

Software Product Vision

1. Introduction

This document answers the most simple, but important questions on the upcoming project. It outlines the what, why and who of the Condo Management Website to be developed. Prior to its completion, proper analysis of the project has to be achieved to properly answer the below sections. It describes a current problem that a group of people are facing that this website can rectify. The stakeholders and the target users must be understood to make the website optimally useful. Furthermore, a list of the product's features will be addressed in this paper for a better overview of the system at hand. Supplementary information will be provided to fully comprehend the purpose of the system's creation.

2. Positioning

1.1. Problem Statement

The problem of	poor mechanism for property management.
affects	renters, owners, employees and managers of a complex building.
the impact of which is	harder to address problems which created more stressful situations, unhappy tenants and workers, misunderstandings, loss in financial insights, etc.
a successful solution would be	to create a website: Condo Management Website, that all affected people can view and easily address their properties and concerns.

1.2. Product Position Statement

For	all participants inside a complex building.
Who	need information regarding their properties, common rooms inside the facility, jobs to be done, etc.
The (product name)	Condo Management Website.
That	provides a centralized space to address multiple concerns from different target users in an easy, fun and fast way.
Unlike	paper management system or phone service.

Our product	does not require tiresome documentation and holds more memory and specifies details better than a phone call. Time will be saved by eliminating long processes and having instant data on the building.
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3. Stakeholder and User Descriptions

3.1. Stakeholder Summary

Name	Description	Responsibilities
Project Manager	A project manager monitors the project closely from start to finish.	<p>Manage and monitor the overall project. (e.g. Budget, Schedule, Resources, etc.)</p> <ul style="list-style-type: none"> Ensures that the project is respecting the budget and schedule. Ensures that the project will meet the requirements. Monitors the project's status.
Quality Assurance Team	The quality assurance team ensures that all the requirements have been met and are functional.	<p>The quality assurance team will test the functional and non-functional requirements.</p> <ul style="list-style-type: none"> Testing of features and solving bugs. Identify and propose mitigation strategies for potential risks.
UX/UI Designers	Design user-friendly websites by understanding user needs.	<p>UX (User Experience) and UI (User Interface) designers focus on designing a user-friendly product and one that also satisfies the user's needs.</p> <ul style="list-style-type: none"> Research to gather user preferences and needs. Create a prototype and test the design.

Web Developers	Web developers include front-end and back-end developers. The developers develop and implement the overall website so it is functional and secure.	<p>The front-end developers are responsible for implementing the visual aspect of the website.</p> <ul style="list-style-type: none"> • Collaborate with the UI designers to develop the platform • Ensure responsive design <p>The back-end developers are responsible for the logic and functionality of the platform.</p> <ul style="list-style-type: none"> • Create database structures • Ensure the security and integrity of data • Create and maintain API
Legal Department	The legal team ensures that all the operations are legal and within regulation.	<p>The legal team will monitor the condo management system operations to verify that all actions respect the rules and regulations.</p> <ul style="list-style-type: none"> • Manage risk related to data protection, third-party contracts, and other aspects. • Participate in the drafting and negotiation of a contract. • Provide legal opinions.

3.2. User Summary

Name	Description	Responsibilities	Stakeholder
Public users	Public users are the users who visit the condo management system intending to become condo owners or renters.	<ul style="list-style-type: none"> • Create a profile • Submit registration keys to become condo owners or renters. • Reserve common facilities if renters or owners of a condo unit. 	Self-represented

Condo owner	Individual who owns a condo unit.	<ul style="list-style-type: none"> • Submit the registration key provided to become condo owners in the system. • Access the dashboard to view information on their properties. • Can submit requests • Reserve common facilities. 	Self-represented
Condo renter	Individual who rents a condo unit.	<ul style="list-style-type: none"> • Submit the registration key provided to become rental users in the system. • Reserve common facilities. 	Self- represented
Condo management companies		<ul style="list-style-type: none"> • Create a profile for a property. • Enter details of the condo unit such as fee/sqr foot, fee/parking, etc.) • Upload file for a condo unit containing information about the condo unit. • Send registration keys to condo owners and renters. • Set up common facilities • Set roles for employees. 	Self-represented
Employees	An individual who works within buildings	<ul style="list-style-type: none"> • Create a profile. • Associates their account with a building or buildings. <ul style="list-style-type: none"> • Respond to requests/notifications. • Notifies when the job is done. 	Self-represented

3.3. User Environment

- **Number of people involved in completing the task? Is this changing?**

Condo owners or rental users can complete tasks individually.

