



FUTURISTIC DESIGN THINKING-BASED APPLICATION FOR AMBULANCE SERVICE

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ABSTRACT

All our living aspects are depending on online(internet) and mostly application in our daily life is blooming. This application helps the customer in their emergency situation according to their requirements. It is completely safe and secure in the moto to help the people in the right time. Helps to manage booking requests. In case of any emergency, an app can help the driver to behave intuitively by tracking the availability of other ambulances in the vicinity of the accident location and the one closest to the victim can rush to the spot to provide assistance on priority.

There is most common rescue service 108 which is managed through phone calls but it's a idea in itself in which one can book an ambulance using a smart phone. The request for an ambulance made by the proposed app is directly updated on a centralized main office, where 24/7 server will automatically check the request calculate coordinates and response back to the user and its respective nearest station. That request is in progress and from which station ambulance will come. All this process and management will handle virtually. The whole history will maintain on server side and also on user side. When task is done then status on app and sever side will be update. It develops for serving humanity in the situation of emergency by using precise and accurate result.

KEYWORDS: JAVA, XML.

INTRODUCTION

OVERVIEW

All our living aspects are depending on online(internet) and mostly application in our daily life is blooming. This application helps the customer in their emergency situation according to their requirements. It is completely safe and secure in the moto to help the people in the right time. Helps to manage booking requests. In case of any emergency, an app can help the driver to behave intuitively by tracking the availability of other ambulances in the vicinity of the accident location and the one closest to the victim can rush to the spot to provide assistance on priority

OBJECTIVE

There is most common rescue service 108 which is managed through phone calls but it's an idea in itself in which one can book an ambulance using a smart phone. The request for an ambulance made by the proposed app is directly updated on a centralized main office, where 24/7 server will automatically check the request calculate coordinates and response back to the user and its respective nearest station. That request is in progress and from which station ambulance will come. All this process and management will handle virtually. The whole history will maintain on server side and also on user side. When task is done then status on app and sever side will be update. It develops for serving humanity in the situation of emergency by using precise and accurate results.

PROJECT DESCRIPTION

The ambulance management system describes the system which facilitates the public in the situation of emergency.

PROJECT OVERSIGHT

The admin and developer will be responsible to manage the system. The admin can do the processes of modification, cancellation and some other issues which can affect the system. The admin can also take the decision of changing the app design and can also demand

from the developer to extent some internal features of app which can be handy. The developer will be responsible of enhancing the app features as well as the requirements of user and the developer will also be responsible for maintaining the app through finding the bugs.

GOALS AND OBJECTIVES

The purpose of the application is to give better idea for rescue system with user friendly interface in case of emergency and rescue situation. At the present, there is no such application which can facilitate the people in case of emergency through a smart phone app.

SUPPLEMENTARY REQUIREMENTS

1 USABILITY: The application is developed with a user-friendly environment such as the font size, text alignment and other complicated things are adjusted in a simple way. User can easily understand the functions of the application.

2 RELIABILITY: System will be able to perform operation efficiently with a reliable environment and with minimum chances of losing data.

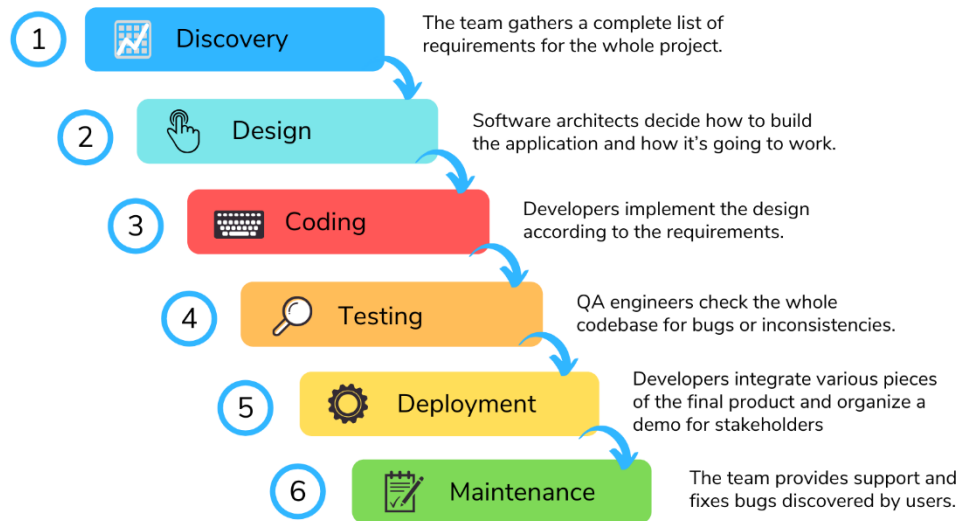
3 SUPPORTABILITY: This application can be easily downloaded from Google play store and can be used rapidly in case of emergency.

PROPOSED SYSTEM

Project management involves the planning of the project. Initially project is defined as the methodologies that are commonly use in software development. Some steps are required to fulfill the work of the application. The project plan implemented to get the balance between resource usage and project timing to command with the project purposes. There should be an android based ambulance management system through which we can improve ambulance service system. So, we have tried to enhance the capabilities of a management system by linking an android app with web-based platform in which user can check its request's status and admin maintain things and view user's history. It will be a totally free of cost app.

ADVANTAGES OF PLANNING:

- It describes the direction of acting that we propose to pledge.
- It tells estimated time that is required for a project.
- It tells us about the expenses or budget that is involved in the project.
- It gives us the idea to get prepared for emergencies which may occur during the project.
- A well-defined plan tells us idea about the work that is to be done every day, week and month
- It helps to avoid duplication.
- A plan tells everyone a brief idea to play an important role in the project.

