

---

**Mercy Clinic**

---

**Volunteer Solution  
Vision**

**Version <2.0>**

Volunteer Solution	Version: <2.0>
Vision	Date: 3/23/20
0001	

## Revision History

Date	Version	Description	Author
10/3/19	1.0	Filled in initial information	Kenzie Clarke
10/6/19	1.1	Filled in sections 1 and 2	Nestor Guerrero
10/6/19	1.1	Filled in section 4	Warren Riley
10/6/19	1.1	Filled in section 5	Wynn Pho
10/6/19	1.1	Filled in sections 3.1 and 3.2	Cole Weber
10/7/19	1.2	Filled in section 6 and reviewed document	Kenzie Clarke
10/16/19	1.3	Reviewed Dr. Wei feedback Accepted Grammatical Changes Updated 'Client' name to Lorena in section 1 Added Google Calendar Alternative to section 3.4 Added Springs Hosting Reference to section 1.2	Kenzie Clarke
10/21/19	1.3	Made changes to the "Need" section in 3.3	Wynn Pho
10/21/19	1.4	Update Vision Background Updated Deployment Considerations in section 4.2 Integrated Dr. Wei commentary	Kenzie Clarke
10/22/19	1.4	Add a graphic for the Product Perspective in section 4.1	Warren Riley
3/23/20	2.0	Added Heroku and ClearDB to references in section 1.2 Added more detail to problem statement in section 2.1 Clarified section 2.2 Updated User Environment in section 3.2 Updated Summary in section 3.3 Added current paper solution to Alternatives section 3.4 Changed 'text confirmation' to 'email confirmation' on the graphic in section 4.1 Updated section 4.2 'deployment considerations' to include decided plan of deployment	Kenzie Clarke

Volunteer Solution	Version: <2.0>
Vision	Date: 3/23/20
0001	

		Updated sections 5.1, 5.3, 5.4, and 5.5.2 with more detailed description of requirements	
--	--	--	--

Volunteer Solution	Version: <2.0>
Vision	Date: 3/23/20
0001	

## Table of Contents

1.	Introduction	4
	1.1 Background	4
	1.2 References	4
2.	Positioning	4
	2.1 Business Opportunity/Problem Statement	4
	2.2 Product Vision/Position Statement	4
3.	Stakeholder Profiles and User Descriptions	5
	3.1 Stakeholder Summary	5
	3.2 User Environment	5
	3.3 Summary of Key Stakeholder or User Needs	5
	3.4 Alternatives and Competition	6
4.	Product Overview	6
	4.1 Product Perspective	6
	4.2 Deployment Considerations	6
	4.3 Assumptions and Dependencies	6
5.	Product Features / Scope	7
6.	Other Product Requirements	7

Volunteer Solution	Version: <2.0>
Vision	Date: 3/23/20
0001	

## Vision (Small Project)

### 1. Introduction

#### 1.1 Background

This Vision Document is used and maintained for the purpose of the volunteer solution for the non-profit clinic called Mercy Clinic, in Fort Worth, TX. This project is designed to provide a web-based platform and database solution for automating the volunteer scheduling and recording process. Mercy Clinic receives a range of over 150 volunteers per month of all ages, technological skills, and medical specialties. In the Vision document there are specifications and requirements pertaining to the software solution for Mercy clinic.

Mercy Clinic is a non-profit medical clinic in Fort Worth serving the insurance-less local community. They operate using dedicated volunteers of multiple professions. Scheduling and monitoring the hours of these volunteers is an important component that allows this organization to run smoothly. The owner of Mercy Clinic, Peggy Lee, manages the volunteers using a dedicated full time employee, Lorena Montalvo. Using paper sheets and two large whiteboards on site, Mercy Clinic records check in/out hours and schedules volunteers. The only use of technology includes mass email correspondance between Lorena and volunteers to schedule their time. This new product is going to serve as a replacement for the current non-technological system and also implement the key functionalities currently served by Lorena..

