

# Mercy Clinic Volunteer System

Computer  
Science  
Senior Design  
Project  
2019-2020

Kenzie Clarke, Warren Riley, Minh Nguyen, Cole Weber, Nestor Guerrero, Wynn Pho

Texas Christian University



# Meet the Team



Kenzie Clarke  
- Team Lead



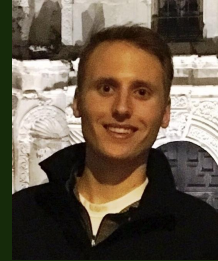
Nestor Guerrero  
- Full Stack Developer



Minh Nguyen  
- Full Stack Developer



Warren Riley  
- Developer



Cole Weber  
- Website  
Manager/Developer



Wynn Pho  
- Full Stack Developer



- Wellness checkups
- Sick visits



[mercy-clinic.org/care](http://mercy-clinic.org/care)

Non Profit Medical Clinic



- Dental checkups
- Extractions




- Limited pharmacy services



Alice Liu  
Tech Specialist



Lorena Montalvo  
Head Admin



Peggy Leitch  
Executive Director



# Current Workflow at Mercy



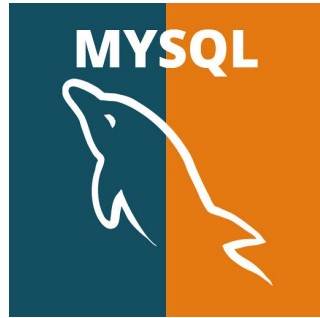
Manual Scheduling via In-house  
Whiteboard Calendar

Paper Check in and Check  
out

Treasure hunt for Volunteer  
Hour Requests



# Systems and Technologies



Express

# Calendar & Scheduling



# Volunteer View

Mercy Clinic of Fort Worth Login

May 2020 Filter


| Mon | Tue  | Wed  | Thu  | Fri |
|-----|--|--|--|-----|
| 26  | 27   | 28   | 29   | 30  |
|     |  |  |  | 1   |
| 3   | 4  | 5  | 6  | 7   |
|     | Medical - Nurse<br>Medical - Nurse<br>Support - Student<br>Support - Volunteer     | Dental - Hygienist<br>Medical - Nurse<br>Support - Greeter<br>Support - Security | Dental - Dentist<br>Dental - Dentist<br>Medical - Nurse<br>Support - Student | 8   |
| 10  | 11   | 12   | 13   | 14  |
|     | Dental - Dentist<br>Dental - Dentist<br>Medical - Pharmacist<br>Support - Security | Dental - Dentist<br>Dental - Hygienist<br>Support - Student<br>Support - Student | Medical - Doctor<br>Medical - Doctor<br>Support - IT                         | 15  |

**Support - Volunteer**

5:30 pm - 8:30 pm

[Signup](#)

# Administrator View



Home Calendar Volunteers Check in/out Administrators Logout

May 2020 Create Slot(s)

| Mon   | Tue   | Wed   | Thu | Fri |
|---|---|---|-----|-----|
| 27  | 28  | 29  | 30  | 1   |
| 4   | 5   | 6   | 7   | 8   |
| <ul style="list-style-type: none"><li>Medical - Nurse</li><li>Medical - Nurse</li><li>Support - Student</li><li>Support - Volunteer</li></ul>     | <ul style="list-style-type: none"><li>Dental - Hygienist</li><li>Medical - Nurse</li><li>Support - Greeter</li><li>Support - Security</li></ul> | <ul style="list-style-type: none"><li>Dental - Dentist</li><li>Dental - Dentist</li><li>Medical - Nurse</li><li>Support - Student</li><li>Support: Cole Weber</li></ul> |     |     |
| 11  | 12  | 13  | 14  | 15  |
| <ul style="list-style-type: none"><li>Dental - Dentist</li><li>Dental - Dentist</li><li>Medical - Pharmacist</li><li>Support - Security</li></ul> | <ul style="list-style-type: none"><li>Dental - Dentist</li><li>Dental - Hygienist</li><li>Support - Student</li><li>Support - Student</li></ul> | <ul style="list-style-type: none"><li>Medical - Doctor</li><li>Medical - Doctor</li><li>Support - IT</li></ul>  |     |     |

Select Date:  ×

Select Type:

Enter Role:

Start Time:

End Time:

Number of Slots:

Create Slot(s)

## Support - Volunteer

5:30 pm - 8:30 pm

Created By: admin

Schedule Slot Delete Slot



# Admin Slot Creation

## Step 1

Logout

Create Slot(s) Filter month week day

Fri Sat

## Step 2

Select Date: 05/12/2020

Select Type: Dental

Enter Role: Dentist

Start Time: 05:30 PM

End Time: 08:30 PM

Number of Slots: 2

Create Slot(s)

