

HEALTHCARE WEB SOLUTION

A Report for the Evaluation 3 of Project 2

Submitted by

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SCHOOL OF COMPUTING AND SCIENCE AND ENGINEERING

BONAFIDE CERTIFICATE

Certified that this project report "<u>HEALTHCARE WEB SOLUTION</u>" is the bonafide work of "<u>SAKSHI RAJ (16SCSE101311/1613101669)</u>" who carried out the project work under my supervision.

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ABSTRACT

This project deals with the Corporate Medicare Management. This project is very helpful to both Medicare staff as well as to the public. All the branches of the Medicare can be integrated with one to another. So anybody can get the status of each branch easily from the Medicare center. People can take appointments online by approaching the website of Medicare Center. That site also includes Information about the Facilities, Specialties available in every Medicare Branch. So they can also send their problems about their health and get some useful tips from the doctors.

1. INTRODUCTION

1.1 Overall Description:

This project deals with the Corporate Medicare Management. This project is very helpful to both Medicare staff as well as to the public. It is having mainly Administration and Client modules. The growing quality demand in the hospital sector makes it necessary to exploit the whole potential of stored data efficiently, not only the clinical data, in order to improve diagnoses and treatments, but also on management, in order to minimize costs and improve the care given to the patients.

In this sense, Data Mining (DM) can contribute with important benefits to the health sector, as a fundamental tool to analyze the data gathered by hospital information systems (HIS) and obtain models and patterns which can improve patient assistance and a better use of resources and pharmaceutical expense.

Data Mining is the fundamental stage inside the process of extraction of useful and comprehensible knowledge, previously unknown, from large quantities of data stored in different formats, with the objective of improving the decisions of companies, organizations or institutions where the data have been gathered.

However, data mining and the overall process, known as Knowledge Discovery from Databases (KDD), is usually an expensive process, especially in the stages of business objectives elicitation, data mining

objectives elicitation, and data preparation. This is especially the case each time data mining is applied to a hospital: many meetings have to been held with the direction of the hospital, area coordinators, computer scientists, etc., to establish the objectives, prepare the data, the mining views and for training the users to general DM tools.

1.2 PURPOSE

In Medicare management situations we are dealing with Data Mining objectives such as:

- 1. To optimize bed occupation.
- 2. To improve the use of operating theatres, avoiding the cancellation of operations.
- 3. To know how emergencies affect to the administration of the hospital departments or services (cancellation of operations, etc).
- 4. To optimize the allocation of human and material resources towards and shifts.
- 5. To detect the influence of certain diseases in the hospital's services.
- **6.** To find clusters of patients.

1.3 SCOPE

1.3.1 Existing System Features

- Integration of Corporate Medicare centers is very difficult while it is having different branches.
- In most of the cases the database is similar from one hospital to another hospital. In those cases also we can't easily adapt a new technology in the new hospital.
- It is very difficult to analyze the usage percentage of hospital resources, Bed occupation Ratio,
 Administration, Laboratory information even in a single center. Then we can expect the complexity while integrating multi-specialty Medicare Centers.

- Room Reservations, Doctor Appointment Schedules, Operation Schedules, and Medicine indentation information is very difficult to maintain and share among the different Medicare Centers.
- Lack of generic and unique model we have to implement the same set of data model for every newly established Medicare Center.

1.3.2 Proposed System Features

In this project we are trying to implement which parts of a data-mining project for hospital management are equal or highly similar across different hospitals (at least in the same national healthcare system). This allows us to design several data mining modules, which can be portable across several hospitals, thus dramatically reducing the time to implement a data-mining program in a new hospital.

1.4 MODULES:

The entire project mainly consists of 7 modules, which are

- Admin module
- User module (patient)
- Doctor module
- Nurse module
- Pharmacist module
- Laboratories module
- Accountant module

1.5 Problem Introduction:

- Lack of immediate retrievals
- Lack of immediate information storage
- Lack of prompt updating

- Error prone manual calculation
- Preparation of accurate and prompt reports

2. LITERATURE SURVEY

Data mining research currently faces two great challenges: how to embrace data mining services with just-in-time and autonomous properties and how to mine distributed and privacy-protected data. To address these problems, the authors adopt the Business Process Execution Language for Web Services in a service oriented distributed data mining (DDM) platform to choreograph DDM component services and fulfill global data mining requirements. They also use the learning-from- illustrate how localized autonomy on privacy-policy enforcement plush bidding process can help the service-oriented system selforganize.

Most data mining algorithms assume that data analysts will aggregate data extracted from production systems at a server for subsequent computationally intensive data-crunching processes. However, issues such as data privacy concerns (with respect to customer information stored in bank servers, for example) and limits on data transmission bandwidth (affecting terabytes of scientific data generated from remote lab instruments or supercomputers) demonstrate that aggregating data for centralized mining simply isn't possible in a growing number of cases.

Instead, it's become necessary to develop methodologies for mining distributed data that must remain private.

This real-time objective imposes additional requirements on distributed data mining (DDM), including providing on-demand and self-adaptive services so that companies can cope with heterogeneities in data

sources, with respect to data privacy requirements, which aren't always known in advance. We can address these challenges in two ways: a distributed computing architecture can support seamless provision, integration, and coordination of just-in-time and autonomous data mining services and a privacy-conscious DDM methodology can work on top of this architecture.

