

Risk Assessment and Management Plan (RMP)

1. Purpose:

This Risk Management Plan aims to systematically identify, analyze, and mitigate potential risks associated with the development and implementation of the Decagon condo management app and its companion website to ensure a secure and seamless experience. Identifying Potential risk concerns and documenting the mitigation approach to those risks early in the development and deployment processes allows for proactive planning and implementation ensuring the achievement of the project requirements. Moreover, by prioritizing risks based on their likelihood and impact, resources are allocated efficiently, and team members will focus on high-priority risks first.

Furthermore, the risk assessment will be continuously monitored and updated throughout the project lifecycle with open communication with the stakeholders. Thus, this plan aims to minimize the negative impacts of risks while maximizing opportunities for success.

2. Risk Identification:

In the early stages of the Decagon condo management app development, our team conducted brainstorming sessions to identify potential risks and areas of concern through open discussion and collaboration. This approach gave us a strong base for risk analysis and mitigation plans.

Figure 1 below presents a comprehensive list of potential risks associated with the Decagon condo management app's development and implementation.

Figure 2 below presents a detailed analysis of risk assessment metrics, providing a systematic evaluation of the impact and likelihood associated with each identified risk category.

Risk ID	Risk Type and Description	Risk Score	Resolved in Sprint	Strategy and Effectiveness
R1	<p>Security</p> <p>Unauthorized access to user profiles and data leaks of users' sensitive information.</p>	High	Sprints 3,4	<p>Mitigation strategy</p> <p>encourages users to use strong passwords with a mix of uppercase, lower, and special characters and prompts them to update their passwords regularly.</p> <p>Enable multi-factor authentication by receiving codes on their phones.</p>
R2	<p>Technical</p> <p>Users may encounter challenges when using the software if the user interface is complex, reducing user satisfaction.</p>	High	Sprint 2	<p>Mitigation strategy</p> <p>Employ user-centred design principles to create a more user-friendly interface.</p> <p>Incorporating feedback to enhance usability and user satisfaction.</p>
R3	<p>Technical</p> <p>Expertise and knowledge required for the software, 3rd party frameworks and languages at hand. This could lead to potential delays.</p>	Medium	Sprint 2	<p>Avoidance strategy</p> <p>Provide continuous professional development opportunities for team members.</p> <p>Encourage knowledge transfer between team members.</p>

R4	<p>Management</p> <p>Potential miscommunication between the stakeholders, or the need for future clarifications may require adjustments to requirements or models during the coding phase. This could lead to delays and work overload</p>	High	Sprints 2,3,4 as this will require a regular communication throughout the sprints	<p>Mitigation strategy</p> <p>Implement agile methodologies for continuous feedback.</p> <p>Conduct regular stakeholder and team meetings to ensure ongoing clarity of requirements.</p>
R5	<p>Technical</p> <p>Adequacy of test cases for functional validation, ensuring a robust and reliable assessment of the software's performance and adherence to requirements.</p>	Low	Sprints 2, 3	<p>Mitigation strategy</p> <p>Implement automated testing to ensure coverage.</p>
R6	<p>Technical</p> <p>Database scalability. Scalability issues can lead to performance degradation or crashes under high volume, impacting system reliability and user experience.</p>	High	Sprints 3, 4	<p>Avoidance/mitigation strategy</p> <p>Implement database scaling and optimization strategies early, ensuring system stability and performance under high loads.</p>

R7	<p>Management</p> <p>Miscommunication within the team can lead to misunderstandings, delays, and conflicts, affecting project progress and delivery timelines and budgets.</p>	Medium	Similar to R4, Sprints 2,3,4	<p>Mitigation strategy</p> <p>Ensures an open communication culture.</p> <p>Conduct regular meetings to discuss any issues.</p>
R8	<p>External</p> <p>Accuracy of condo availabilities and update info in real-time. Inaccuracy of availabilities could lead to frustration and dissatisfaction among users.</p>	High	Sprints 3,4	<p>Mitigation strategy</p> <p>Implementation of real-time data validation and synchronization mechanisms within the software.</p>
R9	<p>Technical and Management</p> <p>Incomplete or inconsistent documentation of domain model, component diagram, and other components. This can lead to implementation errors and misunderstandings.</p>	High	Similar to R4, Sprints 2,3,4	<p>Mitigation strategy</p> <p>Conduct regular reviews of architecture documentation.</p> <p>Use tools that automate documentation consistency.</p>

R10	<p>Technical</p> <p>Inaccuracies in displaying condominium fees can lead to financial discrepancies and user distrust, impacting user satisfaction and financial operations.</p>	Medium	Sprints 3,4	<p>Mitigation strategy</p> <p>Implement precise calculation mechanisms, conduct thorough testing, and implement validation checks to ensure an accurate display of condominium fees.</p>
R11	<p>Technical</p> <p>Property Dashboard Risk - Inaccurate or incomplete implementation of property dashboard functionalities due to limited visibility into property information and lack of industry experience</p>	Medium	Sprints 2,3	<p>Mitigation Strategy</p> <p>Conduct comprehensive testing of the property dashboard features while involving stakeholders in validation and verification to identify and rectify any inaccuracies or incomplete implementations.</p> <p>This strategy aims to catch and rectify issues during the testing phase, reducing the likelihood of inaccurate or incomplete property dashboard functionalities affecting user experience.</p>

R12	Technical Incomplete or inconsistent implementation of personalized notification features.	Medium	Sprints 3,4	<p>Mitigation Strategy</p> <p>Conduct thorough user acceptance testing for notification personalization to identify any inconsistencies or incomplete implementations.</p> <p>User acceptance testing will help ensure that personalized notification features are implemented as intended, minimizing the risk of user dissatisfaction due to overlooked notifications or decreased engagement.</p> <p>Prioritize critical notifications to ensure that even in case of incomplete personalization, important messages are not missed by users.</p>
-----	---	--------	-------------	---

Figure[1]: List of identified risks

Impact	Low	Medium	High
Probability			
Low	R5		
Medium		R3, R7, R10, R11, R12	R1, R4, R9, R2
High			R6, R8

Figure [2]: Risk management chart