

# **Hospital Doctor Appointment Booking {Health on Hands}**

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## **Introduction:-**

Health on Hands is a platform that works for a multispecialty hospital where patients can easily book appointments online based on the vaccination and doctor they need, which simplifies the scheduling procedure. User-friendly interfaces make it simple for patients to select their preferred time based on the doctor's schedule. All things considered; our platform improves overall patient satisfaction in all the fields related to hospitals.

In our application, we have three modules: hospital, doctor and patient. Here, the hospital will add and view the doctors and also nurses. The hospital will add the vaccinations and assign a doctor and nurse to that vaccination in our application. Then the doctor will login to the application and can add the timings according to his availability. For example if a doctor adds the timings from 10 am to 12 pm then slots divide automatically with 15 mins. Now the patient will register by giving the basic details of the patient; after that, with a registered email and password, the patient will login to the application.

After logging in, the patient can get an overview of the doctor, time slots, and vaccinations. After selecting the doctor, the patient will select the slot and book the appointment for that doctor by paying consultancy fees. If one patient books the slot from 11 am to 11:15 am then another patient can't book the appointment for the same slot. It appears red in colour as the slot is booked by some patient. Patients can cancel the appointment and reschedule the appointment based on the desired slot. The doctor can write and view the prescription for the patient and test the requirements for the patient. After that the patient will pay the total amount of vaccination and for reports and also can view the payment in the application. Patients can revisit the hospital after booking an

appointment and view all the past appointments and past reports at the hospital.

The system should solve problems such as “overlapping of slots,” which means it should take care of no two patients booking the same slot.” “Accurate Reports” In this problem, Health On Hands ensures the reports are uploaded accurately for each patient. “Lack of User Convenience,” where the system aims to improve user convenience by offering a user-friendly interface for doctor search, booking placement, and report tracking.

The database should store information like “patient data,” such as patient names, email addresses, phone numbers, and patient IDs, after the initial consultation “Doctor data” includes categories, schedule timings, consultation fees, and prescriptions. “Hospital Data” includes vaccination details (Polio,Pneumococcal, flu vaccination ,HPV vaccine, etc., which includes all age vaccinations), lab reports (blood, urine, ecg etc.), and doctor names with their background work. By effectively managing this information, the database ensures the efficient operation of the hospital.

## Database description:

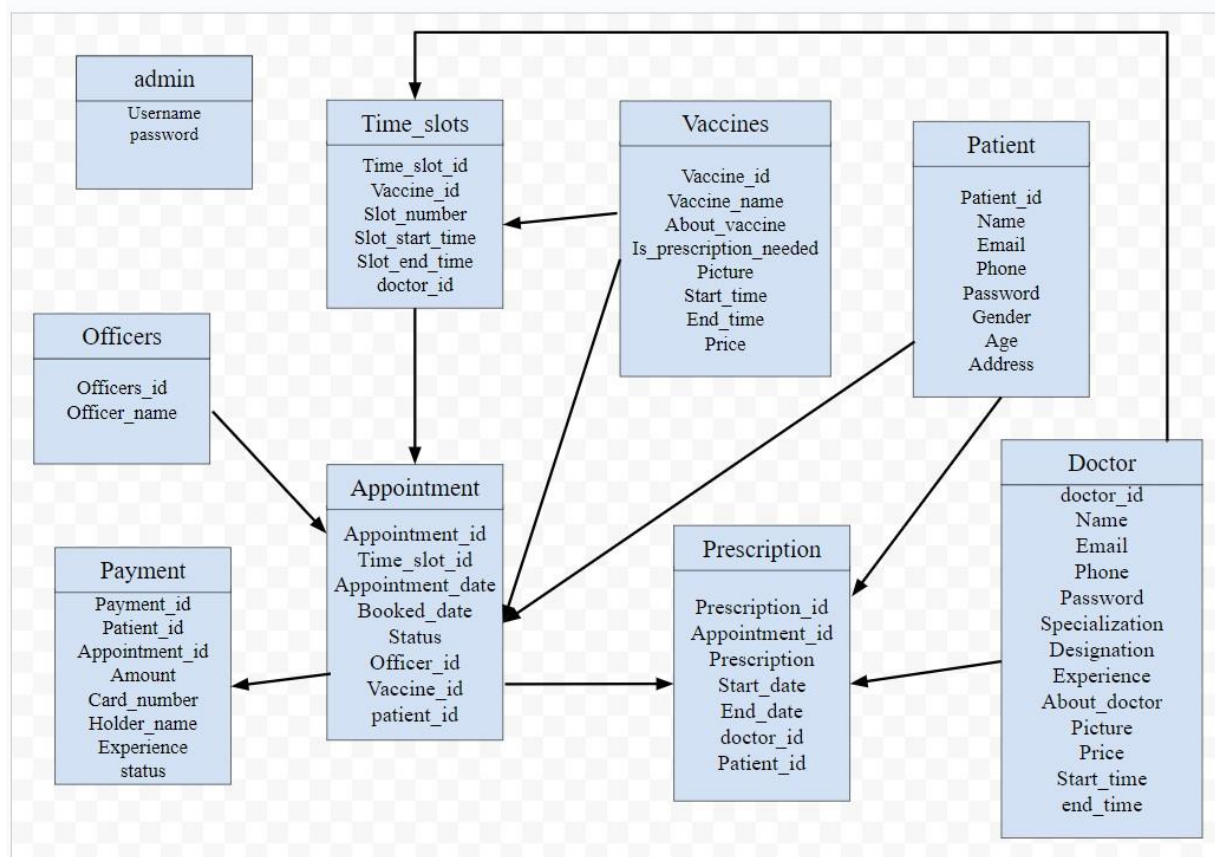
The database Description contains nine collections:

