

# Project Plan Document

## Document Authorship

**Document Title:** Project Plan Document

**Project Name:** LifeSync

**Date:** 04.02.2026

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## Table Of Contents

<b>1. Project Scope.....</b>	<b>3</b>
<b>Included in Scope: .....</b>	<b>3</b>
<b>Excluded from Scope: .....</b>	<b>3</b>
<b>2. Project Organization .....</b>	<b>3</b>
<b>3. Objectives .....</b>	<b>4</b>
<b>4. Key Phases and Timeline .....</b>	<b>4</b>
<b>5. Resource Planning .....</b>	<b>5</b>
<b>6. Risk Management.....</b>	<b>5</b>
<b>7. Communication Plan.....</b>	<b>5</b>
<b>8. Change Management Plan.....</b>	<b>5</b>
<b>9. Budget Plan .....</b>	<b>5</b>
<b>10. Acceptance Tests and Criteria .....</b>	<b>5</b>

## Document-Specific Task Matrix

Document Section / Task	Responsible Team Member	Task Description
1. Project Scope	Kerem Elma	Defined the boundaries, scope items and MVP goals.
2. Project Organization	Kerem Elma	Defined team roles and responsibilities.
3. Objectives	Kerem Elma	Defined specific goals regarding project execution, quality assurance, and management.
4. Key Phases & Timeline (Gantt)	Kerem Elma	Created the Gantt chart and defined phase durations.
5. Resources	Kerem Elma	Listed technical stack and estimated effort allocation.
6. Risk Management	Mehmet Eski	Identified potential risks and mitigation strategies.
7. Communication	Mehmet Eski	Drafted the communication plan and change request process.
8. Change Management	Mehmet Eski	Outlined the procedure for handling scope changes, approval workflows, and impact analysis.
9. Budget Plan	Mehmet Eski	Defined the allocation of team effort and time resources across different project phases.
10. Acceptance Tests	Mehmet Eski	Defined the criteria for project success.

# 1. Project Scope

## Included in Scope:

- User registration, login, logout, and session management with secure password encryption
- User profiling module with comprehensive onboarding survey collecting physical metrics, fitness goals, dietary preferences and restrictions, and lifestyle factors
- AI integration for generating custom weekly diet and exercise plans using advanced language model technology
- Automated level determination system using Strategy Pattern to classify users as Beginner, Intermediate, or Advanced based on survey responses
- Notification system with scheduler-based automated reminders for workouts and meal times implemented using Observer Pattern
- User dashboard with intuitive interface displaying personalized weekly plans in calendar format
- Progress tracking functionality with task completion marking and adherence monitoring
- Desktop browser support with responsive design for optimal user experience
- Comprehensive test cases and acceptance checks
- Deployment package and release checklist

## Excluded from Scope:

- Mobile native applications (iOS/Android apps)
- Medical diagnoses, treatment recommendations, or professional health advice
- Real-time biometric integration with wearable devices or fitness trackers
- Social features including community forums, social sharing, or friend challenges
- Advanced analytics dashboards, body composition analysis, or long-term trend visualization beyond basic progress tracking
- Custom plan modifications allowing manual editing of AI-generated plans by users
- Professional consultation features or direct connection to fitness trainers, nutritionists, or healthcare providers
- Multi-language support (MVP will be developed in English only)
- Real-time push notifications via email or SMS

# 2. Project Organization

- **Project Manager:** Timeline, risk management, stakeholder communication.
- **Lead Developer (Backend/AI):** Logic, API integrations, DB architecture.
- **Frontend Developer:** UI/UX implementation, responsiveness.
- **QA & Tester:** Bug hunting, AI output validation.

### 3. Objectives

- Develop a fully functional web-based personalized wellness platform accessible from desktop browsers
- Implement secure user authentication and authorization system with registration, login, and session management
- Create a comprehensive user profiling module that collects detailed metrics including age, height, weight, BMI, activity levels, fitness goals, dietary preferences, and restrictions
- Integrate AI technology to generate custom weekly diet and exercise plans tailored to individual user profiles
- Implement automated fitness level classification system that assigns users to Beginner, Intermediate, or Advanced categories using the Strategy Pattern
- Develop intelligent notification system with scheduler-based automated reminders for workouts and meal times using the Observer Pattern
- Create an intuitive user dashboard interface for viewing personalized wellness plans and tracking completion status
- Implement progress tracking functionality allowing users to mark tasks as completed and monitor adherence to wellness plans
- Achieve system performance with AI-generated plans delivered within 30 seconds and dashboard loading time under 2 seconds
- Complete the entire development cycle within the 10-week academic timeline without requiring crunch periods

## 4. Key Phases and Timeline

Estimated Duration: 10 Weeks

[illegible]

## 5. Resource Planning

- Development Stack:
  - **Frontend:** React
  - **Backend:** Node.js / Express.js
  - **Database:** PostgreSQL
  - **AI Model:** Large Language Model (LLM)
- Collaboration Tools:
  - GitHub

## 6. Risk Management

- **AI Hallucinations (Medium):** Mitigation: Strict prompt engineering & validation layers.
- **API Cost Overruns (Low):** Mitigation: Usage limits & caching mechanisms.
- **Scope Creep (High):** Mitigation: Strict adherence to Out-of-Scope list.

## 7. Communication Plan

- Internal Team: Bi-weekly stand-ups (Thursday).

## 8. Change Management Plan

1. **Request:** Written request with justification.
2. **Impact Analysis:** PM estimates time/budget impact.
3. **Decision:** Approval required if team agrees.

## 9. Budget Plan

- **Planning & Design:** 15%
- **Development:** 50%
- **Testing & AI Tuning:** 25%
- **Deployment:** 10%

## 10. Acceptance Tests and Criteria

- **Functionality:** User can sign up and get a routine without errors.
- **Accuracy:** System correctly identifies user level.
- **Reliability:** Notifications trigger at set times.
- **Performance:** Dashboard loads < 2 seconds.