Hey-Docs
Doctor's Portal

Presenter: Nak, Matt, Henry

Contents

1

Intro

Why this business?

Background

- Improving patient-doctor communication provider

- Attempts to collect a few statistics about hospitals

- Lack of literature on resource tools or business plan templates

2

Target website

patient.medeohealth.com

Patient.medeohealth.com/login

Patient.medeohealth.com/loginform

Connect with your
Healthcare Provider from anywhere.

Join Medeo today.

Email*
gmlxkr920901@gmail.com

Password*
•••••••••

Use 8 or more characters with a mix of upper/lower case letters,
numbers & symbols

First Name *

Last Name *

LOG IN   SIGN UP

Patient.medeohealth.com/dashboard

Patient.medeohealth.com/appointment

Patient.medeohealth.com/msg
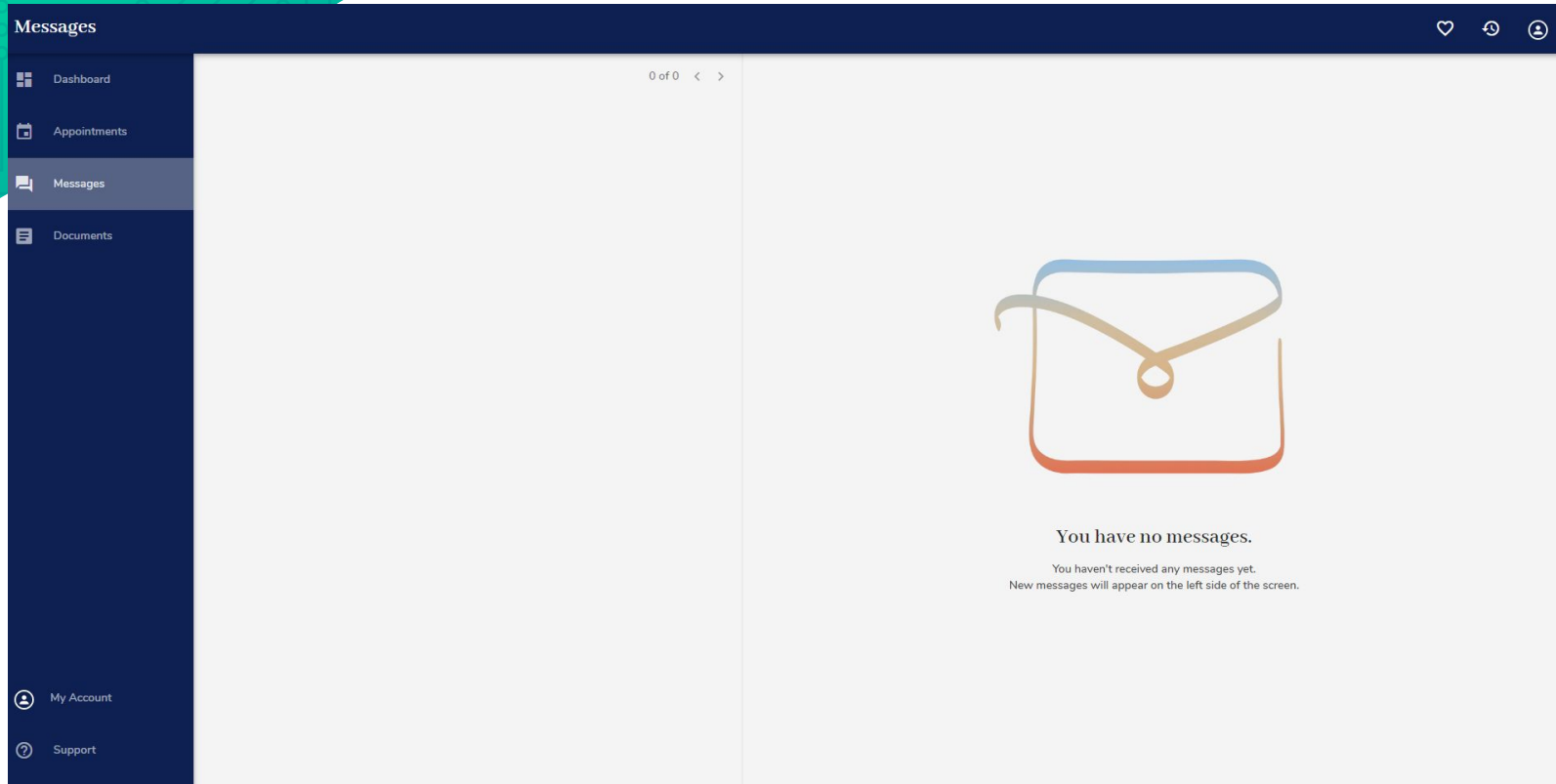
Patient.medeohealth.com/settings
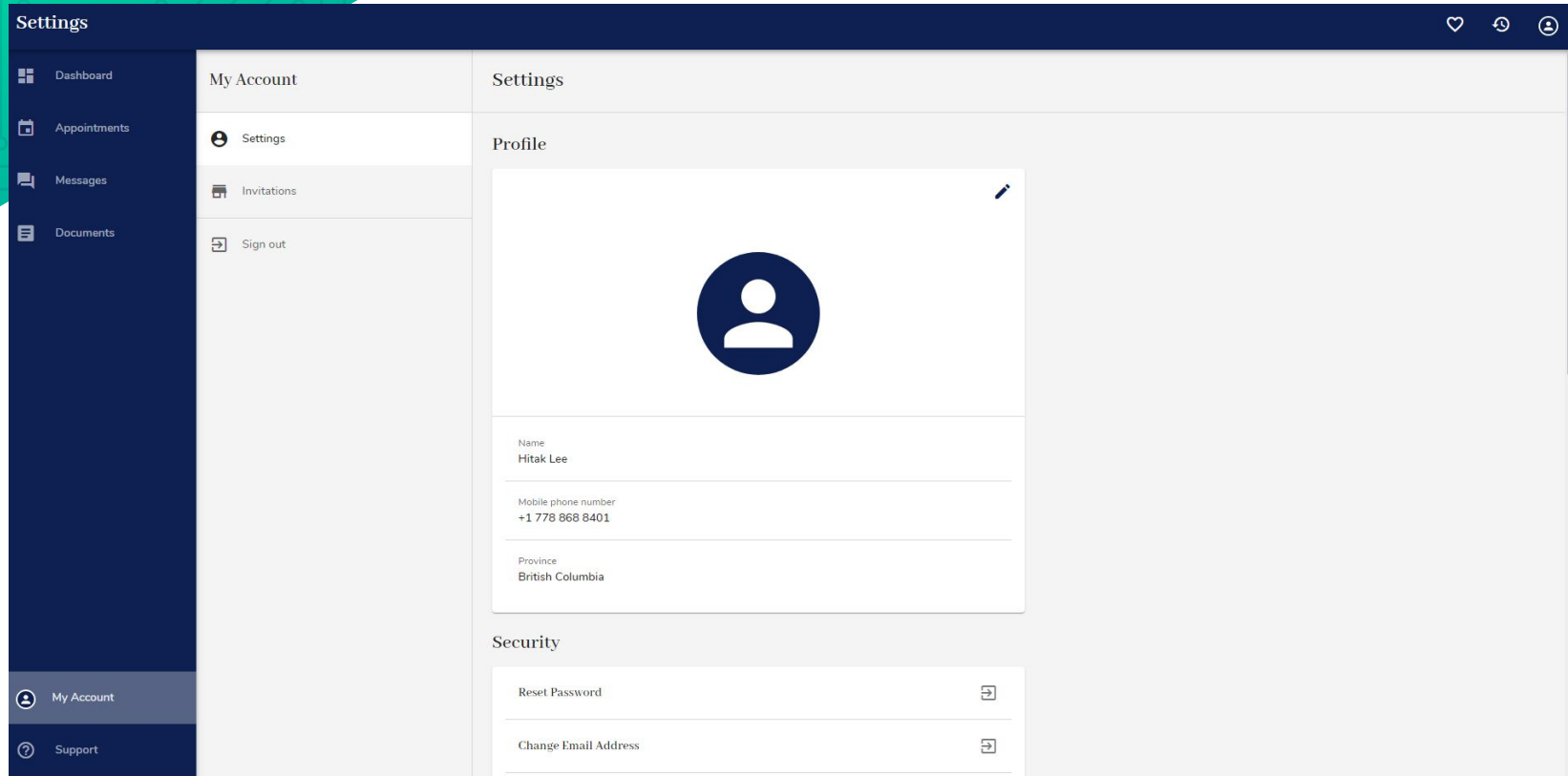
Patient.medeohealth.com/cares
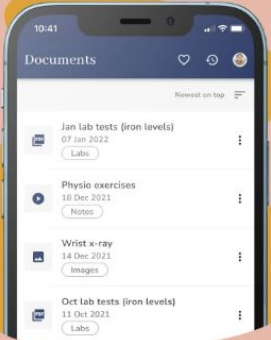
Patient.medeohealth.com/document

