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e-Rakshak (Accident Emergency Service)

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Abstract: Emergency services at the time of road accidents are crucial for rescuing people in need of critical medical attention. Most road accidents lead to deaths when the victims don't make it to the hospital in time or when their requirements aren't met in a short period. Involving smartphones in the field of emergency medical services can boost the quality of service that the victims receive. Finding a good hospital service in an unknown geographical location is also a major challenge. A web application to deal with these issues can serve as a big leap in the field of medical service for road accidents. The proposed Web application provides the user with a list of all hospitals present in the nearest location with the help of GPS. It also gives an option to view the list of nearest blood and organ donors who are eligible. It works on finding the hospital for people who are in need of emergency in the time of an accident. This app would hence save a lot of time and effort in finding emergency medical services. This might save a lot of lives in need during the time of emergency and make the work easier for the blood donation centers and the hospitals.

Keywords: Emergency service, Eventually, emergency treatment, and medical facilities

I. INTRODUCTION

In India, accident cases have increased over period of time. Among the 199 countries, India ranks first in road accident deaths. It has raised up to 11% in the world. The death rates in India are increasing mainly due to a lack of medical emergency treatment. According to the report, about 5,000,000 Indians die per year due to a lack of medical requirements. The number of casualties in road accidents is increasing every day. The survey indicates about 17 road accident fatalities every hour. The major reason is that these victims don't receive the medical attention they need in sufficient time. The web application developed can reduce the time taken for receiving medical service by immediately providing details of nearby hospitals and the list of nearby blood and organ donors. The location of the victim is identified through the use of GPS at first. The location details are used to identify nearby hospital locations which the user can choose from. This is done with the help of Google Maps API. The web application is simple and does not require a lot of resources. The details and ratings of the hospitals are also mentioned to help the user choose the convenient one from the others.

II. LITERATURE REVIEW

1. Fatma Poni Mardiah, Mursyid Hasan Basri [1]

"The Analysis of Appointment System to Reduce Outpatient Waiting Time at Indonesia's Public Hospital". The service for outpatient has been an important health care component. Treatment for the patient with a short consultancy with a long waiting time has been the major issue. Patients nowadays have chosen a service provider that has their decisive factor. Therefore, we have to consider the idle time of both parties while designing the system. For medical treatment in the outpatient clinic length of time as being the main factor to be solved.so, this system aims to solve this problem by implementing the best strategy for an appointment system with maximum efficiency and effectiveness of capacity and resources. The technique used was Queuing Model for Specialist Outpatient Clinic.

2. Mostafa et al. 2014[2]

This claims that an organ donating app based on social networking would be used popularly and be easy to handle and make use of for many users

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around the world. This study highlights the importance of blood and organ donation at the time of emergencies such as road accidents. There have been global actions taken to make use of mobile applications and social media to push the availability of blood and organ donors in crucial emergencies and make the service more convenient and create a chain of donors during the time of crisis.

3. Wenjun Cao et.al[3]

"A web-based appointment system to reduce waiting for outpatients: A retrospective study". Waiting time for the registration time in meeting the doctor is more in cities of China. A web-based system has been developed to address this problem in cities of China. The outpatient register service for appointments in the hospital was the main aim of this system. For the web-based appointment, the data was collected from the hospital in China from March to December from random samples selected by asking for detailed information on using the system through a telephone interview. Selection as comparison groups and other questions on the site was given by the patient who registered through the registration window.

