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MSc. Business Information Management Course: Designing Business Applications

Course Code: BM02BIM

Assignment 2: System Requirement Specification



### 1. Introduction

This document covers the most critical functional and non-functional requirements that IntergenHome needs to have to operate properly. IntergenHome is an application that matches elderly landlords with students seeking affordable housing, offering reduced rent in exchange for light caregiving or companionship (IntergenHome, 2024). The application offers a platform that connects students with property listings and matches elderly landlords with suitable housemates. By tailoring recommendations to personal preferences, it enhances students' chances of finding affordable housing and helps to address the housing crisis in the Netherlands.

# 1.1. Scope of the Project

This Software Requirements Specification (SRS) provides an overview of the main functional and non-functional requirements, listed in Table 1 and Table 2, respectively. This SRS follows the A.3 template of SRS Section 3 organized by user class in the IEEE830-1998 practice (Board et al., 1998). Due to the limited scope of the project, an in-depth elaboration is given on the six most essential functional and five non-functional requirements, which are highlighted in the following tables.

### 1.2. Functional Requirement

ID	User's Interface	ID	Admin's Interface
General			
FR1	Create user account	FRX	Create admin account
FR2	Create user profile	FRX	Login admin account
FRX	Login user account	FRX	Adjust admin account settings
FRX	Adjust user account settings	FRX	Browse admin dashboard
FRX	Adjust user profile	FRX	Receive payment
FRX	Logout user account	FRX	Logout admin account
FRX	X Delete account		Receive real-time notification
	Func	tional	
FR3	View recommended property listings	FRX	Access to user data
FRX	View landlord profiles	FRX	Manage personalized feedback system
FRX	Rate the property	FRX	Manage users' matching algorithm
FR4	List property information		
FRX	View recommended student profiles		
FRX	View student profiles		
FRX	Search eligible landlords		
FRX	Search eligible students		
FRX	Pay commission fee		

FR5	Choose a subscription plan		
FR6	Message the landlord		
FRX	Message the student		
FRX	Cancel premium subscription plan		

Table 1. Functional requirements

# 1.3. Non-functional Requirements

ID	Category	Requirement
NFR1	Security	System security
NFRX	Security	Compliance
NFR2	Security	Data privacy
NFR3	Usability	User experience: rating
NFRX	System's performance	System downtime
NFR4	System's performance	System uptime
NFR5	System's performance	Compatibility
NFRX	System's performance	Latency
NFRX	System's performance	Data back-up
NFRX	System's performance	Capacity

Table 2. Non-functional requirements

# 1.3. User Classes

ID	User	Description
U1	Admin	An IntergenHome's employee [U1] who knows exactly how the application works, maintains the application, and fixes any malfunctions.
U2	User	A person who downloaded the system [D1] and uses the system [D1].

Table 3. User classes

# 1.3. Prioritisation

ID	Priority	Description
P1	High	Requirements that are crucial for the system's functionality and user experience.
P2	Medium	Requirements that should benefit the functioning of the system [D1] and/or user experience [D20], but are not crucial
Р3	Low	Requirements that are not important for the system [D1] but might benefit functionality or user experience [D20].

Table 4. Prioritisation

# 1.4. Definition

ID	Definition	Description
<b>D</b> 1	System	The IntergenHome business application.
D2	Student verification	The process of verifying whether the user is a student or not by asking them to verify their student email.
D3	Bank authentication page	A secure web interface where users [U2] verify their identity by entering credentials such as login information or security codes to authorize access to their bank account or complete a financial transaction.
<b>D4</b>	Landlord verification	The process of verifying whether the user is a house owner and above 60 years old.
<b>D</b> 5	Student	A user [U2] who completed the account registration and student verification process [D2], and uses the system[D1]to look for houses.
		Note: This term is used in requirements that apply only to students and their interactions within the system [D1].
D6	Landlord	A user [U2] who completed the account registration and the landlord verification process [D4], and uses the system to rent out their houses.
		Note: This term is used in requirements that apply only to landlords and their interactions within the system [D1].
<b>D7</b>	Proof of property ownership	A legalized purchase property agreement that is typically provided by an official deed (akte van levering) issued by a notary and registered with the Dutch Land Registry (Kadaster).
D8	Property listing	A rental offer containing essential information such as rental price, room size, room type [D36], location, and a thumbnail image. Each property listing is distinct.
D9	Recommendation page	A personalized overview of recommended property listings[D8] for students [D5] and recommended student profiles [D24] for landlords [D6].
D10	Free subscription plan	A basic subscription free of charge, with access to basic features[D25] of the system [D1]
D11	Premium subscription plan	A subscription with a monthly fee, with access to additional features in the system [D1]
D12	Personal bank account	Bank account of the user[U2]
D13	List of supported banks	ABN AMBRO, ASN Bank, bunq, ING, Knab, Rabobank, RegioBank, Revolut, SNS, Svenska Handelsbanken, Triodos Bank, and Van Lanschot (iDEAL, 2021)
D14	Developers	People who design, develop and test the system[D1].

