Project Report

Term Project – Group NO #2

Group Members:

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1. BUSINESS CASE

1.1 EXECUTIVE SUMMARY

ABC Rental Management Inc. faces significant challenges with its outdated and disparate information systems, inhibiting operational efficiency and scalability in a competitive market. The Centralized Rental Management System (CRMS) project is proposed to address these challenges by integrating all rental operations into a single, agile, and scalable web platform. Anticipated outcomes include a 20% reduction in operational overhead, a 30% decrease in data-related errors, and a 15% increase in tenant retention rates, directly contributing to improved operational efficiency, data integrity, and tenant satisfaction. This project is aligned with ABC Rental Management Inc.'s strategic goals of leveraging technology for business growth and operational excellence, offering a compelling return on investment through cost savings and enhanced competitive positioning. The CRMS project is not just an operational necessity but a strategic imperative to maintain and enhance ABC Rental Management Inc.'s market leadership.

1.1.1 Issue

ABC Rental Management Inc., the leading rental management company in Canada, currently operates with several outdated information systems. These systems are inefficient, not integrated, and cannot support the company's rapid expansion and acquisition of new properties. This has resulted in increased operational costs, data inconsistency, and a compromised tenant experience.

1.1.2. Anticipated Outcomes

Implementing the Centralized Rental Management System (CRMS) will enable ABC Rental Management Inc. to manage all rental operations on a unified platform. This will improve operational efficiency, provide real-time data accessibility, and enhance tenant service quality.

1.1.3. Recommendation

We recommend developing the CRMS using agile methodologies to provide a scalable, user-friendly platform that integrates all management aspects of the rental business, including properties, tenants, staff, and maintenance activities.

1.1.4. Justification

The CRMS project aligns with ABC Rental Management Inc.'s strategic goals and is expected to reduce operational overhead, improve data management, enhance tenant satisfaction, and provide a strong return on investment.

1.2. BUSINESS CASE ANALYSIS TEAM

Role	Description	Name
Product Owner / Project Manager	Oversees project alignment with business goals.	Yasaman Mirvahabi Sabet
Lead Developer / Engineer	Technical leadership and development oversight.	Dorsa Mohammadi
Quality Assurance Analyst	Ensure the product meets quality standards.	Dilara Yalniz
UX/UI Designer	User interface and experience design.	Thanh Vu Le

1.3. PROBLEM DEFINITION

1.3.1. Problem Statement

The existing disparate systems for property and tenant management lead to inefficiencies and increased operational costs, hindering ABC Rental Management Inc.'s ability to scale effectively.

1.3.2. Organizational Impact

The new CRMS will streamline rental management processes, reduce the administrative burden on staff, and enable better data-driven decisions.

1.3.3. Technology Migration

The phased technology migration plan will ensure a smooth transition from existing systems to the CRMS with minimal operational disruption.

1.4. PROJECT OVERVIEW

1.4.1. Project Description

The CRMS project will deliver a web-based platform that supports all operational aspects of ABC Rental Management Inc., with a focus on scalability, security, and user experience.

1.4.2. Goals and Objectives

Integrate all property management functions into a single platform.

Provide a superior tenant portal for lease and maintenance management.

Automate and optimize internal management processes.

1.4.3. Project Performance

Key metrics for project performance will include system uptime, user adoption rates, and operational efficiency gains.

1.4.4. Project Assumptions

Assumptions include the availability of resources, stakeholder support, and the adaptability of ABC Rental Management Inc.'s operations to the new system.

1.4.5. Project Constraints

Constraints may involve limited IT resources, budget restrictions, and the availability of technologies.

1.4.6. Major Project Milestones

Project Kickoff: **February 19th, 2024**

Completion of Requirements: **April 9th, 2024**

System Development Phase: **March 11th, 2024 – April 30th, 2024**

Testing & Quality Assurance: **May 1st, 2024 – May 15th, 2024**

CRMS Go-Live: **May 16th, 2024**

Project Closeout: **June 1st, 2024**

2. PRODUCT VISION STATEMENT

For rental property managers and tenants requiring a streamlined, efficient, and integrated approach to property management, the Centralized Rental Management System (CRMS) is a comprehensive, web-based property management platform. It significantly reduces administrative overhead, simplifies tenant interactions, and consolidates property data into a single, user-friendly interface. Unlike the multiple, outdated systems currently in use which are fragmented and inefficient, our product will offer a unified interface with real-time data processing, advanced analytics, and mobile accessibility. This enables ABC Rental Management Inc. to enhance operational efficiency, improve tenant satisfaction, and lead the digital transformation in property management across Canada

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3. AGILE TEAM CHARTER

Project Name: Group Project – Group NO#2

Vision: To develop a Centralized Rental Management System that modernizes, streamlines, and elevates the property management process for ABC Rental Management Inc., leveraging technology to create a seamless experience for both staff and tenants.

