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Denisa Mazarache

ID: 2425452

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Part A: Poster

CareOrbit

Revolutionizing Healthcare Access Through Health Apps



Introduction

This report is to innovate a product or service that will help the healthcare and medical industry in numerous ways to help patients, vulnerable groups of people such as the elderly, and healthcare professionals in navigating medical procedures and making their lives easier (Ala and Chen, 2022). The product is a mobile health app that finds the nearest local doctors and medical treatment centres based on symptoms, diseases and possible body vitals anomalies. This Application uses an AI-integrated algorithm that reads through the patient's information and checks for vitals to assign the nearest best available doctor's appointment. This application is called 'CareOrbit', which integrates an AI algorithm into the system that makes the job of finding the nearest best available doctor easier for patients and helps medical facilities to get proper health documents.

Problem Statement

Finding the perfect solution and the suitable medical facilities alongside the perfect doctor that matches the symptoms of the illnesses is a tough job to accomplish. Patients who are suffering from sudden illnesses, old people who cannot figure out sudden vital changes and people who are working professionals who cannot have the time to look for the perfect nearby doctor's appointment are facing a serious challenge (Aldadi et al., 2024). Due to information overload and the unavailability of high-demand doctor-medical facilities, sometimes patients fail to secure a same-day appointment even in urgent cases. Statistics suggest that, on average, over 2,300 patients per permanent General appointment are failing to book due to this industry condition (Campbell, 2026).

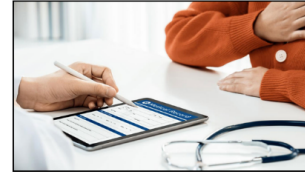


Figure: Online Appointment Booking
Source: (Tigahealth, 2024)

Target Audience and Impact

The major target audiences are the people are working professionals, young adults and older people who are confused about illness symptoms and need urgent care. These almost cover all the demographic segments that exist in the medical field, which makes the application much more convenient and user-friendly (Halbayeva and Geldiyeva, 2026). For instance, finding a doctor nearby who has a specialisation in the field of ENT cannot be done without having sufficient information. Even if the patient finds the doctor, calling to book an appointment, getting registered and providing all the information about the symptoms and illness will take a long time, which can be frustrating at times. This app makes the information-sharing issue easier and more convenient for both parties by providing the patient with the doctor's information and specialisation; on the other hand, by providing the doctor with the patient's vital information, bodily functionality and a basic overview of the illness. This whole process helps the medical industry in numerous ways, from making the process faster and more accurate to creating a nationwide database for doctors and medical professionals to access regardless of the patients' social and economic status.



Figure: Impact of online medical appointments
Source: (Tameta, 2025)

Implementation

The implementation process involves several steps, which are determined by the market analysis and market segmentation of the medical industry amongst various patient groups and doctors. First of all, the app will be run by a specific community group who are authorised by the National Health Service (NHS) to perform a nationwide data collection on doctors and make it a localised database for users to access. The local database will be uploaded to the AI-algorithm-based application server in order to organise the doctors' information precisely. Then the AI-based software application will have to get trained on recognising medical anomalies, illnesses, symptoms and diseases, based on actual medical science practices so that the matchmaking with the appropriate doctor will be correct and accurate. Then this app will run its alpha test on a specific group of selected volunteers to check for its viability and work method. Then the beta test will check for its market acceptability and application performance. If everything goes well, then the application will get launched for the general public to use. The hospitals and other medical facilities will have a different user interface than the general public for gathering and collecting patients' information. The marketing team of this application will have to approach healthcare facilities and social media apps to introduce the app to the masses.

Timeline

Activities	Week 1	Week 2	Week 3	Week 4	Week 5
Development of the application					
Plan meeting with selected volunteers					
Consulting the glitches and preparing the beta testing					
Brand Marketing and Launching of the application					
Monitor website and feedback channel					

Regulations

Despite having a successful user-friendly framework, this application raises a series of ethical and legal questions that concern authorities. For instance, the usage of AI to collect vulnerable and confidential information about a person directly creates a dilemma under data protection (GDPR) law in the nation, as these data can be used for other illegitimate purposes without strict guidelines, transparency, and adherence to the law (Bakare, 2024). NICE guidelines and professional codes that guide healthcare practice, focusing respectively on evidence-based clinical, cost-effectiveness and ethical-behavioural standards set by regulatory bodies, play a vital role in determining this application's legitimacy in information technology and medical ethical practices (NICE, 2026).

