

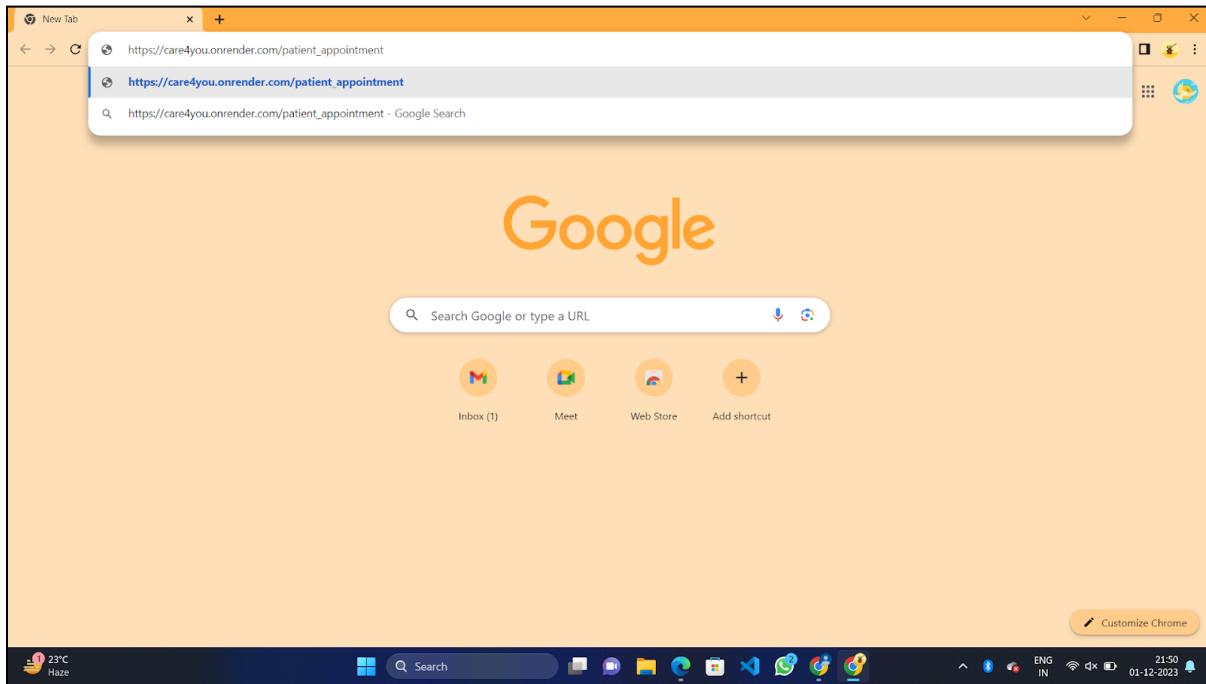
IT314 Software Engineering
Hospital Management System (HMS)
Non Functional Testing