Mission: To replace outdated and disparate systems with a unified, intuitive, and scalable web-based platform, thereby improving operational efficiency, tenant engagement, and data management.

Success Criteria:
1) Successful launch of the CRMS by **May 16th, 2024.**
2) Achieve a 20% reduction in operational overhead within the **first year post-implementation.**
3) Realize a 15% increase in tenant retention rates within the **first six months.**
4) Receive an 80% positive feedback rate from users within the first three **months after going live.**

Team Composition:

Name	Role	Phone
Yasaman Mirvahabi Sabet	Product Owner / Product Manager	647 - *** - ****
Dorsa Mohammadi	Lead Developer / Engineer	647 - *** - ****
Dilara Yalniz	Quality Assurance Analyst	647 - *** - ****
Thanh Vu Le	UX/UI Designer	647 - *** - ****

Communication Plan:
- Daily stand-ups every morning at 9:00 AM.
- Sprint review and planning sessions at the end of each sprint.
- Ad-hoc meetings as needed, with a focus on maintaining open channels of communication through Slack and email.

Rules of Behavior:
- Maintain respect and professionalism at all times.
- Foster a collaborative environment by actively seeking and providing constructive feedback.
- Commit to transparency and continuous improvement.
- Ensure all team members are fully engaged and contributing to discussions.

3.1. Sponsor Acceptance

Approved by the Project Sponsor:

_____   Date: _____

<Project Sponsor>

<Project Sponsor Title>

4. USER PERSONAS
4.1. Property Managers

1. **Persona:** Jacob Smith
   Age: 35
   Role: Senior Property Manager
   Goals: Streamline the management of multiple properties, automate routine tasks, and improve tenant satisfaction.
   Challenges: Managing time effectively, dealing with diverse tenant issues, and ensuring maintenance is completed promptly.
   Behaviors: Relies heavily on technology for organization, works on-the-go, and prioritizes efficiency.

2. **Persona:** Maria Gonzalez
   Age: 42
   Role: Property Manager
   Goals: Enhance communication with tenants, simplify the rent collection process, and reduce paperwork.
   Challenges: Juggling various tasks simultaneously, keeping track of numerous properties, and maintaining high occupancy rates.
   Behaviors: Prefers detailed reports, uses desktop over mobile, values face-to-face interactions.

3. **Persona:** Alan Turing
   Age: 50
   Role: Portfolio Manager
   Goals: Obtain a comprehensive view of property portfolio performance, make data-driven decisions, and improve ROI.
   Challenges: Accessing real-time data, monitoring property managers' performance, and predicting market trends.
   Behaviors: Data-oriented, prefers desktop interfaces, often in meetings, relies on high-level summaries.

4.2. Tenants

1. **Persona:** Emily Carter
   Age: 27
   Role: Young Professional
   Goals: Find and secure a rental conveniently, manage rental affairs digitally, and report maintenance issues easily.
   Challenges: Navigating rental agreements, understanding lease terms, and communicating effectively with property management.
   Behaviors: Mobile savvy prefers text communication, and values prompt responses.

2. **Persona:** David Lee
   Age: 32
   Role: Freelancer
   Goals: Easy payment of rent, clear guidelines on property use, straightforward process for renewing leases.
   Challenges: Keeping track of payment due dates, and getting prompt maintenance service.
   Behaviors: Relies on email and online forms, often forgetful about due dates, needs calendar reminders.

3. **Persona:** Olivia Brown
   Age: 60
   Role: Retiree
   Goals: Hassle-free living environment, accessibility to management for issues or inquiries.
   Challenges: Adopting new technology for rental management, reading small text on screens.
   Behaviors: Prefers phone calls over apps, like in-person interactions, need user-friendly and accessible design.

4.3. Maintenance Staff

1. **Persona:** Mike Johnson
   Age: 38
   Role: Maintenance Supervisor
   Goals: Efficiently manage and dispatch work orders, track maintenance requests, and ensure quality repairs.
   Challenges: Balancing urgent repairs with routine maintenance, tracking parts inventory, and keeping up with multiple work orders.
   Behaviors: Uses mobile device to receive and update work status, is technically savvy, prefers visual documentation of issues.

