A Project On

OCU MENTCARE

MASTERS
IN
COMPUTER SCIENCE AND ENGINEERING

SubmittedBy

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Under the Esteemed Guidance of
Professor, Bobby Reed

INTRODUCTION

The **OCU Clinics MentCare** project is a web-based platform designed to simplify the appointment scheduling process for patients at OCU Clinics. Built using HTML, CSS, and JavaScript, this application provides a user-friendly interface that allows patients to easily book consultations with doctors based on their availability and preferences. The system helps to reduce the waiting time and manual efforts involved in scheduling appointments, ensuring that patients can connect with the right healthcare professionals quickly and efficiently.

The main objective of this project is to create a streamlined process for patients, enabling them to view available doctors, choose the preferred consultation slots, and confirm appointments with just a few clicks. By making the booking process more accessible, the system aims to improve the overall patient experience and contribute to better healthcare management at OCU Clinics.

Additionally, this project focuses on offering a responsive design, ensuring that users can access the platform seamlessly from various devices such as laptops, tablets, or smartphones. With its simple and intuitive interface, **OCU Clinics MentCare** not only supports patient needs but also enhances clinic operations by keeping track of appointments and schedules in an organized manner.

PROJECT OBJECTIVES

1. **Simplify Appointment Booking**: Create an easy-to-use system for patients to book doctor appointments online.
2. **Reduce Manual Work**: Automate the scheduling process to minimize the need for manual appointment handling.
3. **Enhance Patient Experience**: Provide a user-friendly platform that makes it simple for patients to find available doctors and choose preferred time slots.
4. **Improve Efficiency**: Ensure quick and efficient appointment management for both patients and clinic staff.
5. **Responsive Design**: Develop a platform that works seamlessly on laptops, tablets, and smartphones.

SYSTEM REQUIREMENTS

Functional Requirements

- **Appointment Booking**: Allow patients to view doctor availability and book appointments.
- **Appointment Confirmation**: Notify patients about their confirmed appointments via email or on the platform.

Non-functional Requirements

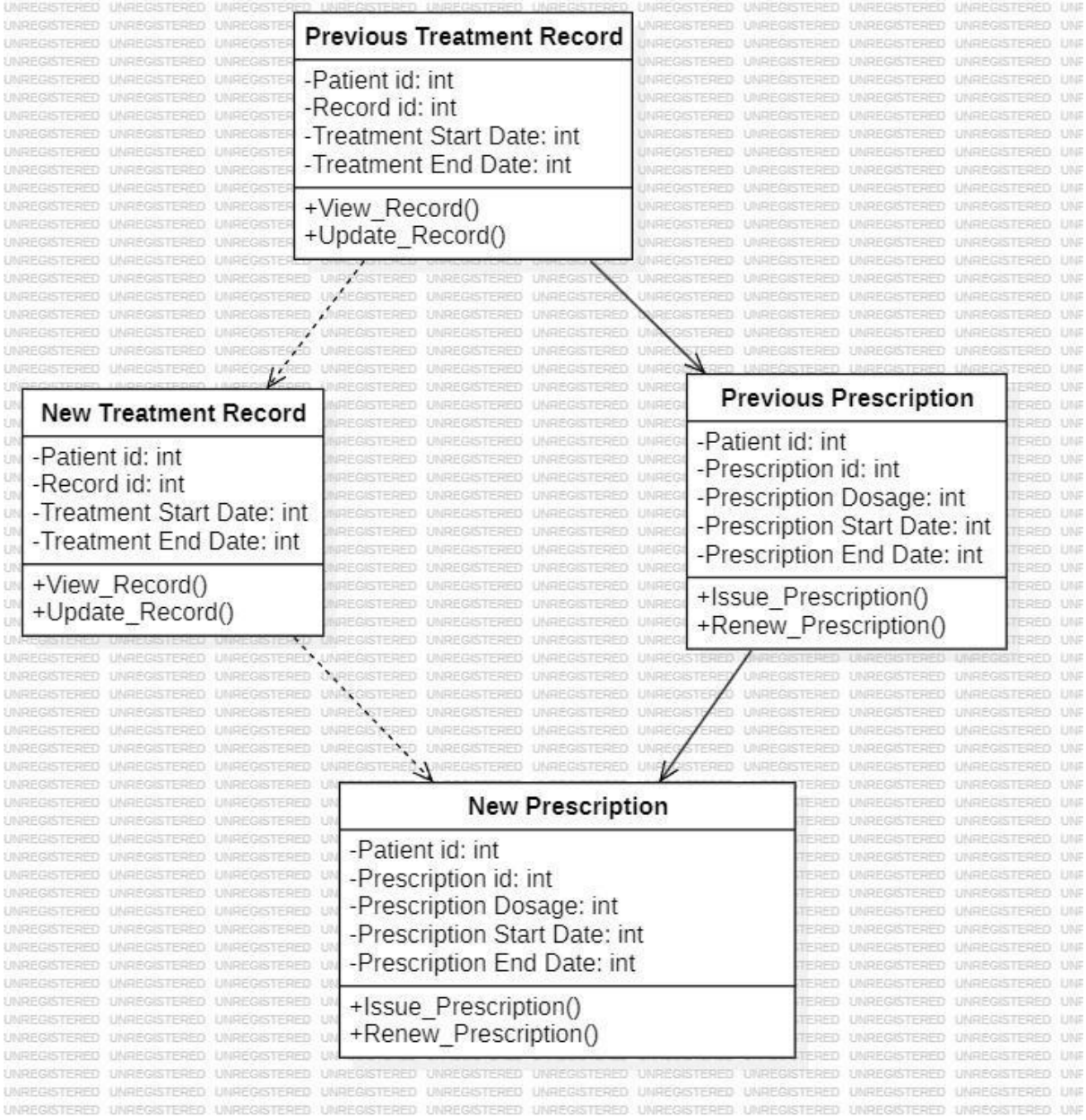
- **Usability**: The interface should be easy to navigate, with clear instructions for booking and managing appointments.
- **Performance**: The system should load pages quickly and respond within 2-3 seconds for all main functionalities.
- **Security**: Ensure patient data is securely stored, with authentication and authorization for sensitive operations.
- **Scalability**: The system should handle multiple users simultaneously without performance issues.
- **Availability**: The platform should be accessible 24/7 for patients to book appointments anytime.

