FULLY VIRTUALLY ACCESSEBLE AND TECHNICALLY HEALTH CARE CLINIC

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ABSTRACT

Health care is a field in which accurate record keeping and communication are critical and yet in which the use of computing and networking technology lags behind other filed. Healthcare professionals and patients are often uncomfortable with computers, and feel that computers are not central to their healthcare mission, even though they agree that accurate record keeping and communication are essential to good healthcare. In current healthcare, information is conveyed from one healthcare professional to another through paper notes or personal communication. In India we see that the physician writes a prescription on paper and gives it to the patient. The patient carries the prescription to the pharmacy, waits in line to give it to a pharmacist, and waits for the pharmacist to fill the prescription. To improve this process, the prescriptions could be communicated electronically from the physician to the pharmacist, and the human computer interfaces for the physicians, nurses, pharmacists and other healthcare professionals could be voice enabled.

According to Carmen Catizone of the National Association of Boards of Pharmacy, there are as many as 7,000 deaths from incorrect prescriptions in the United States each year. A Washington Post article indicates that as many as 5% of the 3 billion prescriptions filled each year are incorrect. These numbers indicate that there is an urgent need to reduce the errors in healthcare.

I. INTRODUCTION

E-Health Care is the use of web-based systems to share and deliver information across the internet. With this ability, privacy and security must be maintained according to the Health Insurance Portability and Accountability Act (HIPAA) standards. The reasonable approach to developing a system that can meet these requirements is a system that utilizes role-based models. Role-based access control (RBAC) is important because personnel could change but the position and access to the safe information keeps stable. With a role-based model it becomes easier to maintain access control, assign privileges, and personnel to the appropriate role.

Healthcare is among the fastest-growing sectors in both developed and emerging economies. E-healthcare is contributing to the explosive growth within this industry by utilizing the internet and all its capabilities to support its stakeholders with information searches and communication processes.

The five major themes of e-healthcare research identified are: cost savings, virtual networking, electronic medical records, privacy concerns and physician-patient relationship.

Effective and timely communication between patients, physicians, nurses, pharmacists, and other healthcare professionals is vital to good healthcare. Current communication mechanisms, based largely on paper records and prescriptions, are old-fashioned, inefficient, and unreliable.

When multiple healthcare professionals and facilities are involved in providing healthcare for a patient, the healthcare services provided aren't often coordinated.

The e-healthcare system that we have developed provides support for physicians, nurses, pharmacists and other healthcare professionals, as well as for patients and medical devices used to monitor patients. Multimedia input and output, with text, images and speech, make the system more user friendly than existing e-healthcare systems.

CLINIC MODULE:

The Clinic module exposes two interfaces, a Web Server and a Web Service, for patients and the medical monitoring devices. The Web Server interface is intended for users who prefer to use a Web browser to access

the healthcare services. Humans or devices to communicate with the e-healthcare system can use the Web Service interface. The Web Server uses the Web Services to access the data. The Clinic module provides support for routine activities of the physician. It maintains information, such as the physician's appointments for a specific day/week, the patients that she/he has examined, notes related to the patients, etc. The Clinic module sends prescriptions from the physician to the desired pharmacies using the Web Service provided.
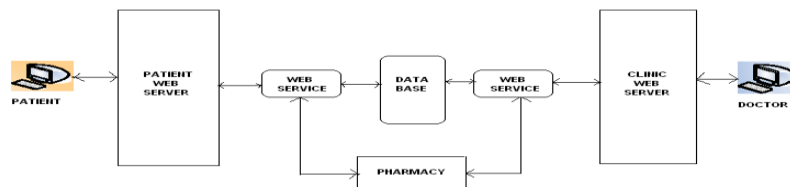

Fig : Clinic Module

II.   EXPLANATION

Before creating any application, one has to go through the various processes involved in it. The multiple processes combined together to form a model which is used by every software developer to maintain the flow of cycle which creating any kind of application.

The SDLC(Software development life cycle model) it consists of multiple phases from requirement gathering, designing, coding, testing, deployment and maintenance also multiple models are available which according to the requirements and budgets are selected.

RUP Model: In which we used RUP (Rational Unified Process) model. RUP is alterative software development process from Rational, a division of IBM. It divides the development process into four distinct phases that each involve business modeling, requirement, analysis and design, implementation, testing and deployment.

