

DELHI TECHNOLOGICAL UNIVERSITY



Database Management System
ONLINE MEDICAL-PRESCRIPTION SYSTEM
DOC-ON-CALL

(Website - “Doctor on Call” Using MySQL at backend)

PROJECT PRESENTATION
EFFORTS BY : Tanishq Kinra - 2K19/CO/405 And
Udaykumar Khemewar - 2K19/CO/417

CERTIFICATE

- ❖ This is to certify that, Udaykumar Khemewar (2K19/CO/417) And Tanishq Kinra - (2K19/CO/405) of Batch A6 , have done their project on **ONLINE MEDICAL-PREScription SYSTEM**
- ❖ Under supervision and guidance of Prof. Manoj Sethi sir, teacher of “Database Management System ” during academic year 2020-2021.

Acknowledgment

- ❖ We would like to express our special thanks to our teacher, Prof. Manoj Sethi sir , who gave us the golden opportunity to do this wonderful project on the topic “ONLINE MEDICAL-PRESCRIPTION SYSTEM”, which also helped us in knowing about so many new things.

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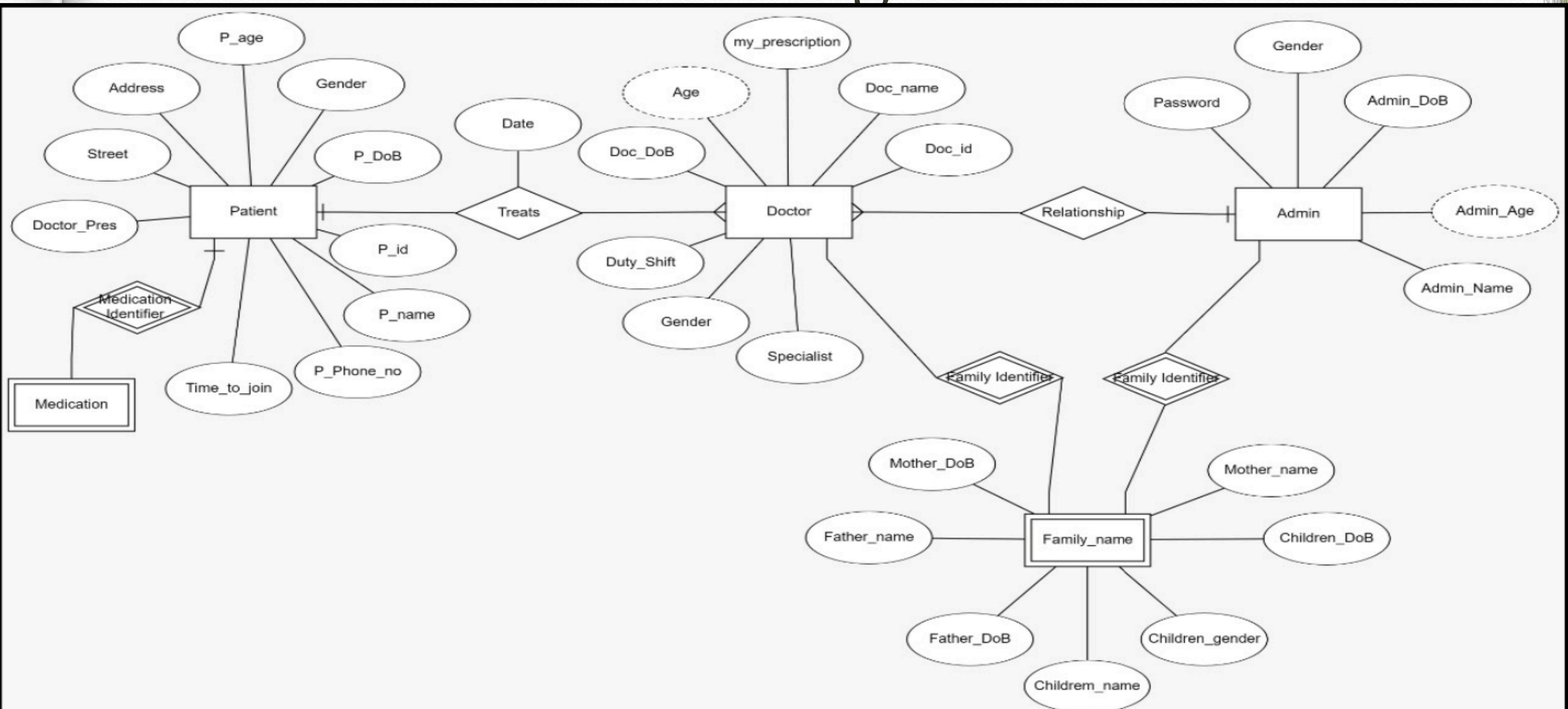
Introduction

