

## Database Description

The skincare product review database is designed to support a platform where users can explore products, analyze ingredient compositions, and share reviews. This system facilitates informed decision-making for skincare enthusiasts by organizing data about users, products, ingredients, and skin concerns in a structured and efficient manner.

## Key Entities and Their Relationships

### 1. Users

- **Purpose:** Represents individuals using the platform.
- **Attributes:** user\_id (unique identifier), email, password, name.
- **Relationships:** Users can submit multiple reviews, forming a 1:N relationship with Review.

### 2. Reviews

- **Purpose:** Stores user feedback about products.
- **Attributes:** review\_id (unique identifier), text, rating (1–5 stars), date.
- **Relationships:** Each review belongs to one Product and one User. The Review entity depends on User and Product for its unique identification.

### 3. Products

- **Purpose:** Contains information about skincare products.
- **Attributes:** product\_id (unique identifier), name, brand, amount\_ml, price, product\_category.
- **Relationships:** Products target multiple skin concerns through a N:N relationship with Skin\_Concern, managed by Product\_Skin\_Concern. They also contain various ingredients with specified concentrations, connected via Product\_Ingredient. (N:N relationship).

### 4. Ingredients

- **Purpose:** Represents components used in skincare products.
- **Attributes:** ingredient\_id (unique identifier), name.
- **Relationships:** Ingredients are linked to products, with their concentrations recorded in the Product\_Ingredient relationship. (N:N relationship)

### 5. Skin Concerns

- **Purpose:** Represents skin issues that products aim to address (e.g., acne, dryness).
- **Attributes:** skin\_concern\_id (unique identifier), name.
- **Relationships:** Skin concerns are associated with multiple products through the Product\_Skin\_Concern relationship. (N:N relationship)

## Key Features

- **User Reviews:** Users can share their personal experiences with different skincare products, helping others make informed choices.
- **Product Insights:** Explore detailed information about each product, including its ingredients and the skin concerns it addresses.
- **Personalized Recommendations:** Find products tailored to specific skin needs with targeted search options.
- **Ingredient Analysis:** Gain a better understanding of how individual ingredients work and their effectiveness in various products.

