Homeless Children's Education Fund

Executive Summary

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Background

The Homeless Children's Education Fund, founded in 1999 by Joseph Lagana, is a non-profit organization. They provide educational opportunities to homeless children in the Allegheny County through collaboration with several nearby partners. The organization consists of a small core team that works at the headquarters, located in the Strip District of Pittsburgh, but has a large overall network of teachers, volunteers, sponsors, and partners. Their educational initiative is realized through three main programs, after school sessions, enrichment workshops, and field-trips. Through these programs, data is collected pertaining to the kids they serve, such as homework progress, tutoring, and total amount of time spent at their programs.

Project Description

Project Opportunity

Each of HCEF's educational programs, after school, enrichment, and field trips gather data on paper forms. After completion at the remote program location, the paper forms are either mailed to HCEF's main location or are collected and brought back to the main location. The paper records are then logged into spreadsheets or word documents at the main location. This process has been identified as a key area to improve because it is a laborious, repetitive process that requires a lot of paper shuffling between different locations.

Project Vision

Our project vision was to create a web application that manages data from the various programs offered by HCEF. We wanted to allow all HCEF staff and volunteers to enter data from numerous remote locations on desktop, tablet or mobile and then access this data through the same application. This new process should eliminate most of the existing paper forms and paper shuffling between locations. It should also allow data from across programs to be congregated and analyzed to improve programs and help children achieve their learning and educational objectives.

Project Outcomes

We are happy to report, our outcome is very similar to what we envisioned. We delivered a live, hosted web application that HCEF can start using immediately to track their programs and the children they serve. All HCEF staff and volunteers can sign up for and interact with the system in terms of entering data and tracking the progress of their specific students by following their attendance and time spent on important tasks like homework and reading. Lastly the old process of paper forms and paper shuffling has been replaced with this system and will hopefully make a significant difference for HCEF in the near future.

Project Deliverables

We delivered a web application, pre-populated with data that we have received from HCEF, along with the following: relevant documentation of the application, admin credentials, access to hosting service, application manual for the users, and additional recommendations that HCEF should consider moving forward.

Recommendations

We recommend in the future, HCEF should continue development and build the functionality to track student's goals using the application. Using the data gathered by the application, HCEF can track if children's goals are being achieved in a timely manner. This will be another key metric to help them see if they are making the greatest possible impact on the children via their current programs. We also recommend developing a way to generate formal reports at the end of the year from the application. This will make it easier for HCEF to share the statistics about the children with their partners.

Student Development Team

Stefan Dasbach is a junior practicing Information Systems and Human Computer Interaction. He will be a software engineer at Apple this summer. Graduating in the spring of 2016, Stefan hopes to continue his passion of software development in California.

Alex Kim is currently a Senior in Information Systems, graduating in Spring of 2016 with a minor in Computer Science. Alex will continue pursuing his interests in web development after graduation.

Graham Schilling is a junior in Information Systems, planning to graduate in the Spring of 2016 with a minor in Business Administration. He will be working at Enova Financial this summer and plans to continue a career in web and mobile development after graduation.