



ALLEDERM[®] CONTACT ALLERGEN APP (MOBILE)

Functional Specification

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OVERVIEW

PURPOSE AND SCOPE

This document contains the details pertinent to the in-scope features of the Allederm Contact Allergen Mobile App.

OVERVIEW AND MARKET

Allederm's focus is to provide a means for users to identify contact allergens they wish to avoid and scan product EAN (UPC) Codes to determine if the product contains one or more of these allergens. The app will provide an elegant user experience so that setup, scanning, and results are easy to manage, even for a casual user.

Allederm will be targeting three types of user:

1. A casual user – potentially interested in being “green”, who is cautious of skin contact allergens, and is often interested in organic consumption.
2. A user who has skin reactions and chooses to avoid them without a firm diagnosis from a dermatologist or physician.
3. A user who has a specific diagnosis and must be very careful to avoid specific ingredients.

The application is intended to be a free download, supported by ad revenue from product companies interested in promoting their brand. The exit strategy is an app & IP sale, potentially to a product company who wants more control over the product recommendations made within the system.

SELECTED DEFINITIONS

Term	Definition
Alternate Products	A product that is suggested as an equivalent for the user-identified product, but that does not contain the allergens indicated by the Profile.
Organic	Any product produced from established organic methods and certified organic according to standards.
Profile	A description of an individual user and all allergens, categories, or products they have marked as potential allergy risks.
User	A single account that has access to the Allederm app.

TECHNICAL REQUIREMENTS

ARCHITECTURAL PRINCIPLES

- The system will be built in a modular fashion, creating logical and physical (where applicable) separation of concepts and capabilities.
- The system will utilize a façade pattern RESTful Web API, which passes through to the services directly, with a known and standard security layer.
- The system will be built using a cross-platform mobile foundation; so future mobile operating systems will be supported.

SUPPORTED DEVICES

- iPhone 5
- iPhone 5S
- Android (Option)

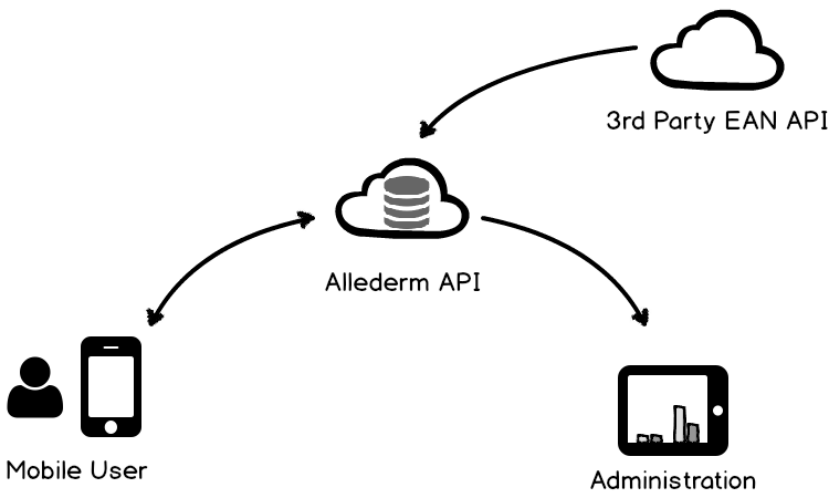
DATABASE INFRASTRUCTURE

Data will be stored in a centralized location, which can be read and written to from a secure API. This API can then be used for future purposes such as mining, analytics, and transactional support.

USER EXPERIENCE

Each and every UI will be designed to work on the supported devices. Each will have a consistent look and feel, with a focus on ease of use and information presentation. All UIs will have an architecture intended to support internationalization, but will only handle English in the described phase (ISO culture code: en-US).

ARCHITECTURE



OUT OF SCOPE

The following features, while possibly referenced in the specification are out of scope for the current phase.

- Managing multi-profile accounts.
- Links to purchasing options (e.g., Amazon) for alternate products.

WORKFLOWS

OVERVIEW

There will be a defined series of workflows that describe the user interaction with the application. Each module will relate, but will define its own core process in its entirety.

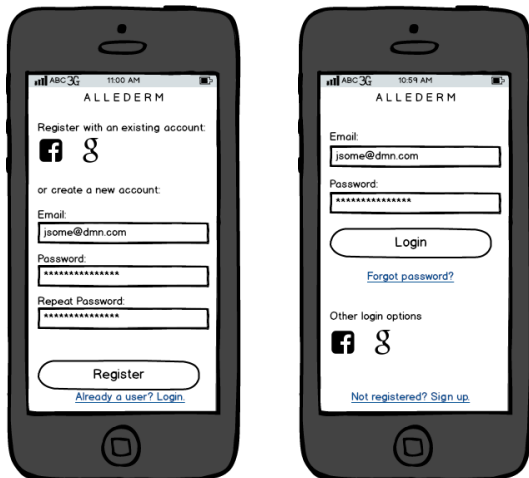
All mockups visualized in this document are for illustration purposes only and do not represent the final design or design concepts that will be utilized in the final version of the app.

