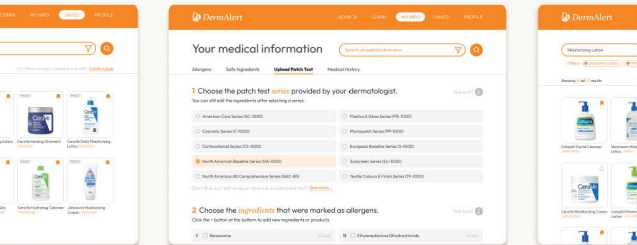
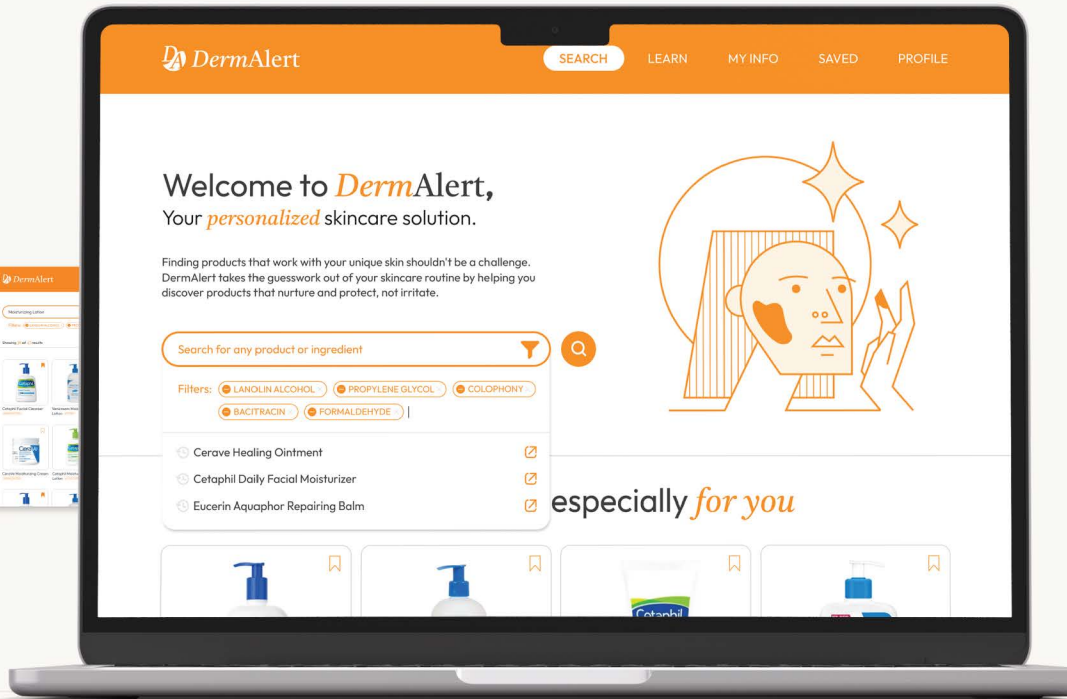




Skincare Product Repository

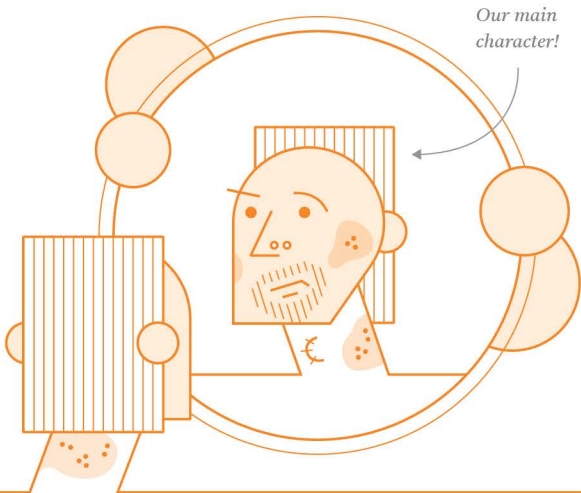


Tools used:



The Woes of Willy Whart

The eczemic epilogues of a frustrated fellow...



