

CSE 311 Project Proposal

Shahriar Khan
22.02.2020

1 Introduction

A traditional medical record keeps track of a patient's diseases, prescribed medicines, surgical complications, allergic reactive chemical components. This record helps a patient keep track of his/her medical data as well as helps any future medical staff to be aware of the patient's condition before administering a drug on the patient. But the traditional records in our country are manual and paper based. Moreover a patient may lose the paper records which may contain crucial information. Also some hospitals may not share patient's record with other hospitals. So in this course, I propose a database project that may replace the traditional paper based record. The database will act as a source of medical information about a particular patient. The database will allow patients, doctors, surgeons check previous medical records and allow only registered doctors and surgeons to enter or update the database. Thus the database will help doctors and surgeons be aware of a patient's medical history in a very short amount of time and help them take medical decisions very quickly.

2 Objectives

- To create a patient medical record without any hospital affiliation.
- Replace the traditional paper based medical records for better preservation of data.
- Create a flow of patient's medical information among his/her doctor.
- Optimize doctor's decision making time by trimming the information fetching time.
- Provide a surgeon information about a patient's previous surgical complications and intolerance of any foreign compound.

3 Database Service provider

This database model can be successfully implemented by a country's government or public health regulatory administration. Since the database is meant to be an information provider of patient, this database will be much more effective if it creates a flow of information among doctors. But this service can also be provided by a private organization in exchange of subscription fee.

4 Target Users

- Patients who want to store their medical record in a database for safe and quick retrieval.
- Doctors who want to be aware of a patient's medical history in a short amount of time.
- Can be used by surgeons who need to know about medical complications before surgery.
- Disease control authority can identify a spread of disease through the database.
- Public health authority can monitor and contain certain diseases.

5 Value Proposition

This database is supposed to replace the manual paper based medical records. If a patient want to have a surgery and the surgeon need to know the medical history, then this database will allow the surgeon get everything about the patient's medical history. The database will allow only doctors, surgeons or authorized medical staff to update and record a patient's medical history. So information will be safely preserved.

6 Database features and description

This database will have some distinct features. The database may have different types of user. A patient may open his/her profile to keep all the information in the database. But the patient can not record any data in the database. Only registered doctors have the power to record a new entry or update the database. Patients will have unique id and the doctor will use that id to store the crucial medical information. The doctor must have to enter the name of the disease, prescribed medicine, possible allergic reactions. Also a surgeon must use the database to record all the surgical complications and post surgery prescribed medicine. Then if the patient, in future, wants to consult another doctor from another hospital, the new doctors can use patient's id in order to fetch all the previous medical history. The database can be accessed universally. So doctors from different hospitals will be able to fetch necessary information.

7 Tools and Resources

- HTML
- CSS
- Javascript
- myPHP
- mySQL
- Bootstrap
- Jsoup

8 Challenges

A challenge that I perceive to be imminent is that I may not be able to implement all the ideas I initially proposed. Since the proposal is made before my complete knowledge of mySQL, javascript and bootstrap, I may find some of my ideas difficult to implement. Also using different new software maybe challenging. Creating a good entity relationship model to cover all the relations will make the database most effective. So creating a good ER model will also be a challenge.