Pittsburgh Street Medicine – Web Application & Client Service

Midterm Report

2025 Spring

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Customer: Pittsburgh Street Medicine

1. Current Project Status

The project is progressing steadily and is Almost exactly what the sponsors' requirements. So far, we have successfully developed key components of the web application, including client, volunteer, and admin pages. The implementation of essential features—such as user authentication, order management, and a dynamic inventory system—has been completed.

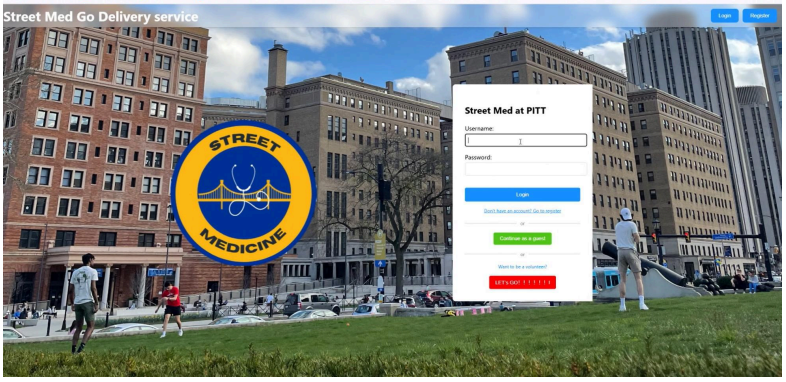


Figure 1- Login Page

2. Changes Since the Initial Proposal

We have added several new user stories based on feedback from our sponsor and team discussions::

- **Location Tracking:**
  For now, we'll use the React geolocation library, which provides a simpler and more efficient way to capture user location data.
- **Feature Enhancements:**
  New functionalities such as a feedback system, a comprehensive shopping cart, and a dynamic inventory system have been integrated. These updates have enhanced both user and admin experiences.
- **UI/UX Improvements:**
  The designer — Lauren Rose, has developed detailed UI mockups for various pages including the volunteer and admin dashboards, ensuring a user-friendly interface.
- **Backend Enhancements:**
  Updates to our Spring Boot backend now support multiple item orders, password hashing for enhanced security, and an evolving inventory management system that includes item images and size variants, now we are using MongoDB to store the images.

3. Software Development Process Evaluation

Our team is following an agile development process with iterative sprints:

- **Sprint Structure:**
  Each sprint is clearly defined with allocated tasks and time estimates. We continue to implement new features and bug fixes.
- **Team Collaboration:**
  We leverage tools such as GitHub for version control, Trello for task tracking, and Slack/Discord for team communication. Regular internal meetings and sponsor updates have fostered a collaborative environment.
- **Progress Tracking:**
  There is a slight delay in server connection and UI integration, but overall progress remains robust with no significant setbacks.

4. Major Risks and Issues

Despite steady progress, we have identified several risks:

- **Security Concerns:**
  Ensuring data privacy is paramount. We have implemented password hashing and are planning to introduce further encryption measures for sensitive endpoints.
- **Deployment Uncertainty:**
  Communication delays with Pitt IT regarding server deployment could potentially affect our timelines.
- **Inventory System Complexity:**
  As the inventory system is a new addition, there may be unforeseen bugs, particularly in handling image uploads and size variants.

5. Remaining Work and Next Steps

Our upcoming sprint will focus on:

- **Debugging and Refinement:**
  Fixed the issue that the image was not displayed properly on the order request page after uploading.
- **UI/UX Enhancements:**
  Finalizing the look and feel of all pages, with specific attention to the volunteer and admin dashboards.
- **Feature Expansion:**
  This paper studies and implements the scheduling of Google Maps api to support the direct display of maps in the app.
- **Final Integrations:**
  Working closely with the front-end and back-end teams to ensure seamless communication between all components.
- **Sponsor Feedback:**
  Regular consultations with our sponsor to validate changes and adjust priorities as necessary.

6. Added User Stories

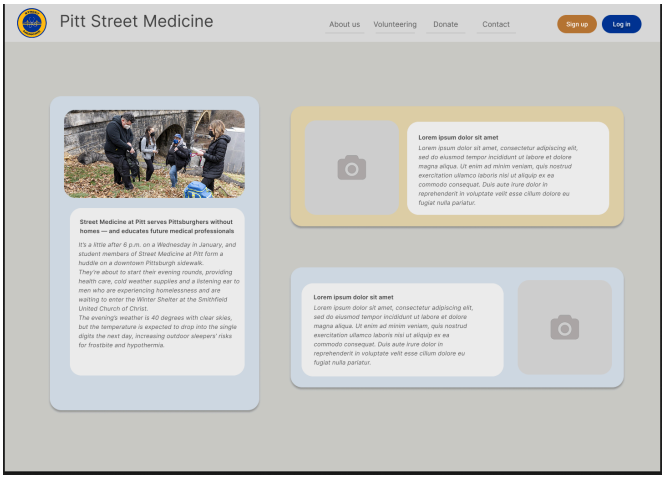
Based on recent progress and discussions, we have refined our user stories:

- **Inventory System:**
  "As an admin, I need an intuitive inventory management system to monitor and update items efficiently, including managing item images and size variations."
- **Password Recovery:**
  "As a user, I need a secure and user-friendly way to recover my password if I forget it."
- **Item Images:**
  "As an admin, I want to add images for items so that customers can see accurate visuals of available products."
- **Feedback System:**
  "As a user, I want to easily submit feedback directly within the app to suggest improvements and report issues."
- **Location Awareness:**
  "As a volunteer, I need accurate location tracking using our React geolocation library to ensure timely deliveries."

