

Software Requirements Specification (SRS) Report: HealthEase

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1. Introduction

1.1 Introduction

HealthEase is an innovative digital health and wellness platform that integrates fitness tracking, nutrition planning, gym consultation, and e-commerce services into a unified experience. Built with AI-driven personalization and community-focused features, HealthEase aims to revolutionize how users approach holistic well-being.

1.2 Problem Statement

Despite the abundance of fitness and health apps available today, most platforms address only isolated aspects of wellness either fitness, diet, or medical guidance. This siloed approach creates friction, inconsistency, and reduces effectiveness. Additionally, many existing platforms lack personalization, affordability, and integration of local or cultural preferences.

1.3 Motivation

The pandemic has accelerated digital transformation in the health industry. Users now demand convenient, comprehensive, and customized solutions to stay fit and healthy remotely. HealthEase is motivated by the need to offer a platform that brings together disparate wellness services while ensuring personalization, accessibility, and community engagement.

1.4 Overview/Goal

The primary goal of HealthEase is to create a seamless, AI-powered ecosystem where users can:

- I. Track and improve fitness metrics
- II. Access customized meal plans
- III. Consult certified trainers
- IV. Shop for supplements and gym equipment
- V. Engage with a supportive health-focused community

2. Information Gathering

2.1 Introduction

Information gathering forms the foundation for understanding user needs, industry standards, and technical requirements. Both qualitative and quantitative research methods were employed to ensure robust planning.

2.2 Source of Information

- **Primary Sources:** User surveys, interviews, and feedback forms
- **Secondary Sources:** Academic journals, industry reports, competitor websites, analytics tools

2.3 Information Gathering Tools

- I. Google Forms (for surveys)
- II. SimilarWeb and Ahrefs (for competitor analytics)
- III. Structured Interview Templates
- IV. Social Media Polls and Feedback

2.4 Detailed Information Gathering

Details Information Gathered by Bench-marking and Competitor analysis.

Bench marking and Competitor Analysis:

Platform	Strengths	Weakness
MyfitnessPal	Large userbase, Strong nutrition DB	No suppliment shop , low personalization
Lifesum	Minimal UI, Meal Planning	Weak Community, no AI chat-bot
Bodybuilding.com	Equipment Shop , Content-rich	Overwhelming UI, no AI , niche Audience
HealthyfyMe	Cultural focus , AI chat-bot	Limited Market Place, regional focus

Key Findings:

1. High user interest in integrated services
2. Personalization is a key expectation
3. Most platforms neglect combining fitness + nutrition + shopping
4. Users desire AI-driven recommendations and local relevance

3. System Analysis

3.1 Introduction

System analysis evaluates current solutions and identifies gaps to inform design and development strategies.

3.2 Comparison Table

FEATURES	HEALTHEASE	MY FITNESS PAL	LIFESUM	BODYBUILDING.COM	HEALTHIFYME
Meal Planner	✓	✓	✓	✓	✓
BMI/BMR Calculator	✓	✓	✓	✓	✓
Fitness check	✓	✗	✗	✓	✓
Gym Trainer Contact	✓	✗	✗	✗	✗
Supplement/Equipment Shop	✓	✗	✗	✓	✗
AI Chatbot	✓	✗	✗	✗	✓
Community Forum	✓	✓	✗	✓	✗

Table: Compare between different multinational Application

3.3 Gap Analysis

- I. **Lack of Integration:** Most apps treat fitness and nutrition separately.
- II. **Low Personalization:** Meal and fitness plans are mostly generic .
- III. **Limited Supplement Access:** No app offers in-platform supplement shopping.

How HealthEase Fills the Gap:

- 1. Combines meal planning, gym trainer access, and supplement sales.
- 2. AI-powered health recommendations based on assessments.
- 3. Affordable and accessible health solutions for all user types.

3.4 Feature List Fixation

- AI Chatbot
- Meal Planner
- BMI/BMR Calculator
- Fitness Assessment
- Gym Trainer Portal
- Supplement/Equipment Store
- Community Forum
- Health Reports & Dashboards

3.5 Sitemap (Basic Layout)

- 1. Home
- 2. User Dashboard

- Profile
- Fitness Tracker
- Meal Planner
- Health Assessment
- 3. Store
 - Supplements
 - Equipment
- 4. Trainer Access
- 5. Community Forum
- 6. Support/Chatbot

4. Feasibility Analysis

4.1 Introduction

Feasibility analysis evaluates whether the proposed system is viable economically, technically, behaviorally, and operationally.