Willy Whart is a 23-year old university student suffering from *atopic dermatitis* (*eczema*) on his neck and cheeks.

HIS WOES

According to his patch test, he is allergic to *propylene glycol* and *wool alcohols ointment*, but even after doing his best to avoid these ingredients in his skincare products, he is unable to see visible improvements.

HIS GOALS

- To find products that don't contain any allergens without having to go through trial-and-error.
- To receive more guidance on how to interpret my patch test results and avoid allergens.

WILLY'S ECZEMA STORY:

1

"While I was struggling with a particularly rough eczema flare-up, my dermatologist recommended I take a patch test to find out if ingredients in my skincare products could be worsening my condition."

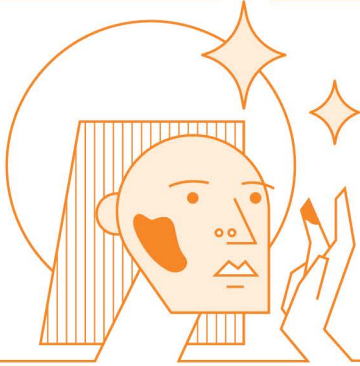
2

"After undergoing the patch test, the technician told me the compounds I was allergic to and provided me a paper with a general description of the allergen and an incomplete list of products that may contain it."

3

"I am still waiting for a follow-up appointment with my dermatologist four months later, with no visible improvements in my skin."

OVERVIEW OF PROJECT:



PROBLEM

Individuals with skin sensitivities (eczema, rosacea, etc.) often face challenges in managing their condition after undergoing patch tests, as they receive minimal support to help them effectively *avoid allergens/irritants* in everyday skincare products.

SOLUTION

DermAlert is a *personalized web-based repository* that helps sufferers of skin sensitivities easily identify and avoid allergens in skincare product ingredients by offering tailored search results based on their unique sensitivities and patch test findings.

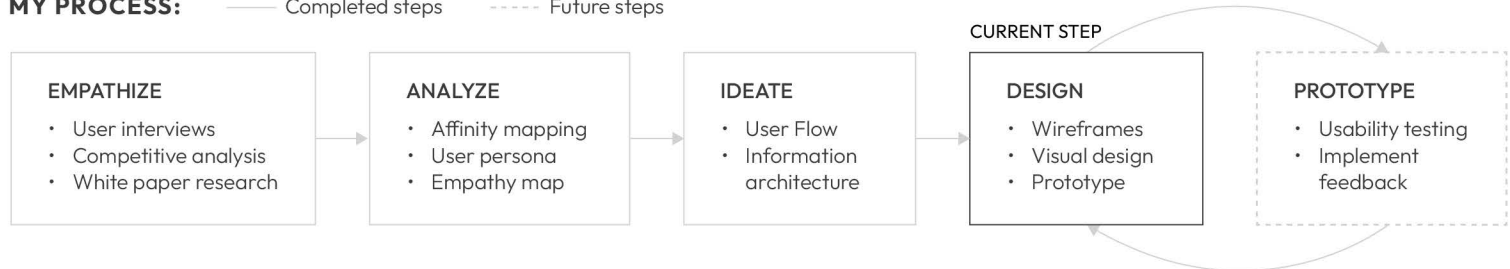
IMPACT

With this personalized tool, I hope to empower individuals to make *informed skincare choices*, reducing reactions and improving skin health. I also wish to get input from experts to make DermAlert a resource dermatologists feel comfortable recommending to patients.

MY PROCESS:

—— Completed steps

----- Future steps



What's the *Problem*?

Main problem: Individuals with skin sensitivities often have problems effectively avoiding allergens and irritants in everyday skincare products, with many receiving insufficient support from their dermatologists following their patch tests. Current platforms do not adequately address the challenges patients face.

After the research/empathize phase, I was able to break down the problem into three common issues users faced:

The names of allergens on patch tests *rarely match* their names on ingredient lists.

