Project Plan

For the Girl Scouts of America Badge Tracking Application

By

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Version 1.0

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Estimation

Milestone Name	Sub-Tasks	Hours to Completion
Database	- Create an ER diagram - 10 - Complete database table for Badge tracking page. - 6 - Create database table for shopping cart. - 6 - Complete database table for financial tracking page. - 6 - Create database table for event tracking page. – 6 - Testing - 8	42
Basic webpage with database interactions	- Page for Badge tracking - 4 - Badge overview page - 4 - Troop overview page - 4 - Page for financial tracking - 6 - Page for event tracking - 4 - Page for shopping cart - 4 - Home page – 4 - Testing for function correctness - 7	37
Fully functional and user friendly webpage	- Usability test - 20 - Updated Page for Badge tracking - 4 - Updated Badge overview page - 4 - Updated Troop overview page - 4 - Updated Page for financial tracking - 6 - Updated Page for event tracking - 4 - Updated Page for shopping cart - 4 - Updated Home page – 4 - Log-in Page - 6 - Create new user page - 6 - Error handling - 5 - Input validation for each page - 10	77
Mobile application	- Research mobile app development - 20 - Page for Badge tracking - 6 - Badge overview page - 6 - Troop overview page - 6 - Page for financial tracking - 8 - Page for event tracking - 6 - Page for shopping cart - 6 - Home page – 6 - Log-in Page - 6 - Create new user page – 6 - Usability test - 20 - Error handling - 5 - Input validation for each page - 10	111
Total		267

Resources

A server will be required for this application, in order host the potential website and the potential database. The application will require a server by 11/5/15, in order to allow database testing and web server integration. If the server is not provided by this time the application will be moved to a local offline environment.

An android based and iOS based mobile device will be needed for the potential mobile application. These mobile devices will be needed by 01/22/16, in order to development and testing of the mobile application. If these devices are not provided by this time the application will be limited to a mobile web interface.

A consultation with a mobile application developer will be needed to implement the mobile application. This consultation will need to be held by 01/15/16, in order to obtain the knowledge to develop a mobile application effectively. If this consultation is not held by this date then the mobile application development process will be extended to allot time for self-education.

Scheduling

The schedule for the development of this application is based around the 2 week sprints implemented in the course semi-agile process, it is as follows:

- Project specification and product backlog are split amongst the team and completed by 9/22/15.
- Project plan, risk plan, quality plan, and sprint planning document are split amongst the team to be completed by 9/29/15.
- On 10/13/15 the first of the sprints begins.
- The first application milestone is the formation of the database and will be completed by 11/5/15 after two sprints.
- The second application milestone is a basic web page with database interaction and will be completed by 11/19/15 after one sprint.
- On 11/20/15 a class presentation will be held to show the progress being made on the application and plans for future implementation.
- Thanksgiving break will allow limited time for application development starting on 11/21/15 but will return to normal starting on 11/30/15.
- Customer representative report is due 12/3/15.
- Post-Mortem report is due 12/10/15.
- Project portfolio and project portfolio report are due at noon on 12/15/15.
- Winter break will limit time for application development starting on 12/18/15 but will return to normal starting with the beginning of spring semester on 01/11/16.
- The third application milestone is a fully functioning and user friendly web application, this will be completed by 2/18/16 after four sprints.
- Beta release demos of the application will be held o 3/1/16 and 3/3/16.
- A team poster draft will be designed and developed by 3/24/16.
- A final team poster design will be developed by 3/31/15.
- 4/5/16 marks the applications fourth and final milestone which is a mobile application; this is also when the application poster will be presented.

- A final project presentation will be held on 4/15/16. Here the team will show all of the applications functionality and the process in which it was developed.
- On 4/19/15 the project will be delivered to the client for acceptance testing.
- Customer representative report is due on 4/26/16.
- Post-Mortem report is due 4/28/16.
- A project portfolio is due at noon on 4/30/16.

Communication

Team communication outside of the classroom is done primarily through the texting application called Google Hangouts. For assignments and project code the team will be using an online repository called BitBucket as well as Dropbox. Communication with the client is currently done through email and occasional meetings until a weekly or bi-weekly schedule can be made up.

Quality Assurance and Risk Management

The risks of not having a server will greatly affect this application because the application will have to be developed using a peer to peer system or a strictly local environment. The risk of no mobile application development knowledge will potentially limit the application functionality and will increased time which is already allotted in the estimation table above. The risk of missing mobile testing platforms will make testing potentially unreliable.

Testing is already worked into the estimation of each of our milestones as described by the estimation table above, as well as in the Quality Plan.

CS425 Exit Strategy

The CS425 Exit Strategy for this application will be the completion of a core component. The core component to be completed will be the project database as well as a basic webpage with database interactions implemented. These are two critical pieces of the application that the entire rest of the project will be built upon. The database is what will store all of the scout leader's information regarding their specific troop, and the basic webpage is what will be built upon to create the fully functional web application as well as the mobile application.

CS499 Exit Strategy

Usability studies will be performed as laid out in our Expectations table and the Quality Plan. This is prior to the development of the fully functional web application, and after the initial development of the mobile application. These studies are estimated to take 40 hours.

The following tests are estimated to take 35 hours.

Queries will be done both directly to the database as well as through the webpage to assure correctness of data. A fake scout will be created and ranked up from Daisy to Ambassador checking all requirements for badges need to rank up. After each rank up a shopping list will be generated and checked for correctness.

A fake event will be created and then populated with fake scouts attending, the financial account will be checked to see if the dues associated with that event are being shown. The fake scout will be used to update their cookie sales and this data will be checked for correctness in the database.

Summary

Resources needed will be a server, mobile platform, and consultation with a mobile app developer. Communication tools used are Google Hangouts for group communication, and Bit Bucket and Drop Box are used for file submission. Specific technologies being used are Android, iOS, Mozilla Firefox, Google Chrome, Internet Explorer, and a database. The teams working schedule will vary weekly based upon availability.

High Level Architecture

User

Input Data → Mobile App Interface
Input Data → Webpage Interface

Send data → Mobile App Controller
- Badge Tracking
- Financial Tracking
- Event Tracking

Send data → Webpage Controller
- Badge Tracking
- Financial Tracking
- Event Tracking
- Create Fun Patches
- Update Health Forms

Update → Database
Update → Database

Database → Creates → Shopping List

Display

Display