



LIFEGUARD: HELP IN ACCIDENT

Zuveriya Chabru¹, Damini Khedekar², Shraddha Kadam³

Computer, TCOER, Pune, India^{1,2,3}

Abstract: Long response time required for emergency services to arrive is a primary reason behind increased fatalities in serious accidents case. One way to reduce this response time is to reduce the amount of time it takes to report an accident. Smart phones are ubiquitous and with network connectivity are perfect devices to quickly inform authorities about the accident. We are designing an Android application “LIFEGUARD: HELP IN ACCIDENT” which will be beneficial for people to help other people who are suffering from incident like accident. It will help us to save the accidental person. Project is design for an accident detection system. The application suggests nearby hospitals and police stations list in application. FIR is generating by police station and sends copy to the respected hospital system. Respected hospital scan user QR Code and provide treatment according to information. Also send emergency SMS to users preregister mobile number.

Keywords: QR Code generator and scanner (QR Code is a machine-readable optical label that contains information).

I. INTRODUCTION

The development of a transportation system has been the generative power for human beings to have the higher civilization above creatures in the earth. Automobile has a great importance in our daily life. We use it to go to our work place, keep in touch with our friends and family, and deliver our goods. But it can also bring disaster to our people and even can kill us through accident. An accident is a deviation from expected behavior of event that adversely affects the property, living body or persons and the environment. Travelling is primary concern for everyone. Recent advances in Android are one of the most popular smart phone platforms at the moment, and the popularity is even rising. Additionally, it is one of the most open and flexible platforms providing software developers easy access to phone hardware and rich software API. Smartphone technologies are making it possible minimize the death rate which are happening by vehicle accidents in a more effective manner.

The development of a transportation system has been the generative power for human beings to have the higher civilization above creatures in the earth. Automobile has a great importance in our daily life. We use it to go to our work place, keep in touch with our friends and family, and deliver our goods. But it can also bring disaster to our people and even can kill us through accident. An accident is a deviation from expected behaviour of event that adversely affects the property, living body or persons and the environment. Travelling is primary concern for everyone. Recent advances in Android are one of the most popular smart phone platforms at the moment, and the popularity is even rising. Additionally, it is one of the most open and flexible platforms providing software developers easy access to phone hardware and rich software API. Smartphone technologies are making it possible minimize the death rate which are happening by vehicle accidents in a more effective manner

II. PROPOSED SYSTEM

Proposed system collect the information of the user when QR code is scanned by the passer by. It generates the information of the user so that the help could be reach as early as possible.

- Admin:
To register and generate QR code
- Passer By:
Scans the QR code on vehicle

III. REQUIREMENT AANALYSIS

Hardware Requirement

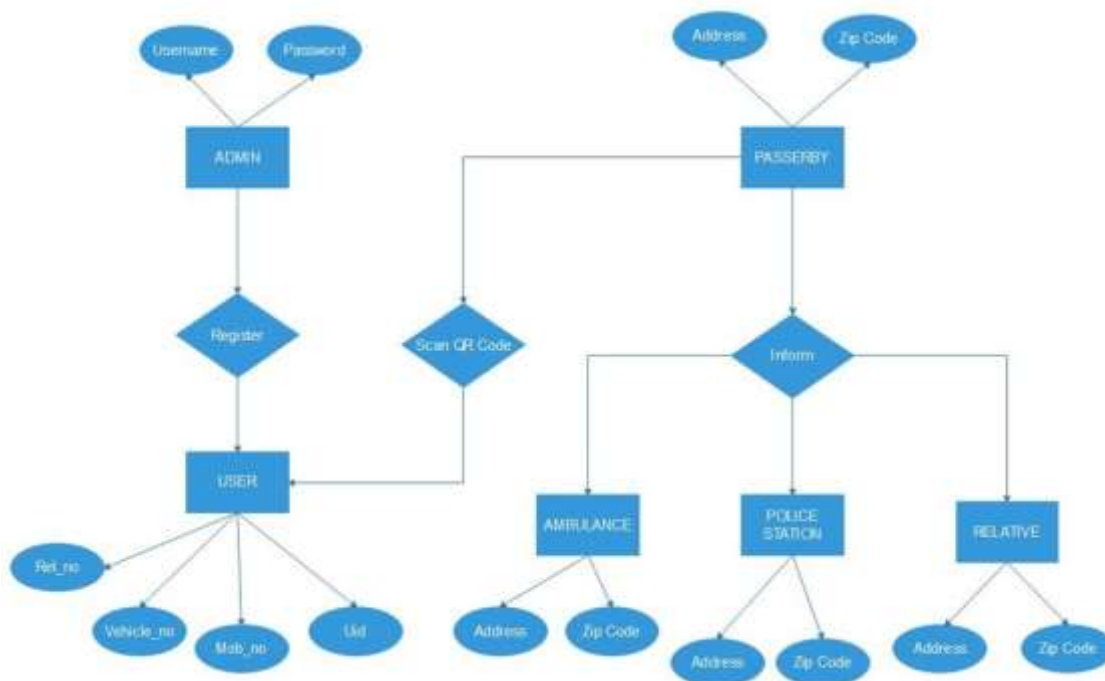
- Processor: Pentium Processor
- Processor Speed: 850 MHz
- Hard Disk: 10 GB
- Main Memory: SD RAM