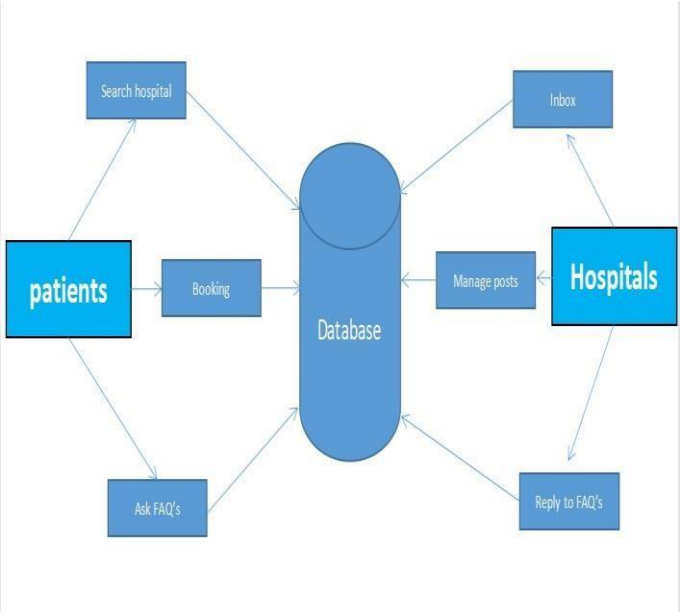
4. Ouhbi S et al. 2015[4]

proposed a system that there has been a fall in the level of organ donors in the last few years due to the inconvenience and discomfort in live organ donation that occurs face to face. It makes people more shy and hesitant to request total strangers for organ donations. A survey was conducted among the organ-affected people and it was observed that more than half of them used social networking apps. They used this with ease since the User interface was simple and easy to handle. They were also connecting to people around the world at ease. Hence an App for organ donations would make the process of requesting for organs and approving the requests less awkward

5. Yuan et al. 2016[5]

observes that blood and organ donation service is a time-consuming service that includes the communication between the donor, victim, the medical center, and the donation center. Sometimes the integration between these modules is weak or missing and hence the time and effort taken during the emergencies are long and could even lead to casualties. In addition to this, most blood banks work independently and aren't part of communities. The proposed service initiates a mobile-based and cloud-based service where the information that is dispersed is brought together over the cloud and provided to the app users through the apps.

III. PROPOSED METHOD



A user-friendly website with a clear user interface and easy-to-use buttons. The patient has to stand in line for hours for the appointment or to meet the doctor. Where they can get to meet the doctor or may know that the doctor is not available after standing in line for hours. By using this web-based application Patients can make an appointment and can also access the website to know when the doctors are available. They can even book the appointment for the patient prior. So this

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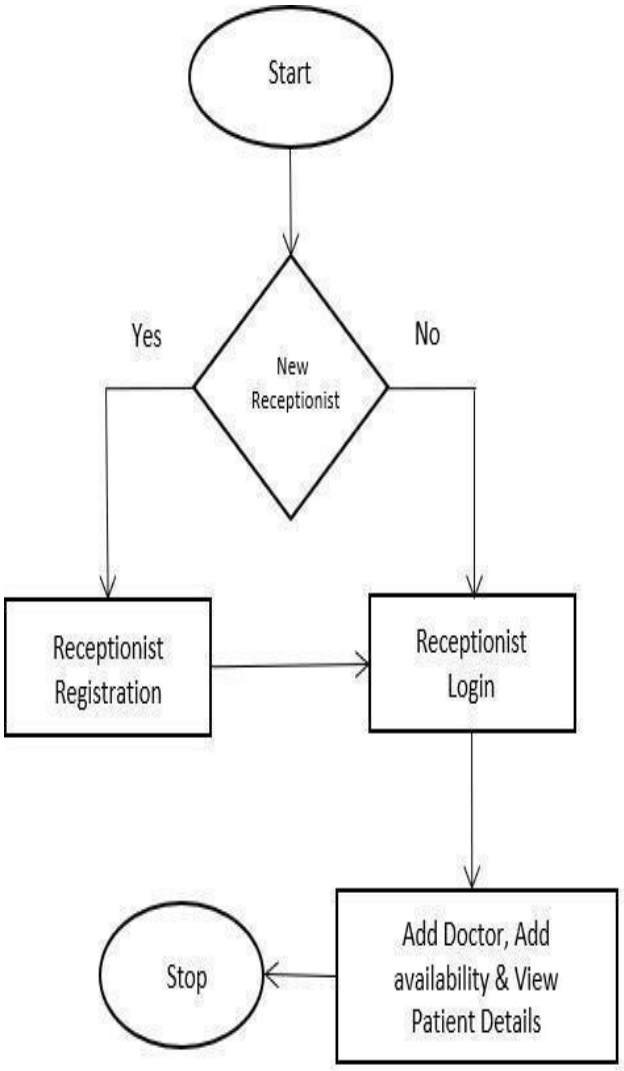
allows the user to decide on their time availability. This can save time and also makes it easy for the user to allow them to make their appointment based on their availability.