Technology Integration

This application is based on an AI algorithm that integrates with the mobile application user interface to collect vital information from the patient parties and matches them with a suitable doctor who treats the issue to get a perfect solution and makes the job easier. The AI technology has a lasting impact in this framework as it identifies the symptoms, determines the issue and suggests a perfect match for a doctor within the local area. Without the AI integration, this application loses its USP.

Dissemination

The marketing techniques for this application have to be unique and approachable for the audience to capture the essence of its usefulness. Omnichannel brand marketing is the way to address this application in today's modern marketing landscape. First of all, advertising through healthcare facilities, nursing homes, hospitals and doctors' chambers is one of the major marketing techniques that the company can utilise. Using social media brand marketing through Instagram, Facebook, TikTok, and influencer promotion is another effective way to promote this application.

Conclusion

CareOrbit, an application that bridges the gap between patients and specialised healthcare through seamless AI integration. Through collecting data about vitals, symptoms and illness details, this application streamlines appointment matching while navigating regulatory standards; the application optimises medical workflows. CareOrbit changes the way individuals access urgent care, ultimately revolutionising patient management across the entire healthcare ecosystem.

References

- Ala, A. and Chen, F., (2022). Appointment scheduling problem in complex systems of the healthcare services: A comprehensive review. *Journal of Healthcare Engineering*, 2022(1), p. 549813. <https://online.crcj.usfca.com/doi/abs/10.1055/2022/549813>
- Aldadi, A., Babb, K.A. and Williamson, A., (2024). Factors influencing multiple non-utilised healthcare appointments from patients' and healthcare providers' perspectives: a qualitative systematic review of the global literature. *BGP open*, 6(4), pp. 8UGPO-2024. <https://bjopen.org/contents/6/4/8UGPO-2024-0075.abstract>
- Bakare, S., (2024). Data privacy laws and compliance: a comparative review of the EU GDPR and USA regulations. *Computer Science & IT Research Journal*. <https://www.academia.edu/download/57642337/3502.pdf>
- Campbell, D., (2026). Half of Britons avoid calling GP when they are ill, survey finds, the Guardian. Available at: <https://www.theguardian.com/society/2026/may/25/half-of-britons-avoid-calling-gp-when-they-are-ill-survey-nhs> (Accessed: August 4, 2026).
- Halbayeva, N. and Geldiyeva, A., (2026). ONLINE APPOINTMENT BOOKING SYSTEM FOR HEALTHCARE. *CGPA 2026*, p. 14. Available at: <https://www.cgpa.org.uk/2026/04/14/online-appointment-booking-system-for-healthcare/> (Accessed: August 4, 2026).
- NICE (2026) NICE guidance, NICE website. The National Institute for Health and Care Excellence. NICE. Available at: <https://www.nice.org.uk/guidance> (Accessed: August 4, 2026).
- Tameta (2025) Doctor Appointment Booking System Development: Complete Guide, Tameta.tech. Available at: <https://tameta.tech/blog/doctor-appointment-booking-system-development-complete-guide> (Accessed: August 4, 2026).
- Tigahealth (2024) Benefits of e-Appointment Systems in Healthcare, Tiga Healthcare Technologies. Available at: <https://www.tigahealth.com/benefits-of-e-appointment-systems-in-healthcare/> (Accessed: August 4, 2026).

Part B: Pitch

Introduction

Managing and navigating primary healthcare access through booking appointments and finding the perfect doctor poses a significant hurdle across the UK, due to system backlog and heavy workload. CareOrbit addresses this operational bottleneck through an AI-driven mobile platform designed to match patients with local specialists based on automated symptom analysis, real-time vital tracking, and clinician availability. Integrating virtual registration and booking suitable doctor's appointments while optimising triage, CareOrbit helps working professionals and vulnerable individuals like older people so much by providing a convenient, user-friendly system. Mitigating this access gap directly enhances patient outcomes and streamlines administrative workflows within primary care ecosystems.