Software Requirement

- Mobile Platform: Android
- Application Development Framework: Android
- Developing Language: Java
- User Interface Language: XML
- Android API level: 21-22(5.1.1)
- Database: SQL

IV. ENTITY RELATIONSHIP DIAGRAM

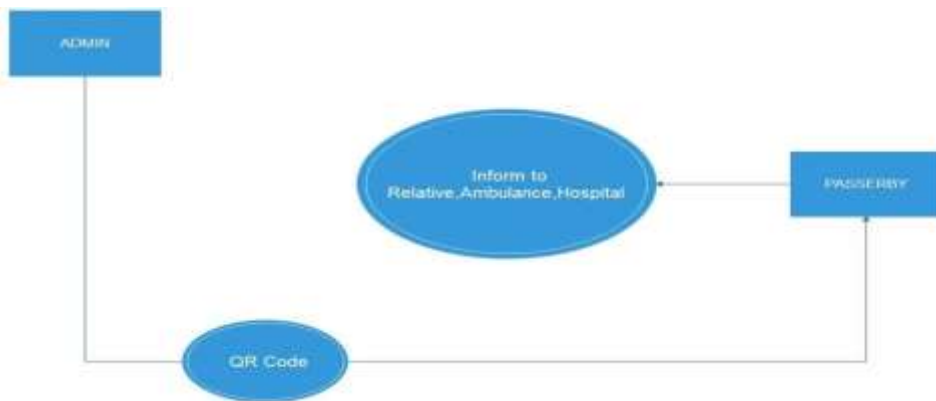


V. SYSTEM DESIGN

System architecture is a process of gathering and interpreting facts, diagnosing problems and the information to recommend improvements on the system. It is a problem-solving activity that requires intensive communication between the system users and system developers. System analysis or study is an important phase of any system development process. The system is studied to the minutest detail and analyzed. The system analyst plays the role of the interrogator and dwells deep into the working of the present system. The system is viewed as a whole and the input to the system are identified. The outputs from the organizations are traced to the various processes. System analysis is concerned with becoming aware of the problem, identifying the relevant and decisional variables, analyzing and synthesizing the various factors and determining an optimal or at least a satisfactory solution or program of action. A detailed study of the process must be made by various techniques like interviews, etc. The data collected by these sources must be scrutinized to arrive to a conclusion. The conclusion is a understanding of how the system functions. This system is called the existing system. Now the existing system is subjected to close study and problem areas are identified. The designer now functions as a problem solver and tries to sort out the difficulties that the enterprise faces. The solutions are given as proposals. The proposal is the weighted with the existing system analytically and the best one is selected. The proposal is reviewed on user request and suitable changes are made. This is loop that ends as soon as the user is satisfied with proposal. Preliminary study is the process of gathering and interpreting facts, using the information for further studies on the system. Preliminary study is the problem-solving activity that requires intensive communication between the system users and system developers. It does various feasibility studies. In these studies, a rough figure of the system activities can be obtained, from which the decision about the strategies to be followed for effective system study and analysis can be taken.