For example, **wool alcohols ointment**, which is the name found in standard North American patch tests, can be found in ingredient lists under any of these names:

- Lanolin alcohol
- Lanae alcohol
- Alchoholes lanae
- Wool alcohol
- Cetyl alcohol
- Stearyl alcohol
- Cetylstearyl alcohol
- Cetearyl alcohol
- EINECS-430-1

...and more!

During the user research stage, many users reported difficulties **inputting their allergens** into current filtering platforms.

Moreover, 80% of respondents stated that a system that lets them **upload their patch test** results would be helpful. However, this feature is missing from all current platforms.

Current platforms require users to *manually input* ingredients to filter.

Other platforms don't have a *comprehensive inventory* of products, focusing only on cosmetics.

Respondents also reported difficulty finding many products, especially **non-cosmetic** ones—including drugs like topical corticosteroids, sunscreen, and insect repellent—on currently available filtering platforms.

Two interviewees stated that they were unaware that these drugs could also trigger allergic reactions.

What's the *Solution*?

Turning problems into possibilities...

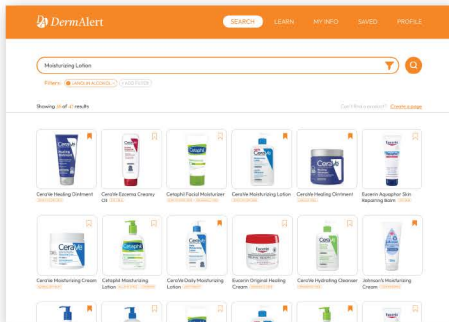
PROBLEM 1

The names of allergens on patch tests *rarely match* their names on ingredient lists.



SOLUTION 1

Search result filters will factor in ingredients that appear in *different names* on product lists.



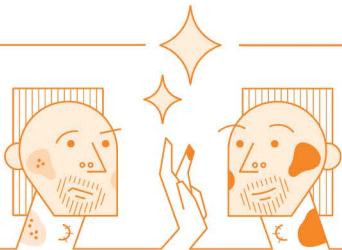
- DermAlert will **automatically** add cross-listed keywords to the filter algorithm, without having the responsibility fall on the user to research and type all the different names of an ingredient to filter them out (of which they will almost surely miss some).
- Each ingredient/allergen will have a dedicated **informational page** with a list of alternative names so users will know what to look out for on ingredient lists when shopping for products.

What's the *Solution*?

Solving with strategy and style...

PROBLEM 2

Current platforms require users to *manually type in* names of ingredients to filter them out.



SOLUTION 2

Users can automatically sort out what ingredients to filter out by *uploading their patch test* results.

DermAlert SEARCH LEARN MY INFO SAVED PROFILE

Your medical information

Allergens Safe Ingredients **Upload Patch Test** Medical History

1 Choose the patch test **series** provided by your dermatologist. Next step >

You can still edit the ingredients after selecting a series.

<input type="radio"/> American Core Series (AC-1000)	<input type="radio"/> Plexica & Olaya Series (PO-1000)
<input type="radio"/> Cosmetics Series (C-1000)	<input type="radio"/> Phepatch Series (PP-1000)
<input type="radio"/> Coriocosent Series (CS-1000)	<input type="radio"/> European Baseline Series (E-1000)
<input checked="" type="radio"/> North American Baseline Series (NA-1000)	<input type="radio"/> Screen Series (SU-1000)
<input type="radio"/> North American 80 Comprehensive Series (NAC-80)	<input type="radio"/> Textile Colors & Finish Series (TF-1000)

Can't find your test series or received a customized test? [See more...](#)

2 Choose the **ingredients** that were marked as allergens. Next step >

Click the + button at the bottom to add new ingredients or products.

