

Risk Assessment and Management Plan (RMP)

Purpose of the risk assessment and management plan along with its benefits

The Risk Assessment and Management Plan serves as a proactive approach to identify, assess, prioritize, and mitigate potential risks that may arise during the project lifecycle. Its purpose is to anticipate challenges, minimize negative impacts, and ensure the successful completion of the project within the defined constraints of time, budget, and quality. By systematically identifying and addressing risks, the plan helps to enhance project visibility, stakeholder confidence, and overall project resilience.

How the risks and assessment were identified among our team

The identification and assessment of risks within our project were predominantly conducted through regular team meetings. During these meetings, team members engaged in open discussions and collaborative brainstorming sessions to identify potential risks across various aspects of the project, such as technical complexities, resource constraints, and communication challenges. Drawing upon the diverse perspectives and expertise of each team member, we collectively examined project documentation, shared insights from past experiences, and solicited input from stakeholders to comprehensively identify and assess risks. Through this iterative process of dialogue and reflection, we prioritized risks based on their likelihood and potential impact, laying the groundwork for effective risk management strategies and mitigation plans.

Impact	Low	Medium	High
Probability			
Low			
Medium			
High			

Figure [1]: Risk management chart

Legend:

High – Greater than <70%> probability of occurrence

Medium – Between <30%> and <70%> probability of occurrence

Low – Below <30%> probability of occurrence

ID	Risk	Type	Probability	Impact	Mitigation
1	Technical complexity in integrating ReactJS, Python, and MongoDB	Technical	High	High	Regular code reviews and pair programming to ensure compatibility and identify issues early.
2	Inadequate expertise in ReactJS, Python or MongoDB among team members	Management	Medium	High	Allocate time for self-study and skill enhancement.
3	Unforeseen changes in project requirements	External	Medium	Medium	Implement Agile methodologies for flexible adaptation to changing requirements. Regular communication with stakeholders (TA) to manage expectations.
4	Security vulnerabilities	Technical	Medium	High	Regular security audits, encryption protocols, and adherence to secure coding best practices.
5	Data loss or corruption	Technical	Medium	High	Implementing regular backups, redundancy measures, and robust error-handling mechanisms for the MongoDB database.
6	User acceptance and adoption	Management	Medium	High	Conduct user testing and feedback sessions, incorporate user-centric design principles, and provide comprehensive user training and support.

Table [1]: List of identified risks