The purpose of this project is to solve the problems of data mining research which is currently facing two great challenges i.e. how to embrace data mining services with just-in-time and autonomous properties and how to mine distributed and privacy-protected data.

3. PROBLEM STATEMENT

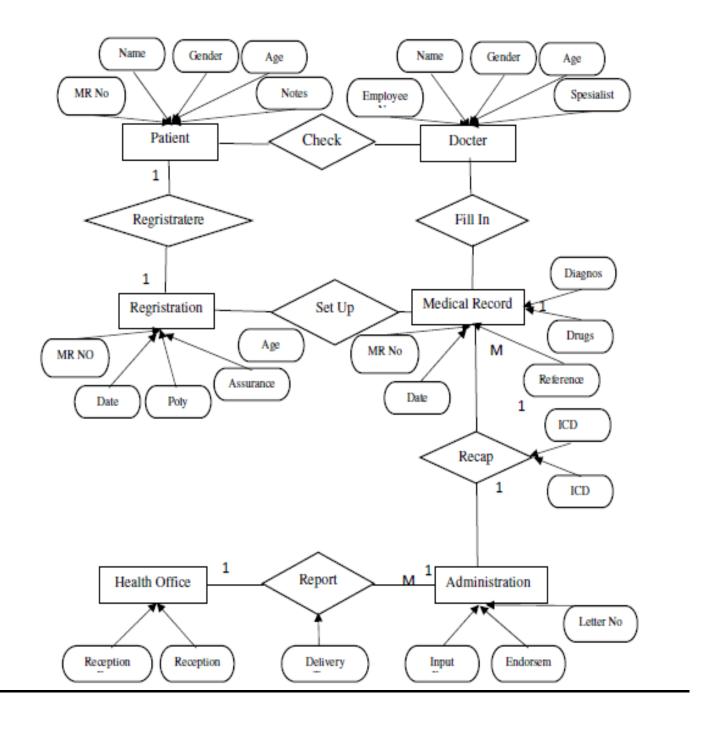
Need for a National Health Information Portal

Health literacy is generally agreed upon as a means to find, understand, analyze and use information to make better decisions about health and to ultimately reduce inequities in health. Health literacy is about communicating health information in ways patients and families can understand. The diffusion and use of knowledge in society is arguably one of the most important factors in improving health outcomes. Access to health information is one of the foremost rights of humankind. Inadequate or poor health information can increase the risk of hospitalization or even disease burden. Medical information that is not tailored for consumers can be confusing and deciphering this can be difficult. Therefore, availability of reliable, high quality health information is important for the promotion of health among the population.

