Patient Management System

for Dispensaries

The Current System

Data recorded on paper:

The data was initially recorded on sheets of paper, charts for both patients and the doctors' reference. These charts were to be maintained and updated by the doctors' for the patient so that they can be referred in future in case the patient has any other complains. Also the patient had to maintain and carry along with him his record chart whenever he required medical attention so that the doctor can refer to the history of the patient and the prescription he was given previously. This was a very daunting task for both the patient and the doctor.

Handled and archived manually:

All the charts were paper sheets hence handling them and their storage posed a challenge. Many times the charts got destroyed or affected severely due to various factors. Handling many hundreds of charts is a very difficult task due to the number of records itself. Also any person could manipulate or destroy records without authorisation.

How it works?

- Patient is given a chart where all the data is recorded regarding his/her medical history and prescriptions given on the last visit.
- After examination, the doctor fills up the chart, the details of the disease or ailment , symptoms detected and prescribing the relevant drugs.
- The patient is required to maintain the chart and bring it with them on every visit so that the staff as well as the doctor can use it as reference to the history of the patient.
- The patient carries the now updated chart to the pharmacist
- The pharmacist provides the drugs as prescribed
- In case of serious/chronic conditions, the patient is referred to a specialist doctor

Interviews:

- Medical officers were interviewed wherein the details of the current system were acquired.
- Questions were asked about the workings of the current system as to what is the input and output of the system , how the input is processed into the output and who are the people performing these tasks and to what amount of success.
- An outline blueprint was formed so as to accurately evaluate the system's strong points and weak points.
- The weak points which can be improved, of the system were spotted which can be worked upon so as to improve its performance and give the desired results.

The weak points:

- Risk of data loss since it is recorded on paper which can be due to various factors, during storage and handling.
- The whole process is inherently slow and time consuming as it is done manually and might not be accurate and correct at all times.
- Due to the process being manual it is essentially resource intensive as handling hundreds' of records is not a task that can be performed by a single person at all times.
- The records, being unguarded, any staff member can access them or alter them without much risk but can lead to many problems affecting both the staff and the patients and also the reputation of the clinic.

What the client expects...

- A system with automatic data processing so as to reduce the manual effort
- A central data location where all information can be stored, allowing patients to visit other hospitals in the same chain without having to carry charts.
- An easy way for new patients to get registered.
- An automatic data backup system so as to secure the data for easier future reference.
- An easy & fast user interface reducing time consumption and effort.
- Reasonable amount of data security to maintain the privacy of the patient and his records for reference.

The Proposal

- Instead of a chart, the patient will be given a smart card, eliminating the need of a chart.
- All patient records are stored in a centralised, encrypted, limited access and redundant server for easy and safe access and manipulation of all the records.
- A desktop app will be designed to communicate with the server, handle data entries and display to provide an easy interface to the user.
- A web interface will allow patients to get registered and reduce the time and effort wasted by both the patient and the staff.