CS530 Software Engineering Group Project

'CTFastak Website Iteration Report 3'

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Team: Scrum Masters

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System Functionality:

 For the Final iteration of the application, all user stories have been implemented. However we just removed one functionality to get all routes from source A to destination B. The rest of application we have implemented all functionalities. The main functionality we have implemented is Trip Plan. User can enter source address and destination address and user will get route highlighted from selected addresses and, also user will get route with all arrival bus timings and bus numbers if user has to change bus from any particular stop. User will also get walking directions to reach to nearest bus stop. This is our final iteration and we have done with all functionality. Functionality implemented in the previous iterations have been maintained. As over all the application displays the current bus locations of bus on the map and allows users to plan a trip on CTfatrak routes.

Implemented User Stories:

Id	Title	Pre-condition	Post-condition	Story Point	Iteration
7	As a user, I want to get the fastest route from source A to destination B, so that I can reach to destination early.	User has entered valid address information and clicked trip plan.	System will generate fastest recommended route.	8	-
8	~~As a user, I want to get the all bus routes from source A to destination B, so that I can choose my preferable route. (with no transfers)~~	~~User has entered valid address information and clicked get directions.~~	~~System will generate all recommended routes from A to B with no transfers.~~	8	-
9	As a user, I want to get estimated real-time arrival times available for all CT FastTrak buses at a selected stop, so that I can plan my trip well.	User has planned trip.	System will generate estimated real-time arrival times that has been calculated per current traffic changes and displayed on the pin.	3	-
New	As a user, I want walking directions to reach to nearest bus stop.	User has planned trip.	System will generate walking path to nearest bus stop	5	-

			as per planned trip.		

Change to User Stories:

We have decided to remove user story that provides all different routes from source to destination. we thought to provide only fastest route from source to destination because most of user wants to reach to destination as early as possible. And we decided to implement walking path to bus stop as per user planned trip so user don't get difficulty to reach to destination.

User Story [8]: We decided remove functionality to get all routes.

User Story [New]: We included new functionality to show walking path to bus stop.

Lessons Learned:

Team learned that when using an outside API, there is a chance that functionality may change during course project because you are highly depending on what they are provides. It doesn't mean it is impossible to implement new things but it requires critical thinking as well as patience. Team learned how to merge new functionalities to application without affecting previous ones. Developing independent functionality was not that much difficult but to merge with previous one was difficult task for us but we did it successfully. Team also learned how to troubleshoot problems while developing apps.

Team collaboration was also an important task for us. We everybody collaborate effectively and learned to take it for next step for future. For every problem, we worked independently as well merged independent work as a team. We learned to test functionalities that we have developed.

And also, learned that, application is highly dependent on data provided by outside organization. If there's any single change in data from outside, we need to change our application according. So, Maintenance of application after specific interval is required to keep it run all the time.

Updated User Stories:

Id	Title	Pre Condition	Post Condition	Story Point	Iteration
1	Analysis: As a developer, I need initial setup of the application, so that I can start working on further user stories.	Downloading required software and data feed formats as JASON & GTFS	Development environment will be setup on the developer's machine.	5	1 Completed

2	As a user, I want to see all CTfastrak bus routes with different colors and get bus stop information, so that I can overview CTfastrak map. (Home Page)	Internet should be accessible on device.	System will generate all routes with bus stop information.	5	1 completed
3	As a user, I want to get scheduled arrival times for CTfastrak at a selected stop, so that I can plan my trip well.	User has to click on bus stop marker.	System will generate bus and bus stop information and location details.	2	1 Completed
4	As a user, I want to search bus stop information on map by current location, so that I can get bus information based on my location.	User has to allow to track current location on device.	System will generate the information for nearest bus stops and arrival/departure bus timings.	3	1 Completed
5	As a user, I want to search information on map by address, so that I can get information to my preferred location.	User has to select Search by Address menu and enter address.	System will generate the information for preferred address.	5	2 Completed
6	As a user, I want to open the CTfastrak web site with any device like mobile, PC, Laptop, tablet.	User's device should have compatible web browser installed.	System will generate a responsive web design using experience on device.	5	1 completed
7	As a user, I want to get the fastest route from source A to destination B, so that I can reach to destination early.	User has entered valid address information and clicked trip plan.	System will generate fastest recommended route.	8	3 Completed
8	As a user, I want walking directions to reach to nearest bus stop.	User has planned trip.	System will generate walking path to nearest bus stop	5	3 Completed

				as per planned trip.	
9	As a user, I want to get estimated real-time arrival times available for all CT FastTrak buses at a selected stop, so that I can plan my trip well.	User has planned trip.	System will generate estimated real-time arrival times that has been calculated per current traffic changes and displayed on the pin.	5	3 Completed
10	As a user, I want to view all real time buses on CTFastrak route map along with all bus stops, so that I know the approaching bus to a certain bus stop.	User has to select a route.	The approaching buses showed along the route on the map.	8	2 Completed
11	Get Schedule			5	2 Completed

Total Story Points: - 56

Iteration 3: 18 points

Backlog and Possible New Stories:

There are no any user stories left implemented in backlog.

New User Story: Real-time alert functionality using json data feed provided by CTfastrak. Which provides real-time alerts for buses. If there any bus running late. It provides alert to user.

User Story: As a user, I want real-time alerts for delay running buses or alerts for approaching buses to selected bus stop.

Precondition: User has to select bus stop as a favorite for which he wants alerts.

Postcondition: System will generate alerts for specified bus stop.