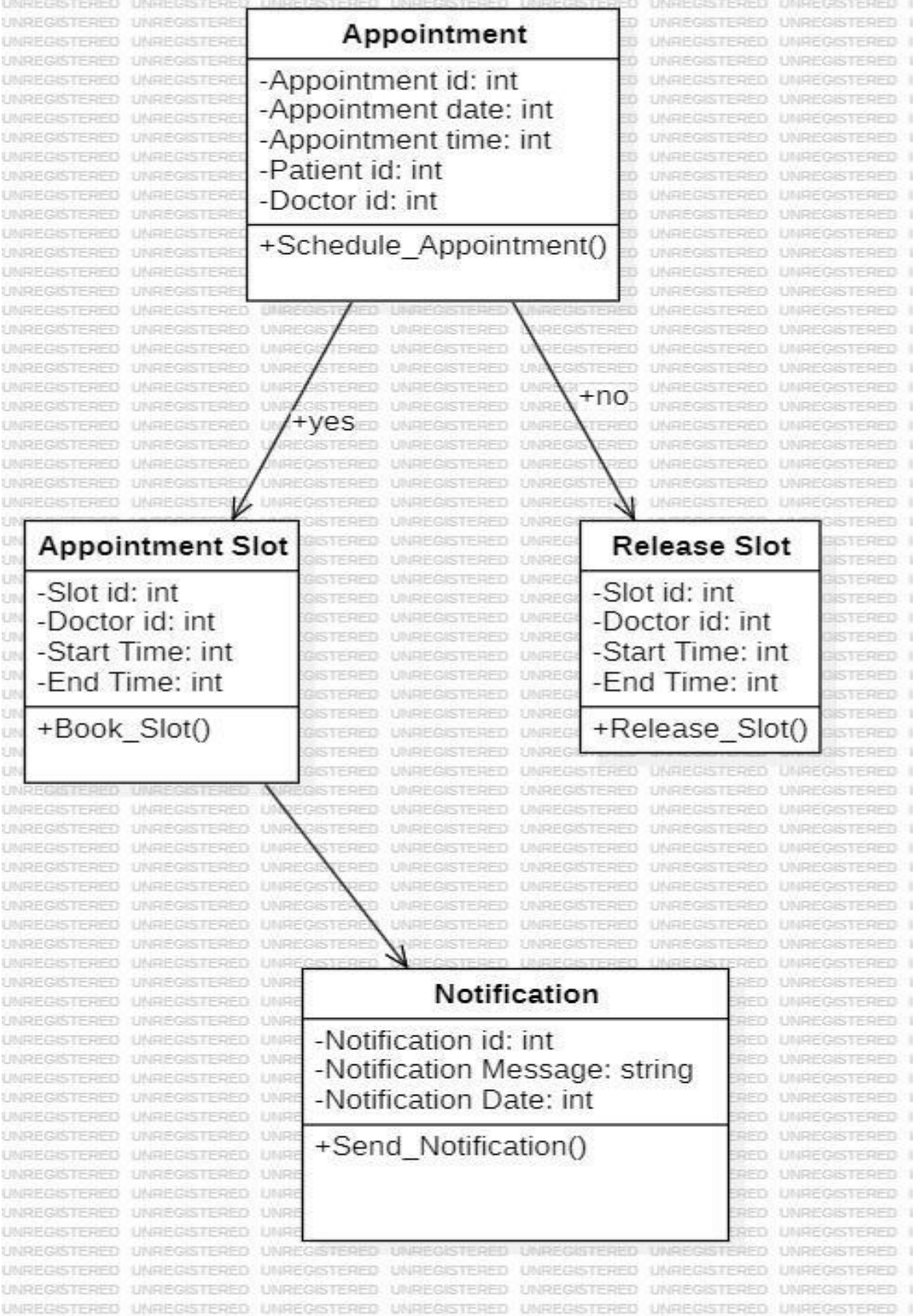
Software Requirements

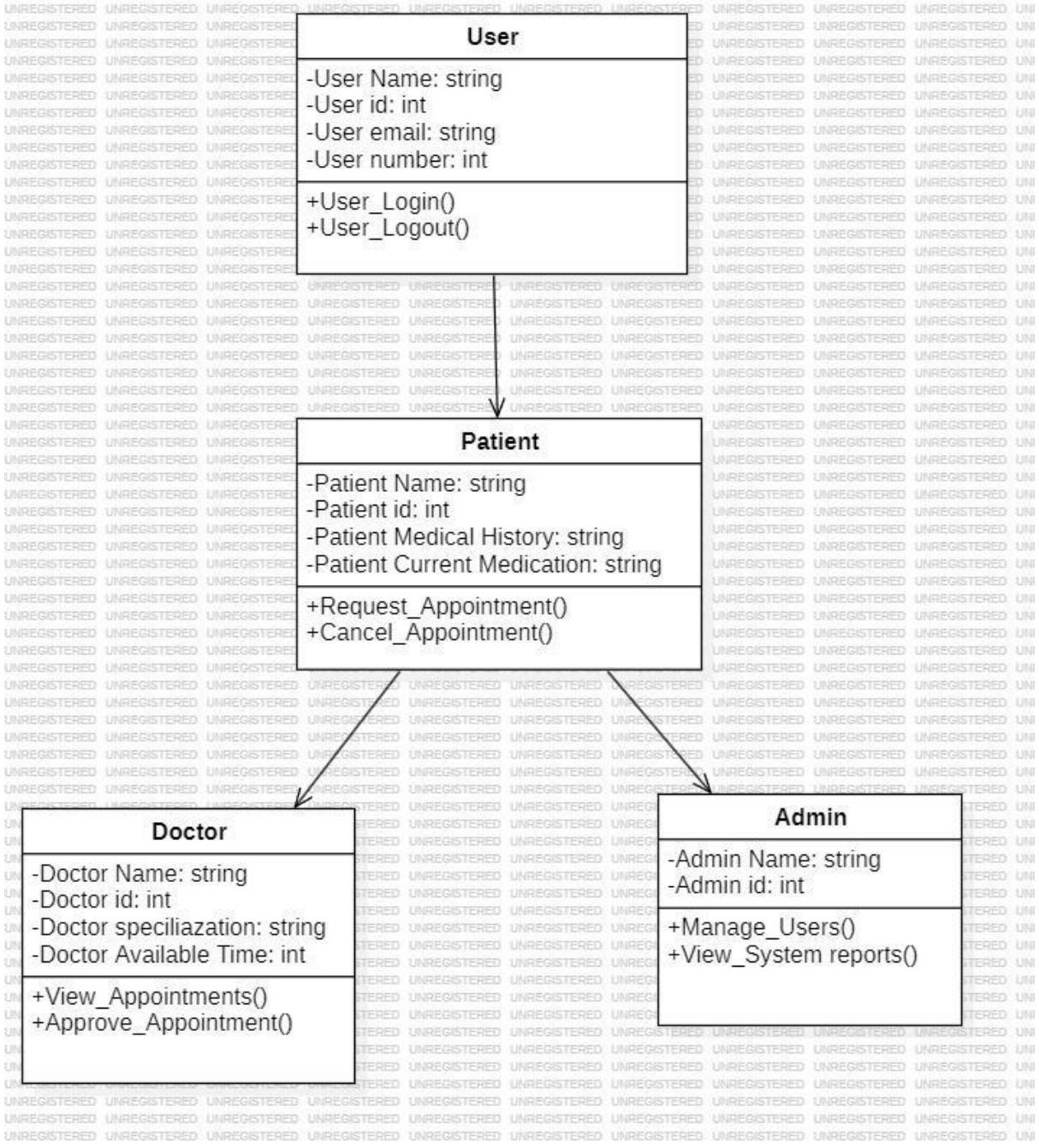
- **Frontend Technologies**: HTML, CSS, JavaScript for building the user interface.
- **Browser Compatibility**: The application should be compatible with all major browsers (Chrome, Firefox, Safari, Edge).
- **Version Control**: Git for code management and collaboration.

