Medical Persistence System Report

Product Owner: Weicheng Gan

Scrum Master: Yunzhi Tang

Team Members: Tianyang Ding, Junyu Han, Xiangqi Jiang, Yijun Zhang, Lida Zhang

Background

Osteoporosis and low bone mass affect over half of the population aged 50 or older in the United States. A study has shown that the initiation of osteoporosis treatment is related to the knowledge of the disease, and secondary adherence is linked to the ability of self-management and the challenge in treatment such as cost and inconvenience.

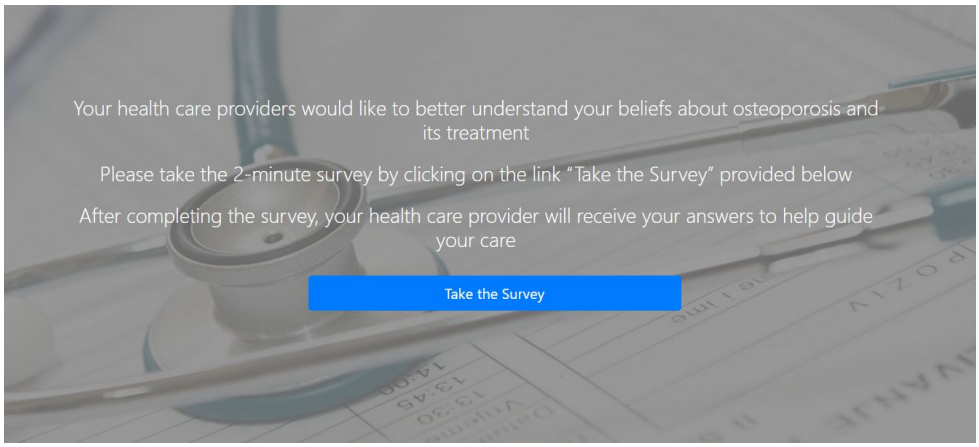
Legacy code and our goal

To understand the influence of the many factors to patient readiness of accepting osteoporosis treatment, and further improve the medication initiation, previous work has developed a medical persistence system to provide medical survey and manage medication providers. Our team, PixelDream, continues working on the system. We aim at creating more functions for medication provider management, modifying the user interaction design, and updating the medication survey. Our work, the administrator of the system can have more efficient and safer control or the medication provider, the users can obtain a better system using experience, and the surveys are well organized so that the doctors and researchers can extract convenient and accurate information from the surveys. To deliver all the functions that meet customer demand, we seperate team members into 2 teams - Team Matt (Xiangqi Jiang, Yijun Zhang), lead by Weicheng Gan focusing on the front end and Team Tang (Tianyang Ding, Junyu Han,Lida Zhang), lead by Yunzhi Tang focusing on the backend.

User Stories

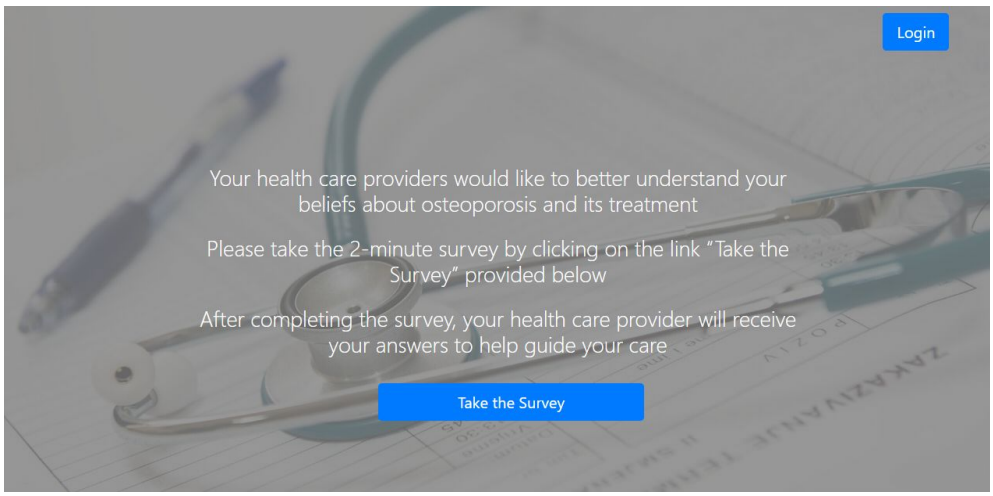
Story 1: We want an introduction page to be more user-friendly and less intimidating

