

**“My Clinic”**

**Start2Impact**

**Full Stack Development Master**

**Final Project**



[https://github.com/diegoddie/S2I\\_FullStack\\_FinalProject\\_MERNclinic](https://github.com/diegoddie/S2I_FullStack_FinalProject_MERNclinic)

Deployed Project at [www.myclinic.tech](http://www.myclinic.tech)

**Diego Lauricella**

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# 01 - INTRODUCTION

**MyClinic is a Full Stack MERN application for a private clinic.**

**MyClinic is a comprehensive solution designed for managing various aspects of a private clinic, from appointment scheduling to managing doctors' permissions and vacation days.**



# 02 - TECH STACK

## BACKEND



- Node.js
- Express.js
- MongoDB
- Mongoose
- JWT
- NodeMailer
- Express-Validator
- Other

# 02 - TECH STACK

## FRONTEND

- React
- Tailwindcss
- Axios
- React Icons
- React Router Dom
- Toastify
- Slick Carousel
- Other



## Auth & Security

When users register, they receive a confirmation email containing a unique link to verify their account, ensuring that only legitimate users gain access.

Express-validator is utilized as a sanitizer for user input.

Middleware functions have been added to provide protection based on user type (patient, doctor, administrator) for specific routes.

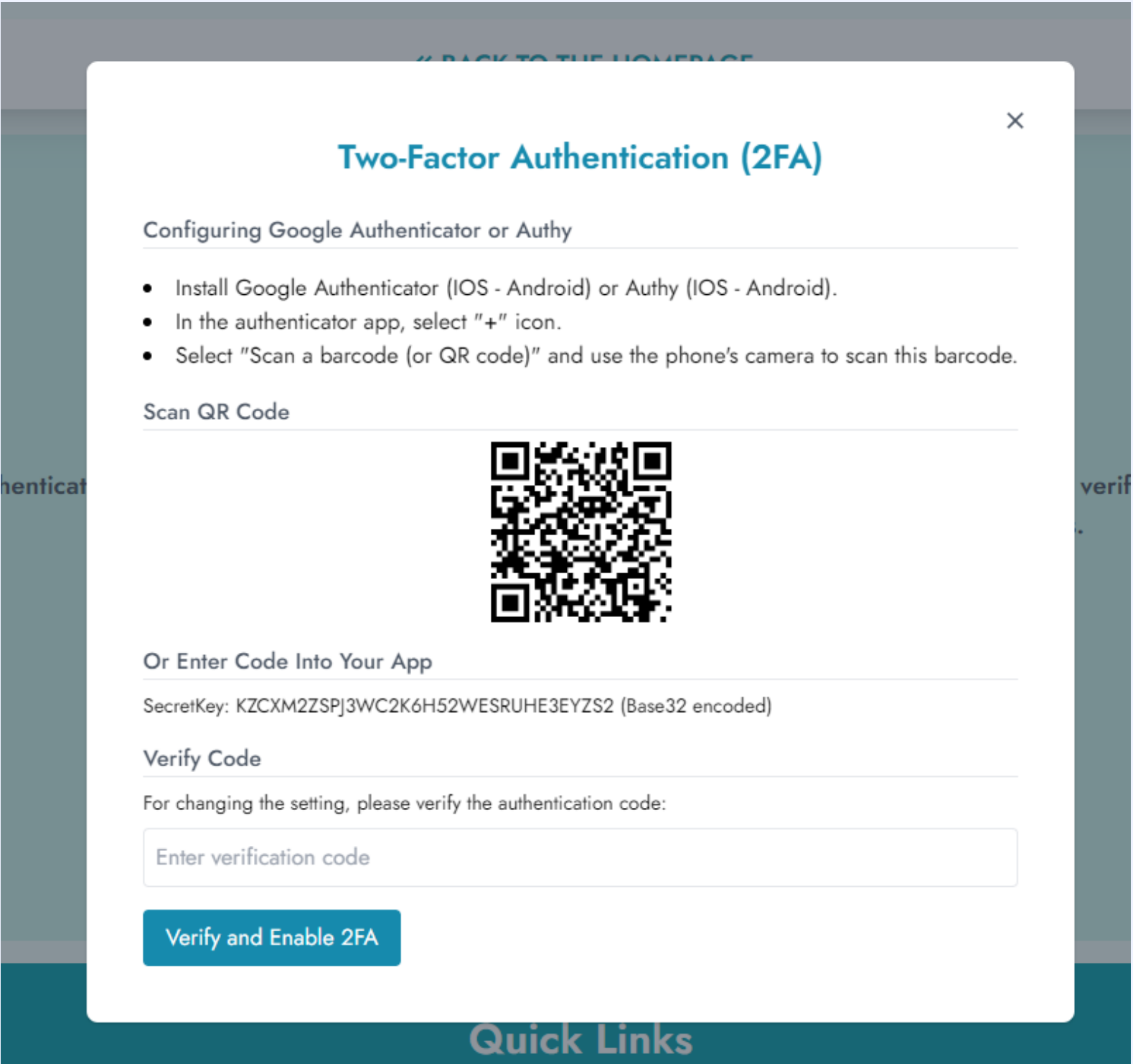
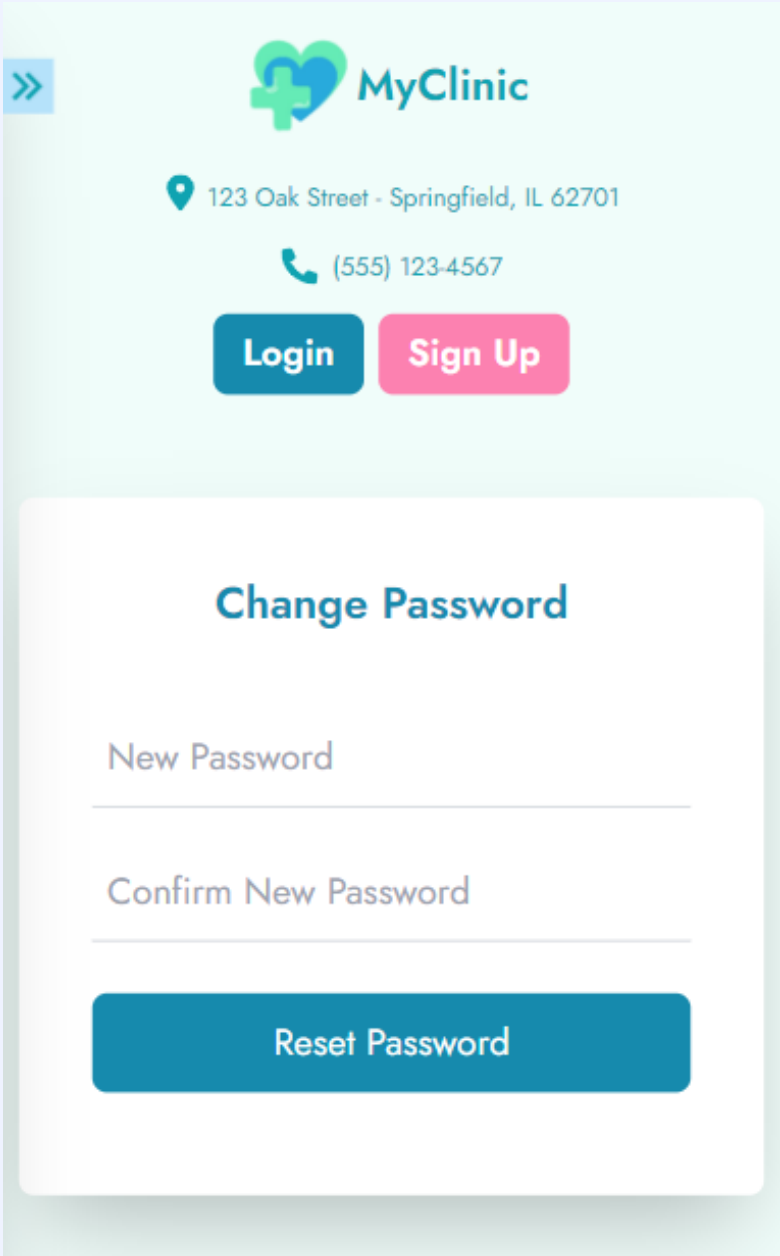
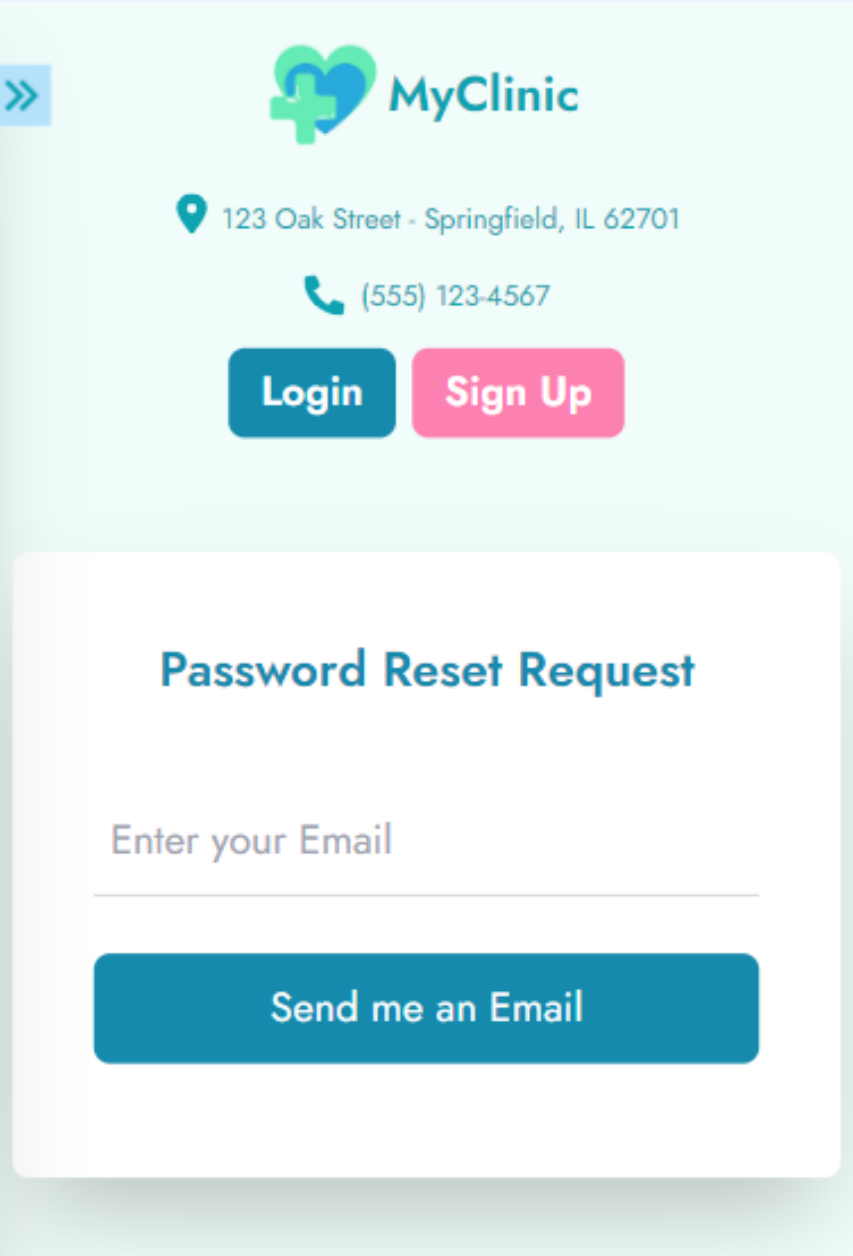


