A

Project Report on

FUTURE HEALTH

Submitted in partial fulfilment of completion of the course

Advanced Diploma in IT, Networking and Cloud

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Year 2023

Abstract

Title: "**FUTURE HEALTH**":

This documentation provides a detailed overview of our hospital website, which not only offers essential medical services but also focuses on an enhanced user experience. Key features such as a user-friendly interface, dark mode theme, and language translator integration are highlighted.

This documentation outlines the creation and management of a dynamic hospital website designed to provide essential medical services, facilitate doctor search and appointment booking, and establish a seamless connection with users through the "Contact Us" feature. Additionally, it sheds light on the "About Us" section, offering insights into the website's purpose, mission, and values.

The document provides step-by-step instructions on how to navigate and utilize these features, ensuring that users can effortlessly access critical information, customize their viewing experience, and break language barriers to obtain the healthcare services they need. This guide empowers website administrators to maintain and optimize these user-centric features for an inclusive and accessible healthcare platform.

Acknowledgement

We would like to express our sincere gratitude to several individuals and the IBM organization for supporting us throughout our diploma study. First, we wish to express our sincere gratitude to our Edunet mentor, Miss **Mala Mishra**, for her enthusiasm, patience, insightful comments, helpful information, practical advice and unceasing ideas that have helped us tremendously at all times in our study and writing of this project report.

We also wish to express our sincere thanks to our Training Officer, Miss **Trupti Pawar** for her immense knowledge, profound experience and professional expertise in Industry has enabled us to complete this project successfully while making sure that it matches the industry standards.

In addition, we are deeply indebted to the Ministry of Skill Development & Entrepreneurship and IBM for granting us the diploma course. Their technical and financial support has enabled us to complete our diploma course studies successfully.

Team Composition and Workload Division

1. Bhupesh – UI (front-end), Database (backend), Design Pattens, Page Layout & Documentation.

2. Sapna – UI (front-end), Database (backend), Documentation.

3. Vaibhav– UI (front-end) & Database (backend)

4. Yash– UI (front-end), Database (backend) & PPT, Documentation.

1. Introduction to Problem

Lack of Disease Information:

The website lacks comprehensive disease information, leaving users uninformed about symptoms, treatment options, and prevention.

Population Health Management:

Inadequate tools hinder our ability to collect and use health data for tailored care and preventive measures.

Doctor-Related Issues:

Users struggle to find information about doctors, affecting their confidence in healthcare choices.

Emergency Situations:

The website lacks essential resources for users during emergencies, such as contact numbers and first-aid guidance.

Booking Appointments:

Complex booking processes and limited information deter users from scheduling appointments.

Access to Healthcare:

Limited online registration, unclear insurance details, and no telehealth options hinder access to medical care.

2. Literature Review

The incorporation of web development in hospital management has brought about a transformative shift in healthcare delivery. It has facilitated instantaneous access to Electronic Health Records (EHRs), enabling healthcare providers to make timely and informed decisions.

Patient portals and telemedicine have emerged as powerful tools, fostering greater patient engagement and extending healthcare services beyond physical boundaries. The implementation of robust security measures, coupled with user-friendly interfaces and responsive design, ensures both data protection and accessibility across devices.

Furthermore, the integration with Internet of Things (IoT) devices enables real-time patient monitoring, allowing for swift interventions in critical situations. Data analytics, facilitated by web development, offer valuable insights, enhancing operational efficiency.

The scalability of web frameworks ensures adaptability to future technological advancements, ensuring a forward-thinking approach to hospital management. In essence, web development stands as a cornerstone in modern healthcare, optimizing care delivery and operational efficacy.

3. Proposed Solution

To address the issue of lack of attention during emergencies, we recommend implementing a prominent "Emergency Helpline" feature that is available 24/7 and accessible from every page of the website. This feature would provide users with immediate access to a dedicated phone line or chat support, ensuring that users can swiftly seek assistance during critical situations, thus improving the response time and attention provided in emergency cases.

To resolve doctor-related issues, we propose the creation of a "Find My Doctor" tab or section on the website. This feature would include a user-friendly search tool that allows patients to search for doctors based on specialty, location, and availability. Each doctor's profile should offer comprehensive information, including qualifications, experience, patient reviews, and contact details, empowering patients to make informed choices and enhancing trust in the healthcare professionals.

To simplify the booking of appointments with doctors, we recommend the integration of a "Quick Booking Appointment" feature. This feature would enable users to schedule appointments online, view real-time availability, and receive confirmation notifications. A user-friendly interface should guide users through the appointment booking process, making it hassle-free and efficient, thus addressing the difficulties associated with booking appointments.

To enhance access to healthcare information, we propose creating dedicated pages that provide detailed and reliable information about various diseases. These pages should include sections on symptoms, causes, treatment options, and preventive measures for each disease. Ensuring that the content is easy to understand and regularly updated with evidence-based information will empower users with accurate knowledge about their health.

Lastly, to improve overall user awareness and experience, we recommend designing a user-friendly interface for the website. This includes clear navigation menus, responsive design, and an appealing layout. Intuitive icons, descriptive labels, and easy-to-follow instructions should guide users seamlessly through the website. Furthermore, incorporating features like a dark mode theme and a language translator will enhance accessibility and customization options for a broader audience. This comprehensive solution package will transform your hospital website into a more user-friendly, informative, and accessible platform, ultimately promoting better patient engagement and satisfaction.

Requirements

3.1 Technology Stack Full stack development

Full stack development refers to the development of both front end (client side) and back end (server side) portions of web application. We have used (HTML-CSS-JavaScript/Bootstrap at the front-end) & (Laravel Framework) as the database.