- ❖ The pandemic has imposed many restrictions and limitations on every individual. Patients fears to go to hospital for their regular and minor treatments.
- ❖ Our project aims to provide a solution to the aforementioned problem and provide a means for those with some health issues and require a prescription on daily purpose.
- ❖ We want to achieve No Geographical Barriers in medical consultation through D.O.C . It will be cost efficient and it will also save time. Timely Treatment would be ensured to those who are living in remote areas. It can also work as a second opinion to many users and help them get the best possible medical advice.

How “DOC” website works?

- ❖ Our programs is accessible to admin and user those are registered in DocOnCall
- ❖ It works in the following steps:-
 - ❖ 1. Users have to create an account in our website. This data will be stored in our database. For this we have used MySQL to store data like user name , password and other credentials like age , sex, blood group etc.
 - ❖ 2. After creating an account user can login to our website using the credential stored in the database management system. In case the user forgets his/her password he/she is required to enter their email id and again verify themselves and verify themselves via the verification code. It may be noted here that if a user has already logged in through a particular browser and he/she hasn't logged out in the last session then they are not required to fill their login details the next time they use the platform.
 - ❖ 3. Users will then have to select the department and respective doctor available for their appointment.
 - ❖ 4. Once the department and doctor is selected user can set an appointment anytime anywhere where ever internet connectivity is available.
 - ❖ 5. After setting an appointment user will be provided with a (meeting-link) and this link will be used to talk with the doctor. After getting a meet link , user has authenticate himself with the code provided through the email. Meeting duration may vary for commercial purposes .
 - ❖ 6. Depending on his/her understanding of the patient's symptoms, the doctor may then either prescribe medicines

ER Diagram



ENTITY RELATIONSHIP DIAGRAM

- ❖ An Entity Relationship (ER) Diagram is a type of flowchart that illustrates how “entities” such as people, objects or concepts relate to each other within a system.
- ❖ ER Diagrams are most often used to design or debug relational databases in the fields of software engineering, business information systems, education and research. Also known as ERDs or ER Models, they use a defined set of symbols such as rectangles, diamonds, ovals and connecting lines to depict the interconnectedness of entities, relationships and their attributes. They mirror grammatical structure, with entities as nouns and relationships as verbs.
- ❖ In our project we have broadly five entities with several relationships.
- ❖ Doctor(strong entity), Patient(strong entity), Admin(Strong entity),Family (weak entity).
- ❖ Relations:- We have two relations
 - ❖ i)Treats:- It shows relation between doctor and patient which is being treated and it is many to many relationship.
 - ❖ ii) Relationship :-It shows relation of admin with doctor. admin is responsible for setting shifts and it is many to one relationship.

Functions for easy use of website

- ❖ We have provided the option to reset the password if patient forgets, by just filling few basic details.
- ❖ Link for communication with doctors will not be provided on E-mail. The link will be available in patients login page for patient convenient.
- ❖ For more interactive session webcam portion will also be added. As of now, It requires domain server to use the video conference option and the video plugins are developed.
- ❖ We will also try to link it with national digital health mission.

