Phipps Conservatory and Botanical Gardens

Executive Summary

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Background

Phipps Conservatory and Botanical Gardens is a botanical garden in Pittsburgh that was built in 1893 as a gift from philanthropist Henry W. Phipps. Phipps is located in Schenley park, near Carnegie Mellon University and University of Pittsburgh. The conservatory spreads across 15 acres of land, consisting of a 14-room glasshouse and 23 distinct gardens. In addition to hosting botanical displays, Phipps conducts research and holds educational programs about sustainability and environmental health.

As one of the leading international leaders in sustainability, Phipps seeks to change the world by reducing greenhouse emissions, motivating the public through public programs, and learning about the relationship between people and the environment. Phipps' five-point sustainability plan is centered on growth and expansion of facilities and has prioritized community participation by including bolstering public programs.

Project Description

Project Opportunity

Visitors can donate to Phipps by purchasing an inscribed brick in the Discovery Garden. Phipps tracks all brick donor information through an Excel spreadsheet, which currently consists of over 6000 records. This information contains partially inaccurate data, making it difficult for employees and visitors to find the locations of particular bricks. In order for visitors to view brick donor information, the Excel sheet is printed and displayed in a binder. This physical binder is not weatherproof and is difficult to parse through. Our team was presented the opportunity to clean the data in the Excel spreadsheet and replace the donor recognition binder with a digital and more convenient solution.

Project Vision

Our team aimed to improve the Discovery Garden Pavers Program by fixing inaccuracies in the existing brick data and creating a web-based application that allows users to add or search for bricks.

The ultimate goal was to allow employees to easily manage brick donor information. An additional goal was to allow visitors to find the exact location of a brick in the garden without having to spend time parsing through a large binder and looking through a large section of bricks.

Project Outcomes

Throughout the duration of the project, our team was able to:

- Develop and deploy a web-based application for Phipps Employees to manage brick donation information.
- Develop and deploy a web-based application for visitors to search and locate a brick on the map of the Discovery Garden at Phipps.
- Collect GPS coordinates of the exact location of each brick in the Discovery Garden.
- Write documentation for future developers and users of the application.
- Train employees on using the web-based application for managing information.

Project Deliverables

The project deliverables include a git repository with the project code, documentation for users and future developers, and the final report and hand-off presentation.

Recommendations

Although the application is fully functional and ready for public use, there are a few ways in which it can be modified to improve user-experience. For example, adding pictures of each individual brick would be a nice feature for users who would like to see their brick without visiting the garden in person. Additionally, linking the application to Phipps' website and domain may make it more accessible for users.

Student Consulting Team

Evan Byrd was the quality assurance lead for the backend code. He is a fifth-year senior majoring in Information Systems. He is looking forward to pursuing a career in Security Consulting.

Tricia Chen was the quality assurance lead for the frontend code. She is a third-year student majoring in Information Systems with a minor in Computer Science and a minor in Software Engineering. She will be interning at American Express this summer and is looking toward a career in software engineering.

Dean Dijour served as the technical lead and client liaison. He is a third-year student majoring in Information Systems and Human-Computer Interaction. He will be interning at Frog Design this summer, and is looking toward a career in creative technology.

Vrinda Gupta served as project manager. She is a third-year student majoring in Information Systems with a minor in Computer Science. She will be interning at Google this summer and is looking toward a career in computer systems engineering.