Iteration Report #1

Team VTD

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System Functionality:

The first iteration the of the application was able to implement the ability to display a Google API map. The map highlights the routes for CTfastrak . The ability for users to zoom-in and pan around the map has also been implemented. Accepting the data feed from CTfastrak has also been implemented. However the current implementation will require an update to the user stories as the JSON data feed proved difficult to implement. Story [3] Provide Live Data was delayed for this iteration and will be backlogged for the next iteration. An unexpected JSON cross-origin access issue pushed the implementation back and significantly affected the

User Stories Implemented:

- [4] Accept GTFS Requests
- [7] Data Intersection
- [11] Zoom/Pan Map

Changes to User Stories:

User story [4] Accept JSON Requests will be changed as the current implementation utilizes the GTFS data feed. Cross-origin JSON request issues delayed the implementation of the JSON requests. Implementation of the GTFS feed was more viable option for this system based on the current criteria. This required an update to the current user story, changing the type of data feed used by the system. User story [3] Live Data has also been updated to use the GTFS data feed because of the cross-origin issue. The Fibonacci Size for the story [3] has also been updated to reflect the actual difficulty of the implementation. User stories that had the JSON requests as a pre-condition were also updated to require the GTFS data feed.

Lessons Learned:

One lesson learned was that the difficulty of user stories can be difficult to estimate. Incorrectly valuing the difficulty of a story has made it difficult to implement everything scheduled for our iterations. Problems that may arise when trying to implement a user story can be difficult to anticipate.

A cross-origin access issue for our JSON request was not something we saw beforehand. This issue has delayed the implementation of our JSON feed. For future stories it may be necessary to brainstorm possible issues that may arise. Or the team may need to speak with someone with more prior experience and see if they foresee any possible problems. Unfortunately prior experience may be the most needed remedy.

The team must also be flexible to alternate ideas for implementation. Unforeseen issues may make one implementation more viable than another and it is up to the team to recognize this and adjust. In our case we found the GTFS feed to be the more viable implementation over the JSON feed. For future iterations the team should consider alternate implementations. The team should conduct an informal feasibility study to see if one alternative is preferable. This prevents the team from locking onto only one solution for the start.

Updated Story Sizes

Story Number	Story Name	Fibonacci Size	Status
1	Find the Closest Bus Stop	3	Next Iteration
2	Calculate/Show Route	8	
3	*Live Data*	*8*	*Backlog-Next Iteration*
~~*4*~~	~~*Accepts GTFS Request*~~	~~*3*~~	*Complete*
5	Share Location	2	Next Iteration
6	Choose Location	2	Next Iteration
~~*7*~~	~~*Data Intersection*~~	~~*8*~~	*Complete*
8	View Service Alert	1	Next Iteration
9	View Trip/Route	5	
10	View Schedules	2	
~~*11*~~	~~*Zoom/Pan on Map*~~	~~*1*~~	*Complete*
12	Out of Range	3	Next Iteration

Subset To Be Implemented:

The next iteration will complete user story [3] live data which is on the backlog from the previous implementation. This story will be top priority as it is from the previous iteration and is a precondition for other user stories. User story [5] Share Location and [6] Choose location should be completed together. These two user stories should support the implementation of [1] Find the Closest

Bus Stop. User story [12] Out of Range should also be implemented as it is closely related to user story [5]. Finally [8] View Service Alert will be implemented as well since it also relies on the live data feed. This will provide the user with the most critical functionality for this system.

Functionality For Next Iteration:

For the next iteration we will be focusing on allowing the user to find the closest bus stop. First the user will be able to share their location or selection a location on the map. Once the user has provided their location, the application will find the closest bus stop for them. The application will also allow users to view live service alert data. The live data implementation that was backlogged will also be implemented. These new features will combine with the GTFS data feed, Google API Map, and the ability to zoom/pan said map from the previous implementation.

Stories Not Implemented:

[1] Find Closest Bus Stop

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

Pre-Condition/ Post-Condition: Rider has shared location or entered destination are pre-condition and the post-condition is to display the closest bus stop on the map.

[2] Calculate/Show Route

Story: As a Google API map service I need to calculate the route and display the route to the riders. The rider is provided with a visual representation of the route.

Pre-Condition/ Post-Condition: Riders have shared their location or destination and the Google API has found the closest bus stop are pre-Condition and there is no post-condition.

[3] Provide Live Data

Story: As a GTFS live data feed, I need to provide live data about the location of CTfastrak buses. This allows the riders to easily see where all the location of all the buses.

Pre-Condition/ Post-Condition: The Application should have done GTFS request for when the rider's request for view bus information are pre-Condition and there is no post-condition.

[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.

[6] Choose Location

Story: As a rider I want to select a location from the application. I want the application to use my location information to find the nearest bus stop, calculate my route, and show other detailed information.

Pre-Condition/ Post-Condition: The pre-condition is to not be out of range. The ability to view find the closest bus stop and view trip/route information are both post-conditions.

[8] View Service Alerts

Story: As a rider I want to view the details of a service alert notification. I want to see if the alert affects any of their plans and make any adjustments necessary.

Pre-Condition/ Post-Condition: Accept GTFS request and provide live data are pre-conditions. No post-conditions are required.

[9] View Trip/Route

Story: As a rider I want to view the route I will be traveling to reach my destination. I want to know the route I must take, the distance, and estimated travel time.

Pre-Condition/ Post-Condition: Share location, choose location, find closest bus stop, and show/calculate route are all pre-conditions. No post-conditions are necessary.

[10] View Schedule

Story: As a rider I want to see the full bus schedule. I want access to all the bus schedules for trip planning.

Pre-Condition/ Post-Condition: View bus information is a pre-condition. There are no post-conditions.

[12] Out of Range

Story: As a rider, it is important to know if using the transit system at a given time is a viable option. The application should alert me when I am beyond a certain distance from the transit system and adjust the interface accordingly.

Pre-Condition/ Post-Condition: The pre-conditions are that the rider has shared their location or chosen a location. The post-condition is that rider is informed of invalid input.