



Iteration Report 1

CTFastrak Application

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I. System Functionalities:

At this stage of development, the user can see a color-coded bus route map superimposed on a zoomable and scrollable google map fixed on the State of Connecticut. Additionally, the user can tap on a route which will reveal bus stops along that route. Touching the bus stops will reveal their names as well as information on their buses departure and arrival times.

II. User Stories Implemented:

The system currently implements user stories #1, #2, and #3. Additional work is planned to further improve functionality for user stories #1 and #2 prior to implementing the next set of user stories for the next iteration.

1. As a commuter, I want to view bus route information so that I may be able to view where a bus will stop along its route.
 - a. Precondition: Color highlighted bus routes are visible on the map.
 - b. Post-condition: The selected bus route is accentuated along with the bus stops along the selected route.
2. As a commuter, I want to view a bus stop schedule so that I will be able to view the approaching buses that will arrive at a specific stop.
 - a. Precondition: The bus stop is selectable on the map.
 - b. Post-condition: The system tells the user the bus schedule for that stop and the next arriving bus.
3. As a commuter, I want to scroll and zoom in and out on the map so that I can examine points of interest on the map
 - a. Precondition: The current section of the map is fully loaded into the system.
 - b. Post-condition: The app displays the new section of the map.

III. User Story Changes:

The three user stories for the application manager are under consideration of removal because it would require altering the GTFS file system, and make more sense to update the

information for the bus routes in the text files outside of a simple phone application. Unlike user story #3, user stories #1 and #2 proved to be more difficult to implement and are integral features of the system, so their sizes were upgraded to 2. A new user story was identified during development of the route information that was added to the backlog. This feature will be a search bar that shows the arrival and departure times of specific searched bus stops or routes.

IV. Lessons Learned:

Group meetings for this iteration were restricted to Slack and text. Thus, our roles and what we had to implement became unclear. To clear up the ambiguities and ask questions, we will more frequently meet up in person and discuss the project in greater detail earlier along the sprint. Another thing we would do differently is start work on the code earlier and research how to implement what the code still needs.

V. Updated List of Remaining User Stories:

4. As a commuter, I want to search for a specific bus stop so that I can quickly see its arrival and departure times for incoming or outgoing buses.
 - a. Precondition: The search bar for bus stop must exist in the system
 - b. Post-condition: The user is taken directly to the bus stop on the map and is shown its list of arrival and departure times
5. As a commuter, I want to select which bus stop to depart from because the one the app recommends might not be preferred.
 - c. Precondition: Bus stop must still have an incoming bus for the day
 - d. Post-condition: The route is updated to show the user's new arrival time
6. As a commuter, I want to input my destination so that the app can calculate the nearest bus stop to take.
 - e. Precondition: Destination must be a real location along CTFastrak routes
 - f. Post-condition: App generates route to bus stop based on user location and user preferences

User Story Sizes:

Size 2:

4. Search for bus stop

Size 3:

5. Input departure

Size 5:

6. Input destination

VI. Next Iteration:

Because the new cumulative size of all the user stories is 15, implementing a size of 5 user stories for the next iteration is a reasonable goal. The second iteration will see user further improvements to user stories 1 and 2 in order to satisfy the preconditions of the next set of user stories, and will implement new features for user stories 4 and 5. The new functionality of this partially implemented system will feature the ability to input departures based on either GPS info or manual selection into the app in preparation for the third iteration where the app will be able to determine the shortest path to the destination.