The four phases are as follows:

The flow of our project can be seen in the Following diagram which gives a quick introduction of how our project will flow through multiple stages and what all functionality it will include and how the process are related to each other through multiple stages.
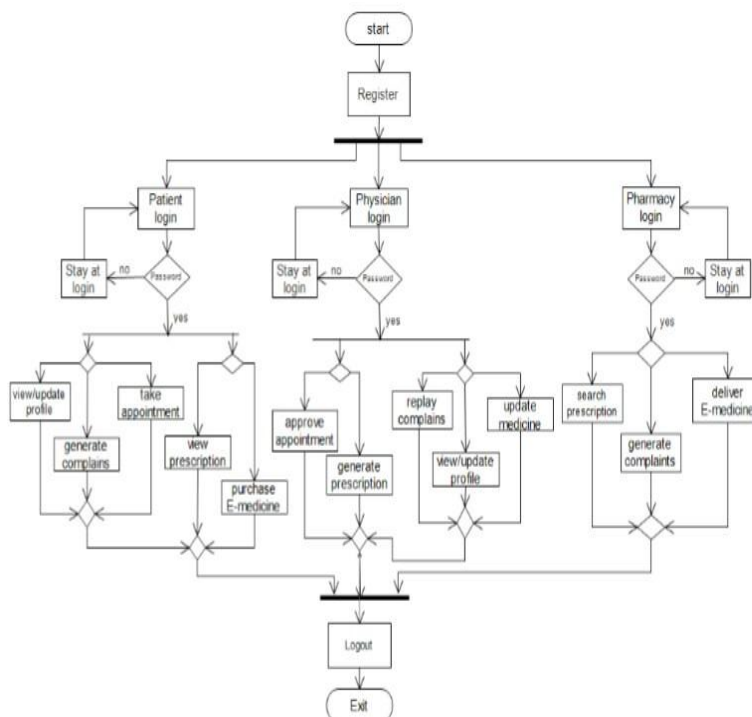
E-Health care system this project have three modules.

- Patient module
- Physician module
- Pharmacy module

Patient Module : In this module the firstly patient are login then after view the home screen . In this screen show view Phyisician list, get appointment link, view profile, edit profile, contacts us, complain section and logout.
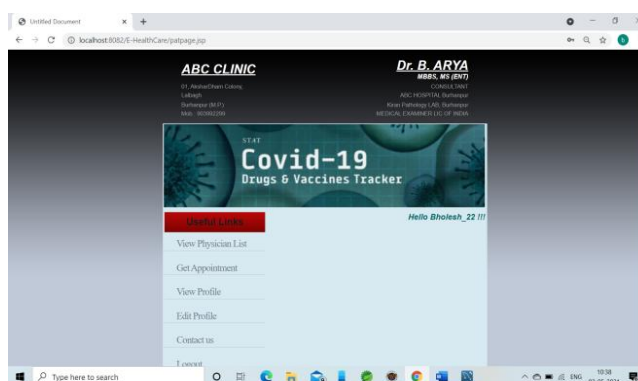
Fig: Home Screen of Patient

Patient view the physician name and their specialization.

Fig: View Physician List(Patient)

View the physician list then after Patient have get the appointment
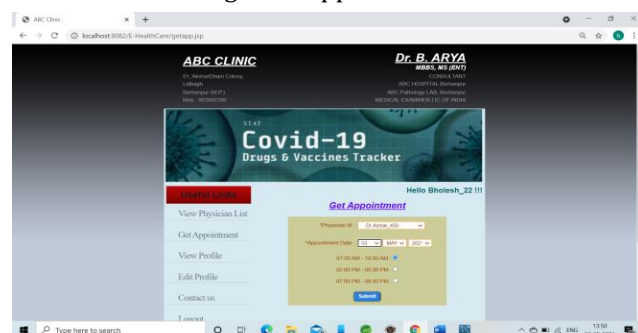
Fig: Get Appointment(Patient)

Physician module: In this module the firstly physician are login then after physician approve the appointment the physician home screen show the view appointment ,patient details, medical prescription, searching section, medicine section, complaints section, contact us and logout.

Fig: Home Screen of Physician

Physician generate the prescription for the patient.

Fig: Prescription

Pharmacy module: In this module the firstly Pharmacy are login then after Pharmacy search the prescription send by the physician end and deliver E-Medicine to patient address.

III.   CONCLUSION

Healthcare is a field where information has to be maintained properly. This field needs to create a user-friendly system, which guides users at all steps they need to perform in it. The information provided by the users must be kept secured, as the healthcare information is very much confidential. The prescriptions for a certain patient are forwarded electronically to the pharmacy. This avoids the unnecessary time taken by the patient to carry the prescription to the pharmacy. Thus our healthcare is much secured providing authentication to the user. Our project guides the user to the action they need to perform. Our project is user-friendlier than all other e-healthcare systems with voice messages and blue tooth enhancement.

FUTURE SCOPE

- We plan to extend the system to other healthcare facilities and professionals, such as laboratory technicians who perform and report tests and analyses requested by physicians.
- Web camera interaction.
- Online Transaction facilities

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IV.   REFRENCES

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