Admin, vaccines, doctor, patient, officer, Time-slots, appointment, payment, Prescription. The Admin collection contains the user\_name, password. And the admin can add the vaccines, officer and doctor. The vaccines collection contains the vaccine\_name, about-vaccine, is prescription needed, picture, start-time, end\_time and price. The admin will add the officers and doctors. The officer collection contains the officer\_name. The doctor collection contains the name, email, phone, password, specialisation, designations, experience, about\_doctor, picture, start\_time, end\_time and price.

The patient will register into the website with their valid details then login into the website, the patient collection contains the name, email, password, phone, gender, age and address. Then the patient will view the vaccines if the vaccine doesn't contain doctor prescription then the patient will book the appointment with their details and choose the time slot and the admin will assign the officer for the vaccination or if the vaccine contains doctor prescription then the patient will view the doctors time slot and book the appointment. The appointment collection contains the time\_slot\_id, appointment\_date, booked\_date, status, officer\_id, vaccine\_id and patient\_id, doctor\_id.

After the appointment booked the doctor will check the patient based on that prescription will given to the patient the prescription collection contain appointment\_id, prescription, start\_date, end\_date, doctor-id and patient\_id based on the appointment patient will pay the amount, the payment collection contains patient\_id, appointment\_id, total-amount, card-number, Holder\_name, expiry\_date and status if they payment is completed the status is updated to transaction successful, otherwise transaction failed.

## Database Diagram:-



## Database Collection:

<b>admin</b> <u>Storage size:</u> 20.48 kB <u>Documents:</u> 1 <u>Avg. document size:</u> 62.00 B <u>Indexes:</u> 1 <u>Total index size:</u> 20.48 kB	<b>appointment</b> <u>Storage size:</u> 20.48 kB <u>Documents:</u> 3 <u>Avg. document size:</u> 229.00 B <u>Indexes:</u> 1 <u>Total index size:</u> 36.86 kB	<b>doctor</b> <u>Storage size:</u> 20.48 kB <u>Documents:</u> 5 <u>Avg. document size:</u> 420.00 B <u>Indexes:</u> 1 <u>Total index size:</u> 36.86 kB	<b>doctor_timings</b> <u>Storage size:</u> 20.48 kB <u>Documents:</u> 4 <u>Avg. document size:</u> 100.00 B <u>Indexes:</u> 1 <u>Total index size:</u> 36.86 kB	<b>officers</b> <u>Storage size:</u> 20.48 kB <u>Documents:</u> 1 <u>Avg. document size:</u> 252.00 B <u>Indexes:</u> 1 <u>Total index size:</u> 20.48 kB
<b>patient</b> <u>Storage size:</u> 20.48 kB <u>Documents:</u> 1 <u>Avg. document size:</u> 103.00 B <u>Indexes:</u> 1 <u>Total index size:</u> 20.48 kB	<b>payments</b> <u>Storage size:</u> 20.48 kB <u>Documents:</u> 3 <u>Avg. document size:</u> 202.00 B <u>Indexes:</u> 1 <u>Total index size:</u> 36.86 kB	<b>prescription</b> <u>Storage size:</u> 20.48 kB <u>Documents:</u> 1 <u>Avg. document size:</u> 94.00 B <u>Indexes:</u> 1 <u>Total index size:</u> 20.48 kB	<b>slots</b> <u>Storage size:</u> 20.48 kB <u>Documents:</u> 68 <u>Avg. document size:</u> 124.00 B <u>Indexes:</u> 1 <u>Total index size:</u> 36.86 kB	<b>vaccines</b> <u>Storage size:</u> 20.48 kB <u>Documents:</u> 2 <u>Avg. document size:</u> 223.00 B <u>Indexes:</u> 1 <u>Total index size:</u> 36.86 kB

