Github Repository: https://github.com/myatbhonesjsu/Lumen

Lumen - Team Derma

Empathize

Goal: Understand the users and context deeply

- User Research Plan (who, how, what you'll study)

  For a deeper understanding of the everyday challenges faced by young adults seeking skin health solutions or advice, we can design a multi-method research approach. Recruitment focused on individuals aged 18-35 who self-manage their skincare using mobile apps and websites or other web related resources. Through semi-structured interviews, participants can share honest reflections on their routines, frustrations, and expectations, while observational studies capture real-time app interactions and decision-making behaviors. By triangulating insights across interviews, direct observation, and diary entries, richer emotional context for behaviors can be obtained—contributing vital knowledge for both product design and user experience goals.

- Interview Transcripts & Observation Notes

  Participant 1 (Student, 21):

  “I get pimples here and there, but I never remember to check if they’re getting better or worse. I’ll just try a new face wash and hope for the best.”

  Observation: Shows inconsistency in tracking and a lack of reliable feedback.

  Participant 2 (Working Professional, 28):

  Whenever I notice something new on my skin, I end up searching it online. The answers are all over the place, and I don’t know what to trust.

  Observation: Relies on random online advice and struggles to find clear, trustworthy guidance.

  Participant 3 (Parent, 35):

  “If something could just help me keep an eye on skin changes without making it sound medical, I’d actually use it. I just want something simple and private.”

  Observation: Prefers a non-medical, educational approach and values privacy.

  Participant 4 (Gym Enthusiast, 26):

"Sometimes my skin looks worse in photos because of the lighting. It's hard to tell if it's actually getting better or if it's just the picture."

Observation: Highlights the importance of consistent image quality and lighting for accurate tracking.

- **Empathy Maps / Journey Maps:**

  Says:

  - It's hard to tell if my skin is getting better or worse.
  - Most apps just show pictures but don't actually help me understand what's happening.
  - I want something that gives real guidance, not random advice from the internet.

  Thinks:

  - "Maybe this redness means something serious, but I'm not sure."
  - if I had a tool that could quietly track changes, I'd feel more confident.
  - I just want to know what's normal and what needs attention.

  Feels:

  - Curious about learning more but anxious about being wrong.
  - Frustrated with inconsistent results and unclear information.
  - Cautiously hopeful that technology can make skincare easier.

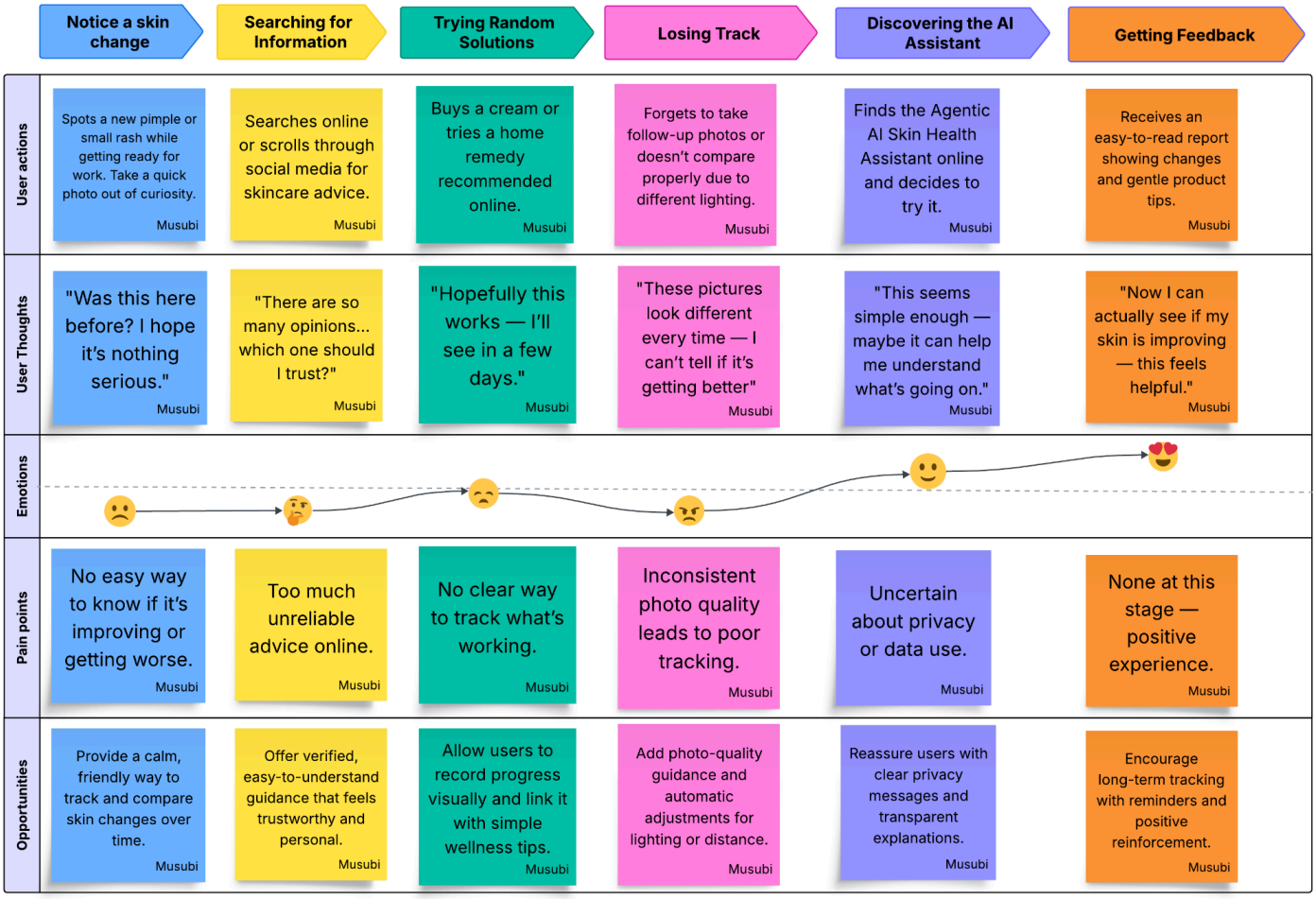
  Does:

  - Take close-up photos under different lighting to compare changes.
  - Scrolls through skincare forums and social media for quick answers.
  - Experiments with new products without tracking their actual impact.
  - Mentally notes improvements but rarely documents them consistently.

  User Journey Map

  An example user:

  Name: Sharon
  Age: 27
  Occupation: Marketing Associate
  Background: Sharon has a fast-paced routine and often ignores small skin changes until they start bothering her. She wants to understand what's happening with her skin but doesn't have time for long dermatology appointments or confusing research.



- Key Insights (quotes, pain points, opportunities):

  <u>User Quotes</u>

  “It’s hard to tell if my skin is actually getting better or if it just looks different in the light.”

  “I always search online, but every website says something different.”

  “I just want something simple that helps me track changes without making it feel like a diagnosis.”

  “Uploading my photo makes me nervous — I want to know it’s kept private.”

Pain Points

- People forget to consistently track their skin or take follow-up photos.
- Online advice feels unreliable and sometimes causes unnecessary worry.
- Many users find AI or medical-style tools intimidating.
- Inconsistent lighting and photo angles make it hard to see real progress.
- Concerns about data privacy stop users from trusting new apps.

Opportunities

- Create an easy, guided photo process with clear instructions for better tracking.
- Build user trust through strong privacy protection and transparent data handling.
- Offer calm, educational feedback instead of clinical or medical terms.
- Provide gentle reminders and progress visuals to encourage consistency.
- Present personalized product and care suggestions that feel supportive and safe.

Define

Goal: Synthesize insights into a clear, actionable problem statement

- POV (Point of View) Statement:
    - Young adults struggle with certain recurring skin issues and would benefit from a simple and trustworthy way to track progress and receive feedback and guidance. Online advice can be overwhelming, unverified or not specific to the user.
- HMW (How Might We) Questions:
    - How might we help them track progress over time?
    - How might we give guidance to specific issues the user may have?
    - How might we provide users confidence in their skincare routine?
- Problem Framing Document or Storyboard:
    - Problem Framing - Skin Analysis

Who	What	Where	When	Why
Young adults ages 18-35 who struggle to manage their skin health	Many users lack objective information and expert	The issue arises whenever users attempt to treat skin	The problem is persistent and recurring–esp ecially when	The impact is substantial: users continue to spend time

independently and seek affordable, reliable guidance	advice about their skin conditions, leading to wasted money, frustration, and inconsistent routines.	concerns on their own, typically at home using their smartphones and web resources. Professional help is scarce, and existing apps lack personalized diagnosis and actionable plans.	users notice new or worsening skin issues, prepare for significant life events, or seek to change routines.	and money on ineffective solutions, experience anxiety and disappointment, and may allow preventable conditions to worsen. Solving this problem can improve confidence, save resources and empower users with data-driven recommendations.

Problem Statement:

Young adults who manage their skin health without reliable access to professional advice frequently experience confusion, wasted resources, and persistent frustration due to inconsistent information and lack of personalized analysis. By providing an AI-powered solution for personalized skin assessment, education, and actionable recommendations, the Lumen app addresses critical gaps in confidence, effectiveness, and well-being.

- User Personas (if relevant):
    - Persona 1: Sarah, the overwhelmed college student drawn to influencer culture but by the cost and also low confidence and self-esteem. She represents the high-frequency app users with acute pain points.
    - Persona 2: Jennifer, the cautious professional, who puts safety and skepticism center-stage, needing clear privacy protections and easy escalation to professional care.
    - Persona 3: Marcus, the analytical engineer, exemplifies the tech-savvy, data-orientated users demanding evidence, transparency, and progress visualization.

Ideate

Goal: Generate a wide range of creative solutions

- Brainstorming Outputs / Idea Sketches:

  In our brainstorming session, we went through numerous features and user flows for Lumen. Culminating all these different ideas, our core MVP features focused on user needs directly validated by research: a smart skin scanner for instant high-quality photo analysis; using AI agents for condition classification for actionable insight; personalized recommendations that improve upon general advice; and perhaps an engaging, objective progress tracking dashboard. Our other possible sketches included real-time AR visualizations, environmental analytics, lifestyle tracking, telemedicine integration, and community support features. We can then test and iterate upon these brainstorming outputs and idea sketches against the user personas to ensure their possible fit and feasibility–leading to a robust pipeline of staged enhancements for future development.

- Concept Clusters or Prioritization Matrix (feasibility vs impact):

Concept	**Feasibility**	**Impact**	**Priority**
Tracking Skin Health	High	High	High
Guidance/Feedback	High	High	High
Daily Reminders / Update Alerts	High	Med	Med-High
Product Recommendation	Med	High	Med-High
Resolution Timeframe Prediction	Med	Med	Med
Social Sharing	Med	Low	Med-Low
Doctor Visit Trigger	Low	Med	Med-Low

- Storyboard or Concept Cards: