

# Software Product Vision

## 1. Introduction

The purpose of this document is to collect, analyze, and define high-level needs and features of the Condo Management System. It focuses on the capabilities needed by the stakeholders, and the target users, and why these needs exist. The details of how the Condo Management System fulfills these needs are detailed in the use-case and supplementary specifications.

The introduction of the Vision document provides an overview of the entire document. It includes the purpose, and references of this Vision document.

### 1.1 References

[https://docs.google.com/document/d/1W5KY6c0\\_mEQ\\_bhYRdYB1SbMT\\_YfOyvo7/edit?usp=sharing&oid=110439665938531188893&rtpof=true&sd=true](https://docs.google.com/document/d/1W5KY6c0_mEQ_bhYRdYB1SbMT_YfOyvo7/edit?usp=sharing&oid=110439665938531188893&rtpof=true&sd=true)

## 2. Positioning

### 2.1. Problem Statement

The problem of	Managing a given set of condos within a property
affects	The Condo Management Companies, the Condo Owners and Condo Renters
the impact of which is	(Confusion) Communication and ease of access to relevant information between the Condo Management Companies, the Condo Owners and Condo Renters
a successful solution would be	A Condo Management App to simplify communication and payment between Condo Management Companies, Condo Owners and Condo Renters

### 2.2. Product Vision Statement

For	Condo Management Companies, the Condo Owners and Condo Renters
Who	Want an easy way to communicate or make payment
The Condo Management System	is a software product
That	Simplifies owning, renting and managing Condos
Unlike	[primary competitive alternative <b>listed in section 3.5</b> ]
Our product	Contains a simplified financial system for payment <b>and is more user friendly(intuitive)</b>

### 3. Stakeholder and User Descriptions

#### 3.1. Stakeholder Summary

Name	Description	Responsibilities
Project manager	Oversees the development of the system.	<ul style="list-style-type: none"> <li>• Make estimations about project: Cost, Time and Effort</li> <li>• Monitor the projects progress</li> <li>• Ensure that project meets requirements</li> </ul>
Product owner	They provide the directions about the system's purpose based on the users needs and business goals.	<ul style="list-style-type: none"> <li>• Ensure that the app's features and vision are well defined.</li> <li>• Ensures that end product meets end users needs</li> <li>• Communicate with both end users and stakeholders</li> <li>• Translate feedback into features</li> </ul>
Development team	Team that will code and program the application.	<ul style="list-style-type: none"> <li>• Ensure that the requirements set by product owners are turned into functional products</li> </ul>
Marketing team	Team that will come up with a strategy to promote the app on the market.	<ul style="list-style-type: none"> <li>• Ensure that there will be a market demand for the proposed features</li> <li>• Study the market and target audience to optimize success of app</li> </ul>
Investors	People that are funding the creation of this application.	<ul style="list-style-type: none"> <li>• Fund the project in exchange of a return on investments</li> </ul>

Name	Description	Responsibilities
IT department	People that maintain the software and hardware of the application.	<ul style="list-style-type: none"> <li>Ensures that the system will be maintainable</li> </ul>

### 3.2. User Summary

Name	Description	Responsibilities	Stakeholder
Condo Management Companies	Companies that own condos and that are trying to put them on sale or rent.	<ul style="list-style-type: none"> <li>Create profiles for their condos and manage those profiles</li> <li>Have a reservation system for the facilities in their condos</li> <li>Set up roles for their employees</li> </ul>	Their interest will be represented by the product owners and marketing team.
Future and actual eCondo owners	<p>People that currently own a single or multiple units of a condo.</p> <p>People that will use the app to look into buying a unit of a condo or that already own units.</p>	<ul style="list-style-type: none"> <li>Manage their properties</li> <li>Create and manage a user profile</li> <li>Keep registration key secure</li> </ul>	Their interest will be represented by the product owners
Future and actual eCondo renters	<p>People that are currently renting out a unit of a condo.</p> <p>People that will use the app to look into renting a unit of a condo or that are already renting units.</p>	<ul style="list-style-type: none"> <li>Manage their properties</li> <li>Create and manage a user profile</li> <li>Keep registration key secure</li> </ul>	Their interest will be represented by the product owners
Employees of the condo management companies	They will use the app to take on roles (manager, support staff, etc )and assist condo unit owners.	<ul style="list-style-type: none"> <li>View the requests submitted by the condo owners and assist them</li> <li>Manage condo : Keep it clean and safe</li> </ul>	Their interests will be represented by the product owners and IT department.
Real Estate Broker	They will use the app to find and	<ul style="list-style-type: none"> <li>Intermediate between</li> </ul>	Their interest will be

	represent sellers (Condo Management Company) or buyers (Potential buyer or renter).	seller and buyer <ul style="list-style-type: none"> <li>Facilitate transactions</li> </ul>	represented by the product owners
Public users	They will use the app to look into buying or renting a unit of a condo.	<ul style="list-style-type: none"> <li>Create and manage a user profile</li> <li>Use app in accordance with its guidelines</li> </ul>	Their interest will be represented by the product owners and marketing team.

### 3.3. User Environment

- Users will need browser enabled device
- App needs to integrate Gmail so that users can log in using their gmail account
- Users need to have an adequate device such as a smartphone, tablet, laptop or desktop device to access the app and its features. They need to be able to open documents, pictures and videos sent by the app and other users.
- Users will be required to have the proper updates to be able to run the app on their smartphone or tablet
- Users will require internet connectivity to access all the features offered by the app. In case they don't have internet connectivity, they'll have access to emergency features and content they have saved for offline viewing. A secure internet connection is suggested to protect the personal information on the user's profile.
- App needs to integrate a secure financial system to allow safe transactions (ex: auto deposit, down payments, reimbursements, etc).
- App will require a team (4-10 people) to maintain it daily and make sure that there are no breaches of securities since it contains a lot of personal information.
- App needs to have a built in calculator that can calculate the price per unit and the remaining balance to be paid for a unit. This feature can be implemented by a team of 2-4 people.
- App needs to track the financial status of each condo management company, users and renters and provide them a financial report detailing all expenses, balances, etc. The financial report can be provided monthly and on request. This feature can be implemented by a team of 2 to 4 people.
- The payment portal of the app will require connection to the users banks websites.

