**Software Product Vision**

# Introduction

The purpose of this document is to collect, assess, and explain the Condo Management System's needs and functionality. It highlights the fundamental skills looked by stakeholders and target users, as well as the justification for these specified requirements.

# Positioning

## Problem Statement

Summary of the problem being solved by this project:

|  |  |
| --- | --- |
| The problem of | Inefficiency of condominium management processes and lack of a digital platform |
| affects | Condo management companies, condo owners and condo renters |
| the impact of which is | Delays in job completion, difficulty in obtaining essential financial or property data, and an overall deficiency of unity in reservations, resulting in discontent and inadequate living conditions. |
| a successful solution would be | A simplified condo management system that provides features for task assignment, financial tracking, and centralized communication. |

## Product Position Statement

Overall statement summarizing the position the product intends to fill in the marketplace:

|  |  |
| --- | --- |
| For | Condo management companies, condo owners and condo renters |
| Who | Seek a modernized, unified, and user-friendly approach to effective condo management, and communication |
| The (product name) | is a Condo Management System |
| That | Provides:   * Streamlined communication: Updates for effective information exchange between stakeholders. * Clear Financial Tracking: Visibility into financial reports. * Reservations and event system: Facilitates booking for accessible activities and event organization. * Easy information management and access: Instant access to essential condo data such as parking spots, unit id, and more. |
| Unlike | Existing apps or traditional manual management or limited digital alternatives. |
| Our product | Distinguishes itself from competitors in the market by combining fundamental management functionalities with a simple interactive platform for users in a unique way that promotes a great condominium living experience, all this for free. |

# Stakeholder and User Descriptions

The lists of stakeholders and users below represent both system users and non-users, who have been identified. Their needs, their responsibilities within the system, and the main issues they believe the suggested solution addresses are also described in this section.

## Stakeholder Summary

A list of stakeholders that are only focused on the system's development. (They are not the end users):

|  |  |  |
| --- | --- | --- |
| **Name** | **Description** | **Responsibilities** |
| Project Manager | The project manager is responsible for the planning, execution and the supervision of the project while assuring effective goal-achieving within the limitations of scope, time, and money. | * Defines the timeline to ensure the delivery of the project. (Feasibility) * Defines the best methodology. (Effectiveness) * Defines project scope while managing risks and budget. (Feasibility) * Ensures the system meets the requirements. (Correctness) |
| Developer | The developer is involved in the system’s configuration, maintenance, and support. | * Writes and implements code easily understandable, adjustable and expandable. (Maintainability) * Writes code that meets specific requirements and performance. (Reliability) * Prevents system failures. (Robustness) |
| Software Architect | The software architect designs high-level structures and creates technical specifications for platforms, frameworks, and technology. | * Designs system architecture that ensures the adaptation of the system to a new environment. (Maintainability) * Designs a user-friendly system. (Usability) * Designs independent and upgradable components. (Scalability) * Finds technology that aligns with the long-term business strategy and provide a competitive advantage. (Functionality) |
| Tester | The tester checks the artifacts and behavior of the system under validation and verification. | * Determines how easy the system to test to find bugs or ensure that it meets all predefined criteria. (Testability) * Makes sure that all possible scenarios are covered by the tests (Correctness) |
| Customer | The entity or organization that has commissioned the construction of the condo management app and its related product. | * Clearly state the aims and needs of the condo management system. * Review and approve essential deliverables to ensure they are consistent with the objectives. |
| Product Owner | An individual or team in charge of advocating the customer's interests and ensuring that the finished product satisfies their specifications. | * Act as a bridge between the development team and the customer. * Accept or reject deliverables according on whether they match the acceptance criteria and business needs. * Continuously review and enhance the product in response to customer input and changing company demands. |
| Users | A varied user base, including public users (condo owners, rental users), as well as condo management firm workers, that will interact with the product. | * Use most of the features of the product. * Has a profile * Receives notifications. * See information about the condos |

## 

## User Summary

A list of identified users of the system and in what functionalities they will be using in the system:

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Description** | **Responsibilities** | **Stakeholder** |
| Condo management companies | Condo management companies are intermediaries between public users and the system | * Create a profile for a property under their management.   + Upload condo files.   + Enter detailed information.   + Send registration keys to unit owners or rental users. * Enter condo fees and costs for operations. * Set up common facilities. * Set up different roles for different employees. * Can choose to list and coupons/offers. | Customer & Users |
| Employees  (Managers, Accountant, Staff) | Condo management companies will assign different responsibilities to employees.  They can be a manager who oversees the chores and personnel, an accountant who handles the condominiums' currency, or a staff member who works in various condo services. | Employees:   * Complete task they received as notification.   Managers:   * Manages tasks.   Accountants:   * Tracks finances through the financial system.   Staff:   * Addresses requests based on daily operations. | Users |
| Condo Owners | Condo owners are accountable and have ownership rights for specific condo units. | * Create an account. * Access information about their properties. * View financial status. * Reserve common facilities. * Receive notification of latest activities. * Submit requests e.g. intercom changes, reporting violations, etc. | Users |
| Condo renters | Condo renters are people who live in a condo but do not have ownership of it. They have rights and obligations related to their rental agreement. | * Create an account. * Access information about their properties. * Reserve common facilities. * Receive notification of latest activities. | Users |

## User Environment

The ideal working environment of the target user should be:

* Public users are expected to have a device with internet connectivity in order to access the website and sign in to their accounts to verify any information regarding their condo.
* Condo management companies will have to access the system the same way as a public user except that they will be able to see different functionalities.