ACCOUNT MANAGEMENT WORKFLOW

The Account Management Workflow will facilitate the users' account creation, profile maintenance, and allergen maintenance processes.

PROCESS OVERVIEW

A user will have the ability to create a new account with a username (email address) and password or by selecting an existing account that shares token-based authentication (Facebook, Google). If the user already has an account, they will be able to login using their username and password or by using the shared account login.



Once a user has registered or logged in, they will be able to access a settings screen. For a first time user, they will be sent to this screen by default. From there, the user can edit their profile information, manage their allergens, or logout of the system.

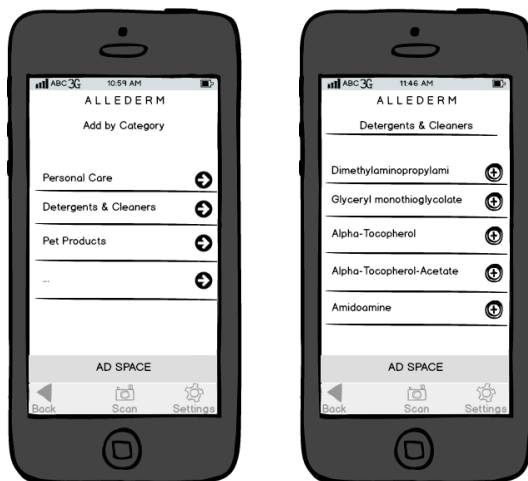


A user can manage their allergens by three methods:

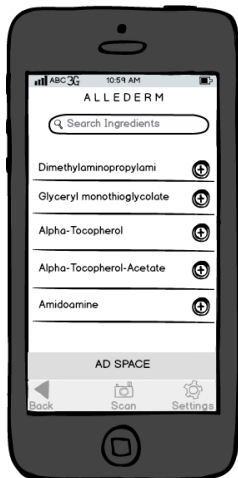
- By Category
- By Ingredient
- By Product



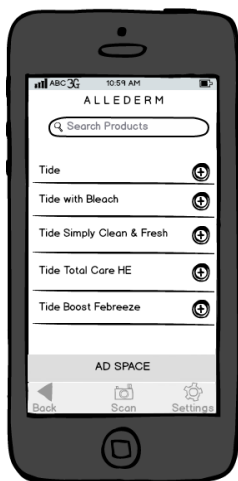
By selecting By Category, the user will be able to select major categories of contact allergens (TBD) and add a large amount of known allergens in a quick way.



By selecting By Ingredient, the user will be able to search through a comprehensive list of categories that are retrieved from the API.



By selecting By Product, the user will be able to search for and identify products that cause a known issue and all of the allergens contained in that product will be added to the user's profile.



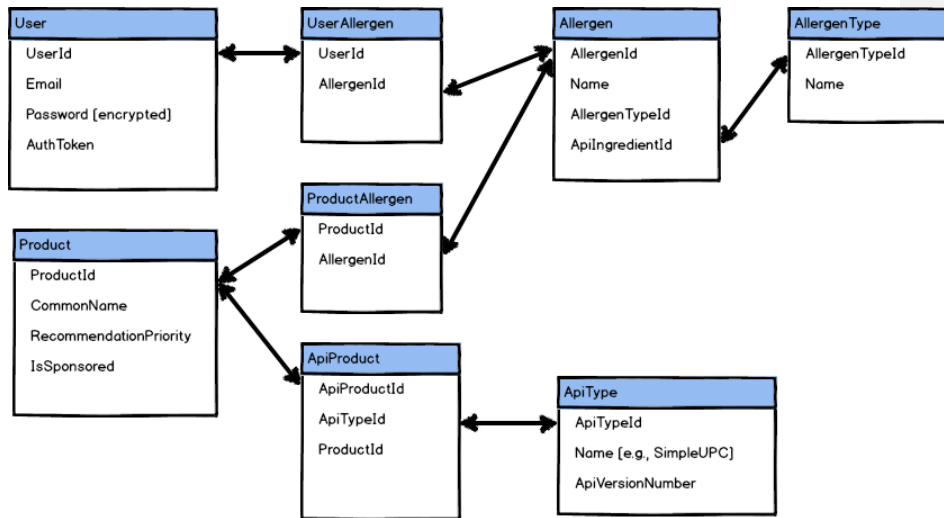
SECURITY

- **User Registration** – unauthenticated (unregistered) users.
- **Profile Maintenance** – all registered users.
- **Allergen Maintenance** – all registered users.

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DATA

The following depicts a preliminary view of the data relationships. It is not intended to be comprehensive, only illustrative of the core concepts required to make connections.



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NOTES

- The system must be built in a way to reconcile the Ingredients between the EAN API and Allederm's database to ensure the implementation is not dependent on one specific API and the metadata and relationships built initially can easily be transferred to a new API in the case of a switch.
- The Product will contain a recommendation priority. If a product is recommended higher than other priorities, it will be displayed first.
- A Product may contain an "IsSponsored" flag, which may provide it with additional UX or prioritization above other recommendations.