### 3.4. Key Stakeholder or User Needs

Need	Priority	Concerns	Current Solution	Proposed Solutions
Create user profiles	High	Connect UI to database and store information for future logins	Connect user input from login page to database using MongoDB	None
Property dashboard	Medium	Intuitive UI, not cluttered but display enough information	None	Create a Prototype UI and obtain feedback from users
Create profiles for properties	High	Ensure there is no overlap in important information for condo files of each properties such as parking spot, locker, etc	None	Implement testing to check for overlap of information
Simplified financial system	Medium	Minute-to-minute update of condo fees for each unit	None	Implement observers to update changes to condo's balance
Simplified reservation system	Medium	Connect reservation system to make reservations for common facilities	None	Create a reservation calendar for common facilities

### 3.5. Alternatives and Competition

Competition	Advantages	Disadvantages
Buildium	Comprehensive functionality User-friendly interface	Expensive Steep user learning curve
Condo Control Central	Visitor management system Announcement features	Limited accounting features Website issues
AppFolio	Robust financial features	Lacking specific condo management features
TOPS[ONE]	Full suite of features Customizable reporting and analytics	Less intuitive UI Steep learning curve
Yardi Voyager	Scalable for large properties portfolio	Many potentially unnecessary features Expensive

## 4. Product Overview

### 4.1. Product perspective

The Condo Management System is a self-contained software system used in service of the condo owners, renters and management company.

The Condo Management System consists of a login page, a database to store user and condo data and different UIs for a variety of activities such as payment, requests, etc.

The Condo Management System can be used by condo owners and renters to get notified of payments, make requests to the management company, store various related information and communicate with other condo owners and renters.

The Condo Management system is comprised of several subsystems including:

- User Management subsystem
- Property Management subsystem
- Financial subsystem
- Reservation subsystem
- Authentication subsystem
- Database subsystem

External Subsystems:

- MongoDB ; external database subsystem
- RESTful API
- Fetch API/Axios

#### **4.2. Assumptions and Dependencies**

- One profile per condo
- The Management Company, Owners and Renters are the only people that will access this system
- Each owner and renter is responsible for their created account that is correctly linked to their respective condos
- The software is developed through the MERN stack and any changes made to the software will be using the same framework
- The system is compatible with a range of modern web browsers.
- The Condo Management System is designed to be deployed on various platforms and operating systems without significant modifications needed.

## **5. Product Features**

- 5.1. User profiles: The condo management companies, condo owners and condo renters will be able to create and manage user profiles which will display their picture, personal information and contact information.
- 5.2. Sign up : Condo management companies, future condo owners and condo renters can create an account using their unique email and a password to list condos and have access to the condos listed on the application.
- 5.3. Log in: Condo management companies, present and future condo owners and renters can securely log in using their email and a password. A two-factor authentication can be implemented to make their accounts more secure since they'll have personal information in the system.
- 5.4. Messaging system: Users will be able to communicate with each other via a messaging system when they see an interesting offer that they want to discuss with the condo management companies and owners.
- 5.5. Property dashboard: Condo owners will be able to see all the properties that they own including necessary information about their properties, their financial status and the requests that were submitted related to their properties.
- 5.6. Property profile: Condo management companies can create and manage a profile for the property they are listing, this profile will display pictures of the property and vital information such as the price,size, parking and lockers available.
- 5.7. Notification page: Users can see in a tab all the new messages they've received and all the updates since they last used the app.
- 5.8. Search feature: Users looking to buy or rent a condo can look for condos based on certain features such as the location and price.
- 5.9. Search filters: To further ease the search of the ideal condo, users can use filters to narrow down their search. These filters can be the size of the unit, available facilities, units on sale, etc.
- 5.10. Reservation system: Users will be able to rent common facilities provided by they own or rent through a reservation system. This reservation system will also display all the availability of the facilities to ease the reservation procedure for the user.
- 5.11. Request submission center: Condo owners can place requests though this system to request access to their condo, to an elevator for moving in or out, etc.
- 5.12. Registration key maker: Condo management companies can create randomized registration keys through the app to send to their clients.
- 5.13. Financial system: Condo management companies can set the price of their units, parking spots and lockers through this system, which will calculate the total price that will be presented to the buyer or renter.
- 5.14. Employee management: Condo management companies can set different roles for their employees for each property that they own.
- 5.15. Request assignment: When a condo owner submits a request, the request will be sent to the corresponding employee that can take care of it.

- 5.16. Emergency alert system: Condo management companies can send emergency alerts to their unit owners and renters like when the water will be shut off, elevator will be unavailable, etc.
- 5.17. Calendar: Condo owners and renters can see the important dates and events happening in their condo.

## **6. Other Product Requirements**

- 6.1. The Condo management app and website is available on MacOS, Linux, Android, iOS and Windows. It's important to concentrate on the web version before the app because it is simpler. The app should have the same theme and layout as the web version.
- 6.2. The language of the app can be changed to English or French. This has a high priority because this feature will bring in more users.
- 6.3. Users can sign in the app using their Gmail account or an SSO (Single Sign On). This has high priority because users have their personal information on the app and using their Gmail account or an SSO offers more security to their condo management account.