2. **Persona:** Sophia Rodriguez
   Age: 30
   Role: Maintenance Technician
   Goals: Access to detailed work orders, easy communication with property managers, submit job reports on the go.
   Challenges: Receiving clear and concise job details, updating job status in real-time, and navigating between properties.
   Behaviors: Reliant on a mobile app for work updates, values direct communication channels, and often multitasks.

3. **Persona:** Ahmed El-Sayed
   Age: 45
   Role: HVAC Specialist
   Goals: Receive timely notifications of maintenance requests, maintain a log of service history, and ensure customer satisfaction.
   Challenges: Tracking service schedules for multiple properties, and accessing historical maintenance data.
   Behaviors: Prefers detailed digital service records, occasionally resistant to adopting new tech solutions.

4.4. Administrative Staff

1. **Persona:** Rachel Kim
   Age: 25
   Role: Administrative Assistant
   Goals: Streamline administrative processes, manage tenant documentation, and support management with accurate reporting.
   Challenges: Organizing a large volume of tenant data, generating reports, and scheduling appointments.
   Behaviors: Highly organized, comfortable with office software, seeks efficiency in tasks.

2. **Persona:** Steven Clarke
   Age: 40
   Role: Financial Controller
   Goals: Accurate financial reporting, effective budget management, and compliance with housing regulations.
   Challenges: Integrating financial data from different sources, maintaining up-to-date rent rolls, and conducting audits.
   Behaviors: Detail-oriented, relies on robust software for financial tasks, analytical mindset.

3. **Persona:** Nora Abdelrahman
   Age: 35
   Role: Office Manager
   Goals: Keep office operations smooth, ensure staff are well-supported, and oversee procurement for office supplies.
   Challenges: Streamlining office communication, managing vendor contracts, and handling staff schedules.
   Behaviors: Multitasker, prioritizes clear communication, adapts quickly to new systems.

4.5. Potential Tenants

1. **Persona:** Alex Turner
   Age: 28
   Role: Graduate Student
   Goals: Easily search for affordable housing, understand the lease process, and secure housing remotely.
   Challenges: Finding rental properties within budget, and navigating through complex rental applications.
   Behaviors: Values straightforward, clear information, conducts most tasks online, appreciates quick feedback.

2. **Persona:** Samantha Green
   Age: 22
   Role: Young Professional
   Goals: Find a rental that allows for an easy commute, manage leasing documents digitally, and have a clear understanding of amenities and policies.
   Challenges: Comparing different rental options, setting up utilities and services, and understanding tenant rights and responsibilities.
   Behaviors: Relies on user reviews and virtual tours, and seeks convenient online transactions.

3. **Persona:** Tonya and Bob Harris
   Age: 55 and 58
   Role: Couple looking to downsize
   Goals: Secure a smaller, maintenance-free living space, and easy access to property management for any concerns.
   Challenges: Downsizing from a home to an apartment, finding a community that fits their lifestyle.
   Behaviors: Prefers in-person viewings, values community reputation, requires clear and regular communication.

4.6. Executives/Owners

1. **Persona:** Elizabeth Yuan
   Age: 47
   Role: CEO
   Goals: Grow the rental management business, make data-driven strategic decisions, and maintain a high standard of tenant service.
   Challenges: Keeping abreast of market trends, driving business innovation, and ensuring company profitability.
   Behaviors: Decisive leader, looks for high-level dashboards, prefers executive summaries over detailed reports.

2. **Persona:** Charles Ndubisi
   Age: 52
   Role: Director of Operations
   Goals: Optimize company operations, improve staff performance, and ensure operational excellence.
   Challenges: Balancing operational efficiency with cost management, and overseeing cross-departmental collaboration.
   Behaviors: Relies on metrics and KPIs, focuses on process improvement, and champions best practices.

3. **Persona:** Anita Singh
   Age: 43
   Role: Chief Financial Officer (CFO)
   Goals: Ensure the financial health of the company, manage budgets effectively and reduce operational costs.
   Challenges: Financial forecasting, risk management, ensuring return on investment for technology initiatives.
   Behaviors: Analytical, risk-averse, requires robust financial reporting tools.

5. USER STORIES

5.1. Property Manager

1. **As a property manager**, I want to easily update the status of units (occupied, maintenance, available), so that I can keep track of property states in real-time.
2. **As a property manager**, I want to automate the notification process for lease renewals to tenants, so that I can ensure continuous occupancy and reduce manual follow-ups.
3. **As a property manager**, I want to have a feature to quickly assess the profitability of each property, so that I can make informed investment decisions.
4. **As a property manager**, I want to log into a centralized dashboard, so that I can get an overview of all the properties I manage.
5. **As a property manager**, I want to receive notifications of maintenance issues reported by tenants, so that I can address them promptly.
6. **As a property manager**, I want to view analytics on property occupancy rates, so that I can make informed decisions about promotions and pricing.
7. **As a property manager**, I want to create listings for vacant properties, so that I can advertise to potential tenants.
8. **As a property owner**, I want to receive alerts on my phone for critical issues like overdue rent or emergency maintenance, so that I can take immediate action.

