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# Carolife – Life Caring Solutions

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**Abstract**

In times of medical emergencies, individuals always face difficulties in finding the most suitable hospital for necessary treatment. They may navigate from one healthcare facility to another, medications, and blood supply. Hospital finder will solve these problems. This application is designed to help individuals to find the best medical care for their needs in a convenient way. It uses GPS-Global Positioning System in smart phones to find the nearest hospitals that offer the desired medical specialities, such as cardiology, neurology etc. It also shows the routes from the current location to the selected hospital through Google Maps, saving time and reducing stress for the users. Moreover, it supplies information about the hospitals, such as their facilities, doctors, blood banks, laboratories, and appointment schedules. Users can search for hospitals based on their requirements. They can also access their earlier medical history through the application by logging in to keep the privacy of the users. This application aims to reduce the hassle of searching for specific medical services and improve the health outcomes of the users/patients by providing them with reliable and relevant information.

***Key Words*:** GPS, Google Maps, Blood Bank, Appointment Schedules, Privacy

## 1. INTRODUCTION

In today's fast-paced world, technological advancements have permeated every facet of human life, transforming the way we work, communicate, and even manage our health. Smartphones have become indispensable tools, empowering us with information and services at our fingertips. However, even with the large set of information available, one of the fundamental challenge persists for common people - the daunting task of choosing the right hospital for their medical needs. Navigating the complex healthcare landscape, individuals often find themselves grappling with critical decisions about where to seek treatment, which hospital can provide the required medical services, and whether specific medicines or blood supplies are readily available.

Addressing this pressing issue, the emergence of hospital finder applications has heralded a new era in healthcare accessibility. These innovative solutions leverage the power of smartphones and advanced technology to bridge the gap between

individuals and healthcare providers. Hospital finder applications serve as invaluable tools, empowering people to make informed decisions about their healthcare needs. At the heart of this transformative concept lies the ability to seamlessly search for nearby hospitals based on a myriad of criteria such as medical treatments offered, availability of specific medicines, blood supplies, and other essential services. By harnessing the capabilities of these applications, individuals can now navigate the intricate healthcare system with ease, ensuring timely and appropriate medical care.

## 2. PROBLEM STATEMENT

Considering the challenges posed by the complexity of healthcare choices and concerns regarding data accuracy and user privacy, our project aims to develop a solution. The lack of reliable information and integration among healthcare providers necessitates the creation of a user-friendly hospital finder application. This application will serve as a beacon of hope, addressing the challenges faced by individuals in navigating the healthcare landscape. By leveraging smartphone technology, our project seeks to empower users, simplify decision-making, and enhance healthcare accessibility. Through the development of this application, we aim to provide a transformative solution that not only streamlines the process of selecting the right hospital but also ensures the overall well-being of individuals and communities by facilitating better healthcare outcomes.

## 3. LITERATURE REVIEW

[1] Muhammad Wasim Munir entitled "**An Android based application for determining a Specialized Hospital Nearest to Patients Location**." Published in 2015 International Journal of Computer Applications.

**Review**: It is a basic and up-to-date medical category application is developed to help the individuals to determine the nearest hospital with a specific specialization field. The hospital names with their address and direction are determined by Smartphone

[2] Haripriya R entitled "**Android Based Hospital Finder Application using GPS**."

**Review**: The proposed Android as a full, open, and free mobile device platform, with its powerful function and good user experience, rapidly developed into the most popular mobile operating system. The research presented here introduces a novel service-oriented design method for the implementation of two widely used consumer applications on the Android system.

[3] Dr. Usha Chauhan entitled "**Doctor Finder and Appointment Booking Website with Django**." Published on 2022 at 2nd International Conference on Innovative Practices in Technology and Management ICIPTM (International Conference on Innovative Practices in Technology and Management)

**Review**: This online appointment system has been developed using HTML, CSS, and Django framework. The site is easy for any user to use it. It is a web site that manages the issue occurring while booking of an appointment.

4. OBJECTIVES

To ensure the website is user-friendly, which enables users to search for nearest hospital that specialize in specific medical field and provide a separate UI for registered hospital.

To pinpoint the user's location and show nearby hospitals on a map using GPS.

To integrate appointment scheduling systems, allowing users to book appointments with doctors and specialists at their chosen hospital and provide previous history of the patient.

To allow users to filter and sort hospitals on various criteria such as distance, services offered.

5. METHODOLOGY

This application provides the user interface in an accurate manner. Here we use Haversine Formula to measure the distance between two distant points by using a map.(Referred from Reference 5)

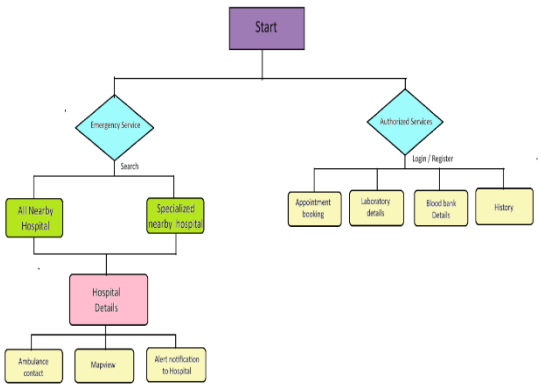


Fig 5.1: Block Diagram of Application

This application navigates to homepage which consists of two main components: Emergency Services & Authorized Services

I. Emergency Services: The main aim is to provide information about the hospitals and services during emergency crisis. Here users can access this service without any login credentials. This navigates to next page where user can search about the hospitals based on their needs.