- **How long is a task cycle? Amount of time spent in each activity? Is this changing?**

Each task cycle will depend on the complexity of the task. For example: a request made by a condo owner might take about 3-4 business days to be resolved. The complexity and nature of the request influence the specific duration. However, each condo management company has designated employees to handle various types of requests. Moreover, simple tasks such as booking a common facility, are designed for quick completion. These tasks will take only less than 10 seconds. The duration of task cycles may vary in the future as we gather feedback, our system will be maintained regularly to ensure adaptability to the various types of tasks.

- **Any unique environmental constraints: mobile, outdoors, in-flight, and so on.?**

All users are expected to have a device with internet connectivity to access the condo management system. It can be accessed anytime and anywhere from any device (mobile, laptop, iPad). It is also important to ensure that the system is responsive (compatible with any device type) and user-friendly.

- **Which system platforms are in use today? Future platforms?**

The condo management system can be accessed on Android, iOS, MacOS, Windows and Linux. Our dedicated maintenance team is committed to ensuring continued compatibility with these platforms in future updates.

- **What other applications are in use? Does your application need to integrate with them?**

The condo management system is designed to operate independently and will not be integrated with any other applications.

3.4. Key Stakeholder or User Needs

Stakeholder	Need	Priority	Concerns	Current Solution	Proposed Solutions
Public users	Create profile Registration key to becoming a condo owner or rental user	3 5	The profile creation process should be seamless and easy. Access to property information following the registration key.	Submit all personal information manually and multiple in-person document signatures and meetings.	Profile creation is done online with only a few pieces of information and all signatures and documents are submitted online as well, making the whole process smooth and easy.
Condo Owners	Access to Dashboard Submit requests	4 4	Access to their details, info regarding the condo, financial standing, and current status of any submitted request. The ease of submission for different types of requests such as move-in/move-out, intercom changes, report violations, etc.. and the processing time	Log in to the system and navigate through all the different pages. Send emails to submit a form, or call customer services.	Design a simplified dashboard that offers quick access to all the details and features. When logged in, owners can easily submit a form online to improve efficiency and requests.

			of the requests..		
Condo Renters	<p>Access to condo unit information using a registration key.</p> <p>Submit requests</p>	<p>4</p> <p>4</p>	<p>Access to their details, info regarding the condo, financial standing, and current status of any submitted request.</p> <p>The ease of submission for different types of requests such as move-in/move-out, intercom changes, report violations, etc. and the processing time of the requests..</p>	<p>Log in to the system and navigate through all the different pages.</p> <p>Send emails to submit a form, or call customer services.</p>	<p>Design a simplified dashboard that offers quick access to all the details and features.</p> <p>When logged in, owners can easily submit a form online to improve efficiency and requests.</p>
Condo Management Company	Set up roles for employees	<p>4</p> <p>5</p>	<p>Ensure role assignment for different operations.</p> <p>Efficient property management</p>	<p>No specific roles assigned</p> <p>Manual data entry or</p>	<p>Ensure proper role assignment for different operations within the condo management system with clear communication channels.</p>

	Manage property profiles.		(reservation system, financial system, uploading condo files, etc..)	dependence on other systems	Integrated system for managing profiles and data entry.
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3.5 Alternatives and Competition

There are multiple alternatives that stakeholders can use to address their condo management needs. One alternative could be a manual paper-based system for condo management which involves the use of physical documents and forms. However, it has some challenges such as slow retrieval of files which can lead to potential delays, it is prone to human errors. Thus, the manual paper-based system lacks efficiency, and the capabilities that digital management systems can offer. Another alternative is the use some generic project management tools, which will lack many features related to condo management and it will introduce delays, and increase the workload for the companies. Therefore, using Decagon, a software specifically developed for condo management, will be the best option for condo management companies as well as potential condo owners or rental users.

4. Product Overview

4.1. Product Perspective

The condo management system is designed to function as an independent product as it incorporates all the necessary features and functionalities required to manage the properties and deliver a user-friendly product.

4.2. Assumptions and Dependencies

A user accessing the condo management system app is assumed to have the following criteria.