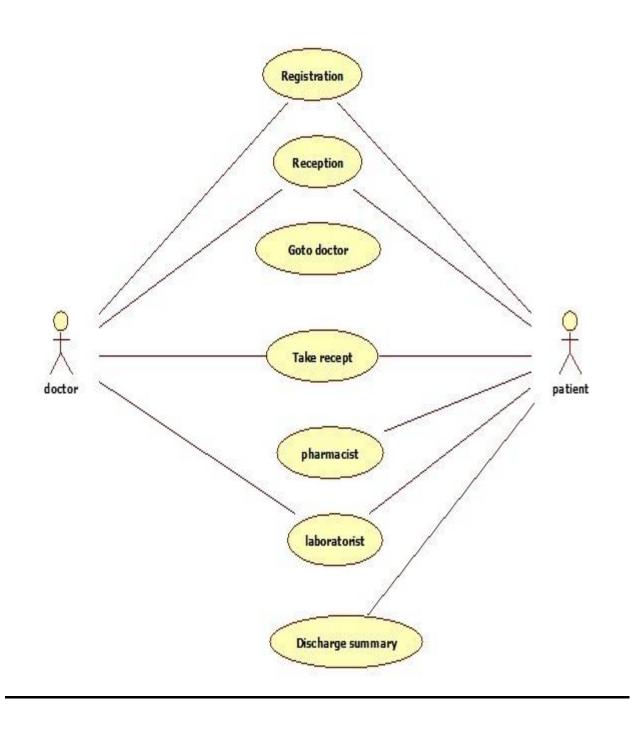
4. PROPOSED MODEL

4.1 ER Diagram

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4.2 Use Case Diagram



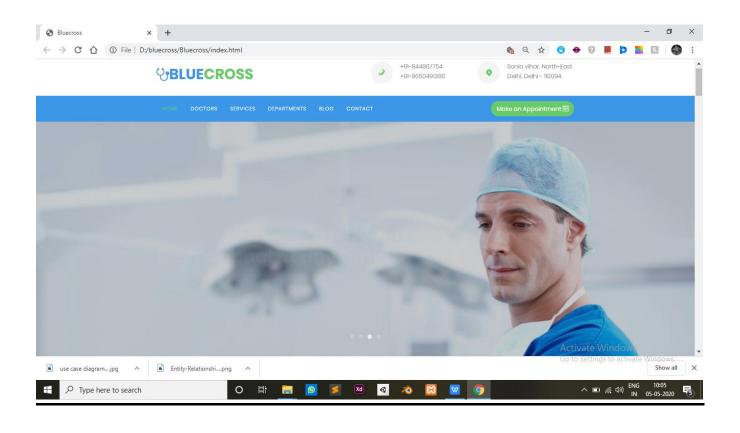
5. <u>IMPLEMENTATION</u>

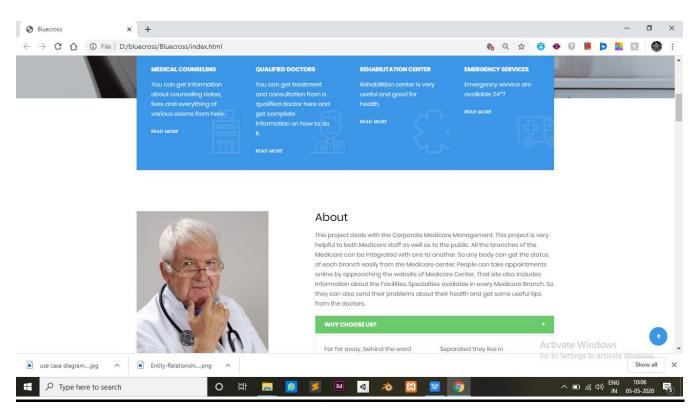
Software Requirements:-

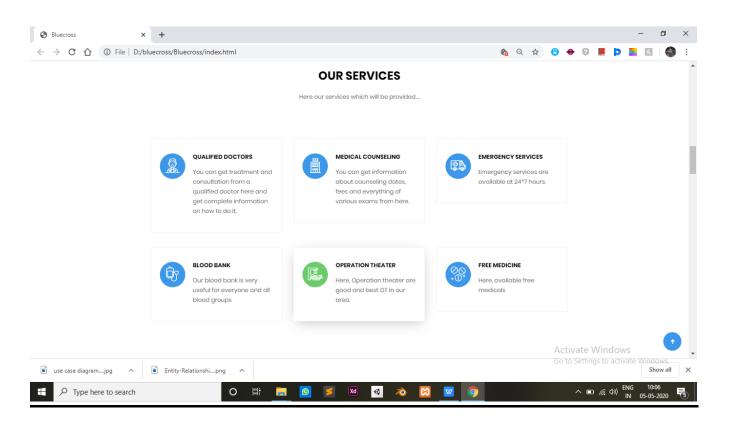
- To build such an application, Swift for IOS and Java for Android gives native experience.
- Web Development: Notepad++
- Languages: PHP, CSS3, HTML5, JavaScript.
- Database: MySQL
- Hosting: Amazon Cloud

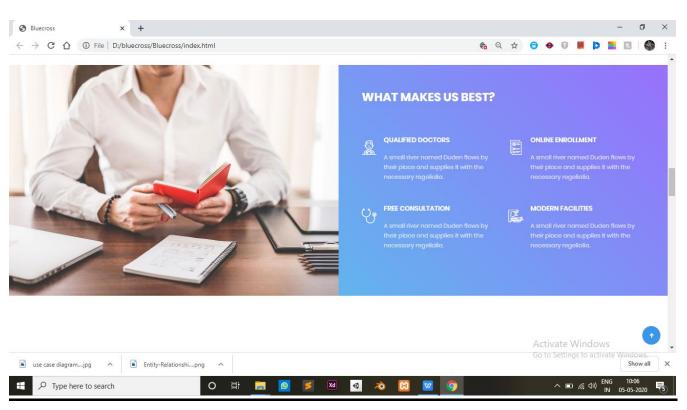
Hardware Requirements:-

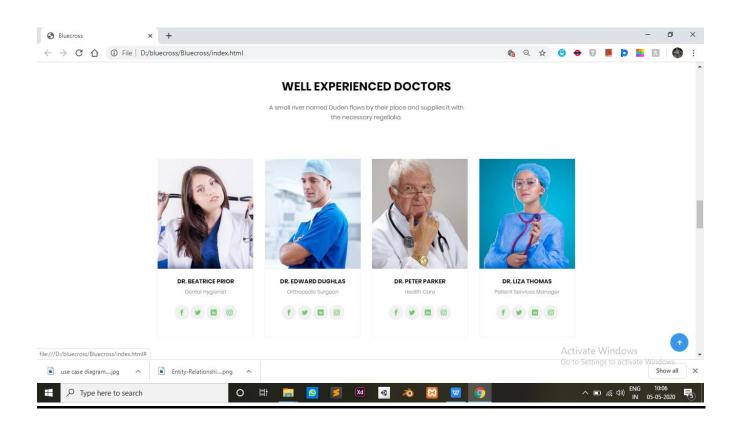
- Browser for surfing
- Online Server
- Domain name