## Key Stakeholder or User Needs

List of the key problems with existing solutions as perceived by the stakeholder or user.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Need** | **Priority** | **Concerns** | **Current Solution** | **Proposed Solutions** |
| **Condo Management Companies** | | | | |
| Ineffective condo file management | High | Time-consuming file retrieval | None | Centralized digital storing method for digital files |
| Difficult financial tracking | High | Ease of forgetting or miscalculating | None | Streamline financial tracking |
| Disorganized reservation system | Medium | Ambiguity about bookings and facilities availability | None | Streamline the reservation system |
| **Employee** | | | | |
| Inefficient assignment of requests | High | Difficulty in assigning requests to the right employee. | None | Implement an automated system to send the request to the relevant staff member |
| **Condo Owner** | | | | |
| Limited property insights | High | Disorganized visibility of property-related information | None | Provide a comprehensive presentation of property details. |
| Inconvenient request submission | High | Difficulty in process for submitting requests | None | Design a request submission interface |
| Difficult financial tracking | High | Unclear financial statement of property | None | Streamline financial tracking |
| **Condo Renter** | | | | |
| Unpractical reservation system | Medium | Ease of misunderstanding regarding reservations | None | Implement reservation system to accommodate renters |
| Insufficient information on condo fees | High | Lack of clarity on associated fees for rented units | None | Improve transparency in presenting condo fee details for renters |

## Alternatives and Competition

The identification of alternatives the stakeholder perceives as available:

* Apps such as *Buildium* or *Property Vista*: Property management software
  + Strengths: Offers good features such as leasing experience, accounting, building maintenance and more.
  + Weakness: Has a monthly-fee and is not focused on the administration of the Condo management companies.
* Traditional manual management or limited digital alternatives: Relies heavily on paper-based documentation and manual record-keeping. Limited use of technology for managing financial transactions and property information.
  + Strengths: Familiarity of the stakeholders, and minimal investment in technology.
  + Weakness: Time-consuming and prone to human errors, lack of real-time information, and reduced accessibility.

# Product Overview

This section provides a view of the product capabilities, and disadvantages that could lead to modifications of the documentation.

## Product Perspective

The condo management system is designed to simplify a few condominium administration tasks. It serves condo owners, renters, employees, and condo management companies. The main goal is to offer an all-inclusive platform for condo management, including financial tracking, communication, and reservations for common areas and duties.

## Assumptions and Dependencies

List of factors that affects the features stated in this document and assumptions that, if changed, will alter thedocument:

|  |  |  |
| --- | --- | --- |
| **Factor** | **Assumption** | **Change** |
| Availability of Internet Access | Users have access to the internet for using the app and website. | If a significant user base lacks reliable internet access, an alternative offline functionality might need consideration. |
| Security Measures | The implementation of adequate security measures to protect user data. | Any compromise in security could lead to unauthorized access, affecting user trust and necessitating changes in security protocols. |
| User Profiling Accuracy | Users provide accurate and up-to-date information for their profiles. | Inaccurate user profiles may affect the effectiveness of features like financial calculations and request assignment. |

# Product Features

List of the main features with a general description and their priority regarding the design of the system:

|  |  |  |
| --- | --- | --- |
| **Feature** | **Priority** | **Description** |
| Security and authentication | High | Users will have to authenticate to ensure security of their privacy. |
| User profile | High | Users can create and edit their profiles with a profile picture, user name, contact email, and phone number. |
| Registration Key Validation | High | Users must get a registration key from their condo management company to become condo owners or condo renters in the system. |
| Condo Owner Dashboard | High | Condo owners have a simple dashboard displaying property information, financial status, and the status of submitted requests. |
| Property Profile Creation | High | Condo management companies may build profiles for properties under their control, which include the property name, unit count, parking count, locker count, and location. |
| File Upload and Sharing | High | Condo management companies can upload and share condo-related files with all condo owners on a certain property. |
| Detailed Unit Information | High | Condo management companies can enter specific information about each condo unit, such as the size, owner, occupant data, and associated condo fees. |
| Financial System | High | Condo management companies can set condo fees, compute unit fees, maintain an operational budget, and input operational costs. The system can create annual financial reports. |
| Reservation System | High | Condo management companies can set up common facilities for reservation. Users can book facilities (e.g. sky lounge, a spa fitness) through a calendar interface, and availability is displayed. |
| Employee Role Management | High | Condo management companies can assign different roles (e.g., manager, finance) to employees. |
| Request Submission and Assignment | High | Condo owners can submit various requests (e.g., move-in/out, maintenance). Each request is assigned to the appropriate staff based on type. |
| Notification System | High | Users have a notification page showing the latest activities (submitted or assigned requests). |
| Forum for User Discussions | Medium | Users can post and reply to discussions in a forum. |
| Event Organization and Invitation | Medium | Users can organize events and invite others. |
| Discounts and Offers | Medium | Condo management companies can list coupons/offers visible to all unit owners or rental users of one property. |
| Cross-Platform Accessibility | Low (Bonus) | The app is accessible on Android, iOS, Linux, MacOS, and Windows platforms. |
| Multilingual Support | Low (Bonus) | The app is available in English and at least one other language. |
| Single Sign-On Integration | Low (Bonus) | Users can log in using their Gmail account or other compatible accounts, offering Single Sign-On (SSO) functionality. |