E-PRESCRIPTION

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3rd Year 5th Semester, 2020

E-PRESCRIPTION

A Project submitted to the Department of Computer Science and Engineering, Comilla University in partial fulfillment of the requirements for the degree of Bachelor of Science in Computer Science and Engineering.

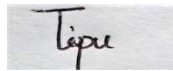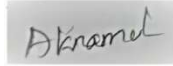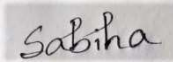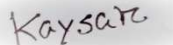|	
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3rd Year 1st Semester, 2020

Declaration

This is to certify that this project is my original work. No part of this work has been submitted elsewhere partially or fully for the award of any other degree or diploma. Any material reproduced in this project has been properly acknowledged.

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BONAFIDE CERTIFICATE

The Project titled "**E-Prescription**" has been submitted to the following respected members of the Board of Examiners in partial fulfillment of the requirements for the degree of Bachelor of Science in Computer Science and Engineering in June 2020 by the following student and has been accepted as satisfactory.

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Lastly, we would like to convey our gratitude to the lecturers in our Faculty for the good job done during the 3 years of our course. May the good Lord bless them and keep them safe. We love you all.

TABLE OF CONTENTS

LIST OF FIGURE

ABSTRACT

The **"E-Prescription"** application is developed to maintain information about patients. The complexity and potential impact of today's health care crisis requires a comprehensive approach to problem analysis and innovative thinking in developing solution strategies. Patient care, by its information-intensive nature, involves extensive information processing for decision-making and requires the support of an effective and efficient information system. Modern technologies have improved the ability to electronically storing, transferring, and sharing medical data also changed. At the same time, they also create serious questions about who has access to this information and how they are protected. PIS aims to store detailed information about the Patient like treatment details, date of joining, and allocated doctor. This project help us to know the patient details, the type of treatment he/ she undergoing, the consulted doctor details, his / her visiting hours,information about the doctors included and deleted. It also allows adding/editing patient registration. To know the list of doctors available

Chapter 1
Introduction

This software can be used to keep track of the patients registering in a clinic, this system supports accessing the previous visit histories of any patient, search for patients by name and other properties, etc. This system involves three people's patient, doctor, and assistant. It is useful to know the details of consulted doctor details and of a patient who is undergoing treatment under this doctor. To know the treatment details provided by the doctor. The patient has registered with the system and give a serial from their profile and also give the symptoms and transection id.. After login assistant can know the patient details by patient id. And if transection id match then he/she go to the patient info. And transfer symptoms to symptoms box then click on the submit button and it automatically refers to the doctor's.

1.1 Objective:
E-Prescription will support registering patients. Users of this software can search for patients by name, admission date, discharge date, etc. The system can maintain the list of doctors in the hospital.

1.2 Motivation:
We often forget to take medicine at a required time, sometimes take more or less doses than necessary. We also fail to keep track the medicines taken previously. These results in a longer period of illness as proper time scheduled medication is required for recovery from illness. Elderly people faces difficulty about memorizing the names of the medicines, thus takes wrong medicines which can have serious health impact on their health. We might be safe when people are around us to remind about our time to take medicines, but most of the people are self-dependent in terms of taking medicine in our country. For all these reasons, we require something that would remind us of our schedules and also be a note-taker of our taken medicines. As almost everyone uses a smartphone these days, a medicine reminder application is the thing they need to solve all these problems.

Chapter 2
Literature Review

2 Literature Overview:

From this project we can assure designing and implementing the new links, designing and implementing users and arranging new links as subject wise.

2.1 System Analysis

System analysis will be performed to determine if it is feasible to design information based on policies and plans of the organization and user requirements and to eliminate the weaknesses of the present system. The new system should be cost-effective, augment management, improve productivity and services, enhance user/system interface, upgrade the system's reliability, availability, flexibility, and growth potential, improve information quality and usability.

2.2 Proposed System

The proposed system is an attempt to provide a solution to know the details of the patient, doctor. The main aim of this system is to simplify the procedure while admitting to the hospital. This makes life easy for the patient's relatives knowing the details of visiting doctors, treatment details, and other details. The implementations of the above modules have evolved user- friendly computerized systems which are loved and cared for by all.