## Sample Snippets:-

### Admin:-

```
_id: ObjectId('66276a222d0643e0764cf5af')
username : "admin"
password : "admin"
```

### Appointment:-

```
_id: ObjectId('662795ca699d1f9e06870782')
slot_id : ObjectId('66278d9174899829a1aeb28b')
status : "Prescribed"
vaccine_id : ObjectId('66276c4c24b0cda51ca69ddc')
doctor_id : ObjectId('66278d9174899829a1aeb28a')
appointment_type : "doctor"
appointment_date : 2024-04-23T00:00:00.000+00:00
booked_date : 2024-04-23T16:34:42.328+00:00
price : 30
patient_id : ObjectId('66278c7874899829a1aeb288')
```

### Doctor:-

```
_id: ObjectId('66278d9174899829a1aeb28a')
name : "chaitu"
email : "chaithu444@gmail.com"
phone : "36584152522"
password : "123"
specialization : "cardiologist"
designation : "mbbs"
experience : "6"
about_doctor : " we scoured the web for examples of doctors' bios that break the mold ..."
picture : "c2.jpg"
consulting_fee : "30"
start_time : 1900-01-01T02:00:00.000+00:00
end_time : 1900-01-01T12:00:00.000+00:00
```

### Officer:-

```
_id: ObjectId('66276adc24b0cda51ca69ddb')
name : "raj"
```

### Patient:-

```
_id: ObjectId('66278c7874899829a1aeb288')
name : "guru"
email : "g@gmail.com"
phone_number : "65124213532"
password : "098"
```

### Payments:-

```
_id: ObjectId('66278ef874899829a1aeb2dc')
appointment_id : ObjectId('66278eeb74899829a1aeb2db')
price : "30"
card_type : "Debit Card"
card_number : "32"
name_on_card : "34"
cvv : "4"
expiry_date : "23"
patient_id : ObjectId('66278c7874899829a1aeb288')
```

### Prescription:-

```
_id: ObjectId('6627961b699d1f9e06870784')
appointment_id : ObjectId('662795ca699d1f9e06870782')
prescription : "dasjkjsadlkjdsldjsaldsa"
date : 2024-04-23T16:36:03.953+00:00
```