SYSTEM DESIGN

CLASS DIAGRAM:




Appointment
-Appointment id: int
-Appointment date: int
-Appointment time: int
-Patient id: int
-Doctor id: int
+Schedule_Appointment()
+yes
+no
Appointment Slot
-Slot id: int
-Doctor id: int
-Start Time: int
-End Time: int
+Book_Slot()
Release Slot
-Slot id: int
-Doctor id: int
-Start Time: int
-End Time: int
+Release_Slot()
Notification
-Notification id: int
-Notification Message: string
-Notification Date: int
+Send_Notification()


User
-User Name: string
-User id: int
-User email: string
-User number: int
+User_Login()
+User_Logout()
Patient
-Patient Name: string
-Patient id: int
-Patient Medical History: string
-Patient Current Medication: string
+Request_Appointment()
+Cancel_Appointment()
Doctor
-Doctor Name: string
-Doctor id: int
-Doctor speciliazation: string
-Doctor Available Time: int
+View_Appointments()
+Approve_Appointment()
Admin
-Admin Name: string
-Admin id: int
+Manage_Users()
+View_System reports()

INSTALLATION PROCESS

How to Install Visual Studio Code

Step 1: Visit the Official Website of the Visual Studio Code using any web browser like Google Chrome, Microsoft Edge, etc.?

Step 2: Press the "**Download for Windows, Mac etc**" button on the website to start the download of the Visual Studio Code Application.

Step 3: When the download finishes, then the **Visual Studio Code Icon** appears in the downloads folder.

Step 4: Click on the **Installer** icon to start the installation process of the Visual Studio Code.

Step 5: After the Installer opens, it will ask you to accept the terms and conditions of the Visual Studio Code. Click on **I accept the agreement** and then click the **Next** button.

Step 6: Choose the location data for running the Visual Studio Code. It will then ask you to browse the location. Then click on the **Next** button.

Step 7: Then it will ask to begin the installation setup. Click on the **Install** button.

Step 8: After clicking on Install, it will take about 1 minute to install the Visual Studio Code on your device.

Step 9: After the Installation setup for Visual Studio Code is finished, it will show a window like this below. Tick the "**Launch Visual Studio Code**" checkbox and then click **Next**.

tep 10: After the previous step, the **Visual Studio Code window** opens successfully. Now you can create a new file in the Visual Studio Code window and choose a language of yours to begin your programming journey!