Patient.medeohealth.com/details

My Account

- 👤 Settings
- 🏪 Invitations
- ➡️ Sign out

Phone Verification ⤓

Audio and video test

Start Test ⤓

Additional information

✏️

Basic Info

CareCard / Services Card Number

Primary Provider's first and last name

Birthday
01 Sep 1992

Time Zone
(PDT -07:00) Pacific Daylight Time (America/Vancouver)

Medications

Allergies

3.Functionanlities

Diagram of the sys
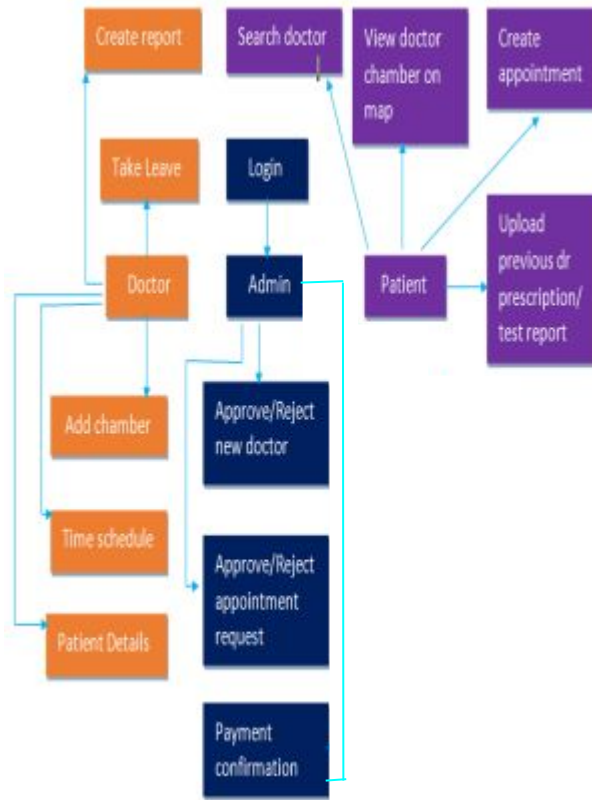
Log-in & User management

1) Login

1 To increase the security of access,

if the ID and password entered by the user match the stored information,

2 a randomly generated security code will be displayed under the login section with a <input> where the user can insert the code.

