**Problem Statement** ;

Access to timely healthcare is a significant challenge for many individuals due to various factors such as location, cost, and long wait times for appointments. Traditional healthcare systems often leave patients feeling frustrated, especially when seeking immediate medical advice for non-emergency conditions. This project addresses the need for a convenient, efficient, and accessible platform that connects patients with healthcare professionals, enabling them to receive timely consultations from the comfort of their homes.

**Description of the Project ;**

The Online Health Consulting platform is an innovative web application that facilitates virtual consultations between patients and healthcare providers. The project will include the following key features:

**1. User Registration and Profile Management :**

- Users can create accounts, log in securely, and manage their personal profiles, including medical history and preferences.

**2. Healthcare Provider Directory** **;**

- A searchable database of healthcare professionals, including filters for specialty (e.g., general medicine, pediatrics, mental health), location, and availability.

**3. Appointment Scheduling:**

- A user-friendly calendar interface that allows patients to view available slots and book appointments directly with doctors.

4. Consultation Types:

- Options for text chat, audio calls, or video consultations, providing flexibility based on patient needs and preferences.

5. Secure Messaging System:

- An integrated messaging feature for follow-up questions and additional support, ensuring ongoing communication between patients and doctors.

6. Health Record Management:

- Patients can upload relevant medical documents, such as test results and prescriptions, which doctors can review during consultations.

7. Payment Gateway Integration:

- Secure payment options for consultations, enabling seamless transactions and allowing healthcare providers to receive payments online.

8. Feedback and Rating System:

- After each consultation, patients can rate their experience and provide feedback, helping improve service quality and assist other users in selecting providers.

9. Admin Panel:

- An administrative interface for managing users, monitoring consultations, and handling feedback, ensuring smooth platform operation.

The project aims to create a comprehensive, user-friendly solution that enhances healthcare access, improves patient engagement, and streamlines the consultation process.

Technical Stacks

-Language / Tools Used:

- Programming Language

- Java: The primary language for backend development using object-oriented principles.

- Frameworks:

- Spring Boot: For building the backend RESTful API, providing dependency injection, and simplifying application configuration.

- Frontend Technologies:

- HTML/CSS/JavaScript: For basic structure and styling of the web application.

- Frameworks:

- Angular or React: For building a dynamic, responsive user interface that enhances user experience.

- Database:

- MySQL- A relational database for storing user information, consultation records, and payment details.

- Development Tools:

- IntelliJ IDEA: An integrated development environment (IDE) for efficient Java development.

- Git: Version control system for tracking changes and collaborating with team members.

- APIs:

- RESTful APIs: For communication between frontend and backend, allowing for seamless data exchange.

- Security:

- Spring Security: To implement authentication and authorization, ensuring user data is protected.

- Payment Gateway:

- Stripe or PayPal: For secure payment processing during consultations.

- Deployment:

- Apache Tomcat-: A web server for deploying the Java application.

- Cloud Services: (Optional) AWS or Azure for hosting the application, ensuring scalability and availability.

BASIC STRUCTURE HOW THEY PERFORM/ FLOW CHART

(Start)

|

(User Registration/Login)

|

+---(Is User New?)---Yes---> (User Registration) --> (User Dashboard)

|

+---No---> (User Login) --> (Is Credentials Valid?)

|

+---Yes---> (User Dashboard)

|

+---No---> (Show Error Message)

(User Dashboard)

|

+--> (Search for Healthcare Providers)

|

+--> (Schedule an Appointment)

|

+--> (Manage Health Records)

|

+--> (View Feedback/Consultation History)

(Schedule an Appointment)

|

+--> (Select Provider)

|

+--> (Choose Appointment Type)

|

+--> (Confirm Appointment)

|

+--> (Consultation Process)

|

+--> (Consultation Interface)

|

+--> (Post-Consultation)

|

+--> (Feedback Collection)