Business Analysis - Smart Cooking Assistant Web Application

1. Executive Summary

The AI-powered Smart Cooking Web App is designed to assist users in meal planning, personalized recipe recommendations, shopping list generation, and dynamic step-by-step cooking guidance. The system leverages AI to enhance user experience by adapting recipes to dietary preferences, nutritional goals, and available ingredients. The application will be available on desktop and mobile browsers, offering both free and premium subscription models.

2. Business Objectives

- Provide a seamless and AI-driven cooking assistant to users.
- Enhance user engagement with personalized meal planning and tracking.
- Offer an intuitive and automated shopping list generation system.
- Increase revenue through a subscription-based premium model.
- Ensure user retention with AI-based smart features and notifications.
- Maintain compliance with security and privacy regulations (GDPR, CCPA, PCI-DSS).

3. Scope of the project

3.1 In-Scope Features

- User Registration, Authentication & Profile Management
- AI-Powered Chatbot for Recipe Assistance
- Dynamic Step-by-Step Cooking Guide
- Recipe Management & Customization
- Shopping List Generation
- Meal Tracking & Nutrition Reports
- AI-Powered Notifications & Smart Recommendations

- Premium Subscription & Payment Integration
- Customer Support & Issue Resolution

4. Stakeholders analysis

Stakeholder	Role & Interest
End Users	Use the app for meal planning, cooking assistance, and dietary management.
Business Owners	Responsible for funding, marketing, and overall business direction.
Development Team	Builds and maintains the platform, ensures seamless AI integration.
UI/UX Designers	Create an intuitive and accessible interface.
Data Scientists	Develop AI models for smart recipe recommendations and substitutions.
Security & Compliance Team	Ensures regulatory compliance, data protection, and payment security.
Customer Support Team	Manages user inquiries and technical support.

5. Risk Assessment

Risk	Probability	Impact	Mitigation Strategy
AI inaccuracies in recipe suggestions	Medium	High	Improve training datasets, allow user feedback to refine recommendations.
System downtime affecting user	Low	High	Implement cloud-based

experience			redundancy and failover mechanisms.
Data privacy & security breaches	Low	High	Ensure encryption, GDPR/CCPA compliance, and regular security audits.
Low user adoption	High	Medium	Implement strong marketing campaigns, free trials, and social media engagement.
Payment processing issues	Low	High	Use PCI-DSS-compliant payment gateways and real-time monitoring.

6. Financial Plan

<mark>**Initial Funds & Expenses**</mark>

- Initial Investment: $50,000
- Development Costs: $25,000 (including AI integration, UI/UX design, backend and frontend development)
- Marketing & Advertising: $10,000 (Google Ads, social media promotions, influencer marketing)
- Hosting & Cloud Services: $5,000 (AWS, database storage, domain registration)
- Security & Compliance: $5,000 (GDPR compliance, encryption tools, payment gateway setup)
- Miscellaneous Expenses: $5,000 (legal, business registration, operational costs)

<mark>**Realistic Revenue Expectations**</mark>

First 3 Months

- Low adoption period: Only 500 premium users subscribed
- Subscription cost: $4.99/month
- Total revenue: ~$2,495/month
- Losses expected: ~$8,000 per month due to operational costs

First Year

- Slow user acquisition: Estimated 5,000 premium users by end of the year
- Annual revenue projection: ~$299,400
- Expected break-even point: After 12-16 months

Marketing & Advertising Strategy

- Google & Social Media Ads: Limited spending in the first 6 months, scaling up gradually.
- Influencer Collaborations: Targeting micro-influencers for cost-effective exposure.
- SEO Optimization: Enhancing organic search rankings for recipe-related queries.
- Referral Program: Offering small discounts for successful referrals.
- Email Campaigns: Regular updates to keep users engaged and encourage upgrades