3.2 Hardware

- Desktop/Laptop
- Minimum 8GB RAM
- Processor 64-bit
- Solid State Drive 250GB
- Internet Connection

3.3 Software

Front End

HTML:
Hyper Text Markup Language (HTML) is a markup language for creating a webpage. Webpages are usually viewed in a web browser. They can include writing, links, pictures, and even sound and video. HTML is used to mark and describe each of these kinds of content so the web browser can display them correctly.

CSS:
CSS is the language for describing the presentation of Web pages, including colours, layout, and fonts. It allows one to adapt the presentation to different types of devices, such as large screens, small screens, or printers. CSS is independent of HTML and can be used with any XML-based markup language.

JavaScript: JavaScript is a lightweight, interpreted programming language. It is designed for creating network-centric applications. It is complimentary to and integrated with Java. JavaScript is very easy to implement because it is integrated with HTML. It is open and cross-platform. It is the most popular programming language in the world and that makes it a programmer's great choice. Once you learnt JavaScript, it helps you developing great front-end as well as back-end software's using different JavaScript based frameworks like jQuery, Node.JS etc.

Back End

Laravel: Laravel is an open-source PHP framework, which is robust and easy to understand. It follows a model-view-controller design pattern. Laravel reuses the existing components of different frameworks which helps in creating a web application. The web application thus designed is more structured and pragmatic.

PHP: PHP is one of the most widely used server-side scripting language for web development. Popular websites like Facebook, Yahoo, Wikipedia etc., and our very own Study tonight, are developed using PHP. PHP is so popular because it's very simple to learn code and deploy on server, hence it has been the first choice for beginners since decades. In this tutorial series we will be covering all the important concepts of PHP language from basics to advance and will also share some readyto-use, useful code snippets for beginners to kick start their web development project.

3.4 Deployment Environment

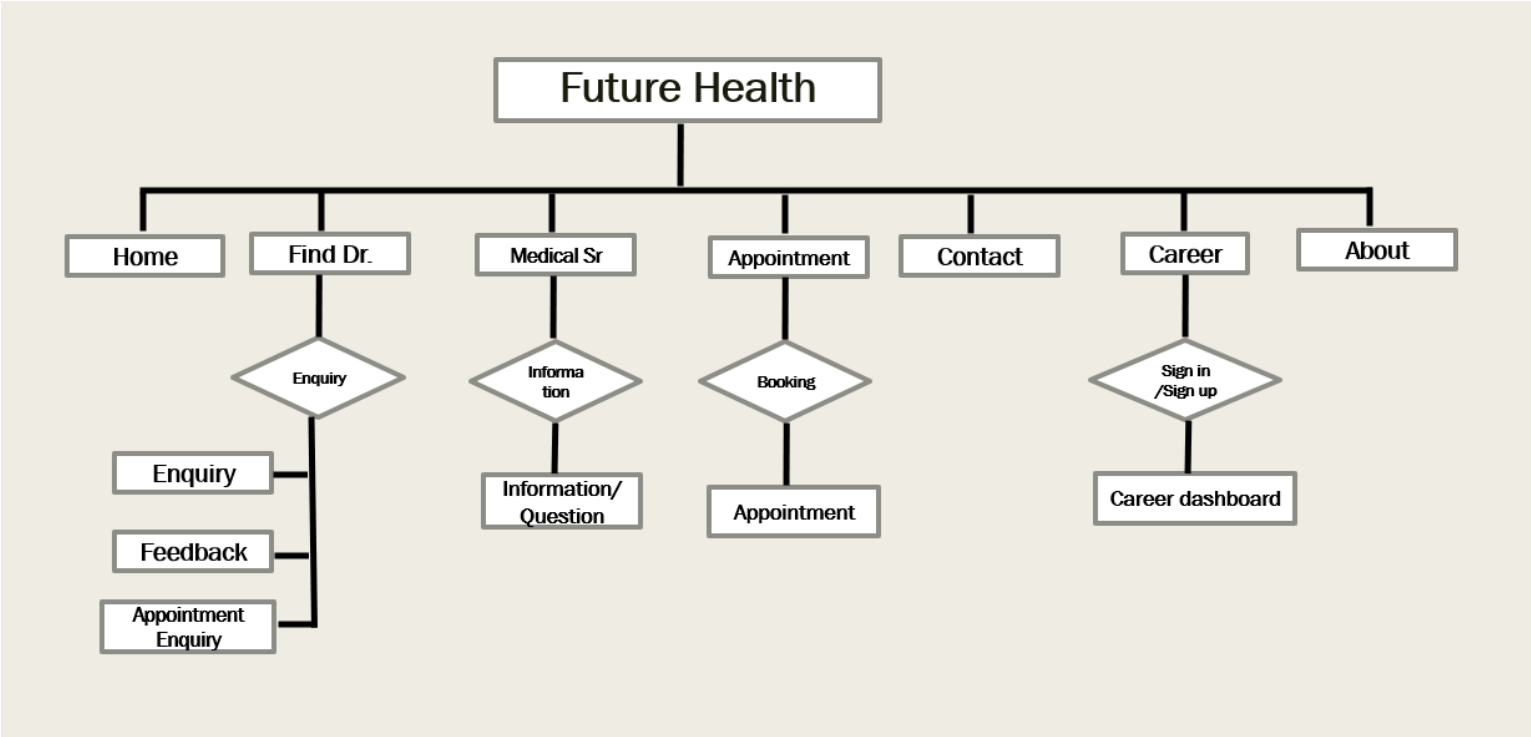
GITHUB: GitHub is a web-based version control and collaboration platform for software developers. Microsoft, the biggest single contributor to GitHub, acquired the platform for $7.5 billion in 2018. GitHub, which is delivered through a software as a service (SaaS) business model, was started in 2008.

