能	形容	検証	結果
2	新しい請求書を作成する	クリックして新しい請求書を作成します。	いいえ	新しい請求書が作成されます。

3.3.4.37 支払いの詳細を取得する



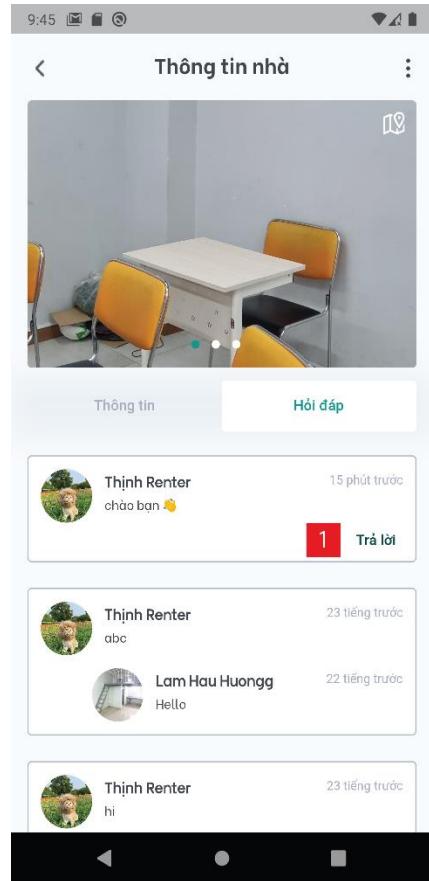
番号。	機能	形容	検証	結果
2	マーク支払いが届きます	クリックして支払いが受領されたことを示す	いいえ	Paymemt ステータスが [受領済] に変更されました

3.3.4.38 支払いを完了時に更新する



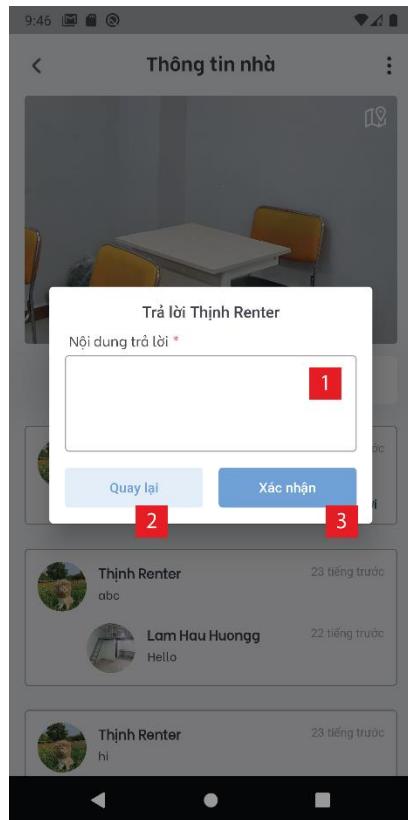
番号。	機能	形容	検証	結果
2	マーク支払いが届きます	クリックして支払いが受領されたことを示す	いいえ	Paymemtステータスが[受領済]に変更されました

3.3.4.39 Q&A リストを取得する



番号。	機能	形容	検証	結果
1	答える	クリックして Q&A に返信します。	いいえ	返信ポップアップが表示される

3.3.4.40 Q&A に返信する



番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
2	返信内容	返信内容	いいえ	はい	テキストボックス	糸

番号。	機能	形容	検証	結果
3	帰る	クリックして返信ポップアップをキャンセルします	いいえ	返信ポップアップが閉じています
4	確認する	クリックしてこの質問に回答	はい	質問が回答されました

3.3.4.41 通知を受け取る



番号。	機能	形容	検証	結果
4	帰る	クリックして前の画面に戻る	いいえ	前の画面が表示されます
5	すべてを読む	クリックしてすべての通知が既読であることを示す	いいえ	すべての通知が既読としてマークされる
6	通知の詳細に移動	クリックして通知の詳細に移動します。	いいえ	通知に対応する画面に移動します

3.3.4.42 アナウンスを送信する



番号 。	フィールド名	形容	読み取り専用	必須	コントロールの種類	データ型
1	お知らせを受け取るメンバー	お知らせを受け取るメンバー	いいえ	はい	テキストボックス	糸
2	ラベル	発表のラベル	いいえ	はい	テキストボックス	糸
3	コンテンツ	発表内容	いいえ	はい	テキストボックス	糸

番号。	機能	形容	検証	結果
4	アナウンスを送信する	クリックしてメンバーにお知らせを送信します	はい	メンバーにお知らせが送信されます

