Best of the Batch: Project C.H.U.C.K.

Executive Summary

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Background

The Best of the Batch Foundation is a nonprofit organization based out of Homestead, Pennsylvania that was founded by former Steelers quarterback Charlie Batch in 1999 and is currently under the leadership of Latasha Wilson-Batch, who serves as Executive Director. The goal of the organization is to aid financially challenged youths and their families by providing them with resources to help them achieve their goals. The general areas on which the organization's programs and events focus on are leadership, community, sports/recreation, education, and fundraising. Within these areas of focus, the organization has developed after school programs and scholarships, aided the community by restoring playgrounds, and offered sports and leisure activities.

Project Description

Project Opportunity

Project C.H.U.C.K. (Continuously Helping Uplift Community Kids) is a seven-week basketball camp during the summer where children from ages 7-18 develop discipline, self-confidence, team-building skills, and basketball skills. A major issue faced by Best of the Batch is that Project C.H.U.C.K.'s registration process has been paper-based. After parents/guardians write their child's details on a form, a member of Best of the Batch has had to manually input all participants' details (300+) into an Excel spreadsheet. With the number of children enrolled in camp increasing each year, this manual process is becoming increasingly laborious. While last year's Information Systems student team developed a system to spearhead the transition to an electronic registration process, there were technical issues pending in the system, volunteer registration was still done on paper, and other needed functionalities were not implemented.

Project Vision

The primary goal of this project was to ensure that the registration process for all parties shifted from a paper-based system to an electronic one. To do so, we redesigned the existing application infrastructure and developed a new comprehensive application. After learning about issues faced during the 2014 registration and speaking with both the client and former team, our project vision was also aimed towards bolstering the features of the existing system and developing new features to improve the experience for all stakeholders.

Project Outcomes

After gathering requirements, our team decided to build a Ruby on Rails web application with a Postgres database and deploy it on Heroku as it seemed most suitable for use on iPad devices during the three Project C.H.U.C.K. registration events. We chose to use the same tools and infrastructure that were used by last year's team to keep the application environment consistent for our client. In order to ensure the solution is sustainable, we used components for our system that the client had some prior exposure to. Our team focused primarily on the registration components of the application, building first the single-page participant registration form and then the volunteer registration form. We then added complete administrator functionality with login, followed by implementing additional features such as team and game management and pre-populating reusable information. By working with the client to introduce these new features and receive feedback, we have been able to build capacity for the client organization overall and improve efficiency of their existing processes. Intended future outcomes include less time and effort spent on registration, better organization of and access to information, and support for increased participant registrations.

Project Deliverables

The main deliverable to our client is the web application URL (projectchuck.herokuapp.com) along with the Git repository used and technical documentation. We will also provide credentials for the Amazon Web Services account, which is being used to store the images. Backup and dump files of the database will also be created and provided.

Recommendations

Our recommendations include the following: assigning a technical specialist within the organization, hiring a third party vendor to maintain hosting and maintenance of new technologies including Heroku, and, going forward, building on top the new system rather than rebuilding again. We recommend that future CMU teams continue development of the application with the help of documentation provided so that the client has a sustainable solution moving forward. We also advocate a main focus on security before extending the scope of the new application.

Student Development Team

Roei Curi-Hoory served as a backend developer. He is a junior in Information Systems with an additional major in Business Administration. He will be interning as a technology consultant at Pricewaterhouse Coopers this summer.

Pranita Ramakrishnan served as the designer and front-end developer. She is a junior in Information Systems minoring in Human-Computer Interaction. She will be focusing on data visualization and analytics at her internship at Adobe this summer.

Siddarth Sivakumar served as a backend developer and source-code manager. He is a junior in Information Systems with an additional major in Business Administration. He will be a systems analyst intern at Intel this summer.

Allison Wilson served as a backend developer before focusing on the deployment and backup of the application. She is a junior in Information Systems minoring in Human-Computer Interaction. She will be interning in Business Intelligence at Giant Eagle's corporate office this summer.