



Healthcare Centralised System

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ABSTRACT-

After making Aadhar card necessary to access many services in India, it now seems likely to start linking health records. The Government of India has made Aadhar necessary for all the necessities in our daily life. Hence, this calls for an opportunity to link Aadhar to our health records where hospitals can access all the previous health records to give better and faster treatment for the patients. The health records produced during the patients visit to the hospital such as X-ray reports, blood test reports and many others will all be collected and stored at our central database which can be accessed by all the hospitals and the government. Along with the health records the diagnosis centres and pharmaceutical centres databases can be stored in a place to check what medicines they have used and the expenses. The government can approach the database to check the status of the hospitals. This can be achieved by having a centralised database like UIDAI which will hold account of everyone's data. Every hospital is given access to this database, which will further help them to understand their patient better and will be able to take an action sooner. All of this is with respect to the heavy population of our country.

Keywords- Health reports, Treatment, Aadhar card

Abbreviations- PHC- Primary health care centers,

1. INTRODUCTION

The health of the citizen is the wealth of the nation. The field of medical science has always been of great importance in our country. This field has witnessed a rapid metamorphosis in all of its sections. Healthcare has become one of India's largest sectors, both in terms of revenue and employment.

Healthcare comprises hospitals, medical devices, clinical trials, outsourcing, medicine, medical tourism, health insurance and medical equipment. The Indian health care sector is growing at a brisk pace due to its strengthening coverage, services and increasing expenditure by public as well private players. The Indian health care delivery system is categorised into two major components public and private. The Government, i.e. public healthcare system, comprises limited secondary and tertiary care institutions in key cities and focuses on providing basic healthcare facilities in the form of primary healthcare centres (PHCs) in rural areas. The private sector provides the majority of secondary, tertiary, and quaternary care institutions with major concentration in metros and tier I and tier II cities.

India's competitive advantage lies in its large pool of well-trained medical professionals. India is also cost competitive compared to its peers in Asia and Western countries. The cost of surgery in India is about one-tenth of that in the US or Western Europe.

The health care Centralized System is designed to improve the quality and services of hospitals in areas of clinical process analysis and activity-based costing. Healthcare Centralized System enables you to develop your organization and improve its effectiveness and quality of work.

India, with its vast population, has many difficulties maintaining every sector. Health, being the main concern for every living being, requires more concentration.

Health care in India has no proper system. Most Indians are economically backward and a system where there is no proper way of documenting the health records and tests, can get costly, going through the test every now and then. Every hospital gets the patient go through the tests every time they visit. Once the patient goes to another hospital, he would have the repeat those tests for their profit.

Also, noticing the accidents rate, we see many people in grave danger. In such situations it is essential to react immediately. Having to know priorly the patients records will help in making a faster decision and treatment.

This should be a major concern for the government as the health of their citizens should be their top priority.

We aim to make a centralised database where all hospitals are supposed to upload every patient's health records. Like I said above, this system will be beneficial for patients in great danger. This can avoid the extra time that's being spent on running the tests and avoid any delay that can worsen the patient's situation.

2. RESEARCH OBJECTIVES

- To analyse then present system
- To analyse the impact of making a centralised database
- To analyse the role of government
- To provide transparency in health sectors
- To have easy access to a patient's health records without any fuss

3. RESEARCH QUESTIONS

- What's the need for this system?
- Why does it have to be centralised?
- How expensive can the present system get?

The use of this system: India's health care system has been battling various issues, including the low number of institutions and less than adequate human resources for quite a while now. With the availability of limited resources, it comes without saying that the expenses will be more and it can only get costly. India is one of those few countries where the public rely on private health organisations over public as public health services are not great. Now, private health organisations can get so expensive but a sad fact is people do rely on them. This system aims at bringing a more transparent approach in health care as one forth being there is a lot of poverty in our country and most people cannot afford the expenses, two forth being there is no proper accountability of any records and three fold being the most important one, healthcare has become more of a money making business than a social service.

This system will help us have a centralised database where everyone's health records are going to be stored in a single place. With this process no person will have to undergo tests if they have recently gone through the tests. They shouldn't worry about visiting a new hospital. The doctors should go through their reports digitally. To achieve this we link everybody's Aadhar card. Since, Aadhar is an important identity card, there's nothing better than using its ID to access the health ID of every patient.

Since every person has a unique ID number, it becomes effortless to bring such systems. There is no need to issue a separate health id card, which might take an extensive time. Everybody's Aadhar will have a unique ID number which will be their health id number. So, once this number is entered in the system, one will be able to access all the reports. This database will be huge and there's a portal for the government, hospitals, and even the public. We aim to bring maximum transparency by bringing up this system.

