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Describing Paragraphs

Our web application is an online clinic, where patients can chat with doctors about their symptoms and get a prescription sent to them through the app. This is aimed at more common ailments (colds, headaches, behind counter supplements like iron pills, UTIs, etc) and not used for more complex cases.

Living in a pandemic, it's getting increasingly difficult to get out of the house, especially to see a doctor for non-COVID-19 issues. The goal of this app is to provide a safe alternative to a traditional walk-in clinic, from the comfort of one's home. It will serve those who have simple issues for a doctor, without crowding a walk-in clinic. There will be views for both doctors and pharmacists as well, to increase their comfort as well. We also provide free educational videos on health on our webpage as an alternative for those who cannot afford the traditional doctor. We see this application as useful around the globe, both in wealthy and in developing countries.

Feature Specifications

User Profiling

Regular users include both patients and doctors.

Patient:
       Aspects that will be visible to public:
- username
- identity (patient / normal user)
- avatar
- gender
- (recent activity)

       Aspects that will be visible to user's current doctor(s) (including above):
- real name
- age
- location
- symptoms
- medical records (current medication)
- appointment history (doctor history)

       Aspects that will be visible to admin: (including all above except symptoms and medical records)
- current doctor

Doctor:
  Aspects that will be visible to public:
  - identity (doctor)
  - real name
  - real photo
  - number of past patients
  - evaluation (rating score)
  - location
  - position (and current workplace)
  - credentials (place of education, degree of education, etc.)
  Aspects that will be visible to admin: (including above)
  - doctor certifications

Admin:
  Aspects that will be visible to public:
  - identity (admin)
  - username
  - avatar
  Aspects that will be visible to all admins: (including all above)
  - operations history (approval, removal operations etc.)

Regular User Functionality, Authentication and Authorization

Patient:
- can upload avatar, change real name (require official document)
- apply for prescription refills
- search for doctors or browse doctors in each department
- check doctors' background information and rating score
- make appointments with doctors
- chat with doctors in text and images
- rate the experience with the doctor
- watch educational videos and read educational articles on common diseases

Doctor:
- upload credentials and certificates
- upload real photo, change real name (require official document)
- read the patient's personal information including medical record, doctor history when the patient makes an appointment
- approve the appointment or reject
- chat with patients in text an images
- request to upload educational videos or articles

Authentication and Authorization

We will keep the salt and encrypted password+salt in the user information table in the database. When users login, their password will be encrypted with SHA-512 and sent to the server, where the encrypted password will be attached with salt and encrypted again with

bcrypt (slow hash), then it will be verified with encrypted data stored in the database in order to assure high security.

The user will receive a token stored locally (cookies), when users send requests to the server, it will include the token, which will be verified in the server end. This will authorize the user to access certain functionalities. The front end will use the router to present different pages and content according to user permission.

Data

We will use DBMS to store the following data.
Patient information:
- Name
- Age
- Gender
- Location
- Avatar
- Current doctor
- Future appointments
- Chat history
- Passed appointments
- Login information (username)
- Medical records

Doctor information:.
- Name
- Specific Area of Expertise (Study)
- Location
- Photo
- Gender
- Certifications
- Current patients
- Future appointments
- Chat history
- Passed appointments
- Login information (Username)

Additional data includes educational videos links + descriptions that will be viewable on our homepage.

Views

Profile upload page for users & doctors. (Creation page)
Profile page for users & doctors.
Index page with a video slot to be seen by everyone.
Terms of use.

Chat page / chat window for patients & doctors or doctors & doctors
Appointment page for user.
A page for requesting refill. (User)
A customer service page for both. (Feedback + Communicate with admin)

Admin Functionality

Approve documents from doctors.
Remove/Ban Users
Approve request from doctors to upload videos and articles
View Feedback from Users

User Interactions with Website

Non-Registered User:

1. They will be able to visit the home page and read the information displayed on the home page. For example, videos and articles that help people understand some common diseases.
2. The user will be able to register or login as a patient or a doctor.

Patient:

1. They have more permissions features in addition to Non-Registered Users.
2. If a patient does not have a doctor, they will be able to chat with a new doctor that can help him diagnose his symptoms.
3. They will be able to interact with the pharmacy to get his drug refill. (Request refill)
4. The patient has their own page for accessing personal information of themselves
5. A page for sending the prescription to the pharmacy. It might be a prescription page that allows the patient to choose a pharmacy.
6. Able to access a page with a list of Doctor's information with talk to one specific doctor button which opens a chat window for the user.
7. An account page lets the user change their information, upload their previous medical history.