Chosen SE Methodology: Waterfall Process Model:**Waterfall Process Model:****Waterfall model**

The waterfall process model is a documentation model. This model generates complete and comprehensive documents and responsible for the maintenance task because the feedback of user must fulfill on each phase of development. In case of mistake on any stage referred back to source and the steps will be repeated by updating according to the demand.

THE FIVE STAGES ARE AS FOLLOWS

ANALYSIS: During this phase it will be checked that what is going on in development process and how the development should be achieved.

DESIGN: When the analysis phase is successfully completed then the second phase in which we will focus is the basic design of the application.

Technical Design/Detail Design: After the basic design phase, we will enhance over design by improvements by placing the modules and programs of the basic design application on the suitable places.

IMPLEMENTATION: In this phase the source code of the programs is written.

TESTING: In testing phase, we will check the analysis and design phases accurately or precisely by continuously passing through the tasting process and in case of some bug during the testing process then the bug should be removed.

INTEGRATION: In the phase of Integration, the company will implement the application for the user to use this application.

MAINTENANCE: This phase includes the management of the app through maintenance which will ensure that our design is implementing according to the requirement.

REASON FOR CHOSEN METHODOLOGY

The waterfall model is a famous model for the systems development life cycle model. The waterfall model explains development method. Waterfall development has many goals at each development level where each phase is completed the model will move on the next phase and never return back.

The main advantage of the waterfall model is the completely control on the management. This process is useful for the on-time project delivery such as each stage has been planned in detail. Joint application development (JAD), rapid application development (RAD) and the spiral model can be used as the replacement models of the waterfall model.

STATUS OF CUREENT AVAILABLE SYSTEMS

Ambulance plays a very crucial role when an accident occurs on the road network or in case of any medical emergency and the need arises to save a human life. Manual booking of an ambulance at times of emergency can take away precious time as it is a time-consuming process. Furthermore, the delay caused due to the heavy traffic congestion in between the pickup spot and the hospital facility may increase the risk of death for the victim.

The system proposed here will help the users book an ambulance easily in an instant. The user will have to select the ambulance size, pick-up point & hospital. In case of emergency, the user will have to just select the pick-up point & destination and the system will automatically book the nearest ambulance and hospital. Once booked the ambulance operator will receive a notification for confirmation of the booking. The Ambulance driver can view the pick-up and drop location on Goggle Maps. The users will receive the contact details of the driver. The Hospitals can also view the booking history. This is how this Ambulance Booking App will act as a life savior in times of medical emergency.

In this system, the User will be able to book an ambulance in advance according to the size of the ambulance and selected hospital, or the user can also book an ambulance for emergency regardless of its size and a random hospital will be allocated to the user. Then the ambulance driver will accept or reject the booking from the user, after accepting or rejecting the status will be updated for the same to the user. Hospital can view the bookings history of the user for that particular hospital.

ADVANTAGES

- Patients can now book an ambulance for an emergency as well as for non-emergency services. User can keep history of the trips and can view any time
- You can locate the nearest available ambulance and request the same.
- Instantly get the information & contact details of the driver.
- Limitations
- Wrong inputs will affect the project outputs.
- Internet Connection is mandatory
- The android mobile user will not be able to insert or view details if the server goes down. Thus, there is disadvantage of single point failure

TOOLS & TECHNOLOGIES

Development Tools

- Android Studio
- XAMPP
- Notepad++
- Database Management System
- MySQL
- Operating System
- Windows 7 or latest
- Other Tools/Technologies
- HTML
- CSS
- JavaScript
- jQuery
- Jason
- PHP

Final Output

LOGIN

Email

Password

Show password

LOGIN

Create new ID [SIGNUP](#)

SIGNUP

Username

Email

Password

Re-password

Show password

SIGNUP

Already have you ID? [LOGIN](#)





Ambulance Booking



Emergency

←Back



First Aid Ambulance



Oxygen Ambulance



Normal Ambulance



ICU Ambulance



Death Ambulance

CONCLUSION

When most people think of "ambulance service" they think of sirens, flashing red lights and a life-threatening situation. In reality a large portion of what we do includes providing pre-scheduled basic life support and advanced life support ambulance transportation of patients between hospitals and other healthcare facilities. These trips, commonly referred to as "Interfacility Transfers" are an important part of delivering world class healthcare to a community. Metro Atlanta Ambulance Service is currently contracted with facilities throughout the greater- Atlanta area and north Georgia to provide interfacility transfers. The MAAS Communications Center provides a single call source for hospitals, nursing homes and other healthcare facilities needing to make inter-facility transfer arrangements. An interfacility transfer can be an emergency or non-emergency in nature and can be a transfer across town or to a facility out of state. Basic Life Support care requires medical monitoring by a licensed EMT- Intermediate and may include monitoring vital signs, oxygen and IV therapy. The BLS Ambulance is equipped with state-of-the-art equipment including an automatic external defibrillator, blood pressure monitoring equipment, pulse oximetry and oxygen delivery devices. Advanced Life Support care requires medical monitoring and care by a licensed EMT-Paramedic and may include monitoring vital signs, advanced drug therapy, cardiac monitoring, oxygen and IV therapy. The ALS Ambulance is equipped with state-of-the-art heart and blood pressure monitoring equipment, pulse oximetry, IV pumps, oxygen delivery devices including a CPAP and advanced medications used to treat a variety of illnesses and provide pain relief.

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