

Iteration Report #3

Team VTD

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System Functionality:

For the final iteration of the application, all user stories have been implemented. However the Share Location story had to be removed from the application, see the changes section for more information. The rest of the application functionality has been implemented. Users can click on the map and find the CTfastrak stop closest to them. From there they may click on their destination and have the map display the route from start to finish. The user may also type in their address if that is their preferred method. Links to the bus schedules are provided in the application should the user be interested. The Service Alerts have been updated to display notifications when necessary. Functionality implemented in the previous iterations (asides from the Share Location) have been maintained. Over all the application displays the current locations of bus on the map and allows users to plan a trip on the CTfastrak line.

User Stories Implemented:

- [1] Find the Closest Bus Stop
- [2] Calculate/Show Route
- ~~[5] Share Location~~
- [8] View Service Alert
- [9] View Trip/Route
- [10] View Schedules
- [13] Address Entry

Changes to User Stories:

The biggest change is that the Share Location story had to be removed from the application. While the story had been implemented in a previous iteration, the team noticed that the story no longer worked properly. On closer inspection it was revealed that the functions needed to implement the story had become depreciated. Without a suitable replacement, the team decided that it may be wise to remove this story. Users are still able to use the Pick Location story to find the bus stop closest to them.

For the Find the Closest Bus Stop story there should be a clarification of the story. The application only finds a bus stop on the CTfastrak line. The application was not implemented to find a regular bus stop.

Revised Story:

[1] Find Closest CTfastrak Bus Stop

Story: As a Google API service I need to find the closest CTfastrak bus stop to the current location.

Pre-Condition/ Post-Condition: The rider has entered their location is the pre-condition. The post-condition is to display the closest bus stop on the map.

New User Story:

[13] Address Entry

Story: As a rider I want to enter my current location and intended destination.

Pre-Condition/ Post-Condition: There are no pre-conditions. Post-condition is for the application to allow the calculation and display of a route.

Lessons Learned:

The team learned that when using an outside API, there is a chance that functionality may change during the course of the project. This dependence on an outside entity means that the application's functionality is subject to failure unless maintained and updated in anticipation of changes. It is difficult if not impossible to know when these changes are announced. For a production application it would be necessary to monitor announcements from the outside API. It would also be necessary to implement an alternative solution in anticipation of the change so that no functionality is lost.

Another lesson to take from the Share Location story is the issue of closely coupling your application with an outside organization. This high level of dependence can cause issues depending on what changes within the outside organization. When possible the team should try to decouple and lower that dependence.

Updated Story Sizes Story Number	Story Name	Fibonacci Size	Status
1	Find the Closest Bus Stop	3	<i>Complete</i>
2	Calculate/Show Route	8	<i>Complete</i>
3	<i>Live Data</i>	<i>8</i>	<i>Complete</i>
4	<i>Accepts JSON Request</i>	3	<i>Complete</i>
5	Share Location	2	<i>Removed - function depreciated</i>
6	Choose Location	2	<i>Complete</i>
7	<i>Data Intersection</i>	<i>8</i>	<i>Complete</i>
8	View Service Alert	1	<i>Complete</i>
9	View Trip/Route	5	<i>Complete</i>
10	View Schedules	2	<i>Complete</i>
11	<i>Zoom/Pan on Map</i>	<i>1</i>	<i>Complete</i>
12	Out of Range	3	<i>Complete</i>
13	Address Entry	2	<i>Complete</i>

Backlog and Possible New Stories:

There is no backlog or new stories at this time. However there are few issues worth mentioning. The Share Location story could be revisited if a suitable replacement function is found. If a non-intrusive function has not been re-introduced then it would not be worthwhile to further pursue this story. At this time the story has been replaced by the "Address Entry" story.

A new story where users simple type in their address instead of picking their location from the has been implemented for this iteration. In some instances typing in their address may be more convenient for the user so this alternative was implemented to replace the "Share Location" story.

Stories That Have Depreciated:

[5] Share Location

Story: As a rider I want to share my current location with the application. I want the application to use my current location to find the nearest bus stop, calculate the route, and display other detailed information.

Pre-Condition/ Post-Condition: There are no pre-conditions. The ability to view find the closest bus stop and view trip/route information are both post-conditions.