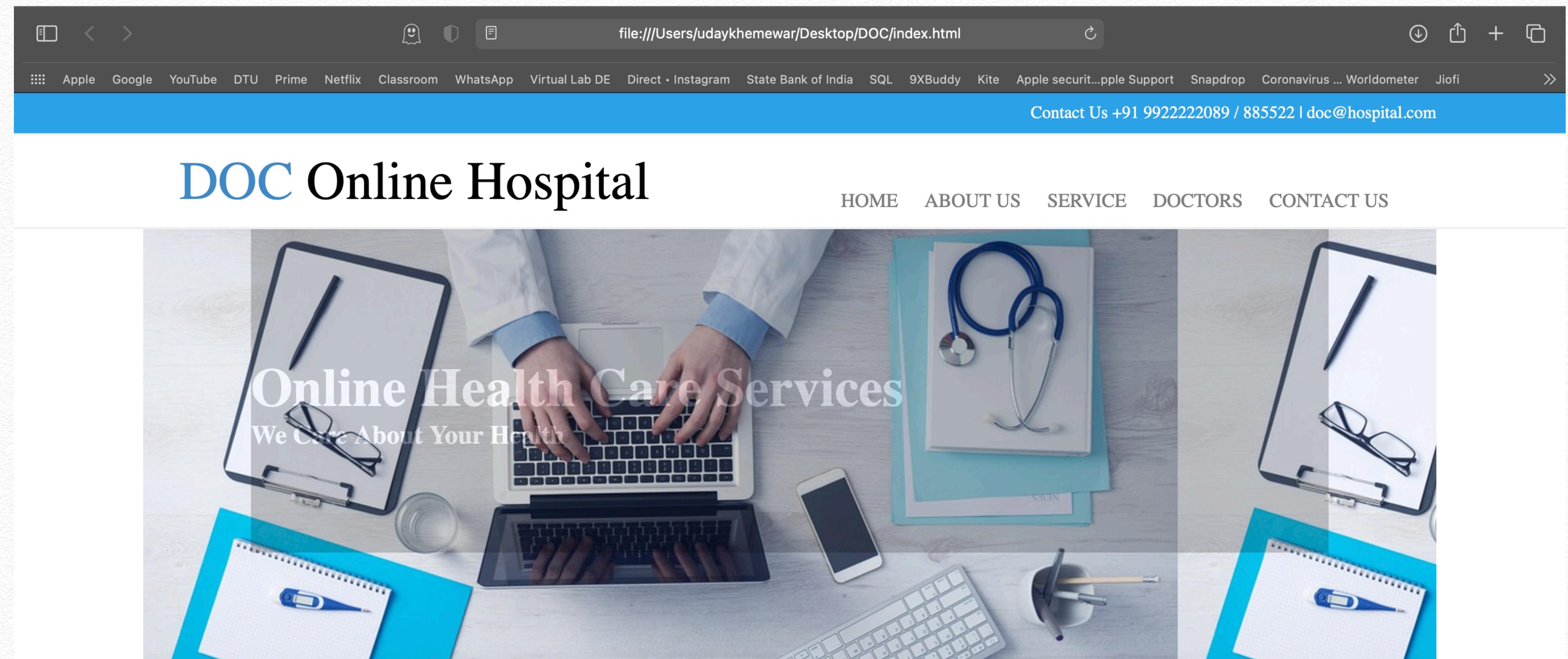
Work done upto 1st Review

- ❖ The front end part of the website is almost done except few designs have to be added in order to make it more attractive and user friendly.
- ❖ We have used MySql as database to store user's details and the user is required to verify himself/herself when they sign up for the first time.
- ❖ This verification is done via sending a random verification code to the entered email.
- ❖ The home page (or landing page) of the website is 50% developed. It has a short description , the platform introduction and a navigation bar.

Work done upto 2nd Review

- ❖ As we have started doing work on the back-end. Now the options provided by us are responsive on any action and we have been provided them functionalities using backend.
- ❖ As we are storing the data (only basic details) of patients in database using “MySQL”.
- ❖ Now Patients and doctors are able to Login with their credentials and the patient can use appointment function.
- ❖ We have fully completed the frontend part and 70 % of the backend part.

Screenshots of our DOC Website



We are Online Hospital and medical center

Say Hello to your Doctor!
24/7 Online Consultation.
Anytime and Anywhere.

We Have Medicare Plan Options for You!

This Website aims to provide a online medical treatment via call or video conference and provide a mean for those with some health issues and require a prescription on

Home Page front end

Screenshots of our DOC Website



Login Page

Screenshots of our DOC Website

HMS

MAIN NAVIGATION

- Dashboard
- Doctors
- Users
- Patients
- Appointment History
- Conatctus Queries
- Doctor Session Logs
- User Session Logs
- Reports
- Patient Search

ADMIN | DASHBOARD

Hospital Management System Admin / Dashboard

Manage Users Total Users :6

Manage Doctors Total Doctors :12

Appointments Total Appointments :3

Manage Patients Total Patients :5

New Queries Total New Queries :1

The screenshot displays the Admin Dashboard of the Hospital Management System (HMS). On the left, a vertical navigation menu lists various administrative functions such as Dashboard, Doctors, Users, Patients, Appointment History, Contactus Queries, Doctor Session Logs, User Session Logs, Reports, and Patient Search. The main dashboard area is titled "ADMIN | DASHBOARD" and features five cards: "Manage Users" (Total Users: 6), "Manage Doctors" (Total Doctors: 12), "Appointments" (Total Appointments: 3), "Manage Patients" (Total Patients: 5), and "New Queries" (Total New Queries: 1). The top right corner shows the user profile "Admin" and a gear icon for settings. The overall interface is clean and modern, using a light gray color scheme with blue accents for buttons and icons.