Types of Feasibility:

- **Technical:** Can the platform be built with current technology?
- **Operational:** Will users adopt and benefit from it?
- **Economic:** Is it financially sustainable?
- **Behavioral:** Will user behavior support consistent use?

4.2 SWOT Analysis

Strength	Weakness	Opportunity	Threats
Comprehensive service	Requires initial funding	Market demand for digital health	Competition for established player
AI-driven Features	Complex Integration	Potential for partnership	User retention challenges

4.3 Financial Feasibility (Cash Flow Analysis - Year 5 Projection Expected Outcomes)

Year	0	1	2	3	4	5
Expenses	50,000\$	-	30,000\$	-	10,000\$	-
Revenue	0	25,000\$	40,000\$	35,000\$	40,000\$	50,000\$
Cash Flow	(50,000\$)	25,000\$	10,000\$	35,000\$	30,000\$	50,000\$
C.F cash Flow	(50,000\$)	(25,000\$)	(15,000\$)	25,000\$	55,000\$	105,000\$

So, It's profitable

Assumptions:

- Revenue includes subscription fees, e-commerce sales, Advertisement and in-app purchases.
- Operational costs account for platform maintenance, cloud services, support, and marketing.

- No additional investment assumed after Year 1.

4.4 Feasibility Recommendation

The project is financially and technically feasible. It meets a clear market demand and leverages modern technologies like AI and cloud platforms to minimize infrastructure costs.

4.5 Behavioral and Technical Feasibility

- **Behavioral:** High user interest in health platforms ensures engagement
- **Technical:** Existing tools (Firebase, React Native, etc.) support all functional requirements

5. System Design

5.1 Introduction

HealthEase is a comprehensive digital health and wellness platform that provides users with personalized fitness, nutrition, and lifestyle solutions. The system is designed to create a seamless experience by integrating user inputs, expert consultations, health device data, and secure payment services. The architecture of HealthEase focuses on scalability, security, and user-centricity. It connects multiple stakeholders — users, health experts, administrators, and external systems like payment gateways and health monitoring devices — through a centralized platform. Key components include user management, personalized plan generation, real-time health tracking, feedback mechanisms, and administrative controls. The Use Case Diagram for HealthEase is a high-level representation of the system's functional requirements based on Unified Modeling Language (UML) standards. It models the interactions between external actors (such as users, health experts, and payment systems) and the HealthEase platform.

In UML, a Use Case Diagram shows:

1. **Actors:** External entities that interact with the system.
2. **Use Cases:** Specific actions or services the system provides.
3. **System Boundary:** The limits of what the system will do.
4. **Associations:** Relationships between actors and use cases.

This diagram provides a visual summary of the key functionalities like user registration, personalized plan generation, health data integration, consultation booking, and payment processing. It helps stakeholders quickly understand the main capabilities of HealthEase and how users engage with them, ensuring clarity in both system design and project development.

5.2 Context Diagram

A context diagram is a high-level, visual representation of a system that shows how it interacts with external entities like users, other systems, or organizations. It's often

used in systems analysis and design to quickly communicate the scope of a system. HealthEase is an all-in-one health and wellness platform designed to connect users with personalized fitness, nutrition, and lifestyle solutions. It interacts seamlessly with users, nutritionists, fitness coaches, health data sources, and administrative systems to deliver a holistic experience. By gathering personal data, health metrics, and expert inputs, HealthEase empowers users to achieve their wellness goals while ensuring smooth operations through secure payments and active management.