<input type="checkbox"/> Benzocaine	<input type="checkbox"/> 2-Phenylpropane Diisocyanate
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DermAlert SEARCH LEARN MY INFO SAVED PROFILE

Your medical information

Allergens Safe Ingredients **Upload Patch Test** Medical History

2 Choose the **ingredients** that were marked as allergens. Next step >

Click the + button at the bottom to add ingredients or products that are not a part of the **North American Baseline Series**.

1 <input type="checkbox"/> Benzocaine 50.0 µg	34 <input type="checkbox"/> Tetracycline/Formaldehyde Resin 50.0 µg
2 <input type="checkbox"/> 2-Mercaptobenzothiazole 2.0 µg	35 <input type="checkbox"/> Methyl Methacrylate 2.0 µg
3 <input type="checkbox"/> Colophony 20.0 µg	36 <input type="checkbox"/> Cobalt (II) Chloride Hexahydrate 1.0 µg
4 <input type="checkbox"/> Pulverized urticaria base 50.0 µg	37 <input checked="" type="checkbox"/> Butadiene 40.0 µg
5 <input type="checkbox"/> Inhibiting Urine (Internal) 2.0 µg	38 <input type="checkbox"/> Hydroquinone-2-butylate 0.5 µg
6 <input checked="" type="checkbox"/> Wood alcohol (Santal) 50.0 µg	39 <input type="checkbox"/> Fragrance Mix II 16.0 µg
7 <input type="checkbox"/> 1,3-Diphenylisocyanide 10.0 µg	40 <input type="checkbox"/> Tetracycline-HCL 1.0 µg
8 <input type="checkbox"/> Neomycin Sulfate 40.0 µg	41 <input type="checkbox"/> Disulfide (Disulfide-HCL) 5.0 µg
9 <input type="checkbox"/> Thiourea Mix (U) 10.0 µg	42 <input type="checkbox"/> Chlorinated TP propylene 50.0 µg

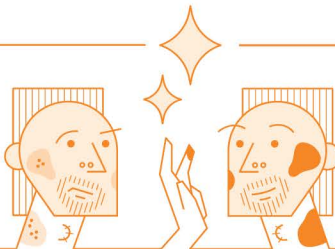
- DermAlert uses a **streamlined process** of easy-to-follow questions for users to input their patch test information.
- Users will select multiple choice inputs rather than manually typing in their allergens, optimizing **ease of use**.
- Users choose the test used by their dermatologist (of which there are 33 standardized series), and proceed to check off the ingredients marked as allergens on their patch tests.

What's the *Solution*?

Function, form, and follow-through...

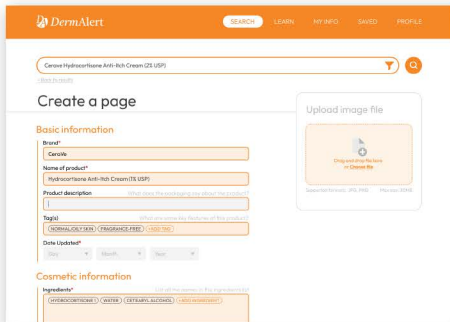
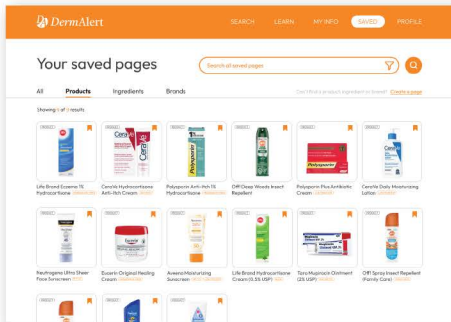
PROBLEM 3

Other platforms don't have a *comprehensive* inventory of products, especially non-cosmetic products.



SOLUTION 3

DermAlert will utilize a *community based* model, allowing users to submit their own pages.



- At launch, DermAlert will include products/ingredient lists from the most common cosmetic **and** non-cosmetic products, including topical medications, sunscreen, and insect repellent.
- Users can and will be encouraged to request/create pages for products they cannot find to **widen the scope** of products available.
- New pages will undergo a community **verification** process and/or dermatologist review to ensure accuracy.