

Product Backlog: CTFastTrak Live Map and Routes

Software Engineering CTFastTrak API Project
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Refined User Stories

1. As a traveler, I want to get up-to-date CTFastrak information from the system so that I can be better able to plan a route. I want to be able to see buses and bus stops on the map interface and see details for each.

Pre-condition: BRT System is online and reachable. Traveler is connected to the system.

Post-condition: Traveler is able to view current information.

2. As a traveler, I want to access the application's 'get nearest location' feature and have the system determine the bus location nearest to me so that I can plan my route accordingly.

Pre-condition: BRT System is accessible; Traveler is logged into the system; Locations are available

Post-condition: Traveler is able to retrieve nearest stop location

3. As a traveler, I want to access the application's 'set destination' feature and specify a destination I would like to travel to so that the system can accommodate my travel plans.

Pre-condition: BRT System is accessible; Traveler is logged into the system; Locations are pre-loaded into the system

Post-condition: Traveler is able to set a destination

4. As a traveler, I want to access the application's 'pick route' feature and select from a list of calculated routes that the application has generated so that I can pick my preferred route to facilitate my travel needs.

Pre-condition: BRT System is accessible; Traveler is logged into the system; Routes have been calculated based on traveler's input

Post-condition: Traveler is able to pick a route

5. As a traveler, I want to see the most current bus terminal information, so I can plan my route better.

Pre-condition: System is online and reachable. User is connected to the system.

Post-condition: User is able to view most current bus terminal information

6. As a traveler, I want to be able to look at nearby bus terminal locations and locate the closest one as well as the next upcoming bus arrival time for that location so that I can figure out which bus terminal to go to.

Pre-condition: BRT System is online and reachable. Traveler is connected to the system.

Post-condition: The traveler is able to receive information about bus stop locations and projected arrival times.

7. As a traveler, I want to be able to receive any updated information about the bus arrival times, ensuring that the data shown is as accurate as possible. The notifications will update any important changes (i.e. a delayed bus). This will help be alerted as soon as changes occur and be able to plan a better route.

Pre-condition: System is online and reachable. User is connected to the system. The user is either allowing automatic notifications or requests an update of GTFS data.

Post-condition: The user will receive all up to date information from the GTFS data, including any changes to route information.

8. As the JSON data Interface, I want to get the most up to date location of the bus stops, so when the traveler requests a bus stop location, I will be able to give accurate and relevant data.

Pre-condition: CTFastTrack provides bus stop information in JSON format

Post-condition: Bus stop data gets sent to user

9. As the JSON data interface, I want to get the most up to date location of the buses so that I can respond to the traveler's request for bus locations.

Pre-condition: CTFastTrack provides bus information in JSON format

Post-condition: Bus data gets sent to traveler

10. As the GTFS interface, I want to get live event data relayed from the CTFastrak API. I want to have this data as soon as it exists so that the user interface can be updated to alert a traveler via notifications of any route conditions or events

Pre-condition: GTFS API is available. Interface is able to access GTFS data.

Post-condition: BRT System listens and receives live event and delay information. This information is displayed in the user interface.

11. As the GTFS interface, I want to get live bus data from the CTFastrak API and display it to the user interface so that the traveler is able to view the buses live on the map as they move or have their condition/information updated.

Pre-condition: GTFS API is available. Interface is able to access GTFS data. There is bus information available.

Post-condition: System listens and receives live bus status information. This information is displayed in the user interface.

12. As the GTFS interface, I want to accept live bus terminal information from the CTFastrak API and display it to the user interface so that the traveler is able to view stops and live bus terminal conditions on the map.

Pre-condition: GTFS API is available. Interface is able to access GTFS data. There is bus terminal information available.

Post-condition: System listens and receives live bus terminal status information. This information is displayed in the user interface.

User Story Estimates

1	2	3	5	8
#3	#2	#1*	#7	#4
#5*		#8	#10	
#6*		#9	#11*	
			#12*	

First Iteration User Stories (to be implemented)

We have identified user stories #1, #5, #6, #11, and #12 as part of the first iteration. These user stories encompass (1) displaying current information on the interface for the traveler, (5) updating bus information on the user interface, (6) updating bus stop information on the interface, (11) accepting live bus information from the CTfastrak API, and (12) accepting live bus stop information from the CTfastrak API. After the first iteration, the functionality of the system should include having a visible map of the CTfastrak routes that receives bus and bus stop information, updates the data on the interface based on this information, and allows a traveler to view this data.

Interface Design