2.3 User Requirements:
1. The user easily registers with the system and take a serial.

2. Users can view the status of treatment.

3. He ca know information about the consulted doctor.

4. He can retrieve of reference data by online (For example printing the prescription)

5. On request test result print/reprint facility eliminated the patient waiting time for report collection.

6. Online scheduling for appointments by doctors eliminated the patient waiting time.

7. In this system, Users will have facilities like a regular doctor.

2.4 Hardware & Software Specification

2.4.1 Hardware Requirements:

Processor	=	Intel P-IV system
Processor speed	=	250MHz to 833MHz
RAM	=	1GB
Hard Disk	=	40GB

2.4.2 Software Requirements:

Operating System	=	Windows 7 /8/ 10/ linux/ mac
Database	=	SQL Server
Server-side technology	=	PHP
Server-side scripting	=	PHP, MySQL
Client-side scripting	=	HTML, CSS, Bootstrap

Chapter 3
METHODOLOGY AND DESIGN

3.0 Use case Diagram

PHP is a server-side scripting language that is used to develop Static websites or Dynamic websites or Web applications. PHP stands for Hypertext Pre-processor, that earlier stood for Personal Home Pages. It was created by Rasmus Lerdorf in 1994 and appeared in the market in 1995. A framework is a structure that is used to build an application. It determines the structure of the application and enables them to interrelate with different APIs. An efficient PHP framework helps in developing PHP applications faster and well organized. It also helps in building stable applications by decreasing the repetition of codes. The framework provides various supporting features that enable the developers in building fast and accurate applications. The *features* of an efficient PHP Framework are as follows:

3.1.1 Overall Use Case

In this diagram we can show doctor communicate with patient referred by assistant. Doctor prescribed medicine based on patient symptoms.
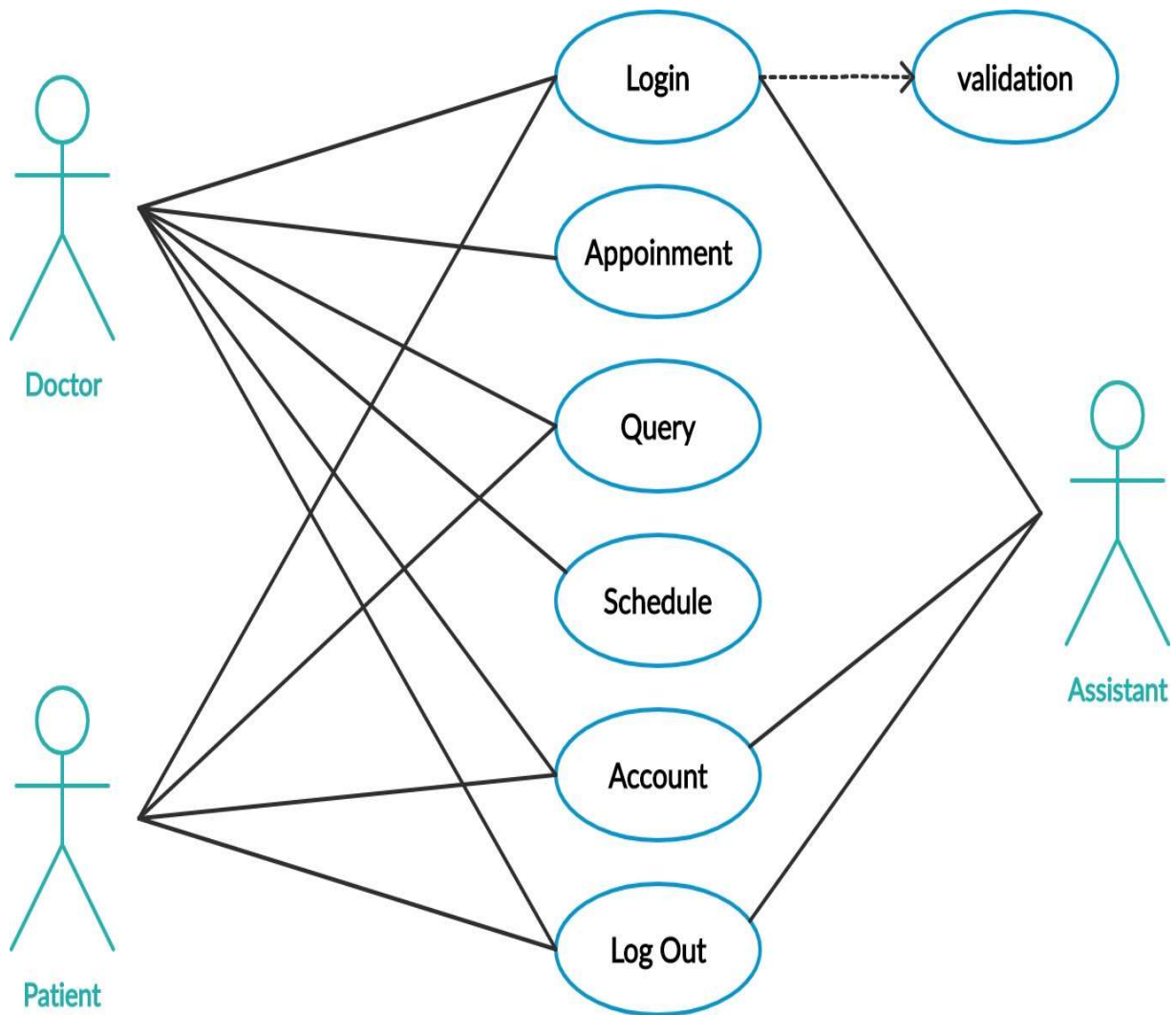
Figure 3. 1.1   Overall use case

