CS342/MED253 Building for Digital Health

Derm Team

Welcome!

https://cs342.stanford.edu

cardinalkit.slack.com

Ines Chami, Adrit Rao

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Project Background

- Acne affects between 40 and 50 millions of individuals in the U.S.

- No miracle solution:
  - Need to slowly find the right skincare routine (requires several iterations)
  - Personalized skincare regimen

- Hard to keep track of progression of symptoms

- Can we build a skincare diary that automatically track skin health?
Need Statement

A skincare diary to track acne symptoms in adults and teenagers suffering from acne in order to help them find personalized skincare routines and reduce the number of monthly skin flare-ups.

- **PROBLEM**: Acne
- **POPULATION**: Adult women suffering from acne
- **OUTCOME**: Reduce the number of monthly skin flare-ups
Architectural Diagram of Project Highlighting Components Used

- Frontend
  - CareKit
  - ResearchKit
  - CoreML

- Backend (server/database)
  - On Device
  - Firebase for login
Features:

- CareKit schedule and tasks
- ResearchKit surveys x 2
- CoreML model
- ChartKit charts
ML Predictions

Skin Survey
Please take your skin survey so we can know how you are doing.

Results
- moderate

Results
- mild

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Feedback from Testers

● What worked well?
  ○ App design and simplicity
  ○ ML model

● Improvements:
  ○ Add functionality to enter skincare products to keep track of which ones work best
  ○ Add functionality to see photos over time
Questions?