#### 1.2 References

Springs hosting platform is the current hosting platform used by the Mercy Clinic website. SpringsHosting is a Hosting Service Provider and Data Center headquartered in Colorado Springs that provides web hosting features such as domain names, server data, and more. Please see their main website <https://www.springshosting.com> for more information about the company.

The new product is hosted on a Heroku dyno application. For more information about Heroku and it's hosting capabilities, please visit <https://www.heroku.com>. A cloud based database called ClearDB is used to securely host the volunteer data for the product. See <https://www.cleardb.com> for more information

### 2. Positioning

#### 2.1 Problem Statement

The problem of	<p>Administrator calculates and searches for hours of volunteer by hand and paper.</p> <p>Administrator must constantly send emails to volunteers regarding available time slots and reminders.</p> <p>Volunteers must call to get availability and select a time slot to volunteer for.</p>
Effects	Schedule system, Volunteer, IT Staff, and Financing of Clinic, Volunteer's external party requiring hours volunteered.
The impact of which is	<p>Many overwhelming hours of work for Administrator(Scheduling, Emailing, and Searching).</p> <p>Volunteers not knowing when slots are available for their profession without having to call or Administrator.</p> <p>Possible errors in hour calculations and misinformation concerning scheduling details.</p>

Volunteer Solution	Version: <2.0>
Vision	Date: 3/23/20
0001	

A successful solution would be	<p>Administrator will search and find hours for volunteers and Clinic much faster.</p> <p>Volunteers and Administrator will have an online scheduler readily available to view availability.</p> <p>Volunteers will have the ability to select time slots and positions at which they can volunteer.</p> <p>Hour collections will be automated and reduce human error or tampering.</p> <p>Email reminders will help prevent miscommunication concerning scheduling dates and times.</p>
--------------------------------	--

## 2.2 Product Vision/Position Statement

For	Administrator, Volunteers, and IT
Who	Need to store, retrieve, and view volunteer hours and scheduling
The MercyClinic	Website for scheduling
That Allows	<p>Scheduling hours from home without calling</p> <p>Viewing time slots that are available</p> <p>Searching features for retrieving hours of volunteers</p> <p>Viewing volunteer contact information and previous hour records in real time.</p>
Unlike	<p>Google Calendar</p> <p>Paper</p>
Our product	<p>Simple</p> <p>Clean</p> <p>Easily accessible</p>

## 3. Stakeholder Profiles and User Descriptions

### 3.1 Stakeholder Summary

<i>Name</i>	<i>Description</i>	<i>Major value or benefit from this product</i>	<i>Major features of interest</i>	<i>Constraints that must be accommodated</i>	<i>Direct User or not?</i>
-------------	--------------------	---	-----------------------------------	--	----------------------------

Volunteer Solution	Version: <2.0>
Vision	Date: 3/23/20
0001	

<i>Peggy and Lorena</i>	<i>Executive Director/Administrators</i>	<i>Automation of manual tasks, Improved productivity</i>	<i>Track volunteer hours, Automate email reminders, Reduce scheduling conflicts</i>	<i>Cost is a major factor as clinic is mostly volunteer based, so system will try to be integrated into existing website.</i>	<i>Yes</i>
<i>Alice</i>	<i>IT Support/Administrator</i>			<i>Product must be developed to the level of Alice's knowledge as she will be supporting the system long term</i>	<i>Yes</i>
<i>Volunteer</i>	<i>Worker at clinic</i>	<i>Improved usability</i>	<i>Ability to view and update schedule online, Easier access to hours worked, Automatic email reminders</i>	<i>Product will not have user accounts in order to accommodate older volunteers with limited technical skills. Product must be very user friendly</i>	<i>Yes</i>

### 3.2 User Environment

Mercy Clinic has over 150 volunteers monthly ranging from students to elderly retirees. All scheduling and check in/out is currently done on paper, manually entered and updated. This is a very long process and takes valuable time away from the clinics primary goals. Our product aims to simplify the current system with a web based solution. The product will be user friendly to accommodate the range of volunteers and their abilities. Mercy Clinic has a website hosted by Springs that will contain a link to our scheduling system. This web app will be easily accessible on the internet via desktop, tablet, or mobile phone. An admin user can pull up a clean and easy to use check in feature on a device of their choosing to allow volunteers to digital 'punch in' and 'punch out' for their time working at the clinic.