Log-in & User management

displays the basic information of all users in a table, and includes functions of registering new users and modifying existing user information.
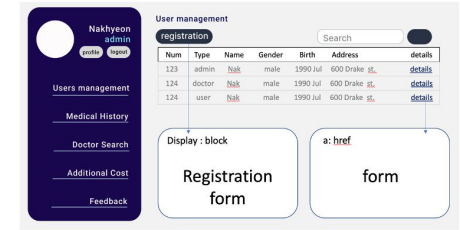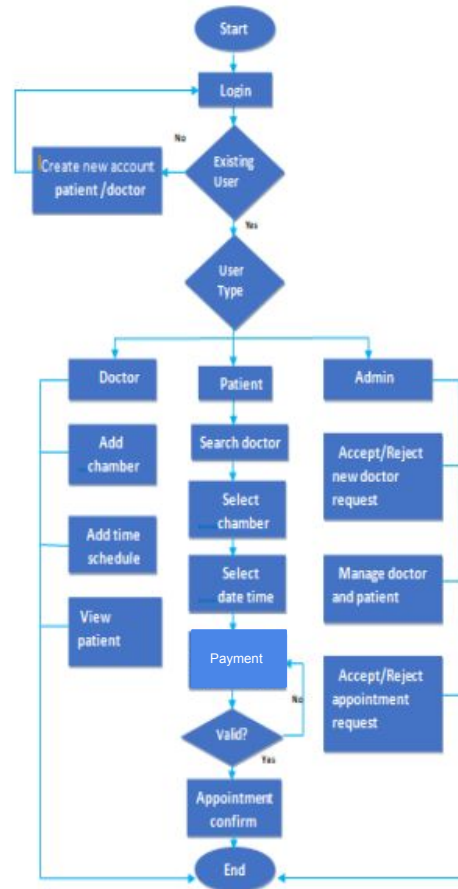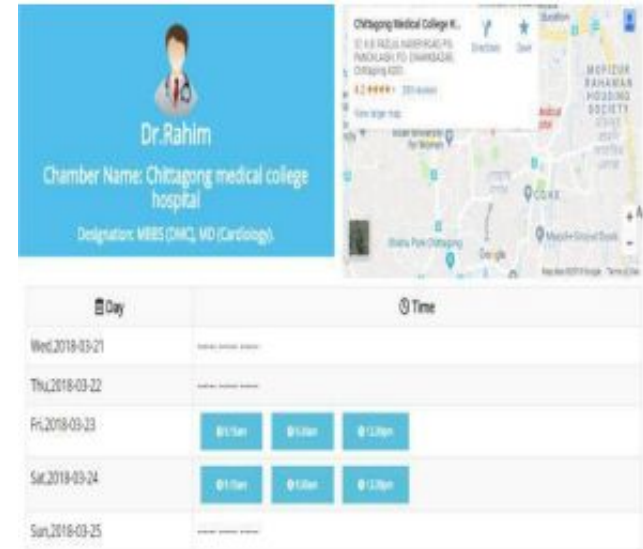
\<Table\> user information

Number /
user-type (doctor, general user, admin) /
name / gender / date of birth /
** phone number / address /**
detail \<button\>.

Log-in & User management

2) User Management

Registration \<button\>

When the button is clicked, a new page(form) appears(display : block) on the screen.

Input: method : POST
[Basic Information] Photo / First name / Last name /Blood type / Gender / Date of Birth / Phone number / Address / Vaccination Consent to collect and utilize personal information

[User Information]
ID / password / password confirmation
User type select (Admin, Doctor, General user)   * When setting up the user type 'doctor':
      display additional section to enter hospital information
        (specialty, business hours, address)

Log-in & User management

2) User Management

Detail <button>

When user click the detail <button>, it connects to a page(same layout as registration form but information filled) where the user(admin) can modify information such as reset the password and detailed information of registered members.

Flow chart for appointment

21

Doctor Search

After sign up, user search for a doctor and doctor list will be shown.
Then they can select the desired doctor. The search result will be automated doctor raking which included with a number of total appointments, doctor degree and user rating.

Doctor Search

After that, there are doctors time schedule with doctor chambers google map they can see the exact location of doctor chamber and then they can select their intended time.