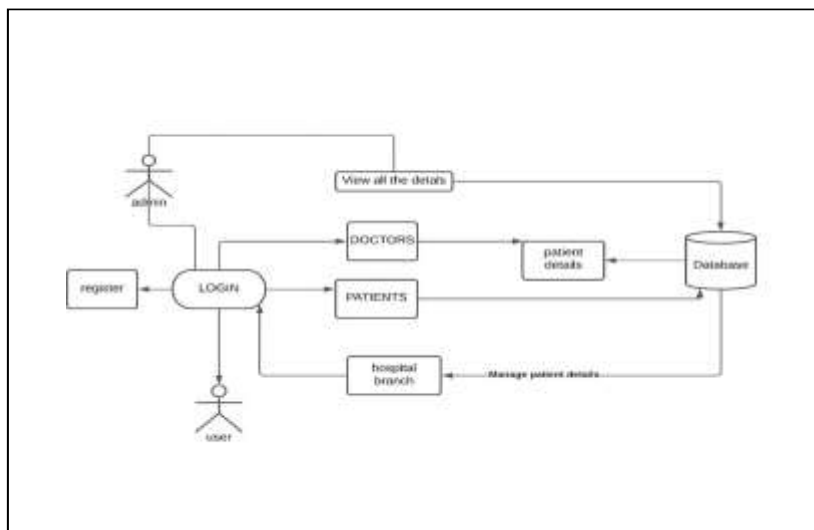
Common medical procedures can cost up to lakhs of rupees in India. With the population in India, it is nothing but a money making business in the health sector. a common surgery can cost a living for many families. With such a system, it brings us citizens a big responsibility to correct a system that can cause a loss in many lives. The tests alone cost a fortune and imagine having to repeat them when you have recently got them done!

The Tools used to build the website:

Php, MySQL, HTML, CSS

We used the above tools to make the application. We aim to build fine and better applications.

