**CTfastrak Application Product Backlog**

**Team VTD**

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**Refined User Stories**

*[5] Share Location*

Scenario: The user shares their current location.

User Role: Riders of CTFastrak who are using this application.

Goal: The rider's location is necessary for the application to provide detailed information, route estimates, and the location of the nearest bus stop. With share location the user can automatically share GPS/location data.

Benefit: The rider benefits from getting personalized and more detailed information when they provide their location. This includes the ability to find the closest bus stop and view trip/route information.

Story: A rider wants to share their current location with the application. The user wants the application to use their current location to find the nearest bus stop, calculate their route, and see 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.

Further Breakdown: This user story may be broken down into the methods of input. Depending on the variety and differences between the input types it may be recommended to split this user story.

*[6] Choose Location*

Scenario: The user selects a location.

User Role: Riders of CTFastrak who are using this application.

Goal: The rider's choice in location is necessary to plan the route for any trip. This story is required for the destination and may be required for the user's current location.

Benefit: The rider benefits with detailed route information such as transfers, distance, fare, and the closest bus stop to the destination.

Story: A rider wants to select a location form the application. The user wants the application to use their location information the nearest bus stop, calculate their route, and see 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.

Further Breakdown: This user story may also be broken down by method of input. It may be necessary to split this story depending on the types of input.

*[7] View Bus Information*

Scenario: The user chooses to view detailed information about a bus.

User Role: Riders of CTFastrak who are using this application.

Goal: Provide the user with all relevant information about a certain bus including both static and live information.

Benefit: Users can view comprehensive information about a bus in a single display.

Story: The rider wants to view details about one of the buses such as its route and current location. The rider wants to know what bus to watch for and when to expect it.

Pre-Condition/ Post-Condition: Receiving JSON requests and providing live data are both pre-conditions. Post-condition is the ability to view bus schedule.

Further Breakdown: This story should not require further breakdown. Further breakdown would begin defining implementation.

*[8] View Service Alerts*

Scenario: The user wants to view the detailed service alert.

User Role: Riders of CTFastrak who are using this application.

Goal: Allow users to view news that may affect service of the CTFastrak line.

Benefit: Users can adjust their plans if the service alert affects their trip.

Story: A rider wants to view the details of a service alert notification. The user wants to see if the alert affects any of their plans and make any adjustments necessary.

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

Further Breakdown: This story should not require further breakdown.

*[9] View Trip/Route*

Scenario: The user can view trip information and a representation of the route on the displayed map.

User Role: Riders of CTFastrak who are using this application.

Goal: Gives user detailed trip information and provide a visual representation of the route.

Benefit: Users can see a visualization of the route, distance, direction, and detailed information about their planned trip.

Story: A rider wants to view the route they will be traveling to reach their destination. The rider wants to know the route they 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.

Further Breakdown: This story is simple enough that further break-down would lead to defining the implementation.

*[10] View Schedule*

Scenario: The user wants to view the static bus schedules.

User Role: Riders of CTFastrak who are using this application.

Goal: Allow easy access to scheduling information pertinent to the users input.

Benefit: Users are given a convenient link to scheduling information without the need to search for a link.

Story: A rider wants to see the full bus schedule. The rider wants 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.

Further Breakdown: This story is simple enough that further break-down would go beyond the usefulness of a user story.

**Story Sizes**

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

**Implementation for First Iteration**

The first iteration of this project will focus on getting the basic functionality of the application online. Of top priority is the ability to show live data on top of our map. User story [4] *Accepts the JSON Request* will be implemented in this iteration. The JSON requests are necessary for obtaining the live data from CTfastrak. User story [3] *Live Data* will be implemented along with the JSON requests. These two stories work in tandem to request and provide CTfastrak data to the rest of the application. Implementation of [7] *Data Intersection* will display the Google API map. This provides the backdrop for displaying the live data. User story [11] *Zoom/Pan Map*  will be implemented to allow users more control of their view.

After the first iteration the application should be able to display a Google API map. In the background the application will send out JSON requests and accept the live data. The application will interpret the live data and have the ability to display some of the live information. The ability to show the current location of the buses on the map will be included in this iteration. Further iterations will provide the ability to display all of the live data from the JSON requests.

**Non-functional Requirements**

* The application must be intuitive.
* The application must be easy to use.
* The application must not be intrusive.
* The application must be fast.
* The application must be reliable.
* The application must be responsive.
* The application must be robust.
* The application must be mobile friendly.
* The application must protect privacy.
* The application must follow legal documentation.