



WEDE5020

WEBSITE PROPOSAL DRAFT
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WEBSITE PROPOSAL DRAFT FOR HEALTHCARE+

1. Organisation Overview

1.1 Introduction The website project

The healthcare industry is rapidly evolving, with digital technologies playing a major role in improving service delivery and patient care. To meet growing patient demands for easy and efficient medical services, I am creating an interactive and simple-to-use website through which patients will be able to schedule appointments with medical practitioners online. (WHO, 2023).

1.2 Purpose and importance of the sytem

This site will automate the appointment system, minimize administrative workload on healthcare professionals, and integrate clinical workflows. Patients will be able to access it 24/7 and manage their healthcare needs with greater autonomy. Through the inclusion of functionality such as real-time scheduling, doctor profiles, and secure messaging, the system will enhance both patient and practitioner experience. (BMA, 2022).

1.3 Supporting Evidence and Sources

"Digital technologies help reduce administrative inefficiencies and improve access to care." (WHO, 2023; BMA, 2022)

2. Website Goals and Objectives

This website is designed with a set of clearly outlined objectives and measurable goals to increase the efficiency of the medical practice and patient and healthcare provider satisfaction.

2.1 24/7 Availability of Patient Appointments

Patients are able to login and book an appointment with their doctors at any given time and location on any device. This enhances convenience and increases patient control over coordinating care at their own convenience.(WHO, 2023)

2.2 Doctor Profile Visibility and Transparency

The patients can view complete profiles of all medical practitioners, including qualifications, specialty area, and availability of time. This is a move towards being transparent with the patients and letting them decide what is best for their health.(Norman and Nielsen, 2020)

2.3 Reduction in Call Volume and Waiting Time

The system minimizes telephone and in-office scheduling to a large degree using automatic appointment scheduling, hence conserving waiting times for the clinic.(BMA, 2022)

2.4 Improved Patient Communication using Digital Channels

Reminder messages and auto-notifications via email or SMS will remind patients of scheduled appointments, cancellations, or rescheduling, thus avoiding missed appointments and generally improving overall communication.(NHS Digital, 2021)

2.5 Improved Staff Efficiency using Scheduling Features

Administrative and clinical staff will be able to view a special panel to improve management of appointments, doctor availability, and patient scheduling, thus being free from mundane clerical tasks.(Krug, 2014; NHS Digital, 2021)

3. Proposed Website Features and Functionality

For the above goals to be accomplished, the following features will be implemented on the website. All features have been created with considerations to usability, security, and accessibility.

3.1 Secure User Accounts

Both doctors and patients will enjoy password-protected individual accounts with unique log-in credentials. Patient data will be encrypted and stored in compliance with health information privacy regulations. Multi-factor authentication and role-based access control will be applied.(NHS Digital, 2021)

3.2 Full Doctor Listings

Each doctor will enjoy an individual profile page with a professional photo, bio, qualifications, specialties, spoken languages, and up-to-date availability. This improves trust and helps patients choose the appropriate practitioner.

(Norman and Nielsen, 2020)

3.3 Real-Time Appointment Booking System

The patients will be given an online dynamic calendar of booking that is available from the doctor's schedule. The system would prevent double bookings by checking real-time availability and updating the calendar.(WHO, 2023)

3.4 Automated Notifications (Email/SMS)

The process will automate appointment reminders, confirmations, and notifications (e.g., cancellation or rescheduling) via email or SMS. This reduces no-show appointments and maximizes communication efficiency.(NHS Digital, 2021)

3.5 Admin Panel for Office Staff

Doctor schedules could be controlled by administrative users, appointments could be monitored by daily/weekly overview, and availability could be altered based on staffing or emergencies.

Cancellations and rebooking of appointments will also be managed through this panel.(BMA, 2022)

3.6 Access to Patient Appointment History

Patients can see their entire appointment history like past consultations, upcoming visits, and notes (if relevant). This facilitates continuity of care and allows patients to track their health interactions.(Krug, 2014)

4. Timeline and Milestone

Phase	Task	Timeline
Planning and Research	<ul style="list-style-type: none">Requires gathering competitor analysis	Week 1 - 2
Design	<ul style="list-style-type: none">WireFrames & Color schemes	Week 1-2
Development	<ul style="list-style-type: none">Doctor ProfilesAppointment bookingNotifications ,admin panel	Week 2-3
Testing	<ul style="list-style-type: none">FunctionalUsabilitymobile responsiveness.	Week 2-3
Deployment	<ul style="list-style-type: none">Final Deploymentmaintenance plan	Week 4-5

5. Design and User Experience

5.1 Colour Scheme.

A professional and calm color palette will be adopted in the website design. (Lidwell, Holden & Butler 2010).

- Primary: Blue (#1E88E5) – trust and dependability.
- Secondary: Green (#43A047) – wellness and health.
- Neutral: White (FFFFFF), Grey (#F5F5F5) – clean modern look.

These draw on proven design wisdom of relating color to psychological associations in user experience and health care contexts (Lidwell, Holden & Butler 2010).

5.2 Typography.

The website will use a minimalist and contemporary typography system to improve usability and readability.

- Headings: Roboto Bold (modern, clean).
- Body Text: Open Sans Regular (high screen readability).
- Hierarchy: High contrast between headings, subheadings, and body content.
- Layout and Design:
- Clean, minimalistic design with basic navigation bar (Home, About Us, Doctors, Appointments, Contact).

These typographic and structural choices conform to digital usability design best practice (Krug 2014; Norman & Nielsen 2020).

5.3 Mobile-grid layout for universal usability.

The layout of the site will be on a mobile grid system to ensure universal access across devices such as smartphones, tablets, and desktops.

- Accessibility standards compliance (WCAG 2.1) with sufficient contrast and alt-text on images.
- User Experience Attributes:
- Simple navigation with highlighted "Book Appointment" button.
- Clear doctor profiles with available dates showing on calendar.
- Few-loading pages and minimal steps to book.

Such design choices align with accepted usability and accessibility best practice in online healthcare environments (NHS Digital 2021; Norman & Nielsen 2020).

5.4 Wireframes.

The wireframes will be low-fidelity drawings that establish the structure and flow of the site. The home page will be used to introduce the service with a clear "Book Appointment" call to action.

- Low-fidelity sketches would have:
- Homepage: Introduction + "Book Appointment"
- Doctor Profiles: Photo, bio, availability
- Appointment Page: Calendar + booking form
- Admin Dashboard: Schedules overview

These wireframes enable patient-centred design by providing clarity, transparency, and efficiency at all points of interaction (Krug 2014)

6. Technical Requirements

It shall be hosted on a safe web hosting platform with an SSL certificate in order to ensure a secure connection and safeguard patient data (NHS Digital 2021).

The frontend shall be coded using HTML5, CSS3, and JavaScript for a device-responsive and friendly user interface (Norman & Nielsen 2020).

For security, authentication will include password-protected accounts with multi-factor authentication and role-based access control to safeguard sensitive health care information in line with best practice requirements (World Health Organization 2023).

7. Budget (Estimated)

The estimated costs for year 1 are as follows:

- Domain & Hosting: R2,775 – R4,625 per annum
- Development Tools & Frameworks: Mostly free (open-source libraries)
- SMS/Email Notification Service: R925 – R1,850 per month (\approx R11,100 – R22,200 per annum, depending on patient load)
- Maintenance & Updates: R9,250 – R18,500 per annum
- Design/Branding (if outsourced): R3,700 – R9,250 (once-off)

The total estimated cost for Year 1 will therefore be between **R26,825** and **R54,575** (British Medical Associates 2022)

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