For login authentication, we utilize JSON Web Tokens (JWT) and Cookies, with JWTs expiring after 8 hours. This approach enhances security by limiting the duration of user sessions and mitigating the risk of unauthorized access.

Additionally, users can opt to enable two-factor authentication (2FA), adding an extra layer of protection to their accounts.

Password reset functionality has been implemented to allow users to reset their password if forgotten.

## Auth & Security



## UI-UX

The application is designed to be responsive, ensuring optimal user experience across devices of varying screen sizes, including desktops, tablets, and smartphones.

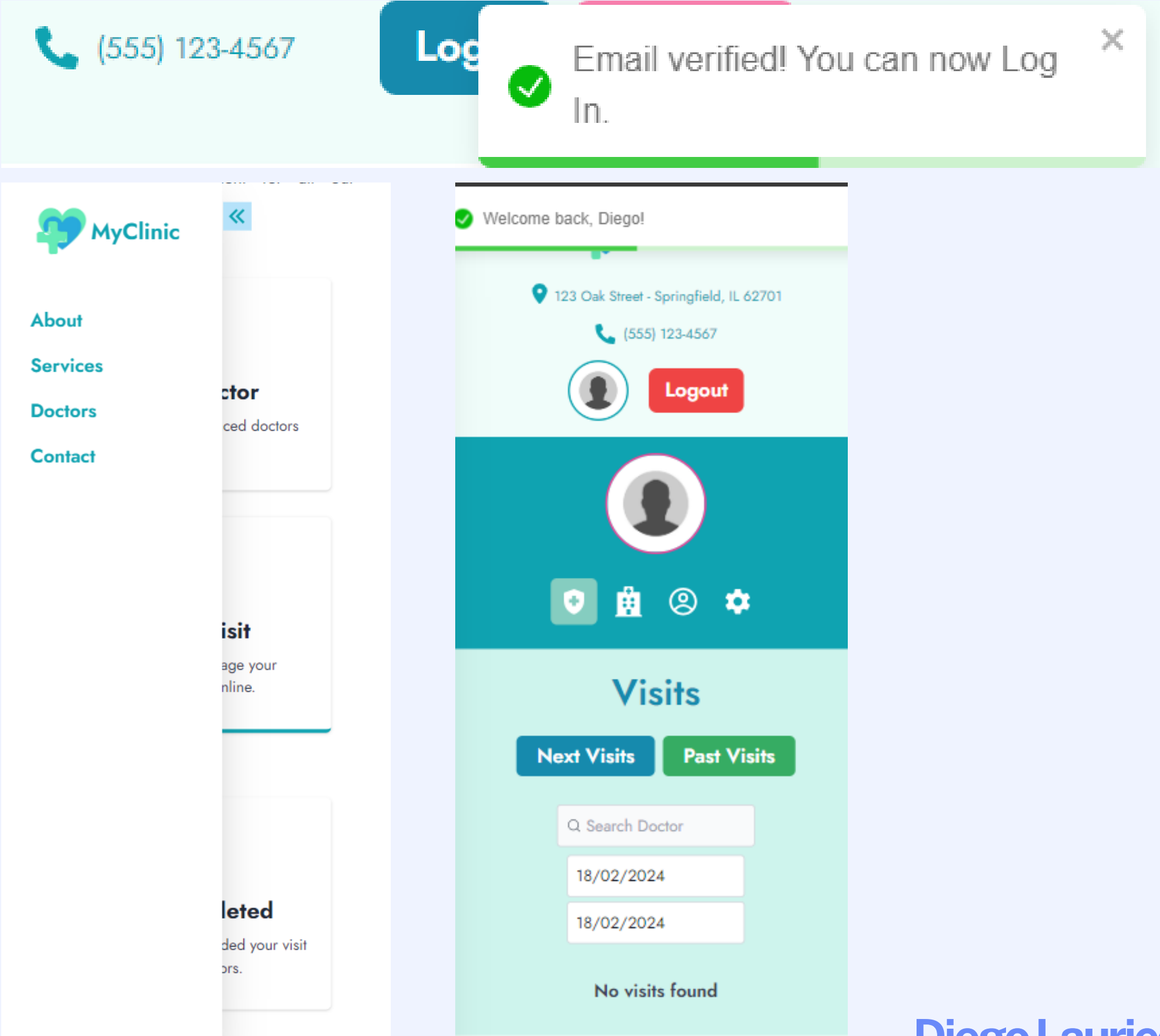
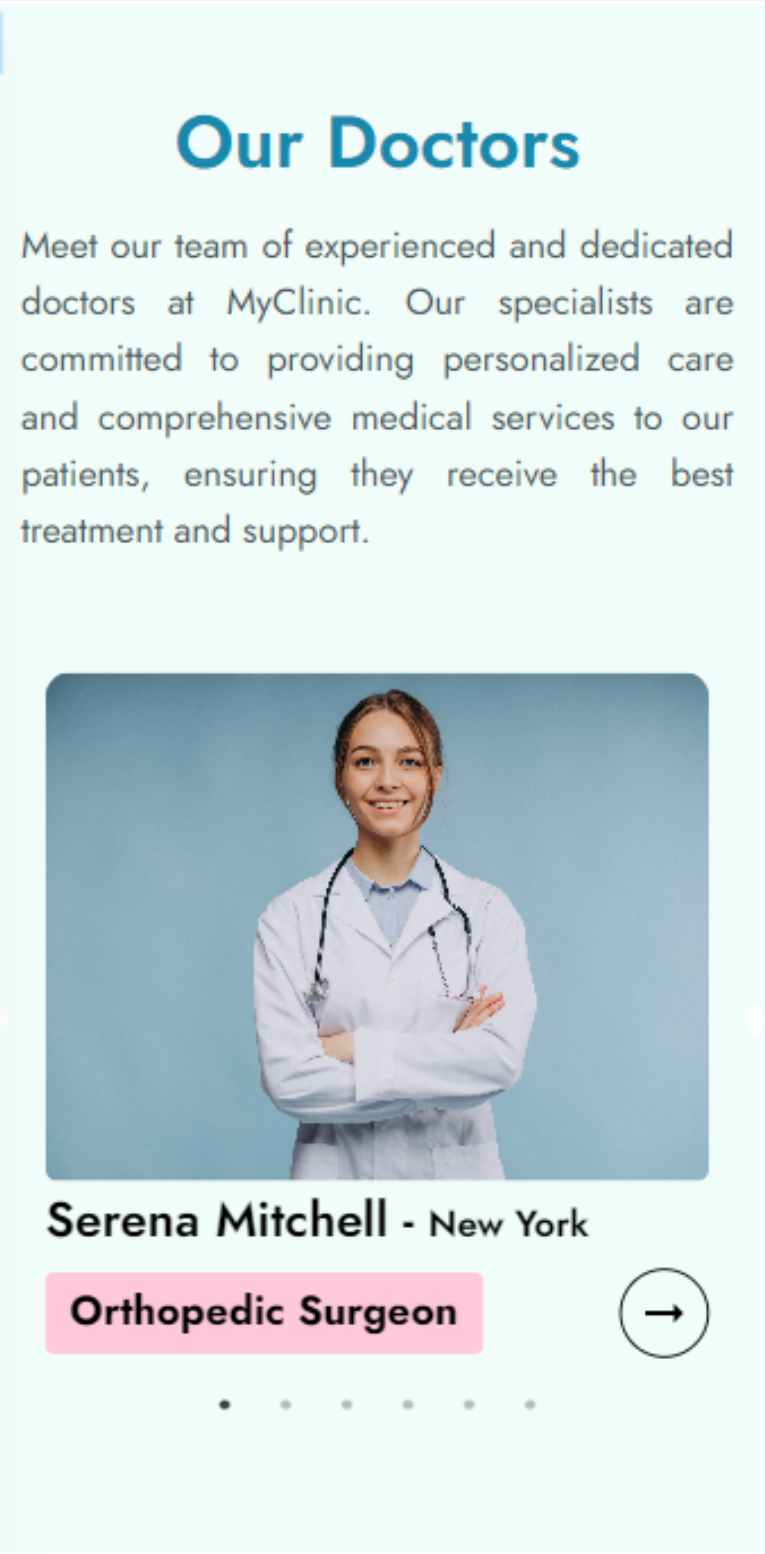
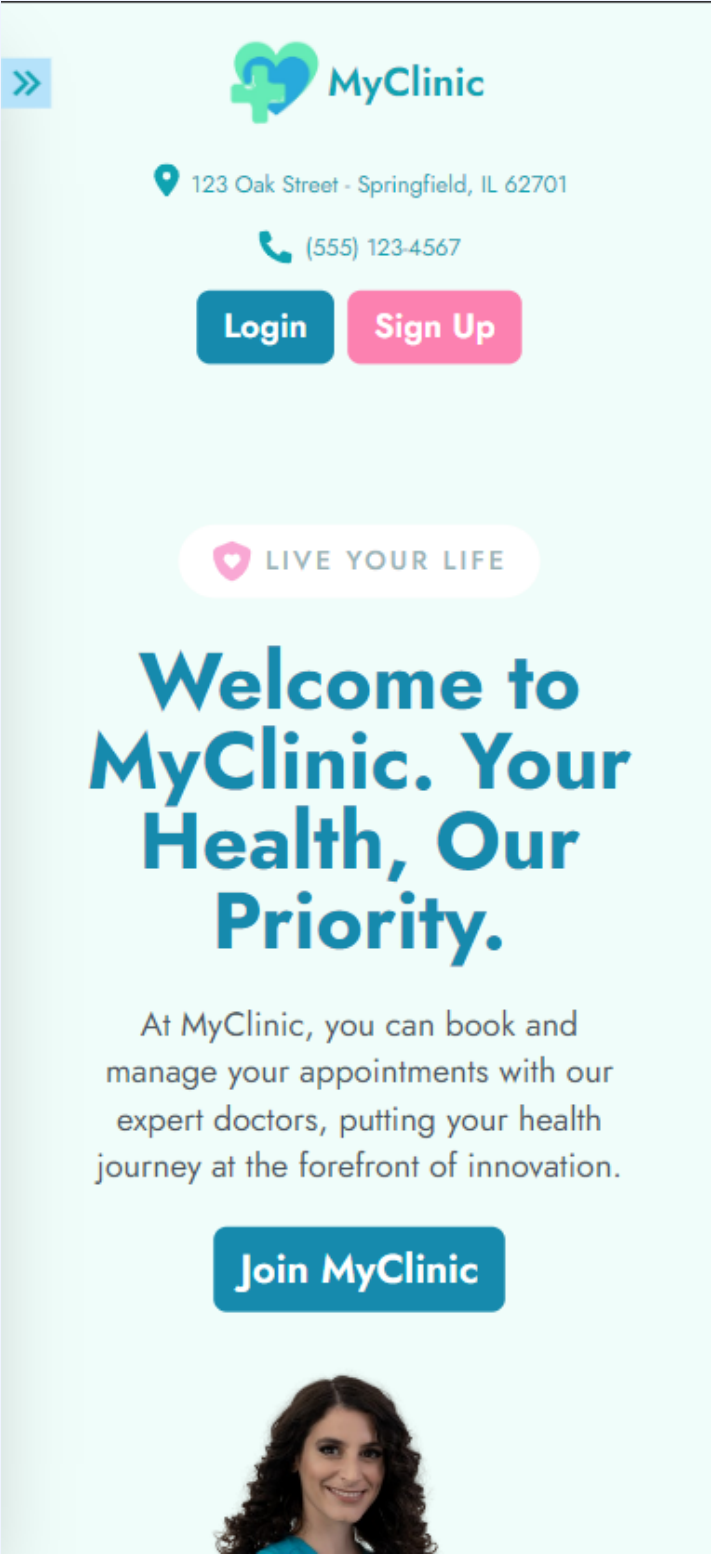