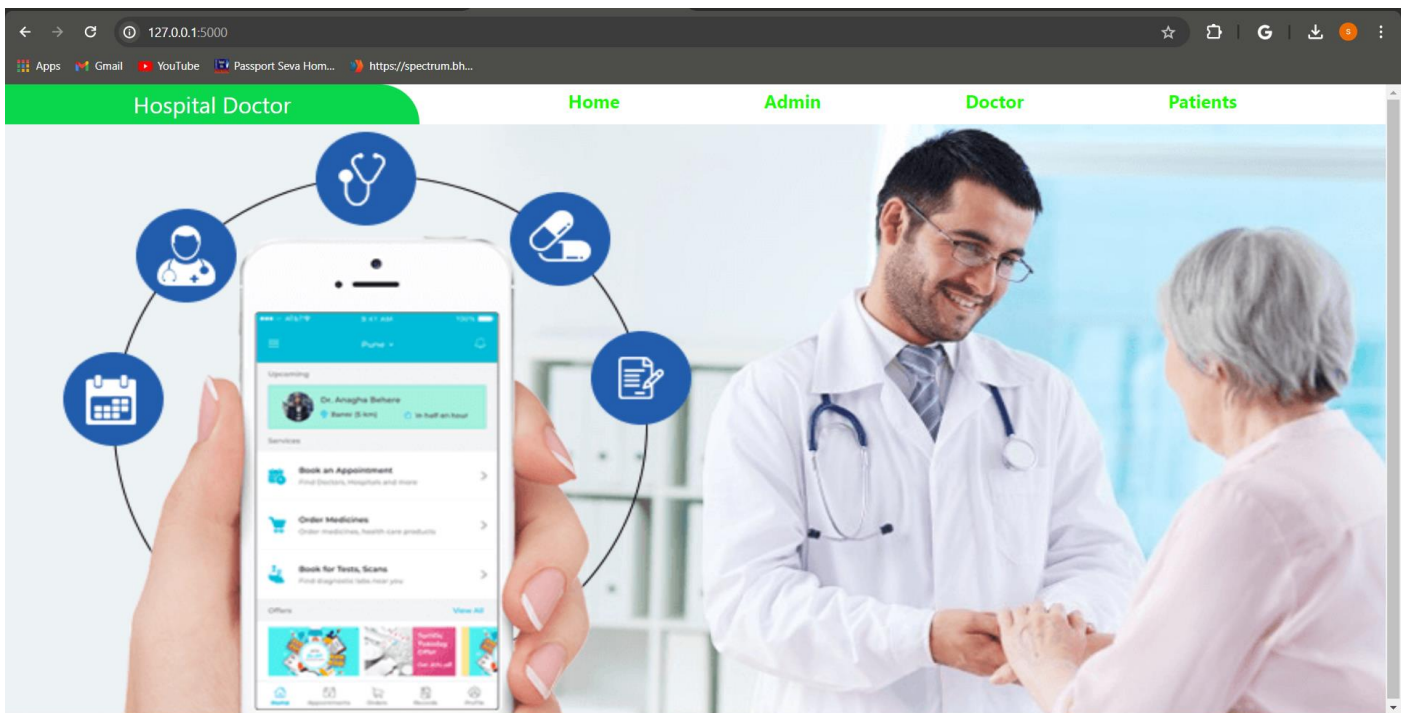
### Slots:-

```
_id: ObjectId('66276c4c24b0cda51ca69dde')
slot_number : 2
slot_start_time : "02:15 AM"
slot_end_time : "02:30 AM"
vaccine_id : ObjectId('66276c4c24b0cda51ca69ddc')
```

## Vaccines:-

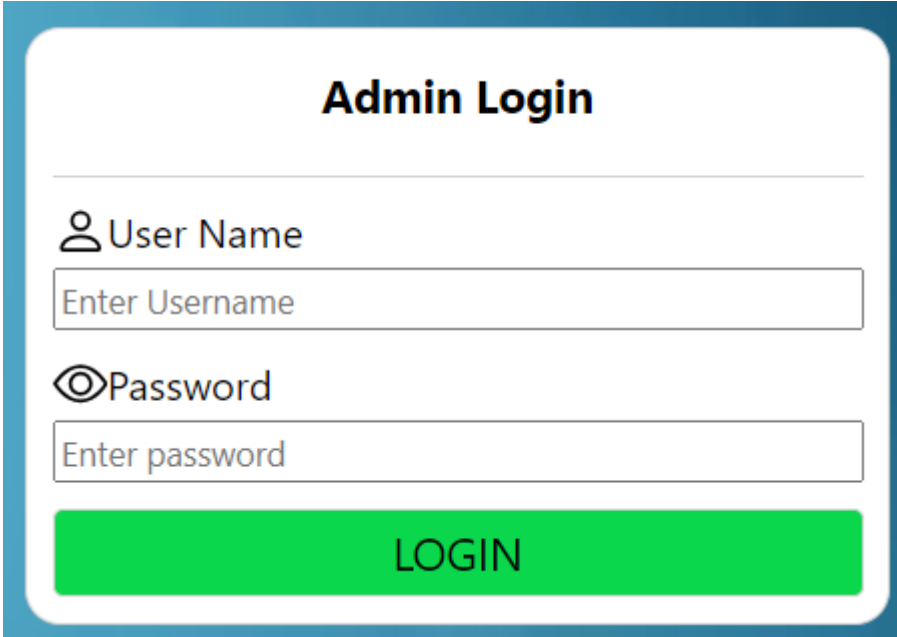
```
_id: ObjectId('66276c4c24b0cda51ca69ddc')
name: "Hepatitis B"
about: "the liver, and therefore, the Hepatitis B vaccine and the Hepatitis B ..."
is_prescription_needed: "yes"
vaccine_image: "Hepatitis B.jpg"
start_time: 1900-01-01T02:00:00.000+00:00
end_time: 1900-01-01T16:00:00.000+00:00
price: "50"
```

## Website Home Page :




It is the homepage of the Hospital doctor Appointment, here we have Three modules. Admin, Doctor, Patient.