3.1.2 Doctor Use case

In this diagram we can show doctor can login, check serial, update information of his/her and also check his/her previous patient history and patient details also. And finally he log out from his panel.
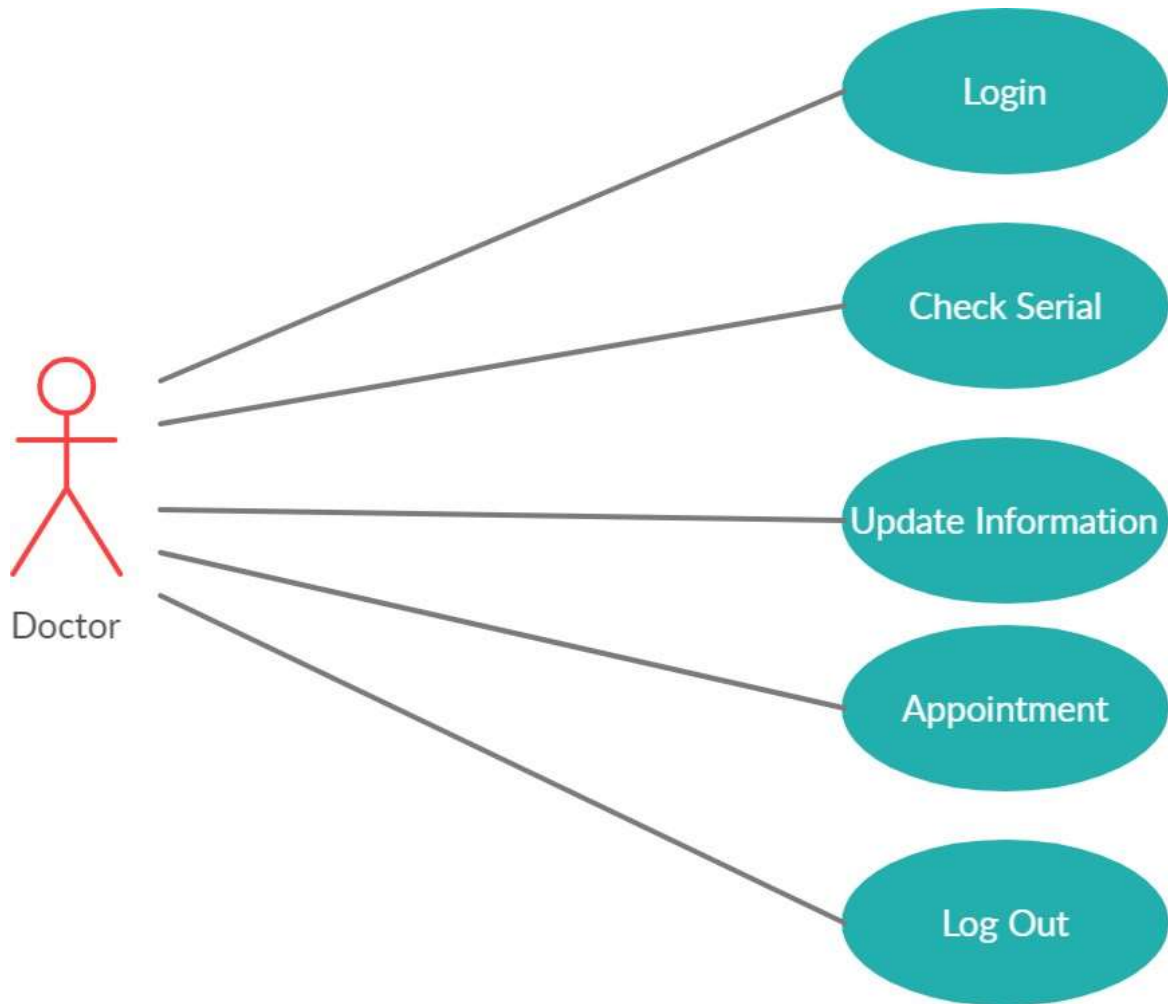
Figure 3. 1.2   Doctor use case