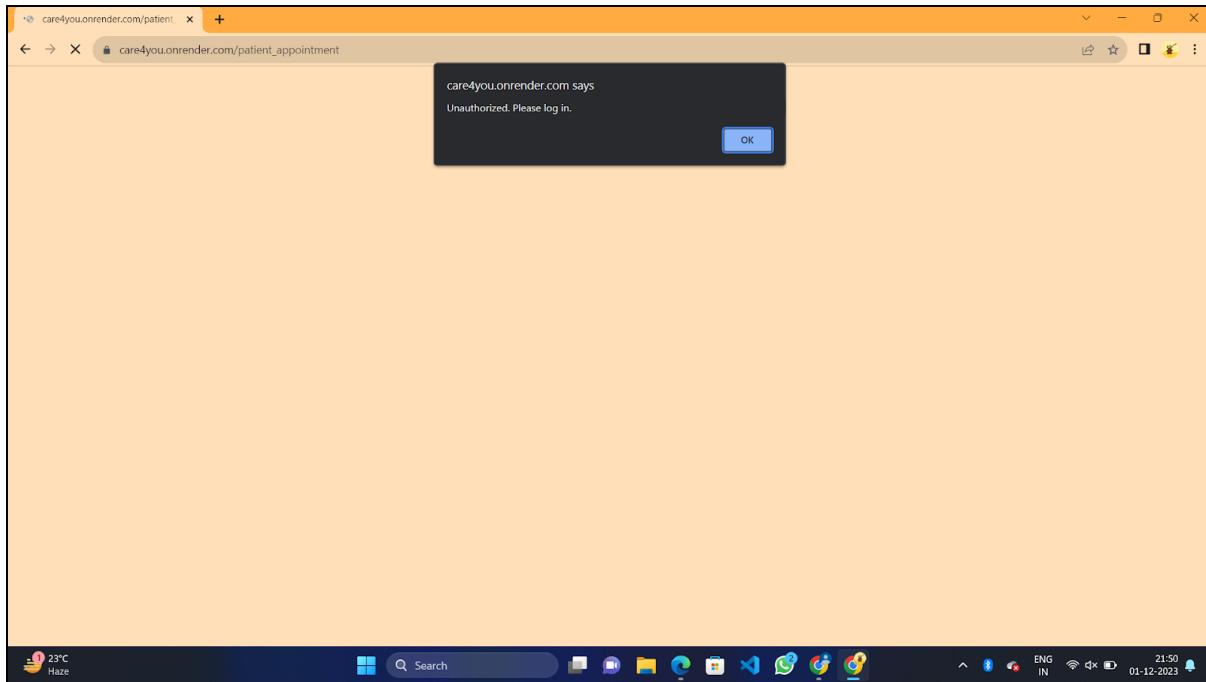
Group - 15
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TA: Harshita Tripathi

1. Security:

The system works on token-based login and authentication. Even if a user knows the (path) URL, they can not access it unless the token requesting the URL is authorized.



Giving the following request on an unauthorized browser token. Instead of /patient_appointment, the browser first show the following warning page and then redirect to the homepage of website:



A screenshot of the Care4You Hospital website. The header includes the logo "Care4You", the location "Gandhinagar, Gujarat, India", operating hours "Mon - Sat : 09.00 AM - 09.00 PM", and a phone number "+91 0123456789". Navigation links for "HOME", "ABOUT US", "SERVICES", "CONTACT US", "LOG IN", and "REGISTER" are visible. The main content features a blue banner with the text "Good Health Is The Root Of All Happiness" and three statistics: "3 Expert Doctors", "4 Medical Staff", and "17 Total Patients". To the right is a photograph of a medical team, with a doctor in the foreground labeled "Cardiology". The footer shows the same navigation links and a weather widget indicating "23°C Haze".

Security report by <https://pentest-tools.com/>

- └ FLAG Website is accessible.
- └ FLAG Nothing was found for client access policies.
- └ FLAG Nothing was found for robots.txt file.
- └ FLAG Nothing was found for use of untrusted certificates.
- └ FLAG Nothing was found for enabled HTTP debug methods.
- └ FLAG Nothing was found for secure communication.
- └ FLAG Nothing was found for directory listing.
- └ FLAG Nothing was found for domain too loose set for cookies.
- └ FLAG Nothing was found for HttpOnly flag of cookie.
- └ FLAG Nothing was found for Secure flag of cookie.
- └ FLAG Nothing was found for unsafe HTTP header Content Security Policy.

Overall Summary:

The screenshot shows the Pentesk Tools Website Vulnerability Scanner Report. At the top, there's a logo with a shield and the text "Pentesk Tools". Below it, the title "Website Vulnerability Scanner Report" is displayed. A green checkmark icon followed by the URL "https://care4you.onrender.com/" is shown. The main section is titled "Summary". It contains three tables: "Overall risk level" (Medium), "Risk ratings" (High: 0, Medium: 1, Low: 6, Info: 12), and "Scan information" (Start time: Dec 02, 2023 / 18:50:35, Finish time: Dec 02, 2023 / 18:50:58, Scan duration: 23 sec, Tests performed: 19/19, Scan status: Finished).