### Admin Login Page :

The image shows a web form titled "Admin Login" in bold black text. Below the title is a horizontal line. The form contains two input fields: the first is labeled "User Name" with a person icon and contains the placeholder text "Enter Username"; the second is labeled "Password" with an eye icon and contains the placeholder text "Enter password". Below these fields is a large green button with the text "LOGIN" in white capital letters. The entire form is enclosed in a blue border.

**Admin Login**

---

 User Name

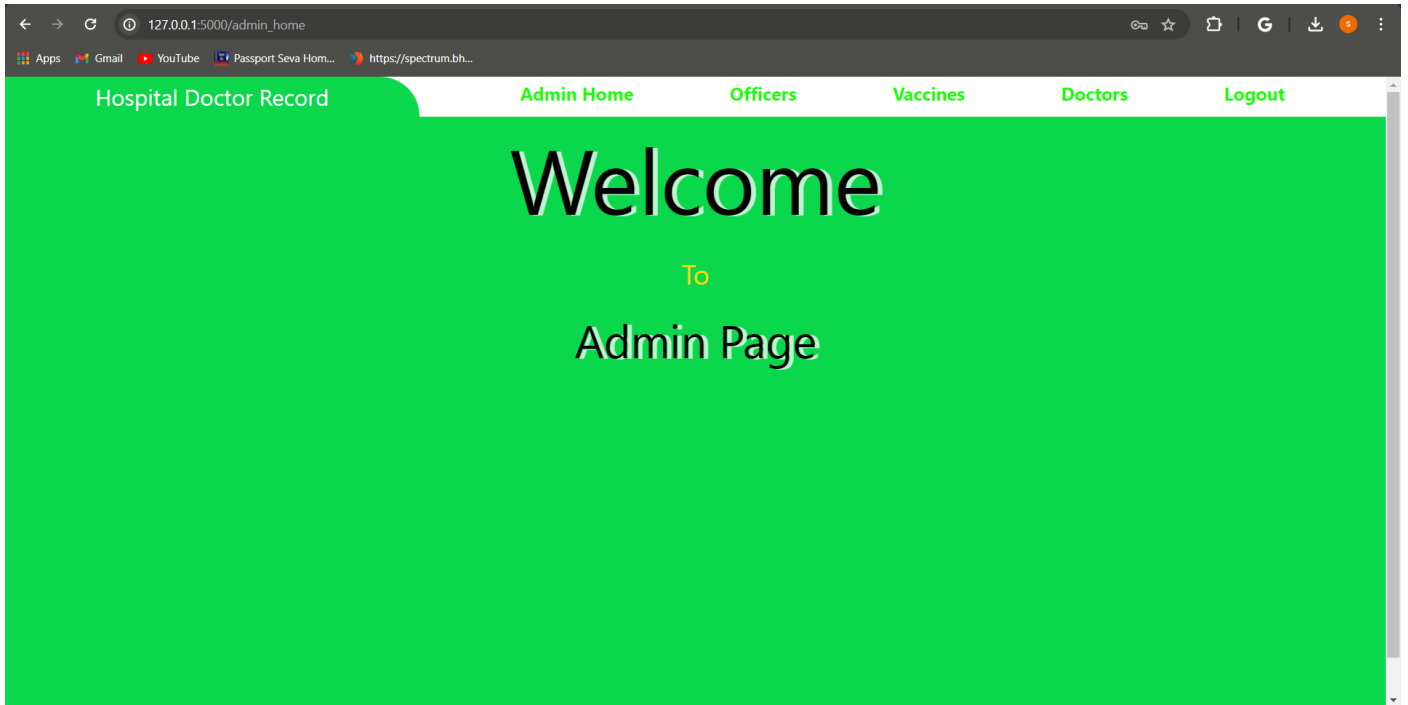
 Password

**LOGIN**

It is the admin login page, the admin can login into the website with predefined login credentials like username and password.



## Admin Home :



It is the Admin Home Page of the Hospital doctor Appointment, here we have Three modules. Officers, Vaccines, Doctors.