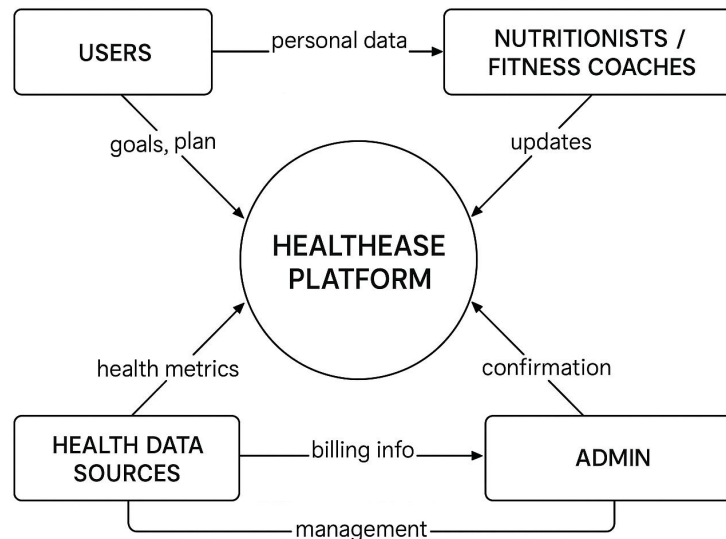


Fig: HealthEasy Context Diagram

5.3 Data Flow Diagram

The Data Flow Diagram (DFD) for HealthEase illustrates how information moves within the platform between users, fitness and nutrition experts, health devices, and administrators. It highlights the flow of personal data, health metrics, feedback, and payment information across different processes. By mapping these interactions, the DFD provides a clear view of how HealthEase efficiently manages user wellness journeys, expert consultations, real-time data collection, and platform administration.

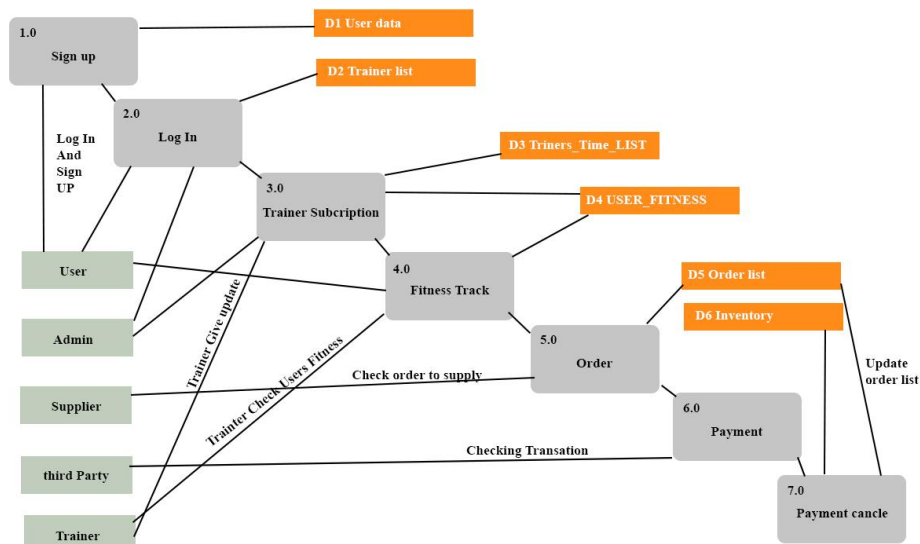


Fig: HealthEasy Data Flow Diagram

5.4 Use Case Diagram

The use case diagram for HealthEase visually represents the major interactions between the system and its external actors, such as users (patients), health experts, payment systems, and integrated health devices. It captures the high-level functionalities of the platform including user registration, personalized plan generation, health data integration, expert consultations, and payment processing and highlights how each actor engages with the system to achieve specific goals.

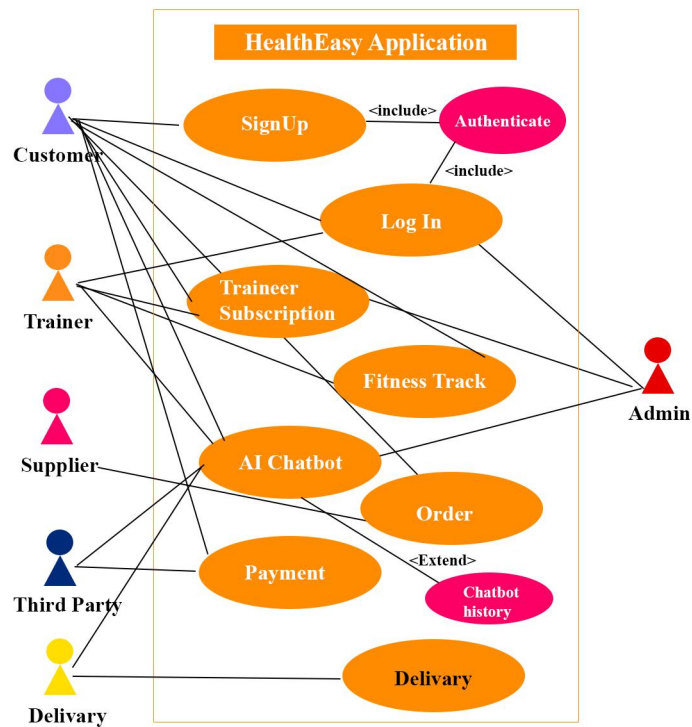


Fig :HealthEasy Use Case Diagram

5.5 Use Case Descriptive form (Major Cases)

Use Case Number: UC-001

Case Name: Trainer Subscription

Description:

This use case describes how a user (patient or fitness enthusiast) subscribes to a personal trainer's services through the HealthEase platform. It involves selecting a trainer, choosing a subscription package, making a payment, and accessing trainer-guided programs.

