

# Proof of Concept

*Due Fri, 19 Nov 2021 at 11:59 pm*

## **Frontend:**

Currently, users can view reported blockages on the Home page. They can create an account and login to report a blockage by double clicking the location of the blockage on the integrated Google maps API (which retrieves the coordinates of the indicated location), and then adding a status and optional description. Users can also edit and delete their own blockage reports as well as see all of the blockage reports posted by users on the map as pins by clicking on it once to see a popup with info about the blockage without being logged in. Each of the blockages show information like the username of the reporter, the status, a brief description (if any), the longitude and latitude location on the map and the time it was posted. When you edit your own blockage, you can change the status and/or description. When you press done with editing, the time of the blockage item will also be updated to the current time and you can choose to cancel the edit and it will exit you out of edit mode.

Additionally, the nav bar has a profile icon in the top right corner as well as a logout button pop up. Clicking the profile icon brings up a drop down menu with a logout or settings button which brings you to a settings page where you can change your username, password, or delete account.

On the map, you can also click on an existing pin to view the details about the blockage on the sidebar popup as well as a small tooltip on top of the pin with the status as well as an optional description, if any. To close the currently open tooltip popup, either click on another pin or anywhere on the map. You can also zoom in and out using the + or - sign at the bottom right corner of the map as well as drag the map around to move to another area of the US or other countries, even. The map is defaulted to the Cambridge/Boston area since our target users are mostly bikers in the local area as opposed to the entire world.

## **Backend:**

Our backend API has basic authentication functionality, allowing users to create an account, login, and logout. When logged in, they can change username, change password, or delete account. Blockages, which store the location coordinates, time, reporter ID, status, and description of the blockage, can also be created. The creator of the blockage can also edit information about the blockage or delete the report altogether. We store this data persistently using MongoDB via our design schemas for User and Blockage objects.