Design Decisions for the Final

Settings up a notification system for mark updates

We decided to set up a notification system to keep our users updated on the progress of their marks, for example, when someone makes a comment or rates their mark. The main purpose was to help users resolve their marks by getting feedback from others as well. If a mark has been resolved, the original poster can take it down.

An alternative: We could have taken down old marks or cleared them from the system after a couple of days. However, we wanted the original poster to have the power to resolve their own issues themselves.

Uploading an Image

We decided to add options to our marking concept for users to upload images. This is to give users more ways to express themselves other than writing captions and putting tags on an image. “A picture is worth a thousand words”.

Alternatives considered: Options to upload videos. Although videos may give context, we were wondering whether we had enough capacity to host them on our apps. Images may convey the message faster as users browse through different marks.

Using a video carousel slider to demonstrate how our application works

We decided to record important concepts as part of the help guide for a new user. The help guide appears when the user logs in for the first time and they have to go through all the slides.

Alternatives considered: Writing key steps for different concepts and accompanying each step with an image. However, we thought that this option would not be as instructive to the user.

Excluding other marks from the map when one is clicked

When a user clicks on a particular mark on the marks list in the right window pane, all the other marks cleared from the map leaving the mark that the user clicked on the map. We did this to give a user some focus on the mark they are engaging with. However, leaving all the marks in the area would also give the user a chance to switch between the marks. The tradeoff was made because we decided to emphasize clarity for the user more than them being able to view marks as fast as they could.

Design Decisions from MVP

One marking per post

Originally, for our marking concept, a user could bundle several marks in one post i.e. make some marks on the map and post them as one batch. However, we find that the transition between each mark may be confusing for the user, therefore one mark per post would maintain clarity. Therefore, the user can keep track of what they meant to mark more consistently.

Use of Mapbox instead of designing our own routing system

This decision came after observing the inefficiency of our routing algorithms based on a 6.009 dataset and code. Our server hosting the code would crash multiple times. Consequently, we decided to adopt Mapbox API to help with our platform to enhance functionality such as optimized routing, geocoding, and searching.

Alternative: Use Google maps API. However, Mapbox provides more map functionality/ manipulation.

Allow users to saved trip plans

A user may want to save a trip plan that occurs frequently when they use the app. Suppose a user plans to bike from MIT Campus to Target everyday. They can easily go to their saved plans and up to date markings for that area surrounding MIT campus and Target. It saves the user time because they have to search for Target and the campus on the map.

Rating is implemented on a 5 star metric

We decided to implement a 5 star rating metric to follow a conventional rating mechanism that users can be able to understand. Most reviews on websites, even restaurants follow the same suite. A user gives a rating on a whole number basis [1,..5]. However, the rendered / cumulative rating per mark is to the nearest decimal places. We also display the number of ratings on a mark so that the user can get a better idea of the weight of ratings, that is, it is better to get ten 5 star ratings on a mark is better than getting one 5 star metric.

Alternatives considered : A ten star metric which increases the scope of rating - this may be too specific; it would take many ratings to distinguish whether a rating is good or bad. Another alternative could be upvoting or downvoting a mark, but which offers a count basis metric. However, we thought it would be better to give the user more expression on how much the mark was useful to them.

Editing a rating is a two step interaction

We decided to remove direct editing of a rating. Rather than have a button which says “Edit Rating” and a user just rates the mark, the user has to delete the rating first and add a new one. This was to prevent the overuse or inappropriate use of rating making editing a tedious process, therefore this prompts a user to think about the validity of the mark before rating it as ‘editing’ it would be tedious.

Interactive Searches

On every input on a search bar, we render suggestions based on the current search input. We decided to implement two way geocontrol to allow users to also navigate to areas they are more familiar with by name. The search results are bound to the state of massachusetts. Interactive searches also contribute to a better user experience and the perceptual vision that emanates from geolocation suggestions is aesthetically pleasing.

Alternatives:
Considered bounding search results to Cambridge. However, we realized that the Bluebikes services also extend into Boston, therefore we needed to expand the scope of the search to somewhere in between city and country.

Users cannot edit their marks

We decided not to have users edit their own marks. This is because updates may cause confusion in that all comments and reply threads attached to a certain mark become incongruent to the modified mark content.

Alternatives : Allowing for mark editing, but deleting every comment and reply thread associated with it after the modification. However, this would require some notification system to notify all other users on the thread that their comments have been deleted. Therefore a user is more careful about the meaning of their content before they post the mark.

Difference between marking and planning pin functionality

Both marking and planning utilize two points, a start point and an endpoint. The points are red and blue respectively. However there’s a difference in how users interact with marking points and planning points.

For planning points, the user clicks on the screen to place a start point and then clicks again to place an endpoint. However on marking, the start point is already on the map for the user. The user interacts with the marking start point by dragging it across the map to change the location. The user then clicks on the map to place a marking end point.

Alternative: We considered making the functionality consistent across marking and planning. However, we wanted the user to maintain the essence of a change of concept. Moreover, the clicking points on planning is more consistent with its purpose in that we want users to be able to widen their planning scope, and clicking is a faster alternative. The

dragging is consistent with the marking purpose because we want short routes between places and dragging provides a slow effect in doing that which ensures routing accuracy.