4. User Requirements

- Electronic Device: Mobile, Laptop, Desktop or Tablet
- Email Account
- Access to Internet

5. Design Documentation

ER Diagram



6. Implementation Details

6.1 Home Page In this module, we have provided details about the website and also the necessary links. It provides a direct link to the Booking, Destinations, Contact us Forms. It provides details on how you should hotel and flight with us if you are user.

6.2 Login Page In this module, you can login into the account registered on the website using your email id and password.

6.3 Registration Page In this module, you can create a user account if you haven't already. It will include details about you like; name, mobile number, email, address and password. And then submit it, it will be saved in the database and your account is created, now you can login using your email and password anytime you want.

6.4 Medical-Services Page Our Medical Services page is your gateway to a world of healthcare excellence. Discover a wide range of medical services, expert healthcare professionals, and state-of-the-art facilities.

6.5 Book Appointment Page Ready to schedule your medical appointment? Our convenient online booking system makes it easy. Choose your preferred date and time, select your specialist, and confirm your appointment in just a few clicks. Streamline your healthcare journey with hassle-free booking.

6.6 Contact Us Page Have questions or need assistance? Reach out to us through our Contact Us page. Our dedicated team is here to address your inquiries and provide support. Get in touch today.

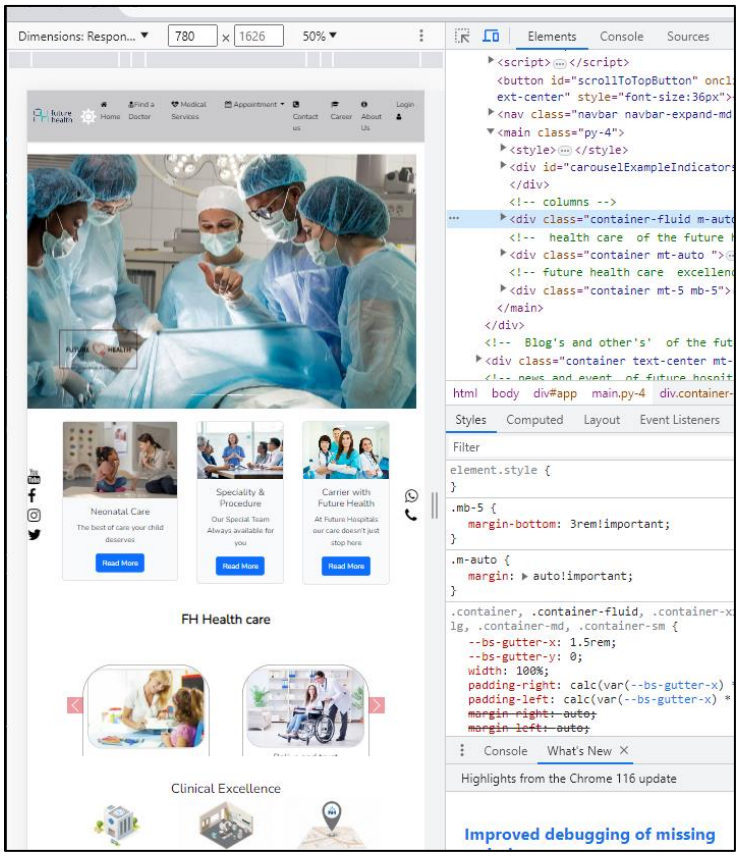
6.7 About Us Page Discover our story and mission on our About Us page. Learn about the passionate team behind our healthcare services and our commitment to your well-being. Explore our history, values, and vision for a healthier tomorrow.

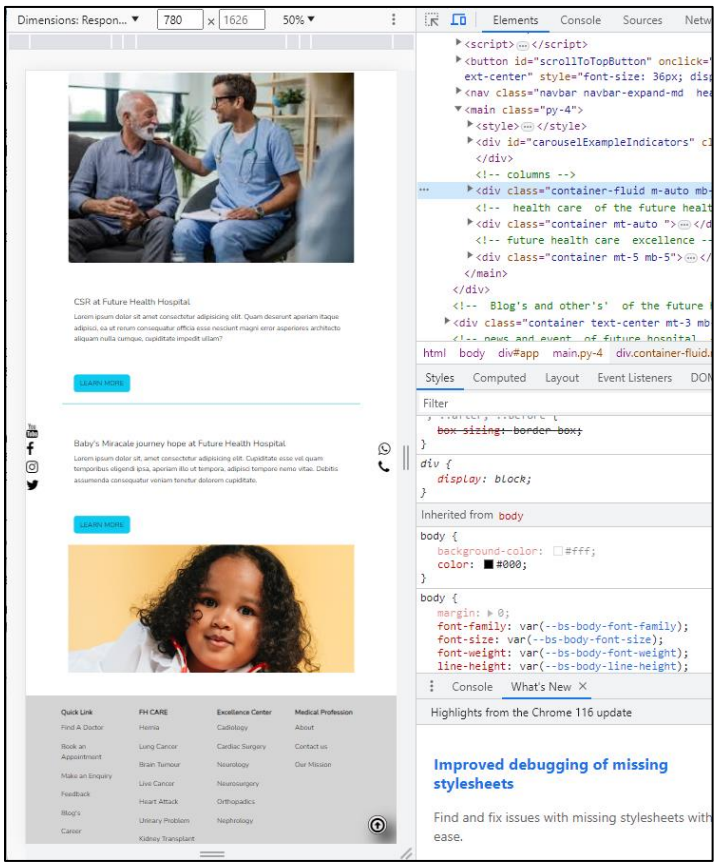
7. Testing

Web application refers to all applications that are accessed through a browser. This section outlines some of the testing methodologies you can use to test your web applications.