3.1.3 Patient Use case

In this diagram we can show patient can login ,create account, update his info, give appointment to doctor and finally logout.
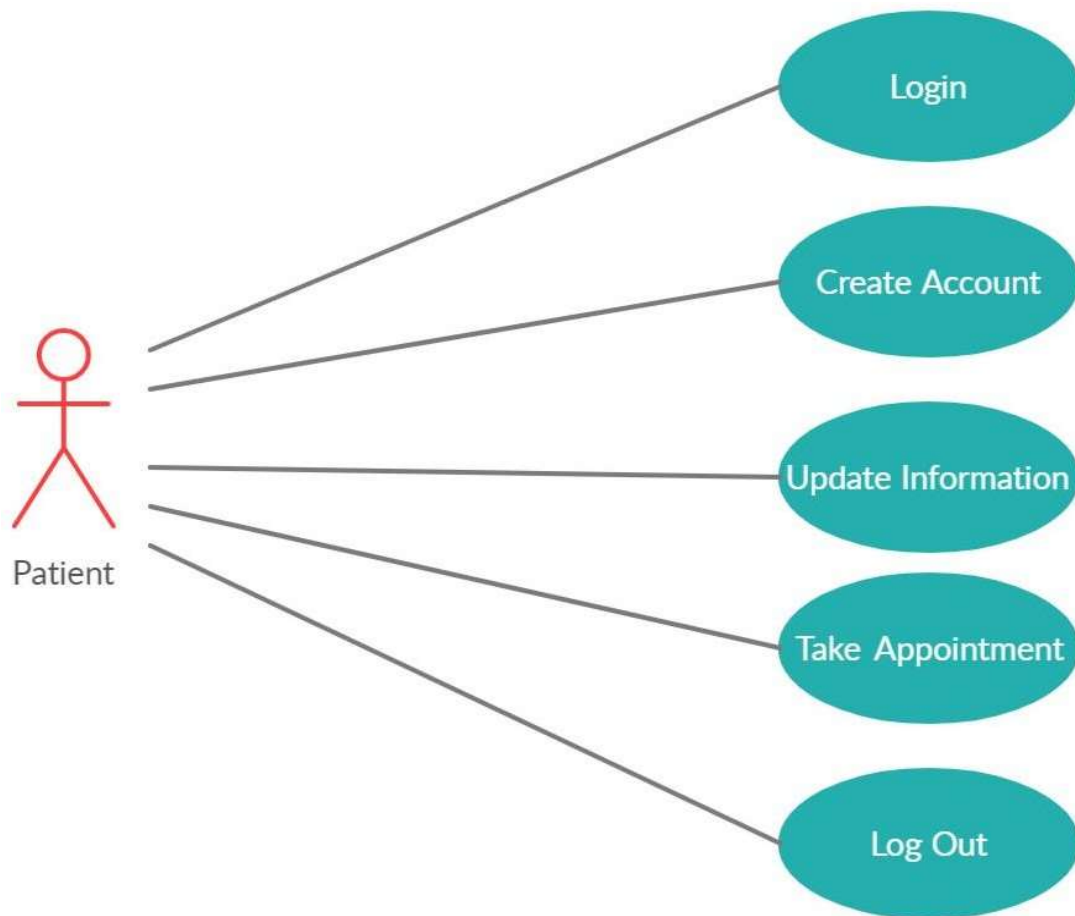
Figure 3.1. 3   Patient use case

