

QR Code Based Healthcare System

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Abstract: Medical information area unit an ever growing supply of data generated from hospitals consisting of patient records within the variety of copies which might be created easier and convenient by mistreatment QR code of the patient details. Our aim is to create a Healthcare vascular system which is able to offer the options like clinical management, patient records, wellness prediction and generate QR code for each patient as per there updated wellness data. Keylogging or keyboard capturing is that the activity of recording (or logging) the keys stricken on a keyboard, commonly during a incommunicative manner so the individual utilizing the keyboard is unconscious that their activities area unit being discovered. It likewise has exceptionally authentic uses in investigations of human-computer interaction. There are a unit numerous Keylogging techniques, extending from hardware and software package primarily based methodologies to acoustic examination. As well as human in authentication protocols, whereas guaranteeing, isn't easy in light-weight of their restricted capability of calculation and remembrance. We tend to exhibit however careful image define will improve the safety additionally because the convenience of authentication. We tend to propose to visual authentication protocols: one may be a one-time-password protocol, and also the different may be a password-based authentication protocol. Our Project approach for real arrangement: we tend to have the capability attain to an abnormal state of simple use whereas fulfilling tight security wants.

Keywords: Keylogging, QR Code, Medical Data, Health-care Portal system.

I. INTRODUCTION

Visual authentication and Secure Authentication System for Patient knowledge Management Medical knowledge square measure an ever growing supply of data generated from hospitals consisting of patient records within the variety of arduous copies which may be created easier and convenient by victimization QR code of the patient details. Our aim is to make an aid vascular system which is able to give the options like clinical management, patient records, illness prediction and generate QR code for each patient as per there updated illness info. Search illness by victimization Naïve mathematician rule and predict illness to patient. Hospitals square measure terribly essential a part of our lives, providing best medical facilities to individuals full of varied diseases. However keeping track of all the activities and records is incredibly error prone. It additionally terribly inefficient and time intense method perceptive the continual increasing population and range of individuals visiting the hospital. Recording and maintaining the records square measure extremely unreliable and error prone and inefficient. It's additionally not economically and technically possible to keep up the records on paper. The most aim of project is to supply paper-less up to ninetieth. It additionally aims at providing low value reliable automation of the prevailing system. There square measure varied Keylogging techniques, extending from hardware and computer code primarily based methodologies to acoustic examination. As well as human in authentication protocols, whereas guaranteeing, isn't easy in lightweight of their restricted capability of calculation and remembrance. Fast Response (QR) codes appear to seem everyplace recently. victimization the QR codes is one amongst the foremost intriguing ways in which of digitally connecting customers to the web via mobile phones since the mobile phones became a basic necessity factor of everybody. For making QR codes, the admin can enter text into an internet browser and can get the QR code generated. Whereas QR codes have several benefits that create them very hip, there square measure many security problems and risks that square measure related to them. Running malicious code, stealing users sensitive info and violating their privacy and fraud square measure some typical security risks that a user can be subject to within the background whereas he/she is simply reading the QR code within the foreground.

II. EXISTING SYSTEM

Whenever a user sorts in her secret in a very bank's register box, the keylogger intercepts the secret. The threat of such keyloggers is pervasive and might be gift each in personal pcs and public risks; there are a unit invariably cases wherever it's necessary to perform monetary transactions employing a public computer though the most important concern is that a user's secret is probably going to be purloined in these computers. Even worse, keyloggers, usually root kitted, area unit arduous to observe since they'll not show up within the task manager method list. Additionally the

paper work is simply too abundant. The any user or patients need to carry all the main points at the time of treatment. The prediction of sickness isn't excellent.

III. PROPOSED SYSTEM

In order to shorten the paperless work procedures when a patient visiting regularly or seen in the emergency case, we will be retrieving their information which is scanned with the help of a qr code containing a link of the victim's emergency information stored in database. When patients first visits to hospital, perform registration process with system. At the time of login there are two step one is password based and another is OTP based, in password based he will enters the his username/ email with password. In second step the system will ask the OTP displayed the normal keypad which is visualized and respected OTP and the actual pattern of that keypad is sent to users email ID upon successfully entering the correct email and password of that user. Upon successful login, user will his checkup details and submits and system will generate the QR of that users information and that QR will be keep at admins records and user will get the ID for his his record. When user visits the hospital he will tell only his ID and admin will scan respected ID's QR code and proceeds accordingly. If any change in user's details then he will login to his account and do changes then system will generate new QR code. And next time admin will use that newly generated QR code. The admin or hospital person who handling this system can view all the details of all the users registered with that system as he is only authorized person.