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- The user registration event will be tracked.
- The audit trail will be retrievable through a RESTful API query. Examples include:
 - All records: <endpoint>/audittrail
 - <endpoint>/audittrail/id
 - <endpoint>/audittrail?userid=#&eventtype=#

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NOTIFICATIONS

- No in-app events or notifications have been specified.

FUTURE CONSIDERATIONS

- In future phases, information such as home address, cell phone number, and preference information will be captured in the profile to facilitate more personalized marketing.

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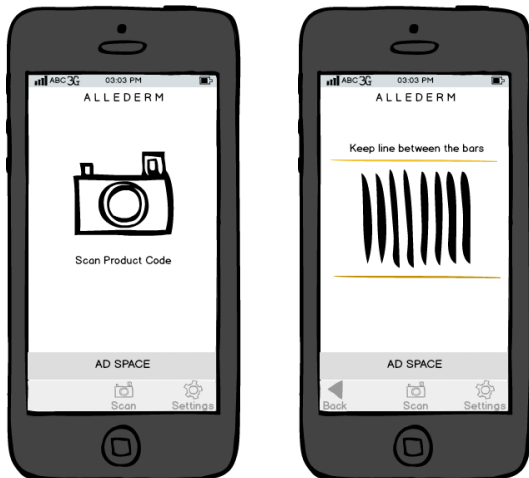
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PRIMARY WORKFLOW

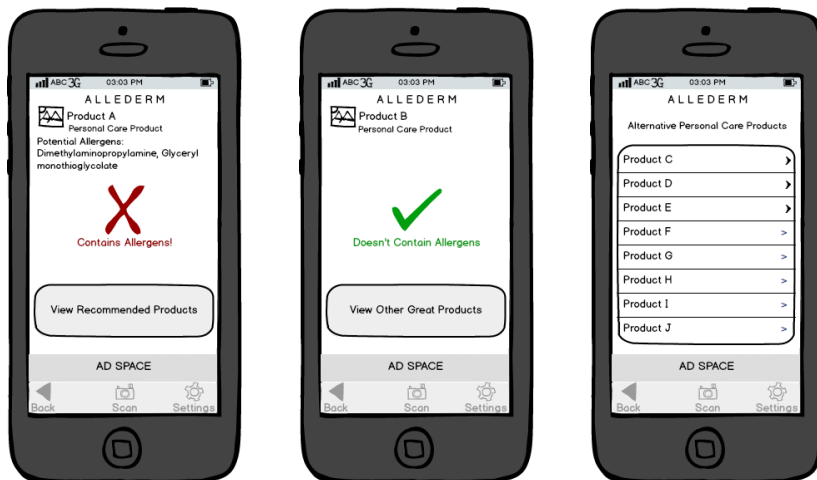
The Primary Workflow will allow an authenticated user to scan product codes (EAN/UPC) and identify whether or not the product contains allergens that the user has identified as an issue.

PROCESS OVERVIEW

The main landing screen of the application will allow the user to quickly enter into scan mode, where an EAN/UPC can be scanned. Once in scanning mode, the user can use the camera to automatically scan and read a barcode with some guidance from the UI.



Once the barcode is scanned and a product is identified, the system will display the product and a clear indicator if the product contains any potential allergens, as indicated by the user's profile. If there are potential allergens, they will be listed for the user to see. In either case, a list of recommended alternate products will be available by touching the available control or swiping to the next screen. This list will be generated by identifying similar products in the Allergen database that do not contain any of the user-specified allergens.



SECURITY

Every action within this workflow will be available to all registered users.

DATA

[Refer to the data section of Account Management Workflow.](#)

AUDIT TRAIL

- The profile scanning events will be tracked with geocoordinates to identify the user's location (if enabled).
- The audit trail will be retrievable through a RESTful API query. Examples include:
 - All records: <endpoint>/audittrail
 - <endpoint>/audittrail/id
 - <endpoint>/audittrail?userid=#&eventtype=#

SUPPORTING REFERENCES

DOCUMENTATION

- Allederm User Workflow.pdf
- Allederm – Mockups.pdf
- Allederm – Architecture.pdf
- Discovery Meeting 1.jpg, Discovery Meeting 2.jpg, Discovery Meeting 3.jpg, Discovery Meeting 4.jpg

EAN/UPC API PARTNERS

- <http://www.simpleupc.com>
- <http://factual.com>
- <http://eandata.com>

APPS (INSPIRATION)

- MyFitnessPal
- Amazon Price Check
- Betterment
- Starbucks

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REVISIONS

Date	Revision
June 25, 2014 <u>July 7, 2014</u>	1 st draft submitted to E-Macs, Inc.
<u>July 8, 2014</u>	<u>Revision 2 – Added Information Architecture and additional data detail.</u>

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