3.1.4 Assistance Use case

In this diagram we can show assistant can login, update info and ask symptoms and refer to doctor.
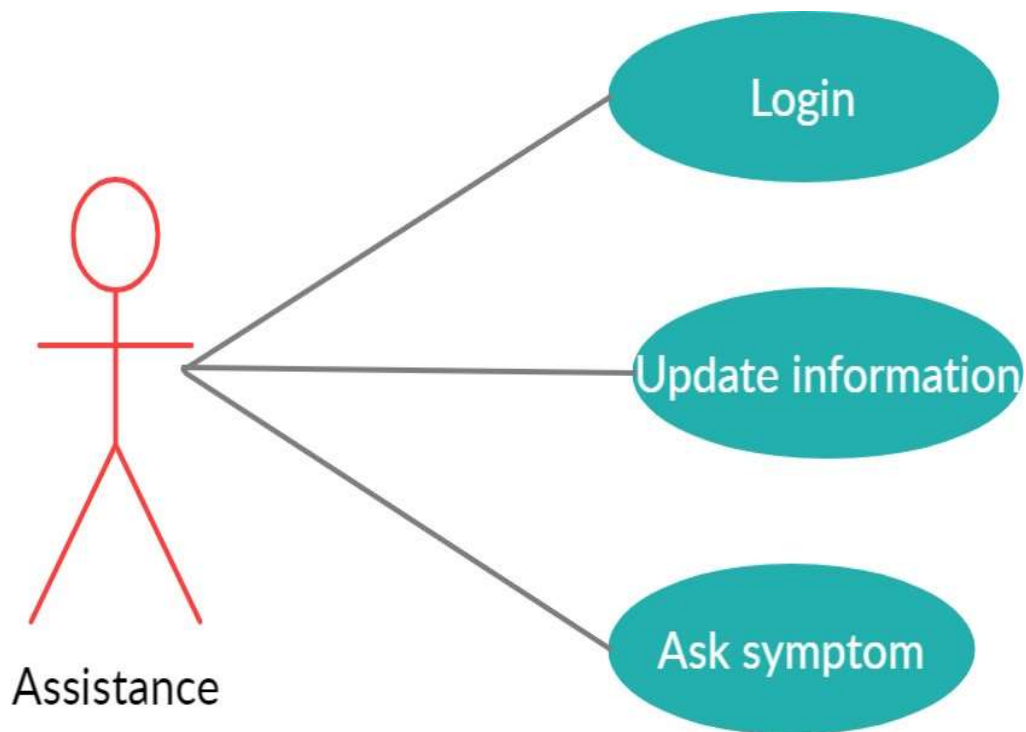
Figure 3.1.4   Assistance use case

3.2 ER-Diagram

In this diagram we can see the connection of user flow and data flow. And their attributes also.
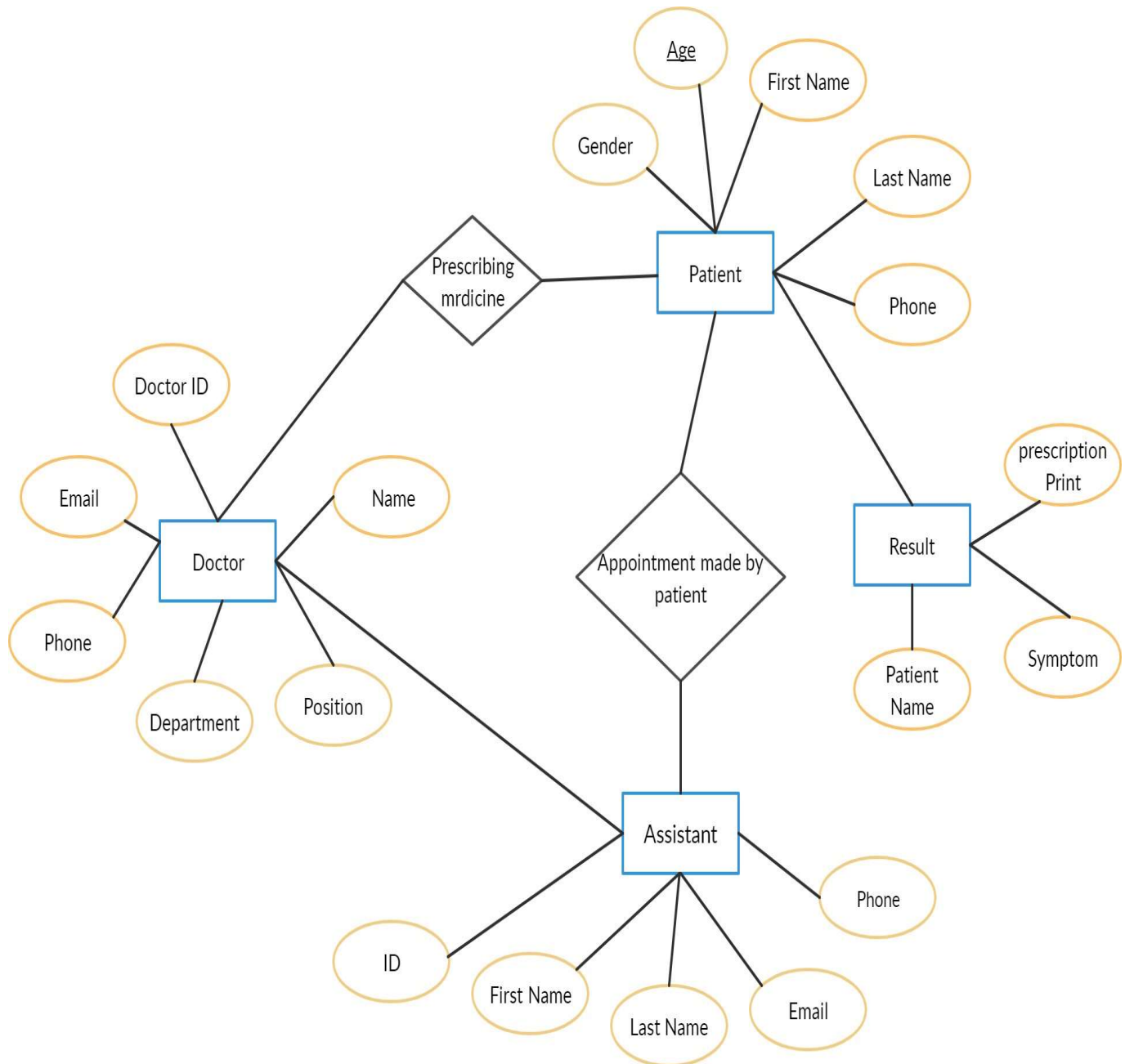
Figure 3.2   ER-Diagram