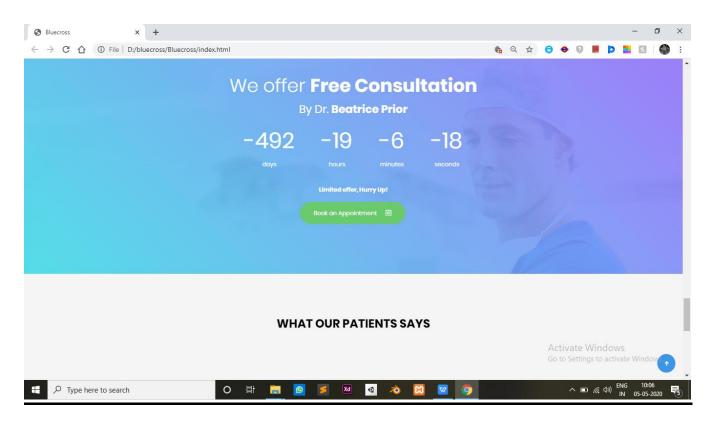


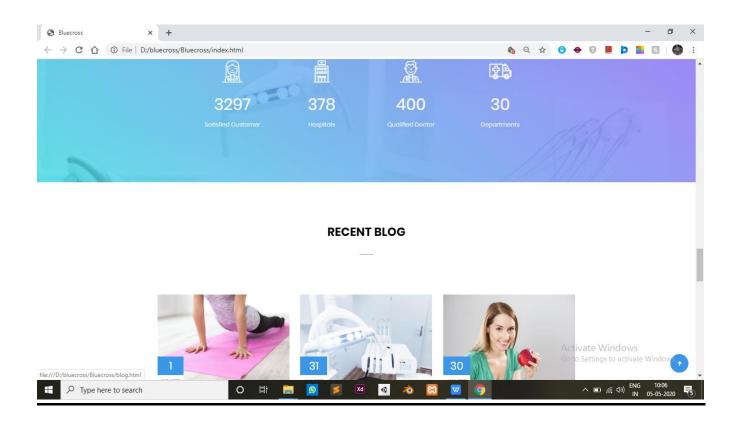


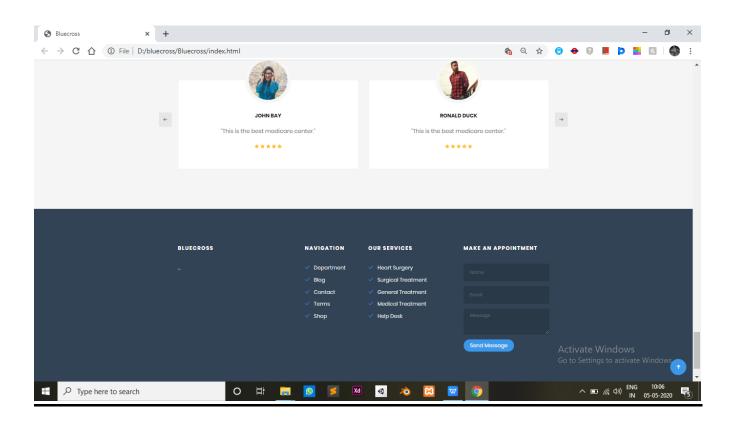


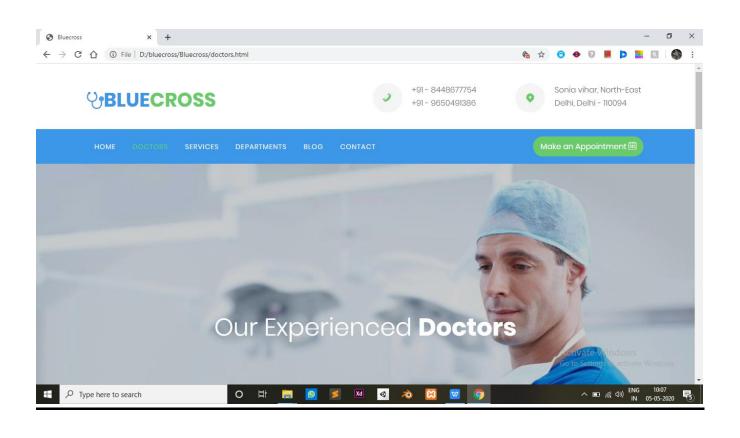


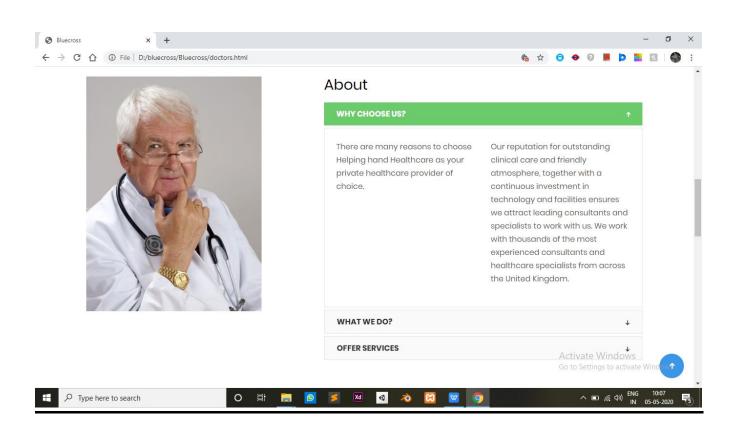


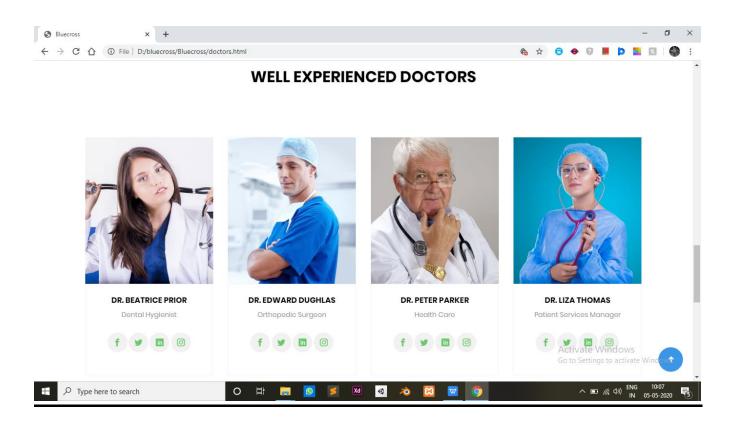


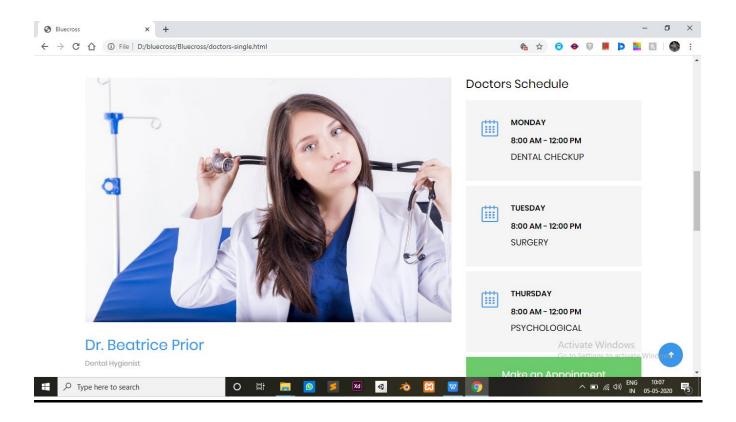


