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Recommendation of Doctors and Medicine Using Review Mining

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ABSTRACT: Medical data are an ever growing source of information generated from hospitals consisting of patient records in the form of hard copies which can be made easier and convenient by using QR code of the patient details. Our aim is to build a Health-care Portal system which will provide the features like clinical management, patient records, disease prediction and generate QR code for every patient as per there updated disease information. We are developing a healthcare system which mainly focuses to provide services in rural areas where it is not possible for people to avail healthcare facilities on time.

KEYWORDS: QR Code, Medical Data, AES, Encryption, Decryption, JSON, Healthcare portal system.

I. INTRODUCTION

The classical approach maintains the patient record in paper form. So it is tedious job to gather patient data in unified form. It's difficult to manage patient history when we have many health systems providers. Patient's having new health reports can integrate with their old medical history. Mobile phones are widely used in today's world which offers many health related data storage. It provides low value automation of prevailing systems.

Display of how careful visualization summary can improve the security as well as the convenience of authentication. We proposed two visual authentication protocols which are one-time-password protocol and the other is a password-based authentication protocol. For generation of QR codes, user will have to enter the details into the app and then get the QR code generated. QR code are being used by us as they are more secured for storing the patients data and in order to see the patients data one will have to decrypt the QR code respectively which will be done at the doctor's end for reading the patients data for medicine recommendation and the same will be decrypted by the medical store for buying the medicines respectively.

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II. RELATED WORK

2.1. Paper Name: The Quest to Replace Passwords: A Framework for Comparative Evaluation of Web Authentication Schemes (2012) [1] Authors: Joseph Bonneau, Cormac Herley, Paul C. van Oorschot, Frank Stajano.

Description: Authors have evaluated many years of proposals to interchange text passwords for all types of user authentication on the online employing a broad set of usability, deploy ability and security advantages. Specially, there's a large changes from schemes giving minor security advantages on the long side heritage passwords, to those giving important security advantages accordingly for being a lot of pricey to deploy or tougher to use. We have a tendency to achieve that a lot of proposals have didn't improvement traction as a outcome of researchers seldom take into account a acceptable big selection of real-world motive. On the far side our test of current schemes, our framework gives associate analysis methodology and standard for future net authentication proposals.

2.2. Paper Name: Leveraging Personal Devices for Stronger Password Authentication (2011) [3] Author: Mohammad Mannan and P.C. van Oorschot

Description: Internet authentication for trendy end-user transactions, like online banking and e-commerce, continues to be manage by passwords entered through end-user. Most users still like untrusted PCs over smaller personal devices for actual execution, as a outcome of beneficial options associated with keyboard and screen size. But most such transactions and their underlying protocols area unit susceptible to strikes together with keylogging, phishing, and pharming. We have a capability to give Mobile watchword Authentication to counter such types of attacks, that cipher separates a user's long-run secret input from the consumer computer, and offers group action integrity. The computer go on to be used for many of the communication however has access to temporary secrets, whereas the user's long-run secret is input through associate personal device, e.g., a mobile phone that makes it offered to the computer solely when cryptographically underneath the supposed far-end recipient's public key.

2.3. Paper Name: Designing Leakage-Resilient Password Entry on Touchscreen Mobile Devices (2013) [4] Author: Qiang Yany, Jin Hanz, Yingjiu Liy, Jianying Zhouz, Robert H. Dengy.

Description: Touchscreen mobile devices are getting commodities because the wide adoption of pervasive computing. These devices enable users to access varied services at anytime and anyplace. So as to forestall unauthorized access to those services, passwords are pervasively utilized in user authentication. However, secret-based authentication has intrinsic weakness in password leak. This threat might be a lot of serious on mobile devices, as mobile devices area unit wide utilized in public places. Most previous analysis on up leak resilience of secret entry focuses on desktop computers, wherever specific restrictions on mobile devices like tiny screen size area unit typically not addressed. Meanwhile, extra options of mobile devices like bit screen don't seem to be utilized, as they're not accessible within the ancient settings with solely physical keyboard and mouse. During this paper, we have a tendency to propose a user authentication theme named Cover- Pad for secret entry on touchscreen mobile devices. The usability of Cover- Pad is evaluated with associate extended user study which has extra check conditions associated with time pressure, distraction, and mental employment. These check conditions simulate common things for a secret entry theme used on a day to day, that haven't been evaluated within the previous literature. The results of our user study show the impacts of those check conditions on user performance yet because of the planned theme.