Background

Due to unprecedented pressure, workload, staff shortages, and service unaccessibility, the nation's healthcare system fails to deliver primary access infrastructure that provides everyone with an accurate medical appointment. NHS data indicates that over 2,300 patients per GP struggle to secure timely appointments, leading to significant delays for acute conditions (Campbell, 2026). On top of that, reports suggest that almost half of the UK population avoid contacting their GP entirely as they are frustrated by this anticipated friction and lengthy time-taking process. This systematic failure further burdens emergency services and exacerbates health inequalities for vulnerable groups who struggle to navigate the complex identification process of illness (Aldadi *et al.*, 2024). National policies, including the NHS Long Term Plan, emphasise digital-first initiatives and emergency-triage optimisation to reduce administrative strain and improve patient access across local health systems. CareOrbit navigates these operational policies through a scalable artificial intelligence integration into the process. Alongside that, on a personal level, patients are sometimes confused and ignore vital symptoms about their bodily functionality, which may trigger illness, due to the unavailability of proper information and the nearest doctors' details who have the specialisation on the issue. This situation can cause a series of serious healthcare concerns and suffering amongst the people. This can be mitigated through this mobile application.

Innovation Description

CareOrbit is an AI-integrated mobile application designed to automate patient triage and specialised doctor matchmaking by identifying symptoms and illness in order to streamline the

medical process. CareOrbit uses an advanced machine learning algorithm trained on clinical guidelines to process self-reported symptoms alongside real-time vital sign data, in addition to accessing doctors' information from the available data and localising them according to the specialisation and area division. By cross-referencing this health information with a localised database of NHS-authorized providers, the app automatically identifies suitable local specialists, for instance, a dentist appointment with the available local best doctor, without having to go through lengthy phone call bookings and conversations.

A key feature of this application is that it has a dual-interface design; one portal is for patients that provides a clear, accessible interface for inputting health changes and booking care appointments. The other portal window is for doctors and medical professionals, which is a dedicated clinical interface that supplies healthcare facilities with pre-consultation summary reports, detailing patient vitals and symptom logs. This framework is structured and makes the data exchange process easier, reducing administrative overhead and equips clinicians with accurate medical context before consultation.

Impact on Health and Social Care

CareOrbit systematically removes the barriers to primary care access for vulnerable and underserved population who faces challenges while booking appointments by improving health equity and social justice understanding within the community. Often, the elderly population gets confused due to sudden changes in vitals and bodily anomalies, which trigger them to seek immediate medical care. In these moments, eliminating the frustration of navigating complex booking channels by introducing a mobile app and easy online booking techniques. Similarly, busy working professionals gain rapid access to local specialists without sacrificing work commitments. By optimising patient distribution across local facilities and preventing non-urgent emergency department visits, the application preserves critical NHS resources and reduces administrative burdens on clinical staff (Damar *et al.*, 2024).

This platform changes the dynamic of the healthcare industry and healthcare access by democratising the whole landscape by integrating a nationwide doctors' database and patients' information collection. Automated matchmaking ensures care allocation is governed strictly by clinical urgency, geographical proximity, and specialist expertise rather than a patient's digital literacy or socioeconomic standing. Additionally, this application creates a structured pre-

consultation medical record that helps doctors and medical facilities in understanding the vitals and bodily functionality better than just symptoms and assumptions.

Public and Stakeholder Involvement

The whole nation, who are suffering from illnesses at times, which includes quite literally everyone, is part of the demography and stakeholder segmentation for this application. To guarantee safety and widespread adoption, CareOrbit takes on a co-production framework involving patients, caregivers and healthcare consultants (Halbayeva and Geldiyeva, 2026). The initial rollout includes phased alpha testing with volunteer groups to assess UI accessibility, particularly for older demographics. To keep the information localised and updated, the responsible community group has to constantly maintain a top-down connection with the root-level information sources throughout the nation to gather best doctors' and medical facilities' information (Tampio *et al.*, 2022). Alongside that, the community group has to stay connected with the NHS as well to keep the process nationally registered, ethical and legally authorised by the NHS.