Updates	Updated version of the system[D1] after fixing bugs or adding new features.
System uptime	The time that the system [D1] is fully functional and available for the users [U2]
System downtime	The time that the system [D1] is not fully functional and not available for the users[U2]
Terms and conditions	A legal document that outlines the rules, guidelines, and agreements that users must accept to use the home-sharing application. It includes user rights and responsibilities, liability limitations, privacy policies, and other important legal and operational information.
Sensitive information	Personal information relates to an individual that can be identified and is therefore protected under regulations such as the GDPR.
User experience	The overall satisfaction and ease with which a user[U2] interacts with a product or a system, encompassing usability, design, and emotional response.
Mobile operating system	Software platforms on which the system[D1] operates.
Matching score	The score is a numerical value derived from comparing a user's[U2] preferences with available options, which the algorithm uses to rank and recommend the best property listings[D8] and student profiles [D24].
Customizable features	Options in the interface that allow users[U2] to personalize settings to fit their preferences.
Student profile	A brief personal description including the student's name, contact information, university affiliation, housing preferences to help match them with suitable rental properties.
Basic features	Features that the system [D1] offers the students [D5] involves creating student profiles [D24], and viewing the property listings [D8]
User data	The collection of personal profile and account information provided by the user [U2] during the registration process and profile creation. This includes but is not limited to, the user's name, email address, phone number, date of birth, user type (student or landlord), profile picture, personal description, preferences, and any other information the user provides to the system.
Personal description	Additional information in text format that the user[U2] uses to describe themselves
Spoken languages	The languages that the user [U2] uses to communicate.
Rating score	A quantitative score ranging from 1 to 7 indicates the user experience [D20]
	System uptime  System downtime  Terms and conditions  Sensitive information  User experience  Mobile operating system  Matching score  Customizable features  Student profile  Basic features  User data  Personal description  Spoken languages

D30	User account	A profile created by the user [U2] primarily for authentication and access control.
D31	User account data	Information that contains the user's[U2] name, email address, date of birth, phone number, and user type.
D32	User profile	A personalized profile created by the user [U2] that contains detailed information.
D33	User profile data	Information contains profile picture, preferences, language spoken [D28]
D34	Premium features	Additional features the system[D1]offers the students [D5] when they opt for the premium subscription [D12], that involves messaging the landlords.
D35	Educational institution's domain	A web domain often associated with accredited academic organizations, featuring specific extensions like .edu
D36	Room type	Types of room include studio apartments, shared rooms, private rooms in shared houses, and self-contained apartments

Table 5. Definitions

# 1.5. Assumptions

ID	Assumptions
<b>A1</b>	Users [U2] have smartphones to download the application.
A2	Users' smartphones operate on Android and iOS mobile operating systems.
A3	Users [U2] have a personal bank account.
<b>A4</b>	Users [U2] submit accurate and truthful personal information.
A5	Users [U2] are willing to share their information with IntergenHome.
<b>A6</b>	Users [U2] comply with the general terms and conditions of IntergenHome.

Table 6. Assumptions

### 2. Functional Requirements

The following section lists the six most crucial functional requirements (FR). The term "user" [U2] is used to refer to both students [D5] and landlords [D6] unless otherwise specified. When a requirement pertains specifically to either role, the terms "student" [D5] or "landlord" [D6] will be used.

#### FR1 User's Interface - Create User Account

FR1.1 The system [D1] shall enable the user [U2] to create a user account [D30].