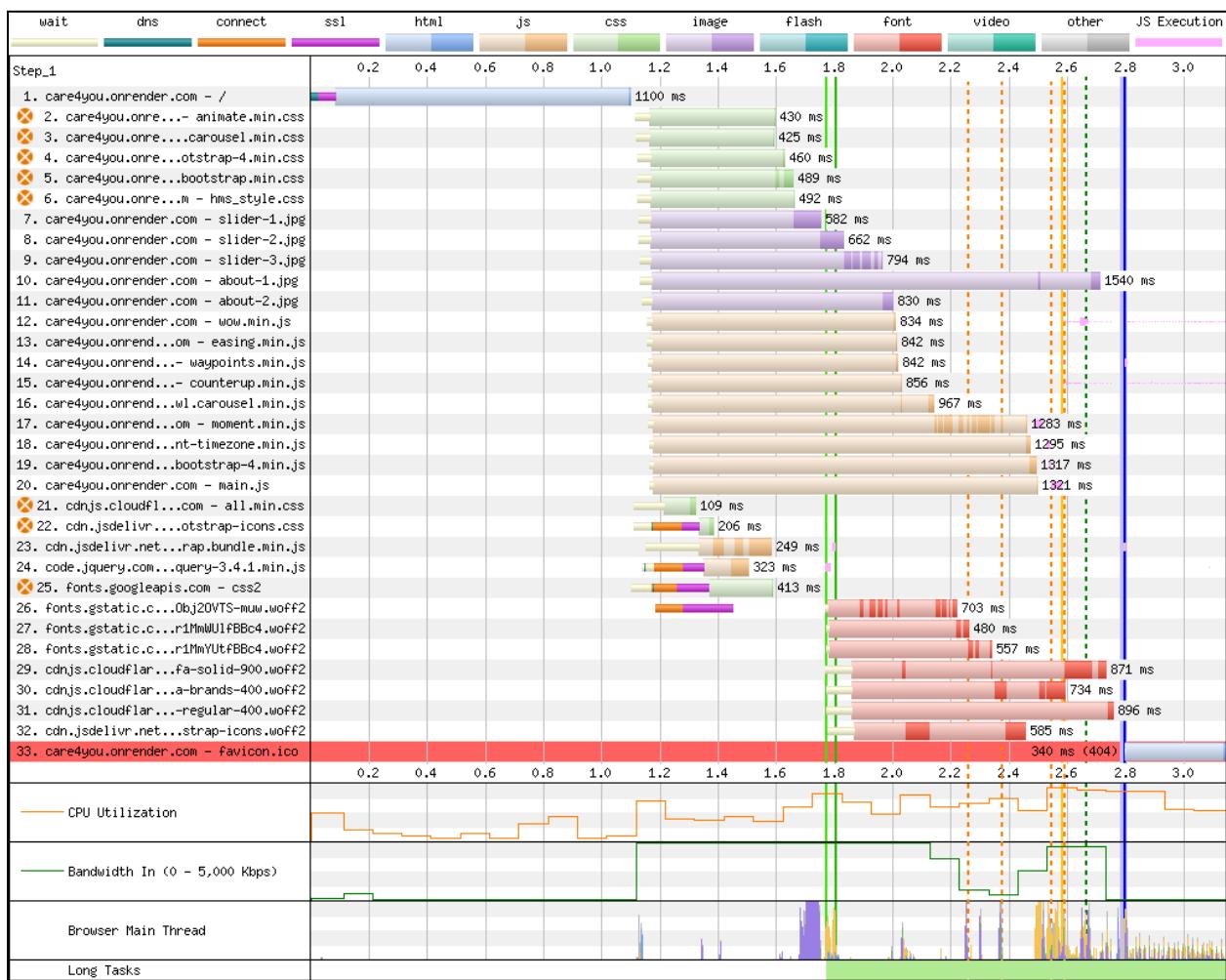
2. Maintainability:

Maintainability testing in Common Ground, utilizing ReactJS, CSS for the front-end, and Node.js plus MongoDB for the backend, guarantees the system's future ease of upkeep and enhancement. The code has been validated for readability and adherence to coding standards. Detailed documentation clarifies system functionalities, and rigorous testing ensures its resilience to changes without disruptions. Additionally, the architecture facilitates seamless addition of new features and updates without adverse impacts on other components. In essence, Common Ground has been meticulously constructed for longevity and hassle-free future enhancements.

Tested with: <https://www.webpagetest.org/>

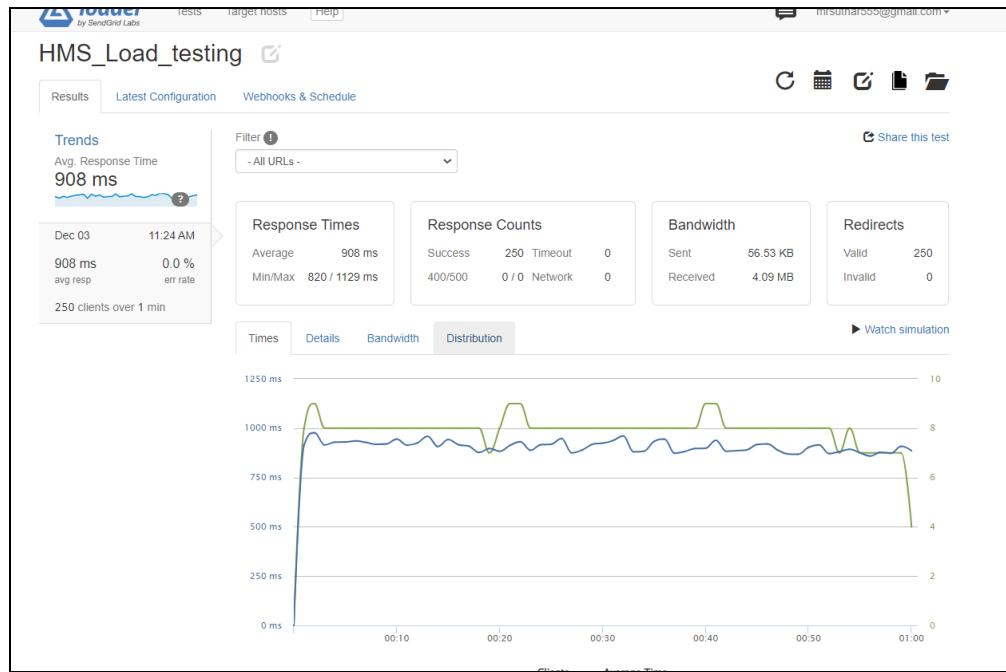
The screenshot shows the WebPageTest Page Performance Metrics report for a run. It includes a summary table with metrics like TTFB, Start Render, FCP, Speed Index, LCP, CLS, TBT, DC Time, DC Requests, DC Bytes, Total Time, Total Requests, and Page Weight. The values are: TTFB: 1.093s, Start Render: 1.800s, FCP: 1.770s, Speed Index: 3.423s, LCP: 2.663s, CLS: .176, TBT: .000s, DC Time: 2.793s, DC Requests: 32, DC Bytes: 773KB, Total Time: 3.139s, Total Requests: 33, Page Weight: 773KB. Below the table is a "Visual Page Loading Process" chart showing the timeline from 0.0s to 2.0s with various stages highlighted.