III. EXISTING SYSTEM

In the existing system usually patient needs to visit the hospital to avail the medical facilities. They maintain the records in paper form so it is a tedious task for the patient to bring the papers every time to the doctor or in the hospital as the papers may sometimes get misplaced or get lost or stolen, so all the data of the patient will be lost. Sometimes it

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may happen the record file of the patient may get misplaced by the doctor or the hospital so the record of the respective patient will be lost. Also the patient needs to visit the hospital every single time when he/she thinks of the necessity.

3.1 Disadvantages of Existing System

1. Low security.
2. Patients don't play active role in their health management.
3. Long wait times.

IV. PROPOSED SYSTEM

In our system we provide appointments from a doctor through internet instead of going there and fixing an appointment. In Doctor's side they can view their appointments and prescribe medicine for their patients. This system maintains patient's prescriptions so that their medical details are always available on Internet, which will be more convenient for the patients. This will be more comfortable for the patient. Patient details and prescriptions are maintained confidentially. For prediction of disease KNN algorithm is used and for recommendation of doctor Apriori algorithm is used respectively.

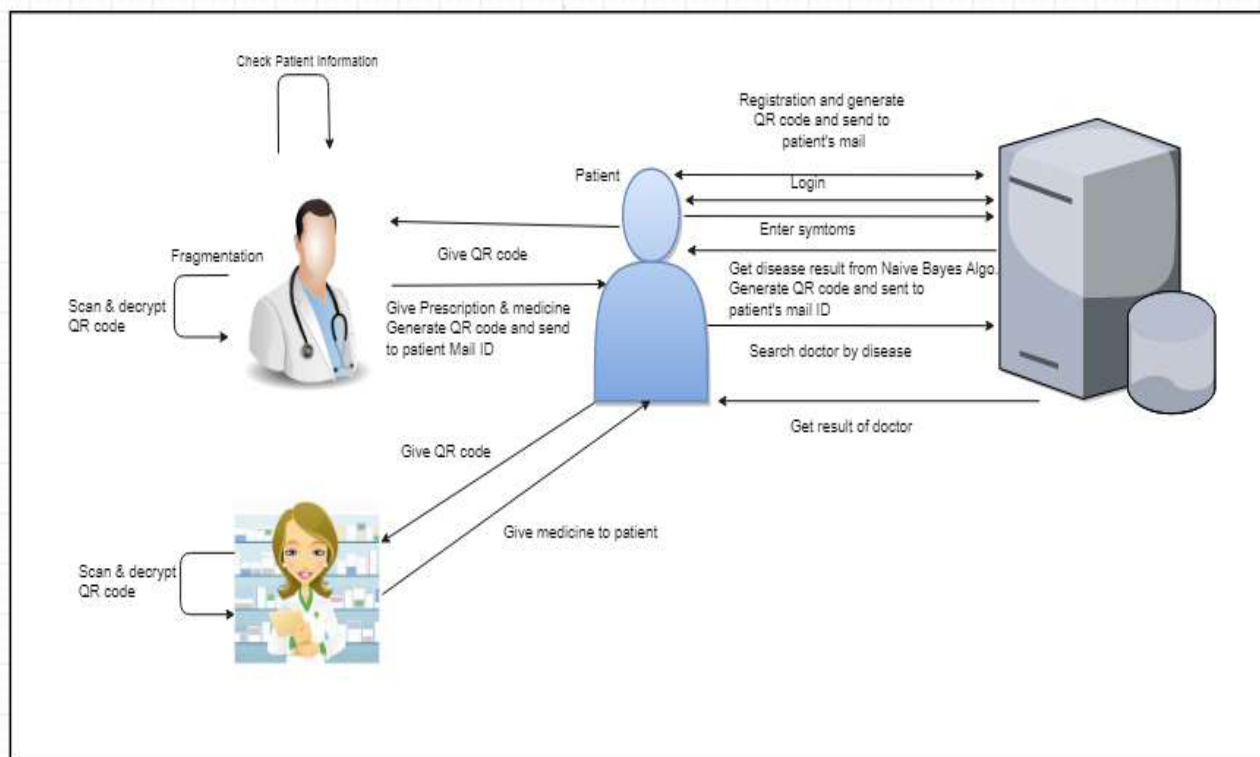


Fig 1: System Architecture

i. Patient Module:

- The patient will do registration to the system by entering valid details.
- After registration, the patient will login to the system by entering valid mobile number and password.

