

## Review on Medicare-Diagnosis and Medication

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*Abstract*— Medical histories include a variety of documentation of patient's past, clinical discoveries, diagnostic check results, preoperative care, operation notes, post-operative care, and daily notes of a patient's progress and medications. It is very important for the treating doctor to properly document the management of a patient under his care. Medical record keeping has evolved into a science of itself. This will be the only way for the doctor to prove that the conduct was carried out properly. It is important for the doctors and medical establishments to properly maintain the records of patients for two important reasons: the first one is that it will help them in the systematic evaluation of their patient profile, helping in analysing the treatment results, and to plan treatment protocols. It also helps in planning governmental strategies for future medical care. The legal system relies mainly on documentary evidence in a situation where medical negligence is alleged by the patient or the relatives. With the increasing use of medical cover for treatment, the insurance companies also require proper record for keeping proof of the patient's demand for medical expenses. Improper record keeping can result in declining medical claims. It is overwhelming to note that in spite of knowing the importance of appropriate record keeping it is still in an emerging stage in India. The traditional method of keeping records that is followed in most of the hospitals across India is the manual method involving papers and books. There are serious boundaries of physical record keeping including the need for large storage areas and difficulties in the recovery of records. Our aim is to create an online space for doctors as well as patients to maintain the medical records and to ensure a transparent and reliable medical treatment system.

**Key words:** Medical Records, PHR, Hospital, Online Appointments

### I. INTRODUCTION

Medicare the project name itself suggests about medical care and convenient facilities for the people in which the information of doctors that people can easily access. Many times people have to wait for hours of doctor's appointment and many times it gets tedious. To make their work more convenient the website for searching the specialized doctors and placing the appointment is developed. In case of any critical conditions it may cost the patient's life. We have also included maintenance of medical records of a patient online. As the hard copy can be lost by the doctor as well as the patient, then it gets tedious for doctor to prescribe medicine to the patient for the further diagnosis. So to make it easy online storage of medical records is preferable.

This project is developed with the objective that it may save the life of a patient as with our website patients may also know whether doctor is available or not so that he can search another doctor in no time. There is a login in page which includes both the login-in of both doctors and patients.

It also includes doctor's information their availability timings, their specialization information.

The main aim of this project is to create a website that is helpful while getting the information about the doctors in different fields in Amravati City.

The information of different doctors and their information are very simple and easy to access, so that everyone can use it efficiently. We think that our mini website module will help user to get the information regarding doctors. Patients just have to register on the website and then once registration is completed they can easily access the site. In this the Patients can even see whether the doctors are available or not so that the patient can easily access it. The healthcare system is moving from one primary physician who assumes responsibility for each patient to amore team-based approach. Thus, assessing team communication is critical [11].

### II. LITERATURE REVIEW

#### A. Concerned Literature

Doctors and other small medical traders may be lost out on visits from present patients or fresh ones by not allowing them online appointment planning via mobile device or computer. The public seems to show a preference for doing many things via the Internet or mobile apps these days. It only stands to motive that they want to list their doctor's appointments as well. Chalk it up to the convenience factor, as well as the popularity of websites, smartphones and gadgets, which allow us to do so many varying things with the ease of tapping of a screen icon [7].

Patient Pop, an online stage for medical suppliers that allows for online appointment planning, among other things, predicts that, based on study, online appointment scheduling of medical appointments is on a rising track. This trend only stands to grow in fame, as well. The goal was to build an understanding as to what percentage of the patient population is using or would use online appointment scheduling to book appointments with their healthcare provider today. The survey also sought to measure what percentage of patients were scheduling appointments online versus via a telephone call.[6]

In total, the survey's findings are based on a data that included 13,694 appointment requests, as well as 182 medical practice websites.

- 1) It's What Patients Need: Precisely, research shows 17 percent of patients surveyed planned a doctor's appointment via a website or app within the past year. An additional 42 percent of them said they would have scheduled an appointment online – but that they didn't have the opportunity [18].
- 2) Online Scheduling's Future Valued in the Billions: By 2019's end, 66 percent of U.S. health systems will offer

digital self-scheduling. Also, 64 percent of patients will book appointments using these online systems.