5.2. Tenants

1. **As a tenant**, I want to be able to report emergencies through a quick-access feature in the portal, so that urgent issues are prioritized and resolved swiftly.
2. **As a tenant**, I want to receive automated reminders for lease expiration and renewal options, so that I'm informed well in advance.
3. **As a tenant**, I want to access a history of my rental payments and maintenance requests, so that I have a personal record for reference.
4. **As a tenant**, I want to pay my rent through an online portal, so that I can ensure timely payments without mailing checks or visiting the bank.
5. **As a tenant**, I want to submit maintenance requests online, so that I don't have to call or email the property manager.
6. **As a tenant**, I want to sign my lease agreement digitally, so that I can do it conveniently without having to print and scan documents.

5.3. Maintenance Staff

1. **As a maintenance staff member**, I want to see the urgency level of maintenance requests, so that I can prioritize tasks effectively.
2. **As a maintenance staff member**, I want to have access to tenant feedback on completed jobs, so that I can improve my service.
3. **As a maintenance staff member**, I want to log hours worked on each job directly in the system, so that I can accurately track my time for payroll.
4. **As a maintenance worker**, I want to receive and update work orders digitally, so that I can efficiently manage my tasks and update job statuses in real-time.
5. **As a maintenance worker**, I want to view the history of repairs for a given property, so that I can better diagnose and fix current issues.

5.4.   Administrative Staff

1. **As an administrative staff member**, I want to have the ability to export data into spreadsheets, so that I can perform additional analysis or reporting as needed.
2. **As an administrative staff member**, I want to securely store and easily retrieve all tenant documentation, so that compliance is maintained.
3. **As an administrative staff member**, I want to synchronize lease dates with email marketing tools, so that I can effectively communicate with tenants about renewals and offers.
4. **As an administrative staff member**, I want to generate financial reports with a few clicks, so that I can provide accurate data for budgeting and forecasting.
5. **As an administrative staff member**, I want to have a calendar view of all property leases, so that I can track when they start, end, and need to be renewed.

5.5.   Potential Tenants

1. **As a potential tenant**, I want to schedule property viewings through the platform, so that I can efficiently plan visits without back-and-forth communication.
2. **As a potential tenant**, I want to be able to compare different properties, so that I can make the best choice for my needs.
3. **As a potential tenant**, I want to get notified about new listings that match my preferences, so that I don't miss out on suitable opportunities.
4. **As a potential tenant**, I want to browse available properties by location and price, so that I can find a suitable home that fits my criteria.
5. **As a potential tenant**, I want to apply for a rental online, including submitting required documents, so that I can do everything needed from my computer or phone.

5.6. Executives / Owners

1. **As an executive**, I want to easily aggregate financial data from all properties for board presentations, so that I can showcase company performance succinctly.
2. **As an executive**, I want to set permissions for different levels of data access among staff, so that sensitive information is safeguarded.
3. **As an owner**, I want to receive automated investment opportunity alerts based on real-time market data, so that I can consider expanding the portfolio strategically.
4. **As an executive**, I want to see performance dashboards showing the financial health of the properties, so that I can make strategic decisions.
5. **As a property owner**, I want to receive alerts on my phone for critical issues like overdue rent or emergency maintenance, so that I can take immediate action.

6. Prioritized Product Backlog for CRMS

Priority	Product Backlog Item	User Story NO	User Story	Story Points
1	Centralized Dashboard for Property Managers	PM-4	As a property manager, I want to log into a centralized dashboard…	8
2	Online Rent Payment System	T-4	As a tenant, I want to pay my rent through an online portal…	5
3	Digital Work Order System	MS-4	As a maintenance worker, I want to receive and update work orders digitally…	8
4	Tenant Lease Renewal Notifications	PM-2	As a property manager, I want to automate the notification…	3
5	Property Listings Creation Tool	PM-7	As a property manager, I want to create listings for vacant…	5
6	Property Profitability Analysis	PM-3	As a property manager, I want	13

