



SOEN6841: Software Project Management

Winter 2025

## PROJECT PLAN

FOR

## AI-DRIVEN HEALTH MONITORING APP

Date of Submission: March 23, 2025

Submitted to:

JOUMANA DARGHAM

### Team Information

Student Name	Student ID
Jayanth Apagundi	40291184
Priyadarshine Kumar	40293041
Swathi Priya Pasumarthu	40322468
Jayasurya Pazhani	40289512

## **5. Project Plan (WBS)**

### **Objective**

A well-defined Project Plan is essential for ensuring the successful execution of the AI-Driven Health Monitoring App. This plan outlines the key phases, milestones, and deliverables necessary to guide the project from initiation to completion. By structuring the development lifecycle into well-defined stages, we ensure smooth execution, timely delivery, and optimal resource utilization. Each phase addresses critical aspects such as requirement gathering, system design, development, testing, deployment, and post-launch knowledge transfer. The project plan also highlights dependencies, risk mitigation strategies, and resource allocation to maximize efficiency and effectiveness.

Key Objectives of the Project Plan:

- Establish Clear Milestones – Define each project phase with clear deliverables and expected outcomes.
- Optimize Resource Utilization – Allocate human and technological resources effectively to avoid bottlenecks.
- Ensure Timely Delivery – Set realistic timelines and dependencies to maintain progress and avoid delays.
- Mitigate Risks – Identify potential challenges and implement proactive risk management strategies.
- Facilitate Seamless Transition – Ensure comprehensive documentation and knowledge transfer for long-term sustainability.

## Project Timeline (Gantt Chart)

AI-DRIVEN HEALTH MONITORING APP																		
Description	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15	Week 16	Week 17	Week 18
Scope and Objective Setup																		
Problem Identification																		
Market Analysis																		
Sprint 1																		
Requirement Analysis																		
Feasibility Analysis																		
Architecture Design																		
Development																		
Testing and UAT																		
Deployment and Integration																		
Sprint 2																		
Requirement Gathering																		
Feasibility Analysis																		
Architecture Design																		
Development																		
Testing and UAT																		
Deployment and Integration																		
Documentation and Training																		

## Milestones and Deliverables

Phase	Duration	Milestone	Deliverables
<b>Project Initiation</b>	Week 1-3	Problem Identification, Market Analysis	Project Scope, Project charter, Stakeholder Analysis
<b>Requirement Gathering And Feasibility Analysis</b>	Week 4 -6	Requirement Finalization, Feasibility Report	Detailed Project Plan, Budget Plan, Communication Strategy
<b>System Design &amp; Development</b>	Week 7 -12	System Architecture Model Development	System Design Document, Prototype of core features
<b>Testing and UAT</b>	Week 13 - 15	System Testing, UAT Completion	Test report, UAT Feedback
<b>Deployment and Integration</b>	Week 16 -17	System Development and Final Testing	Deployment Report, Final Testing report
<b>Project Closure and Knowledge Transfer</b>	Week 18	Documentation completion & Knowledge handover	Lessons Learned Document, Knowledge Transfer Report

## Major Milestone Explanations

- **Project Initiation:** This phase involves defining the project's scope, securing stakeholder buy-in, and obtaining approval for the Project Charter. It includes identifying key deliverables, risks, and dependencies to ensure project success from the outset.
- **Requirement Gathering & Feasibility:** In this phase, all technical, financial, and operational constraints are identified and assessed. This ensures that the project is viable, aligns with business needs, and is achievable within the given resources and time constraints.
- **System Design & Development:** This phase includes designing the system architecture, developing AI models, and creating UI/UX components. The software engineering team implements core functionalities while ensuring scalability, security, and seamless integration with third-party systems.
- **Testing & UAT:** Rigorous testing is conducted to verify system functionality, identify bugs, and ensure performance meets specifications. User Acceptance Testing (UAT) is performed to gather feedback and validate that the system meets end-user expectations.
- **Deployment & Integration:** The application is launched and fully integrated with relevant platforms and third-party systems. This phase includes performance optimization, system monitoring, and final security checks to ensure smooth operation.
- **Project Closure:** The project is formally completed with final documentation, knowledge transfer to support teams, and a review of lessons learned. This phase ensures the long-term sustainability and maintainability of the solution.

## Resource Allocation

### Human Resources and Cost Estimation:

Role	Number of People	Cost per Person	Total Cost
Backend Developers	2	\$9,000	\$18,000

<b>Frontend Developers</b>	2	\$8,000	\$16,000
<b>AI Engineers</b>	2	\$10,000	\$20,000
<b>Data Scientists</b>	1	\$10,000	\$10,000
<b>ML Engineers</b>	1	\$11,000	\$11,000
<b>QA Engineers</b>	2	\$5,000	\$10,000
<b>Project Manager</b>	1	\$15,000	\$15,000
<b>Total Human Resource Cost</b>	-	-	\$100,000

#### **Technology Allocation by Project Phase:**

<b>Phase</b>	<b>Technology Used</b>
<b>Project Initiation</b>	No specified tools
<b>Requirement Gathering &amp; Feasibility Analysis</b>	IDEs, Version Control System for documentation and early prototyping
<b>Software Design &amp; Development</b>	IDEs, Version Control, Cloud Services, AI Libraries / Frameworks, User Interface Design Tools, Data Processing
<b>Testing &amp; UAT</b>	IDEs, Version Control System
<b>Deployment &amp; Integration</b>	Server and Hosting, LMS Integration, Security and Compliance
<b>Project Closure</b>	No specified tools

This allocation ensures an efficient and cost-effective use of resources while addressing technical, operational, and economic feasibility challenges.

## Identification of Critical Dependencies

- **Phase 1: Approval of Project Scope and Stakeholder Buy-In**
  - Stakeholder alignment is essential to ensure that all parties agree on project objectives and deliverables.
  - Budget approvals and resource allocation must be finalized before moving forward.
- **Phase 2: Finalization of Requirements Before Development Starts**
  - Comprehensive requirement gathering ensures the feasibility of technical and operational aspects.
  - Clear documentation prevents scope creep and minimizes risks during implementation.
- **Phase 3: AI Model Completion Before Testing Phase**
  - AI models must be trained and validated before integration with the application.
  - Performance benchmarks and accuracy thresholds should be met before proceeding.
- **Phase 4: Successful UAT Before Deployment**
  - User feedback from testing must confirm that all system functionalities work as expected.
  - Security and compliance checks must be passed before the system is deemed production-ready.
- **Phase 5: Full Integration Before Go-Live**
  - Seamless integration with cloud services, wearable devices, and databases must be verified.
  - Load testing and scalability assessments should be completed to handle real-world usage.
- **Phase 6: Documentation Completion Before Project Closure**
  - Final project documentation should include system architecture, user guides, and maintenance plans.
  - Knowledge transfer sessions must be conducted to ensure smooth transition to support teams.