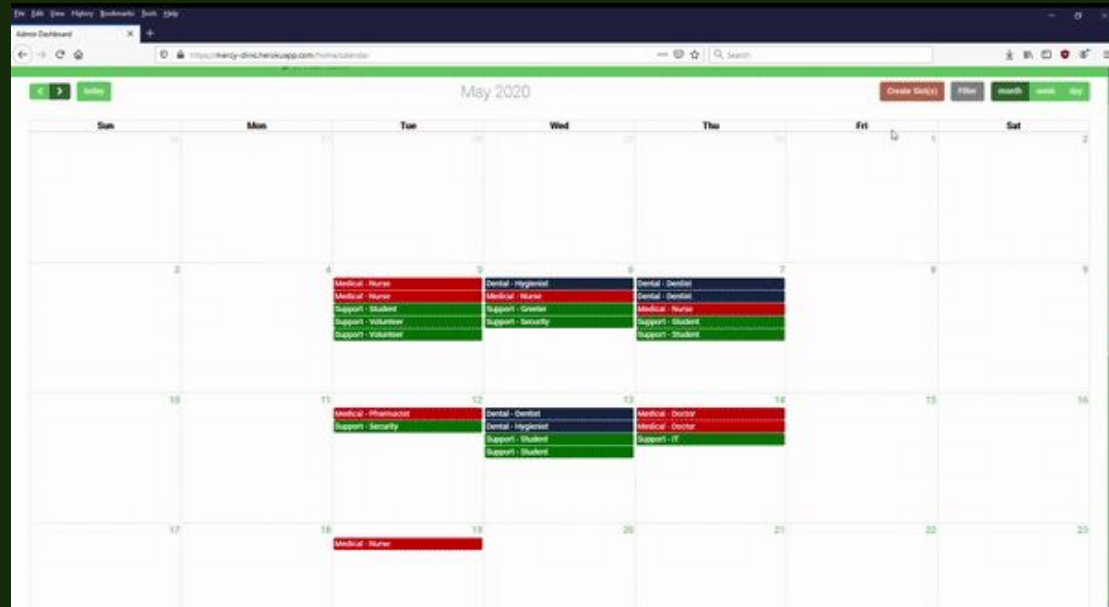
## Step 3

**Dental - Dentist**

5:30 pm - 8:30 pm

Created By: admin

Schedule Slot Delete Slot



# Admin Slot Creation Demo

The screenshot displays a web browser window with the URL <https://mercy-clinic.herokuapp.com/home/calendar>. The page shows a calendar for May 2020. A modal form is open in the center, allowing for the creation of a slot. The form fields are as follows:

- Select Date:
- Select Type:
- Enter Role:
- Start Time:
- End Time:
- Number of Slots:

A **Create Slot(s)** button is located at the bottom of the modal. The calendar background shows various slots for different roles, such as Medical - Nurse, Support - Student, Support - Volunteer, Dental - Dentist, Medical - Pharmacist, Dental - Hygienist, Medical - Doctor, and Support - Security.

# Volunteer Sign Up

Step 1

Medical - Nurse  
Medical - Nurse  
Support - Student  
Support - Volunteer  
Support - Volunteer

Step 2

Support - Student  
5:30 pm - 8:30 pm  
Signup

Step 3

First Name: Cole  
Last Name: Weber  
Email: c.weber7@tcu.edu  
Submit

The screenshot shows the 'Volunteer Dashboard' for May 2020. The calendar grid displays the following assignments:

| Day          | Shift             | Role                |
|--------------|-------------------|---------------------|
| May 11 (Wed) | 5:30 pm - 8:30 pm | Medical - Nurse     |
| May 12 (Thu) | 5:30 pm - 8:30 pm | Support - Student   |
| May 13 (Fri) | 5:30 pm - 8:30 pm | Support - Volunteer |
| May 14 (Sat) | 5:30 pm - 8:30 pm | Support - Security  |
| May 15 (Sun) | 5:30 pm - 8:30 pm | Medical - Nurse     |
| May 16 (Mon) | 5:30 pm - 8:30 pm | Medical - Nurse     |
| May 17 (Tue) | 5:30 pm - 8:30 pm | Medical - Nurse     |
| May 18 (Wed) | 5:30 pm - 8:30 pm | Medical - Nurse     |
| May 19 (Thu) | 5:30 pm - 8:30 pm | Medical - Nurse     |
| May 20 (Fri) | 5:30 pm - 8:30 pm | Medical - Nurse     |
| May 21 (Sat) | 5:30 pm - 8:30 pm | Medical - Nurse     |
| May 22 (Sun) | 5:30 pm - 8:30 pm | Medical - Nurse     |
| May 23 (Mon) | 5:30 pm - 8:30 pm | Medical - Nurse     |
| May 24 (Tue) | 5:30 pm - 8:30 pm | Medical - Nurse     |
| May 25 (Wed) | 5:30 pm - 8:30 pm | Medical - Nurse     |
| May 26 (Thu) | 5:30 pm - 8:30 pm | Medical - Nurse     |
| May 27 (Fri) | 5:30 pm - 8:30 pm | Medical - Nurse     |
| May 28 (Sat) | 5:30 pm - 8:30 pm | Medical - Nurse     |
| May 29 (Sun) | 5:30 pm - 8:30 pm | Medical - Nurse     |
| May 30 (Mon) | 5:30 pm - 8:30 pm | Medical - Nurse     |
| May 31 (Tue) | 5:30 pm - 8:30 pm | Medical - Nurse     |

# Volunteer Sign Up Demo

The screenshot shows a web browser window with the following details:

- Browser: Chrome
- Page Title: Volunteer Dashboard
- URL: https://mercy-clinicherokuapp.com
- Page Header: Mercy Clinic (Est. 1914) with a Login link.
- Calendar: A weekly calendar view with days Sun, Mon, Fri, and Sat. The current date is today (Monday).
- Modal 1 (Top):
  - Form fields: First Name: Cole, Last Name: Weber, Email: c.weber7
  - Submit button
- Modal 2 (Bottom):
  - Title: Support - Student
  - Time: 5:30 pm - 8:30 pm
  - Signup button
- Calendar Content (Visible behind modals):
  - Monday (4th): Medical - Nurse, Support - Student, Support - Volunteer, Support - Volunteer
  - Tuesday (5th): Dental - Dentist, Dental - Dentist, Medical - Pharmacist, Support - Security
  - Wednesday (6th): Dental - Dentist, Dental - Hygienist, Support - Student, Support - Student
  - Thursday (7th): Medical - Doctor, Medical - Doctor, Support - IT
  - Friday (8th): Medical - Nurse

# Admin Slot Management

## View Scheduled Slots

| 4                   | 5                  | 6                 | 7 |
|---------------------|--------------------|-------------------|---|
| Medical - Nurse     | Dental - Hygienist | Dental - Dentist  |   |
| Medical - Nurse     | Medical - Nurse    | Dental - Dentist  |   |
| Support - Volunteer | Support - Greeter  | Medical - Nurse   |   |
| Support - Volunteer | Support - Security | Support - Student |   |
| Support: Cole Weber |                    | Support - Student |   |