IV. SYSTEM ARCHITECTURE

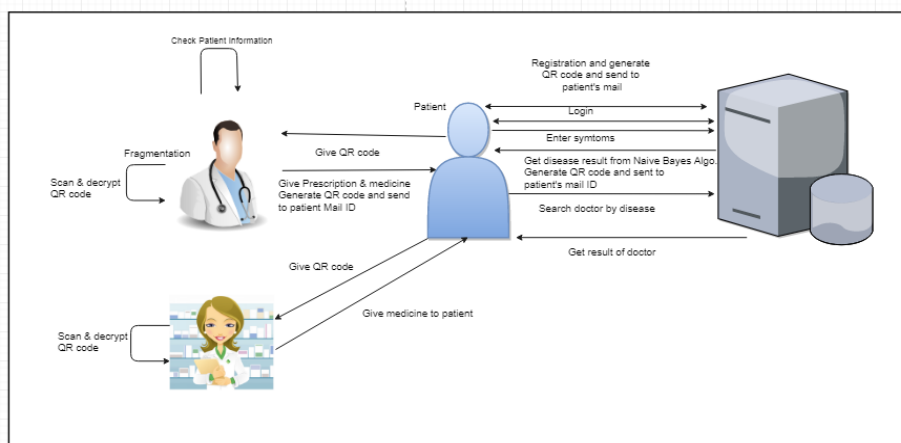


Fig.1 System Diagram

A. PATIENT

1) REGISTRATION:

- The patient will register to the system with normal information.
- At the time of registration patient will enter valid Email-ID and receives QR code on his Email-ID which in encrypted format.

2) LOGIN:

- For login to the system, patient will enter the Email and password, if entered details are correct then the system will redirect him to home page otherwise it will shows an error message.
- Patient will enter the symptoms.
- Then patient get disease result and generate QR code and sent to patients Mail ID.
- Patient will search for doctor as per disease shown by system.
- Patient will get result of doctors.

3) LOGOUT:

- Patient logout the account from system.

B. DOCTOR

4) REGISTRATION:

- Doctor will register to the system with normal information.

5) LOGIN AND SCANNER:

- Patient gives QR code to the doctor which is received in his mail ID.
 - Doctor login into scanner.
 - Doctor scans and decrypts the QR code.
 - Then gives prescription and medicine in QR code format and send to patient Mail ID.
 - The alert will be generated and send to user on his profile regarding prescription.
 - The patient info apps (this is accessible to doctor only)
- 6) LOGOUT:
- Doctor Logout the account from system.
- C. PHARMCIST
- 7) LOGIN AND SCANNER:
- Patient gives prescription QR Code which is received in his mail ID.
 - Pharmacist login into scanner.
 - Pharmacist scans and decrypts the QR code.
 - Then give medicine to patient.
- 8) LOGOUT:
- Pharmacist Logout the account from system.

V. PROPESED SYSTEM

A. KNN ALGORITHM

- A positive integer k is specified, along with a new sample.
- We select the k entries in our database which are closest to the new sample.
- We find the most common classification of these entries.
- This is the classification we give to the new sample.

B. AES ALGORITHM

- AES is Advanced Encryption Standard. AES is a block cipher with a block length of 128 bits.
- AES allows for three different key lengths: 128, 192, or 256 bits. Most of our discussion will assume that the key length is 128 bits.
- Encryption consists of 10 rounds of processing for 128-bit keys, 12 rounds for 192-bit keys, and 14 rounds for 256-bit keys.
- Except for the last round in each case, all other rounds are identical.
- Each round of processing includes one single-byte based substitution step, a row-wise permutation step, a column-wise mixing step, and the addition of the round key. The order in which these four steps are executed is different for encryption and decryption.

