

Audio Guide for Patient Regarding Doctor's Prescription

Harshita Tiwari¹, Mrunal Wagh², Samidha Potbhare³, Abhishek Pandey⁴, Supashwa Chaudhari⁵

^{1,2,3,4,5} Student, Dept. of Computer Science & Engineering, Datta Meghe Institute of Engineering Technology & Research, Wardha, Maharashtra, India

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Abstract – A case history card holds information of the patient's anamnesis, pre-existing allergies, medical health conditions, given medication the patient is currently taking. Recording such patient information on a medical health card renders it prone to tempering, loss and misapprehension further confidentiality. We propose the application of Quick Response (QR) codes and doctors recorded audio to secure and transmit this sensitive patient information from one level of the health care to a different. Other security methods like steganography could be used, but during project we propose the utilization of QR codes as a result of the high proliferation of mobile phones within the nation, high storage capacity, flexibility, ease in use and their capability to take care of data integrity further as well as information in any format. *Providing patients with recordings of their clinic* visits enhances patient and family engagement, yet few organizations routinely offer recordings but not with quick response. Challenges exist for organizations and patients, counting data safety and navigating lengthy recordings. A secure system that permits patients to effortlessly navigate recordings and patients information intimately may be an answer.

Key Words: QR code, QR code generation, web interface, recordings, mic, xampp

1. INTRODUCTION

We are going to work on a Medical Application which will provide the patient to access the prescription provided by the doctor during a voiceto-listen format. Adding thereto we are engaged on the QR code for the prescription provided by the doctor.

The QR code will help the patient to scan it and to know about the details provided by the doctor, which incorporates each and each detail about the dosages, diet-plan and lifestyle. All this can be in Scan-To-Audio format which will help the patient to hear the details whenever needed.



Fig.- 1: Home Page

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Fig- 5: Contact us page

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Fig- 2: Admin update page

Fig.- 3: Patient registration page

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Fig.- 4: Search patient page

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Fig- 6: Admin login panel

- Fig.1 is homepage which encompass the introduction to our website where one could examine us, or if needed can contact us and also login to our application.
- Fig.2 shows admin update page where the admin can login to there account through admin name and login id. This also shows where the admin is active or inactive
- Fig.3 shows how the patient's registration is finished by filling up the form and their profile is created.
- Fig.4 Here one could search the patient profile which is able to show the small prints like patient name, admission details, address.

- Fig 5 shows the details about the hospital so if one needs to contact us will get the details about us.
- Fig 6. shows the admin could login to their account.

Problem Statement

Regularly patients are advised orally health cares like diet, lifestyle and medicine dosage and frequency within the patient doctor visit, which is usually very difficult for a patient to recollect after he goes home. Doctor's advice to be recorded and converted to QR code and QR code to be user friendly by providing it on patients prescription. A patient can scan the QR code and listen the health care suggestions by the doctor through mobile app.

Objective

- The aim of this project is to develop an interoperable system to facilitate routine recording, the Audio guide for patient will help the users to access the knowledge easily and properly, with the aim of increasing patient and family engagement.
- Audio Guide will accommodates (1) Scanning of QR code with proficient software using mobile application to enable accurate and in-clinic automatic scanning of audio (which involves recordings identifying elements of the clinic visit most viral to patients [eg, treatment plan, exercise, diet, prescription etc] on the recording) and (2) Generation of the QR code on every visit to the better doctor for convenient and straightforward accessing of the info provided by the admin and (3) a secure, easy-to-use Web interface enabling the upload and accurate linkage of recordings to patients, which might be accessed at home.

2. System Architecture

A system architecture or systems architecture is the abstract model that defines the structure, performance and more views of a system. An architecture explanation could be a formal description and demonstration of a system, organized during a way that supports reasoning about the structures and behaviors of the system. *Fig.7 gives brief information about the system architecture of this project.*

- The classification consists of client side and server side. On client side, there are often mobile device further as computer. Mobile device are going to be utilized by the doctors or consultants and therefore the computer by the receptionist.
- Proper network connectivity are going to be provided between client and therefore the server through internet. The server consists of database which can store information of the patients and can be cross checked with the scanned QR code. Mobile device will contain a local database to store temporary data.

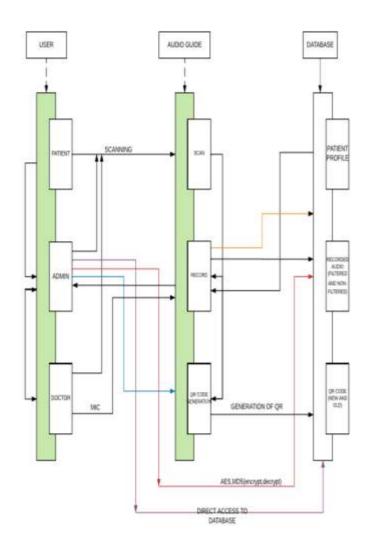


Fig.- 7: System Architecture

Implementation:

(a) Implementation Method:-

1. QR Code

- QR codes, urbanized by a Japanese company, are around for over fifteen years.
- With the approaching of smart and Web capable mobile devices, we observe a gradual growth of appealing commercial applications using QR codes.
- The main objective of our project is to present people with a technology which will enable them to get information about anything by simply scanning the QR code.
- The scanning end in obtaining the text information of a selected example and this information is further converted into speech using specialized software.

(a) 2. QR Code generation

- *QR codes may be formed for free using any number of web-based forms.*
- It is as easy as copying and pasting the chosen link URL into a text box and hitting "enter." You will have noticed that goo.gl even generates QR codes on the display page; this picture may be saved to your computer and used.
- However, goog.gl only generates very small codes that are inappropriate for many printed materials. For that cause we used the QR code generator located on the Kaywa website, a site which provides services for the mobile web.
- It is situated at http://qrcode.kaywa.com/. Following steps were permitted for generation of the QR code in Kaywa website: 1. Copy the short code for the contented that you just generated with goo.gl 2. Open http://qrcode.kaywa.com/ and paste the address within the field labeled URL. 3. Select the favored size of the Qr code that you just want to come up with and click on "generate" option. The QR code will show within in the hand side of the screen.

4. The generated code is saved by doing a right click on that using the mouse and saving it on the pc.

3. Algorithm for QR Code generation. [5]

import qrcode
qr=qrcode.QRCode(
version=1,
box_size=10,
border=5)
data="Patient profile"
qr.add_data(data)
qr.make(fit=True)

img.save("1.png")



Fig.- 8:Sample QR Code

3. CONCLUSIONS

- Conveying useful information regarding any event in an exceedingly medical institute.
- Displaying a QR code on a prescription in files of patients can help in directing patients to the access proper information and healthcare.
- *QR* codes will encrypt the tremendous amount of knowledge in an exceedingly small format.
- Other specialist similarly as other doctor's needn't to ask patients to refill there details again and again.

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