Admin Dashboard

Screenshots of our DOC Website

HMS

MAIN NAVIGATION

- Dashboard
- Doctors
- Users
- Patients
- Appointment History
- Conatctus Queries
- Doctor Session Logs
- User Session Logs
- Reports
- Patient Search

Hospital Management System Admin Admin / Manage Doctors

ADMIN | MANAGE DOCTORS

Manage Doctors

#	Specialization	Doctor Name	Creation Date	Action
1.	Dentist	Anuj	2016-12-29 11:55:37	Edit Delete
2.	Homeopath	Sarita Pandey	2016-12-29 12:21:51	Edit Delete
3.	General Physician	Nitesh Kumar	2017-01-07 13:13:35	Edit Delete
4.	Homeopath	Vijay Verma	2017-01-07 13:15:09	Edit Delete
5.	Ayurveda	Sanjeev	2017-01-07 13:17:07	Edit Delete
6.	General Physician	Amrita	2017-01-07 13:22:50	Edit Delete
7.	Demo test	abc	2017-01-07 13:38:58	Edit Delete
8.	Ayurveda	Test Doctor	2019-06-23 23:27:43	Edit Delete
9.	Dermatologist	Anuj kumar	2019-11-11 00:07:47	Edit Delete
10.	testing	Mnc	2017-01-07 13:13:35	Edit Delete
11.	testing	Mnc	2017-01-07 13:13:35	Edit Delete
12.	testing	Mnc	2017-01-07 13:13:35	Edit Delete

Available Doctor details

Screenshots of our DOC Website

The screenshot shows the 'DOCTOR | DASHBOARD' page. On the left is a vertical navigation bar with 'MAIN NAVIGATION' containing 'Dashboard', 'Appointment History', 'Patients', and 'Search'. The main area has a title 'DOCTOR | DASHBOARD' and two cards: 'My Profile' (with a smiley face icon) and 'My Appointments' (with a clipboard icon). Both cards have blue 'Update Profile' and 'View Appointment History' buttons respectively. The top right shows the system name 'Hospital Management System' and a user profile icon labeled 'Mnc'. The bottom left contains the copyright notice '© 2021 HMS. All rights reserved'.

HMS

Hospital Management System Mnc

MAIN NAVIGATION

- Dashboard
- Appointment History
- Patients
- Search

DOCTOR | DASHBOARD

User / Dashboard

My Profile

Update Profile

My Appointments

View Appointment History

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Doctor's Dashboard

Screenshots of our DOC Website

The screenshot shows the 'User | Dashboard' page of the Hospital Management System (HMS). The top navigation bar includes the HMS logo, a main menu icon, the system name 'Hospital Management System', a user profile for 'Uday', and a 'Logout' button. The left sidebar contains a 'MAIN NAVIGATION' section with links for 'Dashboard', 'Book Appointment', 'Appointment History', and 'Medical History'. The main content area is titled 'USER | DASHBOARD' and features three cards: 'My Profile' (with a smiley face icon), 'My Appointments' (with a clipboard icon), and 'Book My Appointment' (with a greater-than icon). Each card has a corresponding blue link below it: 'Update Profile', 'View Appointment History', and 'Book Appointment'. The bottom of the page includes a copyright notice '© 2021 HMS. All rights reserved' and a small upward arrow icon.

HMS

Hospital Management System Uday

MAIN NAVIGATION

- Dashboard
- Book Appointment
- Appointment History
- Medical History

USER | DASHBOARD

User / Dashboard

My Profile

My Appointments

Book My Appointment

Update Profile

View Appointment History

Book Appointment

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Users Dashboard

Screenshots of our DOC Website

The screenshot shows the 'USER | BOOK APPOINTMENT' section of the HMS. On the left, a sidebar menu titled 'MAIN NAVIGATION' includes 'Dashboard', 'Book Appointment' (which is selected and highlighted in blue), 'Appointment History', and 'Medical History'. The main content area is titled 'Book Appointment' and contains fields for 'Doctor Specialization' (with a placeholder 'Select Specialization'), 'Doctors' (with a placeholder 'Select Doctor'), 'Consultancy Fees' (with a large empty input field), 'Date' (with a large empty input field), and 'Time' (with a placeholder '7:45 PM' and a note 'eg : 10:00 PM'). A 'Submit' button is at the bottom of the form. The top right corner shows the user profile 'Uday' and navigation links 'User / Book Appointment'.