VI. RESULT

A. SCREENSHOT

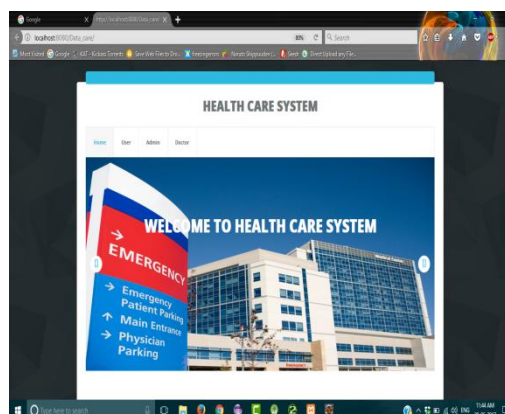


Fig.2 Home Page

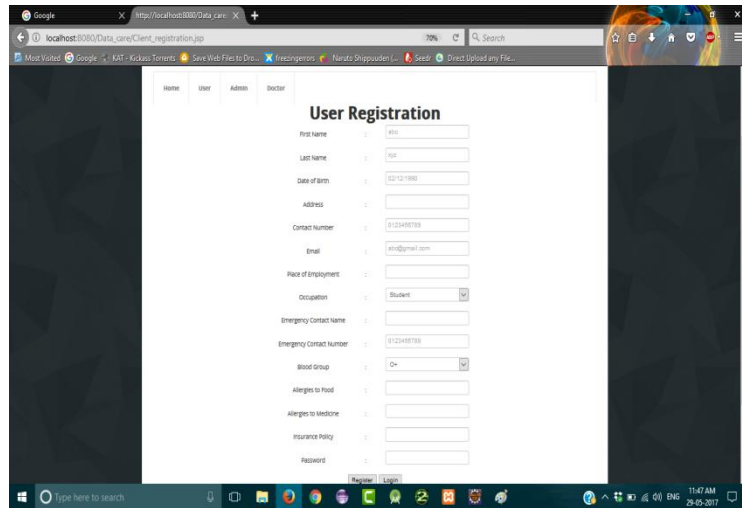


Fig.3 Registration Page

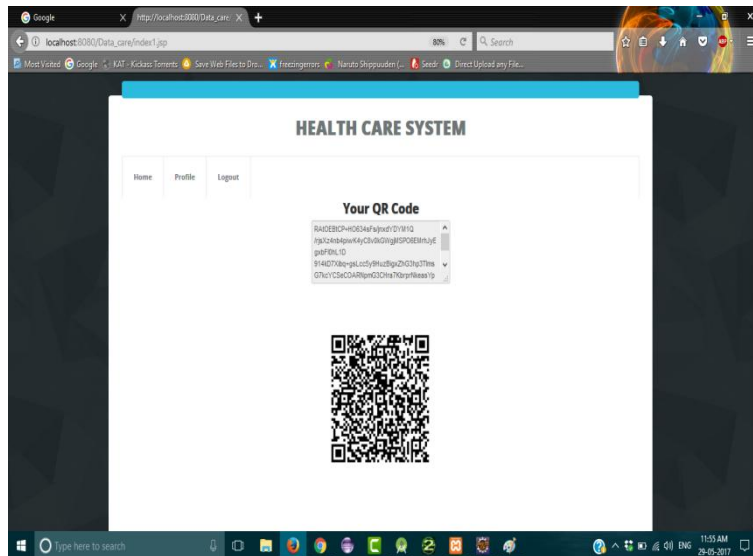


Fig4. Generated QR code

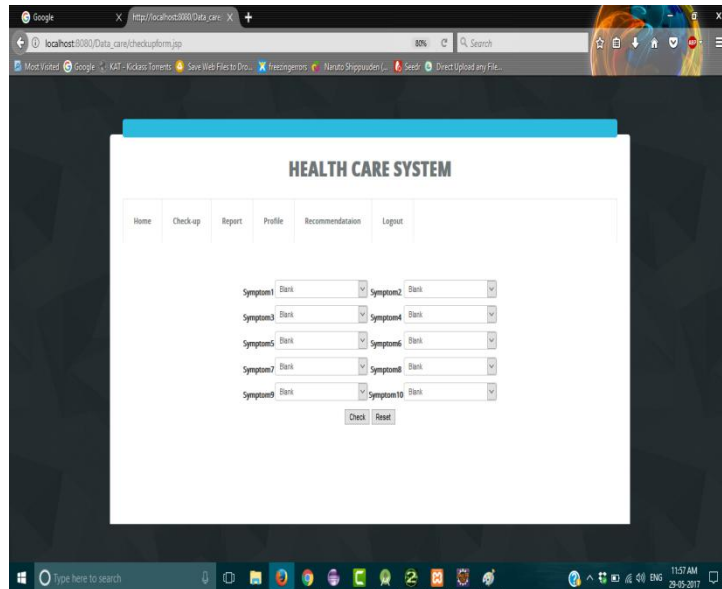
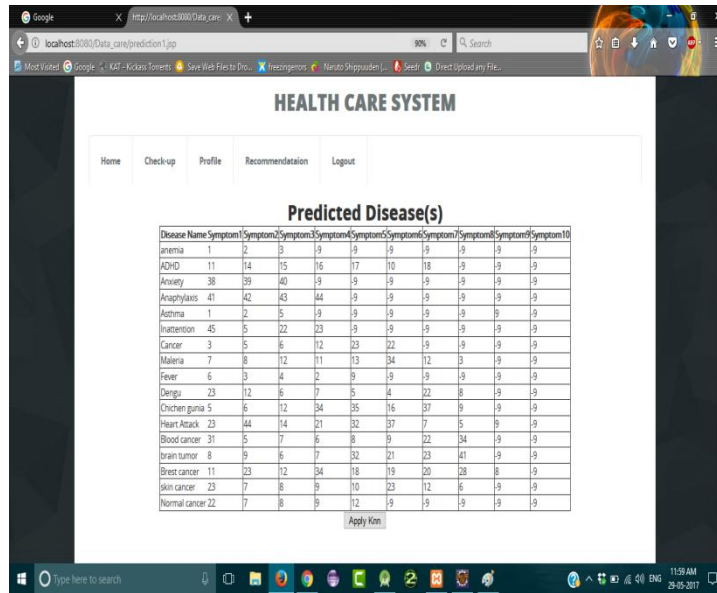