- 3) Practices Can Hone Competitive Edge: By offering the convenience of online appointment scheduling, practices can improve the patient experience, which will provide them with a competitive advantage in their market.
- 4) Younger Demographic Selects It: The 25-34-year-old demographic now used online forecast the most. In addition, this group reportedly also shows the highest preference for using online appointment scheduling. By targeting this demographic, your practice can leverage this established interest to address the larger 18-to-34-year-old age group.
- 5) Online Scheduling Reduces Stress on Workplace Staff: According to the survey, 34 percent of appointments that are scheduled online are done after the office is closed. This means that by offering 24/7 convenience of online scheduling, practices can increase their number of total appointments while reducing any added strain on the business's office administration [8].
- 6) New Patients will pursue it Out: The data is clear that new patients are scheduling the vast mainstream of online activities, some 63 percent.
- 7) Online Scheduling Keeps Waiting Rooms Full: While only 6 percent of online appointment requests were for appointments on the same day that the appointment was scheduled, more than three times that amount, about 20 percent were for next-day appointments [9].
- 8) It Reduces No-Shows: With phone-call scheduling, the number of people who fail to show up for an appointment (the non-attendance rate) ranges from 10 percent to 25 percent, averaging out at 14 percent.
- 9) People Hate talking on the Phone: When the survey asked about inclination for booking a doctor's appointment via a website or app, with no need to call the office, some 42 percent indicated this is the preferable scenario.
- 10) Request is There Now: Of the 13,694 appointments requested from practice websites, 6,766, or 49.4 percent, were scheduled via the telephone.

### III. TECHNOLOGY USED:

The main idea behind this project is to save the energy and time of the patient. We have used advanced java in Net beans IDE in our project. For this we have used JSP and servlets for processing. For taking the input and output we have used HTML and CSS at the front end and MySQL as the database at the backend.

- Java EE:
- STRUTS 2.3:
- My SQL:
- Java DATABASE CONNECTIVITY
- NetBeans:
- Apache Tomcat:

### IV. PROPOSED WORK

To overcome the difficulties in the traditional as well as web based systems occurring in maintaining medical records and to help in diagnosis and medication of a patient, we propose

a system trying to overcome these difficulties. It has been observed that the efficiency of doctors is far better than the online apps used for diagnosis [16]. We intend to develop a website which will not only help taking online appointments but also ensure proper treatment of patients and maintain the database about patient's medical records which will be accessible to both doctors and patients.

When the patient will be examined by the doctor, the doctor would mention the symptoms, his diagnosis and the medication prescribed for the patient in his own account. He can also see all the details about the patient including his medical history. After he confirms the above data, the information would be sent to the patient's database; hence the patient would also know what the doctor has diagnosed and the prescribed medicines, thus resulting in a very transparent and reliable system. He need not keep his card safely and only need to remember the id and password.

Hence the medical records of a patient would be maintained by both doctor and patient. The patient's medication details would also be stored; hence claiming for medical insurance would be very easy. Patients have to fill online form by which id and password created and sent to their email and upon accepting data, automatic login to patient panel. Through this board, patients can select the doctors and have appointment with them on their time from their own place.

### V. SYSTEM ANALYSIS

Analysis is the complete study of various operations performed by a system and their relationships within and outside system. A key question is: What must be done to solve the problem? One facet of analysis is defining the boundaries of the system and defining or not candidate system should consider other related systems. During analysis, data are collected on the available files, decision points, and transactions handled by present systems.

#### A. Module Description

This section attempts to describe each module of the project in brief, and the detailed description of each of these modules is spread throughout this document.

The Medicare project has been divided into six modules. They are

- 1) Admin
- 2) Doctors
- 3) Staff
- 4) Patients
- 5) Appointment
- 6) PHR management

##### 1) Admin

This is module provided to add a new user access to the system. The admin module create new hospitals logins in our system. This contains a simple registration form which is associated with the database this adds new user parameters to the system and helps to maintain the information of the hospitals.

