

PROPERTY MANAGEMENT PRO

1. Introduction

The purpose of this document is to collect, analyze, and define the high-level needs and features of the **Property Management Pro (PMP)** system. It focuses on the capabilities required by landlords, tenants, finance personnel, and system administrators, and explains why these needs exist. The details of how PMP fulfills these needs will be defined in the use-case and supplementary specifications.

1.1 References

- <https://www.ibm.com/docs/en/engineering-lifecycle-management-suite/doors-next/7.0.3?topic=requirements-vision-document>
- https://students.aiu.edu/submissions/profiles/resources/onlineBook/N6k3x5_Project%20Mgt.pdf
- <https://www.cicnews.com/2023/06/what-are-your-rights-as-a-tenant-everything-you-need-to-know-about-renting-your-first-home-in-canada-0634471.html>
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2. Positioning

2.1. Problem Statement

The problem of	Managing rental properties using disconnected, manual tools
Affects	Landlords, tenants, property managers, accounting/finance staff and system administrator
The impact of which is	Inefficiency, delays in communication, rent collection issues, and poor record-keeping
A successful solution would be	Inefficient property operations, delayed responses to tenant needs, increased risk of errors in rent and finance management, and overall frustration for landlords, tenants, and accounting staff.

2.2. Product Position Statement

For	landlords, property managers, tenants, and finance staff
Who	need an easy and efficient way to manage rental operations, handle tenant interactions, and generate financial reports.
The Property Management Pro	is a web-based property management platform
That	allows users to manage rent, maintenance, leases, and reports all in one place- saving time, reducing errors, and improving efficiency.
Unlike	Regular or traditional manual methods such as Excel sheets, printed lease forms, and phone-based maintenance tracking
Our product	Offers an all-in-one, user-friendly, and secure web-based system that streamlines rental operations and is specially tailored for the Canadian property market.

3. Stakeholder Descriptions

3.1. Stakeholder Summary

Name	Description	Responsibilities
Product owner	The person responsible for the overall business success of the PMP system.	Project owner checks the system and confirm that it helps the business, decides the important features of to, also sees whether the people need the product and approves if any big changes needs during the project
Project manager	His responsibility is to manage the project from the beginning to the individuals and makes sure that those that is planning till the delivery of the product.	He checks the project status, assigns tasks to the individuals and makes sure that those are met, takes care of the deadlines and budget of the project.
Development team	Software developers and engineers building the platform	Designs, codes, tests, and deploys the PMP system, ensures technical feasibility and performance
Testing/QA team	Team responsible for quality control and assurance	Develops test cases, find bugs, validates system features, and ensures overall quality
System administrator	IT staff managing the system infrastructure and access	Sets up servers, manages user roles and permissions, ensures system security and uptime
Finance/accounting team	Staff handling the project's budgeting and payment modules	Oversees project budget, ensures the payment features are compliant and functional
Compliance officer	Legal expert ensuring compliance with Canadian rental regulations (e.g., Residential Tenancies Acts by province), including lease validity, eviction protocols, rent control guidelines, and PIPEDA for data protection.	Reviews lease templates, checks compliance with Canadian housing laws and data protection rules

3.2. User Summary

Name	Description	Responsibilities	Stakeholder
Landlords	Own or manage rental properties	Approve leases, collect rent, review tenant info, respond to maintenance requests	Direct

Property Managers	Handle daily operations of rental buildings	Communicate with tenants, schedule maintenance, manage lease and payment details	Direct
Tenants	Rent residential or commercial units	Pay rent, submit maintenance requests, access lease and billing information	Represented by landlords
Finance staff	Handle accounting, payments, and reports	Track rent payments, generate financial/tax reports, manage invoices	Direct
System administrator	Set up and manage access to the system	Create user accounts, assign roles, maintain system security and access controls	Direct

3.3. User Environment

- The number of people using the system will differ. A small landlord may use it alone and while a property management company might have 5 to 20 users including staff for maintenance, finance, and communication. In larger organizations, usage may extend to over 100 users.
- The task cycle depends on the role. Tasks such as tracking, responding to maintenance and tenant communication. Monthly tasks are rent collection, lease reviews and invoice generation. Yearly tasks are the tax reporting and lease renewals.
- The time spent on each task varies. Rent tracking typically takes 10-30 minutes per property each month. Lease approvals take 15-45 minutes, and financial reports may take 30-60 minutes for generating. Automatic report generating will reduce the durations to complete these tasks.
- The system must work in various environments. PMP can be used in offices, homes, or from outside anywhere but they should have a stable internet connection. Depending on the need, Users can use this system on desktops, laptops, and smartphones.
- Users can be use through common browsers like Chrome, Firefox, and Edge. The system can function on both Windows and macOS for users who utilize on desktop and it also supports Android and iOS for mobile access.
- Currently, users depend on tools such as excel for tracking their rent, gmail or outlook for communication. Some also use whatsapp for SMS to contact tenant.
- PMP should collab with payment gateways, email clients and accounting platforms.