Web Vital Report:

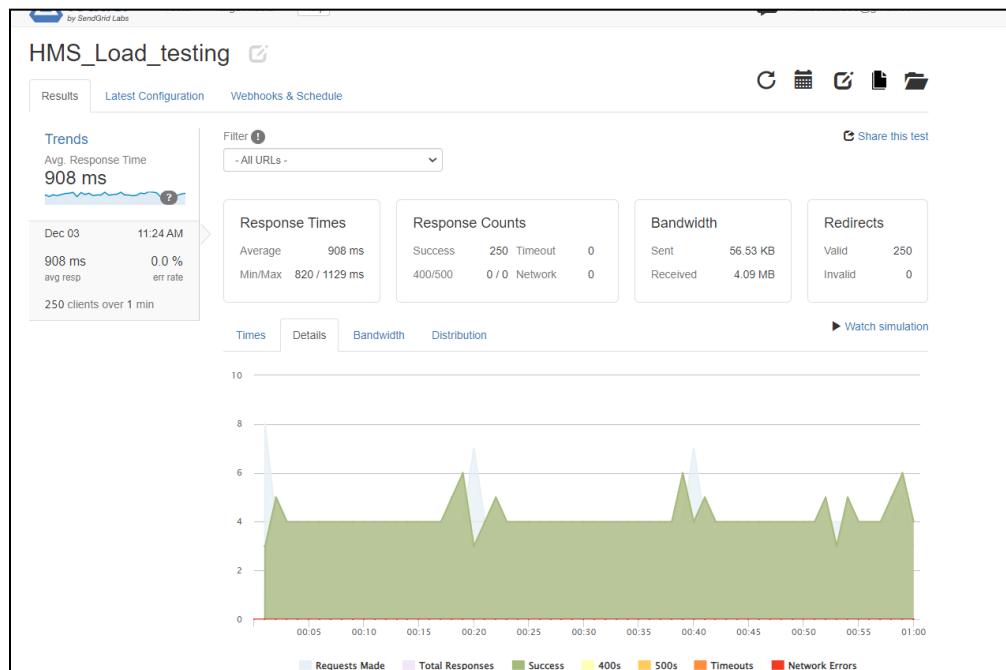


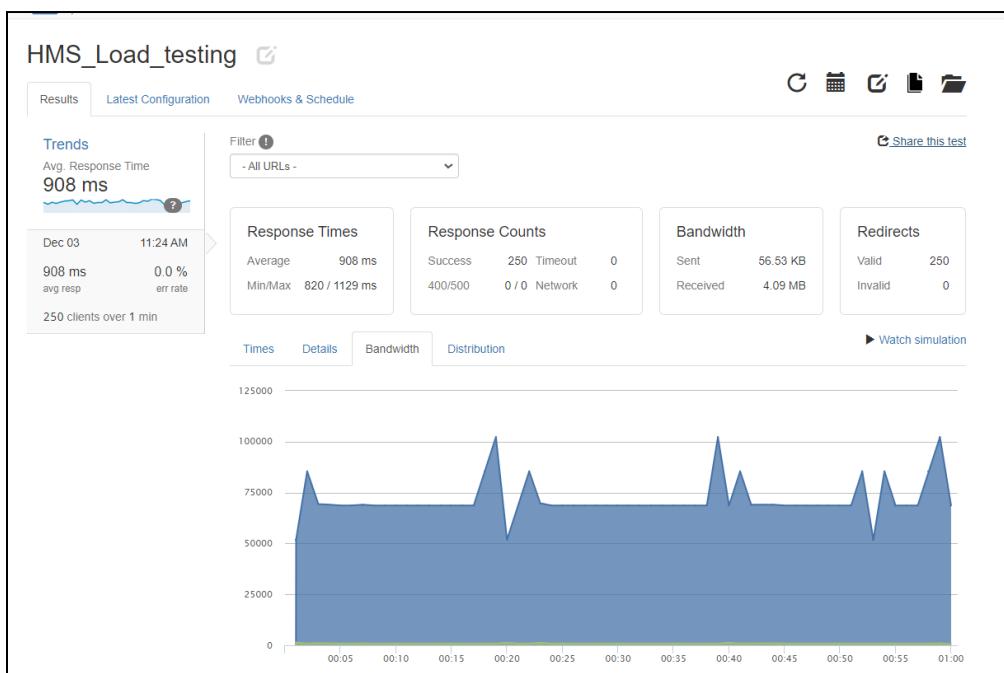
3. Scalability:

- Tested 250 clients per minute on a URL using loader.io on GET <http://care4you.onrender.com>
- Simulations for below graphs are available on site [Load Testing](#)
- Here are the screenshots for the scalability test:



This website utilizes a Content Delivery Network (CDN) to spread its files globally, decreasing the time it takes for requests to be processed.