##### 2) Staff

The hospital manages the hospital login. The staff is responsible for doctor registration under their hospital and their login creation. The functions related to doctor are:

- Hospital staff will upload patients reports
- Sugar Reports
- Blood reports
- X-Ray
- Test results

3) *Doctors*

The doctor can view the patient details. The doctor can access their previous reports, prescription and case history. The doctors can view date wise appointments. The doctor can cancel future appointments but not of the current date. He can also download a patient's prescription and records for reference.

4) *Patient*

Patient can search specialty wise doctors, hospital timings, facilities. A patient can book appointment of any doctor of the current or future date. The patient can even cancel the appointment. He can download prescriptions and reports sent by the hospital staff.

5) *Appointments*

Patients can take doctor appointments from anywhere, anytime. Patient has the convenience to take the doctor appointment from their convenient places not as the traditional way of visiting the hospital, waiting in line to take the appointments. Patients will receive notification if appointment number gets reduced to 10, so that the patient should present in hospital on time.

6) *PHR Managements*

Personal Health Record or PHR is a health records where health and information related to the care of patient is maintained by the patient. PHR provides a complete and accurate summary of patient. One of the most debatable issues for PHRs is how the technology could impend the privacy of patient information.

VI. SYSTEM ARCHITECTURE



Fig. 6.1(a): Data Added into Database

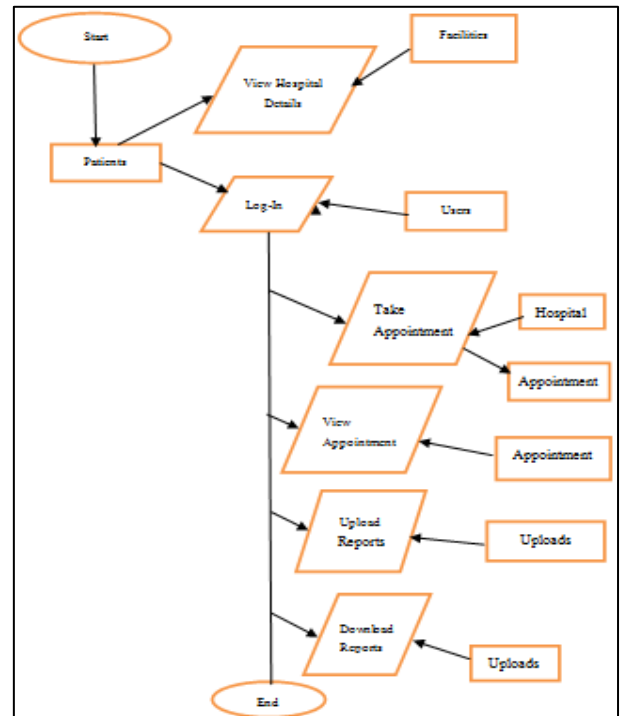


Fig. 6.2(b): DFD for Doctor

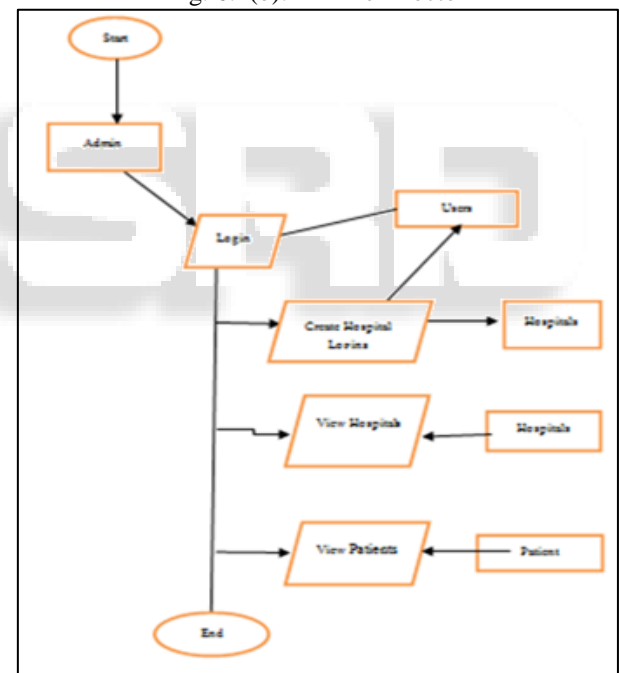


Fig. 6.3(b): DFD of Admin

VII. IMPLEMENTATION AND RESULTS

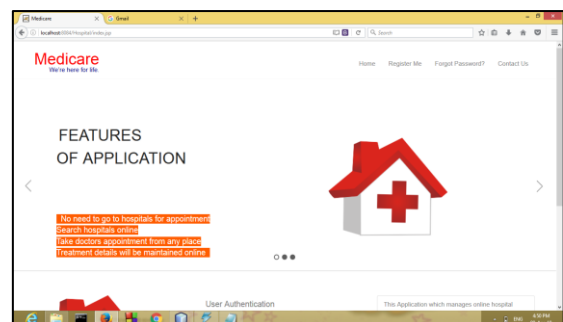


Fig. 7.1(a): Home page Indicating Features

This is the home page indicating Features and Applications

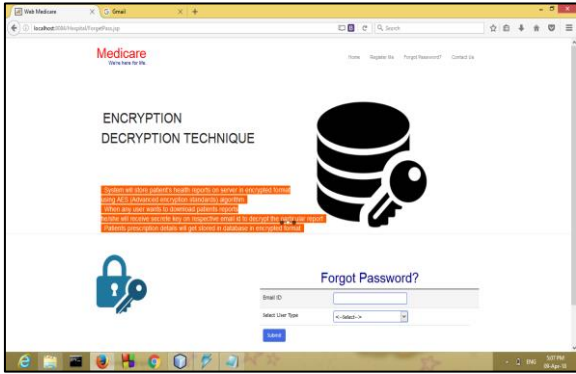


Fig. 7.2(b): Forgot Password page

This is the Forgot Password page

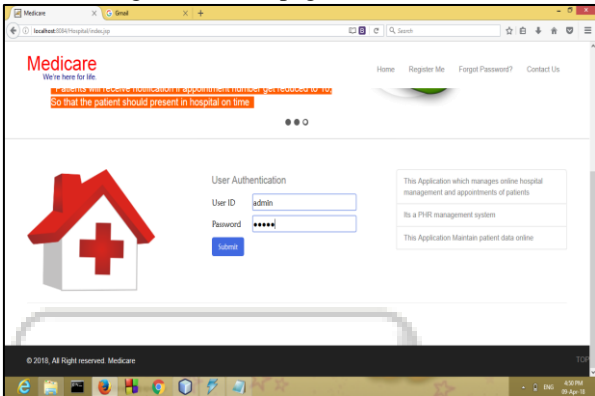


Fig. 7.3(c): Home Page Indicating Admin Log-In

This is the Admin Log-In Page with Username- Admin and Pswd= Admin

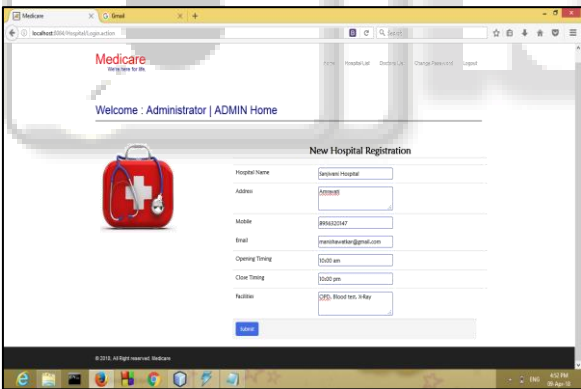


Fig. 7.4(d): Admin Home – Registration of new hospital

This is the Admin Home in which Registration of new Hospital is done

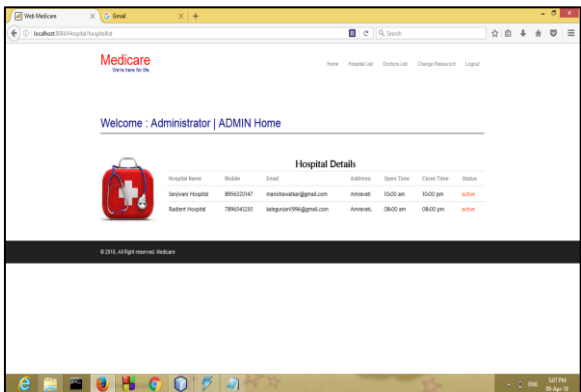


Fig. 7.5(e): Admin Home Hospital Details

This is the Admin Home, after registration of new hospital all the Hospital Details can be seen.