IMPLEMENTATION CODE

Index.html:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Ocular Care | Home</title>
    <link rel="stylesheet" href="style.css">
</head>
<body>
    <!-- Navbar -->
    <header>
        <nav>
            <ul>
                <li><a href="index.html">Home</a></li>
                <li><a href="about.html">About</a></li>
                <li><a href="contact.html">Contact</a></li>
            </ul>
        </nav>
    </header>

    <!-- Home Section -->
    <section id="home">
        <div class="container">
            <h1>Welcome to OCU MentCare</h1>
            <p>Your vision is our priority. Book an appointment today!</p>
            <button
onclick="window.location.href='index.html#appointment'">Book
Appointment</button>
        </div>
    </section>

    <section id="appointment">
        <div class="container">
            <h2>Book Your Appointment</h2>
            <form id="appointmentForm">
                <label for="name">Full Name:</label>
                <input type="text" id="name" name="name" required>
```

```
            <label for="email">Email:</label>
            <input type="email" id="email" name="email" required>

            <label for="date">Preferred Date:</label>
            <input type="date" id="date" name="date" required>

            <label for="time">Preferred Time:</label>
            <input type="time" id="time" name="time" required>

            <label for="notes">Additional Notes:</label>
            <textarea id="notes" name="notes"></textarea>

            <button type="submit">Book Appointment</button>
        </form>
        <p id="confirmationMessage"></p>
    </div>
</section>

<script src="Node.js"></script>
</body>
</html
```

about.html:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Ocular Care | Home</title>
    <link rel="stylesheet" href="style.css">
</head>
<body>
    <!-- Navbar -->
    <header>
        <nav>
            <ul>
                <li><a href="index.html">Home</a></li>
                <li><a href="about.html">About</a></li>
                <li><a href="contact.html">Contact</a></li>
            </ul>
        </nav>
```

```
    </header>

    <!-- Home Section -->
    <section id="home">
        <div class="container">
            <h1>Welcome to OCU MentCare</h1>
            <p>Your vision is our priority. Book an appointment today!</p>
            <button
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        </div>
    </section>

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        <div class="container">
            <h2>Book Your Appointment</h2>
            <form id="appointmentForm">
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                <input type="text" id="name" name="name" required>

                <label for="email">Email:</label>
                <input type="email" id="email" name="email" required>

                <label for="date">Preferred Date:</label>
                <input type="date" id="date" name="date" required>

                <label for="time">Preferred Time:</label>
                <input type="time" id="time" name="time" required>

                <label for="notes">Additional Notes:</label>
                <textarea id="notes" name="notes"></textarea>

                <button type="submit">Book Appointment</button>
            </form>
            <p id="confirmationMessage"></p>
        </div>
    </section>

    <script src="Node.js"></script>
</body>
</html>
```

contact.html:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Ocular Care | Home</title>
    <link rel="stylesheet" href="style.css">
</head>
<body>
    <!-- Navbar -->
    <header>
        <nav>
            <ul>
                <li><a href="index.html">Home</a></li>
                <li><a href="about.html">About</a></li>
                <li><a href="contact.html">Contact</a></li>
            </ul>
        </nav>
    </header>

    <!-- Home Section -->
    <section id="home">
        <div class="container">
            <h1>Welcome to OCU MentCare</h1>
            <p>Your vision is our priority. Book an appointment today!</p>
            <button
onclick="window.location.href='index.html#appointment'">Book
Appointment</button>
        </div>
    </section>

    <section id="appointment">
        <div class="container">
            <h2>Book Your Appointment</h2>
            <form id="appointmentForm">
                <label for="name">Full Name:</label>
                <input type="text" id="name" name="name" required>

                <label for="email">Email:</label>
                <input type="email" id="email" name="email" required>
```

```
            <label for="date">Preferred Date:</label>
            <input type="date" id="date" name="date" required>

            <label for="time">Preferred Time:</label>
            <input type="time" id="time" name="time" required>

            <label for="notes">Additional Notes:</label>
            <textarea id="notes" name="notes"></textarea>

            <button type="submit">Book Appointment</button>
        </form>
        <p id="confirmationMessage"></p>
    </div>
</section>

<script src="Node.js"></script>
</body>
</html
```

javascript.js:

```
const chatWindow = document.getElementById('chat-window');

function appendMessage(text, sender) {
    const message = document.createElement('div');
    message.classList.add('chat-message', ${sender}-message);
    message.innerText = text;
    chatWindow.appendChild(message);
    chatWindow.scrollTop = chatWindow.scrollHeight; // Scroll to the bottom
}

function handleEnter(event) {
    if (event.key === 'Enter') {
        sendUserMessage();
        return false;
    }
}

function sendUserMessage() {
    const userInput = document.getElementById('userInput').value;
    if (userInput.trim() === "") return;

    appendMessage(userInput, 'user');
```

```
    document.getElementById('userInput').value = '';

    processBotResponse(userInput);
}

function processBotResponse(input) {
    let botResponse = "";

    // Basic keyword matching for chatbot logic
    if (input.toLowerCase().includes('hello') || input.toLowerCase().includes('hi'))
{
        botResponse = "Hello! How can I assist you with your mental health
today?";
    } else if (input.toLowerCase().includes('appointment')) {
        botResponse = "Would you like to schedule a mental health appointment?
Please provide your name and preferred date.";
    } else if (input.toLowerCase().includes('yes')) {
        botResponse = "Great! Please provide your preferred date and time for the
appointment.";
    } else if (input.match(/\d{4}-\d{2}-\d{2}/)) {
        // Capture date and time for an appointment (basic format YYYY-MM-DD)
        const appointmentDate = input;
        botResponse = Your appointment is scheduled for ${appointmentDate}.
We will send you a confirmation email.;
        // You can add additional code here to send this data to the backend
    } else {
        botResponse = "I'm sorry, I didn't understand that. Could you please
rephrase?";
    }

    appendMessage(botResponse, 'bot');
}
```

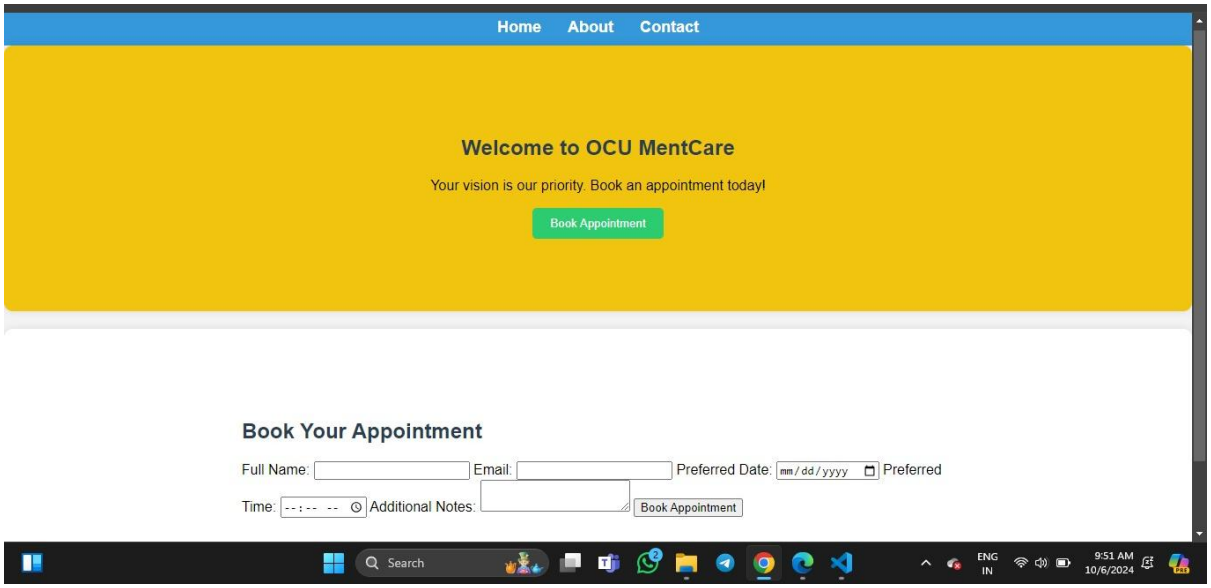
node.js:

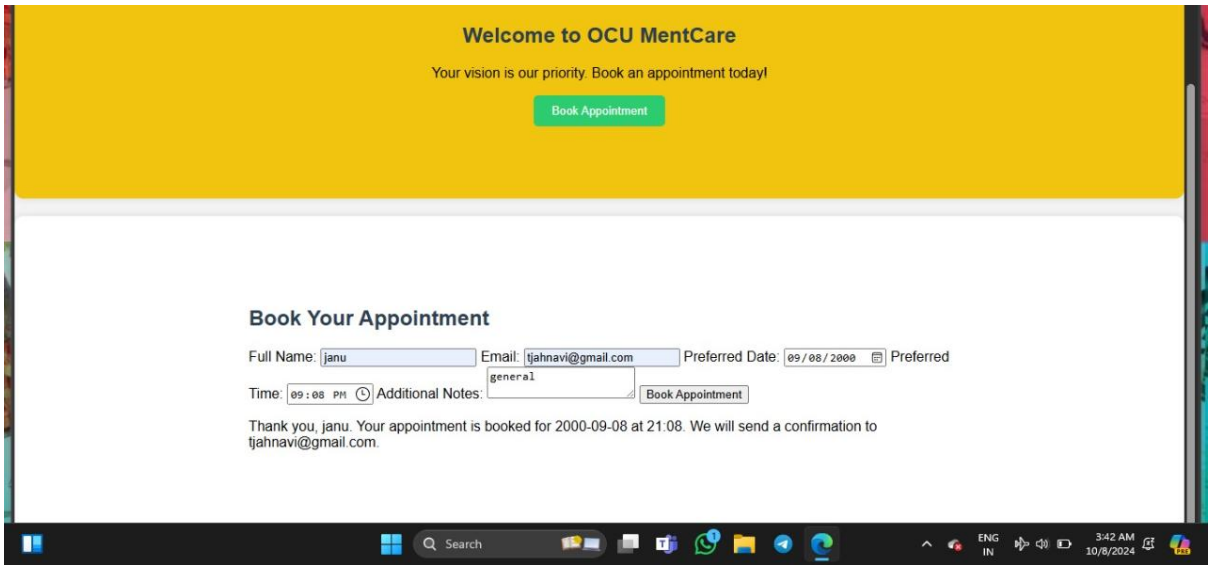
```
document.getElementById('appointmentForm').addEventListener('submit',
function(event) {
    event.preventDefault(); // Prevent the form from submitting traditionally