**FR1.2** If the user [U2] creates a user account[D30], the system [D1] shall require the user [U2] to provide input of the following personal data:

FR1.2.1 First name

- FR1.2.2 Last name
- FR1.2.3 Email address (to be used as username)
- FR1.2.4 Phone number
- FR1.2.5 Password
- **FR1.2.6** User type (student or landlord)
- FR1.2.7 Date of birth
- **FR1.3** If the user has entered all the user account data [D31], the system [D1] shall save the user account data [D31] to the user data [D26].
  - **FR1.3.1** The system [D1] shall notify the user [U2] that accepting the terms and conditions is mandatory.
  - **FR1.3.2** The system [D1] shall redirect the user [U2] to [FR1.2] if any required data is missing.
- **FR1.4** The system [D1] shall validate the email address format.
  - **FR1.4.1** If the email address is not in the format of "abc@email.com", the system [D1] shall notify the user [U2].
- **FR1.4.1.1** The system [D1] shall require the user [U2] to enter the email address again. **FR1.5** The system [D1] shall validate that the email address is not already associated with an existing
- **FR1.5** The system [D1] shall validate that the email address is not already associated with an existing account.
  - FR1.5.1 If the email address is already in use, the system [D1] shall notify the user [U2].
    - FR1.5.1.1 The system [D1] shall require the user [U2] to enter a different email address.
- **FR1.6** If the user [U2] selects "Student" [D5] as the user type, the system [D1] shall require student verification [D2]:
  - **FR1.6.1** The system [D1] shall require the user [U2] to enter their student email address.
  - **FR1.6.2** The system [D1] shall validate that the entered email address contains an educational institution's domain [D35].
  - **FR1.6.3** If the email address is valid, the system [D1] shall send a verification link to the provided student email address.
  - **FR1.6.4** If the email address is not valid, the system [D1] shall notify the user [U2].
    - **FR1.6.4.1** The system [D1] shall redirect the user [U2] to [FR1.6.1].
- **FR1.7** If the user [U2] selects "Landlord" [D6] as the user type, the system [D1] shall require landlord verification [D4]:
  - **FR1.7.1** The system [D1] shall require the user [U2] to upload the proof of property ownership [D7].
- **FR1.8** The system [D1] shall require the user [U2] to accept the terms and conditions [D18].
  - **FR1.8.1** If the user [U2] accepts the terms and conditions [D18], the system [D1] shall save the user account data [D31].
    - **FR1.8.1.1** The system [D1] shall display the user account [D30].
  - **FR1.8.2** If the user [U2] does not accept the terms and conditions [D18], the system [D1] shall notify the user [U2] that this is mandatory
    - FR1.8.2.1 The system [D1] shall redirect the user [U2] to [FR1.8].
- **FR1.9** The system [D1] shall create the user account [D30] and save the user data [D26].
- **FR1.10** The system [D1] shall redirect the user [U2] to the profile creation page [FR2].

**Rationale**: Creating a user account [D30] is essential for the functionality of the home-sharing system [D1]. It allows the system [D1] to distinguish between different users [U2], maintain user-specific data [D26], and provide personalized services. The distinction between student [D5] and landlord [D6] accounts is crucial for the matching process and ensures appropriate verification for each user type.

Source: IntergenHome Business Case (2024)

**Author**: Felix Masselter **Priority**: High [P1]

**Dependency**: [FR2], [FR3], [FR4], [FR5]

**History**: 4/10/2024 (first draft), 5/10/2024 (revision 1), 7/10/2024 (final)

#### FR2 User's Interface - Create User Profile

**FR2.1** The system [D1] shall enable the user [U2] to create a user profile[D32].

FR2.2 The system [D1] shall require the user [U2] to provide the following additional information:

**FR2.2.1** Location (city and country)

**FR2.3** The system [D1] shall enable the user [U2] to optionally provide the following information:

FR2.3.1 Profile picture

FR2.3.2 Preferences (smoking habits, pet preferences, hobbies)

FR2.3.3 Spoken languages [D28]

**FR2.4** The system [D1] shall allow the user [U2] to upload a picture for the user profile[D32].

**FR2.5** The system [D1] shall allow the user [U2] to enter a personal description [D27] of up to 500 characters.

**FR2.6** The system [D1] shall save the user profile [D32] to the user data [D26].

**FR2.7** The system [D1] shall redirect the user [U2] to their user profile page after the user [U2] has entered their user profile data[D33].

Rationale: User profile [D32] creation is a critical component of the home-sharing system [D1]. It allows users [U2] to provide detailed information about themselves, their preferences, and their living situations. This information is essential for the system [D1]] to effectively pair students [D5] with landlords[D6]. A comprehensive user profile [D32] enhances the user experience [D20] by allowing for more accurate matches and facilitating better communication between potential housemates.

