

SOEN390 - Software Engineering Team Design Project  
Team 6 - Deliverable 2

# Software Product Vision

Winter 2024

Done by:

Hoang Minh Khoi Pham 40162551  
Michaël Gugliandolo 40213419  
Jessey Thach 40210440  
Mahanaïm Rubin Yo 40178119  
Vanessa DiPietrantonio 40189938  
Ahmad Elmahallawy 40193418  
Clara Gagnon 40208598  
Khanh Huy Nguyen 40125396  
Jean-Nicolas Sabatini-Ouellet 40207926  
Mohamad Mounir Yassin 40198854

Professor Junqiu Yang  
Department of Computer Science and Software Engineering  
Gina Cody School of Engineering and Computer Science

Concordia University

# Table of Contents

<b>1. Introduction</b>	<b>2</b>
1.1. References	2
<b>2. Positioning</b>	<b>2</b>
2.1. Problem Statement	2
2.2. Product Position Statement	3
<b>3. Stakeholder and User Descriptions</b>	<b>3</b>
3.1. Stakeholder Summary	3
3.2. User Summary	6
3.3. User Environment	6
3.4. Key Stakeholder or User Needs	7
3.5. Alternatives and Competition	7
4. Product Overview	7
4.1. Product Perspective	7
4.2. Assumptions and Dependencies	8
<b>5. Product Features</b>	<b>8</b>
5.1 Login / Sign In	8
5.2 View Property Information	8
5.3 Manage Property under management	8
5.4 Financial System	8
5.5 Reservation System	9
5.6 Request System	9
5.7 Notification Page	9
<b>6. Other Product Requirements</b>	<b>9</b>

## 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.

### 1.1. References

N/A

## 2. Positioning

### 2.1. Problem Statement

The problem of	inefficient and fragmented condo management
affects	condo owners, rental users, and management companies
the impact of which is	delayed responses to requests, lack of transparency in financial transactions, and difficulty in accessing essential condo-related information
a successful solution would be	to improve communication, streamline management processes, and enhance user experience by giving users a uniformed product where all of them can perform all the property-related activities in one place.

## 2.2. Product Position Statement

For	condo owners, rental users, and management companies
Who	want to perform condo management tasks
The (product name)	Condo Management System is a software product
That	centralizes all the condo-related activities into one application
Unlike	the current inefficient and fragmented condo management that needs users to go to different places/applications to do their tasks
Our product	group all condo-related tasks into one single application, simplifying the process of condo management and saving time for all users.

## 3. Stakeholder and User Descriptions

### 3.1. Stakeholder Summary

Name	Description	Responsibilities
Condo owners	Users who own the condo unit	<ul style="list-style-type: none"> <li>● Provides regular payment of condo fees</li> <li>● Provides submission of requests.</li> </ul>
Rental Users	Users who is renting the condo unit	<ul style="list-style-type: none"> <li>● Provide their own unique profile with their username, contact email, phone number, registration key</li> </ul>
Condo Management Company	The company who is managing the properties which contain multiple condos.	<ul style="list-style-type: none"> <li>● Registers their employees in the system and assigns different roles to them</li> </ul>
Condo Management Employees	The employees who are managing and working on features for the property which contains multiple condos. This includes the manager, financial manager, and operators.	<ul style="list-style-type: none"> <li>● Provide the system with the rate of the condo fee per square foot/parking spot. Provide the cost of each operation</li> <li>● Provide information to the system concerning the facilities available</li> </ul>
Property Owners/Investors	Individuals or entities who own the condominium properties managed by the management company.	<ul style="list-style-type: none"> <li>● Provide oversight and direction to the management company</li> <li>● Ensure the property is well-maintained and financially viable</li> <li>● Approve major decisions such as budgeting, capital expenditures, and changes to property</li> </ul>

		<p>management contracts</p> <ul style="list-style-type: none"> <li>• Collaborate with the management company to address concerns and achieve shared goals</li> </ul>
Condo Association Boards	Boards or committees representing the collective interests of condo owners within a property, which may work closely with the management company.	<ul style="list-style-type: none"> <li>• Develop and enforce rules and regulations for the condominium community</li> <li>• Manage the condominium association's budget and finances</li> <li>• Interface with the management company to address resident concerns, property maintenance issues, and other matters affecting the community</li> <li>• Plan and oversee community events and initiatives</li> </ul>
Regulatory Authorities (e.g. government bodies or agencies)	Government bodies or agencies responsible for overseeing and regulating condominium management practices.	<ul style="list-style-type: none"> <li>• Enforce laws and regulations governing condominium management and operations</li> <li>• Conduct inspections and audits to ensure compliance with applicable regulations</li> <li>• Provide guidance and assistance to condominium associations and management companies on regulatory requirements</li> </ul>
Developers	Developers of the condo management system	<ul style="list-style-type: none"> <li>• Develop and maintain the website</li> </ul>