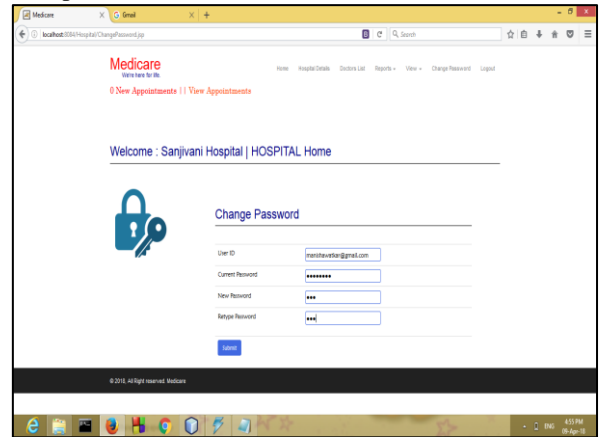


Fig. 7.6(f): Hospital Home, Change password for first time login

This is the Hospital Home in which you have to change password as you log-in with the auto-generated password which comes on mail.

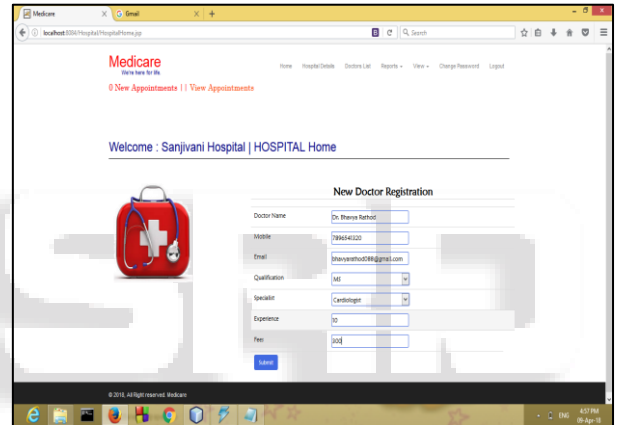


Fig. 7.7(g): Hospital Home New Doctor Registration

This is the Hospital Home in which New Doctor Registration is done.

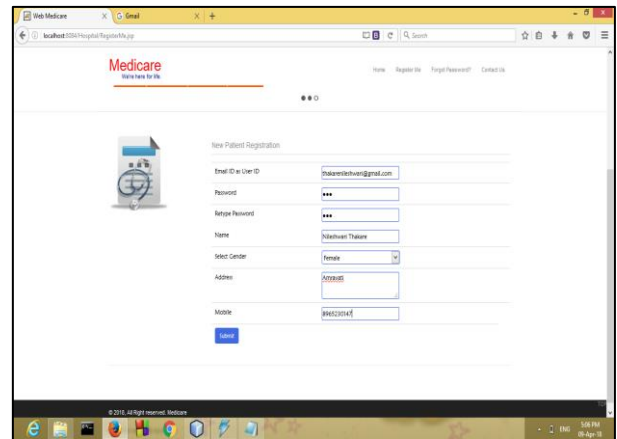


Fig. 7.8(h): New Patient Registration

This is the New Patient Registration, after completion of the registration the patient can easily log-in and access all the facilities.

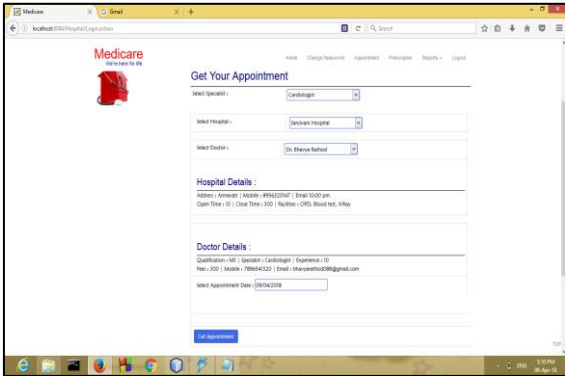


Fig. 7.9(i): Patient home, book new appointment

This is the Patient Home, in which a new appointment can be booked.