- **Usability testing**

Usability Testing also known as User Experience (UX) Testing, is a testing method for measuring how easy and user-friendly a software application is. A small set of target end-users, use software application to expose usability defects. Usability testing mainly focuses on user's ease of using application, flexibility of application to handle controls and ability of application to meet its objectives.



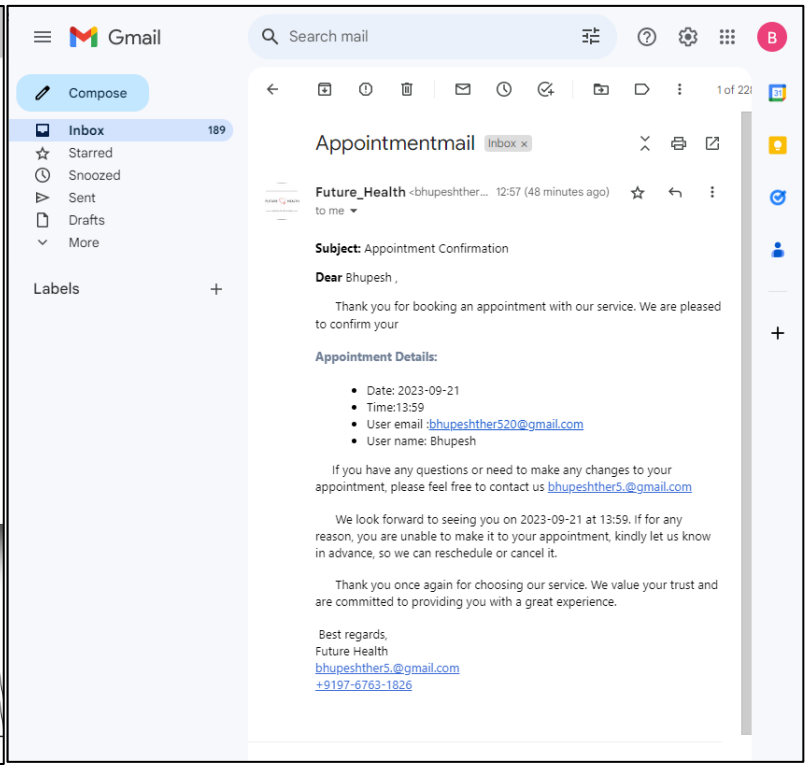


Main Work

Responsiveness, user-friendly, easy to use and understand to user

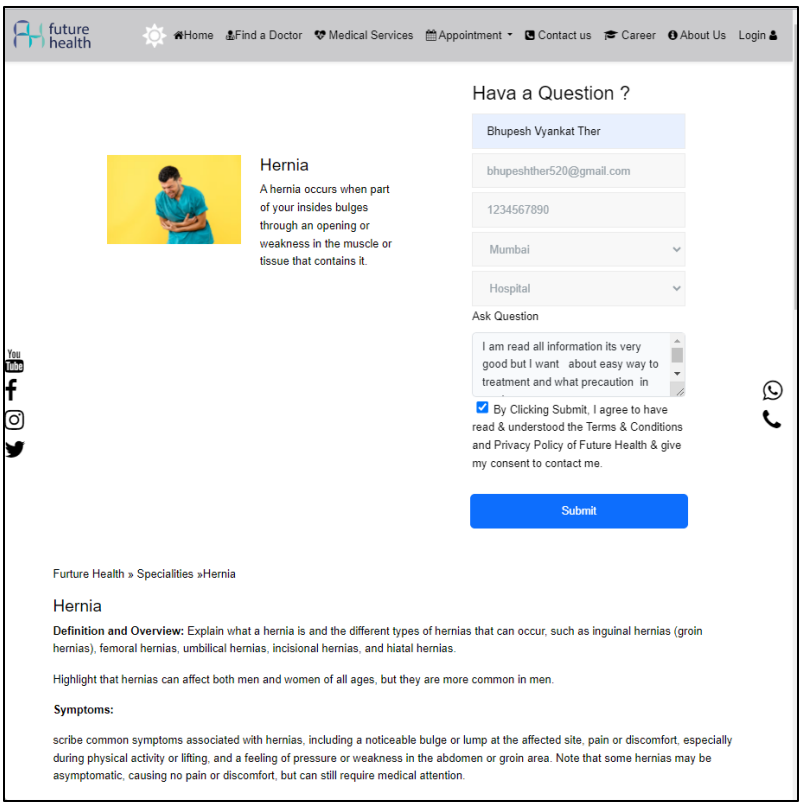