1. A user must have a device which may include Android/ iOS smartphones, laptops, computers or tablets.
2. These devices are assumed to have reliable internet connectivity to access the app or webpage.

3. Users are assumed to have the basic technical knowledge to navigate through the condo management system.
4. Users are assumed to enter accurate information to create their profile.

5. Product Features

Below is a list of product features of the project:

1. Users can sign up or login in while being authenticated.

Priority: High

This feature is a necessary component of our project. It allows users to sign up and login in the website. This is crucial for differentiating users and providing a safe entry into our system. It is important to differentiate a tenant from a manager or an employee when signing up since the UI will change based on their needs. Smaller functionalities can be included like “forgot password” to facilitate the user’s experience.

2. Users can personalize a profile for their account.

Priority: Low

While this feature is nice to have, it is not necessary to the major functionalities of our project. However, adding an individual space for the user to enter their details is a nice feature as it can always be updated by the user. Therefore, user information is less likely to be out-of-date. For instance, if the user changes their phone number, they can update it and still be easily contacted in future.

3. Users can have a view of his properties and easily view their portfolios.

Priority: High

As a tenant or a manager, it is important to be able to see the properties you own or manage. If you are an employee, it is important to see the properties who employ them. Being able to see your units, parkings or lockers is a must for a website that is meant to manage or foresee these things.

4. Users can create a portfolio of a property.

Priority: High

As a manager, it is important to be able to create portfolios for the properties you manage. This will allow whoever owns or rents them for additional details on the units, parking or lockers. As a manager, these details are crucial to properly manage, sell or rent.

5. Users can submit requests.

Priority: High

If any issues arise from owning, renting or working units in a building, it is necessary to be able to address these concerns. Having a way to submit a request is an easier way to solve this issue than a phone call.

6. Users can be notified.

Priority: High

It is important for a user to be properly informed when changes are made to a property you live in or work for. This is also a way to inform the user of any updates on request they made.

7. Users can define roles to the different employees.

Priority: Medium

Being able to set roles on an employee can facilitate the distribution of jobs within a building. While, it is possible to naturally know who can do what within a building, setting roles on an employee when there are many in a system is difficult.

8. Users can book for common rooms available in the complex.

Priority: Low

While this is a really cool feature to have, a lot of common facilities in public buildings are first come first serve. However, since this is a website whose purpose is to facilitate the life of everyone involved, having a booking system to reserve rooms in a building is good. The user can see which times are available for booking and possibly have a time limit depending on the room: gym, pool table, meeting room.

9. Users can benefit from a financial system that generates reports.

Priority: Medium

A financial system is great to have when it can generate automatically results from large amounts of data that would otherwise consume a lot of time by hand. This will be able to calculate things like property fees, building sizes, amounts due, etc.

10. Users can register their account with properties in the buildings they are tenants in.

Priority: High

This requirement allows the user to associate their account with the units they own or rent. This includes parking and lockers. They will be able to put in the key, the unique identifier, of the property they want to link. This is crucial since this is the way the user can actually see their property and add more when needed.

6. Other Product Requirements

Applicable standards:

The condo management system will adhere to all security and data protection measures along with all software quality standards.

Hardware and Platform requirements:

The system will run smoothly on devices with modest CPU, RAM and storage.

The system is accessible through all web browsers (Safari, Google Chrome, Firefox)

The system is accessible on Android, iOS, MacOS, Windows and Linux.

Performance requirements:

The system will have an optimal response time for all user interactions.

The system is available for all users at all times.

The system is scalable to serve many users at the same time.

Environmental requirements:

The system requires a stable internet connection for all types of users to access the condo management system. Moreover, it can be accessed on a variety ranges of devices. This includes Android, iOS, tablets, laptops and computers.

Quality Ranges:

Performance: The performance of the system is expected to be optimal, with a response time of less than 3 seconds for any user interactions.

Robustness: The system is stable and able to handle unexpected or invalid input by providing an error message to the user.

Fault tolerance: The fault tolerance of the system is high, ensuring continual operation even after the failure of a component without complete downtime.

Design constraints, external constraints, or other dependencies: The system is expected to run on a browser that allows pop-up windows and any other tools that are used by the system.

The priority of these additional requirements is to ensure a seamless user experience and to build a safe, secure and user-friendly platform. These priorities aim to build a condo management system that not only fulfills functional needs but also ensures user satisfaction.