

Project Plan

Due Mon, 15 Nov 2021 at 11:59 pm ET

Milestones Functionality Plan

Proof of Concept

- Being able to create a blockage report on the map
 - Report a blockage at a manually selected location along with the time, an optional brief description, and status (blocked, unblocked, unsafe).
 - Store the location in coordinates in our backend
- Set up/connect the database and design the schema
- Decide which maps api to use and familiarize ourselves with the maps api for posting blockage at a location
- No authentication yet: just have user manually type in their username to create a blockage

Minimum Viable Product

- User authentication since we need to allow multiple users to post at the same time
- Voting system where users can upvote or downvote a report based on whether the blockage report is true (there is an actual blockage) or false (trolling, no actual blockage at the location specified in the post)
- Karma, since it's one of our core concepts
 - Have a simple version of a voting system that adds or subtracts from a person's karma depending on the upvote to downvote ratio of each user's posts
 - No levels yet, just calculating/displaying raw karma number for now
- Subscription: have a filter function that displays all of the past blockage reports within one specific time interval specified by the user on the create subscription page instead of allowing multiple and/or recurring time intervals yet for the scheduling
 - No push notifications for new blockages in those regions yet
 - Allow user to set a range of time and area so we only show blockages that were reported in that area and range of time using a simple filter function (shows past blockages instead of future ones like we want in the final product)

Finished Product

- Limiting the number of blockages each user can make based on their karma score: the higher the karma the more blockage reports you can make and the lower the karma, the less reports you can make
- Can only edit post within 30 minutes after you made the report
- Push notifications for subscription when there's a blockage in the specified region determined by a point and radius
- Have a recurring scheduling feature for the subscription concept, possibly by integrating Google Calendar or doodle/calendly, for example.
- Calculating/mapping/displaying the user's karma levels instead of raw score
- Comment feature for blockages as well as emoji reactions to the blockage posts
- Have a system for determining and handling duplicate posts: possibly notice the user if they made a duplicate post

Implementation and Other tasks

Backend:

Task	Assignee	Deadline
Set up Mongo	Cindy	11/18
Design schemas	Cindy	11/18
Integrate Google map API	Victor	11/18
Create blockage object	Hizami	11/18
Create blockage related routes (edit, create...)	Hizami	11/18
Implement upvote/downvote system	Cindy	11/29
Create user object and set up authentication	Cindy	11/30
Design and implement simple karma (from upvote/downvotes)	Victor	11/30
Implement ability to filter blockages by subscription	Hizami	11/30
Finetune karma levels and privileges associated with each	Victor	12/8
Notifications for subscribed times (notifications drop down bar)	Karen	12/8

Frontend/Fullstack:

Task	Assignee	Deadline
Display maps page and information about the blockage (some way of visualizing the blockage)	Karen	11/18
Frontend auth functionality	Cindy	11/30
Frontend Navigation (Nav Bar, Routes, Error Page)	Karen	11/30
Account settings page (change password/change username)	Karen	11/30
Subscription page	Hizami	11/30
Post edit/delete interface (limit to 30 min after creation)	Cindy	12/8
Integrate Google Calendar or other scheduling app for subscription	Victor	12/8
Comment feature, both the backend and frontend	Karen	12/8
Emoji reactions for blockages, both backend and frontend	Hizami	12/8
Polish the UI/UX (buttons, color scheme...)	Karen	12/8

Backup Plan if Something goes wrong

If something goes wrong, we will emphasize polishing the main functionality of our app, which is reporting blockages, displaying these blockages, commenting on these blockages, and the basic karma system. If time does not permit, we will likely cut back the functionality of subscriptions, especially push notifications, and integration of the Google calendar into the subscription system, or perhaps even cut the concept of subscriptions entirely. We can also drop or simplify the comment feature. We may also have to keep karma in a more simplified form, rather than fine-tuning it to make it fair for all users and preventing users from trying to game the karma system and farm karma.