## Manually Schedule

Volunteer First Name:

Volunteer Last Name:

Volunteer Email:

## Unschedule

**Support - Student**

5:30 pm - 8:30 pm  
Cole Weber  
c.weber7@tcu.edu

Scheduled By: volunteer

## Delete

**Support - Volunteer**

5:30 pm - 8:30 pm

Created By: admin

## Support - Student

5:30 pm - 8:30 pm

Created By: admin

# Admin Slot Management Demo

The screenshot displays the Admin Dashboard for Mercy Clinic of Fort Worth. The interface includes a navigation bar with icons for Home, Calendar, Volunteers, Check in/out, Administrators, and Logout. A success message "Successfully scheduled slot!" is visible. The main area shows a calendar for May 2020 with a "today" button and a "Create Slot(s)" button. The calendar grid shows scheduled slots for various roles across the month.

| Sun | Mon                  | Tue                | Wed                  | Thu | Fri | Sat |
|-----|----------------------|--------------------|----------------------|-----|-----|-----|
| 26  | 27                   | 28                 | 29                   | 30  | 1   | 2   |
| 3   | 4                    | 5                  | 6                    | 7   | 8   | 9   |
|     | Medical - Nurse      | Dental - Hygienist | Dental - Dentist     |     |     |     |
|     | Medical - Nurse      | Medical - Nurse    | Dental - Dentist     |     |     |     |
|     | Support - Student    | Support - Greeter  | Medical - Nurse      |     |     |     |
|     | Support - Volunteer  | Support - Security | Support - Student    |     |     |     |
|     |                      |                    | Support - Cole Weber |     |     |     |
| 10  | 11                   | 12                 | 13                   | 14  | 15  | 16  |
|     | Dental - Dentist     | Dental - Dentist   | Medical - Doctor     |     |     |     |
|     | Dental - Dentist     | Dental - Hygienist | Medical - Doctor     |     |     |     |
|     | Medical - Pharmacist | Support - Student  | Support - IT         |     |     |     |
|     | Support - Security   | Support - Student  |                      |     |     |     |

# Administrator Features



# Administrator Features

Mercy Clinic  
of Fort Worth

Home Calendar Volunteers Check in/out Administrators Logout

## Administrators

Create Admin

| First  | Last     | Email                    | Phone        | Id  | Edit | Delete |
|--------|----------|--------------------------|--------------|-----|------|--------|
| admin  | admin    | volunteer@meryclinic.org |              | 22  | Edit |        |
| Minh   | Nguyen   | ntm1406@gmail.com        | 817-773-6020 | 302 | Edit | Delete |
| Warren | Riley    | warren.riley@tcu.edu     | 123-123-1234 | 422 | Edit | Delete |
| Cole   | Weber    | c.weber7@tcu.edu         | 555-555-5555 | 432 | Edit | Delete |
| Wynn   | Pho      | u.pho@tcu.edu            | 669-225-9193 | 492 | Edit | Delete |
| Kenzie | Clarke   | kenzie.clarke@tcu.edu    | 123-405-4305 | 522 | Edit | Delete |
| Nestor | Guerrero | n.a.guerrero@tcu.edu     | 888-888-9999 | 572 | Edit | Delete |

« 0 »





# Create Admin



Home



Calendar



Volunteers



Check in/out



Administrators



Logout

## Create New Administrator

**First Name \***

**Last Name \***

**Email \***

**Phone \***

**Gender** Male  Female  Other

**User Name \***

**Password \***

Create

# Edit Admin



Home



Calendar



Volunteers



Check in/out



Administrators



Logout

## Edit Administrator

**First Name \***

admin



**Last Name \***

admin

**Email \***

volunteer@meryclinic.org

**Phone**

**Gender**

Male  Female  Other

**User Name \***

admin

**Password \***

.....



Submit

# Delete Admin



Home



Calendar



Volunteers



Check in/out



Administrators



Logout

## Administrators

Create Admin

| First  | Last   | Email                    | Phone        | Id  | Edit | Delete |
|--------|--------|--------------------------|--------------|-----|------|--------|
| admin  | admin  | volunteer@meryclinic.org |              | 22  | Edit |        |
| Minh   | Nguyen | ntm1406@gmail.com        | 817-773-6020 | 302 | Edit | Delete |
| Warren | Riley  | warren.riley@tcu.edu     | 123-123-1234 | 422 | Edit | Delete |
| Cole   | Weber  | c.weber7@tcu.edu         | 555-555-5555 | 432 | Edit | Delete |
| Wynn   | Pho    | u.pho@tcu.edu            | 669-225-9193 | 492 | Edit | Delete |
| Kenzie | Clarke | kenzie.clarke@tcu.edu    | 123-405-4305 | 522 | Edit | Delete |

« 0 »

Are you sure you want to delete?