			to have a feature to quickly assess…	
7	Emergency Reporting Feature for Tenants	T-1	As a tenant, I want to be able to report emergencies…	5
8	Maintenance Request Online Submission	T-5	As a tenant, I want to submit maintenance requests online…	3
9	Export Data into Spreadsheets	AS-1	As an administrative staff, I want to have the ability to export data…	2
10	Schedule Property Viewings Online	PT-1	As a potential tenant, I want to schedule property viewings through…	8
11	Digital Lease Agreement Signing	T-6	As a tenant, I want to sign my lease agreement…	5
12	Access to Rental Payment and Request History	T-3	As a tenant, I want to access a history of my rental payments…	3
13	Update Unit Status in Real-Time	PM-1	As a property manager, I want to easily update the status of units…	2
14	Tenant Feedback Access for Maintenance	MS-2	As a maintenance staff member, I want to have access to tenant feedback…	3
15	Property Analytics and Reporting	PM-6	As a property manager, I want to view analytics on property occupancy rates…	8

16	Property Viewing Scheduler	PT-1	As a potential tenant, I want to schedule property viewings through the platform...	5
17	Maintenance Task Prioritization	MS-1	As a maintenance staff member, I want to see the urgency level of ...	2
18	Automated Investment Opportunity Alerts	E/O-3	As an owner, I want to receive automated investment opportunity alerts...	13
19	Lease Expiration and Renewal Reminders	T-2	As a tenant, I want to receive automated reminders for lease expiration and renewal options...	3
20	Critical Alerts for Property Owners	PM-8	As a property owner, I want to receive alerts on my phone for critical issues...	8
21	Financial Data Aggregation for Executives	E/O-1	As an executive, I want to easily aggregate financial data...	13
22	Tenant Documentation Secure Storage	AS-2	As an administrative staff member, I want to securely store and easily retrieve all tenant documentation...	2
23	Maintenance Hours Tracking for Payroll	MS-3	As a maintenance staff member, I want to log the hours worked on each job...	5
24	Online Property Browsing by Prospects	PT-4	As a potential tenant, I want to browse available	3

			properties by location and price…	
25	Performance Dashboards for Executives	E/O-4	As an executive, I want to see performance dashboards…	8
26	Data Access Permissions for Staff	E/O-2	As an executive, I want to set permissions for different levels of data access…	5
27	Rental Application Process Online	PT-5	As a potential tenant, I want to apply for a rental online…	13
28	Property Comparison Tool	PT-2	As a potential tenant, I want to be able to compare different properties…	5
29	Lease Date Synchronization with Marketing	AS-3	As an administrative staff member, I want to synchronize lease dates with email marketing tools…	2
30	Notification System for Maintenance Issues	PM-5	As a property manager, I want to receive notifications of maintenance issues reported by tenants…	3
31	Repair History for Maintenance Workers	MS-5	As a maintenance worker, I want to view the history of repairs for a given property…	8
32	Financial Reporting Tool for Admin Staff	AS-4	As an administrative staff member, I want to generate financial reports with a few clicks…	5

| 33 | Alerts for Overdue Rent and Maintenance | E/O-5 | As a property owner, I want to receive alerts on my phone... | 8 |
| 34 | New Listing Notifications for Prospects | PT-3 | As a potential tenant, I want to get notified about new listings that... | 5 |

7. STORY PRIORITY

User Story NO	Business Value Addition	MoSCoW	Note
PM-1	HV	M	Core operational efficiency for property management.
PM-2	HV	M	Vital for tenant retention.
PM-3	HV	S	Strategic for investment and growth.
PM-4	HV	M	Essential for daily operational oversight.
PM-5	HV	M	Critical for maintaining property and tenant satisfaction.
PM-6	MV	S	Important for decision-making but not immediately critical.
PM-7	MV	S	Supports growth but is secondary to core functionalities.
PM-8	HV	M	Immediate alerts for critical issues are essential.
T-1	HV	M	Directly impacts tenant safety and satisfaction.
T-2	MV	S	Enhances tenant experience.
T-3	MV	S	Important for tenant convenience.
T-4	HV	M	Direct impact on financial transactions.

T-5	HV	M	Essential for operational efficiency.
T-6	MV	S	Modernizes tenant interactions but can initially be manual.
MS-1	MV	S	Important for internal efficiency.
MS-2	MV	S	Enhances service quality.
MS-3	LV	C	Beneficial for payroll accuracy but not immediately critical.
MS-4	HV	M	Core to maintenance operations.
MS-5	LV	C	Useful for diagnostics but not a day-one requirement.
AS-1	MV	S	Supports administrative efficiency.
AS-2	HV	M	Critical for compliance and operational integrity.
AS-3	LV	C	Enhances marketing but is not critical.
AS-4	MV	S	Important for financial oversight.
AS-5	LV	C	Useful for planning but lower immediate value.
PT-1	MV	S	Facilitates tenant acquisition process.
PT-2	LV	C	Beneficial for tenant decision-making.
PT-3	LV	W	Future features to enhance tenant engagement.
PT-4	MV	S	Important for marketability and tenant convenience.
PT-5	MV	S	Supports digital transformation and accessibility.
E/O-1	HV	M	Essential for business performance monitoring.
E/O-2	HV	M	Critical for data security and compliance.

