**Business Rules**  
**Project:** AI Integrated Grocery List Application  
**Team:** Team 7  
**Date:** 13/11/2024

**1. Introduction**

This Business Rules document defines the essential operational guidelines for the AI Integrated Grocery List Application. These rules establish the foundation for a reliable, efficient, and user-focused grocery shopping experience by outlining standards for data handling, AI-generated suggestions, user control, and other key functionalities. Adhering to these rules ensures that the app meets user expectations while maintaining integrity, security, and regulatory compliance.

**2. Business Rules**

**2.1 Data Privacy and Security**

**Rule 1**: User data, including shopping history, dietary preferences, and personal details, must be stored securely, encrypted both in transit and at rest, and comply with data protection regulations such as GDPR.

**Rule 2**: Users shall have complete control over their data, including the right to delete their account and personal information permanently from the system. The app must provide a clear and accessible option for users to manage their data preferences.

**2.2 AI-Driven Recommendations and Suggestions**

**Rule 3**: The AI system should utilize user data, such as historical purchases, budget, and dietary preferences, to generate grocery recommendations tailored to individual needs. AI recommendations must prioritize accuracy, updating as more data becomes available.

**Rule 4**: Recommendations should account for seasonal product availability and specific dietary choices (e.g., vegan, gluten-free). The app must update automatically to reflect any relevant seasonal changes or dietary adjustments.

**Rule 5**: The AI should complement but not override manual user input. Users must retain full control to add, remove, or edit items in their grocery list without interference from AI predictions. This ensures that all decisions remain with the user.

**2.3 Budget and Discounts**

**Rule 6**: The app must collaborate with retail partners to offer real-time discounts and budget-friendly alternatives on grocery items, providing users with cost-effective shopping options.

**Rule 7**: Users should be able to filter products by price range or discounts to optimize spending based on their budget. The app will notify users of available discounts, which can be customized to their notification preferences.

**2.4 User Interface and Accessibility**

**Rule 8**: The app must feature an intuitive and accessible user interface that allows users of all technical skill levels to navigate, set preferences, and create grocery lists effortlessly.

**Rule 9**: The app should be accessible on both iOS and Android devices, supporting core functionalities such as grocery list generation, budget tracking, and in-store navigation. Additionally, offline mode must enable users to view saved lists and apply updates when internet access is available.

**Rule 10**: Accessibility features, such as voice command and dark mode, should be integrated to enhance the app experience for users with varied needs and preferences.

**2.5 Store Navigation and Checkout**

**Rule 11**: The app must offer in-store navigation tools, such as optimized shopping routes or store-specific maps, that allow users to reduce the time spent finding items.

**Rule 12**: Navigation should be personalized to a user’s selected store, displaying a layout that reflects the real-world store environment.

**2.6 Advertising and Promotions**

**Rule 13**: Promotional content, such as retailer-specific offers or discounts, shall only be displayed to users who opt-in to receive such notifications.

**Rule 14**: Ads unrelated to grocery needs or user preferences are prohibited to maintain the integrity and user-focused approach of the app.

**2.7 Registration and Profile Management**

**Rule 15**: The registration process should require only essential information, such as name, email, and dietary preferences. Users should not be required to provide additional details unless directly relevant to their grocery needs.

**Rule 16**: The app must offer users full control over their profile and preferences. Changes to dietary information, budgets, or notification settings should be easily accessible in the profile management section.

**3. Conclusion**

These business rules guide the development and operational standards of the AI Integrated Grocery List Application. By adhering to these rules, the application aims to deliver a trustworthy, user-friendly, and efficient grocery shopping experience that prioritizes data security, user control, and convenience. This document serves as a foundational reference for all stakeholders, ensuring that the app aligns with both business objectives and user expectations.