Delete

Cancel

# Volunteer Features



# View Volunteers



Home



Calendar



Volunteers



Check in/out



Administrators



Logout

## Volunteers

| First     | Last     | Email               | Phone   | Department         | Role                 | Hours                | Edit                   | Delete                 |
|-----------|----------|---------------------|---------|--------------------|----------------------|----------------------|------------------------|------------------------|
| Abby      | Ashlock  | client information* |         | Support            | Student - TCU        | <a href="#">View</a> | <a href="#">Edit</a>   | <a href="#">Delete</a> |
| Abigail   | Sprunger |                     | Medical | Student - UNT Med  | <a href="#">View</a> | <a href="#">Edit</a> | <a href="#">Delete</a> |                        |
| Affan     | Ahmed    |                     | Support | Student - UNT Med  | <a href="#">View</a> | <a href="#">Edit</a> | <a href="#">Delete</a> |                        |
| Alberto   | Ramirez  |                     | Support | Spanish Translator | <a href="#">View</a> | <a href="#">Edit</a> | <a href="#">Delete</a> |                        |
| Alexa     | Calcagno |                     | Medical | Student - UNT Med  | <a href="#">View</a> | <a href="#">Edit</a> | <a href="#">Delete</a> |                        |
| Alexa     | Westberg |                     | Medical | Student - UNT Med  | <a href="#">View</a> | <a href="#">Edit</a> | <a href="#">Delete</a> |                        |
| Alexander | Tran     |                     | Support | Pharmacist         | <a href="#">View</a> | <a href="#">Edit</a> | <a href="#">Delete</a> |                        |
| Alexandra | Wuller   |                     | Medical | Student - TCU      | <a href="#">View</a> | <a href="#">Edit</a> | <a href="#">Delete</a> |                        |
| Alfred    | Abraham  |                     | Medical | Student - UNT Med  | <a href="#">View</a> | <a href="#">Edit</a> | <a href="#">Delete</a> |                        |
| Alice     | Stratton |                     | Medical | Nurse              | <a href="#">View</a> | <a href="#">Edit</a> | <a href="#">Delete</a> |                        |
| Alice     | Liu      |                     | Support | IT                 | <a href="#">View</a> | <a href="#">Edit</a> | <a href="#">Delete</a> |                        |

# Create Volunteer



Home



Calendar



Volunteers



Check in/out



Administrators



Logout

## Create Volunteer

**First Name**



**Last Name**

**Gender**

Male  Female  Other

**Department**

**Role**

**Birthday:**

**Email**

**Phone**

Submit

# Edit Volunteer



Home



Calendar



Volunteers



Check in/out



Administrators



Logout

## Edit Volunteer

**First Name**

Abby



**Last Name**

Ashlock

**Gender**

Male  Female  Other

**Department**

Support ▾

**Role**

Student - TCU

**Email**

a.b.ashlock@tcu.edu

**Phone**

661-993-0893

Submit



# Delete Volunteer

Mercy Clinic of Fort Worth

Home Calendar Volunteers Check in/out Administrators Logout

## Volunteers

First Name Last Name

| First     | Last     | Email | Phone | Department | Role               | Hours | Edit | Delete |
|-----------|----------|-------|-------|------------|--------------------|-------|------|--------|
| Abby      | Ashlock  |       |       | Support    | Student - TCU      | View  | Edit | Delete |
| Abigail   | Sprunger |       |       | Medical    | Student - UNT Med  | View  | Edit | Delete |
| Affan     | Ahmed    |       |       | Support    | Student - UNT Med  | View  | Edit | Delete |
| Alberto   | Ramirez  |       |       | Support    | Spanish Translator | View  | Edit | Delete |
| Alexa     | Calcagno |       |       | Medical    | Student - UNT Med  | View  | Edit | Delete |
| Alexa     | Westberg |       |       | Medical    | Student - UNT Med  | View  | Edit | Delete |
| Alexander | Tran     |       |       | Support    | Student - UNT Med  | View  | Edit | Delete |
| Alexandra | Wuller   |       |       | Medical    | Student - UNT Med  | View  | Edit | Delete |
| Alfred    | Abraham  |       |       | Medical    | Student - UNT Med  | View  | Edit | Delete |
| Alice     | Stratton |       |       | Medical    | Student - UNT Med  | View  | Edit | Delete |
| Alice     | Liu      |       |       | Support    | Student - UNT Med  | View  | Edit | Delete |

client information\*

Are you sure you want to delete?

Delete Cancel

# View Volunteer Hours



Home



Calendar



Volunteers



Check in/out



Administrators



Logout

## Volunteer Hour Report

Warren Riley:

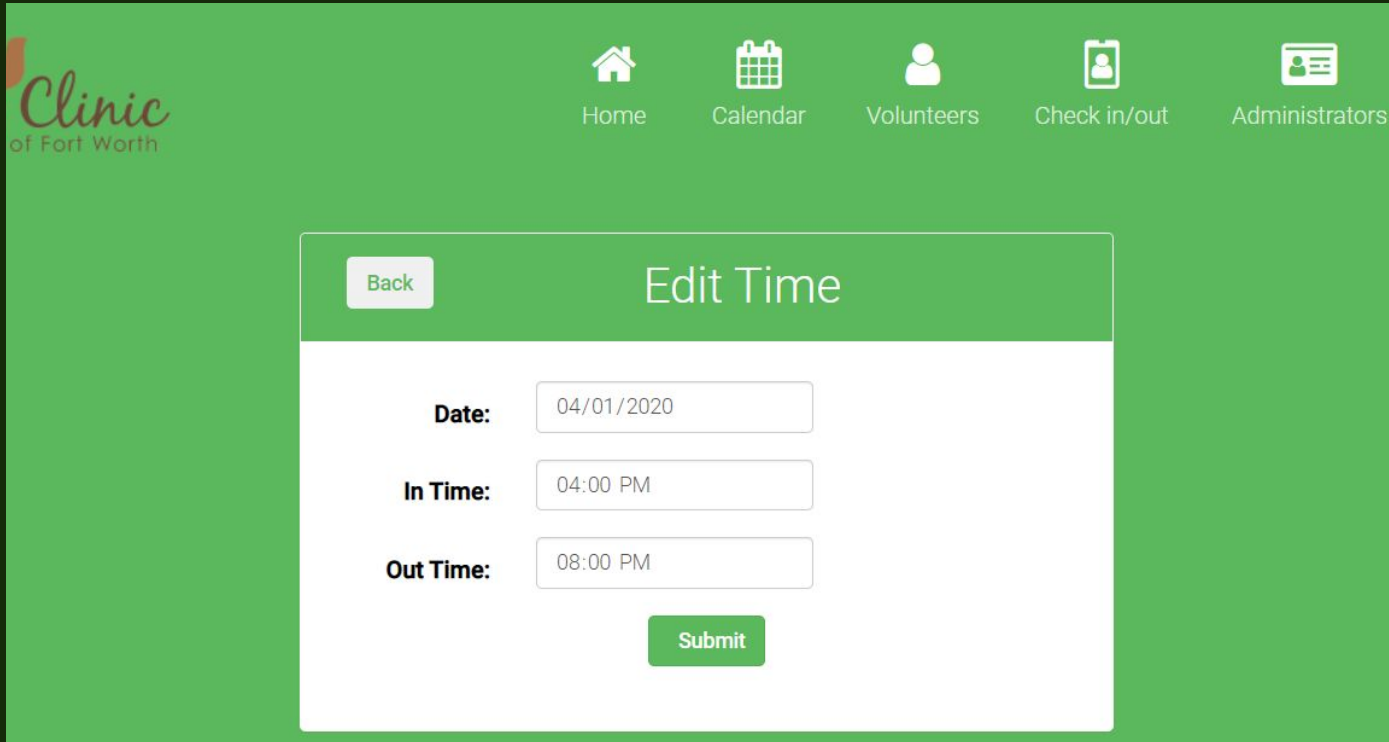
Back

Add Hours

Generate Report

| Date       | Check In  | Check Out | Duration | Edit                 | Delete                 |
|------------|-----------|-----------|----------|----------------------|------------------------|
| 2020-04-01 | 4:00 P.M. | 8:00 P.M. | 04:00:00 | <a href="#">Edit</a> | <a href="#">Delete</a> |
| 2020-04-08 | 5:00 P.M. | 6:00 P.M. | 01:00:00 | <a href="#">Edit</a> | <a href="#">Delete</a> |
| 2020-04-15 | 4:30 P.M. | 7:00 P.M. | 02:30:00 | <a href="#">Edit</a> | <a href="#">Delete</a> |
| 2020-04-22 | 5:00 P.M. | 7:00 P.M. | 02:00:00 | <a href="#">Edit</a> | <a href="#">Delete</a> |
| 2020-04-29 | 3:00 P.M. | 5:00 P.M. | 02:00:00 | <a href="#">Edit</a> | <a href="#">Delete</a> |

# Edit Volunteer Hours



The screenshot shows a web interface for editing volunteer hours. At the top left is the logo for 'Clinic of Fort Worth'. A navigation bar contains icons and labels for 'Home', 'Calendar', 'Volunteers', 'Check in/out', and 'Administrators'. The main content area is a white box with a green header that says 'Edit Time' and a 'Back' button. Below the header are three input fields: 'Date' with the value '04/01/2020', 'In Time' with the value '04:00 PM', and 'Out Time' with the value '08:00 PM'. A green 'Submit' button is located at the bottom of the form.

**Clinic**  
of Fort Worth

Home Calendar Volunteers Check in/out Administrators

[Back](#) Edit Time

**Date:**

**In Time:**

**Out Time:**

# Delete Volunteer Hours



Home



Calendar



Volunteers



Check in/out



Administrators



Logout

## Volunteer Hour Report

Warren Riley:

Back

Add Hours

Generate Report

| Date       | Check In  | Check Out | Duration | Edit | Delete |
|------------|-----------|-----------|----------|------|--------|
| 2020-04-01 | 4:00 P.M. | 8:00 P.M. | 04:00:00 | Edit | Delete |
| 2020-04-08 | 5:00 P.M. | 6:00 P.M. | 01:00:00 | Edit | Delete |
| 2020-04-15 | 4:30 P.M. | 7:00 P.M. | 02:30:00 | Edit | Delete |
| 2020-04-22 | 5:00 P.M. | 7:00 P.M. |          | Edit | Delete |
| 2020-04-29 | 3:00 P.M. | 5:00 P.M. |          | Edit | Delete |

Are you sure you want to delete?

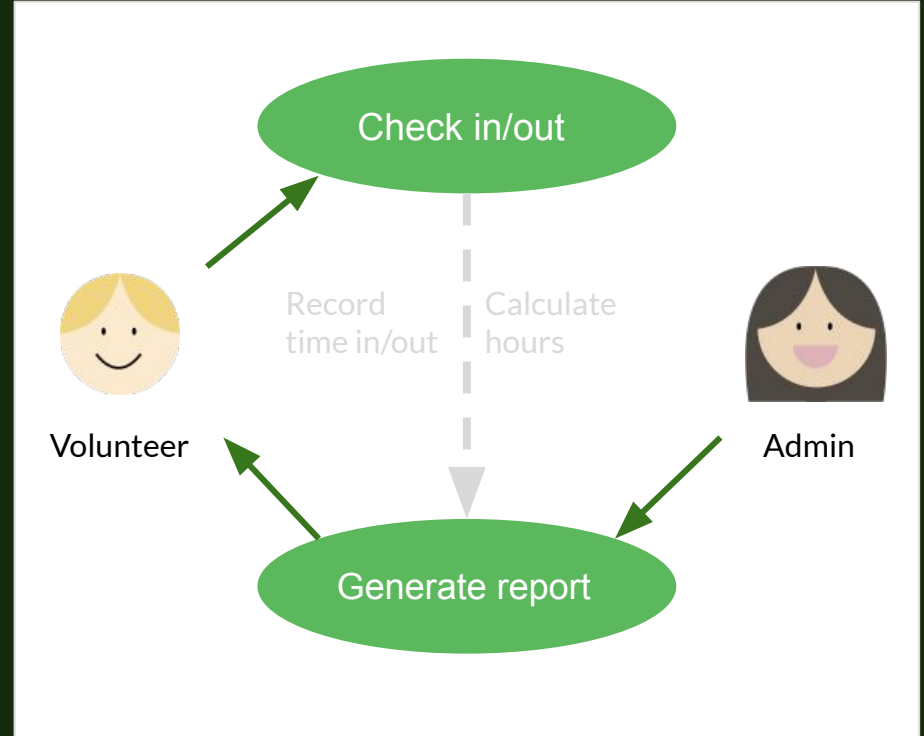
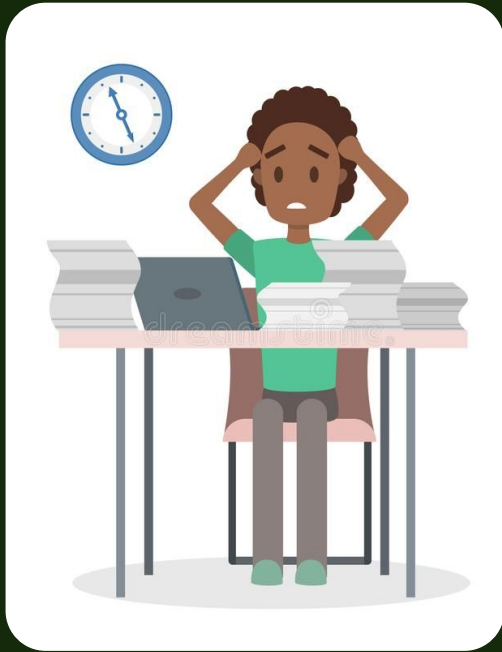
Delete