**Source**: IntergenHome Business Case (2024)

Author: Felix Masselter Priority: High [P1] Dependency: [FR1]

History: 4/10/2024 (first draft), 7/10/2024 (final)

#### FR3 User's Interface - View Recommended Property Listings

**FR3.1** If the student [D5] has completed the student verification [D2], the system [D1] shall enable the student [D5] to view the property listings [D8] on recommendation page [D9].

**FR3.2** The system [D1] shall display recommended and available property listings [D8] to the student [D5].

**FR3.2.1** The system [D1] shall update the order of property listings [D8] based on the matching score [D22] for each property, with the higher-scoring properties appearing in a higher position on the recommendation page [D9].

**FR3.2.2** The system [D1] shall display the following information for each listing:

FR3.2.2.1 Rental price per month

FR3.2.2.2 Room size

**FR3.2.2.3** Room type [D36]

FR3.2.2.4 Location

FR3.2.2.5 Thumbnail picture of the room

**FR3.3** If the student [D5] selects a property listing [D8], the system [D1] shall display the property information [FR4.1.1] of the selected property.

**Rationale:** Allowing verified student users [D5] to view property listings [D8] ensures the platform's integrity by restricting access to users [U2]. This enhances the user experience [D20] by providing relevant, tailored listings, reducing fraud, and facilitating efficient decision-making. It encourages engagement and improves the overall effectiveness of the system [D1].

**Source:** IntergenHome Business Case (2024)

**Author:** Thy Cao **Priority:** High [P1]

Dependency: [FR4], [NFR1], [NFR2],

**History:** 03/10/2024 (first draft), 4/10/2024 (revision 1), 5/10/2024 (revision 2), 7/10/2024 (final)

### FR4 User's Interface - List Property Information

**FR4.1** The system [D1] shall allow the landlord [D6] to create property listings [D8].

**FR4.1.1** If the landlord [D6] has completed the landlord verification [D4], the system [D1] shall require the landlord [D6] to provide input of the following information:

**FR4.1.1.1** Property location:

FR4.1.1.1.1 Country

FR4.1.1.1.2 City

FR4.1.1.1.3 Street name

FR4.1.1.1.4 House number

**FR4.1.1.1.5** Postcode

FR4.1.1.2 Property size

**FR4.1.1.3** Room type [D36]

FR4.1.1.4 Listing caption

FR4.1.1.5 Additional property description

FR4.1.1.6 Rental price per month

FR4.1.1.7 Images and videos of the property

**FR4.1.2** If the landlord [D6] has entered all property information [FR4.1.1], the system [D1] shall save all property information [FR4.1.1] to property listing [D8].

**FR4.1.2.1** The system shall display the property listing [D8].

**FR4.1.3** If the landlord [D6] has not entered all required property information, the system [D1] must notify the landlord [D6] that not all property information [FR4.1.1] has been entered.

**FR4.1.3.1** The system shall redirect the landlord to [FR4.1.1].

**FR4.2** The system [D1] shall allow the landlord [D6] to modify their property information[FR4.1.1].

Rationale: The system [D1] must allow landlords [D6] to create and modify property information [D8]. The functionality to list new property information is the data source for displaying recommended property listings [D8], and the foundation for charging commission from the landlord [D6]. The functionality to modify existing property information [D8] can reduce data redundancy on the platform and prevent duplicate listings, which not only improves the overall user experience [D20] for both landlords [D6] and students [D5] but also helps maintain data accuracy and integrity. Additionally, the functionality to modify existing property information [D8] can encourage landlords [D6] to keep listings up-to-date, ensuring that students [D5] have access to the most accurate and relevant information.

**Source:** IntergenHome Business Case (2024)

**Author:** Dan Gong **Priority:** High [P1]

**Dependency:** [FR3][NFR2]

**History:** 03/10/2024 (first draft), 4/10/2024 (second draft), 7/10/2024 (final)

#### FR5 User's Interface - Choose a Subscription Plan

**FR5.1** The system [D1] shall allow the student [D5] to select between a free subscription plan [D10] and a premium subscription plan [D11].

FR5.2 The system [D1] shall allow the student [D5] to choose between the following two options:

**FR5.2.1** If the student [D5] chooses to keep the free subscription plan [D10], the system [D1] shall enable the student's access to basic features [D25].

