YMCA

Executive Summary

Community Partner
YMCA of Greater Pittsburgh
Student Development Team
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Background

The YMCA is a nationwide non-profit organization that focuses on youth development, healthy living, and social responsibility. The organization offers a wide range of services, including athletic facilities and after-school classes, with the aim to provide professional, educational, and personal development opportunities for its local community regardless of age, income, or background.

Project Description

Project Opportunity

The YMCA faces logistical issues with collecting attendance that waste the time of its instructors and the children enrolled. The issue stems from instructors having to take four distinct attendances for each child in every program. This process is painfully time consuming for the instructors and takes time away from the children actually participating in the activities. If the instructors only used one centralized attendance sheet, they would be able to spend more time with the children and the children would receive a higher quality experience at the YMCA.

Project Vision

Our project aims to overhaul the current process of taking attendance at the YMCA. Rather than using three different attendance sheets, the system would be capable of keeping track of attendance on a single sheet for each program. The system is integrated into the existing databases that the YMCA uses for attendance and other metrics -- Daxko, PELICAN, Apricot -- and generates reports for administrative use.

Project Outcomes

By the end of our project, we created an application that accomplishes the following:

- Allows administrators to import data from Daxko regarding students, programs, enrollments, YMCA sites, and YMCA branches;
- Allows staff members to sign up and be verified by an administrator account;
- Allows staff members to log in and take attendance for YMCA programs;

- Allows staff members to record which snacks are provided on any given day for a program and which are received by students;

- Requires guardians to set up a 4-digit PIN code to sign out their child (which can be overridden by the instructor's own 4-digit code, or the YMCA master code);

- Allows administrators to generate attendance and snack program reports;

- Sends e-mail reminders to Deborah, Todd, and any branch directors whenever students attend programs that they are not enrolled in.

To ensure the compatibility of our system with the current YMCA technological ecosystem, we learned more about the tools they use from key people in the organization -- Jennifer Bouchard, a program coordinator assuming a data analytics role, and Jim Needles, the Vice President of Business Information Systems.

To ensure the compatibility of our system with the procedural ecosystem, we learned more about the snack program from Jeff Cox, a food program coordinator at the Allegheny site.

We ran a series of paper prototype tests at the beginning of development, and have held weekly demos to ensure our application's fit with our client's needs.

Project Deliverables

Our project consists of the code that composes the system, which contains a documentation folder, and the server that hosts the system.

Recommendations

Our recommendation is to add data analytics functions to the website, to track attendance rates of programs in different sites and branches. Through this, the YMCA would be able to quickly determine which sites are succeeding, and which are in need of special attention.

Student Development Team

Renzo Bautista served as the team's technical lead. He is a third-year student with majors in Information Systems and Computer Science, and will be returning to Google this summer for his second internship there. Renzo hopes to pursue a career software engineering upon graduating.

Derek Hirata served as project manager. He is a third-year student majoring in Information Systems with a minor in Computer Science. This summer he will be interning at LinkedIn. Derek is currently interested in pursuing a career in software development after college.

Yeon Soo Kim served as design lead and client liaison. She is a third-year student double-majoring in Information Systems and Human-Computer Interaction. She will be interning at Adobe this summer. Yeon Soo aims to pursue a career in user experience design and engineering.