▪ **User acceptance testing**

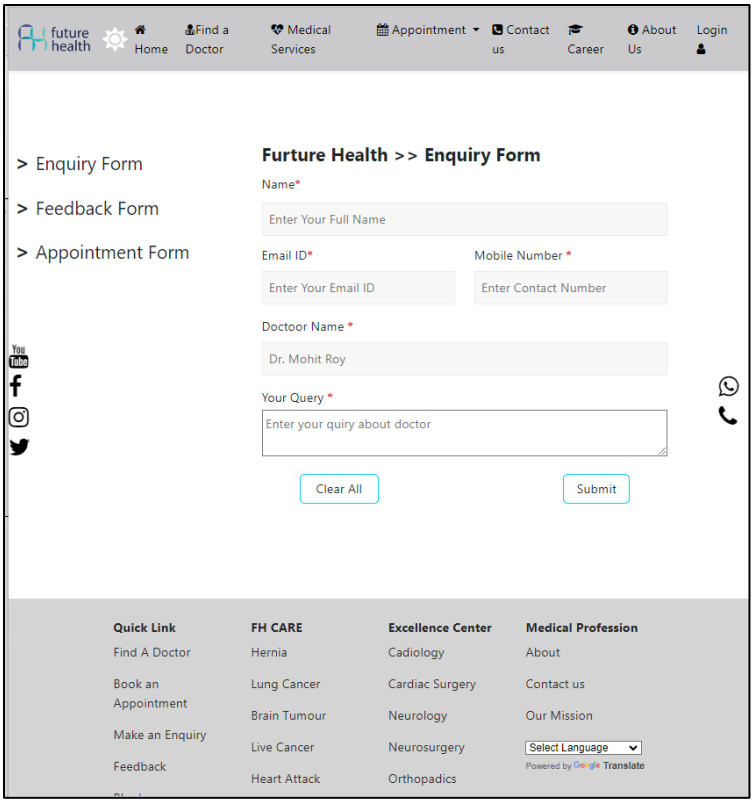
The objective of user acceptance testing is to make sure your application meets the expectations of the user. It ensures that the application is fit enough to be deployed and used effectively.



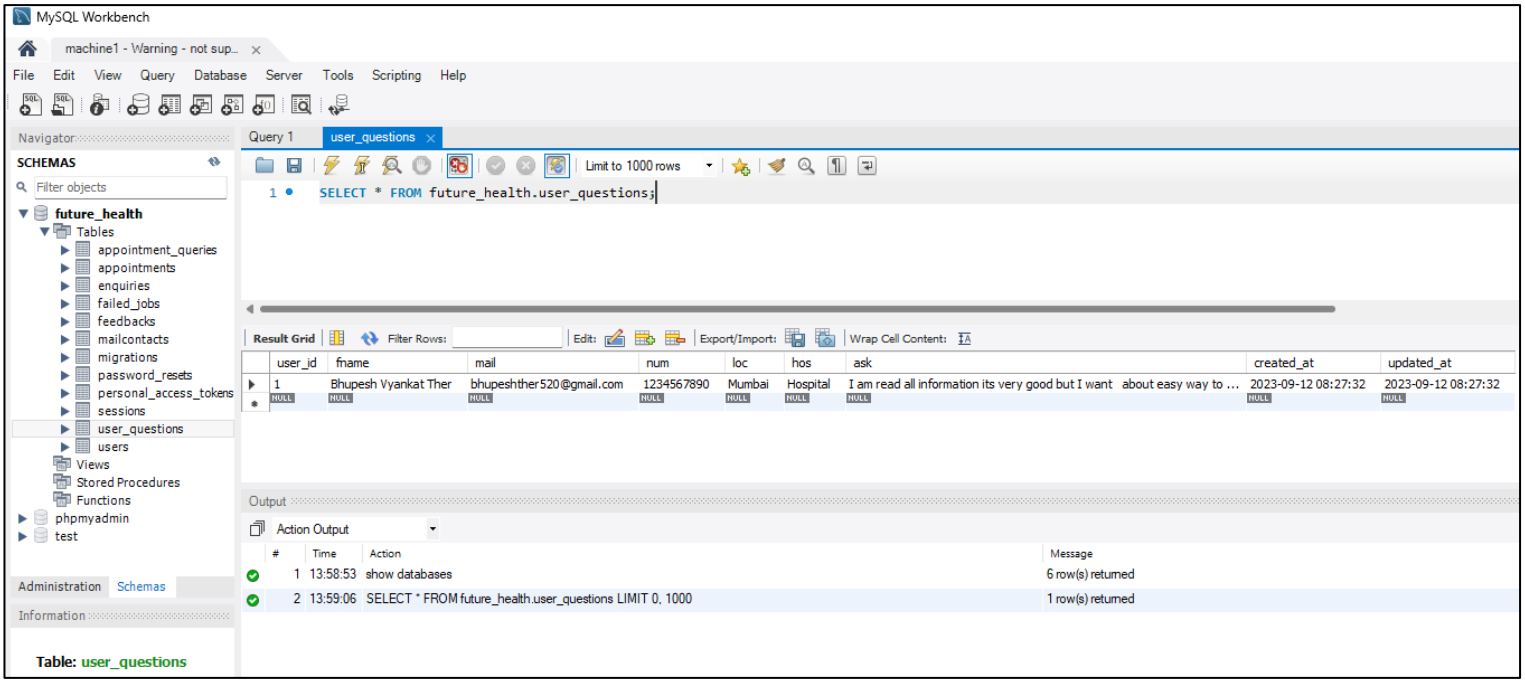
• **Unit Testing**

Unit testing is a software testing method by which individual units of source code—sets of one or more computer program modules together with associated control data, usage procedures, and operating procedures—are tested to determine whether they are fit for use.





