PRO-HEALTH NAVIGATING SYSTEM USING ASP.NET

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Abstract— **The main importance of Pro-Health Navigating System in healthcare organizations is explained in this review study. This study overviews the benefits of HMS including increased efficiency, lower costs, and better patient care, based on a thorough examination of the research. The Pro-Health Navigating System includes registration of patients, storing their details into the system, and also computerized billing in the pharmacy, and labs. This software has the facility to give a unique id for every patient and stores the details of every patient and the staff automatically**.

Keywords— patient, Doctor, Admin, Receptionist

I. INTRODUCTION

The main purpose of the project, titled as "PRO-HEALTH NAVIGATING SYSTEM," is to create a computer-based application that is secure, user-friendly, quick, and cost-effective. This application allows patients to easily book appointments with specific doctors of their choice by logging in. Doctors can efficiently manage their patients, track their appointment status.

Patient reports can be downloaded from the website. Additionally, the application includes an ADMIN module responsible for overseeing the entire system. The ADMIN module can assign patients to doctors and add new doctors based on their specialization. The system also stores doctor and patient details and update new details to the database, and it also store prescription details, and reducing the need for patients to wait in long queues by enabling online payments.

With the help of this application patients can book ambulance of that particular hospital in emergency situation. It also stores all health record related to individual patient for better improvement, track the condition of the patient and can also transfer the patient health information to other organization such as insurance company or employer.

After an extensive study, we have developed a flexible and customizable application tailored to users' needs. The application is built using modern, secure, and efficient functionalities.

II. LITERATURE SURVEY

- *The Hospital Management System:*

This paper provides us with great insight of a module that is well structured and provides useful features for boosting the efficiency of the module. The system is well organized and each sub-module is divided as per the need in a well- regulated way. The system additionally provides the appointment for lab tests online along with payment. For multispecialty hospitals, the Health Board System is created to cover a variety of hospital administrative procedures. System provides family lab test packs which are very cheap and helpful. The system enhances productivity and work quality of the hospital

- *Advance Hospital Management System:*

This paper provides a great insight of an advance version of Hospital Management System. The system uses modern languages such as PHP, Java script, Html and My SQL. The system created provides many functionalities here such as room booking, appointment with doctors, online billing system etc. System created is very much robust as shown in the proper SRS documentation provided in the paper. System is able to handle the backend in a great way. The system provides remarkable services to the users, physicians and receptionist that makes the system very much efficient.

- *Online Hospital Management System:*

This paper provides details about a fast, secure and cost-efficient Hospital Management System. The system has all the functionalities that are required for an ideal HMS. The key or extra feature provided in the system is that the patient can download their report from anywhere and at any time. Patient needs to login in the website and can access his/her report easily. This makes the system very much efficient and quick as it provides great feature for the patient to download report. In this fast world where each minute has its value, this system helps users to save a lot of time

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hospitals, the Health Board System is created to cover a variety of hospital administrative procedures. System provides family lab test packs which are very cheap and helpful. The system enhances productivity and work quality of hospital.

- *Interlinked Hospital Management System:*

This paper provides an overview of web-based health management system which is very unique. In this all the the hospitals of the country are linked together so that in case of emergency all the data of the patient can be easily retrieved. Like prior medical condition, prescriptions and addictions. This system provides biometric authentication and API in the coding framework. of the patient that makes this system very secure and fruitful. The methodology used was Rapid Application Development (RAD). This system is very much useful in the emergency cases as it provides additional functionalities based on that.

III. RESARCH GAP AND FORMULATION

1. Many of the paper shows that there are many hospitals which are in process of implementing electronic health records (EHRs) and telemedicine solutions. Research could focus on many opportunities that has been associated with collaboration with emerging technologies such as artificial intelligence, blockchain and internet of things (IOT).
2. Many of the papers shows that the hospital management system are lack in prioritize patient-centric features due to which it's lack to meet the patients satisfaction and outcomes.
3. Some of the papers shows that there are still chances of data breaching in HMS which can put the patient data at risk. So, it's required to develop a system which can address the current and future threats, compiles with regulations, and ensure the confidentiality and information of the patient.

IV. OBJECTIVES

- The main objective of this project is to develop a Pro-Health Navigating system using .net (dot net frame work)
- It will help to provide convenience to patients to make appointment, improve the efficiency, cost-effectiveness, patient care outcomes.
- It will improve the data security of the patients as well as doctors and to store the patient data for future uses.
- It will also aim to provide low-cost maintenance to the health care departments.
- It will also provide separate login for doctors, patients and admin where they can check their details such as doctors can check time of their appointment with the patients, patients can check the availability of the doctor.
- It will reduce the chance of data loss by storing all hospital data records in computer and can have backup of this data also.
- It will provide virtual contact like audio calls, video calls, chat option to engage with doctor.