3.4 Key Stakeholder or User Needs

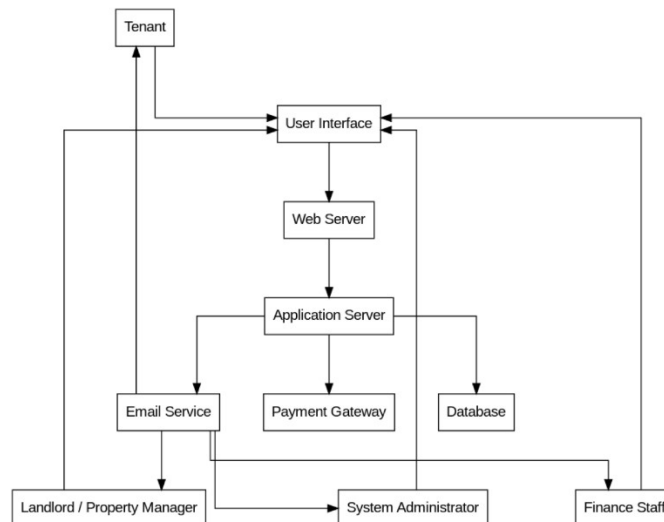
Need	Priority	Concerns	Current Solution	Proposed Solutions
Confirm rent payment status	High	No conformation or receipt after paying rent, unclear status of payment	Email link with no confirmation	Instant confirmation screen, downloadable receipt, and payment history log
Track and collect rent payments	High	Payments are missed or delayed; no reminders or records	Phone calls or paper notes	Digital request system with status updates and notifications

Approve and store lease agreements	Medium	Paper leases are hard to organize; prone to loss or miscommunication	Printed documents or email	Secure digital lease storage with approval workflows and document sharing
Generate financial and tax reports	High	Time-consuming, error-prone calculations, no automated summaries	Manually using excel	Auto generated financial reports with filters and tax summaries
Manage user roles and permissions	Low	No control over who can access what, manual updates	Shared files or access lists	Role-based login system to control access for landlords, staff, and tenants
Store documents and property records	Medium	Difficult to track and find documents quickly	Physical folders or emails	Centralized digital storage with tagging and search

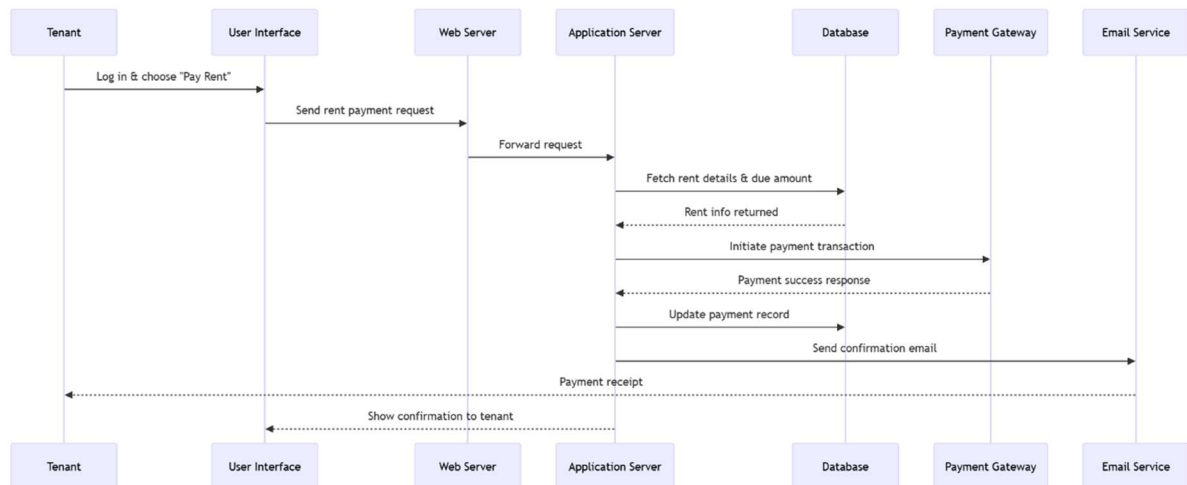
4. Product Overview

4.1. Product Perspective

PMP is an online software that automates the real estate properties & payments, such as rents, billing, maintenance and communication between landlord, tenant, Facility team & Finance team. It can also function independently, but it's truly useful when combined with other tools such as payment gateways, accounting software, or email services.



