involveMINT

Executive Summary

Community Partner
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Student Consulting Team
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Background

InvolveMINT is a Pittsburgh-based nonprofit aiming to create a digital currency that connects volunteers and small businesses. The InvolveMINT platform issues "Community Credits" to volunteers (ChangeMakers) as a reward for completing community service hours with local nonprofits, which are then redeemable for goods at participating local businesses (ExchangePartners). This both encourages volunteering (by providing a new incentive) and rewards small businesses (by allowing them to exchange their excess capacity for promotion, other goods, or tax credits). Additionally, this can create an alternative economy that rewards community impact rather than traditional, often counterproductive, incentives.[1]

Project Description

Project Opportunity

Through discussions with Dan and the InvolveMINT team, we identified one main overarching problem that the organization was facing: ease of use with Proofs of Impact (POIs). Proofs of Impact are utilized by ChangeMakers (individuals engaging in impactful activities) to "demonstrate their impact through data and photo documentation" in order to receive Community Credits (CCs). However, ChangeMakers have repeatedly reported that the process of completing POIs is tedious and often redundant for groups of volunteers.

Project Vision

Based on collected feedback and iterative discussions with the InvolveMINT team, our vision was to create a full-stack proof of concept to address specific user needs with POIs surrounding group submissions and ease of use. More specifically, we sought to document the process of identifying core user stories by compiling feedback from more than 15 InvolveMINT users, create user flows and low-fidelity wireframes, and implement a full-stack solution in the InvolveMINT codebase. Additionally, we planned to propose a new method of sustainable documentation using Lightweight Architecture Decision Records (LADRs).

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1 InvolveMINT White Paper.

Project Outcomes

Our primary project outcome was the implementation and documentation of three high-importance user stories centered around ease-of-use: 1) Adding the ability for ChangeMakers to tag their group members in a single POI submission, 2) the functionality for POI forms to save changes locally, and 3) the ability for ChangeMakers to upload multiple photos at a time. These user stories directly addressed feedback collected from several user interviews completed by the involveMINT team, and served as proofs of concept for the organization's development team to begin running user testing on the features. Additionally, we provided documentation in the form of user stories, user journey diagrams, lo-fi wireframes, and LADRs to document our decision making and establish a structured method of documentation.

Project Deliverables

Upon completion of the project, our team handed off our code changes as a pull request to the involveMINT repository, which included LADR README files in each folder with code changes to document our decision making. Additionally, we provided a Google Drive folder containing the list of compiled user stories, links to the user journeys and low-fi wireframes, the modified ERD for POIs, and our proposal, final report, and final presentation documents.

Recommendations

To maintain the completed implementations and expand upon the proof of concepts, we suggest that the involveMINT team implements a high-fidelity frontend implementation of the POI tagging component following the hi-fi wireframes developed by the UI/UX team. Additionally, the involveMINT team can use the established backend implementation for tagging, saving, and photo uploads, created by the IS team to link to the new frontend, and should conduct user testing sessions with active ChangeMakers to iterate and refine the functionality. Finally, we recommend that the involveMINT team follows the LADR format to document future code changes, and maintain best practices for their codebase.

Student Consulting Team

Alexander Zhu was the project manager and a backend developer on the codebase. He is a third year student studying Information Systems and Computer Science and is spending the summer as an InnovatePGH Fellow to develop a startup.

Timothy Hyun led backend development of ease-of-use user stories and helped coordinate the codebase. He is a fourth year student graduating with a double major in Information Systems and Computer Systems and will be working at Amazon full-time.

Ethan Guthrie was the quality assurance lead and frontend developer for the IS team. He is a fourth year student studying Information Systems and will be pursuing a Masters degree in Information Security Policy & Management next year.