User booking appointment

MYSQL Database table of DOC Website

```
mysql> use hms;
[Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> select * from admin;
+----+-----+-----+-----+
| id | username | password | updationDate |
+----+-----+-----+-----+
| 1  | admin    | Test@12345 | 28-12-2016 11:42:05 AM |
+----+-----+-----+-----+
1 row in set (0.00 sec)
```

Admin Table

MYSQL Database table of DOC Website

mysql> select * from doctors;										
id	specilization	doctorName	address	docFees	contactno	docEmail	password	creationDate	updatationDate	
1	Dentist	Anuj	New Delhi	500	8285703354	anuj.lpu1@gmail.com	f925916e2754e5e03f75dd58a5733251	2016-12-29 11:55:37	2019-06-30 17:41:05	
2	Homeopath	Sarita Pandey	Varanasi	600	2147483647	sarita@gmail.com	f925916e2754e5e03f75dd58a5733251	2016-12-29 12:21:51	0000-00-00 00:00:00	
3	General Physician	Nitesh Kumar	Ghaziabad	1200	8523699999	nitesh@gmail.com	f925916e2754e5e03f75dd58a5733251	2017-01-07 13:13:35	0000-00-00 00:00:00	
4	Homeopath	Vijay Verma	New Delhi	700	25668888	vijay@gmail.com	f925916e2754e5e03f75dd58a5733251	2017-01-07 13:15:09	0000-00-00 00:00:00	
5	Ayurveda	Sanjeev	Gurugram	8050	442166644646	sanjeev@gmail.com	f925916e2754e5e03f75dd58a5733251	2017-01-07 13:17:07	0000-00-00 00:00:00	
6	General Physician	Amrita	New Delhi India	2500	45497964	amrita@test.com	f925916e2754e5e03f75dd58a5733251	2017-01-07 13:22:50	0000-00-00 00:00:00	
7	Demo test	abc	New Delhi India	200	8528888888	test@demo.com	f925916e2754e5e03f75dd58a5733251	2017-01-07 13:38:58	2019-06-23 23:47:25	
8	Ayurveda	Test Doctor	Xyz Abc New Delhi	600	1234567890	test@test.com	202cb962ac59075b964b07152d234b70	2019-06-23 23:27:43	2019-06-23 23:36:06	
9	Dermatologist	Anuj kumar	New Delhi India 110001	500	1234567890	anujk@test.com	f925916e2754e5e03f75dd58a5733251	2019-11-11 00:07:47	2019-11-11 00:08:10	
10	testing	Mnc	Delhi	200	9922222089	123@gmail.com	pass	2017-01-07 13:13:35	2019-11-11 00:08:01	
11	testing	Mnc	Delhi	200	9822222089	1234@gmail.com	password	2017-01-07 13:13:35	2019-11-11 00:08:01	
12	testing	Mnc	Delhi	200	9922222089	12345@gmail.com	5f4dcc3b5aa765d61d8327deb882cf99	2017-01-07 13:13:35	2019-11-11 00:08:01	

Doctors Table

MYSQL Database table of DOC Website

```
mysql> select * from users;
+----+-----+-----+-----+-----+-----+-----+-----+-----+
| id | fullName | address | city | gender | email | password | regDate | updationDate |
+----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | tanishq | delhi | fbd | male | tanishq@gmail.com | tanishq123 | 2016-12-30 11:04:39 | 2021-04-22 01:42:04 |
| 2 | Sarita pandey | New Delhi India | Delhi | female | test@gmail.com | f925916e2754e5e03f75dd58a5733251 | 2016-12-30 11:04:39 | 0000-00-00 00:00:00 |
| 3 | Amit | New Delhi | New delhi | male | amit@gmail.com | f925916e2754e5e03f75dd58a5733251 | 2017-01-07 12:06:53 | 0000-00-00 00:00:00 |
| 4 | Rahul Singh | New Delhi | New delhi | male | rahul@gmail.com | f925916e2754e5e03f75dd58a5733251 | 2017-01-07 13:11:14 | 0000-00-00 00:00:00 |
| 5 | Amit kumar | New Delhi India | Delhi | male | amit12@gmail.com | f925916e2754e5e03f75dd58a5733251 | 2017-01-07 13:30:26 | 0000-00-00 00:00:00 |
| 7 | Uday | Delhi | ND | Male | uday@gmail.com | b0931392878fe70bf92e4f699dcf9213 | 2016-12-30 11:04:39 | 2021-04-22 01:39:53 |
| 8 | Uday Khemewar | Nagpur | Nagp | male | udaykhemewar@gmail.com | b0931392878fe70bf92e4f699dcf9213 | 2021-04-22 01:12:02 | 2021-04-22 01:34:14 |
+----+-----+-----+-----+-----+-----+-----+-----+-----+
7 rows in set (0.00 sec)

mysql> █
```