This is the Hospital Home to enter the key for Prescription which is the secured key

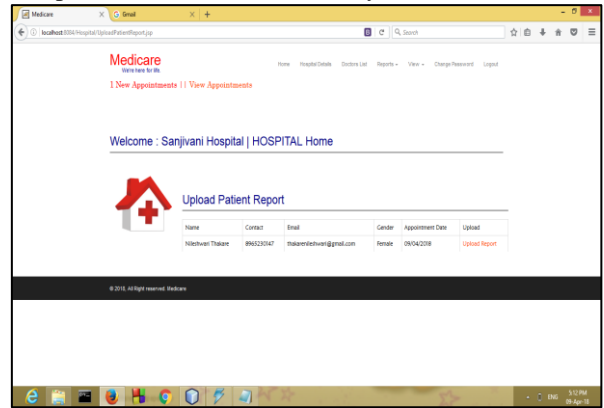


Fig. 7.13(J): Hospital Home to upload patient's reports  
This is the Hospital Home that upload's Patient's Reports

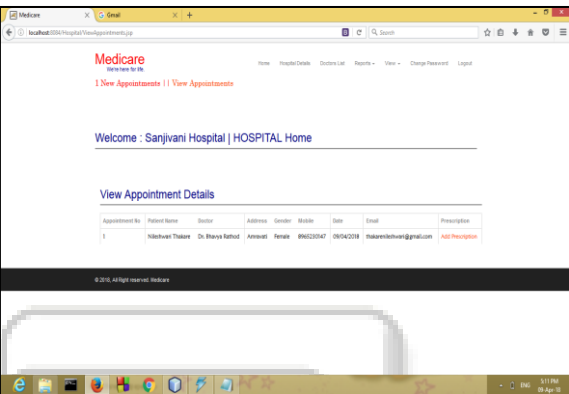


Fig. 7.10(j): Hospital Home showing new appointments

This is the Hospital Home showing Appointments for the Doctors. Here the Doctor can see the appointments of present day as well future appointments.

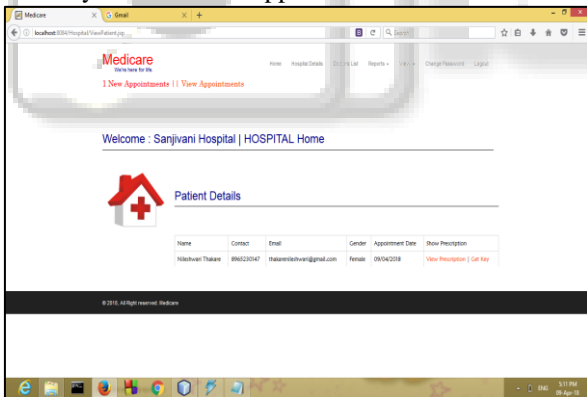


Fig.7.11.k:- Hospital Home to view prescription

This is the Hospital Home to view prescription in which the patient can get his prescription online

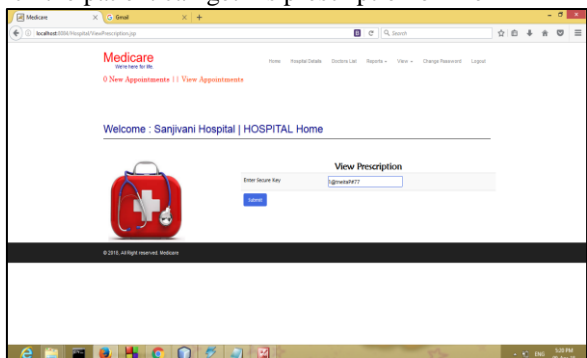


Fig. 7.12(l): Hospital Home Enter key to view prescription

## VIII. CONCLUSION

Medicare the project name itself suggests about medical care and convenient facilities for the people. Many times people have to wait for hours of doctor's appointment and many times it gets tedious. To make their work more convenient the website for searching the specialized doctors and placing the appointment is developed. In case of any critical conditions it may costs the patient's life. We have also included maintenance of medical records of a patient online.

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