**Functional Requirements:**

1. **User Authentication & Profile Management**
   * + Users can sign up, log in, and manage their profiles.
2. **Product Search & Recommendation**
   * + AI provides personalized product recommendations based on user preferences, purchase history, and browsing behavior.
     + Users can search for products using text.
3. **AI Chatbot Assistance**
   * + Provides real-time shopping guidance, product insights, and alternative suggestions.
     + Supports natural language processing for human-like conversations.
4. **Secure Payment Integration**
   * + Supports multiple payment gateways (Credit Card, PayPal, Google Pay, etc.).
     + Ensures secure transactions with encryption and fraud detection.
5. **Sustainability & Eco-Friendly Product Suggestions**
   * + AI highlights eco-friendly and sustainable product options based on user preferences.

**Non-Functional Requirements:**

1. **Performance Requirements**
   * + AI recommendations must generate results in a faster time.
     + Product search should return relevant results within seconds.
2. **Scalability**
   * + The system should handle thousands of concurrent users without significant performance degradation.
     + Supports cloud-based scaling for high traffic.
3. **Reliability & Availability**
   * + The system should have at least 99.9% uptime.
     + Must handle system failures gracefully and provide error handling mechanisms.
4. **Security Requirements**
   * + Implements secure authentication.
     + Uses encryption for payment and personal data protection.
5. **Usability & Accessibility**
   * + The UI should be intuitive and easy to use for all age groups.
     + Supports accessibility standards for visually impaired users.
     + Provides multi-language support.
6. **Compatibility**
   * + Works across multiple devices (desktop, mobile, tablets).
     + Supports all major browsers (Chrome, Firefox, Edge, Safari).
7. **Data Storage & Backup**
   * + User data should be stored securely with encrypted databases.
     + Daily backups should be in place to prevent data loss.
8. **AI Ethics & Fairness**
   * + AI should ensure unbiased recommendations without discrimination.
     + Users should have control over personalization settings.