## Add Officers details:

A screenshot of a web browser displaying the 'Add Officers details' page. The browser's address bar shows '127.0.0.1:5000/add\_view\_officer'. The page has a green header with navigation links: 'Hospital Doctor Record', 'Admin Home', 'Officers', 'Vaccines', 'Doctors', and 'Logout'. The main content area is blue and features a form titled 'Update Officer Details'. The form has two columns of input fields. The left column contains fields for 'First Name', 'Last Name', 'SSN', 'Email', 'Phone Number', 'DOB', 'City', 'State', 'Zipcode', and 'Address'. The right column contains fields for 'Name', 'SSN', 'Email', 'Phone', 'Gender', 'Date of Birth', and 'Address'. A green 'Update' button is at the bottom of the form. A modal window is open on the right side of the page, displaying the details of an officer named 'jayanth tamire' with fields for 'Name', 'SSN', 'Email', 'Phone', 'Gender', 'Date of Birth', and 'Address'. An 'Edit' button is next to the modal.

In the admin home page admin can add the officers names.

### View Officers details:

Name	<b>jayanth tamire</b>
SSN	<b>12345698</b>
Email	<b>jayanth@gmail.com</b>
Phone	<b>91987564326</b>
Gender	<b>male</b>
Date of Birth	<b>1999-02-23</b>
Address	<b>newbern kansas, missouri - 64109</b>

Edit

Where Admin can view the Enrolled officers details.

### Add Vaccine Details :

### Add Vaccine Details

---

Vaccine Name

Enter Name

i

About

Is Prescription Required for this vaccine ☐ Yes ☐ No

Vaccine Image

Choose file No file chosen

⌚

Start Time

--:--

⌚

⌚

End Time

--:--

⌚

🏷️


Price

Enter Price

ADD

Admin can add the Vaccine Details like Vaccine Name, About the Vaccine , Select “Is Prescription Required for this vaccine Yes/ No”, Vaccine Image, Start Time, End Time, Price


## View Vaccine Details :



covid  
Prescription Requirement: yes  
\$ 50  
help our bodies develop  
immunity to the virus that

start time: 09:00 AM  
end time: 12:00 PM

[Slots](#) [Edit Details](#)



rubella  
Prescription Requirement: no  
\$ 50  
child vaccine

start time: 09:00 AM  
end time: 12:00 PM

[Slots](#) [Edit Details](#)

Admin can View the Vaccine details What Should they Entered.

## View Vaccine Slots:

Hepatitis B 24-04-2024

02:00 AM - 02:15 AM Slot Number:- 1 Available	02:15 AM - 02:30 AM Slot Number:- 2 Available	02:30 AM - 02:45 AM Slot Number:- 3 Available	02:45 AM - 03:00 AM Slot Number:- 4 Available	03:00 AM - 03:15 AM Slot Number:- 5 Available	03:15 AM - 03:30 AM Slot Number:- 6 Available
03:30 AM - 03:45 AM Slot Number:- 7 Available	03:45 AM - 04:00 AM Slot Number:- 8 Available	04:00 AM - 04:15 AM Slot Number:- 9 Available	04:15 AM - 04:30 AM Slot Number:- 10 Available	04:30 AM - 04:45 AM Slot Number:- 11 Available	04:45 AM - 05:00 AM Slot Number:- 12 Available

Admin Can View their Available Slots.



## Hospital Doctor Appointment

[Doctor Home](#)[Timings](#)[Slots](#)[Logout](#)

Weekday Sunday	From Time --:-- --	To Time --:-- --	Add Timings
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### Doctor Timings

Day	From Time	To Time
Monday	09:00 AM	12:00 PM
Wednesday	09:00 AM	12:00 PM
Thursday	02:00 PM	06:00 PM
Thursday	08:00 PM	09:00 PM

Admin can Add the Doctor Details like Name, Email, Phone, Password, Specialization, Designation, Experience, About Doctor, Doctor Image, Consulting Fee, Start time, End time.

## View Doctor Details :



Name  
**surya prakash**  
Email  
**surya@gmail.com**  
Phone  
**9132546598**  
SSN  
**1245787548**  
Date of Birth  
**1996-03-02**  
Gender  
**male**

Address  
**olathe park  
kansas, missouri - 64109**  
Consulting Fee  
**70**  
Experience  
**5yrs**  
Designation  
**MBBS,MD**  
Specialization  
**general physiscian**

[Slots](#)

About  
**good well trained in general health department**

Admin can View The Doctor Details What they should enter.


