Project Trillium Event Tracker

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1. Functional Requirements

Done?	Requirement	Description	Priority
Y	Register Users	Those interested in hosting a competitive race event need to be able to create accounts on a website	P1
Y	Create Events	Users need to be able to create events and populate it with initial information like title, description, geographic location, and race route	P1
Y	Edit Event	Users can edit event information after it has been created. HOWEVER, events cannot be edited if their date has passed	P1
Y	Closed Events	Events that have passed their assigned date should have a status of closed. They are no longer editable.	P1
Y	No iOS login closed/deleted races	Staff should not be able to sign into a race which had been deleted or closed	P1
Y	Sign Up	Event organizers can sign up on the webapp so they can later log in and manage events	P1
Y	Log in	Event organizers can log into the web application to manage their events	P1
Y	Log Out	Event organizers can log out of the web application after doing their event management	P1

Y	Event List	After log in, an event organizer can view all their events on the home page.	P1
Y	Event Form Validation	validation of create event form, editing, publishing/live races, race date, etc	P1
Y	Register Participants to Event	Staff of the race, and race hosts, need to be able to register people for the race. - At the very least, on the app.	P1
Y	Associate Participants with Bluetooth Devices	Racers need to be assigned bluetooth devices and have these devices associate with their registration information for the duration of the race. Note: only bluetooth devices that are provided through AJ.	P1
Y	View Map for Event on app	The iOS app shall have the ability to display the map of the race course -last checkin/checkout location of racer. -sag and kiosk location.	P1
Y	Manual Check-in /check-out with staff	Racers can manually check in/ check-out with race-staff (rest staff), in lieu of a beacon (in such cases where there aren't enough)	P1
Y	Whenever Participant Status Changes, It Is Logged In The Status Table	The database will maintain a record of when competitor statuses change.	P1
Y	Log In as Race Staff / Beacon	Races shall have an identification number and a PIN for race staff to enter, so they may log in as staff on individual iPad devices.	P1
Y	Race staff can assign and unassign beacons to racers - Log changes in beacon being used - database record	Staff can use the app to assign or unassign Bluetooth beacons with racers before, during, or after the race.	P1
Y	Add route data to map	The race coordinator will be able to add a predefined route to the map. Potential supported formats may be .kml and .gps	P1

Y	Communicate with other Race Staff	The iOS app shall have the ability for race staff to message each-other in a group communication system	P1
	Usable across different event types	App operates differently / shows different icon sets for different event types	P1
Y	AJ Super User - account management	Admin user can view all accounts	P2
Y	AJ Super User - events	Admin user can view, CRUD all events, change event coordinators	P2
Y	AJ Super User - bluetooth device management	Admin user can view registered bluetooth devices, register them, and delete them	P2
	AJ Super User - password recovery	Admin can assist with user password reset/recovery per account	P2
Y	Track Participants ETA naive	Naive ETA implementation using only last known location	P2
Y	Track Participants ETA	There shall be a means for race staff to find an approximate location for racers, and estimate their ETA to various checkpoints - to fixed checkpoints at minimum, to SAG vehicles as well ideally - "ETA: X minutes to your current position" More rough estimate; bikers take x amount of time typically	P2
	Track racers current location	Estimate the current position of the racers based on the last check-in	P2
Y	Race Staff May Set Participant Status	Race staff will have the ability to manually set status of competitors. This will overwrite the status of a racer determined by the system. - Set to 'unknown' after x minutes long click on right side participant item	P2
Y	View Registrant Data	There needs to be a method to recall	P2

		and display competitor information. Visible to the race host. On iOs - racers are visible as icons on the map, can click and will provide small popup with information (name, last checkin, eta, etc)	
	Staff list	The application will log a list of available checkpoints (logged in staff) throughout each race. iOS	P2
Y	Delete Event	A soft delete. The event remains in the database for records but will no longer appear in the UI. This will be done on the event details page	P3
Y	iOS Offline Message	iOS apps notify users when they're offline - data may be inaccurate	P3
	Help Page	The webapp should have a help guide on the site	P3
	Export db data per event	Provide a means to export all database information for an event	P3
Y	Add or transfer ownership / management of race	Race coordinator will be able to add/transfer ownership of the race to other users of the site (can have multiple owners)	P3
	Advertisements	Provide a space for advertisements on the application as another source of monetary gain - Ad supported / Paid app versions	P3
	Estimate Individual ETAs	Individualized personal ETAs based on personal time, speed. Refined than item 12.	P3
	Possible location calculator	Create a possible range of an individual by clicking on them at a given time.	P3
	Webapp login Password Recovery		P4
	Participants can register their own	Racers can maintain a persistent profile	P4

	profile on the web app	on the website to associate with each race	
	Participants can customize their profile to include donation links	Racers can modify specific fields in their profile	P4
	Participants social media integration	Participants can integrate the app with social media like facebook, twitter, mapmyride/run, fitbit(?). Live status, how much distance left, how far have I already done.	P4
	Event pictures	A place for pictures from events. Show photos on event webpage.	P4
	Personal stories	A place to have testimonials and personal stories from events	P4
	Integrated fundraising support	A page for stats/goals related to event to encourage donation. For example, support some amount of money donated per mile travelled by a participant.	P4
	Pay for larger participant group	A certain number of participants are allowed for free. If you want more, you need to buy that privilege. (in-app purchase)	P4
	Event Duplication	Events can be duplicated by selecting an event and executing a duplication action. This will create an identical event with the same data but a different date (immediately have to change?)	P4
	Bluetooth Battery Notification	Informational message when the battery is low	P4

2. Non - Functional Requirements

ID	Requirement	Description	Priority

1	MySQL back-end stores application data	Data associated with this project shall be stored and maintained in a MySQL server. For the time being, the server is planned to live on a linux VM assigned to the team by the SE department	P1
2	Node.js webserver hosts web application and manages communication between MySQL database and iOS app	The server-side of the application will be a Node.js web app that also lives on a linux VM assigned to the team by the SE department	P1
3	iOS app for iPad used by race staff	The application portion of the projects will be an iOS application, capable of running on specific iPad devices (specify a minimum iOS version).	P1
4	Usable Across Sporting Events	This service needs to be viable across multiple types of race, not just bicycle racing.	P1

3. Technical Requirements

ID	Requirement	Description	Priority
1	Front-end application must run on an iPad device	An iPad is the designated front-end device that the application must run on.	P1
2	Programmable bluetooth chips	Programmable Bluetooth chips will be carried by racers to maintain their location. The iPads must be able to detect and identify them.	P1