Cancel

Check in/out Feature

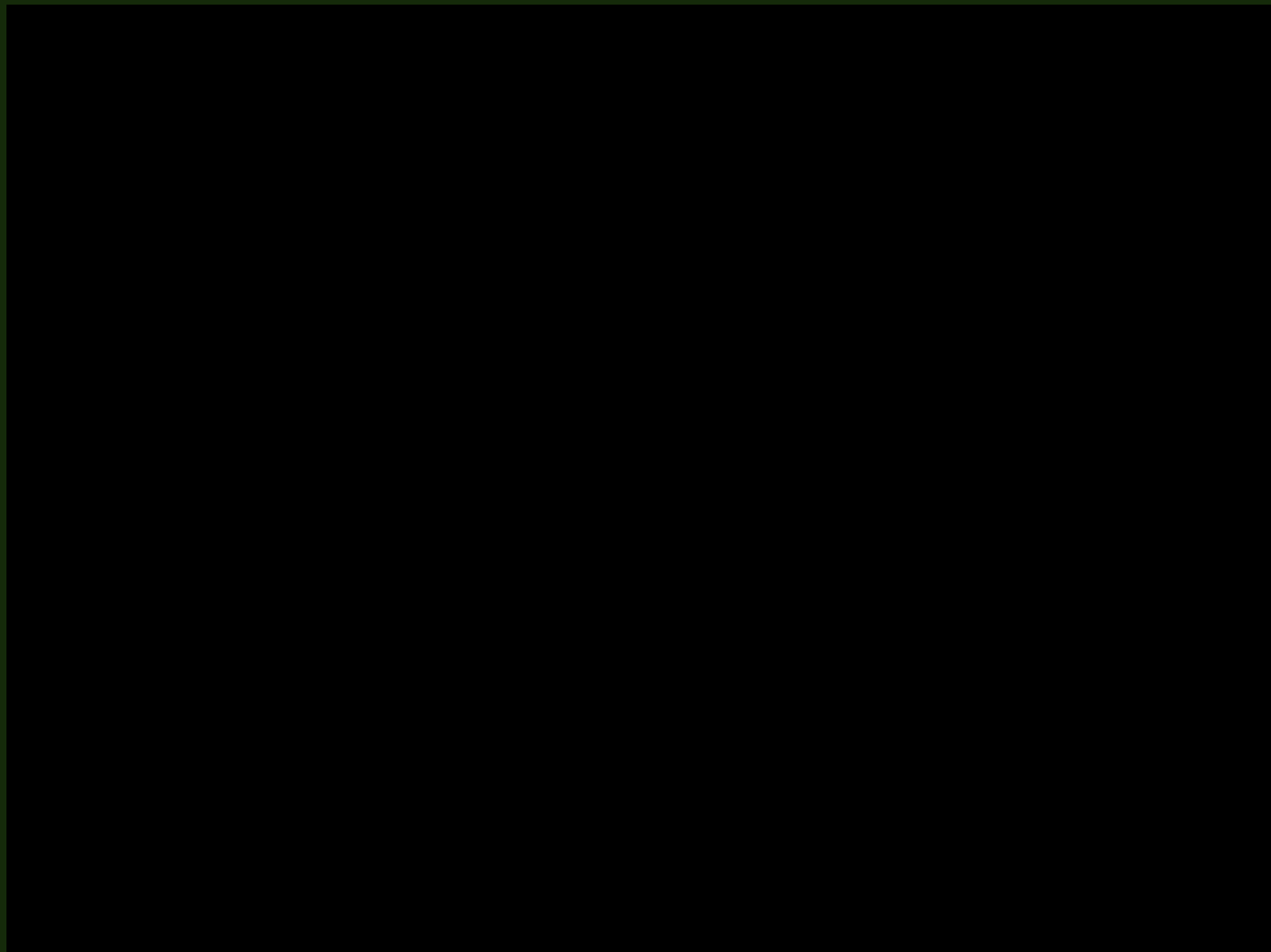


# Check in/out Feature





Demo



# Extra Features





Log in

# Mercy Clinic Admin Portal

[Forgot password?](#)



admin



.....

Login

# Forgot password

Mercy Clinic Admin Portal

Forgot password?

admin


.....