Volunteer Solution	Version: <2.0>
Vision	Date: 3/23/20
0001	

### 3.3 Summary of Key Stakeholder or User Needs

Need	Priority	Concerns	Current Solution	Proposed Solutions
I need an easier method to check in/check out	High	Current system is inefficient and difficult to keep track of the timestamp records	All the volunteers sign their name and write down the time on a sheet of paper when starting their shift as well as leaving	A new check in/check out system that volunteers check in /check out automatically from a stationary computer set up upstairs in place of the paper sheets.. The system will then save the records (timestamps, volunteer's name and email) into a database.
I need a more efficient way for volunteers to schedule appointments	High	Current solution requires a lot of time and effort to build and manage	Lorena - an administrative coordinator is currently creating a schedule for the volunteers on a monthly basis using a big white calendar board	A new schedule builder that allows volunteers to be able to sign up for open shifts remotely from their mobile devices. Only an admin can creat/delete schedule slots. Also, an administrator has the power to schedule volunteers according to written or verbal requests from the volunttter. Only by speaking with an administrator will a volunteer be able to modify or delete scheduled appointments.

### 3.4 Alternatives and Competition

Mercy Clinic tried to use Google Calendars to schedule their volunteers in the past. They did not find that solution suitable because many volunteers had trouble accessing and navigating the google calendar platform. They do like the visual look of a calendar (like the whiteboard), but they did not like how volunteers needed google accounts and needed to navigate through google services to access the shared calendar.

Paper is their current solution. While it is easy to understand and use from the side of a volunteer, hour tracking is a big problem. Not only is it time consuming and tedious for Lorena to keep track of hour sheets, but a volunteer must make a request for their hours and wait for long periods of time before Lorena can generate a report for them. This solution is ineffective for Mercy's current needs.



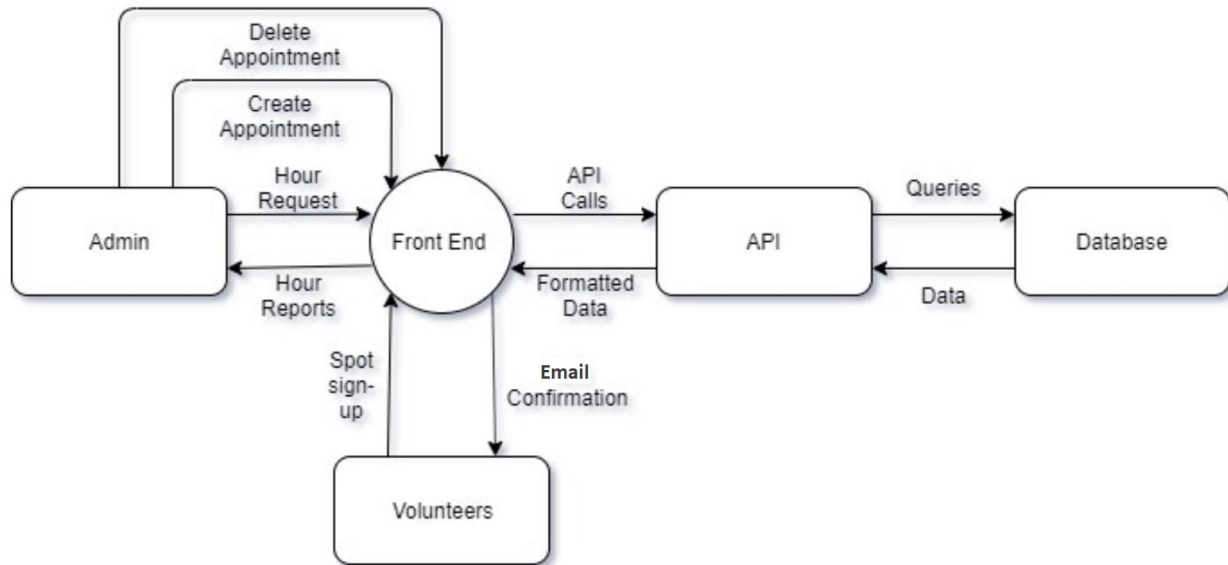
Volunteer Solution	Version: <2.0>
Vision	Date: 3/23/20
0001	

## 4. Product Overview

This section provides a high-level view of the Mercy Clinic’s new sign-in and scheduler system configuration.