- Backend site data store in MySQL



9. Deployment

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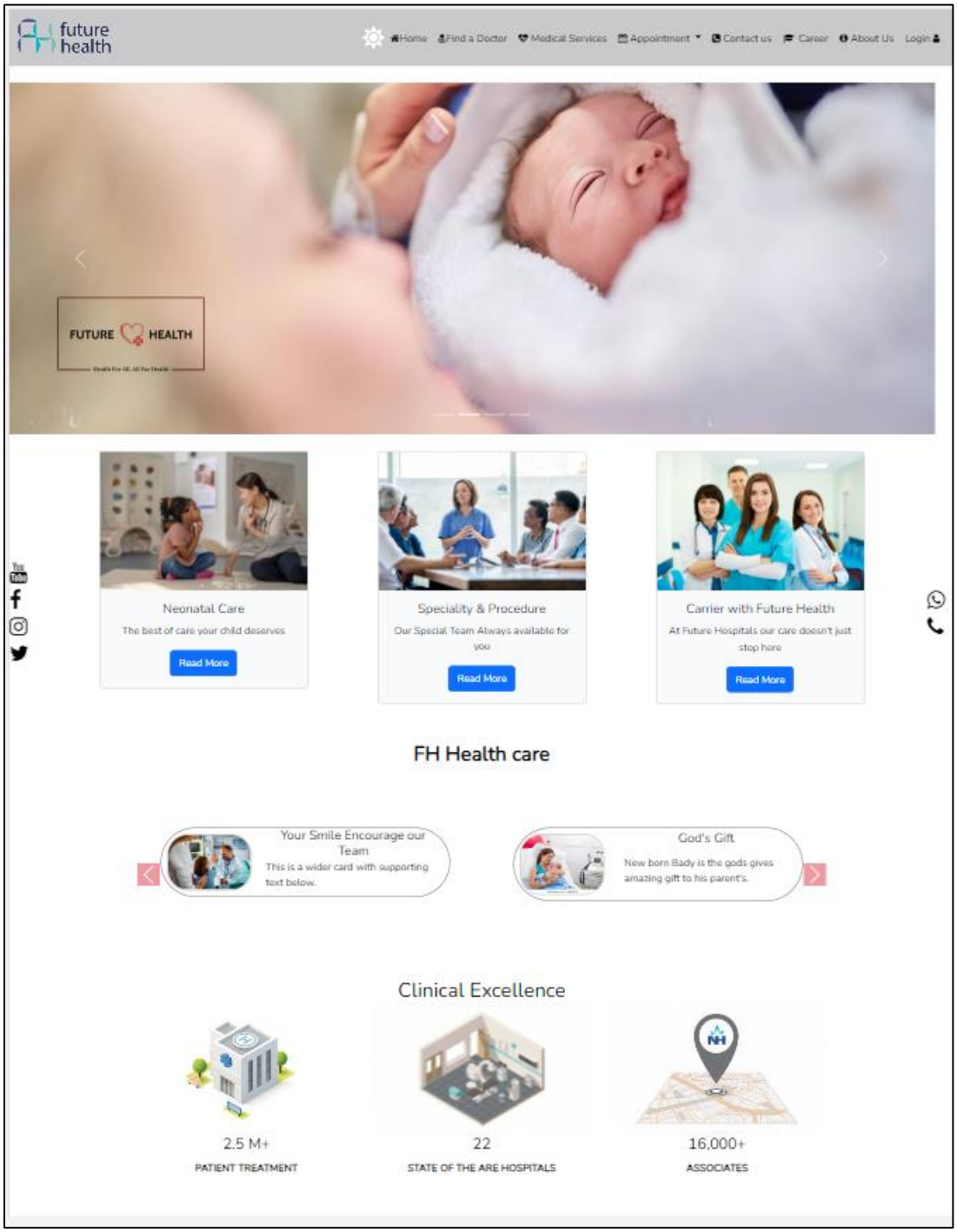
LINK: https://lnkd.in/dfjbjgwz



10. Future Scope

The future scope for our hospital website holds great potential for further elevating its utility and expanding its role as a comprehensive healthcare resource. One of the key enhancements on the horizon is the addition of an employment portal, which will provide a platform for job seekers and healthcare professionals to explore career opportunities within the hospital.

In the future, our hospital website will feature an employment portal for job seekers and healthcare professionals. We'll introduce a secure patient portal for convenient access to medical records and appointments. Telehealth services will become available for remote consultations.

Health education resources, a blog, and patient feedback mechanisms will enhance user engagement. Mobile app development, health tracking tools, and online payment options are on the horizon. Community engagement initiatives, including virtual health events, will further promote healthcare awareness.

These enhancements align with our commitment to providing comprehensive, patient-centered care and embracing technological advancements and community involvement.

11. Conclusion

In conclusion, the proposed enhancements and solutions for our hospital website represent a significant step forward in addressing several key issues and ensuring a more user-centric, informative, and accessible online platform. The introduction of a 24/7 "Emergency Helpline" feature responds directly to the need for immediate assistance during critical situations, promising to provide timely support and attention to users in distress.

The "Find My Doctor" tab, along with the "Quick Booking Appointment" feature, simplifies the process of locating and scheduling appointments with healthcare professionals, improving the overall patient experience and streamlining administrative tasks.

The dedicated pages offering comprehensive disease information aim to empower users with knowledge, fostering informed decision-making and proactive health management. Lastly, the user-friendly interface, with features such as dark mode and language translation, ensures that our website caters to a wider audience, making healthcare information and services more accessible and customizable.

These combined efforts will not only enhance user satisfaction but also reinforce our commitment to delivering high-quality healthcare services through a modern and user-centered online platform. As we move forward with these enhancements, we anticipate improved patient engagement, increased accessibility to healthcare information, and a more efficient healthcare journey for all our website users.