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- ii. Disease Prediction Module:
 - Patient will select the symptoms from the checklists of symptoms.
 - After selection of the symptoms, disease will be predicted.
- iii. Doctor Recommendation Module:
 - Based on the disease predicted and the patient's location, the doctor will be recommended to the patient respectively.
 - After doctor's recommendation the patient will send the QR code to the doctor then after that the doctor will prescribe the medicines to the patient which will be encrypted in the QR code.
- iv. Medical Module:
 - The patient will go to the medical store with the updated QR code and then get the medicines from the store.

V. CONCLUSION

We proposed the healthcare system using the K Nearest Neighbour and Apriori algorithms. For every patient unique QR code will be generated. It results to increase in the security level. It removes the confusion that which doctor they should prefer. Patients will be benefited from this system by easily downloading the application in their smartphones.

REFERENCES

1. DaeHun Nyang, Member, Aziz Mohaisen, Jeonil Kang, Member, "Keylogging-resistant Visual Authentication Protocols" - IEEE TRANSACTIONS ON MOBILE COMPUTING, VOL. 13, NO. 11, NOVEMBER 2014.
2. J. Bonneau, C. Herley, P.C. Van Oorschot, and F. Stajano, "The Quest to Replace Passwords: A Framework for Comparative Evaluation of Web Authentication Schemes," Proc. IEEE Symp. Security and Privacy (SP), pp. 553-567, 2012.
3. M. Farb, M. Burman, G. Chandok, and J. McCune, "A. Perrig, "SafeSlinger: An Easy-to-Use and Secure Approach for Human Trust Establishment," Technical Report CMU- CyLab-11-021, Carnegie Mellon Univ., 2011.
4. M. Mannan and P.C. van Oorschot, "Leveraging Personal Devices for Stronger Password Authentication from Untrusted Computers," J. Computer Security, vol. 19, no. 4, pp. 703-750, 2011.
5. H. Moon, H. Lee, J. Lee, K. Kim, Y. Paek, and B.B. Kang, "Vigilare: Toward Snoop-Based Kernel Integrity Monitor," Proc. ACM Conf. Computer and Comm. Security (CCS '12), pp. 28-37, 2012.
6. D. MRaihi, S. Machani, M. Pei, and J. Rydell, "TOTP: Time-Based One-Time Password Algorithm," RFC 6238, <http://www.ietf.org/rfc/rfc6238.txt>, 2011.
7. Q. Yan, J. Han, Y. Li, J. Zhou, and R.H. Deng, "Designing Leakage- Resilient Password Entry on Touchscreen Mobile Devices," Proc. Eighth ACM SIGSAC Symp. Information, Computer and Comm. Security (ASIACCS), pp. 37-48, 2013.
8. Krzysztof Czuszyński, Jacek Ruminski, "Interaction with medical data using QRcodes", Department of Biomedical Engineering Gdansk University of Technology Gdansk, Poland.
9. Prof. S. B. Choudhari, Chaitanya Kusrkar, Rucha Sonje Parag Mahajan, Joanna Vaz, "Android Application for Doctor's Appointment", International Journal of Innovative Research in Computer and Communication Engineering (An ISO 3297: 2007 Certified Organization) Vol. 2, Issue 1, January 2014.
10. Tanu Mirpuri, Akshay Bhisikar, Ajay Karare, "Emergency Medical Services (Ems)", International Journal of Engineering Research and Applications (IJERA) ISSN 2248-9622.
11. Mayur Sanjay Potdar, Ishwar Babu Pawar, "A Ubiquitous M-Health Application Using Android Appliances", Sandip Institute of Technology and Research Center, Mahiravni, Triyambak Road, Nashik-422213, Maharashtra, India.
12. R.I. Garcia-Betances, M.K. Huerta, "A review of automatic patient identification options for public health care centers with restricted budgets", *Online journal of public health informatics*, vol. 4, no. 1.