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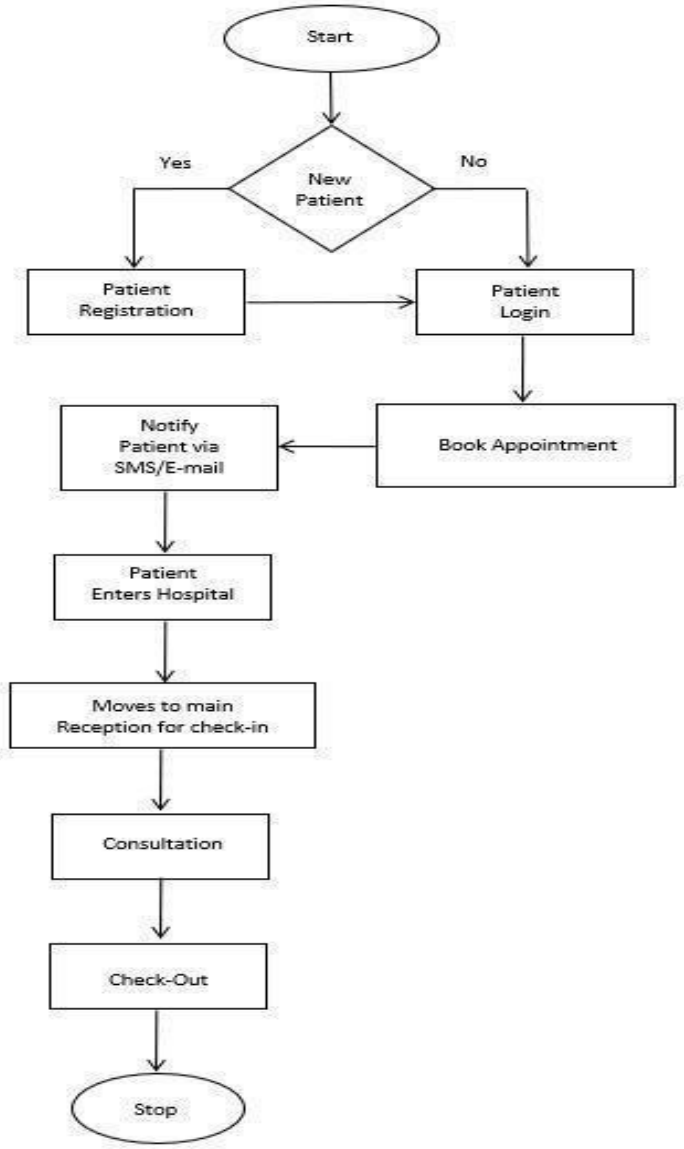

- The patient can also see the status of their appointment so that can be prepared for the same (whether they scheduled an appointment or not). the time between the waiting time of the appointment to receiving the service from the hospital is known as the direct waiting time. The patient can save a lot of time from this web application. They can even know the distance and the route to reach the hospital. This web application allows you to make things easier in an efficient manner.

- In an online appointment scheduling system patients are given an appointment time. At the designated time of appointment, patients arrive at the hospital and get the Consultation done in that allotted time. These patients need not queue at the registration counter. In this way, both indirect and direct waiting time can be reduced and valuable resource and their service can be utilized efficiently.