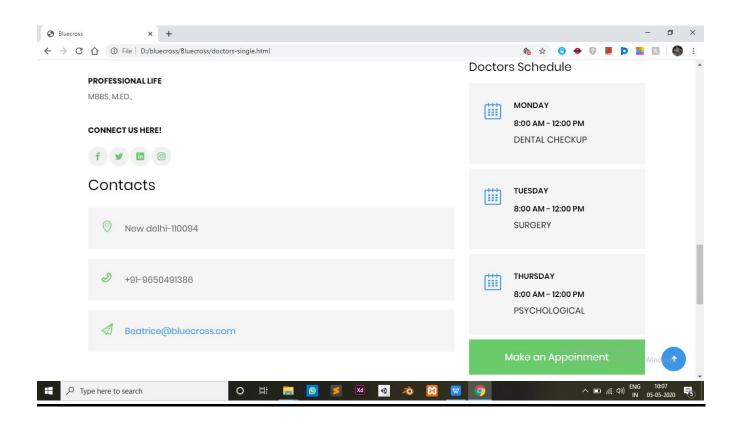


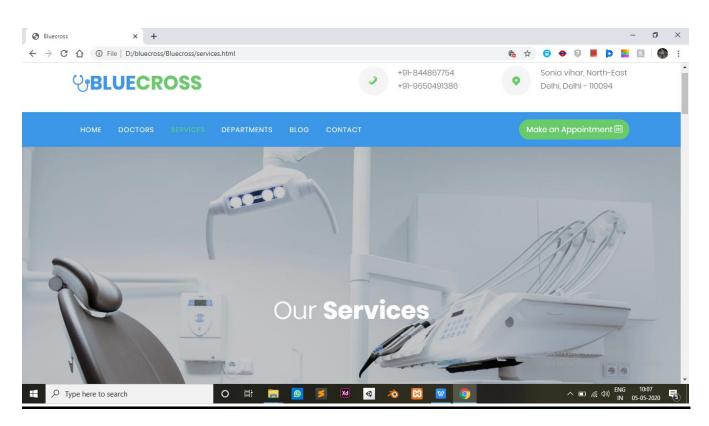


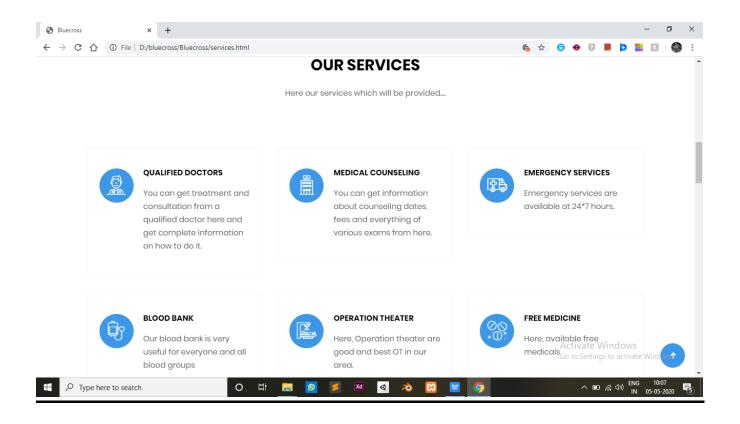


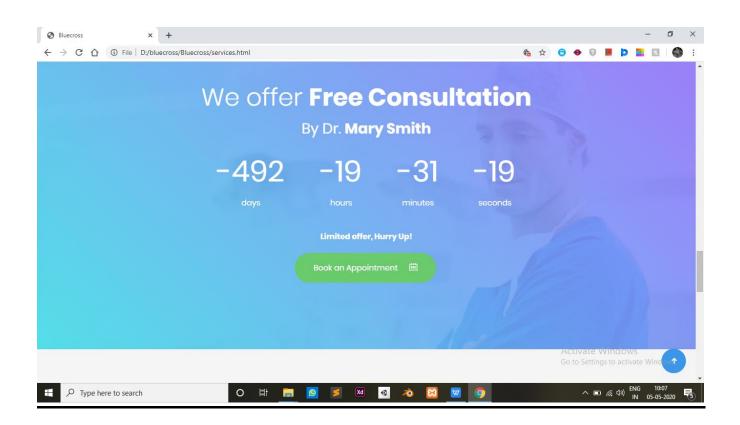


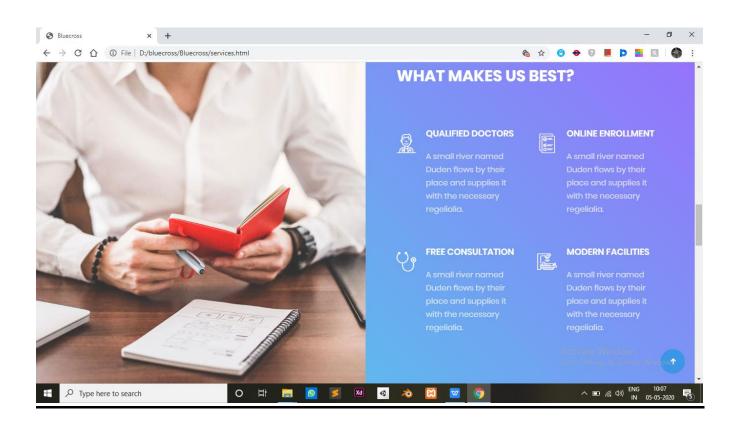


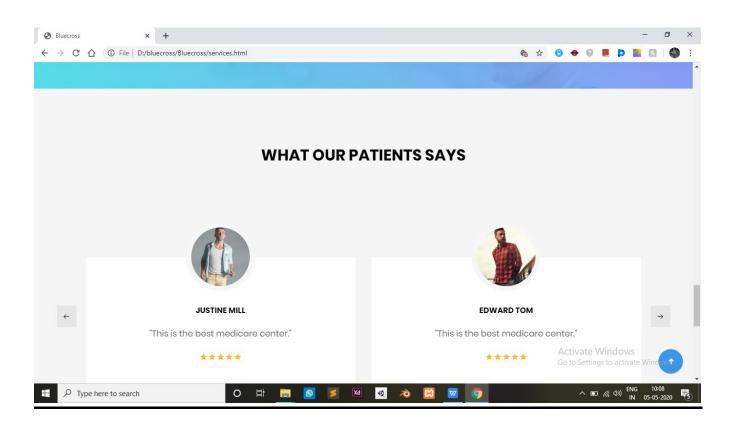


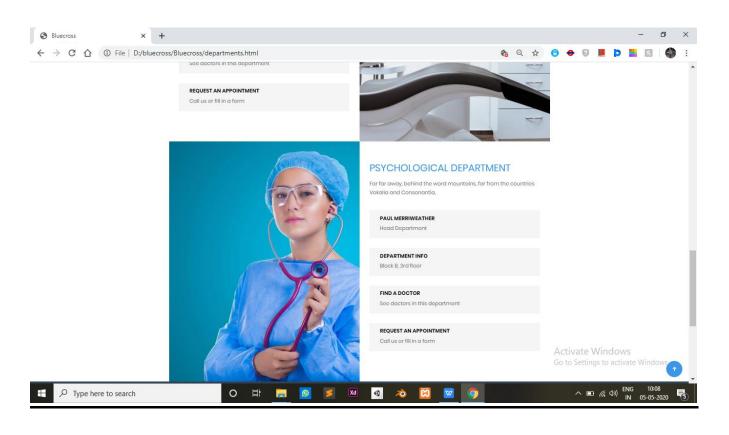


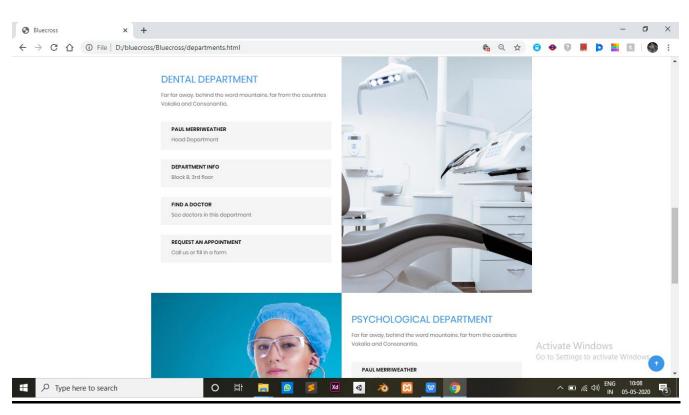