a. Implementation: Regarding this story, we first changed the wording of the introduction paragraph into a one with a more welcoming tone.
b. Points: 10%
c. Screen shot:



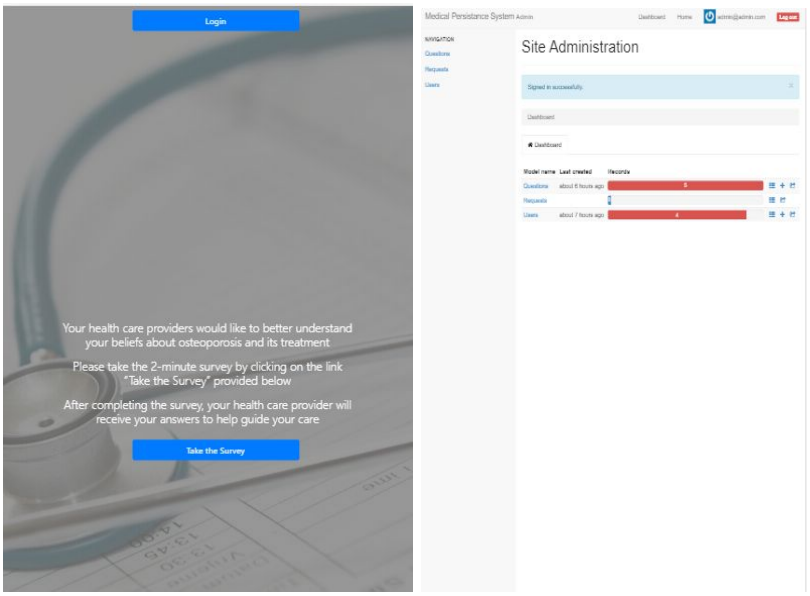
Story 2: We don't want patients to be confused and accidentally click on the login button

d. Implementation: To avoid confusion, we change the wording of the login button from "Administration/Provider login" to "Login" and move the button to the upper right corner of the website.
e. Points: 10%
f. Screen Shot:



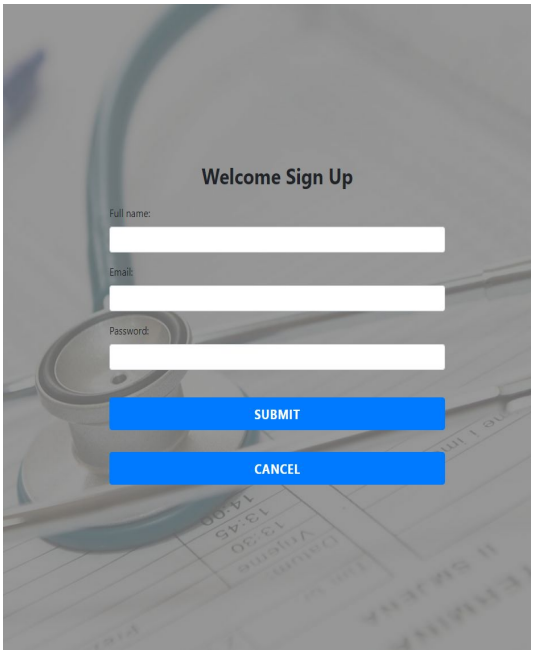
Story 3: We want the website to be functional on mobile devices and tablets

g. Implementation: We utilized features in bootstrap which will change the spacing of the words and buttons dynamically based on screen width.
h. Points: 20%
i. Screen Shot



