

CareEase - A Caregiver Companion App for Dementia Caregivers

Team: Geetika Palande, Mahitha Gogu, Vidisha Uttamchandani, Aditya Gurram

Date: April 11th, 2025

[Excel Workbook Link](#)

Risk Analysis for CareEase – A Caregiver Companion App for Dementia Caregivers										
Project Risk Analysis										
Risk Number	Status	Risk Name	Risk Description	Likelihood of Occurrence (1-5)	Impact (1-5)	Ease of Detectability (1-5)	Risk Priority Number (RPN)	Risk Owner	Risk Mitigation Strategy	
1	Open	Data Privacy Breach	Potential unauthorized access to sensitive patient data due to security vulnerabilities.	4	5	3	60	Geetika Palande	Implement encryption protocols, conduct regular security audits, and restrict access to sensitive data.	
2	Open	Misdiagnosis Risk	Risk of AI providing inaccurate symptom analysis, leading to misdiagnoses and patient harm.	3	5	4	60	Vidisha Uttamchandani	Validate AI outputs through clinical oversight, use diverse datasets, and continuous training.	
3	Open	Integration Issues	Difficulty in integrating the app with existing healthcare systems (e.g., patient management systems).	3	4	2	24	Mahitha Gogu	Engage IT specialists to resolve compatibility issues and conduct system tests.	
4	Open	Stakeholder Resistance	Resistance from caregivers or healthcare providers to adopt the app or integrate it into their routines.	3	4	3	36	Aditya Gurram	Educate stakeholders on the app's benefits and provide adequate training for caregivers.	
5	Open	Technical Failure	System crashes or application malfunctions causing disruptions in caregiving tasks.	4	4	3	48	Geetika Palande	Implement redundancy measures, conduct performance monitoring, and address issues promptly.	
6	Open	Regulatory Non-Compliance	Failure to comply with healthcare regulations like HIPAA and data privacy laws.	3	5	3	45	Vidisha Uttamchandani	Ensure compliance with HIPAA and data privacy standards, and regularly audit data access and storage practices.	
7	Open	Resource Constraints	Insufficient financial or human resources allocated for the project, affecting timelines or deliverables.	4	4	2	32	Mahitha Gogu	Allocate resources efficiently and adjust timelines if necessary, with contingency plans for key resource shortages.	
8	Open	Scope Creep	Continuous expansion of project scope leading to delays and budget overruns.	3	4	3	36	Aditya Gurram	Set clear project boundaries and manage stakeholder expectations with periodic reviews and sign-offs on key deliverables.	
9	Open	Communication Breakdown	Miscommunication between project stakeholders (developers, caregivers, project managers).	3	4	3	36	Mahitha Gogu	Regularly scheduled meetings and clear documentation to ensure alignment between all stakeholders.	
10	Open	Legal Liability	Legal risks arising from misdiagnoses or failures in the AI functionality, leading to lawsuits.	3	5	3	45	Aditya Gurram	Secure appropriate legal advice, document all AI processes, and ensure clinical oversight during app development.	
4. Reassessed Risk Based on RPN										

1. Prioritized Risks Based on RPN						
Risk Number	Risk Name	Risk Priority Number (RPN)	Likelihood of Occurrence (1-5)	Impact (1-5)	Ease of Detectability (1-5)	
1	Data Privacy Breach	60	4	5	3	
2	Misdiagnosis Risk	60	3	5	4	
5	Technical Failure	48	4	4	3	
6	Regulatory Non-Compliance	45	3	5	3	
10	Legal Liability	45	3	5	3	
4	Stakeholder Resistance	36	3	4	3	
8	Scope Creep	36	3	4	3	
9	Communication Breakdown	36	3	4	3	
3	Integration Issues	24	3	4	2	
7	Resource Constraints	32	4	4	2	

2. Risk Mitigation Strategy for Each Risk			
Risk Number	Risk Name	Risk Mitigation Strategy	
1	Data Privacy Breach	Implement encryption protocols, conduct regular security audits, and restrict access to sensitive data.	
2	Misdiagnosis Risk	Validate AI outputs through clinical oversight, use diverse datasets, and ensure continuous training to avoid errors and misdiagnoses.	
5	Technical Failure	Implement redundancy measures, perform regular performance monitoring, and establish quick issue resolution processes to minimize system downtime.	
6	Regulatory Non-Compliance	Ensure the app complies with HIPAA and data privacy standards, and perform regular audits to guarantee all practices meet legal requirements.	
10	Legal Liability	Consult legal experts, document all AI-based diagnostics processes, and implement clinical oversight to minimize the risk of legal repercussions.	
4	Stakeholder Resistance	Educate stakeholders about the app's benefits, provide comprehensive training, and involve them in the testing process to foster a smooth transition to new technology.	
8	Scope Creep	Set clear project boundaries from the start, monitor the scope through regular meetings, and secure stakeholder approval before making any major changes.	
9	Communication Breakdown	Establish clear communication protocols, schedule regular meetings to align all team members, and maintain comprehensive documentation throughout the project.	
3	Integration Issues	Engage IT specialists to resolve compatibility issues, and conduct thorough integration and system testing to ensure smooth interfacing with healthcare systems.	
7	Resource Constraints	Allocate resources efficiently across phases, develop contingency plans for key resources, and adjust schedules as necessary to ensure timely completion of project milestones.	