

The Education Partnership - POS System

Executive Summary

Community Partners

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Student Project Team

Stephanie Pang

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Background

Located in Pittsburgh, The Education Partnership raises funds and recruits volunteers to provide basic supplies to children in local schools. They have an office in Pittsburgh with a team of around 10 dedicated members focused on equipping local students with supplies in order to succeed in the classroom. Their mission: *To address educational inequities by providing and enabling access to the tools and resources necessary to support teachers and enhance a student's ability to learn and succeed.*

Project Description

Project Opportunity

It currently takes the Education Partnership over three months to process data each semester beginning from a single teacher shopping checkout sheet to VendHQ, a POS system, and then into Salesforce. Solving these problems would significantly decrease costs and free up time and resources that are being used to track teacher and inventory data. This time and money could be used to further more important goals of the Education Partnership, such as building relationships with schools and donors as well as investing in more supplies for their teachers. Spending time to understand complex unusable technological systems should not be in TEP's priority however with their current system there's not much that can be done to shorten these processes.

Project Vision

Our project goal was to build a Ruby on Rails application that will allow TEP to replace VendHQ in order to reduce the amount of data manipulation and reentry from 3 months to an automatic process that will only take a few hours of volunteers entering data. Our system needed to allow administrators to enter in the data from teacher transaction sheets (mainly, each teacher's name and quantities of the items they have taken) and update their Salesforce inventory database. Ideally, our system will automatically manipulate the data to fit Salesforce requirements, load the data and update inventory.

Project Outcomes

The result of our project is a custom point of sales system called DataCat which automatically polls data from Salesforce and allows for input of sales. The purpose of DataCat is to replace VendHQ

so that we can streamline the process of reducing inventory of items in Salesforce as necessary. By creating this system, we have greatly decreased the time needed to add POS transactions and made it a more efficient and user-friendly process. This will allow the staff at the Education Partnership to focus more time on important tasks involving the success of their organization in community care and outreach rather than repetitive tasks such as entering numbers into a spreadsheet.

Project Deliverables

Included in our deliverables is the link to a web application deployed on Heroku that is connected to TEP's production Salesforce database and a Git repository documenting our development process. We have also created documentation in .doc and .pdf files for three different stakeholders: employees, volunteers, and future developers. The documentation for employees describe at a high level how the application polls data from Salesforce and what customizations we have allowed in the system. The documentation for volunteers simply show the process of entering data into our system and how to load it into Salesforce. Finally, we have included documentation for future developers to understand the decisions that we made and features that can be added.

Recommendations

Currently, the process to update inventory in Salesforce to reflect teacher sales can take up to three months to complete and is prone to errors. We recommend using DataCat to enter sales because it will be more intuitive and take less time than using VendHQ and DataLoader. Since it polls updates of teachers, schools and core items from Salesforce automatically, DataCat reduces the number of different places where the same information should appear and thus reduces room for inconsistencies. We recommend having volunteers enter sales into DataCat during teacher shopping days to reduce the time that passes between sales and data entry. Lastly, it will be necessary for core items and inventory to remain as up to date as possible in Salesforce for DataCat to perform optimally.

Student Project Team

Stephanie Pang served as quality assurance manager, deployment specialist and lead developer. She is a third-year student majoring in Information Systems with a double major in Statistics and Machine Learning. She will be interning at Microsoft this summer and is looking toward a career in software engineering and machine learning.

Alina Yu served as client relationship manager, designer and developer. She is a third-year student majoring in Information Systems with a minor in Human Computer Interaction (HCI). She will be interning at Capital One this summer in the technology development program and is looking toward a career in software engineering and management in the humanitarian sector.

Shirley Zhou served as project manager, designer and developer. She is a third-year student majoring in Information Systems with minors in Human Computer Interaction (HCI) and Business Administration. She will be interning at PNC this summer on the digital experience team and is looking toward a career in front end engineering and interaction design.