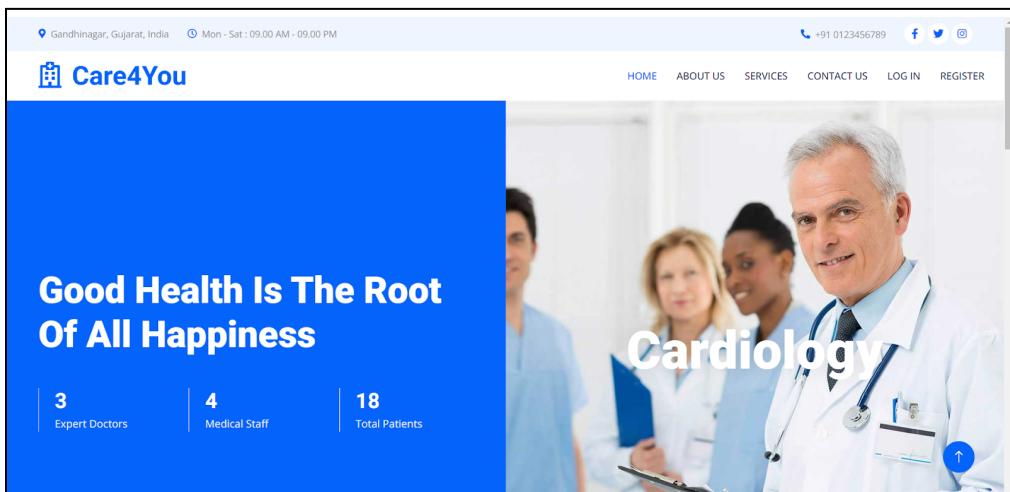




4. Portability:

The website underwent extensive testing across diverse screen sizes and multiple web browsers to guarantee optimal performance and compatibility across a wide spectrum of devices and user interactions. Moreover, a significant majority of the pages are designed to be responsive, adapting seamlessly to varying screen dimensions for an enhanced user experience.

- Desktop view:



The screenshot shows the desktop version of the Care4You website. At the top, there's a blue header bar with the logo 'Care4You' and navigation links for 'HOME', 'ABOUT US', 'SERVICES', and 'CONTACT US'. Below the header is a white form titled 'User Registration'. The form contains fields for Name, Email, Password, Re-enter Password, Phone Number, and Date of Birth. Each field has a placeholder text and a small input field.

User Registration

Name:
Enter Name

Email:
Enter Email

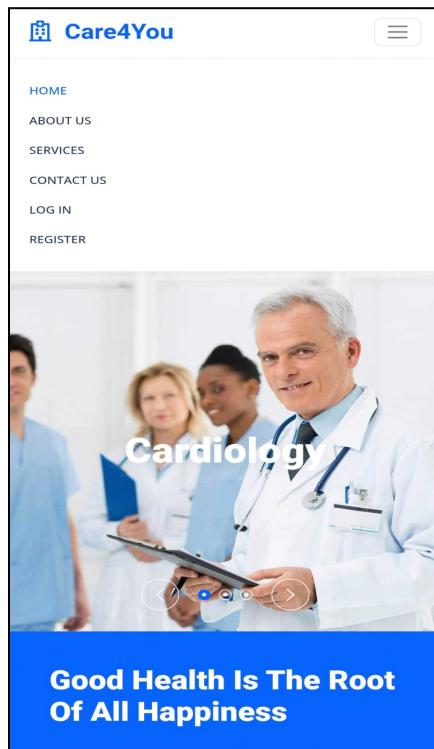
Password:
Enter Password

Re-enter Password:
Re-Enter Password

Phone Number:
Enter Phone Number

Date of Birth:
mm/dd/yyyy

- Mobile view:



The screenshot shows the mobile version of the Care4You User Registration page. The form is identical to the desktop version, with fields for Name, Email, Password, Re-enter Password, Phone Number, and Date of Birth. The 'Date of Birth' field includes a dropdown arrow. The 'Blood Group' and 'Gender' fields are dropdown menus, and the 'Address' field is a single-line input.

User Registration

Name:
Enter Name

Email:
Enter Email

Password:
Enter Password

Re-enter Password:
Re-Enter Password

Phone Number:
Enter Phone Number

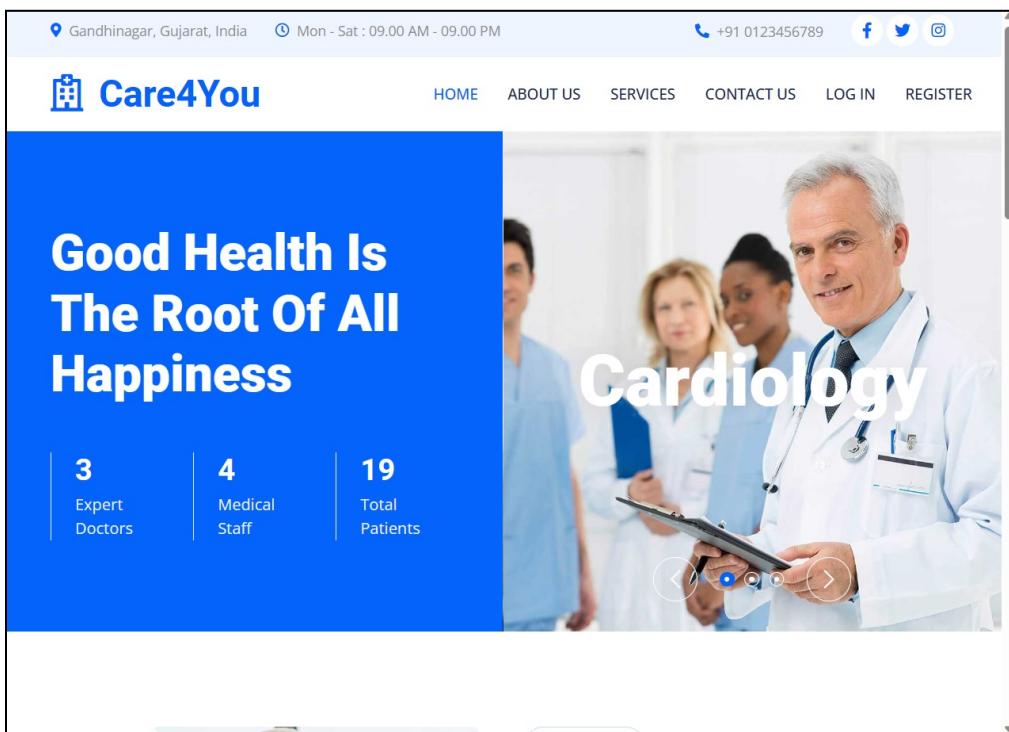
Date of Birth:

Blood Group:
Select

Gender:
Select

Address:
Line 1

- Tablet view:



The screenshot shows the Care4You website's user registration page as it would appear on a tablet. The page has a blue header bar with the Care4You logo and navigation links for HOME, ABOUT US, SERVICES, and CONTACT US. The main content is a 'User Registration' form enclosed in a light gray box. The form fields include:

- Name:
- Email:
- Password:
- Re-enter Password:
- Phone Number:
- Date of Birth:

The registration form is designed to collect personal and contact information from users.