Login

# Forgot password

## Forgot Password

[Back](#)

 ntm1406

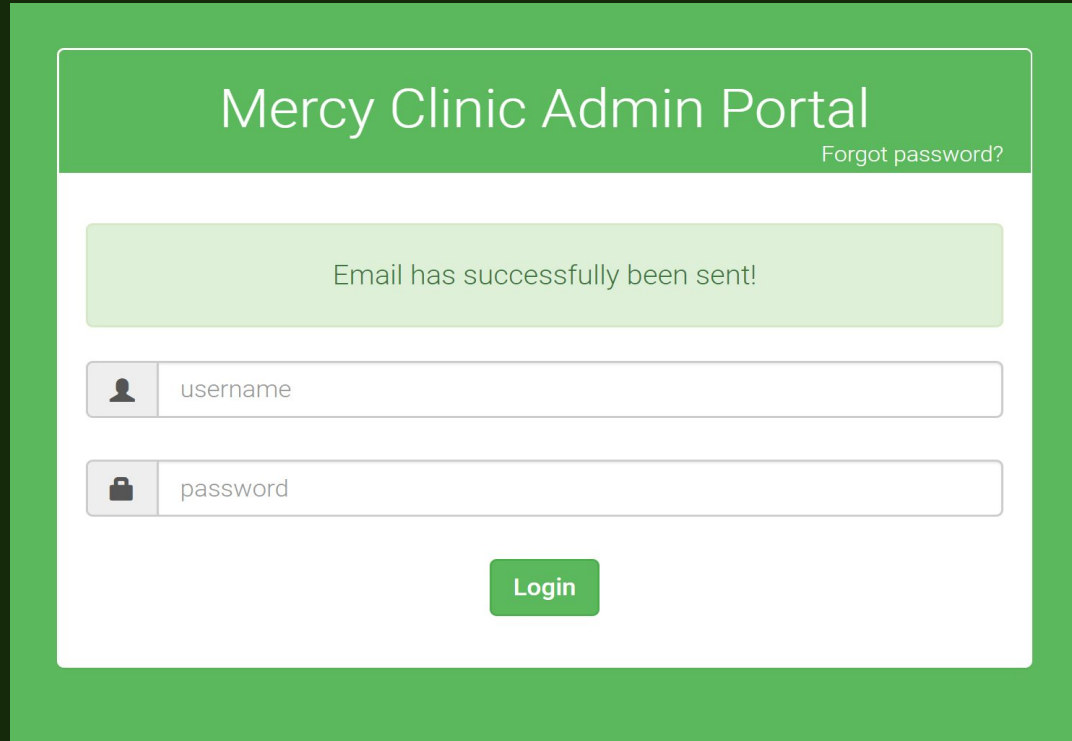
 ntm1406@gmail.com

[Send Email](#)

---

Don't remember these? Email [volunteer@mercy-clinic.org](mailto:volunteer@mercy-clinic.org) for help.

# Forgot password



Mercy Clinic Admin Portal

[Forgot password?](#)

Email has successfully been sent!

[Login](#)

The image shows a screenshot of a web application interface. At the top, there is a green header with the text 'Mercy Clinic Admin Portal' and a link 'Forgot password?'. Below the header is a light green box containing the message 'Email has successfully been sent!'. Underneath this message are two input fields: one for 'username' with a person icon and one for 'password' with a lock icon. At the bottom center, there is a green 'Login' button.

# Forgot password



Mercy Clinic(DO NOT.

Forgotten Password - Minh Nguyen, We recieved a request for a forgotten password on the...

## Forgotten Password



Inbox x



**Mercy Clinic(DO NOT REPLY)** <volunteer@mercy-clinic.org>

1:33 AM (4 minutes ago)



to me ▾

Minh Nguyen,

We recieved a request for a forgotten password on the Mercy Clinic Admin Portal.

Please use this link to reset your password: [https://mercy-clinic.herokuapp.com/resetpassword/302/eyJ0eXAiOiJKV1QiLCJhbGciOiJIUz11NiJ9.eyJpZCI6MzAyLzJibWFpbi50bTE0MDZAZ21haWwuY292liwiZXhwIjpudWxsQ.M1MfpK1OyU8N7H8ep\\_NObMresIDBsg6lm38sOzKCs](https://mercy-clinic.herokuapp.com/resetpassword/302/eyJ0eXAiOiJKV1QiLCJhbGciOiJIUz11NiJ9.eyJpZCI6MzAyLzJibWFpbi50bTE0MDZAZ21haWwuY292liwiZXhwIjpudWxsQ.M1MfpK1OyU8N7H8ep_NObMresIDBsg6lm38sOzKCs)


If you did not make a forgotten password request, it would be a good idea to change your password and secure your email account.


Thank you,


The Mercy Clinic Team

# Forgot password

## Reset Password

 ntm1406

 .....

