Cyberdyne Systems

Iteration Report 2
CTFastrak Application

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I. System Functionalities:

At this stage of development, the buses are displayed in real time along a selected route. The bus routes are also highlighted in different colors to help the user tell them apart, and other routes become transparent once a route has been selected. The bus stops are also showing routes for the current day opposed to the entire schedule. A basic search bar was also implemented.

II. User Stories Implemented:

The user stories implemented in this iteration are numbers 1, 2 and 3, and 4. Real time information has been added for use stories 1 and 2

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. 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
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 or search for a route.
    a. Precondition: The search bar for bus stop or route 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 or is shown the highlighted route

III. User Story Changes:

This iteration primarily focusses on major improvements to current user stories, but a new user story was created in the process. Since the app now only shows bus information for the current day, the user should also be able to view bus information for another day, resulting in user story #7. We will quickly need to shift focus to user stories #5 and #6 and put priority to them since it's the major reason why we're making this app in the first place. User story #4 will be a secondary priority to update in functionality.

IV.   Lessons Learned:

Group meetings helped to set up roles, but more progress still needs to be made. Android Studio is not set up on school computers, which makes it difficult to pinpoint specific problems that some of us may have with the IDE. We will need to exchange information more often or ask more questions between ourselves for the next and final iteration. We will discuss what will be the best course of action in the next meeting to make the final push for the application.

V.   Remaining User Stories:

5. As a commuter, I want to input my destination so that the app can calculate the nearest bus stop to take.
    a. Precondition: Destination must be a real location along CTFastrak routes
    b. Post-condition: App generates route to bus stop based on user location and user preferences
6. As a commuter, I want to select which bus stop to depart from because the one the app recommends might not be preferred.
    a. Precondition: Bus stop must still have an incoming bus for the day
    b. Post-condition: The route is updated to show the user's new arrival time
7. As a commuter, I want to select a calendar date so that I may see scheduled routes and bus arrival or departure times for another date.
    a. Precondition: The user enters a date within the date interval specified in the GTFS calendar feed.
    b. Post-condition: GTFS feed is parsed again for the given date, and all route and bus stop information is redrawn on the map.

User Story Sizes:

Size 3:

    Input departure

Size 5:

    Input destination

    Input calendar date

VI.   Next Iteration:

Because of the new user story, the size of the remaining user stories is 13, which is a lot to accomplish over an iteration. Everyone must put in work to finish the application with all the functions that we desire to present. The newest user story may have to be sacrificed if we run into time constraints. Along with the functionality implemented with the remaining user stories, the final iteration will be expected to implement several performance and visual enhancements such as a splash screen on startup, a more robust info box, new marker icons for bus stops and buses, and a more functional search bar. The application should of course be able to find a path between the departure and arrival location.