### 4.1 Product Perspective

This product is a website, which means it has to have a frontend, which will need to be hosted on a server. It will also contain data relating to the users who use this system, which will interact with the frontend through API calls.



### 4.2 Deployment Considerations

The users of this system will need a device with an internet connection to use the product. If the user is an administrator, they will also need a backend account which is created by an admin to be able to access any of the information on the page. Mercy Clinic is growing so the system will need to be able to add users/remove admin users and store the related information. They will also need to be able to store more volunteers.

For hosting platform, our team is currently weighing our options of using Mercy’s current platform Springs, and using the efficient, low cost AWS. After meeting with the client and looking deeper into the capabilities of Springs, we will update this document with our platform decision.

Update March 2020: The team has decided not to use Spring on the account that Springs does not offer any middle man hosting services that support the use of nodejs, our primary programming language for the application. Instead, we have decided to use a Heroku dyno application to host the web app in the cloud. The advantages of this system include nodejs support, github connection, automatic redeployment in case of crash or code changes, and cloud database connection maintained through the database ClearDB. For more information on these two softwares, see section 1.2 on References.

### 4.3 Assumptions and Dependencies

1. The user will need to have a device that has an internet connection.
2. The project will need to be hosted on a cloud hosting platform.
3. The project will need to have access to a cloud database platform.

Volunteer Solution	Version: <2.0>
Vision	Date: 3/23/20
0001	

4. The project will have multiple dependencies based on frameworks used to develop the website, and the languages used to develop it.

## 5. Product Features / Scope

### 5.1 Logon

The product shall allow administrators to log on to the system using a username and password. Only administrators can hold and create new accounts. There will be a superuser that cannot be deleted to prevent complete lockout from the system.

### 5.2 Record volunteers' information

The product shall record volunteers' basic profile in a database.

### 5.3 Check in/out

The product shall allow volunteers to check in and out. Administrators can log in and manually enter missed punch.

### 5.4 Keep track of volunteer hours

The product shall record volunteer hours within a specific time frame. Hour reports shall be viewable on the site by administrators. Administrators can also generate reports in a .csv format.. Administrators can manually alter or delete volunteer hours.

### 5.5 Scheduling

The product shall allow volunteers to see shift availability, preferably in a calendar format, and schedule their preferred volunteer shifts.

#### 5.5.1 Verification

The product shall be able to verify authentic volunteers' identity before they can schedule.

#### 5.5.2 Confirmation

The product shall send the volunteers a confirmation email after they finish scheduling.

#### 5.5.3 Reminder

The product shall send an email reminder to the volunteers when their scheduled time approaches.

## 6. Other Product Requirements

### 6.1 Requirements

#### *Environmental*

An internet connection for the user and a stable hosting platform that does not go down. Priority: Critical

#### *Performance*

Hosting platform and database that can handle 100-1000 volunteers, any of whom might be accessing the scheduler at the same time. Priority: High

#### *Platform*

Frontend webpage that is easily accessible on mobile or tablet devices, so checking in and scheduling can be done on more commonly used devices. Priority: High

#### *Legal*

Adequate security of the volunteer records and limiting access to the admin users. Possible extension of downloading hours for one volunteer using verification methods. Priority: Medium-High

Volunteer Solution	Version: <2.0>
Vision	Date: 3/23/20
0001	

### *Documentation*

User manual for our IT stakeholders and the setup of initial admin user for account creation and administration.

## **6.2 Design constraints**

The client has asked that volunteers do *not* use front end accounts to schedule. Information about a volunteer must be stored and accessible by the admin users only.

The client needs the database information to be easily downloadable into an excel format.

The client requires the product to be linked to their website, as well as for the solution to be within their non-profit budget.