12.Project Code

index.html (index file)

```
    <!-- columns -->
    <div class="container-fluid m-auto mb-5  ">
        <div class="row   m-auto">
            <div class=" col-lg-3 col-md-4 col-sm-12 m-auto  mt-4 p-0 bg-white
">
                <div class="card">


                    <img src=" {{ asset('image/child-2.jpeg') }}" alt="...">
                    <div class="card-body text-center">
                        <h5 class="card-title">Neonatal Care  </h5>
                        <p class="card-text">
                            The best of care your
                            child deserves</p>
                        <a href="{{url('child')}}" class=" btn btn-primary"
target="_blank"
                            rel="noopener noreferrer">Read More</a>
                    </div>
                </div>
            </div>
            <div class="col-md-3 col-sm-12 m-auto  bg-white m-auto  mt-4  p-
0">
                <div class="card">
                    <img src=" {{ asset('image/speci-main.jpg') }}"
class="card-img-top" alt="...">

                    <div class="card-body  text-center">
                        <h5 class="card-title">Speciality & Procedure</h5>
                        <p class="card-text">
                            Our Special Team Always available for you</p>
                        <a href="{{url('specility')}}" class=" btn btn-
primary" target="_blank"
                            rel="noopener noreferrer">Read More</a>
                    </div>
                </div>
            </div>
            <div class="col-md-3  col-sm-12  m-auto bg-white m-auto  mt-4  p-
0">
                <div class="card">
                    <img src="./image/scroll2.png" class="card-img-top"
alt="...">

                    <div class="card-body text-center">
```

```
                        <h5 class="card-title ">Carrier with Future Health
</h5>
                        <p class="card-text">
                            At Future Hospitals our care
                            doesn’t just stop here</p>
                        <a href="{{url('carrier')}}" class="btn btn-
primary">Read More</a>
                    </div>
                </div>
            </div>
        </div>
    </div>
```

Appointment.html (appointment page)

```
<form action="/apointbook" method="POST" >
@csrf
                <div class="card-header text-center fs-4 fw-
bolder">Appointment</div>

                <label for="">Name</label><span class='text-danger'>*</span>
                <input type="text" name="name" class="form-control "
placeholder="Enter Your Full Name" value={{old('name')}}>

                @error('name')
                <p class='text-danger'> {{$message}}</p>
                @enderror

                <label for="">Email</label><span class='text-danger'>*</span>
                <input type="email" name="email" class="form-control"
placeholder="Enter Your Email-ID" value={{old('email')}} >
                @error('email')
                <p class='text-danger'> {{$message}}</p>
                @enderror

                <div class="row "  style="width:100%" >
                    <div class="col-6  p-0 pe-2">
                        <label for="">Age</label>
                        <span class='text-danger'>*</span>
                        <input type="tel" class="form-control" name="age"
id="age" maxlenght="2"
                            placeholder="Enter Your
Age"  value={{old('age')}}>
                            @error('age')
                            <p class='text-danger'> {{$message}}</p>
```

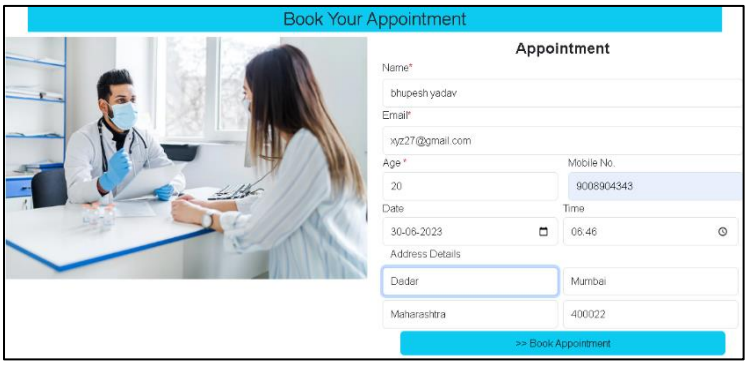
```
                        @enderror
                    </div>

                    <div class=" col-6 ps-2 p-0" >
                        <label for="">Mobile No.</label>
                        <input type="number" class="form-control" name='phone'
placeholder="Enter Your Mobile Number" value={{old('phone')}}>
                        @error('phone')
                            <p class='text-danger'> {{$message}}</p>
                            @enderror
                    </div>
                </div>
                <div class="row " style="width:100%">

                    <div class="col  p-0 pe-2 m-auto">

                        <label for="date">Date</label>
                        <input type="date"  class="form-control" name="dates"
id="date" value={{old('dates')}}>
                         @error('dates')
                        <p class='text-danger'> {{$message}}</p>
                        @enderror
                    </div>
                    <div class="col  p-0 pe-2 m-auto">
                        <label for="time">Time</label>
                        <input type="time"   class="form-control"
name='times'  id="time" value={{old('times')}}>
```

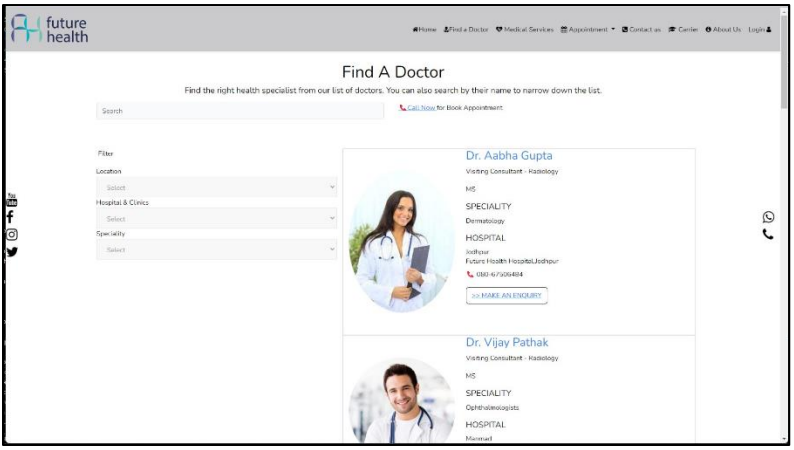
Login.html (login our website)