		<ul style="list-style-type: none"> <li>• Ensure the functionality and usability of the system</li> <li>• Address any technical issues or updates related to the system</li> </ul>
--	--	---

### 3.2. User Summary

Name	Description	Responsibilities	Stakeholder
Condo management	Organizations responsible for managing condo properties.	<ul style="list-style-type: none"> <li>- Ensure efficient daily operations</li> <li>- Financial stability</li> <li>- Adherence to regulations</li> </ul>	<ul style="list-style-type: none"> <li>- Property owners/investors</li> <li>- Condo association boards</li> <li>- Regulatory authorities (e.g. government bodies or agencies)</li> <li>- Condo management employees</li> </ul>
Condo Owners	Individuals who own condominium units.	<ul style="list-style-type: none"> <li>- Access property information</li> <li>- Monitor Financial Status</li> <li>- Submits request</li> </ul>	self-represented.
Rental Users	Individuals renting condo units	<ul style="list-style-type: none"> <li>- Profile management</li> <li>- Financial tracking</li> <li>- Property Access</li> <li>- Request submission</li> <li>- Reservation Participation</li> <li>- Communication</li> </ul>	self-represented.

### 3.3. User Environment

- This system encompasses many tasks that all vary in duration. For example condo owners spend time reviewing their property dashboards, checking their financial information and submitting requests. Whilst a condo management company will spend time doing financial tracking and addressing user requests.

- The number of people involved can change depending on if new rental users join the system and as condo management companies expand their portfolios. On the same token, as the system's reach expands, the time to complete tasks such as responding to user requests could become longer.
- The user environment is primarily indoor and may involve both desktop and mobile usage. Condo owners and rental users may access the system from the comfort of their homes or on the go, emphasizing the need for a responsive and user-friendly interface.
- Currently, the CMS is designed to operate on both desktop and mobile platforms, ensuring accessibility for users across various devices. Future platform considerations may include updates for emerging technologies and changes in user preferences.
- Users within the condominium environment may be accustomed to using communication tools, document management systems, and financial software. The CMS should be designed with the capability to integrate with these applications, streamlining user interactions and ensuring a seamless experience.

### 3.4. Key Stakeholder or User Needs

Need	Priority	Concerns	Current Solution	Proposed Solutions
Accessible Information	High	Lack of transparency	Manual records	Centralized
Financial Transparency	High	Unclear financial status	Manual Tracking	Automated financial system
Efficient Requests	Medium	Delayed responses	Manual submission	Streamlined request process

### 3.5. Alternatives and Competition

Existing alternatives include manual condo management processes, potentially leading to inefficiencies and delays. Competitive alternatives may offer partial solutions but lack the comprehensive features proposed by the Condo Management System.

## 4. Product Overview

### 4.1. Product Perspective

The Condo Management System is an independent, self-contained product that integrates seamlessly with existing condo management practices. It provides a unified platform for users to manage profiles, financials, and property-related activities.



## **4.2.Assumptions and Dependencies**

The successful implementation of the Condo Management System assumes the availability of stable system platforms, adherence to specified standards, and seamless integration with external applications. Dependencies include the timely provision of necessary information by stakeholders.

## **5. Product Features**

### **5.1 Login / Sign In**

Public Users (owners and rental users) will be able to create their own profile after providing a username, contact email, phone number with an option of adding a profile picture. Public users can then be registered as a condo owner or a rental user by providing a registration key given by their condo management company. Users will be able to sign out and login using their credentials.

### **5.2 View Property Information**

Users will be presented with a dashboard of their properties, including their general information. ex: personal profile, condo information, financial status, status of the submitted request, etc.

### **5.3 Manage Property under management**

Condo Management companies shall create their own property profiles providing the system with property name, unit count, parking count, locker count, address. They shall also upload condo files for each property. Condo management companies shall enter detailed information for each condo unit, each parking spot, and each locker in a building. Condo management companies shall send registration keys to unit owners or rental users for their dedicated units. Such registration keys shall be used by unit owners or rental users to link a condo unit with their profiles.

### **5.4 Financial System**

The financial system is within the condo management system and it shall allow condo management companies to enter condo fees per square foot and per parking spot. It shall also calculate and present the condo fees to each unit owner. The financial system shall record operational budget and prompt companies to enter the cost for each operation. Finally, it shall produce an annual report.

## **5.5 Reservation System**

The condo management system shall contain a simplified reservation system. Condo management companies shall be able to set up common facilities that require reservations. Condo owners and rental users shall be able to reserve these common facilities.

## **5.6 Request System**

Condo owners shall submit requests such as moving in/out, intercom changes, requesting access and so on. Each request shall be assigned to the appropriate employee.

## **5.7 Notification Page**

All users shall have a notification page, where they can view the latest activities in their submitted or assigned requests.

# **6. Other Product Requirements**

N/A