

SafeHouse

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Team Speakeasy

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SafeHouse

SafeHouse is an anonymous messaging platform that helps users get support and interact with others in a positive way.

- Why?
 - Reduce Covid-19 related isolation
 - Improve mental health awareness and emotional intelligence
- Whom will it help?
 - People who want a safe space to express themselves
 - People who need advice and/or emotional support
 - People who want to talk to others in a casual, positive environment



High Level Goals

- Produce a messaging system that allows users to send and receive letters to other random users.
 - Users will receive letters based on their shared interests and letter content
- Simple and user-friendly UI for user login and messaging systems
- Incorporate speech tagging and toxicity classification to moderate user community
- Gamify user interaction to incentivise regular use



Sprint 1

Top Level Goal - Produce initial user registration and login system

Story points

- As a user, I want to access the initial landing page and log in / log out of my messaging inbox
- As a user, I want to have 2 factor authentication to protect my account and messages/allow for account recovery

Spikes

- Familiarizing ourselves with React, Google Gmail API, whatever database.
- Encryption for password protection

Infrastructure - Set up shared Google Drive, Github repo, and acquire Google API key



Sprint 2

Top Level Goal - Produce initial user messaging system with integrated user tags and message classification

Story points

- As a user, I want to write and send letters so I can garner responses and build meaningful interactions
- As a user, I want to receive letters that I relate to, so that I can properly respond in a meaningful fashion
- As a user, I want the ability archive/delete past letters so my inbox doesn't get too cluttered.

Spikes

- Familiarize ourselves NLP.js and other NLP packages for entity extraction.
- Begin integration testing of our systems

Infrastructure - Set up messaging database through MongoDB



Sprint 3

Top Level Goal - Polish MVP to meet initial development/ cosmetic goals and explore gamification options

Story points

- As a user, I want the ability to report abusive/hateful letters so that negative users will be removed from the community.
- As a service provider, I want my webapp to have a unique and clean style/design to attract users
- As a service provider, I want our existing backend to include redundancies so that our webapp is more reliable

Spikes

- Survey alpha users for aesthetic/UI critiques
- Design various reward structures for users to incentivize recurring use.



Sprint 4

Top Level Goal - Implement gamification and prepare for first public launch

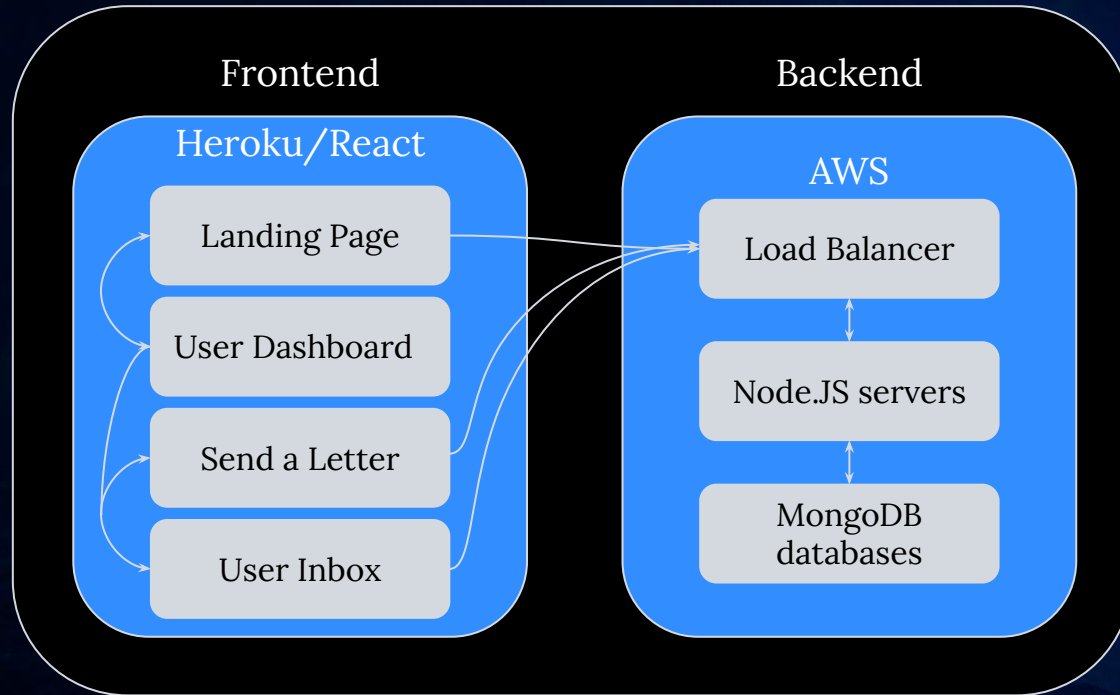
Story points

- As a service provider, I want various features connected to a gamification system to retain user population.

Spikes - Continue rigorous testing of both integration and server stability for initial launch.



Architecture



Technologies

Organizational

- Google Drive - Documentation organization
- Github - Version control and collaboration
- monday.com - Agile planning and scrum board

Frontend

- Figma - mockups for UI layout
- React - frontend framework for web app
- MUI - frontend library for react components
- Heroku - deployment



Technologies cont.

Backend

- Express - backend framework for web services
- HaProxy - backend library for load balancing
- AWS - backend hosting service for web server
- Google Gmail API - User login verification
- NLP.js/Natural - Toxicity classification and entity extraction

Data

- MongoDB - Database framework to store and manage user data



Risks and Challenges

Developmental:

- Limited experience with backend development in Node/ database management in MongoDB
- Building various systems from scratch, i.e additional time commitment to research and designing basic systems

Professional:

- Lack of collaborative coding experience
- Planning rigor and uncertainty due to Covid-19



Minimum Viable Product

Our MVP is an anonymous messaging platform where users can write letters to other random users, who can then respond once. We wish to generate quick meaningful interactions between users.

Story Points

- As a user, I want to log in/log out of my message inbox, so that I can access my messages.
- As a user, I want to read messages from other users, so that I can respond and send positive support.
- As a user, I want to send messages to other users, so that I can express my emotions and receive support.



Thank You!

Questions?

