Software Requirements Specification (SRS) for Vanaspati

1. Introduction

1.1 Purpose

Vanaspati is a digital wellness platform that integrates traditional Ayurvedic practices with modern technology. It provides a comprehensive solution for remote consultations with certified Ayurvedic doctors, a marketplace for authentic Ayurvedic products, and a library of medicinal plants for holistic health education.

1.2 Document Conventions

- **Bold**: Section headers
- *Italicized*: Emphasis on key terms
- `Monospace`: Code references
- Tables: Data organization

1.3 Intended Audience

This document is intended for:
- **Software Developers**: Understanding system architecture and functionality.
- **Test Engineers**: Creating test cases and verifying system behavior.
- **Project Managers**: Planning and tracking implementation.
- **End Users**: Understanding platform features.
- **Investors & Stakeholders**: Evaluating project feasibility.

1.4 Product Scope

Vanaspati will be a mobile and web application offering:
- **Remote Ayurvedic Consultations** through video/audio calls.
- **A Verified Marketplace** for purchasing herbal remedies.
- **Educational Content** on Ayurveda.
- **AI-powered Personalized Health Insights**.
- **Geolocation Services** for finding nearby doctors.
- **Multilingual Support** for accessibility.

1.5 References

- Sharma, S. & Chandrasekharan, R. S. (2013). Therapeutic Uses of Ayurvedic Herbs in Disease Management.
- Joshi, P. & Parle, M. (2016). Medicinal Plants of the Indian Subcontinent: A Review.

2. Overall Description

2.1 Product Perspective

Vanaspati is a **standalone cloud-based platform** with the following architecture:
- **Frontend:** React Native (mobile), ReactJS (web).
- **Backend:** Node.js with ExpressJS.
- **Database:** MongoDB (user data), PostgreSQL (transactions).
- **Third-party Integrations:** Payment gateways, video conferencing APIs.

2.2 Product Functions

1. **User Management:** Registration, authentication, profile setup.
2. **Doctor & Consultation Module:** Search, book, and consult Ayurvedic doctors.
3. **Marketplace Module:** Verified sellers offering herbal products.
4. **Educational Module:** Ayurvedic knowledge base.
5. **Search & Navigation:** AI-powered keyword-based recommendations.

2.3 User Characteristics

User Type	Role in System	Technical Expertise
General Users	Consultations & Product Purchases	Low
Ayurvedic Doctors	Providing consultations	Medium
Sellers	Managing herbal product listings	Medium
Researchers	Accessing Ayurvedic knowledge	High

3. Specific Requirements

3.1 Functional Requirements

- **User Registration & Authentication:** Secure login via OTP, email, social media.
- **Doctor Module:** Doctor profiles, booking, real-time video/audio consultations.
- **Marketplace:** Secure payment gateway, verified sellers, real-time inventory updates.
- **Educational Module:** Ayurvedic research-backed content, health tips.
- **AI-driven Health Insights:** Personalized recommendations based on medical history.

3.2 Non-Functional Requirements

- **Scalability:** Supports up to 100,000 users.
- **Security:** End-to-end encryption for consultations and transactions.
- **Performance:** Core features load in under 2 seconds.
- **Availability:** 99.9% uptime via cloud infrastructure.
- **Compliance:** HIPAA-like security for health data.

4. System Models

4.1 Data Flow Diagram (DFD)

Level 0: User logs in -> Searches for doctors/products -> Books consultation/order
Level 1: User interacts with UI -> Backend processes request -> Database retrieves/stores data

4.2 Use Case Diagram

Actors: Users, Doctors, Admins, Sellers
Actions: Register, Login, Search, Book, Consult, Purchase

5. Project Plan

5.1 Gantt Chart

Phase	Duration
Requirement Gathering	2 weeks
UI/UX Design	3 weeks
Backend Development	6 weeks
Testing & QA	4 weeks
Deployment & Monitoring	2 weeks

6. Applications, Advantages, and Limitations

6.1 Applications

- **Virtual Ayurvedic Consultations** with certified doctors.
- **AI-driven Personalized Health Plans**.
- **Marketplace for Authentic Herbal Products**.

- **Educational Resources on Ayurvedic Lifestyle**.

6.2 Advantages

- **Promotes Ayurvedic Healing** using digital tools.
- **Convenient Healthcare Access** through online consultations.
- **Supports Ayurveda Awareness** via structured educational content.
- **Multilingual User Interface** for global reach.

6.3 Limitations

- **Internet Dependency** for virtual services.
- **Regulatory Restrictions** on Ayurvedic product distribution.
- **Delivery Challenges** in remote areas.

7. References

- Sharma, S. & Chandrasekharan, R. S. (2013). Therapeutic Uses of Ayurvedic Herbs in Disease Management.
- Joshi, P. & Parle, M. (2016). Medicinal Plants of the Indian Subcontinent: A Review.