Policies, Services, and Professional Links

CareOrbit must align with the health and medical regulations of the UK in order to operate in the nation. Compliance with the Equality Act 2010 and the Care Act 2014 ensures equitable access and person-centred support across all demographic sectors (Lyu *et al.*, 2025). Adhering to the UK and Europe's GDPR standard policies and laws is an important step for the application to maintain data ethics and information transparency (Bakare, 2024). Furthermore, the platform's diagnostic triage protocols align with NICE guidelines and professional governance codes set by regulatory bodies such as the Nursing and Midwifery Council (NMC) and the Health and Care Professions Council (HCPC), securing institutional trust and clinical validity (NICE, 2026).

Conclusion

CareOrbit provides an essential, innovative solution to the primary care accessibility crisis. By combining AI-driven symptom triage with real-time specialist allocation, it streamlines patient pathways and enhances clinical efficiency. CareOrbit delivers a realistic, high-impact framework that transforms healthcare delivery for patients and professionals alike.

References

- Campbell, D. (2026) *Half of Britons avoid calling GP when they are ill, survey finds, the Guardian*. The Guardian. Available at: <https://www.theguardian.com/society/2026/feb/25/half-of-britons-avoid-calling-gp-when-they-are-ill-survey-nhs> (Accessed: August 4, 2026).
- Ala, A. and Chen, F., (2022). Appointment scheduling problem in complexity systems of the healthcare services: A comprehensive review. *Journal of Healthcare Engineering*, 2022(1), p.5819813. <https://onlinelibrary.wiley.com/doi/abs/10.1155/2022/5819813>
- Aldadi, A., Robb, K.A. and Williamson, A., (2024). Factors influencing multiple non-utilised healthcare appointments from patients' and healthcare providers' perspectives: a qualitative systematic review of the global literature. *BJGP open*, 8(4), pp.BJGPO-2024. <https://bjgpopen.org/content/8/4/BJGPO.2024.0075.abstract>
- Halbayeva, M. and Geldiyeva, A., (2026). ONLINE APPOINTMENT BOOKING SYSTEM FOR HEALTHCARE. *ОБРАЗОВАНИЕ И НАУКА В XXI ВЕКЕ*, (73-4 (том 2)). <https://mpcareer-google.ru/index.php/journal/article/view/5435>
- NICE (2026) *NICE guidance, NICE website: The National Institute for Health and Care Excellence*. NICE. Available at: <https://www.nice.org.uk/guidance> (Accessed: August 4, 2026).
- Bakare, S., (2024). Data privacy laws and compliance: a comparative review of the EU GDPR and USA regulations. *Computer Science & IT Research Journal*. <https://www.academia.edu/download/119426337/1060.pdf>
- Tigahealth (2024) *Benefits of e-Appointment Systems in Healthcare, Tiga Healthcare Technologies*. Available at: <https://www.tigahealth.com/benefits-of-e-appointment-systems-in-healthcare/> (Accessed: August 4, 2026).
- Tameta (2025) *Doctor Appointment Booking System Development - Complete Guide, Tameta.tech*. Available at: <https://tameta.tech/blogs/topics/doctor-appointment-booking-system-development-complete-guide> (Accessed: August 4, 2026).
- Lyu, J.Y., Hu, B., Wittenberg, R. and King, D., (2025). The relationships between informal and formal social care for older people in England: A comparison before and after the Care Act 2014.

In *Advances in Family Caregiving Policy and Research* (pp. 109-126). Routledge.
<https://www.taylorfrancis.com/chapters/oa-edit/10.4324/9781003653271-9/relationships-informal-formal-social-care-older-people-england-comparison-care-act-2014-jae-yeon-lyu-bo-hu-raphael-wittenberg-derek-king>

Tampio, K.P., Haapasalo, H. and Ali, F., (2022). Stakeholder analysis and landscape in a hospital project—elements and implications for value creation. *International Journal of Managing Projects in Business*, 15(8), pp.48-76. <https://www.emerald.com/ijmpb/article/15/8/48/138342>

Damar, M., Kop, O., Şaylan, Ö.F., Özen, A., Çakmak, Ü.E. and Erenay, F.S., (2024). Digital health: The critical value of mobile technology for the health sector, different application examples from the world and current trends. *Journal of Emerging Computer Technologies*, 4(1), pp.25-37.
<https://dergipark.org.tr/en/pub/ject/issue/83494/1514154>