Story 4: Create a sign-up mechanism where providers can sign up on the website for the administrator to approve

j. Implementation: We created a sign-up button on the login page and a separate sign-up page that allowed providers to enter their information, including name, email and password.
k. Points: 40%
l. Screen Shot



Story 5: We need the admin to approve/disapprove pending provider application

m. Implementation: We added an approval tab in the administration page where administrators can click on the pending application and decide to either approve or deny the application.

n. Points: 20%

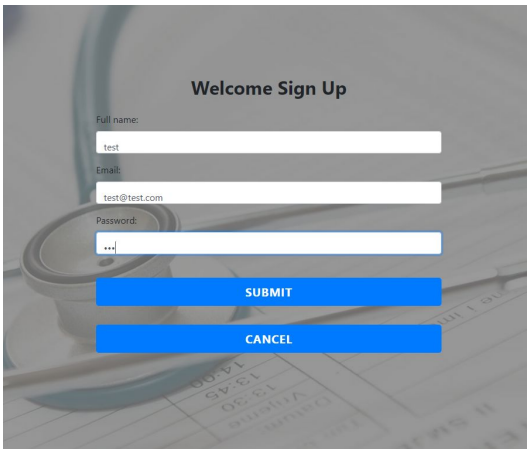
o. Screen Shot:

Story 6: Valida sign-up record with password/email validator

p. Implementation: For password, the website would prompt an alert if the entered password contained less than 6 digit. For email, the alert would show if user entered invalid email address or email addresses that have been used already

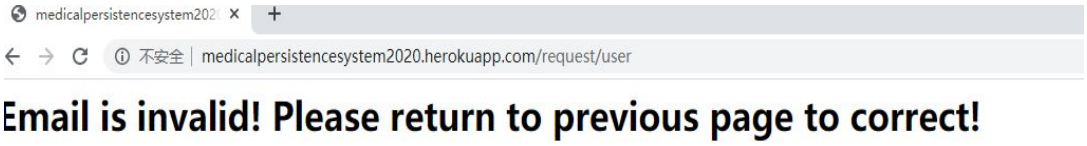
q. Points: 10%

r. Screen Shot:



i. If we enter invalid password:

ii. If we entered invalid email address:



Iterations

Iteration 0 - Discuss team role and separate work load for everyone.

Iteration 1 - Complete user stories 1 - 2, improve the UI and correct the wording issue

Iteration 2 - Complete user stories 3, make the website readable on mobile devices

Iteration 3 - Complete user stories 4, create sign-up page and alter database config

Iteration 4 - Complete user stories 5 - 6, add approval page for admin and user information validation for sign-up page

Config and test / deployment

For this project, we use github to track our process. Our project has been set up into three branches, TeamMat branch mainly includes front-end commits, TeamTang branch includes back-end commits and master branch is the merged branch from TeamTang and TeamMat and production branch for our project. Our config file is gem and we use Cucumber as a tool for testing.we also use RailsAdmin and Devise to handle admin permission control and user permission control. In the “Provider Sign Up” story, we use BDD to drive our development. Following previous homework’s idea, we add cucumber to Gemfile first, then create features test file and config the step definition. In this story we both cover a happy path(fill texfile valid) and 3 sad path(fill password, email invalid). This process gives a thread through our development, which makes development more clear and quickly. which We haven’t found any problems using Git/AWS/Heroku in deploying our project.

Meeting dates

Feb 24, First Meeting

Our customer introduced the previous medical persistence system to us and stated what are the modifications / improvements he wanted. Meeting schedules were also discussed.

Apr 22, Second Meeting

We demoed user stories 1 - 3 and the front end web page of story 4. Our customer pointed out several minor issues in our previous work and agreed that we were in the right direction.

May 4, Third Meeting

User stories 4 - 6 were demoed. Our customer is satisfied with our work.

Links

Heroku app: http://medicalpersistencesystem2020.herokuapp.com/
Github: https://github.com/tangyz007/MedicalPersistanceSystem2020
Pivotal tracker: https://www.pivotaltracker.com/n/projects/2437027
Youtube Demo: https://youtu.be/GE9PMBxeLWw