**Final Project Proposal: ShopSmart**

**1. Project Overview:**

ShopSmart is a comprehensive grocery shopping application designed to address common challenges faced by consumers. The app focuses on providing efficient solutions for creating shopping lists, finding products, staying within budget, and enhancing collaboration among users.

**2. Features:**

**a) Main Activity:**

* **Layout:**
  + Navigation drawer for seamless navigation.
  + Central area for featured products or promotions.
  + Quick links to essential features.

**b) Product Search:**

* **Layout:**
  + Search bar with auto-suggestions.
  + Results displayed with product details.
* **Functionality:**
  + Real-time product search using external API.
  + Product details with images and descriptions.

**c) Promotions:**

* **Layout:**
  + Promotions feed with visually appealing cards.
  + Notifications for ongoing deals.
* **Functionality:**
  + External API integration for real-time promotions.
  + Push notifications for personalized deals.

**d) Purchase History:**

* **Layout:**
  + User-friendly purchase history display.
  + Detailed view of past transactions.
* **Functionality:**
  + Database service integration for secure storage.
  + Recommendations based on purchase history.

**e) Shopping List:**

* **Layout:**
  + User-friendly list creation and management.
  + Collaborative shopping lists with shared user icons.
* **Functionality:**
  + Real-time synchronization of shared lists.
  + Adding, editing, and deleting items.

**f) User Authentication:**

* **Layout:**
  + User registration and login screens.
  + Forgot password functionality.
* **Functionality:**
  + Secure user authentication using XML for data persistence.
  + Password recovery via email.

**3. Risky Components:**

* Integration with external APIs for real-time product data and promotions.
* Implementation of collaborative shopping lists with real-time synchronization.
* Ensuring secure user authentication and data storage.

**4. Outside API Usage:**

ShopSmart will utilize external APIs for real-time product availability, details, and promotions from partnered grocery stores.

**5. Layouts and Features Status:**

* Main Activity: Layout created with basic navigation.
* Product Search: Search bar and results layout established.
* Promotions: Promotions feed layout designed.
* Purchase History: Layout for transaction history in place.
* Shopping List: User-friendly list creation layout developed.
* User Authentication: Registration and login screens designed with XML.

ShopSmart aims to revolutionize grocery shopping, providing a user-friendly and collaborative experience. Following these guidelines, the team will work towards a functional prototype with well-defined features and layouts.

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