KidsVoice

Executive Summary

Community Partner
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Background

KidsVoice is a non-profit organization founded in 1908 that provides legal advocacy for children and young adults in Allegheny County. They support and empower children through legal representation and advocacy for those who are being abused, neglected, or at risk of being so. KidsVoice provides each child with a social service professional and a court-appointed lawyer to best represent their interests in child welfare and related legal proceedings. Their support for older youth lasts until age 25, ensuring access to stable housing and jobs. They also offer counseling, mentoring, and educational programs for children. KidsVoice's mission is to ensure every child has a voice and the tools they need to find a safe, permanent, and loving home.

Project Description

Project Opportunity

KidsVoice faced challenges with their database system which is causing inefficiencies in their operations. Last year's 373 team developed a Microsoft Access database to begin streamlining the process for data management. The current pipeline for accessing and entering data is complicated, error prone, and sorts clients inaccurately. This not only compromises the reliability of the database but also discourages the KidsVoice employees from utilizing it. We see an opportunity to enhance the database functionality to make it easier for KidsVoice employees to access and input data while expanding the database's capabilities. Improving the database access and entry pipeline would allow KidsVoice to redirect resources towards public advocacy by making client information and court data easier to access and search. It would also make the database more efficient and reliable, thereby enhancing KidsVoice's ability to support and advocate for children in need.

Project Vision

Our vision was to streamline the processes for running the scripts that parse the data and update the Access Database, and to improve these scripts to have a much higher success rate so that it did not add duplicate data or delete important data from the database and was able to sort the clients into the right categories. We also wanted to add more functionalities to the database so that the community partner would be able to use it more effectively.

Project Outcomes

Three major technology assets we developed for the clients were an updated Access Microsoft Database with more functionalities, an updated data parsing scripts that eliminate previous anomalies in the result, and a front-end button that streamlined the data migration process. Our solution saved the community partner hours of work trying to manually sort through client records.

The community partner gained a better understanding of the database and its capabilities, and were able perform necessary actions independently. Additionally, the community partner gained a clearer picture of what information they needed from the database.

Project Deliverables

- Updated Microsoft Access Database with additional functionalities
- Updated data migration scripts higher accuracy
- Front-end Interface for the data migration process
- Thorough documentations of all deliverables

Recommendations

Since the current database system is hosted on Microsoft, which frequently releases updates, we recommend that KidsVoice containerize the application, using a platform such as Docker, to prevent errors caused by package versioning. As KidsVoice continues to grow, we also recommend that KidsVoice begins to transition to a multi-user cloud hosted database management system that has greater storage capacity than Microsoft Access so that they can reference historical data.

Student Consulting Team

Amanda Jin served as the team lead. She's a fourth-year student majoring in Information Systems with minors in Computer Science and Human-Computer Interaction. She will be working at Bain & Company as an associate consultant after graduation.

Amita Goyal served as client liaison. She is a third-year student majoring in Information Systems with a concentration in Technology and Policy. She will be interning as a software engineer at Google this summer.

Steven Zhang served as the technical lead. He's a third-year student majoring in Information Systems and minoring in Software Engineering. He looks forward to interning as a software engineer in New York this summer.