User Story NO		T-Shirt Size	Note
E/O-3	MV	S	Strategic for growth but not immediately critical.
E/O-4	HV	M	Vital for strategic decision-making.E/O-5
E/O-5	HV	M	Immediate alerts for management are essential.

8. STORY POINT

User Story NO	Scrum Poker (Story Points)	T-Shirt Size	Note
PM-1	5	M	Moderately complex, and requires updates to several system components.
PM-2	3	S	Less complex, likely a feature enhancement.
PM-3	8	L	Requires significant business logic and potentially complex UI.
PM-4	5	M	Integration with existing systems and new dashboard creation.
PM-5	3	S	Update to the notification system.
PM-6	8	L	Analysis and reporting tool integration.
PM-7	13	XL	Comprehensive new functionality for property listing.
PM-8	1	XS	Simple alert system implementation.
T-1	2	S	Adding an emergency feature could be straightforward if based on existing systems.
T-2	3	S	Scheduled notification system.

T-3	5	M	Accessing and displaying historical data.
T-4	2	S	Integration with a payment gateway.
T-5	3	S	Online form for maintenance requests.
T-6	8	L	Digital lease agreement setup can be complex.
MS-1	5	M	Prioritizing tasks based on an urgency level involves some complexity.
MS-2	2	S	Feedback system for completed jobs.
MS-3	3	S	Direct logging of hours into the system.
MS-4	8	L	Real-time digital work order management.
MS-5	13	XL	Creating a history log with diagnostic tools is complex.
AS-1	3	S	The export function could be a simple feature addition.
AS-2	5	M	Secure storage and retrieval systems require more effort.
AS-3	8	L	Synchronizing with marketing tools could be challenging.
AS-4	13	XL	Automated financial reporting is highly complex.
AS-5	2	S	The calendar view for leases is less complex if using existing solutions.
PT-1	5	M	Scheduling viewings involves coordinating multiple calendars.
PT-2	2	S	Property comparison feature based on filters.
PT-3	8	L	Alert system for new listings.

PT-4	5	M	Filtering available properties by location and price.
PT-5	13	XL	Full online application and document submission process.
E/O-1	8	L	The aggregation of financial data can get complex depending on the sources.
E/O-2	5	M	Data access level management system.
E/O-3	2	S	Simple alert for investment opportunities based on predefined criteria.
E/O-4	5	M	Creation of performance dashboards.
E/O-5	1	XS	Critical alert implementation is straightforward.

9. ACCEPTANCE CRITERIA

9.1. Property Managers

9.1.1. PM-1: Update Status of Units

- The system allows property managers to update the status of units to "Occupied," "Maintenance," or "Available."
- The status change is reflected in real-time across all system views.
- Property managers receive a confirmation notification upon status update.

9.1.2. PM-2: Automate Lease Renewal Notifications

- The system automatically sends out lease renewal notifications according to the pre-set renewal period.
- Tenants confirm receipt of the notification.
- The system logs and timestamps all renewal notifications and responses.

9.1.3. PM-3: Profitability Assessment Feature

- Property managers can access a feature that presents profitability analytics for each property.
- The feature includes net profit, expenses, and revenue streams.
- Data is exportable for further analysis.

9.1.4. PM-4: Centralized Dashboard Access

- Upon login, property managers are directed to a centralized dashboard.
- The dashboard displays an overview of all properties managed.
- Critical alerts and notifications are prominently displayed.

9.1.5. PM-5: Notifications of Maintenance Issues

- Property managers receive instant notifications of maintenance issues reported by tenants.
- The system allows prioritization and tracking of maintenance issues.

9.2. Tenants

9.2.1. T-1: Report Emergencies

- Tenants have access to a quick-access feature for reporting emergencies.
- The system prioritizes and flags emergency issues for immediate attention.

9.2.2. T-2: Automated Lease Renewal Reminders

- Tenants receive automated reminders for lease renewals well in advance.
- The system tracks and confirms tenant receipt of reminders.

9.2.3. T-3: Rental Payment and Maintenance Request History

- Tenants can view their history of rental payments and submit maintenance requests.
- The system provides printable records of tenant activity.