Chapter 4
DATABASE DESIGN

Table List:

Figure 4. 1   Table list

Doctor Database:

Figure 4. 2   Doctor database

Assistant Database:

Figure 4. 3 Assistant database

All Patient History Database:

Figure 4. 4   History databas

Chapter 5

Implementation Results

5.0 Home page:

Figure 5.1 Slide show

Figure 5.2 History

Figure 5.3   Doctor info

Figure 5. 4   Patient Comments

Patient Registration:

Figure 5. 5   Patient registration
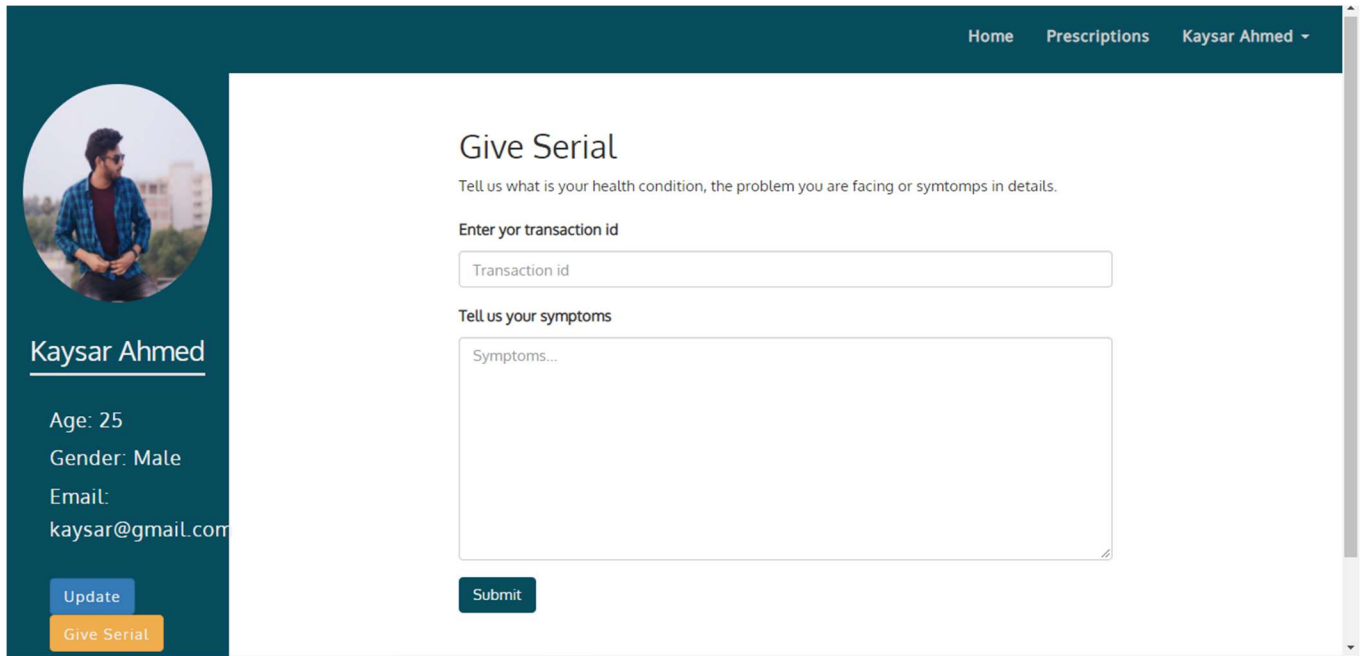
Patient login:

Figure 5. 6   Patient login

Patient giving serial:

Figure 5. 7   Patient giving serial

Assistant Login :

Figure 5. 8   Assistant login

Assistant Panel :

Figure 5. 9   Assistant panel

Doctor's Login:

Figure 5.10   Doctor's Login

Doctor's Panel:

Figure 5.11   Doctor's Panel

Doctor's Information Update :

Figure 5. 12   Doctor's update information

Assistant info:

Figure 5.13   Assistant info

Previous Patient:
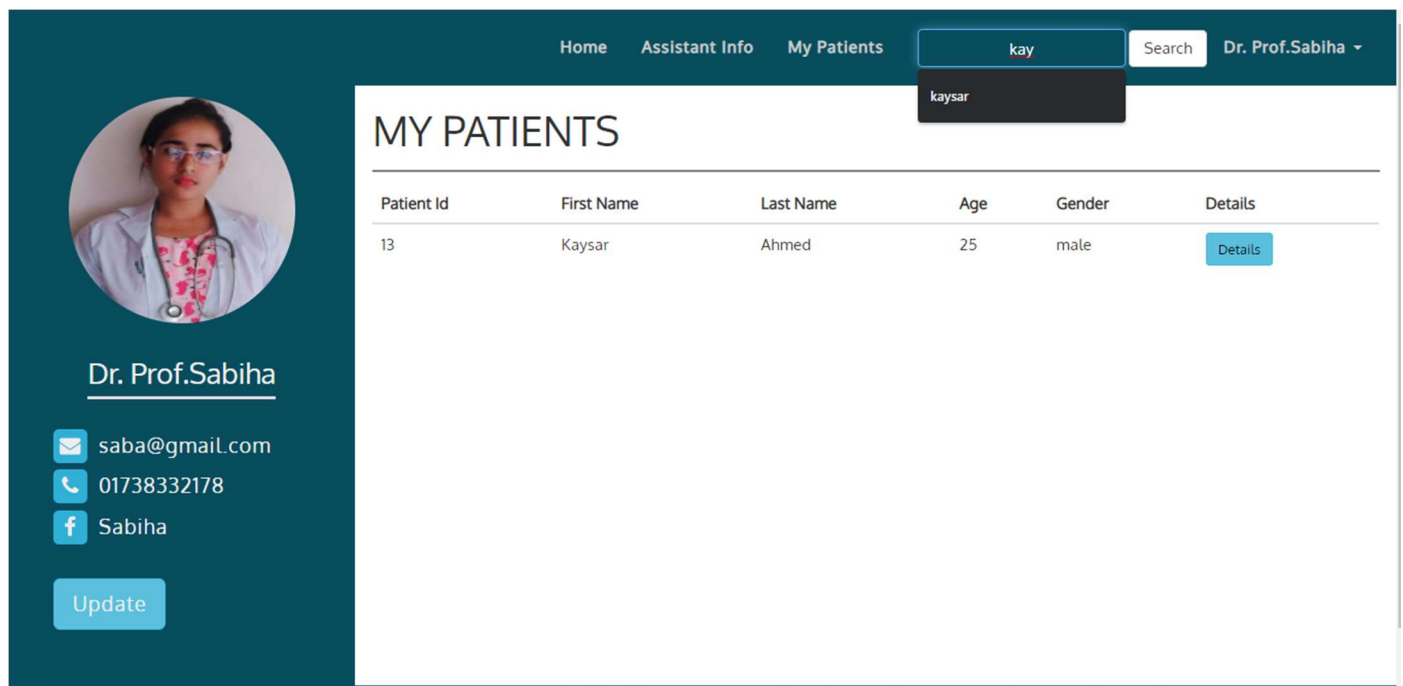
Figure 5.14   Patient History