A clear and intuitive user interface is essential for both clinic staff and patients to efficiently navigate and utilize the application.

Toastify has been implemented for action notifications.



## UI-UX



## PATIENT

A patient can filter doctors based on name, specialization, or city

Can schedule and cancel appointments, receiving email updates.

Can view the list of past appointments and download any attachments (such as invoices).



## PATIENT



Booking Details

19/02/2024 09:00

Patient: Diego Lauricella

Doctor: Victor Nguyen (Neurologist)

Confirm

Victor Nguyen

Neurologist

AboutContactsBook

Next Availability

MON

19/02/2024

09:00


Book

Visits

Next VisitsPast Visits

Q Search Doctor

01/01/202417/02/2024

Date ↓	Patient	Doctor	Specialization	Action
12/02/2024 16:00	Diego Lauricella	Victor Nguyen	Neurologist	

## DOCTOR

Receives a welcome email with a temporary password when created by the administrator, allowing them to access the system.

Receives an email whenever a patient schedules or cancels a visit, keeping them updated on scheduled activities.

Can make requests for vacation and leave, which must then be authorized by the administrator.

The doctor's availability is real-time and takes into account work shifts, any other scheduled appointments, and authorized vacation/leave days.



# 03 - FEATURES & USAGE

## DOCTOR

<input type="checkbox"/> ☆ mydevjourney22 3	Welcome to Our Clinic! - Welcome to our clinic! Your temporary password is: Ofn2WC4Ye9. Please use this password to log in here. You can change it later.
<input type="checkbox"/> ☆ mydevjourney22	Visit Cancellation - Visit Cancellation Patient: Diego Lauricella Tax ID: LRCDGI98D22B157O The visit scheduled on 16/02/2024 10:00 has been cancelled.
<input type="checkbox"/> ☆ mydevjourney22	New Visit Scheduled - New Visit Scheduled Date: 16/02/2024 10:00 Patient: Diego Lauricella Tax ID: LRCDGI98D22B157O

### Leave Management

PendingAll RequestsNew Request

Created At ↓	To	Status	Action
17/02/2024 11:10	2/2024	Pending	
17/02/2024 11:11	2024 12:30	Pending	
17/02/2024 12:30	2024 00:00	Pending	
17/02/2024 12:35	2024 17:00	Pending	

#### New Request

Vacation ☐ Leave ☒

From

18/02/2024 18:30

To

February 2024

Su	Mo	Tu	We	Th	Fr	Sa
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	1	2

Time

18:00

18:30

19:00

19:30

20:00

20:30

21:00

### Opening

Monday - Thursday

Friday - Saturday

## ADMIN

Create new doctors (with their respective work shifts) or remove existing ones

Authorize or decline leave/vacation requests from doctors. Admins receive email notifications whenever a doctor submits a new request for vacation/leave.



Book appointment on behalf of patients


Record payments for completed visits, including attaching documentation such as invoices



## ADMIN

×

Add A New Doctor



Click to upload or drag and drop  
PNG, JPEG or JPG (max. 10MB)

First Name

Last Name

Email

TaxId

Phone Number

Specialization

City

About

Work Shifts

☐ Default

☒ Custom

Select Work Days

☐ Monday

☐ Tuesday

☐ Wednesday

☒ Thursday

☐ Friday

☐ Saturday

Thursday:


--:--

🕒

--:--

🕒

Add A New Doctor



☰

🏠


🛡️

📅

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Dashboard

19:37:19  
Sunday 18 February 2024




Visits Today

0




Pending Payments

2



Leave Requests

4



Revenue 2024 (\$)

1,100.00

Leave Management						
Doctor	Created At ↓	Type	From ↓	To	Status	Action
Diego Lauricella	17/02/2024 11:10	Vacation	26/02/2024	29/02/2024	Pending	<div>Approve</div> <div>Decline</div>
Diego Lauricella	17/02/2024 11:11	Leaves	28/02/2024 10:00	28/02/2024 12:30	Pending	<div>Approve</div> <div>Decline</div>
Diego Lauricella	17/02/2024 12:30	Leaves	13/02/2024 00:00	28/02/2024 00:00	Pending	<div>Approve</div> <div>Decline</div>
Diego Lauricella	17/02/2024 12:35	Leaves	06/02/2024 14:00	06/02/2024 17:00	Pending	<div>Approve</div> <div>Decline</div>



These are just some of the features you can explore by navigating to [myclinic.tech](http://myclinic.tech). You can use the platform by creating a regular account as a Patient.

However, if you'd like to experience an Administrator account to also try to create a Doctor user, you can log in with the email [diego.boosta@gmail.com](mailto:diego.boosta@gmail.com) and password ABCa123.

Enjoy your experience!