Users Table

MYSQL Database table of DOC Website

```
[mysql]> select * from appointment;
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| id | doctorSpecialization | doctorId | userId | consultancyFees | appointmentDate | appointmentTime | postingDate | userStatus | doctorStatus | updatationDate |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | Demo test           | 7         | 6       | 600             | 2019-06-29      | 9:15 AM        | 2019-06-24 00:01:28 | 1           | 0           | 0000-00-00 00:00:00 |
| 4 | Ayurveda             | 5         | 5       | 8050            | 2019-11-08      | 1:00 PM         | 2019-11-05 15:58:54 | 1           | 1           | 0000-00-00 00:00:00 |
| 5 | Dermatologist        | 9         | 7       | 500             | 2019-11-30      | 5:30 PM         | 2019-11-11 00:11:34 | 1           | 0           | 2019-11-11 00:18:30 |
| 6 | Homeopath            | 2         | 8       | 600             | 2021-04-29      | 1:15 AM         | 2021-04-22 01:13:59 | 0           | 1           | 2021-04-22 01:14:15 |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> █
```

Appointment Table

MYSQL Database table of DOC Website

```
[mysql]> select * from doctorspecialization;
+----+-----+-----+-----+
| id | specialization | creationDate | updatationDate |
+----+-----+-----+-----+
| 1  | Gynecologist/Obstetrician | 2016-12-28 12:07:25 | 0000-00-00 00:00:00 |
| 2  | General Physician | 2016-12-28 12:08:12 | 0000-00-00 00:00:00 |
| 3  | Dermatologist | 2016-12-28 12:08:48 | 0000-00-00 00:00:00 |
| 4  | Homeopath | 2016-12-28 12:09:26 | 0000-00-00 00:00:00 |
| 5  | Ayurveda | 2016-12-28 12:09:51 | 0000-00-00 00:00:00 |
| 6  | Dentist | 2016-12-28 12:10:08 | 0000-00-00 00:00:00 |
| 7  | Ear-Nose-Throat (Ent) Specialist | 2016-12-28 12:11:18 | 0000-00-00 00:00:00 |
| 9  | Demo test | 2016-12-28 13:07:39 | 0000-00-00 00:00:00 |
| 10 | Bones Specialist demo | 2017-01-07 13:37:53 | 0000-00-00 00:00:00 |
| 11 | Test | 2019-06-23 23:21:06 | 2019-06-23 23:25:06 |
| 12 | Dermatologist | 2019-11-11 00:06:36 | 2019-11-11 00:06:50 |
+----+-----+-----+-----+
11 rows in set (0.00 sec)
```

Doctor Specialisation Table

Conclusion

- ❖ In this project, we had learnt web development skills which includes making a server, making web pages, fetching details of a user from a third party website, hosting the website, maintaining database, using proper queries to access correct data from the database, prevent storing redundant data in the database, proper encryption and authentication of user data , prevent invalid access of data, maintenance of software, removal of bugs through proper and thorough testing, deploying the website and collect user feedback, work on new features depending on the user response, roll out new versions of the website with time with more enhanced features and user experience, proper and timely response of user complaint .

References

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- ❖ [2] Syed Asif Hassan and Tabrej Khan, "A proposed prototype of e-pharmacy web application for the consumers of saudi arabia", Volume 8, No. 9, November-December 2017
- ❖ [3] Nicole Paolini Albanese and Michael J. Rouse, "Scope of Contemporary Pharmacy Practice: Roles, Responsibilities, and Functions of Pharmacists and Pharmacy Technicians", Approved for distribution by CCP Board of Directors on February 25, 2009

❖ Tools used and other links-

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- ❖ 2. Tool for ER-Diagram : <https://drawio-app.com/tutorials>
- ❖ 3. <https://www.octalsoftware.com/blog/e-prescription-software-mobile-app-development-cost-features>
- ❖ 4. Fundamental of database system by Navathe
- ❖ 5. Database Management system by Henry Korth and Abraham & Sudarshan

THANK YOU!