Query:
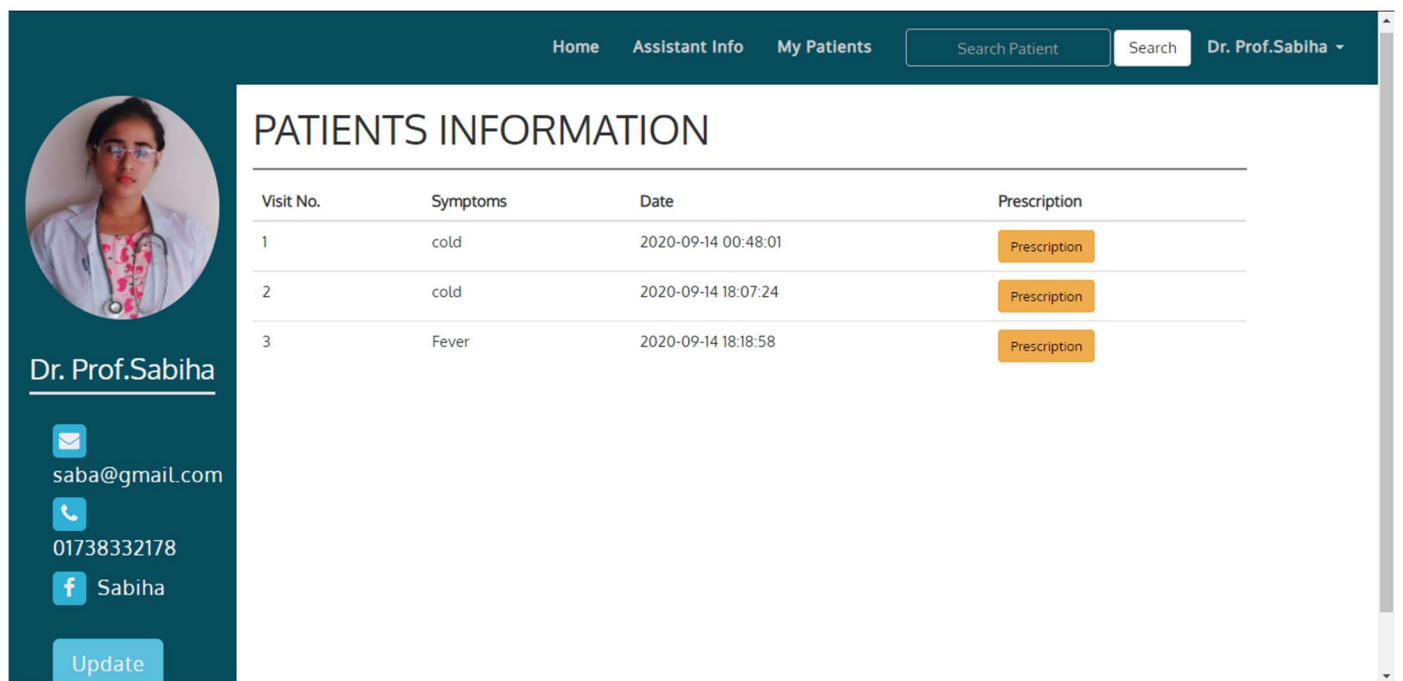
Figure 5.15 Search Patient

Visited Patient Details:

Figure 5.16 Patient Prescription

Referred Patient info :

Figure 5.17 symptom

Prescription Details :

Figure 5.18 Prescription details

Chapter 6
CONCLUSIONS AND LIMITATIONS

6.0 Suggestion for Future Work

Though the aimed simplicity is useful for the users, there are some features could be included in this project in the future to make the application more efficient and fully functioning. Addition of a prescription reader. Handwritten alarm recognition can be futuristic. Modern UI with drag and drop features.

6.1 Conclusions

The project E-Prescription is for computerizing the working in the hospital. It is a great improvement over the manual system. The computerization of the system has sped up the process. In the current system, the front office managing is very slow. The patient information system was thoroughly checked and tested with dummy data and thus is found to be very reliable. The software takes care of all the requirements of an average hospital and is capable to provide easy and effective storage of information related to the patient that comes up to the hospital.

It generates a test report and also provides the facility for searching the details of the patient and doctor.

6.2 Limitation

The size of the database increased day by day, increasing the load on the database back up and data maintenance activity. Training for simple computer operations is necessary for users working on the system.

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