**FR5.2.1.1** The system shall not enable the student [D5] to access premium features [D34].

**FR5.2.2** If the student [D5] chooses to subscribe to a premium subscription plan [D11], the system [D1] shall request the student [D5] to link their personal bank account [D12] with the student's account.

**FR5.2.2.1** The system [D1] shall allow the student [D5] to select their bank from a list of supported banks [D13].

**FR5.2.2.2** If the student [D5] selects their bank, the system [D1] shall redirect the student [D5] to their bank's authentication page [D3] to complete the linking process.

**FR5.2.2.3** The system [D1] shall request the student [D5] to authorize the system [D1] to perform the following actions:

**FR5.2.2.3.1** Store the student's [D5] personal bank account details [D12]:

FR5.2.2.3.1.1 Bank account number (IBAN)

FR5.2.2.3.1.2 Account holder name

FR5.2.2.3.1.3 Bank name

**FR5.2.2.3.2** Automatically debit the monthly subscription fee from the student's [D5] personal bank account [D12].

**FR5.2.2.4** If the student [D5] accepts the authorizations, the system [D1] shall redirect the student [D5] to the student profile page [D26] with access to the premium features [D34].

**FR5.3** If the student [D5] does not accept the authorizations, the system [D1] shall cancel the linking process and redirect the student [D5] back to [FR5.2].

**Rationale:** It is important for the system [D1] to allow students [D5] to choose between a free subscription plan [D10] and a premium subscription plan [D11]. This functionality directly contributes to how the business generates revenue. The choice between these two options will lead to different features [D1] and user interfaces. This functional requirement also allows the system [D1] to receive and store students' bank account information [D12] and enables the system to debit the monthly premium subscription fees [D11], if they opt for the premium subscription plan.

**Source:** IntergenHome Business Case (2024)

**Author:** Long Le **Priority:** High [P1]

**Dependency:** [NFR2][FR6]

**History:** 02/10/2024 (first draft), 4/10/2024 (second draft), 7/10/2024 (final)

# FR6 User's Interface - Message the Landlord

**FR 6.1** If the student [D5] has a premium subscription plan [D11], the system [D1] shall enable the student [D5] to message the landlord [D6].

**FR 6.2** The system [D1] shall notify the student [D5] if there is a message from the landlord [D6].

**FR 6.3** If the student [D5] has a free subscription plan [D10], the system [D1] shall not enable the student [D5] to message the landlord [D6].

**FR 6.3.1** The system [D1] shall enable the student [D5] to view the message from the landlord [D6].

**Rationale**: The messaging and notification feature is a critical component of the system [D1]. It is a premium feature [D11] designed to ensure smooth user experience [D20] and interactions, improving platform engagement. By differentiating between premium and free subscription plans [D10], [D11], the platform incentivizes users [U2] to upgrade to a premium plan [D11], granting them the ability to actively communicate with landlords [D6]. Notifications play a key role in ensuring users [D5] stay informed of important messages.

Source: IntergenHome Business Case (2024)

**Author:** Baichuan Ji **Priority:** High [P1] **Dependency:** [FR5]

**History:** 02/10/2024 (first draft), 4/10/2024 (second draft), 5/10/2024 (third draft), 7/10/2024 (final)

### 3. Non-functional Requirements

The following section lists the five most crucial non-functional requirements (NFR). The term "user" [U2] is used to refer to both students [D5] and landlords [D6] unless otherwise specified. When a requirement pertains specifically to either role, the terms "student" [D5] or "landlord" [D6] will be used.

#### **NFR1 System Security**

**NFR1.1** The system [D1] shall require authentication for all users [U2] and admins [U1] to prevent unauthorized login attempts.

**NFR1.2** The system [D1] shall store the login history of users [U2].

**NFR1.3** The system [D1] shall limit the number of failed logins.

**Rationale**: The system [D1] requires authentication [NFR1.1] to add an extra layer of security, reducing the risk of unauthorized access. Storing login history [NFR1.2] allows monitoring user activity and detecting suspicious behaviour, improving security auditing. Limiting the number of failed logins [NFR1.3] helps protect against brute-force attacks by temporarily disabling access after repeated failed attempts, ensuring uses [U2] are safeguarded from unauthorized access.

**Source**: IntergenHome Business Case(2024)

**Author**: Thy Cao **Priority**: High [P1]

Dependency: [FR1], [FR2]

**History**: 4/10/2024 (first draft), 7/10/2024 (final)

**NFR2 Data Privacy** 

**NFR2.1** The system [D1] shall ensure the confidentiality, integrity, and availability of all user data [D26].

**NFR2.2** The system [D1] shall comply with all applicable data protection regulations, including but not limited to GDPR.

