

Online Ambulance Booking System

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ABSTRACT :

The Online Ambulance Booking Service is a vital healthcare innovation designed to address the critical need for efficient and timely emergency medical transportation. In the modern world, access to medical care is of utmost importance, and this service aims to bridge the gap between patients and emergency medical services. This abstract provides an overview of the key features and functionalities of the system. The Online Ambulance Booking Service leverages technology to create a user- friendly platform that enables individuals to request ambulance services with ease. Users can access the service through a web application or mobile app, making it accessible to a wide range of people. The Online Ambulance Booking Service is a solution that enhances emergency medical response, saving valuable time in critical situations. It fosters a sense of security and reliability in healthcare services, benefiting both the general public and healthcare providers. This abstract highlight the importance of such a service in the healthcare industry, emphasizing its role in improving patient outcomes and reducing response times during emergencies.

KEYWORDS :

Online Booking System, Emergency Medical Services, GPS Tracking, Database Management, Booking History, Feedback/Review System.

INTRODUCTION :

Ambulance, the vehicle which is used for transportation and medical emergencies. Ambulance is simply a lateral inversion of ambulance. The vehicle in the front can see and understand the name quicker and can give the way for the ambulance. This project is named ambulance as it aims at enhancing the present ambulance scenario of Maharashtra using the internet and the mobile technology. Information and Communication Technology (ICT) in ambulance services includes all the related operations carried through electronic and internet technology. Complex electronic devices and the accompany technologies are being used extensively in developed countries for the ambulance operation. In today's traffic world, ambulance plays a major role when an accident occurs on the road network and the need arises to save valuable human life. Transportation of a patient to an emergency hospital seems quite simple but in actuality, it is quite difficult and gets more difficult during peak hours. In our Ambulance Booking System, people can easily book an ambulance. There are three major modules namely User, Ambulance, and Hospital. Users can register and log in using credentials. Users can edit their profile and change their password in an emergency. Any Upcoming Ambulance Booking details if anyone wants to Book an Ambulance or if there is an Emergency. Whether it's a medical emergency, transport for a loved one with special medical needs, or any urgent situation requiring professional medical assistance during transit, system is here to facilitate your booking with ease and reliability. Platform is designed to provide seamless access to ambulance services, ensuring timely response and care when you need it the most. With user-friendly interface, you can quickly request an ambulance, specify your location, provide essential details about the situation, and track the status of your booking in real-time. Our network of certified ambulance providers ensures that you receive prompt and quality service, manned by trained medical personnel equipped to handle various medical situations.

LITERATURE REVIEW :**[1] Mobile Ambulance Management Application for Critical Needs (2020)****Author Name: Devigayathri P, Amritha Varshini R**

The emerging researches in medical devices, wireless communications, sensors and software applications help in the advancement of health care centers. In this paper, different methodologies are used to implement mobile android applications for providing an efficient and comfort ambulance service into existence. Ambulance service providers install the application and register the details of the available ambulance services. Enquirer can avail of the ambulance facility either by registering the details in the application or directly in case of emergency situations. Enquirer can detect the locations of the ambulance vehicle either manually by providing the location details or automatically by invoking the required option.

[2] Intelligent Ambulance Management System in Smart Cities (2020)**Author Name: Tugay Akca, Ozgur Koray Sahingoz**

According to the United Nations' expectation, the total population of the cities will be doubled in the next three decades. This accelerating growth causes crucial problems in the main components of both traditional cities and smart cities. To increase the living quality of the residence in smart cities, enabling a clean, healthy, and sustainable environment are the major fields for the smart cities' managers and directors. One of the main infrastructures of the smart city is identified as smart health, which can be enabled with the use of modern technologies such as Internet of Things, especially for accessing the patients when they need help. In this Project, a smart ambulance management system is proposed in a smart city environment.

[3] Improving the performance of emergency ambulance service using smart health system (2021)**Author Name: Mohammad Abdeen; Mohamed Hossam Ahmed**

Smart health is a new paradigm that can significantly improve the healthcare systems. In smart health, novel sensing, computing and communication technologies are integrated in healthcare to improve the quality of service. In this paper, we use the smart health to improve the performance of ambulance service. In particular, we use the real-time traffic information and hospital waiting time to minimize the ambulance response time, ambulance travel time to hospitals, and waiting time at hospitals. Results indicate that the use of smart health improves the performance significantly especially with non-uniform hospital capacity and non-uniform traffic conditions.

[4] Ambulance Booking Application (2021)**Author Name: P L Arunachalam; P Krishna**

India is currently lagging behind other countries in terms of health care due to a shortage of fast health services. The primary explanation for this is a lack of technical implementation. To fix this question, we are implementing a mobile-based ambulance service. This mobile application would revolutionize the way people use emergency services.