Stakeholders:

- User
- Trainer
- Admin

Primary Actor: Trainer

Pre-conditions:

1. The user must be logged into their HealthEase account.
2. The trainer must have an active profile on the platform with available subscription options.

Success Scenario:

- The user logs in and navigates to the "Find a Trainer" section.
- The user browses available trainers or uses filters (e.g., specialization, rating).
- The user selects a trainer and views their available subscription packages (monthly, quarterly, annual).
- The user chooses a subscription package.
- The system redirects to the payment gateway.
- The user completes the payment successfully.
- The system confirms the subscription and notifies both user and trainer.
- The user gains access to the trainer's personalized guidance, workouts, or sessions.

Alternative Scenario:

1. Trainer Unavailable: If a trainer is not accepting new clients, the system displays a notification and suggests alternatives.
2. Payment Failure: If the payment fails, the user is informed and prompted to retry or use a different payment method.

Post-conditions:

- ✓ A successful subscription is recorded in the system.
- ✓ User gets access to trainer resources and scheduled sessions.
- ✓ Payment transaction is logged and a receipt is sent.

Use Case Number: UC-002

Case Name: Supplement Order

Description:

This use case explains how users can browse, select, and purchase health supplements from the HealthEase marketplace. It covers selecting products, adding them to the cart, completing payment, and tracking the order.

Stakeholders:

- Customer/User
- Admin
- Supplier
- Third-party

Primary Actor: User

Pre-conditions:

1. The user must be registered and logged in.
2. Supplements must be available in stock.
3. Delivery address must be provided or selected.

Success Scenario:

1. The user navigates to the "Supplements" section.
2. The user browses or searches for a supplement (e.g., protein powder, vitamins).
3. The user views product details and adds the desired item(s) to the cart.
4. The user reviews the cart and proceeds to checkout.
5. The user enters or confirms shipping details.
6. The system redirects to the payment gateway.
7. The user completes the payment successfully.
8. The system sends an order confirmation and estimated delivery timeline.
9. The user can track the shipment status through the platform.

Alternative Scenario:

Out of Stock: If the selected supplement is unavailable, the system notifies the user and offers similar alternatives.

Payment Failure: If payment is not successful, the user is informed and asked to retry.

Post-conditions:

1. Supplement order is confirmed and payment is recorded.
2. A shipping request is created and shared with the logistics partner.
3. User is notified about shipping and delivery updates.

5.6 Activity Diagram

Activity Diagram According to Major use Cases:

AD-01 : Trainer Subscriptions

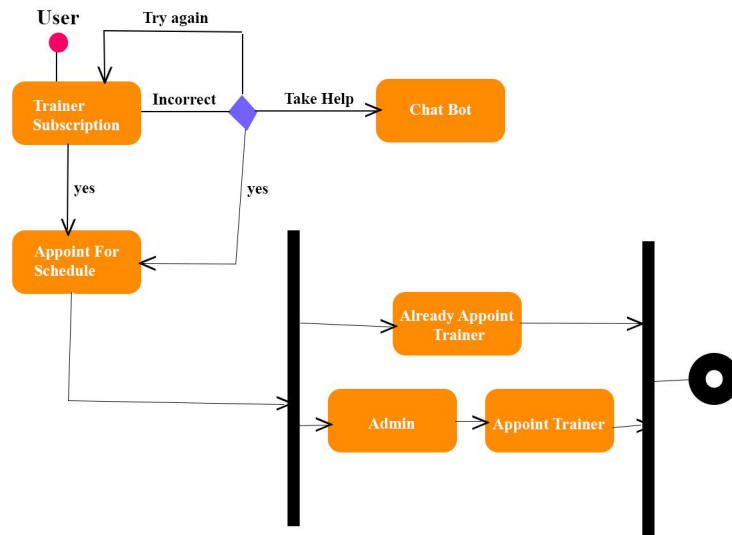


Fig: HealthEasy Activity Diagram 1

AD-02 : Order Supplement

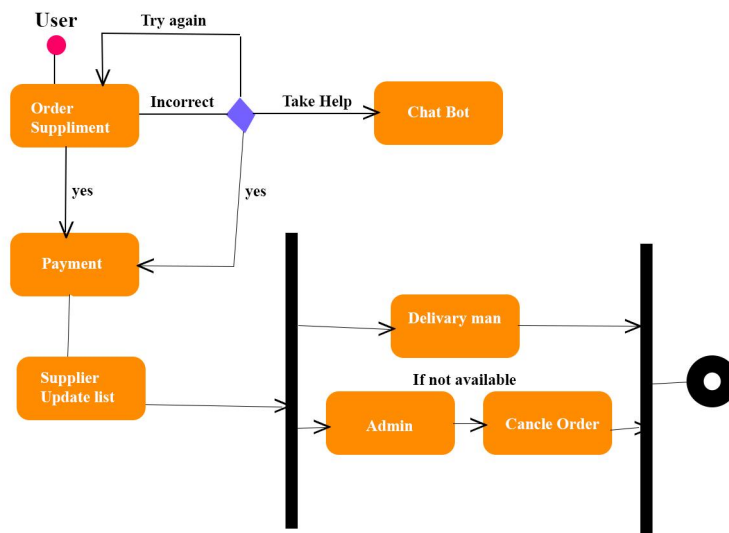


Fig: HealthEasy Activity Diagram 2

5.7 Swimlane Diagram

Swim-lane Diagram according to Major use-case:

Swimlane Diagram: 01 : Trainer Subscription

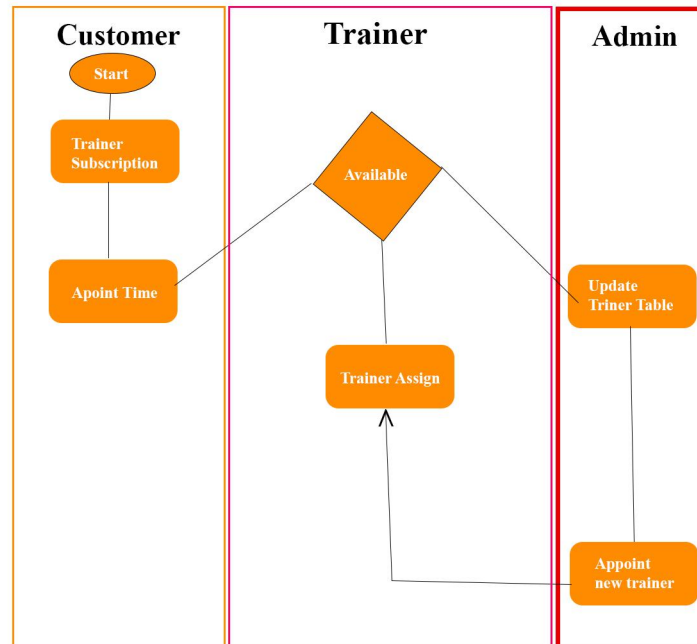


Fig: Swimlane Diagram -01

Swimlane Diagram: 02 : Order Suppliment

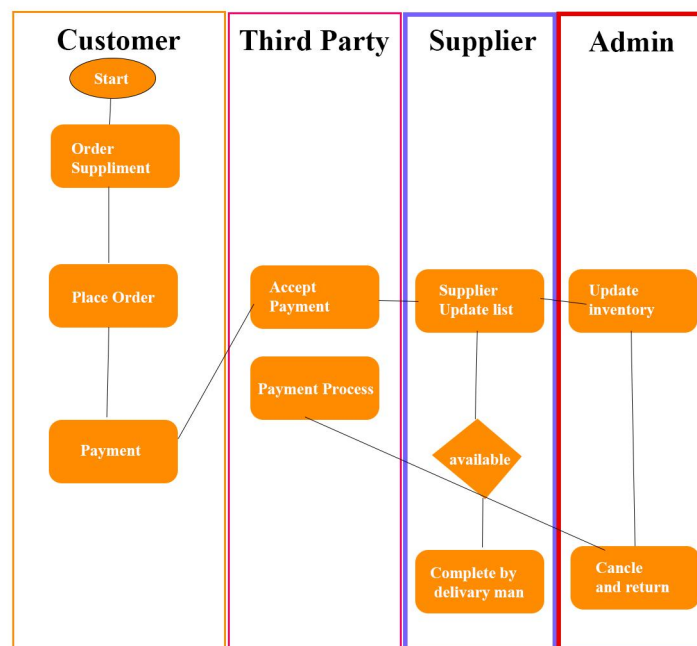


Fig: Swimlane Diagram -02

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Next Sections to include: System Design, Implementation Plan, Testing Strategy, Deployment, and Maintenance.