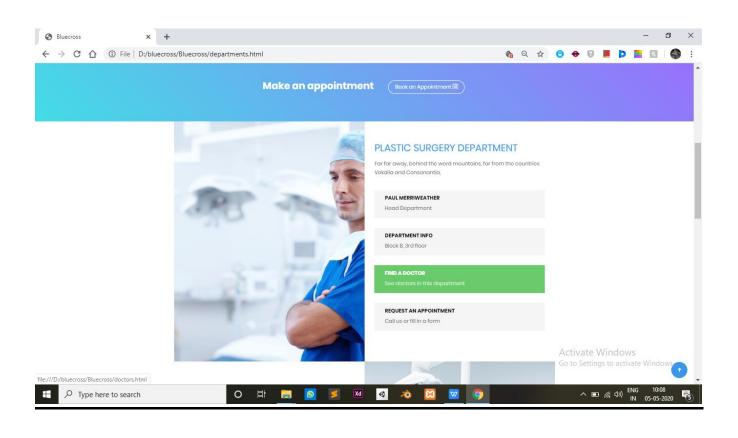


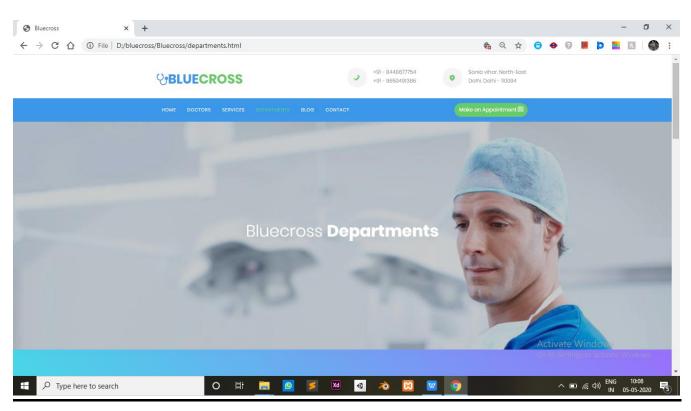


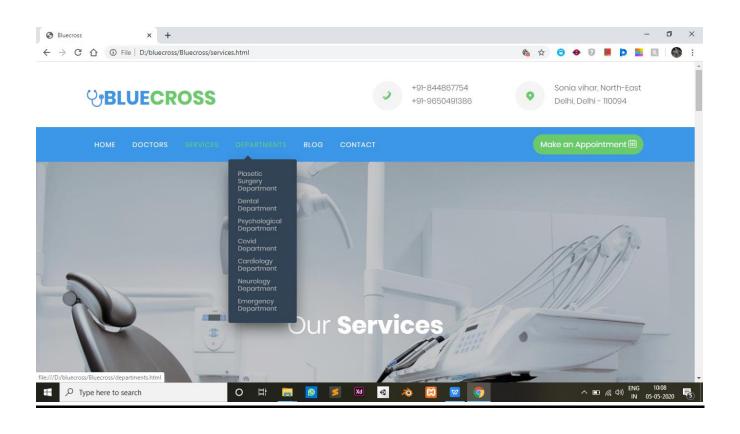


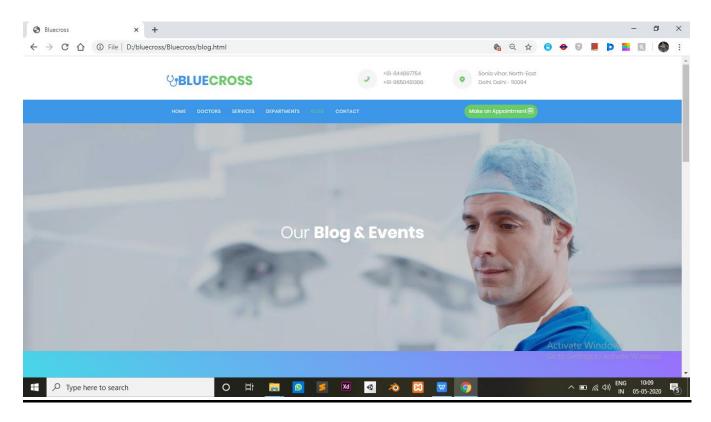


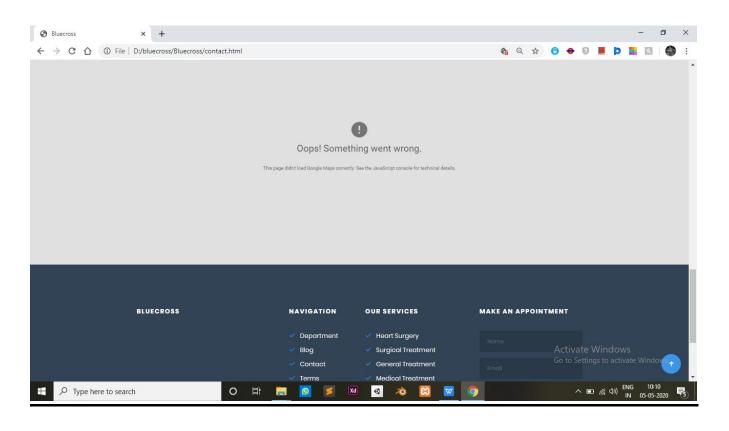


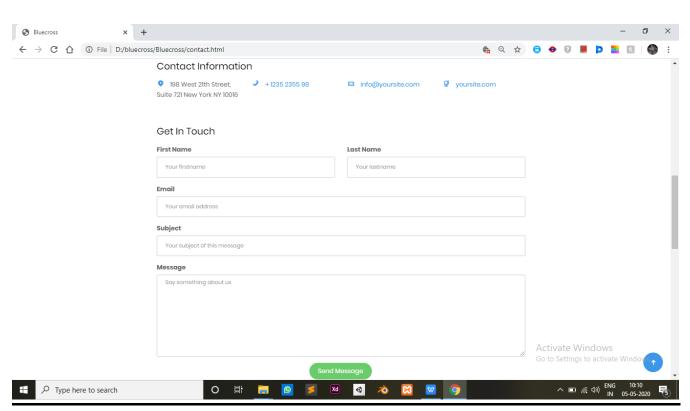


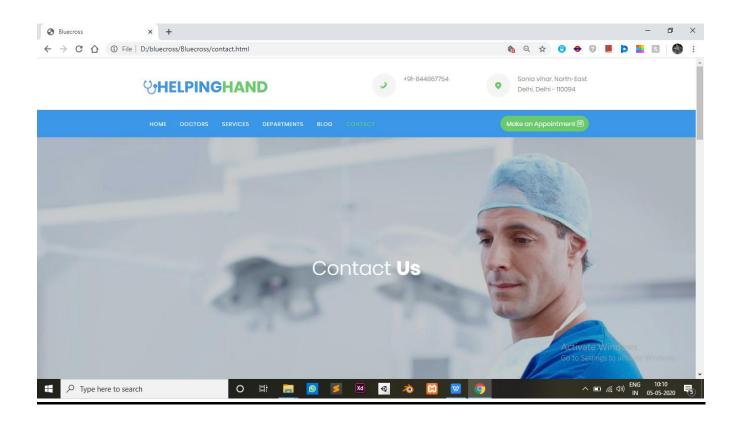