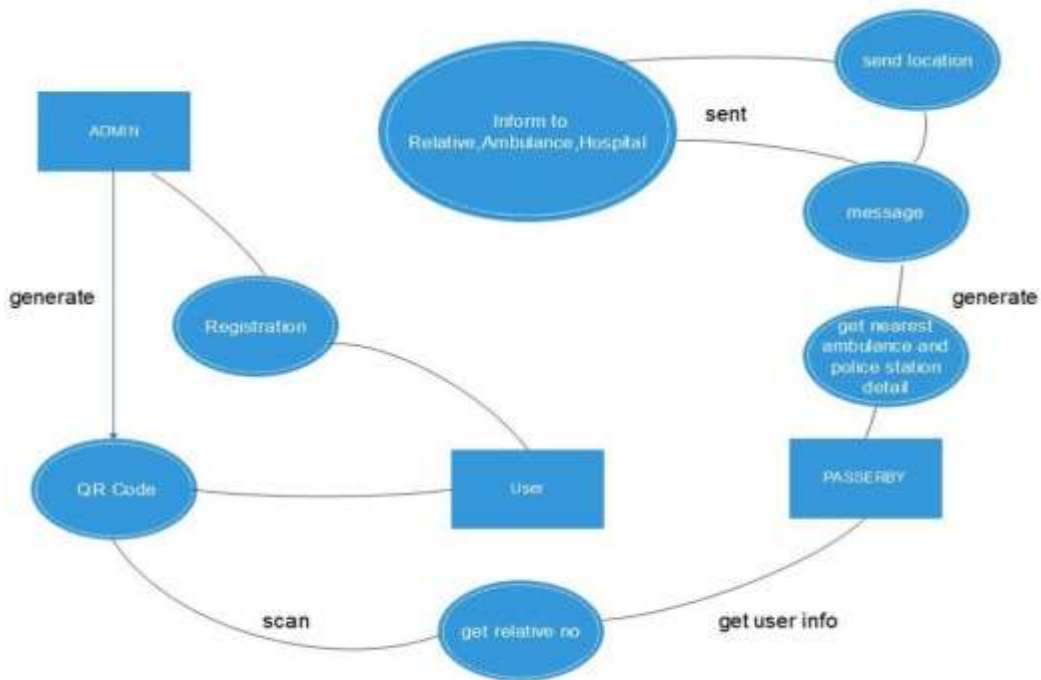
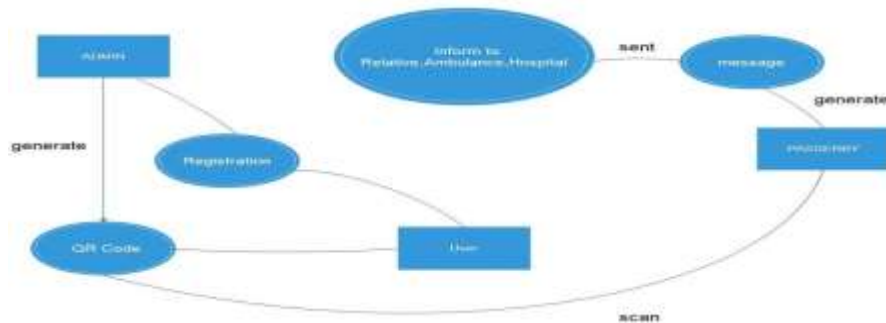