9.3. Maintenance Staff

9.3.1. MS-1: Urgency Level of Maintenance Requests

- Maintenance requests are categorized by urgency level in the system.
- Staff members can sort and prioritize tasks based on urgency.
- Completion status can be updated and tracked by the maintenance team.

9.4. Administrative Staff

9.4.1. AS-1: Data Expert to Spreadsheets

- Administrative staff can export relevant data into spreadsheet formats.
- The system ensures data accuracy and integrity during export.

9.4.2. AS-2: Secure Tenant Documentation Storage

- All tenant documents are securely stored with access logged and controlled.
- Document retrieval is efficient and maintains compliance with data protection standards.

9.5. Potential Tenants

9.5.1. PT-1: Schedule Property Viewings

- Potential tenants can schedule property viewings through an integrated calendar system.
- The system sends confirmations and reminders for scheduled viewings.

9.6. Executives / Owners

9.6.1. E/O-1: Aggregate Financial Data for Presentations

- Executives can compile financial data from all properties into a presentation-friendly format.
- The system provides visual analytics and dashboard overviews for board meetings.

10. IMPLEMENTATION PLAN

10.1.   Property Manager

10.1.1. Update Status of Units

- **Task 1:** Design the unit status update feature in the system.
- **Task 2:** Implement a dropdown menu or toggle switches for unit status options.
- **Task 3:** Develop real-time system updates and notifications for status changes.
- **Task 4:** Test the unit status update functionality for accuracy and speed.

10.1.2. Automate Lease Renewal Notifications

- **Task 1:** Create a lease renewal notification algorithm.
- **Task 2:** Integrate the notification system with tenant contact information.
- **Task 3:** Set up automatic email and SMS notification services.
- **Task 4:** Conduct testing to ensure timely delivery of notifications.

10.1.3. Profitability Analytics Dashboard

- **Task 1:** Define key profitability metrics for properties.
- **Task 2:** Develop an analytics dashboard interface for property managers.
- **Task 3:** Integrate financial data sources with the analytics tool.
- **Task 4:** Test analytics dashboard for data accuracy and insightful reporting.

10.2. Tenant

10.2.1. Rental Payment and Maintenance Request History

- **Task 1:** Develop a historical data storage system for payments and requests.
- **Task 2:** Design a user interface for tenants to access their history.
- **Task 3:** Implement secure login and data retrieval processes.
- **Task 4:** Validate the accuracy and security of historical data retrieval.

10.2.2. Digital Lease Agreement Process

- **Task 1:** Build digital lease document generation with e-signature capabilities.
- **Task 2:** Create a secure tenant verification process for signing digital leases.
- **Task 3:** Integrate lease agreements with the tenant and property manager dashboards.
- **Task 4:** Conduct user acceptance testing for the digital lease agreement process.

10.3. Maintenance Staff

10.3.1. Emergency Maintenance Alerts

- **Task 1:** Establish a categorization system for maintenance requests by level of urgency.
- **Task 2:** Develop a protocol for emergency maintenance alerts to staff and management.
- **Task 3:** Integrate the alert system with mobile devices for immediate notifications.
- **Task 4:** Perform drills and testing to ensure swift response to emergency alerts.

10.3.2. Queue System for Maintenance Requests

- **Task 1:** Build a queue management system for incoming maintenance requests.
- **Task 2:** Design an interface for maintenance staff to view and update queue status.
- **Task 3:** Develop an algorithm for automatic queue prioritization.
- **Task 4:** Test the queue system for efficient handling of maintenance requests.

10.4. Administrative Staff

10.4.1. Export Data into Spreadsheets

- **Task 1:** Build an export function compatible with spreadsheet software.
- **Task 2:** Implement data selection and filtering options for export.
- **Task 3:** Ensure data integrity and format compatibility during export.
- **Task 4:** Test the export functionality with various data sets for reliability.

10.5. Potential Tenant

10.5.1. Scheduling System for Property Viewings

- **Task 1:** Implement an online scheduling tool within the rental platform.
- **Task 2:** Create an automated process for confirmation and reminders for viewings.
- **Task 3:** Develop a calendar system for property managers to manage viewings.
- **Task 4:** Perform usability testing with potential tenants to refine the scheduling process.

10.6. Executive/Owner

10.6.1. Aggregate Financial Data

- **Task 1:** Develop a financial data aggregation tool for executives.
- **Task 2:** Design a dashboard to display key financial metrics.
- **Task 3:** Implement data visualization tools for presentation purposes.
- **Task 4:** Test the system for accuracy and ease of use in data aggregation.