Doctor Search

Doctor Name	Patient Name	Chamber Name	Date	Day	Time	Visiting Fee	Transaction ID	Is Read?	Action
Asst. Prof. Dr. Md. Saiful Islam	Md.Kamal	Holy Family Red Crescent Medical College and Hospital	2018-04-09	Mon	8.45pm	800	112B344D53	Yes	Mark as Checked 🗑 Delete
Asst. Prof. Dr. Sharif Ahmed	Md.Kamal	Dhaka Central International Medical College & Hospital	2018-04-09	Mon	7.30pm	700	133B3C7D5E	Yes	Mark as Checked 🗑 Delete
Dr Md Salahuddin	Md.Rahim.	Surgiscope Hospital Limited Unit-II	2018-04-02	Mon	7.30pm	700	1A2B3C4D5N	Yes	Mark as Checked 🗑 Delete
Dr Md Salahuddin	Miraj	Surgiscope Hospital Limited Unit-II	2018-04-02	Mon	6.00pm	700	3A2B3C4D5E	Yes	Mark as Checked 🗑 Delete

Doctor Search

Doctors Profile

Name	Dr. Mohammad Kafil Uddin
Designation	Junior Consultant, Dept. of Cardiology, Chittagong Medical College & Hospital
City	Chittagong
Degree	MBBS, MD (Cardiology)
Email	kafil@gmail.com
Phone	01878152754
Address	GEC,CTG.
Visiting Fee	600
Gender	male

logout   Leave

Add Chamber   View Leave Day

Add Appointment

☑ Edit

Additional Cost Calculation

It is a function for users who use the vehicle among users who have booked a doctor or hospital, and it is a function that automatically calculates parking fees from the time of reservation.

Additional Cost Management

Nakhyeon
admin
profile logout

Users management

Medical History

Doctor Search

Additional Cost

Feedback

Reservation Info

num	scheduled-time	Name	doctor	location	finish-time	total time(min)	cost	
1	08/13 12:00	Nak	Strange	Tamwood.	08/27 14:00	120(min)	12$	calculate
2	08/15 12:00	Nak	Strange	Tamwood.	08/27 14:00	120(min)	12$	calculate
3	08/27 12:00	Nak	Strange	Tamwood.	[input : date time]	- (min)	- $	calculate

Parking info

Num	Name	Parking location	Parking fee(min)	
123	Strange(time travel)	infont of Sanctum	10c(1min)	save
124	Hulk	don't know	1$(1min)	save
125	Tony	Avangers	[input fee]	save

Additional Cost Calculation

The table at the bottom may store and manage information on parking costs for each doctor/hospital registered in the system.

Load and display the information registered in the doctor search, and add an input function that allows you to enter the basic parking fee.
(input – save button)

Additional Cost Calculation

The upper table displays information of the user who has reserved medical treatment, and automatically calculates and displays parking fees from the reservation time to the departure time. (input – calculate button)

Additional Cost Management

Reservation Info

num	scheduled-time	Name	doctor	location	finish-time	total time(min)	cost	
1	08/13 12:00	Nak	Strange	Tamwood.	08/27 14:00	120(min)	12$	calculate
2	08/15 12:00	Nak	Strange	Tamwood.	08/27 14:00	120(min)	12$	calculate
3	08/27 12:00	Nak	Strange	Tamwood.	[input : date time]	- (min)	- $	calculate

Parking info

Num	Name	Parking_location	Parking fee(min)	
123	Strange(time travel)	infont of Sanctum	10c(1min)	save
124	Hulk	don't know	1$(1min)	save
125	Tony	Avangers	[input fee]	save

(function 1 - calculates the total time(min) based on the entered scheduled time and the end time)

(function 2 - The total cost is calculated based on the parking fee information stored in the table below for the hospital booked.

28

Ranking

The doctors ranking is a special feature which was calculated based on doctor's educational qualification, experience, average count of appointments made by patients and patient's feedback.

4.Vulnerabilities

Historical Incidents in Healthcare

• May 2021: California hospital system hit by ransomware attack, resulting in EHR downtime procedures and taking their patient portal offline.

• January 2022: Ransomware attack on HR and payroll vendor disrupted healthcare workforce paychecks, and even resulted in some discrepancies in paychecks.

