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Project Title: YourSkin – Smart Skincare Recommendation & Admin Management App

Overview: YourSkin is an Android-based mobile application designed to help users discover skincare products that match their skin type, concerns, and preferences. The app includes a complete Admin Panel that allows product management such as adding, editing, and deleting skincare items. YourSkin uses Firebase as its backend system, including Firestore Database, Firebase Authentication, and Firebase Storage.

Main Features:

1. User Module

- Browse various skincare product categories such as Cleanser, Toner, Serum, Moisturizer, Sunscreen, Essence, and Cream.
- View product details, including product name, category, price, description, and product image.
- Receive personalized skincare recommendations tailored to your skin type or specific concerns.
- Matching logic helps users find suitable products (e.g., oily skin → lightweight skincare, dry skin → hydrating products).

2. Skincare Matching System

- Users input their skin type or skincare concerns.
- The system recommends a list of suitable products using predefined filtering logic.
- Helps users build a personalized skincare routine.

3. Admin Module

- Admin login using Firebase Authentication (email + password).
- Only admins registered in the “admins” collection in Firestore can access the admin dashboard.
- Admins can manage skincare product data using full CRUD operations:
 1. Create: Add new products
 2. Read: View the full list of products.
 3. Update: Edit product information.
 4. Delete: Remove products from the database.

4. Secure Access

- Firestore Security Rules ensure that only authenticated users can read/write data:
- allow read, write: if request.auth != null;
- Prevents unauthorized access to admin data or product database.

Technical Architecture:

Frontend (Android App):

- Language: Java
- UI: XML with Material Design components
- Image loading: Glide library
- Navigation: Intent-based between activities

Backend (Firebase):

- Firestore Database for product data and admin roles.
- Firebase Storage for uploading and storing product images.
- Firebase Authentication for admin login.
- Collections used:

admins/

products/

(optional) users/

Core Screens:

- User: Home, product categories, product list, product details, skincare matching page.
- Admin: Login page, Admin Dashboard, Add Product page, Product List with edit/delete options.

Project Goals:

- Help users find skincare products that fit their skin type.
- Provide easy product browsing with a clean UI.
- Enable admins to manage product data in real time.
- Build a scalable and maintainable skincare product system.

Future Enhancements:

- AI-based skincare recommendation system.
- User account system with saved routines.
- Skin scanner with camera.
- Review and ratings system.
- Ingredient-based product filtering.

Conclusion:

YourSkin provides a powerful combination of skincare recommendation features and real-time product management through Firebase. Its modular structure, admin system, and categorized skincare database make it a scalable and user-friendly application.

Link source code: <https://github.com/lilythekids/yourskin.git>