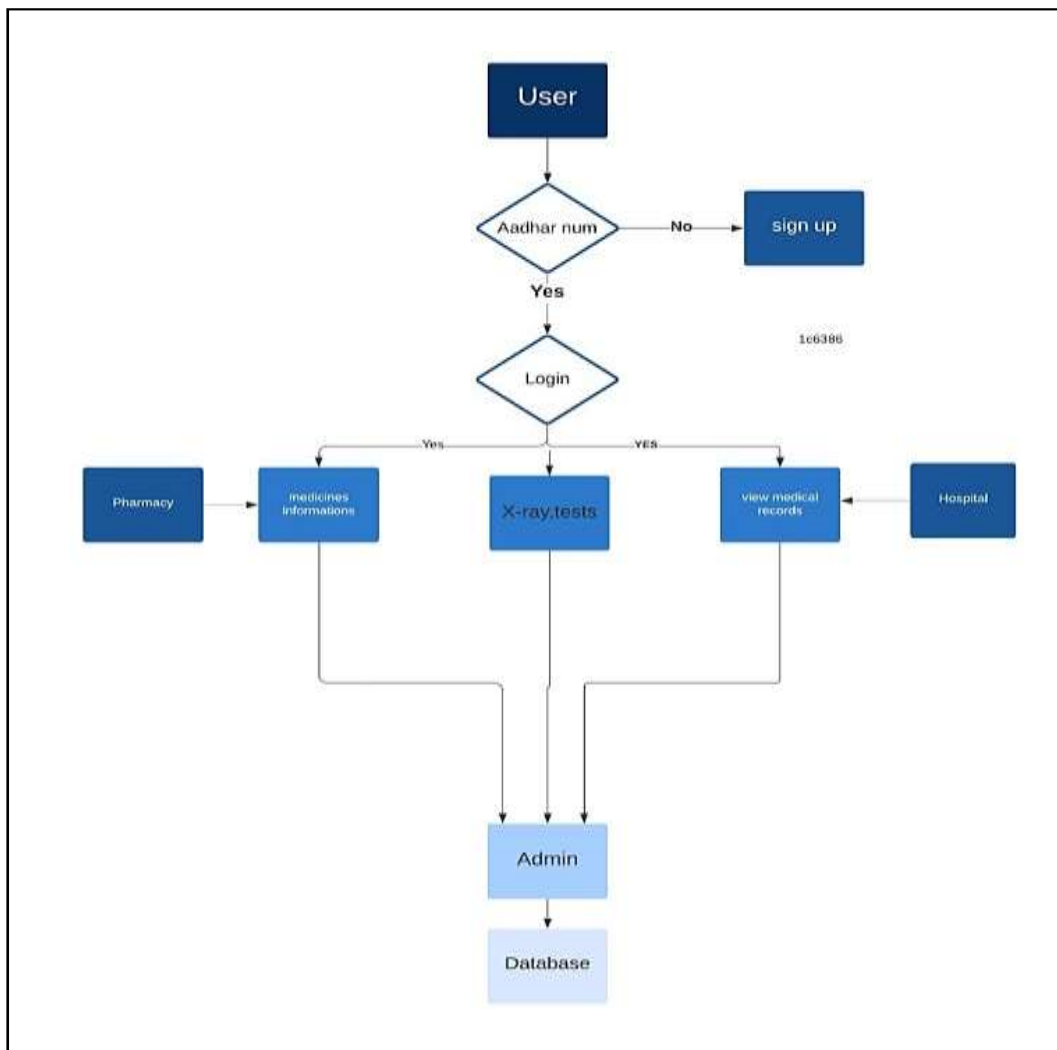
4. ARCHITECTURE



As shown in the figure the data set is revived from the database and sent for data pre-processing. In the pre-processing the data is extracted, selected values are converted to continuous values and then the data is refined. This data is used to train a respective model which is taken from the database. After training the entire data test the new data with the old trained data and get the predicted values.

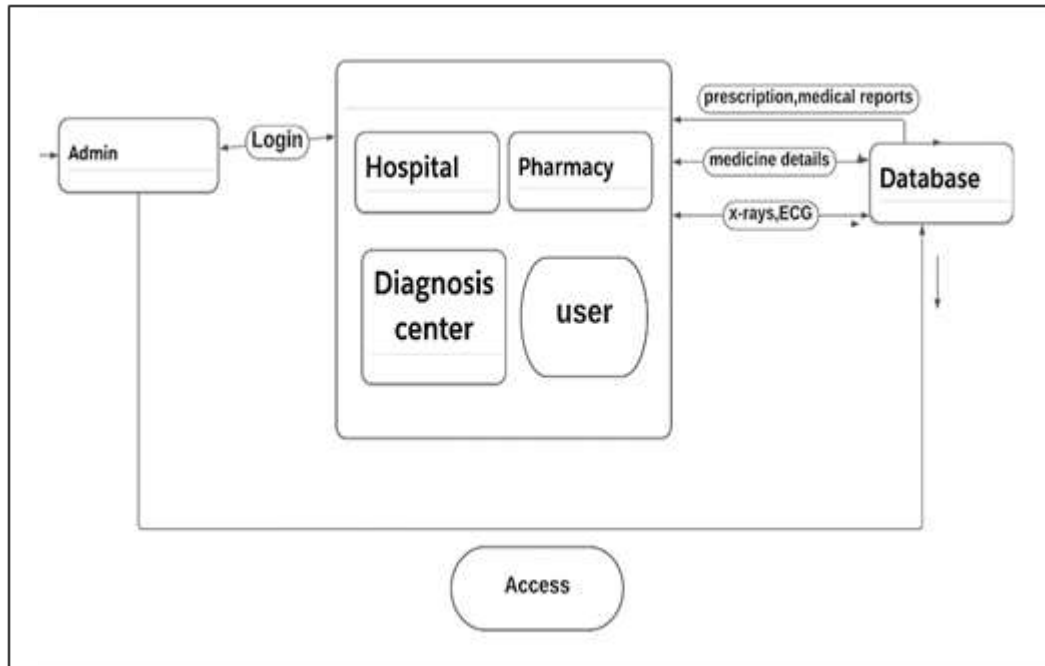
5. FLOWCHART

A user has to sign up using his Aadhar ID to login to the system. This user can either be a doctor, a government agent or even a patient. Now who can access these records? It can either be a person in the pharmacy that sells you the medicines or the hospitals where the doctor can check your prescriptions.