Source: PatientEngagementHIT

Locking Down Patient Portals

1. Implement a CAPTCHA
2. Establish a Login Limit
3. Use Login Monitoring
4. Screen for Compromised Credentials
5. Implement Multifactor Authentication (MFA)

Source: PatientEngagementHIT

Protect Against Web App Attacks

• **Secure development testing** is a practice in which security teams consider the threats and attacks that might have an impact on an application or product to help make it as secure as possible. Secure development testing can uncover the latest security risks and attack vectors early in the product's lifecycle. It also helps in developing effective approaches to preventing website attacks and minimizing the consequences of breaches.

• **Automated vulnerability scanning and security testing** helps organizations find, analyze and mitigate vulnerabilities and misconfigurations — hopefully before the actual attack occurs. This testing helps organizations identify security weaknesses that need to be resolved.

5.Conclusion

Conclusion

This portal has a significant potential to benefit patients and clinicians. The business helps to maximize the outcomes of patient portal implementation.

Further research is needed to improve health outcomes, user satisfaction, and sustainability of patient portals.

Keywords: Patient Portal, Doctor/Patient Portal Business, Ranking

GANTT CHART

		Week 1							Week 2						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Get doc/patient info	■	■												
Build foundation/format		■	■	■	■	◆								
Modify style		■	■	■										
Build form							■	■	■	■	◆			
Gather links && functions						■	■	■	◆					
Verify code											■	■	■	
Add images													■	■
Test Prototype														■

SWOT ANALYSIS

STRENGTHS

Technology – Through a secure web site patients can enter or update their medical information and schedule appointments.

S

W

WEAKNESSES

Limited Target Market – The Doctor's Portal will be marketed to a limited group of organizations, the healthcare industry, such as doctor's offices, laboratories, and other medical centers.

O

T

Growing Market – The Doctor's Portal will be a facilitator of similar technologies used by other organizations in different industries.

OPPORTUNITIES

Patents – According to intellectual property laws regarding patents, any product with a considerable improvement to the Doctor's Portal can be patented and sold.

THREATS

Reference

1.Acunetix. n.d. What Is a Web Application Attack and how to Defend Against It. Accessed July 12, 2022.
https://www.acunetix.com/websitesecurity/web-application-attack/.
2. Burnham, Kristin. 2021. Defending Against Common Types of Web Application Attacks. November 18. Accessed July 12, 2022.
https://www.mimecast.com/blog/web-application-attacks/
3. Center for Internet Security (CIS). n.d. DDoS Attacks: In the Healthcare Sector. Accessed July 12, 2022.
https://www.cisecurity.org/insights/blog/ddos-attacks-in-the-healthcare-sector
4. Cloudflare. n.d. What is web application security? Accessed July 12, 2022.
https://www.cloudflare.com/learning/security/what-is-web-application-security/
5. Davis, Jessica. 2021. Scripps Health EHR, Patient Portal Still Down After Ransomware Attack. May 10. Accessed July 12, 2022.
https://healthitsecurity.com/news/scripps-health-ehr-patient-portal-still-down- after-ransomware-attack
6. Enzoic. 2021. Locking Down Patient Portals. December 2. Accessed July 12, 2022.
https://securityboulevard.com/2021/12/locking-down-patient-portals/
7. Flashpoint. 2021. Compromised Credentials: Analyzing the 2021 Verizon DBIR and Its Most Sought-After Data Type. June 7.
Accessed July 12, 2022. https://flashpoint.io/blog/compromised-credentials- analyzing-2021-verizon-dbir/
8.https://www.mariakonovalova.com/telehealth-portal/
9.https://archive.hshsl.umaryland.edu/bitstream/handle/10713/4291/Postal%20-%20Final%20Paper.pdf?sequence=1&isAllowed=y
10.https://hotexamples.com/examples/-/-/rank/php-rank-function-examples.html
11. https://www.hhs.gov/sites/default/files/web-application-attacks-in-healthcare.pdf

THANKS!

Any questions?