Block Diagram



4.2. Assumptions and Dependencies

Assumptions	Dependencies
Users have basic knowledge of digital tools	User interface must be simple and require minimal technical expertise
Secure login and role-based access are required	Authentication protocols such as OAuth or firebase auth
Users will access the system via desktop and mobile devices	Interface must be responsive and mobile-friendly
Landlords will follow Canadian rental laws and financial reporting	system must comply with Canadian provincial tenancy acts such as the Residential Tenancies Act (RTA) in Ontario or Civil Code of Québec, ensuring legal templates and notices meet required standards (e.g., rent increase notice periods, eviction conditions, and lease termination rules).

5. Product Features

5.1 Lease Management

You are also able to create, upload, approve and archive lease agreements. Include details such as tenant name, lease date range, rent amount and digital signature status

5.2 Tenant Management

Organise the contact information, rental history, lease status, and ongoing maintenance requests of your tenants.

5.3 Rent Collection and Payment Tracking

Keep track of your rent payments each month, along with the due dates, late fees, and status of your payments (paid, pending, overdue). Tenants should receive automated reminders.

5.4 Integration of Online Payments

Tenants can easily and securely pay their rent online using a third-party gateway like PayPal or Stripe. The system takes care of everything by automatically generating logs and receipts for each transaction.

5.5 Maintenance Request Management

Permit tenants to request maintenance or repairs. Assign work, monitor development, and change the status of requests (pending, in-progress, resolved).

5.6 Property Listing and Unit Management

Add and maintain information about multiple properties and their rental units and provide data such as unit size, type, rent and occupancy.

5.7 Communication Portal

Enable in-app messaging between tenants and landlords for inquiries, updates or notices. Backed up with message log and status tracking.

5.8 Financial Dashboard and Reporting

Provide profit-and-loss statements, summaries for annual tax, logs of all expenses, and rent rolls for each unit or an entire portfolio.

5.9 Notifications and Reminder System

Notification reminders can be sent via email or in-app about rent due dates, lease expires and status updates about upcoming maintenance.

5.10 Role-Based Access Control

Set access levels for all users based on roles – landlord, tenant, financial staff, and administrator. Feature access will be restricted based on roles.

5.11 Document Storage and Management

Document storage in a secure place – with the ability for landlords to upload and save records, such as tax returns, ID documents, and lease agreements, and organize them in a digital file cabinet.

5.12 Mobile and Web Compatibility

The system will thoroughly be compatible on desktop and mobile devices. The system will have responsive design for Windows, MacOS, iOS, and Android.

5.13 User Profile Management

Give users the ability to modify personal settings, update passwords, and edit profile information.

5.14 Secure Authentication System

Use encryption to create a secure login process that supports session management and multi-factor authentication.

5.15 Integration with Accounting Tools

To create financial reports and sync payment data, connect to third-party accounting software (such as Xero or QuickBooks).

5.16 Tax Report Generation

Create downloadable annual or monthly tax reports to help landlords manage tax filings.

5.17 Payment Receipt System

Generate and email rent payment receipts to tenants. Maintain a record of all transactions for audit purposes.

5.18 Audit and Activity Logs

Monitor user activities inside the system including logging in, uploading documents, and modifying lease or payment information.

5.19 Multi-Property Support

Allow landlords to manage multiple properties under a single account with separation of data per property.

5.20 Feedback and Rating System

Tenants can provide feedback on maintenance services or rate their rental experience.

5.21 Announcement Board

Landlords or admins can provide notices for tenants (e.g. water shut off, building inspections, holidays).

5.22 Invoice Management

Tenant payment invoices will be prepared monthly with tenants' information, payment history and rental due dates.

5.23 Expense Tracking

A record of expenses related to the property like repairs, utilities or upgrades. Record expenses and track / categorized spending.

5.24 Budget Planning

To assist landlords in planning their annual budgets by providing expected cost and revenue for each property.

5.25 Legal Compliance Reminders

Send landlords notifications for important dates related to inspections, renewals or compliance requirements found in local laws.

5.26 Support Center / Help Module

Provide help articles, FAQs or a ticketing system for technical issues and tenant related issues.

6. Other Product Requirements

- PMP shall be accessible with any modern browser, including Android, iOS, Windows, or macOS.
- The system should allow for 5,000 concurrent users and display page in under 2 seconds.
- HTTPS should be used for safety, passwords should be encrypted, and there should be an access control system based on roles.

- The system must comply with Canadian data privacy laws (e.g., PIPEDA) and provincial rental laws (e.g., Ontario RTA, Québec Civil Code). This includes lease content compliance, digital signature legality, and storage of legal documents for audit purposes.”Payment gateway, accounting, and mailing services integration shall be part of the solution.
- All manuals and help (FAQs, Tooltips) must become available for all user roles.

7. Appendix

Date	Section	Time
July 9	Introduction, positioning	1 hour
July 9	positioning	1.5 hours
July 10	Stakeholder descriptions	2 hours
July 10	Product overview	2 hours
July 10	Product Features	1.5 hour
July 10	Other product requirements	2 hour

EVIDENCE: <https://github.com/gmsv07/soen6481.git>