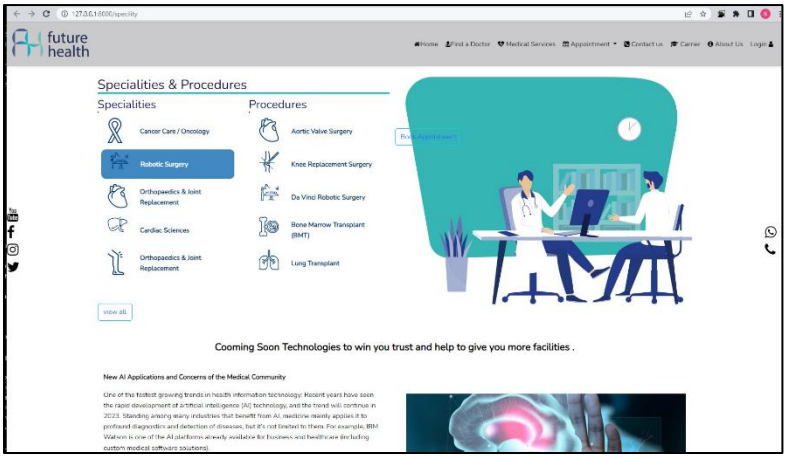
```
  <div class="col ">
                <div class="card-header text-center fw-bold fs-3 ">{{ __('Sign
in ') }}</div>
                <div class="form-group">
                    <div class="form-group">
                        <label for="email" class=" text-md-end">{{ __('Email
Address') }}</label>
                        <input id="email" type="email" class="form-control
@error('email') is-invalid @enderror"
                            name="email" value="{{ old('email') }}" required
autocomplete="email" autofocus>
                        @error('email')
                            <span class="invalid-feedback" role="alert">
```

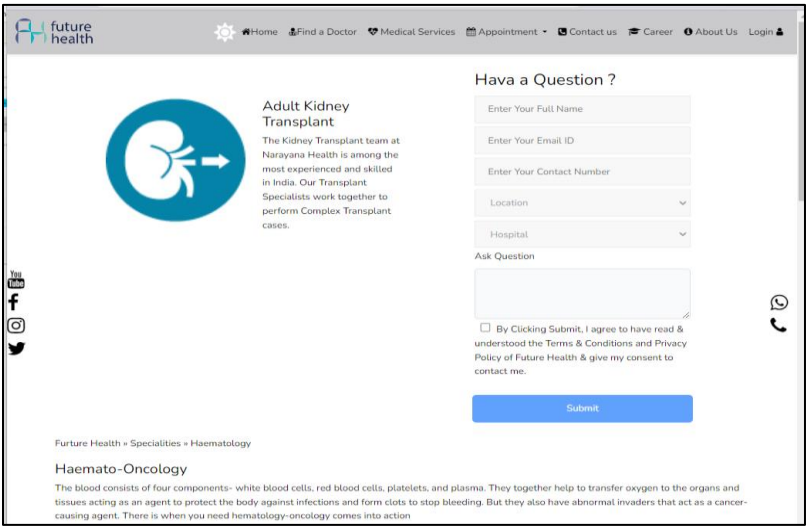
```
                                <strong>{{ $message }}</strong>
                            </span>
                        @enderror
                    </div>
                </div>
                <div class="form-group">
                    <label for="password" class=" text-md-end">{{
__('Password') }}</label>

                    <input id="password" type="password" class="form-control
@error('password') is-invalid @enderror"
                        name="password" required autocomplete="current-
password">

                    @error('password')
                        <span class="invalid-feedback" role="alert">
                            <strong>{{ $message }}</strong>
                        </span>
                    @enderror
                </div>
                <button type="submit" class="btn btn-primary mt-2" id="signin-
btn">Sign In</button>
                <span class="d-block mt-1">Don't have an account? <a href="{{
url('register') }}">Sign Up</a></span>
                @if (Route::has('password.request'))
                    <a class="btn btn-link" href="{{ route('password.request')
}}">
                        {{ __('Forgot Your Password?') }}</a>
                @endif
            </div>
        </div>
    </form>
```

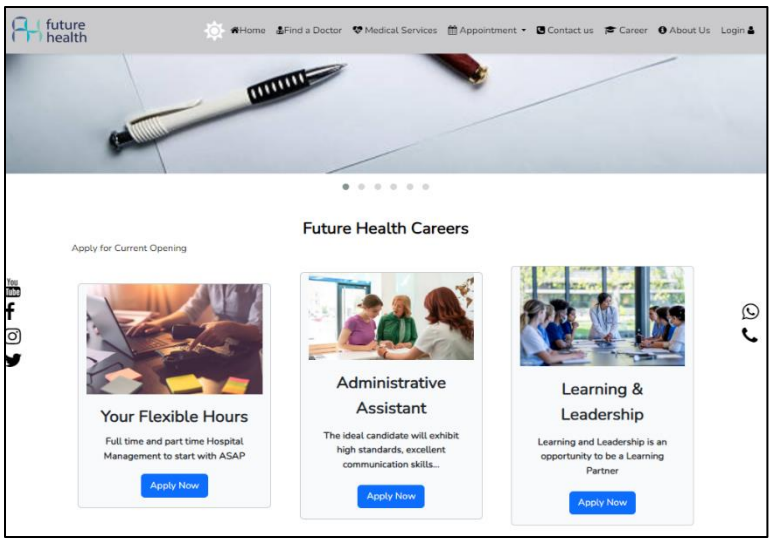
Screenshot Of Project











Abbreviation

Html: hypertext Markup Language

CSS: Cascading Style Sheets

Js: JavaScript

Php: Hypertext Pre-processor