7. Design Mockups and Diagrams

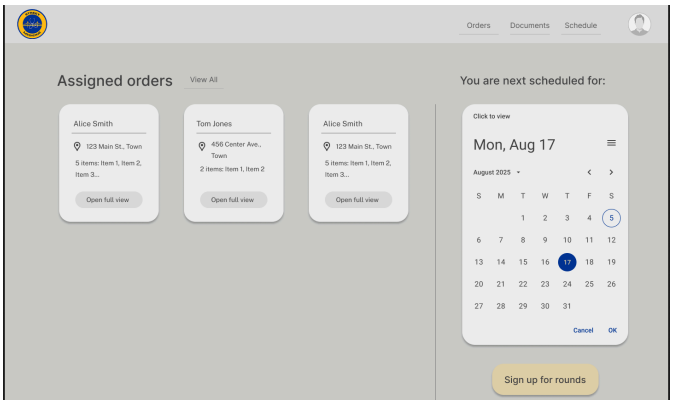
Visual aids are crucial for understanding our application architecture and user flows. Below are the screenshots/diagrams to be included:

- **Home Page UI:**
  Capture the landing page that explains the service, incorporates navigation to login/sign-up, and displays location data.



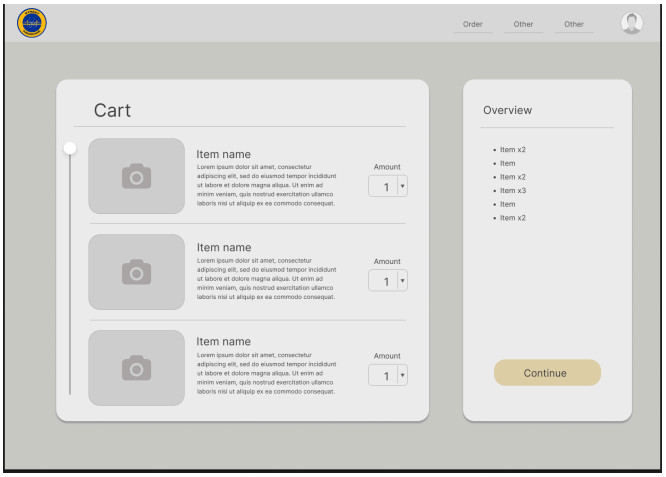
- **Volunteer Dashboard:**

  Include an image of the volunteer page that displays pending orders and application details.



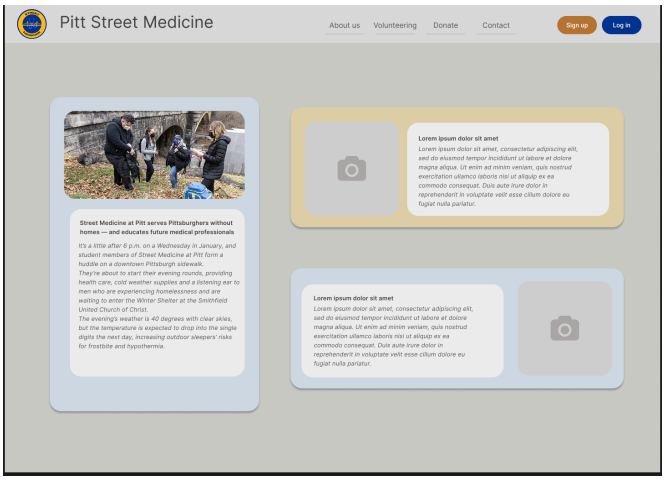
- **Cart:**

  Displays all item names, details, quantities, and images, just like doordash.

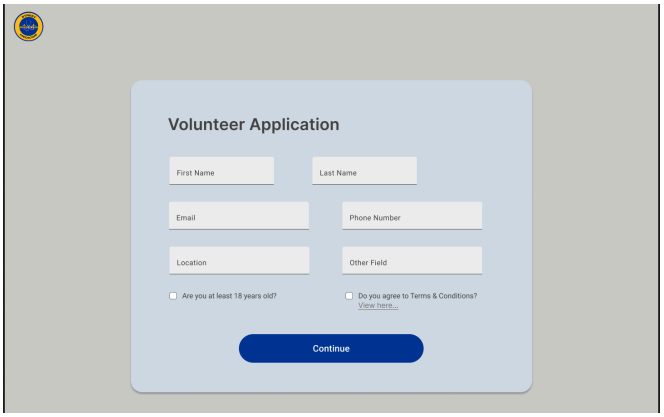


- **Main page:**

  Show users recent team news and events, and allow them to log in and sign up.



- **Volunteer application page:**
  For volunteers, we designed a registration form for them to fill out and then wait for the administrator to review.



8. Conclusion

In summary, our team is making good progress with the Street Medical Delivery Service project. We're mostly on track, and we've added several important features recently, like a new inventory system, a user feedback feature, and improvements to the website's interface. The integration of these new functionalities is going well overall, though there have been some challenges—Especially when it deals with the image content. We also need to ensure we finalize details with Pitt IT for hosting, as this might cause some delays. For the rest of the semester, we'll focus on adding some more new features, finishing the UI improvements, fixing remaining bugs. Overall, we're in good shape to complete the project on time and excellent.