Fig.5 Symptoms Entering Page



Disease Name	Symptom1	Symptom2	Symptom3	Symptom4	Symptom5	Symptom6	Symptom7	Symptom8	Symptom9	Symptom10
Anemia	1	2	3	9	9	9	9	9	9	9
ADHD	11	14	15	16	17	10	18	9	9	9
Anxiety	38	39	40	9	9	9	9	9	9	9
Anaphylaxis	41	42	43	44	9	9	9	9	9	9
Asthma	1	2	5	9	9	9	9	9	9	9
Inattention	45	5	22	23	9	9	9	9	9	9
Cancer	3	5	6	12	23	22	9	9	9	9
Malaria	7	8	12	11	13	34	12	3	9	9
Fever	6	3	4	2	9	9	9	9	9	9
Dengue	23	12	6	7	5	4	22	8	9	9
Chichen gunia	5	6	12	34	35	16	37	9	9	9
Heart Attack	23	44	14	21	32	37	7	5	9	9
Blood cancer	31	5	7	6	8	9	22	34	9	9
brain tumor	8	9	6	7	32	21	23	41	9	9
Brest cancer	11	23	12	34	18	19	20	28	8	9
skin cancer	23	7	8	9	10	23	12	6	9	9
Normal cancer	22	7	8	9	12	9	9	9	9	9

Fig.6 Predicted Diseases

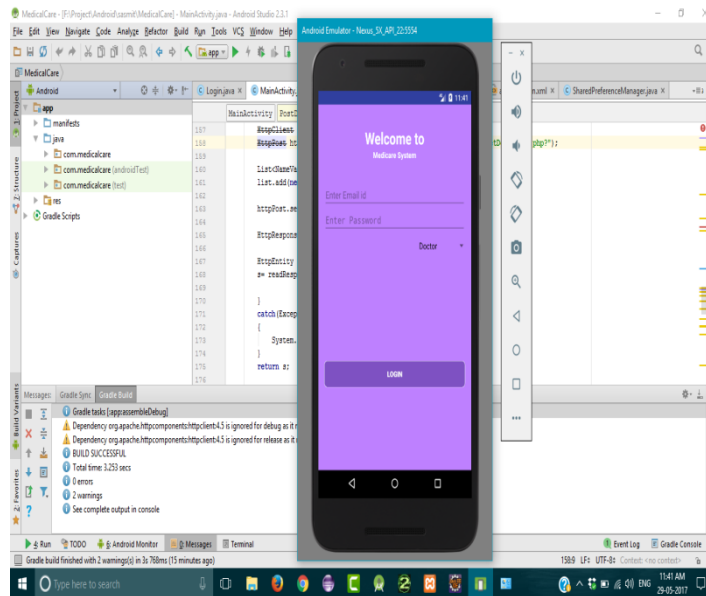


Fig.7 Android Application

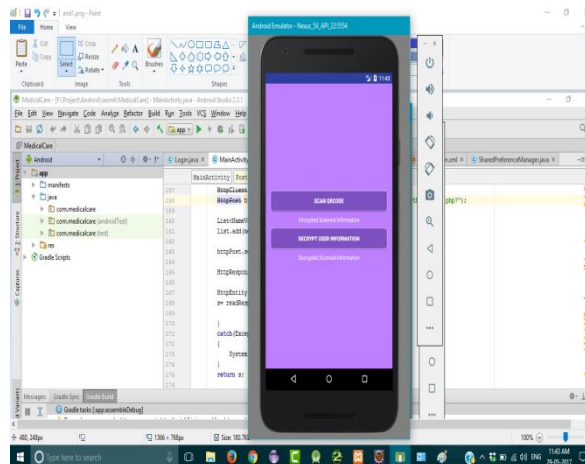


Fig.8 Scan The QR Code

**VII. CONCLUSION**

We proposed health care system for hospital for this we are using Naïve Bayes and Blowfish algorithms. We generate QR code for every patient. We proposed and analyzed the use of user driven visualization to improve security and user-friendliness of authentication approaches. Proposed two of conventions that not only improve the user experience but also resist challenging attacks, such as the keylogger and malware attacks. Our protocols utilize simple technologies available in most out-of-the box Smartphone devices. In addition, we will study methods for improving the security and user experience by means of visualization in other contexts, but not limited to authentication such as visual decryption and visual signature verification.

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