

Progress Report

We have a basic UI, but it is not completely hooked up to the backend yet. We also have all basic backend functionality working. This includes the following:

- Create, edit an account
- Add and remove a bike
- Edit a bike's location, availability, price
- See all bikes unfiltered, filtered by location, filtered by availability, filtered by both location and availability
- Create, cancel, reserve, use a ride

Achieved/~~Missed~~ Milestones

All Proof of Concept milestone tasks were completed. This milestone focused on the backend, with a basic frontend to test requests and responses. This includes the following tasks:

- Implement accounts
- Implement bike functionality
- Implement ride functionality
- Implement basic UI and integrate with backend

Difficulties encountered

Availability tracking

Our biggest struggle right now is trying to find the best way to keep track of bike availability -- when they are free, being used, when the time slot opens up again, etc. We thought about using a linked-list data structure to store that information, but it wouldn't be compatible with a database. We're looking into an API that might be able to manage it for us, but any suggestions would be fantastic!

Changes to design/project plan

We received feedback about our security process and review concept, and will make the following adjustments.

Security

Our original plan was to have some sort of GPS tracking system and alarm for each bike, so it could be found if stolen. Feedback suggested that this was a bad idea, so we'll be implementing the following instead (suggestions welcome about which approaches we should keep/remove):

1. Ask for a full name and phone number. This should be enough information for people to contact the authorities about damages or stolen bikes.
2. Late fees for returning a bike late, that adds up to more than the cost of the bike if not returned. Alternatively, a hold charge like hotels do, in case a bike is damaged or stolen.
3. Bike renters must take a picture of the bike when it's returned as a precaution.

Reviews

This idea was originally built into our Account and Bike concepts. We will move the concept of a review into its own separate concept after receiving feedback. We will still be doing a weighted rating system and reviews for both users and their bikes. One feature we'll add is to allow users to upload pictures to support their reviews.