

Business Requirement Document (BRD)

1. Introduction

1.1 Purpose

This document outlines the business requirements for a comprehensive health monitoring system designed to integrate and analyze physical activity, diet, and mental health data for individuals. The system aims to provide users with a holistic view of their overall well-being by consolidating data from various health domains into a unified platform. This approach will enable users to make informed decisions and identify patterns that affect their health.

1.2 Project Overview

The project focuses on developing a health monitoring tool that integrates data related to physical activity, diet, and mental health. The system will offer users a unified view of their health by analyzing these interconnected domains. The platform will provide actionable insights, recommendations, and trends to help users improve their lifestyle in a balanced manner.

2. Business Objectives

1. **Unified Health Monitoring:** Develop a platform that consolidates data on physical activity, diet, and mental health to offer a comprehensive view of individual well-being.
2. **Holistic Insights:** Provide users with actionable insights and trends that highlight the interconnections between physical activity, diet, and mental health.
3. **Improved Decision-Making:** Enable users to make informed decisions by understanding how different aspects of their lifestyle impact their overall health.
4. **User Engagement:** Encourage regular use of the tool through an intuitive interface, notifications, and personalized feedback.

3. Stakeholders

- **End Users:** Individuals who will use the system to track and monitor their physical activity, diet, and mental health.
- **Health and Wellness Experts:** Provide guidance on the integration of health data and development of actionable insights.
- **Development Team:** Responsible for building and maintaining the platform (technologies include JSON, MySQL, Spring Boot, Angular).

4. Functional Requirements

4.1 User Interface (UI)

- **User Dashboard:** Display a comprehensive view of individual health metrics, including physical activity, diet, and mental health trends.
- **Data Entry Forms:** Provide easy-to-use forms for logging physical activity, dietary intake, and mental health status.
- **Insights and Trends:** Visualize patterns and correlations between physical activity, diet, and mental health.

- **Notifications and Reminders:** Alert users to update their data and provide feedback on their health progress.

5. Non-Functional Requirements

- **Performance:** The system should handle a large volume of data entries efficiently without performance degradation.
- **Security:** Ensure that all personal health data is securely stored and accessed in compliance with relevant data protection regulations.
- **Usability:** Design an intuitive and user-friendly interface to facilitate easy data entry and navigation.
- **Scalability:** The platform should be scalable to accommodate increasing numbers of users and data points.

6. Assumptions and Constraints

6.1 Assumptions:

- Users will regularly update their data on physical activity, diet, and mental health.
- The system will effectively integrate data from multiple health domains to provide a comprehensive view.

6.2 Constraints:

- Integration with external data sources and APIs for health-related information may be limited.
- Ensuring data accuracy and relevance of AI-generated recommendations may require ongoing refinement.

7. Dependencies

- **Technologies Used:** MySQL for data storage, JSON for data interchange, MySQL for relational data, Spring Boot for backend development, and Angular for frontend development.
- **Third-Party Tools:** Integration with health-related APIs for additional data sources.

8. Risks and Mitigation

- **Risk: Inconsistent Data Entry**
Mitigation: Implement user-friendly data entry features and reminders to encourage regular updates.
- **Risk: Data Integration Challenges**
Mitigation: Ensure robust integration mechanisms and validate data accuracy through cross-referencing.
- **Risk: Privacy Concerns**
Mitigation: Adhere to strengthen data protection standards and provide clear privacy policies to users.

9. Acceptance Criteria

- **User Engagement:** Achieve active user participation.
- **Comprehensive Insights:** The system effectively integrates and analyzes data from physical activity, diet, and mental health.
- **User Satisfaction:** Positive feedback from users regarding the usability and effectiveness of the tool.

10. Timeline and Milestones

- **Phase 1:** Requirement Gathering and Initial UI Design
- **Phase 2:** Backend Development (Springboot and Databases)
- **Phase 3:** Testing, User Feedback, and Refinements
- **Phase 4:** Final Deployment and Review