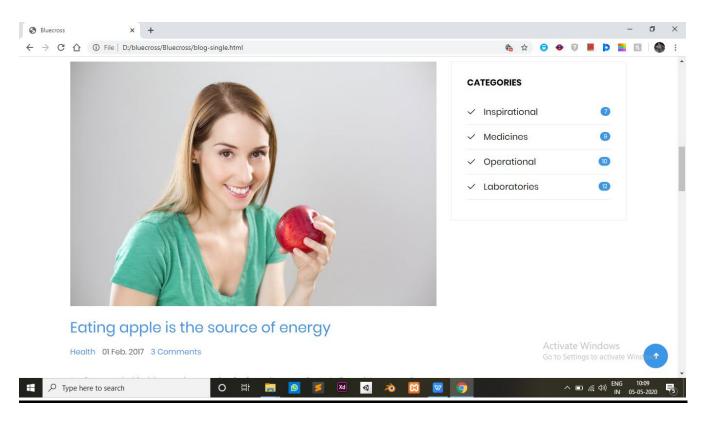


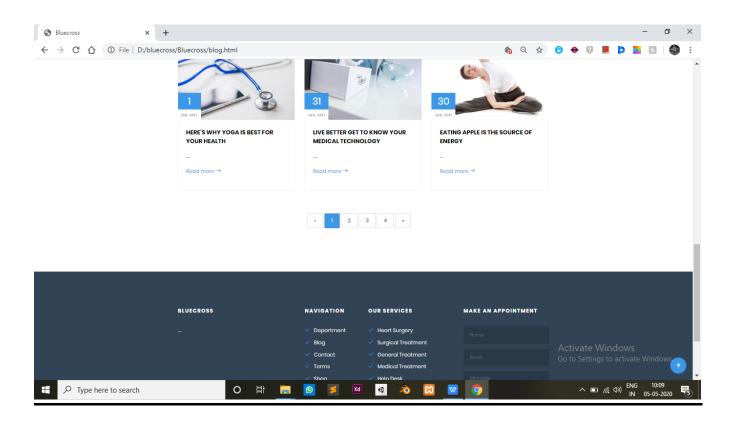


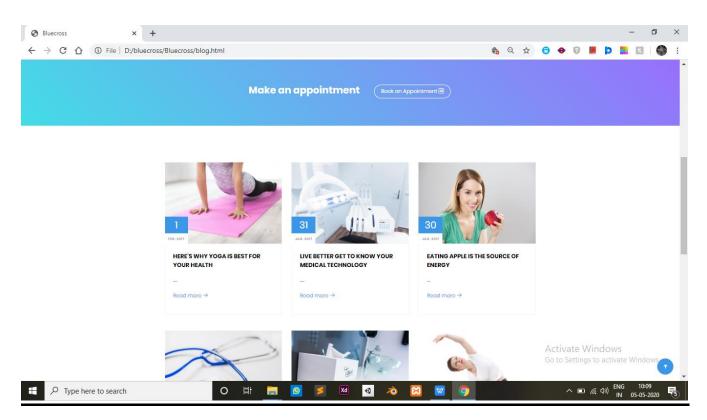


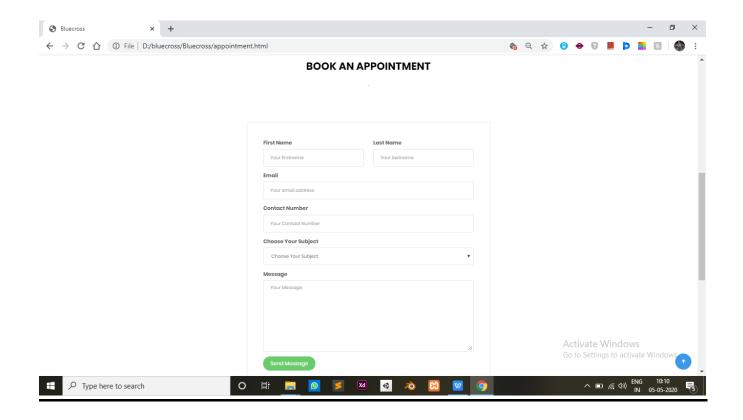












7. **CONCLUSION**

Since we are entering details of the patients electronically in the" Hospital Management System", data will be secured. Using this Web App, we can retrieve patient's history with a single click. Thus processing information will be faster. It guarantees accurate maintenance of Patient details. It easily reduces the book keeping task and thus reduces the human effort and increases accuracy speed.

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