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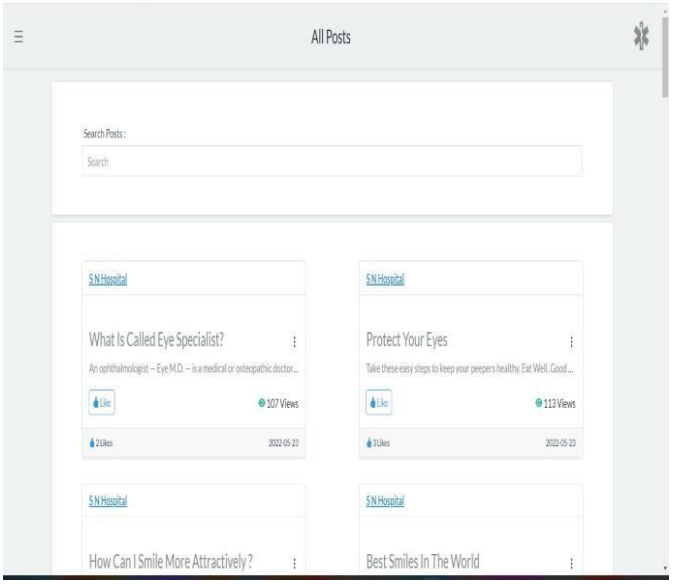
IV. RESULTS AND DISCUSSION



Medical emergency service is a web application where it can be used at the time of the emergency for the patient to book the emergency medical service. The web application will have the login process, where the user can log in to the application. The patient can book the emergency bed, doctor and treatment required. The patient can also find the hospitals nearby so that they can reach the hospital early. It also allows patients to book their appointment and also schedule appointments.

For a patient who is in need of an emergency, the booking can be done on behalf of them anyone who is there to help the patient.

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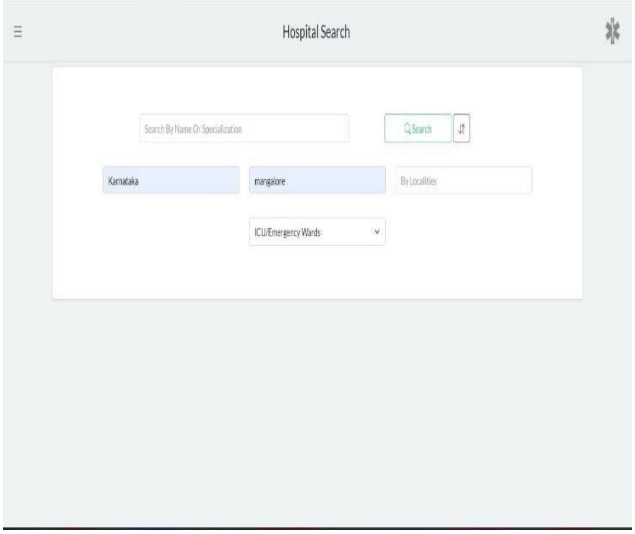
The web application allows us to give more information about the patient by know the at what condition the patient is in. it also allows the patient to know the hospital nearby and also show the shortest route to reach the hospital. the bed in the hospital can be booked in prior so the patient may get the treatment at the faster rate.



The hospitals that receive the message that the patient is in which condition, the treatment will be arranged accordingly so the patient arrives at the hospital the treatment can start immediately. Hospitals can also post the medical treatment available at their hospital and patient can also post their review about the hospital. We can also post any questions that may arise and the hospital can make any concern to answer your queries. Anyone can register to the website and can use the services provided by the web application. We search for the hospital by providing your current location, and localities, and then the application will search for the hospital based on the location given by the user. it also shows the other hospital also so the user can decide the hospital base on convenience. Users may also log in and log out based on their requirements.

CONCLUSION

In this paper, issues faced by the present Accident service domain specifically related to an emergency are discussed. Various solutions are the best and fastest search of all nearest hospitals for treatment have been proposed by researchers. Faster treatment for the patient in the accident Advanced

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