Doctor:

1. For doctors, their registration requires verification by the administrator.
2. The doctor can request to upload videos and articles which can be displayed on the home page after the admin verifies.
3. They have a different portal that gives them access to all the functionality for the doctor.
4. Doctor has a chat window integrated with a list of patients to chat with him. Managing multiple chats. Referring to old chat windows.

5. Upload prescriptions for patients.

Administrator:

1. The administrator has permission to put videos and articles on the home page.
2. Has a page show the list of registering needs to be approved.
3. Able to ban other users. This is a feature on the user management page. Able to delete old unused accounts.
4. The administrator is able to receive feedback

Sketches of Website

Name of app/ Logo	Login/SignUp

Menu Choices: About, Talk to a Doctor, Prescriptions, Education,

	Short "About" Section

Video Player

Date

Information about video Information about video
Information about video Information about video
Information about video Information about video
Information about video Information about video
Information about video Information about video

Video Player

Date

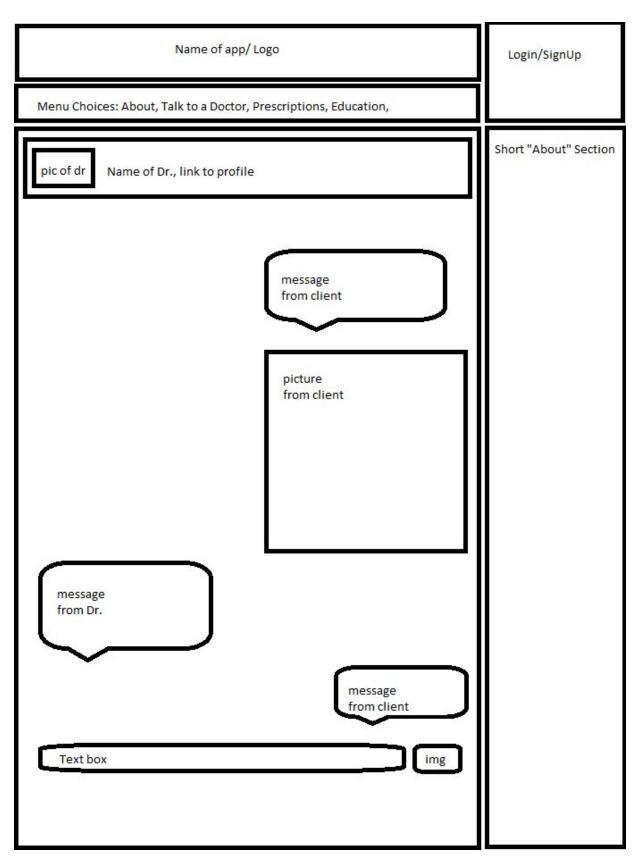Information about video Information about video
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Mock Homepage

Name of app/ Logo

Login/SignUp

Menu Choices: About, Talk to a Doctor, Prescriptions, Education,

Short "About" Section

pic of dr   Name of Dr., link to profile

message
from client

picture
from client

message
from Dr.

message
from client

Text box   img

Chat client with Doctor.

Admin Management System

- ▼ **User Management**
  - Doctor Application Review
  - User Removal
- ▼ **Content Management**
  - Article Upload Review
  - Article Management
  - Video Upload Review
  - Video Management
- ▼ **Feedback Review**
  - Patient Feedback
  - Doctor Feedback

User Management

Doctor Application Review

							Approve	Decline
							Approve	Decline
							Approve	Decline

User Removal

Username		Search

			Removal
			Removal
			Removal

Content Management

Upload Review   Article ▼

							Approve	Decline
							Approve	Decline
							Approve	Decline

Management   Article ▼

			Removal
			Removal
			Removal

Feedback Review

Patient ▼

Admin Management Page

Doctor Portal

Account Information	Patients	Chat	Post videos /articles	Appointments

- Name

- specilization

- Location

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Photo
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- rating

- credentials

Doctor Portal - Account Information

Doctor Portal

Account information	Patients	Chat	Post videos /articles	Appointments

Recent Patient

Name	Last Time	DOB	Gender
Name	:		
Name	:		
Name	:		

Search

	Name	Date	DOB	Gender
1	Name	'		
2	Name	'		
3		'		
	'	'		
	'	'		
		'		
	'			
	'	'		
	'	'		
	'	:		

Doctor Portal - Viewing Patients

Doctor Portal

Account information	Patients	Chat	Post videos /articles	Appointments

Edit Menu - - - - -   Add videos

|

Post

Doctor Portal - Add educational videos to homepage