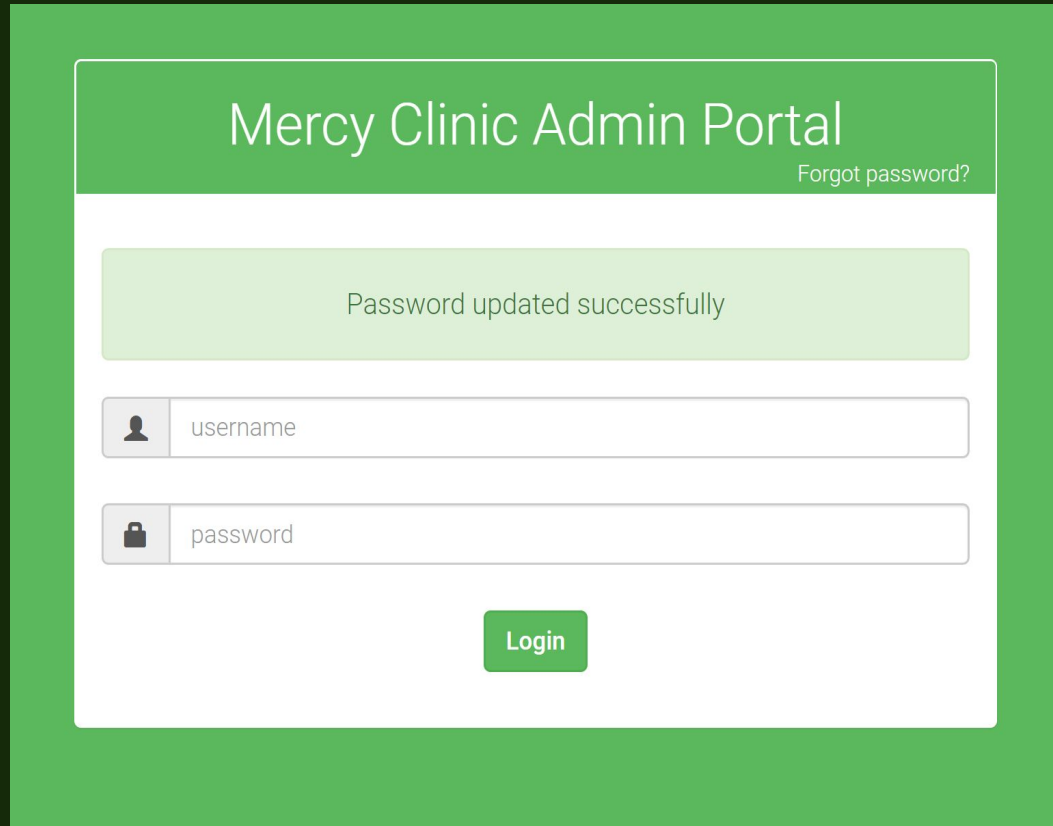
 .....|

**Reset Password**

---

Don't remember these? Email [volunteer@mercy-clinic.org](mailto:volunteer@mercy-clinic.org) for help.


# Forgot password




Mercy Clinic Admin Portal

[Forgot password?](#)

Password updated successfully

 username

 password

Login



# Hashed password

- Hashing:
  - One way function
  - Irreversible

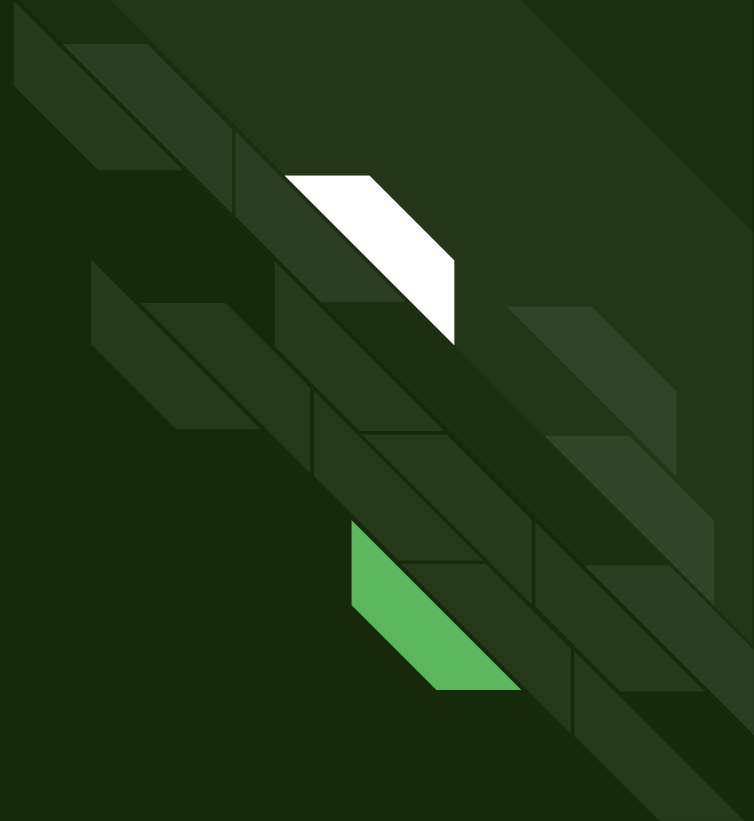
password

\$2a\$10\$lv8PygKMFOP9st6/1tIL9uoENcYhIGcdRIErF2LW5OtvofKk58.Aq



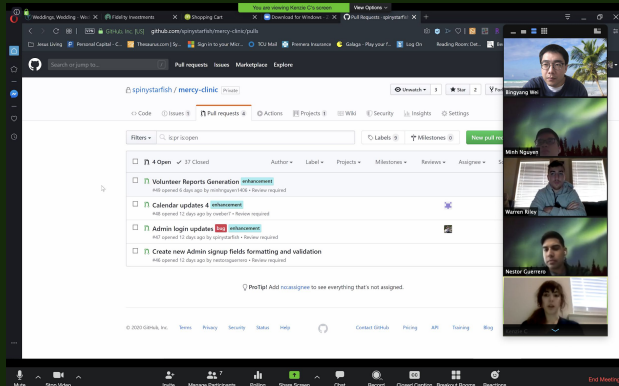
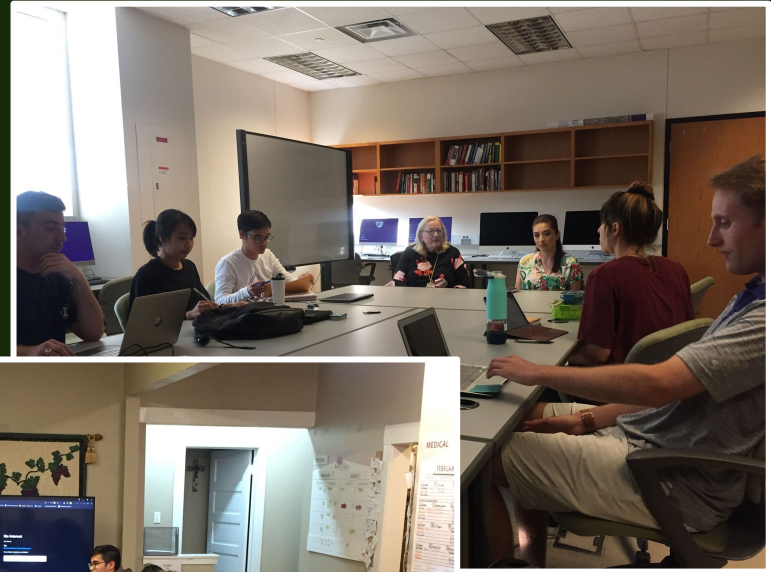


What We Learned?



# What We Learned

- New technologies (Heroku, Git, & Nodejs)
- Quarantine coding is hard
- Keep clients in the loop



# Credits

- The Mercy Clinic Administrative Staff
- Dr. Bingyang Wei
- TCU Computer Science Department