VI. DATA FLOW DIAGRAM



Level 0

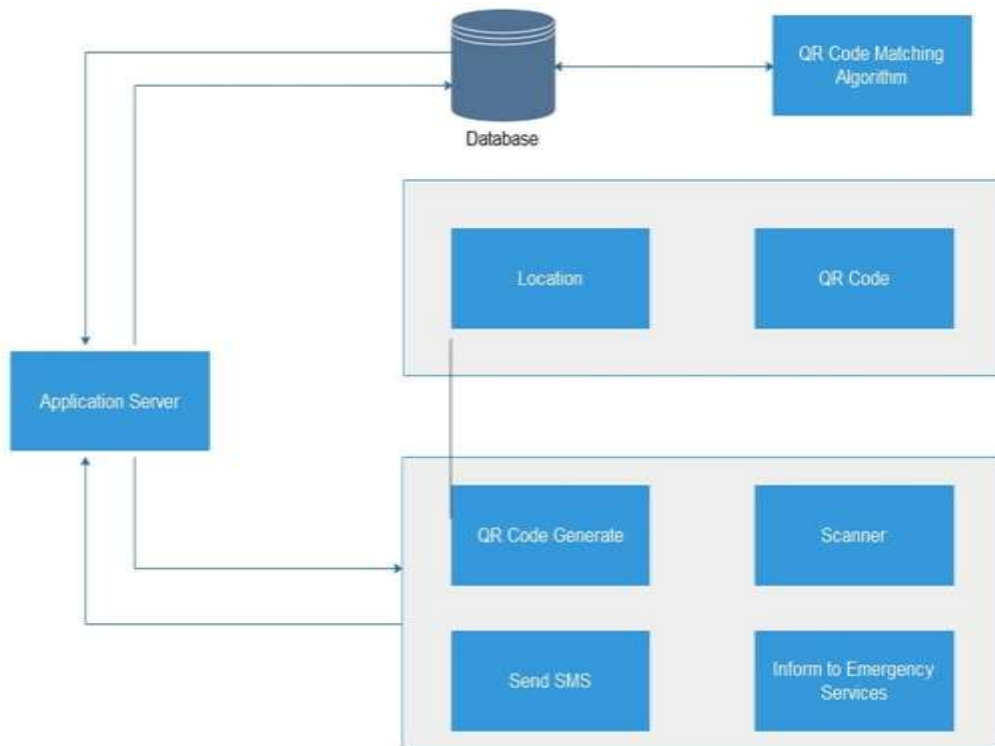
Level 1



Level 2



VII. SYSTEM ARCHITECTURE



VIII. CONCLUSION

Road accidents take place frequently which causes huge loss of life and property because of the poor emergency facilities. Our project will provide an optimum solution to this drawback. Our application developed is able to correctly fulfill its purpose within a short period. Our results show that the total time required to perform all the tasks, including the delivery of an SMS with the accident details is taking short time period

REFERENCES

- [1] A. Luma and B. Raufi, "New Data Encryption Algorithm and its Implementation for Online User Authentication," in *Security and Management*, 2009, pp. 81–85.
- [2] X. Zhou and X. Tang, "Research and implementation of RSA algorithm for encryption and decryption," in *2011 6th International Forum on Strategic Technology (IFOST)*, 2011, vol. 2, pp. 1118–1121.
- [3] P. L'Ecuyer, "Random number generation," in *Handbook of computational statistics*, Springer Berlin Heidelberg, 2012, pp. 35–71.
- [4] P. Kieseberg, M. Leithner, M. Mulazzani, L. Munroe, S. Schrittwieser, M. Sinha, and E. Weippl, "QR code security," in *Proceedings of the 8th International Conference on Advances in Mobile Computing and Multimedia*, 2010, pp. 430–435.
- [5] Elements of RBAC. Web-page. – https://www.ibm.com/support/knowledgecenter/ssw_aix_72/com.ibm.aix.security/rbac_elements_of.htm
- [6] V. Susukailo and Y. Lakh, "Using QR-Code in the Electronic Technology Sphere," in *Proceedings of the V Inter University Conference "Engineer of XXI Century"*, 2015, pp. 465–470.
- [7] V. Susukailo and Y. Lakh, "RBAC-Q Future of Role Base Access Control System," in *Monogrpah "Projekt interdyscyplinary projektem XXI wieku"*, 2017, vol. 2., pp. 313–316. Web-page. – <http://www.engineerxxi.ath.eu/book/projekt-interdyscyplinary-projektem-xxi-wieku-tom-2/>
- [8] NetBeans IDE 8.1. Web-page. – <https://netbeans.org/community/releases/81/install.html>
- [9] Advanced Encryption Standard (AES). Web-page. – <https://searchsecurity.techtarget.com/definition/Advanced-Encryption-Standard>