**NFR2.3** The system [D1] shall maintain a level of data security that meets or exceeds industry standards for similar home-sharing applications.

**NFR2.4** The system [D1] shall limit data retention periods to the minimum necessary for the operation of the home-sharing service.

**NFR2.5** The system's [D1] data handling practices shall be transparent and easily understandable to users [U2].

**Rationale:** As a home-sharing platform handling the sensitive personal information [D19] of both students [D5] and landlords [D6], maintaining high standards of data privacy is crucial for user trust and legal compliance. The system [D1] must ensure that user data [D26] is handled in accordance with GDPR and other relevant regulations to protect users [U2] and avoid potential legal risks.

Source: GDPR (European Parliament and Council of European Union, 2016)

Author: Felix Masselter Priority: High [P1]

Dependency: [FR1], [FR2].

History: 4/10/2024 (first draft), 7/10/2024 (final)

### **NFR3** User Experience: Rating

**NFR3.1** The system [D1] should provide all users [U2] with a notification to rate their user experience [D20].

**NFR3.2** The system [D1] should ask users [U2] to rate the system [D1] by giving a score ranging from 1 (low) to 7 (high) stars, based on their satisfaction.

**NFR3.2.1** Users [U2] should provide the system [D1] with an average rating score [D22] of 5 or higher.

**Rationale**: User experience [D20] determines whether users [U2] continue to use the system [D1]. Although it is not crucial to the core functionality of the system [D1], maintaining a positive user experience [D20] is important for user retention and engagement. Therefore, the system [D1] should require users [U2] to provide a quantitative score [D22] to track and improve the user experience [D20].

**Source:** IntergenHome Business Case (2024), Whatfix. (2024)

**Author**: Baichuan Ji **Priority**: Medium [P2]

**Dependency**: [FR1], [FR2], [FR3], [FR4], [FR5], [FR6], [NFR4], [NFR5]

Success range:

Success: Average rating score [D29] given by users [U2] is  $\geq$  4 or 5 Failure: Average rating score [D29] given by users [U2] is  $\leq$  4 or 5

**History**: 24/09/2021 (first draft), 26/09/2021 (revision 1), 28/09/2021 (revision 2), 06/10/2021 (final)

### **NFR4 System Uptime**

NFR4.1 The system [D1] shall have an uptime [D16] of 99.5% or more during the year.

**Rationale:** It is essential that the system [D1] is continuously functional and available for users [U2]. An uptime [D16] of 99.5% or more during the year would allow developers [D14] to run updates [D15], while still ensuring a good user experience [D20]. System downtime [D17] has been shown to increase user dissatisfaction, resulting in users discontinuing the use of the system [D1], which could lead to revenue loss. Therefore, this non-functional requirement is of high priority [P1].

Source: IntergenHome Business Case (2024)

**Author:** Long Le **Priority:** High [P1]

**Dependency:** [FR3], [FR4], [FR5], [NFR3]

**Success range:** 

Success: The system [D1] is fully operational  $\geq 99.5\%$  of the time annually Failure: The system [D1] is fully operational < 99.5% of the time annually **History:** 02/10/2024 (first draft), 04/10/2024 (revision 1), 05/10/2024 (final)

# **NFR5** Compatibility

**NFR5.1** The system [D1] shall allow users [U2] to access the system [D1] using iOS and Android mobile operating systems [D21].

**NFR5.2** The system [D1] shall not allow access from other mobile operating systems [D21] (e.g., Windows Phone, Blackberry OS).

**Rationale:** To ensure broad accessibility, the system [D1] shall support the dominant mobile operating systems [D21] (iOS and Android) used by the majority of users [U2] (Statcounter, 2024). Limiting access to unsupported systems prevents compatibility issues and ensures a consistent user experience [D20], while also reducing maintenance and development costs by focusing on widely-used platforms.

**Source**: Statcounter (2024), IntergenHome Business Case(2024)

Author: Dan Gong Priority: High [P1] Success range:

Success: the system [D1] can be compatible with iOS and Android mobile operating systems[D21].

Failure: the system [D1] can not be compatible with iOS and Android mobile operating systems [D21].

**Dependency**: [NF4]

**History:** 02/10/2024 (first draft), 03/10/2024 (revision 1), 06/10/2024 (final)

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