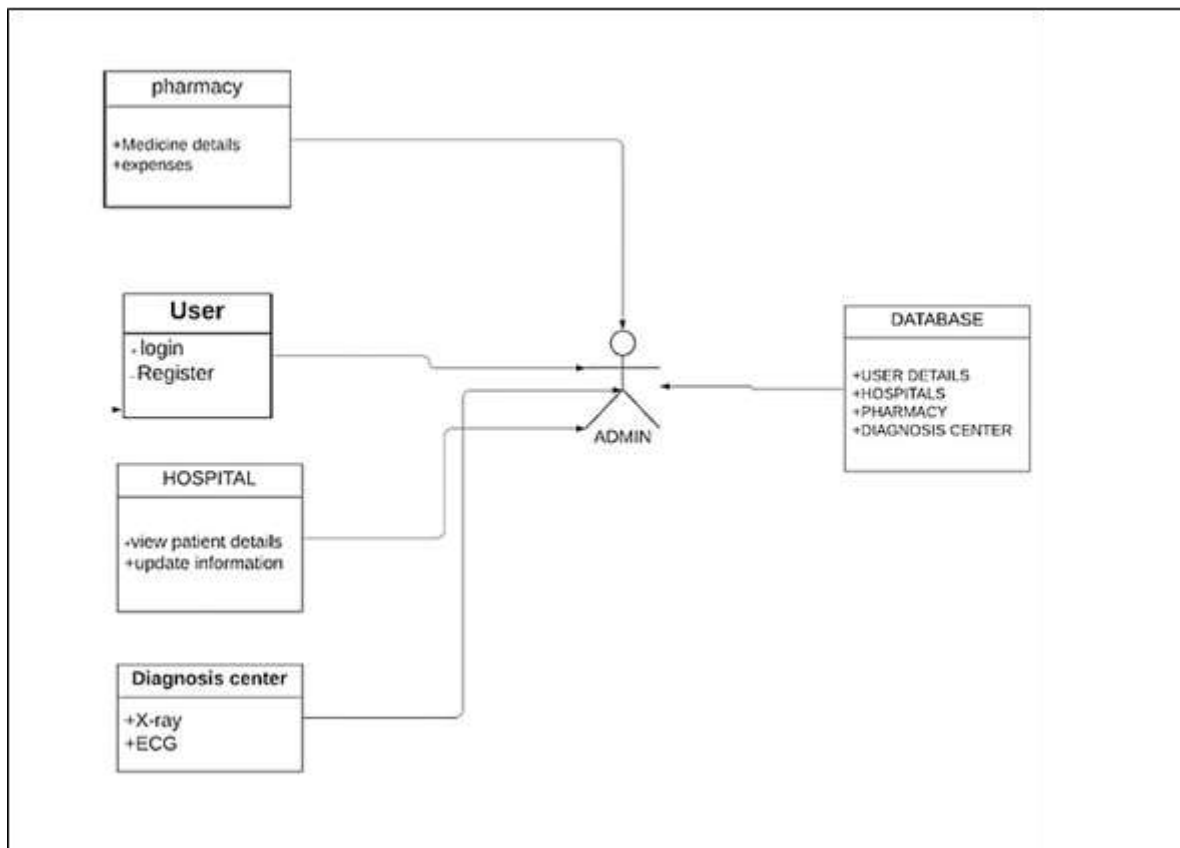


6. DATAFLOW DIAGRAM

A Data Flow Diagram is a graphical representation of the flow of the data through an information system modelling its process aspects. A DFD is often used as a preliminary step to create an overview of the system without going into great detail, which can later be elaborated. As shown in Figure 3.7, DFD shows what kind of information will be input to and output from the system, how the data will advance through the system, and where the data will be stored. It does not show information about process timing or whether processes will operate in sequence or in parallel, unlike a traditional structured flowchart which focuses on control. The admin being the government will be able to check all the actions that's being done by the hospitals, pharmacies, diagnosis centers and even the users. They are the main authority that should be handling this system as this system includes the government id card that's only accessible by the government. This system is exactly like generating Aadhar card to all users. A system that big will only be possible by a database that big as involving everyone's national identity card. In this way everybody will be able to access this system and the entire nation will be able to avail such honest services.



7. SEQUENCE DIAGRAM









The diagram above emphasizes the time ordering of messages.

8. RESULTS AND DISCUSSIONS

When we execute the code we will get the log in credentials. It then asks us to enter the 'username' and 'password' for already existing users and a 'click here' options that are not a member of this system.

If we want to get access to our health records we can simply log in with our unique health ID. This will be as any other website where one registers. Now the following will be the view of the window with the reports

Test name	Consulted	Contact	Date	Action
Covid	pooja	786543219	2022-01-31	  
ECG	Uma	2147483647	2022-01-31	  

This would be the lab technicians screen while uploading the reports. Everybody is supposed to give in their details.

Doctor's Dashboard

Edit Profile

First Name
sowmya

Middle Name

Last Name
kunta

Email
sowmyakunta@gmail.com

Phone
987654321

Specialization
neurologist

hospitals/clinics
apolo

Every Doctor is supposed to give their details regarding their specialization and the hospital they work in. That way any available doctor can give the treatment soon.

9. CONCLUSION

With this technique we aim at making a centralized database like UIDAI, which will hold account of everyone's data. all the hospitals will be given access to this database which will further help them to undertand their patients better and will be able to take an action sooner in emergency situations or otherwise.

Since, we are entering details of the patients electronically in the "Health care centralised system" , data will be secured. Using this application, we can retrieve patient's history with a single click. Thus, processing information will be faster and there is great scope for transparency which many of us long for!

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