10.6.2. Mobile Accessibility for System Alerts

- **Task 1:** Design mobile push notifications for critical system alerts.
- **Task 2:** Implement alert prioritization logic based on issue severity.
- **Task 3:** Ensure compatibility of alerts with various mobile operating systems.
- **Task 4:** Test the alert system for different scenarios and user roles.

11. PRODUCT's USER INTERFACE

ABC RENTAL MANAGEMENT

Sign Up

Sign up with your detail to continue

First name

Middle intial

Last name

Gender

Phone number

Email address

Password

Confirm password

Already have an account? Sign in

Back   Sign up

Back

<

ABC RENTAL MANAGEMENT

Sign In

Sign in with your detail to continue

Email address

Password

Forgot password?

Sign in

Don't have an account? Sign up

ABC RENTAL MANAGEMENT

Applications

+ New application

Applications ID	Date	Status	Actions
1	28 March 2024	rejected	•
2	30 March 2024	approved	•

Home

Application

Profile

Admin Portal

ABC RENTAL MANAGEMENT

Home

Application

Application

Personal details

Personal details

Applicant details ›

Lease details ›

Roommate details ›

Documents ›

Guardian information ›

Reject/Approve ›

Personal details

First Name

Middle Intial

Last Name

Email address

Phone number

Tenant Portal ☰   **ABC RENTAL MANAGEMENT**

Dashboard

$44,444
Total Expenses

$5,555
Monthly Expenses

Your Payment Plan

Card
Status: Active
Card No: xxx-xxx
Last Used: Jan5. 2024
Holder's Name: Momo

👤

Momo Momosh
Unit: 323
Requested: March 40, 2024

12. PROJECT RETROSPECT REPORT

12.1. Project Overview:
The project aimed to develop a Centralized Rental Management System (CRMS) for ABC Rental Management Inc., addressing the need for a unified platform to manage rental properties, tenants, maintenance issues, and financials across Canada. The project was initiated in response to the organizational need for efficiency, improved tenant satisfaction, and better data management as outlined in the System Service Request and further detailed through user stories and development tasks.

12.2. Project Duration:

Start Date: Feb 20th, 2024.

End Date: April 9st, 2024.

12.3. Scrum Core Team Members:

Product Owner: Yasaman Mirvahabi Sabet
Development Team: Dorsa Mohammadi, Dilara Yalniz, Thanh Vu Le

12.4. Stakeholders:

ABC Rental Management Inc. Executives
Property Managers
Tenants

12.5. Key Deliverables:

- Project Plan and Agile Team Charter
- User Stories and Prioritized Product Backlog
- Wireframes and User Interface Designs
- Implementation Plan and Story to Task Mapping

12.6. Lessons Learned:

12.6.1. User Story Prioritization:

The process highlighted the importance of closely aligning product features with business and user needs. Prioritizing user stories based on the MoSCoW method and business value-addition provided a clear direction but also emphasized the need for flexibility in adjusting priorities as project insights evolve.

12.6.2. Team Collaboration:

Effective communication and collaboration tools were essential in maintaining project momentum. Regular stand-ups and sprint reviews fostered a culture of transparency and continuous feedback, crucial for agile development.

12.6.3. Technical Challenges:

Designing a system to integrate diverse functionalities—rental payments, maintenance requests, and financial reporting—presented significant technical challenges. Early prototyping and iterative development helped address these issues progressively.

12.6.4. User Involvement:

Engaging end-users (property managers and tenants) early in the design process through user stories and wireframing sessions contributed to a more user-centric design. Future projects could benefit from even deeper involvement and testing with end-users.

12.7. Agreed Actionable Improvements:

12.7.1. Enhanced User Research:

Future projects will allocate more time and resources to upfront user research, including interviews and surveys, to better understand user needs and preferences.

12.7.2. Increased Prototyping:

Implementing more comprehensive prototyping phases, including interactive prototypes, to test usability and functionality before full-scale development.

12.7.3. Continuous Learning:

Incorporating more structured opportunities for team skill development, particularly in emerging technologies and design methodologies, to improve project outcomes.

12.7.4. Stakeholder Engagement:

Establishing regular update meetings with all stakeholders, including executives and end-users, to ensure continuous alignment with business objectives and user expectations.

12.8. Conclusion:

The project to develop the Centralized Rental Management System for ABC Rental Management Inc. provided valuable insights into managing complex development projects within an Agile framework. The lessons learned and agreed actionable improvements underscore the dynamic nature of software development and the continuous need for adaptation and growth. By documenting these experiences, the team is better positioned to succeed in future projects, contributing to the organizational goal of enhancing property management through technology.