## View Doctor Slots :


Guru		24-04-2024			
09:00 AM - 09:15 AM Slot Number:- 1 Available	09:15 AM - 09:30 AM Slot Number:- 2 Available	09:30 AM - 09:45 AM Slot Number:- 3 Available	09:45 AM - 10:00 AM Slot Number:- 4 Available	10:00 AM - 10:15 AM Slot Number:- 5 Available	10:15 AM - 10:30 AM Slot Number:- 6 Available
10:30 AM - 10:45 AM Slot Number:- 7 Available	10:45 AM - 11:00 AM Slot Number:- 8 Available				

Where Admin Can View the Doctor Available Slots.

## Doctor Login Page :

### Doctor Login

Email

Password

LOGIN

Doctors can login with their Admin Assigned Detail Like Email,Password.

## Doctor Home Page :

Hospital Doctor Appointment

Doctor Home

Timings

Slots

Logout

# Welcome

To

## Doctor Page

It is the Doctor Home Page of the Hospital doctor Appointment,here we have one module. Slots.

## Doctor Appointments:


Hepatitis B					
24-04-2024					
02:00 AM - 02:15 AM Slot Number:- 1 Available	02:15 AM - 02:30 AM Slot Number:- 2 Available	02:30 AM - 02:45 AM Slot Number:- 3 Available	02:45 AM - 03:00 AM Slot Number:- 4 Available	03:00 AM - 03:15 AM Slot Number:- 5 Available	03:15 AM - 03:30 AM Slot Number:- 6 Available
03:30 AM - 03:45 AM Slot Number:- 7 Available	03:45 AM - 04:00 AM Slot Number:- 8 Available	04:00 AM - 04:15 AM Slot Number:- 9 Available	04:15 AM - 04:30 AM Slot Number:- 10 Available	04:30 AM - 04:45 AM Slot Number:- 11 Available	04:45 AM - 05:00 AM Slot Number:- 12 Available


Where doctors can view/Check The appointments in Date Wise.

### Patient Login Page :

### Patient Login

---

Email

Password

[LOGIN](#)

Don't Have an account ? [Register Now](#)

Here Patients Can Login With Their Details Like Email And Password. If Patient Has No Account He Should Register And Login



## Patient Registration Page :

### Patient Registration

---

First Name

Enter First Name

Last Name

Enter Last Name

DOB

mm/dd/yyyy

Email

Enter Email

Phone

Enter Phone Number

Password

Enter Password

Confirm Password

Enter Confirm Password

City

Enter City

State

Enter state

Zipcode

Enter Zipcode

Address

Enter Address

SSN

Enter SSN

Gender ☐ Male ☐ Female

Register

Patient Register With Theie Details Like Name ,Email,Password,Phone number.

## Patient Home Page :

Hospital Doctor Record

Patient Home

Vaccines


Appointment

Logout

Welcome  
To  
Patient Page

It is the Patient Home Page of the Hospital doctor Appointment, here we have Two modules.  
Vaccines ,Appointment .

### Book Vaccine Appointment:-



Rotavirus

Prescription Requirement: no

\$ 40

Rotasil reduced severe rotavirus diarrhoea by more


start time: 08:00 AM

end time: 04:00 PM

[Book Appointment](#)

Here Patient can Book Vaccin Appointment Directly Without Doctor Prescripton

### Book Doctor Appointment :



Rubella

Prescription Requirement: yes

\$ 20

Rubella can be prevented with MMR vaccine. This

start time: 03:00 AM


end time: 04:00 AM

You need to Consult Doctor to take this vaccine

[Book Doctor Appointment](#)

Here Patients can Book Doctor Appointments.

### Select Doctor :



Dr.raj  
raj@gmail.com  
732856237  
Experience: 7  
\$ 30 Consultation fee  
we scoured the web for  
examples of doctors' bios

cardiologist  
Mbbs  
start time: 06:00 AM  
end time: 11:00 AM

Slots

After Booking The Doctor Appointment Patient Select The Doctor.