II. Hospital Details: Users can access the information about the list of all nearest hospitals in any emergency situations. The listed hospitals can also be filtered based on specialities based on user's needs. This page is navigated after Emergency services. Each hospital which are listed points the current locations and directed maps to the desired hospitals and provides the information about other facilities.

III. Authorized Services: The main aim to provide the facilities to user such as Appointment Scheduling, Blood Bank details and User history such as prescriptions, reports etc, here this cannot be access without login credentials which is created for user privacy. (Referred by Reference 2)

IV. Other Services: This page navigates after the Authorized Services. Here major services provided are Appointment Scheduling, Blood Bank details, Laboratory details etc.,

## 6. RESULTS AND DISCUSSION

The user can go through the website by using URL, it its described in the above Fig.5.1. This application provides the choice for the user to select emergency services or authorized services based on their requirements. If user selects emergency service on click, it navigates to next page where user can find the nearest hospitals based on categories also which is shown in Fig.6.1. If user selects authorized service on click, it navigates to next page where user should login/Signup to get access, here major services like appointment scheduling, Blood Bank details, Laboratory details etc., which is shown in Fig.6.2 and Fig.6.3.

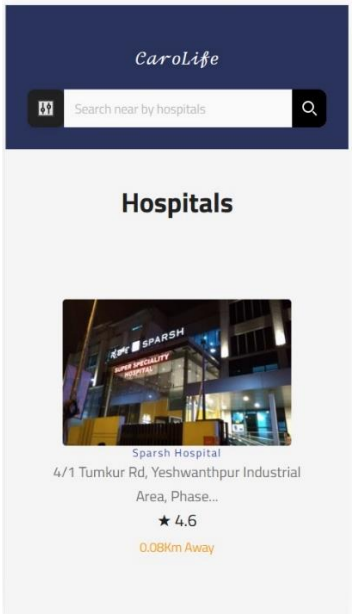


Fig 6.1: Emergency service

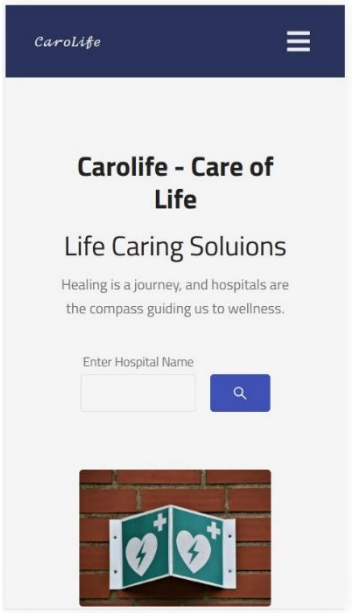


Fig 6.2: Authorized services

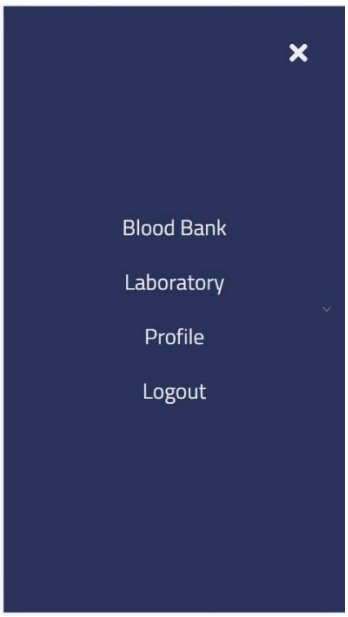


Fig 6.3: Service list

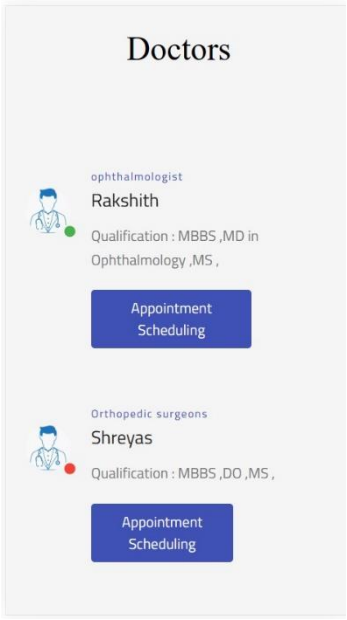


Fig 6.4: Doctors list

In the Authorized service home page the doctors list is displayed, here both doctor specialty and appointment scheduling options is displayed from here itself user can schedule their appointments.

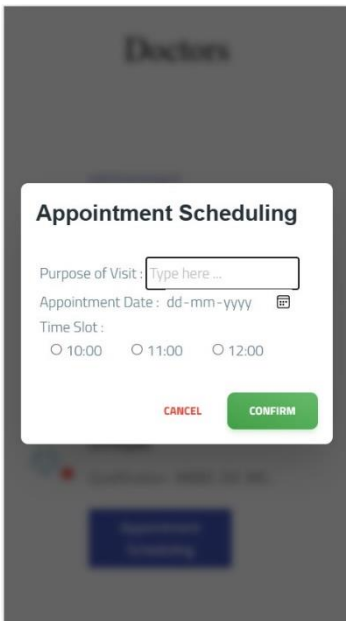


Fig 6.5: Appointment scheduling


Fig 6.6: History

Users can view their previous scheduled details which make more convenient to the user to keep track of their date of appointments.

## 7. CONCULSION

This application is developed using MongoDb, Reactjs and Expressjs framework. Here application is divided into various parts so it can be used in an efficient manner in this modern generation by all individuals.

Using this application, user can retrieve the location of nearest hospitals, appointment details with a single click etc. Thus, processing information will be faster, it guarantees accurate maintenance of patient details. It easily reduces the human effort and thus reduces the bookkeeping task

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