CS342/MED253 Building for Digital Health
BeatHeartDisease

Welcome!
https://cs342.stanford.edu
cardinalkit.slack.com

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Winter 2020
About Us

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Project Background

- The goal of the project is to **leverage digital health technology** to create a platform for management of a range of cardiovascular diseases, from prevention to disease management.

- The project comprises a **patient-facing app** to encourage engagement through a mobile platform.

- Bluetooth-enabled blood pressure cuffs, bluetooth-enabled scales, and ECGs from Apple Watch will be used to **record relevant vitals** for cardiovascular disease management.
Need Statement

A better way to reduce cardiovascular risk factors in patients with known or at risk of developing cardiovascular disease in order to improve cardiovascular outcomes including reduced heart attack, stroke, and death.
Informed Consent

- Upon sign-in, users are presented with the approved IRB consent form for the study.
Surveys (patient-reported outcomes)

For Alpha Implementation:

1) SF-12 Survey
2) Medication Questionnaire
   ● Surveys must be taken every 6 months by patients on the app.

For Future Implementation:

● Surveys and daily journal to report relevant updates
Feedback from Testers

We received feedback from 2 computer science peers:

● Positive Feedback
  ○ ORKit elements for the 2 surveys are intuitive
  ○ Clean colorscheme
  ○ Apple authentication process is smooth

● Constructive Feedback
  ○ Some minor bugs such as name scrolling effect
  ○ Some parts of the consent form seem too wordy

Communication with PIs:
  ○ Discussed wireframes for UI design and future features
  ○ Will begin transitioning from a more CardinalKit-inspired interface to the one requested by the PI team
Next Steps

- Daily Journal
  - Analyzing trends in diet and activity with health
- Connection to medical devices
  - Omron BP monitor
  - Bluetooth-connect scale
- Chat/message system
  - Connected to REDCap
  - Messages for refills, help, and patient needs
- Data upload to patient REDCap portal
  - Implemented via Firebase Cloud Functions
LIVE DEMO