    // Get form values
    const name = document.getElementById('name').value;
    const email = document.getElementById('email').value;
    const date = document.getElementById('date').value;
    const time = document.getElementById('time').value;

    // Simple validation (could be expanded)
    if (name && email && date && time) {
        // Display a confirmation message
        document.getElementById('confirmationMessage').innerText = Thank you,
${name}. Your appointment is booked for ${date} at ${time}. We will send a
confirmation to ${email}.;
    }
});
```

OUTPUTS


Home
About
Contact
Welcome to OCU MentCare
Your vision is our priority. Book an appointment today!
Book Appointment
Book Your Appointment
Full Name:
Email:
Preferred Date:
mm/dd/yyyy
Preferred
Time:
--:-- --
Additional Notes:
Book Appointment
Search
ENG
IN
9:51 AM
10/6/2024


Welcome to OCU MentCare
Your vision is our priority. Book an appointment today!
Book Appointment
Book Your Appointment
Full Name:
janu
Email:
tjahnavi@gmail.com
Preferred Date:
09/08/2000
Preferred
Time:
09:08 PM
Additional Notes:
general
Book Appointment
Thank you, janu. Your appointment is booked for 2000-09-08 at 21:08. We will send a confirmation to tjahnavi@gmail.com.
Search
ENG
IN
3:42 AM
10/8/2024

CONCLUSION

The **OCU Clinics MentCare** project successfully addresses the need for a streamlined appointment booking system at OCU Clinics. Using HTML, CSS, and JavaScript, the platform provides an intuitive interface that allows patients to schedule, reschedule, and manage their doctor appointments with ease. By automating the appointment process, the system reduces the workload for clinic staff and minimizes manual errors, leading to a more efficient healthcare management solution.

Overall, the project achieves its primary goals of simplifying patient-doctor interactions, improving the user experience, and ensuring that patients can conveniently access healthcare services. Future enhancements, such as incorporating automated reminders and integrating telehealth options, can further improve the platform's usability and impact on patient care.