[5] E-Ambulance System (2020)

Author Name: M Bin-Yahyaa, E M. Shakshukib

“E- AMBULANCE: RealTime Integration Platform for Hetero- geneous Medical Telemetry System paper” introduced the Electronic emergency ambulance response system; an intelligent ambulance design that performs automatic response developments into intensification to regulating to boost some likelihood from protecting sufferers of health frightening situations by using IOT sensors,DDS standards. Additionally to this, added factors of Quality of Services strategies and Real-Time Publish-Subscribe Protocol which could be harmo- nized to magnify the sense of Data Distribution Services in medicinal operations across numerous radio communication technology such as Wireless Fide lity and many more.

PROPOSED SYSTEM :

The proposed ambulance booking system offers a seamless solution for efficient emergency medical services. Through a user-friendly interface, individuals can quickly register and book ambulances, providing essential details such as location and emergency type. Utilizing real-time data, the system dispatches the nearest available ambulance, optimizing response times. Users can track ambulance movements in real-time, ensuring transparency and accurate arrival estimates. Integrated emergency alerts and a feedback mechanism further enhance the system's effectiveness, prioritizing swift and reliable healthcare delivery.

MODULES AND THEIR FUNCTIONALITIES :

- We used two labels on the first webpage.

Label 1: User

Label 2: Driver

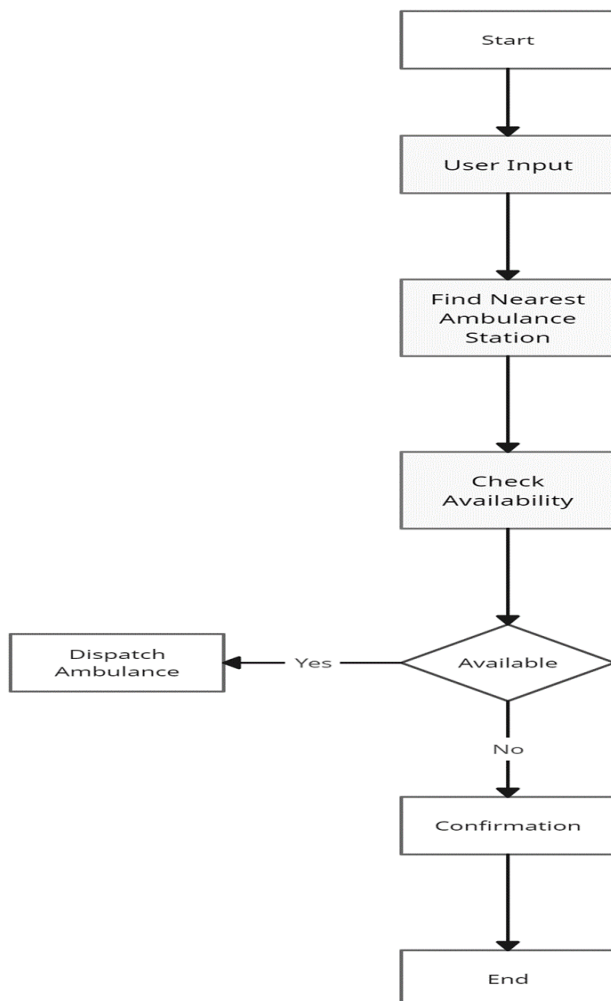


User

- **Registration:** The user can register using personal details.
- **Login:** The user can log in using credentials.
- **Change Password:** User can change their password.
- **Book Ambulance:** Users can book an ambulance by giving its location, hospital location, and timings.
- **View Previous Booked Ambulance:** The user can view the previously booked ambulance.
- **View Near by Ambulance:** Users can view nearby ambulance.

**Driver**

- **Registration:** Ambulance drivers can register using personal details and ambulance number
- **Login:** Ambulance Driver login in using credentials.
- **Change Password:** Ambulance drivers can change their password.
- **View Booking Request:** The ambulance driver can view the booking request.
- **Previous Bookings:** Ambulance Driver can view Previous Bookings.

FLOWCHART :

FUTURE SCOPE :

- **Advanced Technology Integration:** Incorporating artificial intelligence and machine learning for predictive analytics and optimized dispatching algorithms.
- **Telemedicine Integration:** Enabling remote medical assistance during transit through telemedicine capabilities, enhancing patient care and support.
- **Health Monitoring and Alerts:** Integration with smart wearable devices and IoT sensors for real-time health monitoring and proactive alerts for at-risk patients.
- **Partnerships and Innovations:** Collaborations with ride-sharing platforms or advancements in autonomous vehicle technology to offer more flexible and efficient transportation options, ensuring continuous improvement and adaptation to emerging healthcare trends and technologies.

CONCLUSION :

The online ambulance booking system not only addresses the immediate need for efficient emergency response but also contributes to the broader goals of improving patient outcomes, healthcare accessibility, and the overall effectiveness of emergency medical services. The project aligns with the advancements in technology to create a more responsive and patient-centered healthcare system.

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