# 04 - API ENDPOINTS

## AUTH API

Here are the available API endpoints that you can test using Postman

- POST /sign-up: Sign up a new user. (For patients only)
- POST /doctor/create: Sign up a new doctor. (For admin only)
- POST /request-new-verification-email: Request a new verification email.
- POST /user/sign-in: Sign in an existing user/admin.
- POST /doctor/sign-in: Sign in an existing doctor.
- POST /user/verify-password: Verify user's password.
- POST /doctor/verify-password: Verify doctor's password.
- POST /user/password-reset-request: Request a password reset for a user/admin.
- POST /doctor/password-reset-request: Request a password reset for a doctor.
- POST /user/password-reset/:token: Reset the password for a user/admin using the provided token.
- POST /doctor/password-reset/:token: Reset the password for a doctor using the provided token.
- POST /user/generate2FA/:id: Generate a two-factor authentication for a user/admin.
- POST /doctor/generate2FA/:id: Generate a two-factor authentication for a doctor.
- POST /user/verify2FA/:id: Verify a two-factor authentication for a user/admin.
- POST /doctor/verify2FA/:id: Verify a two-factor authentication for a doctor.
- POST /user/disable2FA/:id\*: Disable two-factor authentication for a user/admin.
- POST /doctor/disable2FA/:id\*: Disable two-factor authentication for a doctor.
- GET /sign-out: Sign out the current user.
- GET /user/verify-email/:token: Verify the user's email address using the provided token.
- GET /doctor/verify-email/:token: Verify the doctor's email address using the provided token.

# 04 - API ENDPOINTS

## PATIENT API

Here are the available API endpoints that you can test using Postman

**PUT /user/update/:id:** Update user/admin information.

**DEL /user/delete/:id:** Delete a user/admin.

**GET /user/profile/:id:** Get the profile of a specific user/admin.

**GET /user:** Get all users (For admin only)

# 04 - API ENDPOINTS

## DOCTOR API

Here are the available API endpoints that you can test using Postman

**PUT /doctor/update/:id:** Update doctor's information.

**PUT /doctor/:doctorId/approve/:requestId:** Approve a leave request for a doctor (For admin only)

**PUT /doctor/:doctorId/decline/:requestId:** Decline a leave request for a doctor (For admin only)

**DEL /doctor/delete/:id:** Delete a doctor (For doctor and Admin)

**DEL /doctor/:doctorId/leave-requests/:requestId:** Delete a specific leave request.

**GET /doctor/:id:** Get details of a specific doctor.

**GET /doctor/profile/:id:** Get the profile of the authenticated doctor. (For doctor only)

**GET /doctor:** Get all doctors.

**GET /doctor/:id/weeklyAvailability:** Get the weekly availability schedule of a specific doctor.

# 04 - API ENDPOINTS

## VISIT API

Here are the available API endpoints that you can test using Postman

**POST /visit/create:** Create a new visit. (For Patients and Admin only)

**PUT /visit/update/:id:** Update visit data.

**DEL /visit/delete/:id:** Delete a visit.

**GET /visit:** Get details of all visits. (For admin only)

**GET /visit/:id:** Get details of a specific visit.

**GET /visit/doctor/:doctorId:** Get details of visits associated with a specific doctor.

**GET /visit/user/:user:** Get details of visits associated with a specific user.

**GET /visit/pending-payments:** Get details of visits with pending payments. (For admin only)

This project marks the culmination of my journey in the Start2Impact's master program in Full Stack Development. It has been an immensely educational and stimulating experience, allowing me to connect with many individuals and foster a deep passion for programming.

If you have any questions, feedback, or just want to connect, feel free to reach out to me through the following channels:

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Github	<a href="https://github.com/diegoddie">https://github.com/diegoddie</a>
Twitter	<a href="https://twitter.com/diegothedev">https://twitter.com/diegothedev</a>
Fiverr	<a href="https://www.fiverr.com/diegoddie">https://www.fiverr.com/diegoddie</a>
Upwork	<a href="https://www.upwork.com/freelancers/~01021369935709b658">upwork.com/freelancers/~01021369935709b658</a>



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