V. METHODOLOGY

The application created by us is very procure, user friendly and very rapid. An active connection must to access the application. This application is implemented by using ADO.NET.

(A) Flow of the System:

At first the user has to login the in the website with his/her email id. Then the user interface will be visible. User can select which doctor he/she wants to book an appointment with based on the disease. User have to fill up the entire appointment form along with each detail. The doctor has to login with email id to access his/her portal and can see new appointments and can mark old appointments as completed or status pending. The main authority will be of the admin that can handle the entire portal that is of doctor and patients. Admin can appoint new doctors and can categorize them based on specialization. Whole data of the administration/users will be saved in the database. Website is adaptive and secure. Both the users and doctors can easily change their password in case they forget and can easily edit their fill in details in case they filled up wrong.

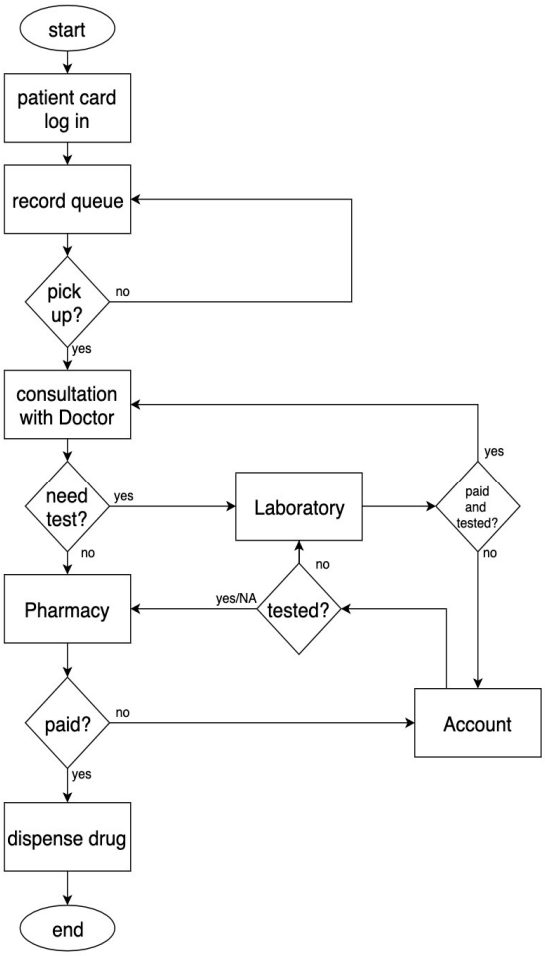


Figure: Flowchart of the model.

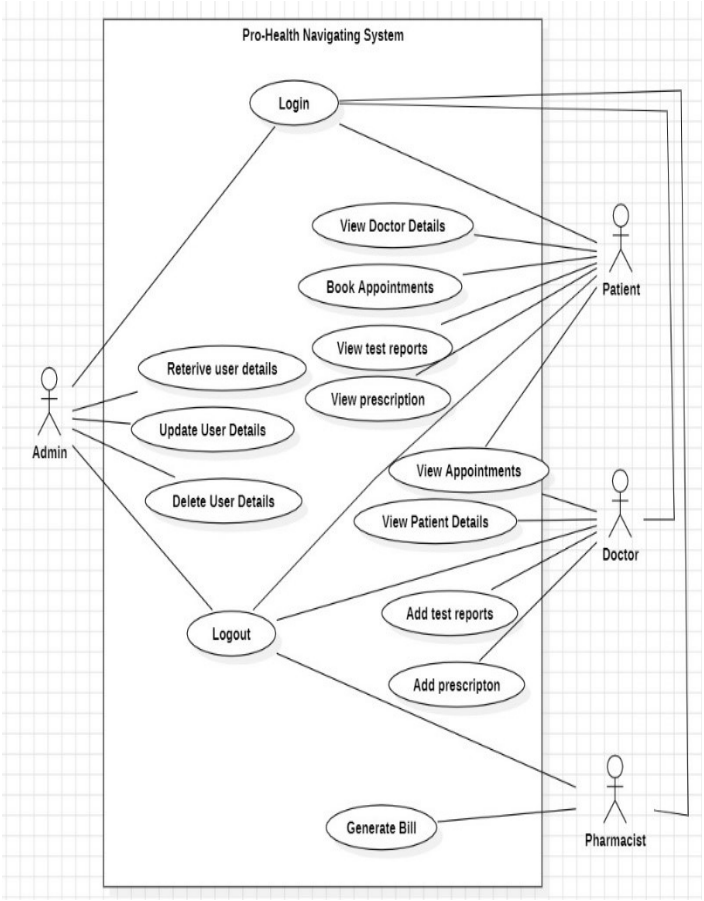


Figure : UML diagram of the model.

(B) ***Functional Modules:***

The entire model is divided into three modules.