### Book Doctor Appointment :

Hospital Doctor Record

Patient Home

Vaccines

Appointment

Logout

raj  
Rubella

26-04-2024

06:00 AM - 06:15 AM Slot Number:- 1 Not Available	06:15 AM - 06:30 AM Slot Number:- 2 Book Doctor	06:30 AM - 06:45 AM Slot Number:- 3 Book Doctor	06:45 AM - 07:00 AM Slot Number:- 4 Book Doctor	07:00 AM - 07:15 AM Slot Number:- 5 Book Doctor	07:15 AM - 07:30 AM Slot Number:- 6 Book Doctor
07:30 AM - 07:45 AM Slot Number:- 7 Book Doctor	07:45 AM - 08:00 AM Slot Number:- 8 Book Doctor	08:00 AM - 08:15 AM Slot Number:- 9 Book Doctor	08:15 AM - 08:30 AM Slot Number:- 10 Book Doctor	08:30 AM - 08:45 AM Slot Number:- 11 Book Doctor	08:45 AM - 09:00 AM Slot Number:- 12 Book Doctor
09:00 AM - 09:15 AM Slot Number:- 13 Book Doctor	09:15 AM - 09:30 AM Slot Number:- 14 Book Doctor	09:30 AM - 09:45 AM Slot Number:- 15 Book Doctor	09:45 AM - 10:00 AM Slot Number:- 16 Book Doctor	10:00 AM - 10:15 AM Slot Number:- 17 Book Doctor	10:15 AM - 10:30 AM Slot Number:- 18 Book Doctor
10:30 AM - 10:45 AM Slot Number:- 19 Book Doctor	10:45 AM - 11:00 AM Slot Number:- 20 Book Doctor				

After They Books Doctor Appointment

## View Appointment Booked Details :

View Booked Details				
Slot number: 2	06:15 AM - 06:30 AM	Appointment Date :26-04-2024	Appointment type : doctor	Vaccine : Rubella
Doctor : raj				

View Appointment Booking Details.

## Enter Card Deatils :

Total Price:- \$ 30

### Enter Card Details

Card Type

Debit Card

Card Number

Enter Card Number

Name On Card

Enter Name On Card

CVV

Enter CVV Number

Expiry Date

MM/YY

PAY NOW

Before Booking the Appointment They Should Pay The Consulting fee Wlth there card Details.

### View Appointment Details :

Appointment Bookes for:doctor

Vaccine: Rubella

26-04-2024

Slot Number: 2

Slot timings: 06:15 AM - 06:30 AM

guru36463246

Appointment Booked

Cancel Appointment

View Payment

Thye Can View The Apointment details.

### View Payment Details :

#### View Payment Details

Card Type	CVV
Debit Card	234
Expiry Date	Paid Amount
24/28	\$ 30
Card number	
353224234211	
Name On Card	
guru	

Click On View Payment Button to View there payments

### Doctor check's Appointment :

06:15 AM - 06:30 AM

Slot Number:- 2

[View Appointment](#)

After Patient-Booking Doctor Can View The Appointment

### Doctor views Patient Appointment :

Appointment Booked for:doctor

Vaccine: Rubella

26-04-2024

Slot Number: 2

Slot timings: 06:15 AM - 06:30 AM

guru36463246

Appointment Booked

[Write Prescription](#)

[Reject](#)

[View Payment](#)

Doctor Can Prescribe to the patient / rejects Patient Appointment.

## Doctor's Prescription :


**Doctor's Prescription**

Prescription:

Send

Doctor Prescribe Here to patient

## Book Appointment :



Rubella

Prescription Requirement: yes

\$ 20

Rubella can be prevented with MMR vaccine. This

start time: 03:00 AM

end time: 04:00 AM

You can book as Doctor

Prescribed

Book Appointment

After Doctor Appointment Agin APtien Can Book The Appointment For Same Vaccination .

## Book Appointment :

03:00 AM - 03:15 AM Slot Number:- 1	03:15 AM - 03:30 AM Slot Number:- 2	03:30 AM - 03:45 AM Slot Number:- 3	03:45 AM - 04:00 AM Slot Number:- 4
Book Doctor	Book Doctor	Book Doctor	Book Doctor

In the Same Book Doctor Appointment With There CArd Details.



## Assigning Officer :

Appointment Booked for:vaccine

Vaccine: Rubella

26-04-2024

Slot Number: 1

Slot timings: 03:00 AM - 03:15 AM

guru36463246

Appointment Booked

Assign Officer

[View Prescription](#)

[View Payment](#)

Admin Assigns the Officer to Booked slots.