



The Reviver

A Mobile based Android Application for finding Doctors in critical situations.

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1 Introduction

1.1 What is The Reviver!

By the grace of God, a doctor can save a person's life who is in danger. Doctors' dedication has been evident throughout the pandemic. Most people would perish if they did not receive good medical care from doctors. Regrettably, the majority of people in Covid-19 did not have access to appropriate healthcare at some point. Because doctors have been scarce, and people have died on the road because of this. Most people were unable to reach doctors because they did not know where to look for one, and also the majority of doctors were not present at the hospital because of quarantine. As a result, people would fail to contact doctors in an emergency. Generally, there are some specific time when doctors are unavailable at the hospital or clinic. We do, however, require medical attention at that time. But, it became impossible because neither the patient nor the doctor were aware of each other's presence. For an instance, Some doctors are willing to provide service to patients even late at night. However, the majority of individuals are ignorant of which doctors are available at night and which are not. If we could manage to see a doctor at emergency time, may be more than one life could be spared. As a result, we require a system that can supply us with information regarding doctors that provide emergency healthcare.

1.2 Aims and Objectives

The aim of this project is being able to connect with the doctors at any emergency especially when doctors are not often available. So one can search for doctors whom are available at that particular moment. They can also contact with the doctors whom are willing to provide services to the patients at critical situation.

My objective of this project is to reduce the harassment of the normal people. Because it is a common scenario in our country that most of the people don't get immediate treatment from doctors at night or when doctor is not available. But there are some doctors who are so much dedicated to their profession. So I want to develop a system where general people will be able to know and contact with the doctors at their emergency.

1.3 Requirements

A basic user requires a platform to receive emergency medical care from doctors as soon as possible. So they demand an application that allows them to find doctors at night, on vacation, or in the event of a pandemic, such as Covid 19. Because it is extremely difficult to find a doctor late at night. Finding doctors while on vacation is also uncommon. As we can see at covid-19, we have seen a shortage of doctors and patients dying for lack of proper care, so they demand a platform through which they can find or contact doctors at a critical time. They also want an application that is simple to use and allows them to find and contact doctors.

2 Motivation

2.1 Pandemic Issues

The COVID-19 pandemic has had a devastating global impact. Developed countries, such as the United States, the United Kingdom, Italy, and Spain, experienced high death tolls despite their highly efficient medical infrastructure. Similarly, Bangladesh, a poor South Asian country, almost losses its fight against the pandemic, owing primarily to an ineffective healthcare system.

Although social isolation was the most effective method of containing the virus's spread, it was difficult to implement for healthcare professionals who needed direct contact with COVID-19 patients and were at high risk of becoming infected themselves. Because of their dedication to containing the disease, front line healthcare professionals were particularly vulnerable during this pandemic.

As a result, general public had a difficult time contacting doctors because doctors were unavailable. However, some of the doctors were still available and treating patients. However, they were out of reach for the general public. Some of the doctors and nurses volunteered to assist the general public. I've witnessed relatives of dying patients cry. Simply because they did not receive proper care in a timely manner. If they had known where to find a doctor who could help them, perhaps millions of lives could have been saved.

We also don't know when this pandemic will end or if another one will occur. But one thing is certain: the population is rapidly increasing. However, in comparison to the population, the number of doctors is very low. So, with this small number of doctors, I just want to make sure that everyone can contact the doctors in an emergency.

2.2 Late Night Doctor Crisis

Any patient may require emergency care late at night. Someone could have a car accident at night and lose a lot of blood, or someone could have a heart attack at night. They require immediate medical attention. Unfortunately, most of the doctors went back to bed after a long day of work. So getting healthcare was difficult at the time. This precious life could have been saved if they had known where and which doctors were available late at night, which could be easily found by my app.

2.3 Social and Economic Impact

In Bangladesh with a population of 166 million, almost every day, every night there is an accident on the road. The current doctor-patient ratio in Bangladesh is only 5.26 per 10,000 population [1], that places the country at the second position from the bottom, among the South Asian countries, according to the WHO. This ratio is even more poor at nightfall. Hence a lot of premature death occurs due of less ratio. Which affects our society badly. So, if I could pave the way for communication and early responses between doctors and patients, then it might change someone's life positively.

3 Background Study

3.1 Related Workd

3.1.1 Medulance

Medulance is India's first, GPS based technology platform for fast and reliable first point medical attention. With an increasing emphasis on promoting independent living today, having access to the nearest ambulance to you can provide much needed peace of mind in a worst case scenario. It has following features:

1. On the go convenience
 - One touch access to medical emergency services.
2. Advance Booking
 - Book ambulances in advance for hassle-free hospital visits.
3. Transparent pricing
 - Convenient mechanism, with online and cash payment mode.
4. Advance Booking
 - Book ambulances in advance for hassle-free hospital visits.
5. Emergency contact
 - Keep your dear ones close with emergency contact option.
6. Tips and First aid information
 - Arm yourself with relevant information during any emergency scenario.
7. Easy communication
 - Seamless communication with ambulance drivers.

3.1.2 DocTime

DocTime is an online medical service app where patients can get 24/7 video consultation from doctors. DocTime uses 256 bit encryption to secure the video consultation. Patient can keep their previous consultation history and view online prescriptions. Doctor can join the platform using DocTime's simple on boarding process. They verify every doctor to make sure only BMDC authorised doctors are providing consultation using latest technologies. It has following features:

1. Search your Doctor!
 - Search your doctor by specialty or doctor name.
 - Choose the right doctor for you by viewing their profile, rating and experience.

2. Consult live on Video Call

- Once you pay the required doctor fee, you will be joined to the queue.
- Doctor will make a secured video call to do the consultation.

3. Instant Prescription

- Once the video consultation is complete, the doctor will upload the prescription.
- You can download the prescription immediately or later.

4. Verified doctors

- Every doctors on DocTime platform are BMDC certified.
- We verify relevant information before the doctor can consult any patient.

5. Instant electronics prescription

- As soon as the consultation is complete, doctor will provide the electronic prescription for the patient to download instantly or later.

6. Easy payment options

- Patient can make payment online using our secured payment gateway partner by bKash, Rocket, Nagad, debit card, credit cards and many more.

4 Proposed Methodology