

Exclusive E Health Care using Centralized Health Management System

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Abstract-

This project effort to construct a nationwide Health Database System that will provide access to the detailed patient's records and doctor's assistant will perform technical task involved in the project efficiently. Convincing and persistent participation of the users of this system will make this system more interactive and more useful.

Keywords: Nationwide health database system

I. INTRODUCTION

The establishment of centralized databases, in conjunction with health care system, offers us an opportunity to enhance the collection of health data supportive of public health functions. However, this opportunity may be lost without the knowledgeable; Centralized health database system is a paperless system for documenting in medical facilities, hospitals and for insurance companies use. This is done to keep all the patients' information and medical records together in a database to help reduce errors and coordinate care. This system helps illiterate people not to carry their previous prescription every time. So such a need will be met by our project.

E-Health is an emerging field referring to health services and information delivered or enhanced through the Internet and related technologies.

The emergence of Centralized Health Database System provides patients and healthcare professionals easy accesses to information no matter where they are. According to a recent survey most patients say they are very interested in and capable of accessing healthcare information and services via a Web-based health system which provides an easy access to the medical information any time anywhere.

II. SYSTEM DIAGRAM

A. Dataflow Diagram

Our project will cater to the needs of the central health database system for storing health information of every citizen of India at server. The basic webpage will be a login page for user, doctor where user can see their previous as well as current health information from where they are and doctor can see patient's previous history by entering Adhar card number of a patient. The various functions that will be provided in our project are as follows:

- A standalone application to collect data and store on centralized server.
- The above health data can be ported to any other machine and should be displayed correctly.
- The stored health data should be platform independent to be sent to a central repository.
- Unique identifier (Adhar Card Number) is given to every citizen of India.
- The web application should expose the methods to do the below:
 - The centralized repository should verify the patient's information before uploading the data to the database.
 - The information of each data upload like the report, date and the time of upload etc. should be captured.
 - The central repository should be able to handle multiple such requests from different users at the same time.
 - The data stored in the database later should be able to be shared to different other sources in a platform independent way and securely. The information shared should also be customized according to the receiver.

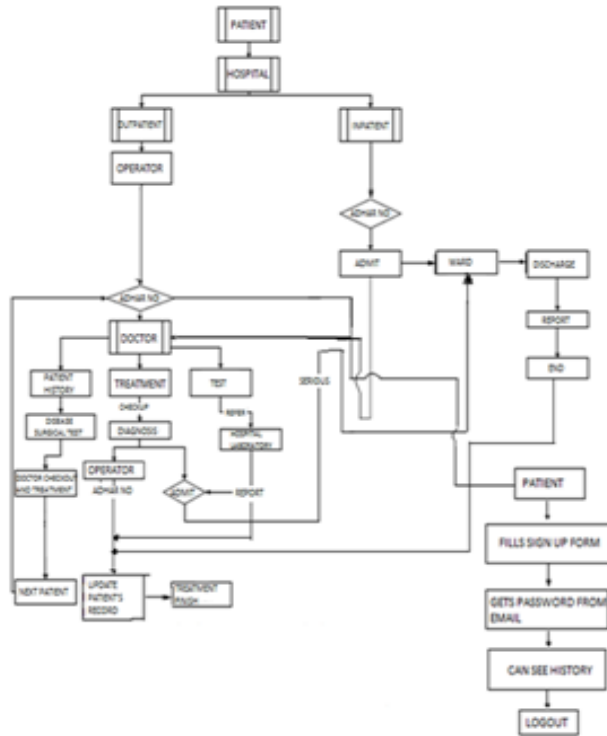


Fig. 1 Data Flow Diagram

III. LITERATURE SURVEY

1. Protecting Patient Privacy for e-Health Services in the Cloud (Tabassum Sharif, Craig Sheridan)

The author of this paper has explained the use of modern communication infrastructures in medicine, and the universal provision of health care services, which is collectively called as ehealth. Also, many countries are keen to shift their traditional health care services to this new prototype, which will further improve the quality of medication and reduce the cost for medication. The Cloud Computing technology is well-suited to meet such demands, as it is able to reduce the capital and operational expenses for the development and provision of e-Health applications.

A Cloud acquires a Service Oriented Architecture (SOA) and supports the functionalities of an integrated e-Health system as a number of interoperable software services. These services may exchange and share medical information with each other in order to improve the overall quality of health care offered to the patients. However, confidential health care information is very important for patient to trust on any health care system. Hence, an e-Health system must provide the patients with control over the application and dissipation of their own private

information. Unfortunately, traditional security mechanisms are not sufficient to meet the requirements of patient-centric e-Health services in an open, dynamic Cloud Computing environment, mainly due to:

- Platform-dependent – Traditional security mechanisms often depend on specific operating systems or protocols, and thus it is difficult for them to interact and co-operate.
- Isolated – It is difficult for service providers to unite across security domains. As a result, users need to manage multiple identifiers for multiple service providers.
- Inflexible – A security authority only represents access rights according to a user’s identity and group, without considering other attributes of the user.

2. Semantic Interoperability in E-Health for Improved Healthcare (SamanIftikhar)

The author of this paper has described the challenges faced now a day by the healthcare industry, one of the challenge out of all is syntactic interoperability. It is the ability of a healthcare system to share information and have that information properly interpreted by the receiving system in the same sense as engaged by the transmitting system. Semantic Web provides various technologies to achieve syntactic interoperability.

Web Services acts as a catalyst in this process, which provide smooth communication of information between healthcare systems thus providing better access to patient information. Role of semantics is also very vital for achieving interoperability in sharing of health records. To establish research and development in the domain of Health Level 7 (HL7) as an application to provide e-health services for the diverse communities.

Through this research process, the development of HL7 interfaces software for healthcare information systems that will provide syntactic interoperability between the communicating medical systems. The main objective of this research is to help e-health services that are interoperable among a number of domains in this field such as laboratory, patient administration and pharmacy.

3. Proposed E-Health Service Model by using Smart Phone (Mukesh Joshi)

The author of this paper has explained the use of the ICT based services in health, such as medical consultations and drug prescriptions, etc. In this e-Health system doctors would consult and treat patients remotely via telephone or fax.

After analysing the government reports and making a survey of certain rural area, availability of e-Health services is almost nil in all parts of Uttarakhand. Also, due to the presence of poor geographical conditions there is a high need of an e-Healthsystem. So, in the present research paper, an e-Health system is proposed which is based on some latest smart phone apps and also suggests the development of smart phone app especially required for the model.

The proposed model after its complete implementation is use to send the SMS alerts to the patients and informing the patients about the availability of medicine in their nearest location.

IV. CONCLUSION

Thus, the structure of this system integrates important constraints that can determine their long-term use by patients. Proper implementation of this project on a wider scale will definitely ensure no loss of medical information. As patient's information stored in the centralized health database it improves clinical outcomes for patients with chronic disease.

V. FUTURE SCOPE

Centralized health database website can also launch their own mobile application for the ease of user's access. Mobile application will better render to their needs in an easy manner without the trouble of accessing the website again and again. Thus, future enhancements of this project will give people a better health management policy and a cell for their help.

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