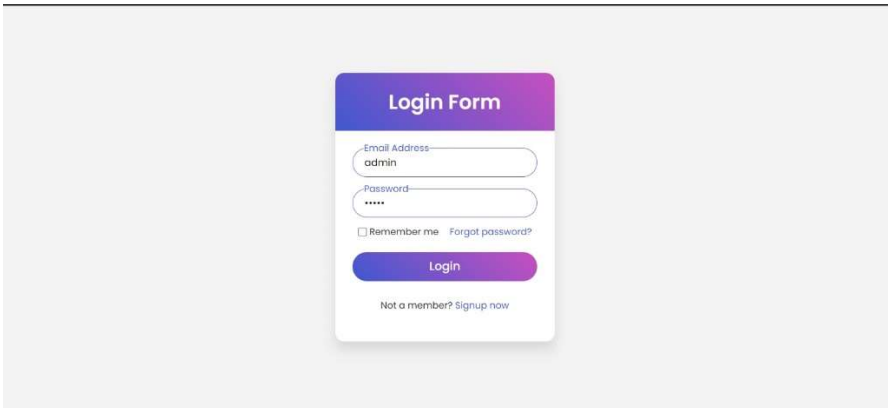
They are ADMIN, DOCTOR, USER/PATIENT:

- **ADMIN: -** Entire authority is under the ADMIN. He/she can handle both users and doctor and can edit anybody details, addition of new specialist etc.
- **DOCTOR:** - Docter based upon his/her specialty get categorize and view their new appointments and their details. They can update their status whether they are available or not.
- **USER/PATIENT:** - A user can book an appointment based upon their diseases and can fill up the appointment form where they can elaborate their problem.
- **RECEPTIONIST:** - Receptionist can generate bill for patient.

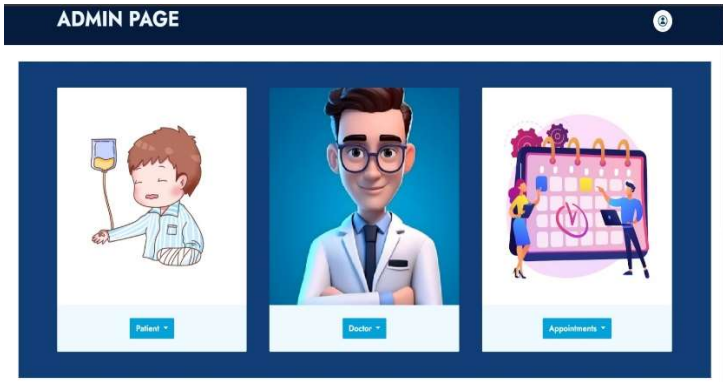
VI. RESULTS

❖ **HOME:**

❖ **LOGIN:**

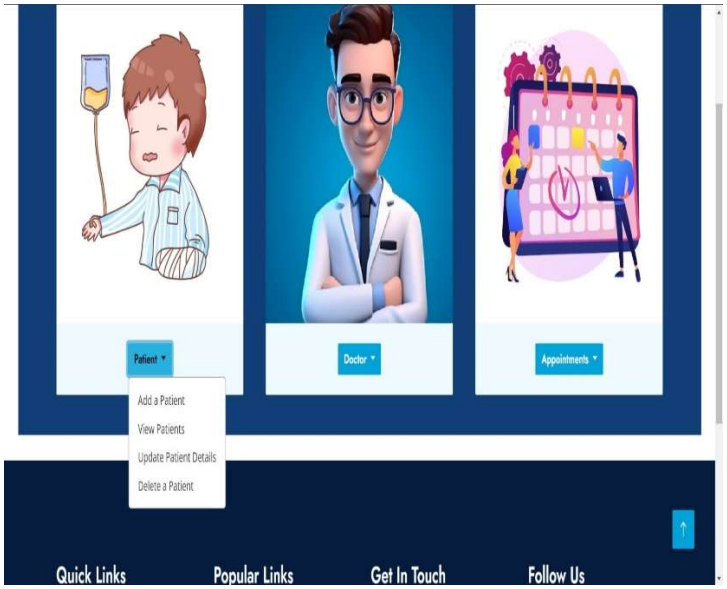


❖ **ADMIN PAGE:**



❖

❖ **VIEW PATIENT DETAILS**:



❖ **BOOKING APPOINTMENT**:

VI. CONCLUSION:

The project is known as Pro-Health Navigating System. Most of the work are done through computer system these days so, this application contains modules like patient, doctors, admin. This will help patients to book an appointment without visiting to hospital physically through online mode. This application contains various records like doctor availability, medical history of patients, billings. It is true that Pro-Health Navigating System have completely changed the health care system. It is flexible we can make any changes by adding more features according to the new needs in health care fields.

VII. FUTURE SCOPE:

- This system will be updated with many more features in future.
- In future with increasing in digitalization of health care we should also have to address the evolving cybersecurity challenges.
- In future we will add more modules to this application for more benefits.

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