

Wesley Family Services - Audit System

Executive Summary

Community Partner

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Student Development Team

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Background

Wesley Family Services(WFS) is a young non-profit organization operating in Pittsburgh, Pennsylvania. The organization was formed as a result of a merger between two independent non profits--Wesley Spectrum and Family Services of Western Pennsylvania--in July 2017. The organization provides more than 65 behavioral healthcare service and support programs ranging from child development to adult counseling and targeting both individuals and families. The staff is composed of caring therapists, physicians, counselors, clinicians, and caseworkers. Programs provide support for individuals, homes, communities, and schools in the local community.

Project Opportunity

Because WSF is a young company and the result of a merger, there are many areas within the organization that could be improved through the use of integrated technology. The problem we aimed to solve was the fact that there was no uniform, efficient auditing system currently in use by the company. As a result, supervisors and managers were not able to see a full overview of the access authority of employees, and could not record errors in case of updates to to the staff.

Project Vision

The goal of our project was to create an automated auditing system through SharePoint. This system would allow managers in the organization to easily confirm or deny the various access privileges of employees under them, and would provide a consistent online method of auditing for the entire company. We aimed to create an application that could provide users an easy way to view, update, and add information regarding workers, as well as compile reports of the audits that took place.

Project Outcomes

Our team built an integrated solution that includes a sharepoint application that can help WFS to be operated more efficiently with an online, digitized, and automated audit system. Through our app, audit administrators are able to easily import access records into the system viewed by user managers

throughout the organization. User managers are able to help audit admins to confirm that people under supervision has the proper access authorities for current operation season. Aside from the application, the solution also includes a visualization workflow using Power BI tools that connects with sharepoint database. Process, workflow design and training tutorials are also provided to improve the sustainability of our solution.

Project Deliverables

The final product delivered to the client was comprehensive and well-documented. Included in the deliverables were: the working Sharepoint application, printed copies of any and all usernames and passwords needed to login, a repository containing all system files and databases (a .zip file containing CSS, Javascript, and Flow exports), a technical manual to guide future development teams in extending or modifying the system, documentation on the development process, a maintenance guide, and an issues log that records issues during our development phase as well as their solutions and effect on the development cycle.

Recommendations

Given our limited exposure to Sharepoint prior to working with Wesley Family Services, our team gained a lot of experience working with the platform, learning valuable lessons and useful techniques, which we elaborate on in our additional documentation. We recommend that WFS stick with their plan of managing multiple projects across this platform, but also we recommend that they use any available resources to hire and train additional employees to supervise, manage and extend usage of the Sharepoint platform such that any additional development can be done in a standardized way, structured by the documentation and guides included in the final deliverable package.

Student Development Team

Yingjing Lu served as project manager. His served as the primary liaison with project advisor Professor Christopher Kowalsky and clients from WFS. He also contributed to project design, development, testing and documentation processes. He is a junior information systems major student minor in machine learning and computational finance. His general interest is system automation and optimization through algorithm and architecture. He will intern in Goldman Sachs NY this incoming summer.

Bernard Decelian worked in development and testing; He mainly researched Sharepoint's framework and outlined potential implementation plans. In addition, he designed application architecture and components, developed and tested application content, documented code and helped create maintenance guides. He is a senior information systems major student, interested in a career in software development.

John Foley mainly worked in design and development. He created various wireframes in the design phase of the project and helped to implement these designs on the application pages during the development phase. At the end of the project, he compiled and documented the final code in order to ensure a smooth transition of the product to future developers. He is a junior information systems major with an additional major in statistics and machine learning.