A Project Report

On

Hospital Management System

Submitted in partial fulfilment of the requirements for the award of degree of

Bachelor of Computer Application (Science)

Submitted By:

Bubacarr Ceesay

Academic Year: 2023– 2024

Submitted to:

Savitribai Phule Pune University

Shree Chanakya Education Society

Indira College of Commerce and Science, Pune

Vice Principal & (H.O.D)
Prof. Shivendu Bhushan

Guided By
Prof. Divya Chitre

Acknowledgement

We would like to express our sincere and heartfelt gratitude to our institution" Indira College of Commerce and Science" which provided us with excellent opportunity to achieve our most cherished goal in life to become bachelor's degree in BCA-Science.

We are extremely grateful to our respected Vice Principal and HOD Prof, Shivendu Bhushan for providing excellent academic environment which has made this endeavour possible.

We take this opportunity to express our deep sense of gratitude to our guide Prof. Divya Chitre for their resplendent idea and constant encouragement in making this project unmitigated success. Their thoughtfulness and understanding were vast and thoroughly helpful in successful completion of project. Our sincere thanks to all our faculties and non-teaching staff for them at most co-operation.

Finally, we proudly thank our parents and friends for their constant support and priceless guidance in throughout this endeavour.

BUBACARR CEESAY

Roll No.: **15**

Index

1. ABSTRACT

This Hospital Management System (HMS) project aims to revolutionize the management and administration of healthcare institutions by introducing a comprehensive and user-friendly software solution.

The HMS provides a centralized platform for managing patient records, appointments, doctor details, bill details, and appointment scheduling. With intuitive interfaces and robust functionalities, our system streamlines workflows, enhances communication between healthcare providers, and improves overall efficiency.

Key features include secure data storage, real-time analytics, and customizable reporting tools. Designed to meet the unique needs of modern healthcare facilities, our HMS promotes better patient care, facilitates regulatory compliance, and empowers administrators with actionable insights.

Through the seamless integration of technology into healthcare operations, our project strives to elevate the quality of healthcare delivery and optimize resource utilization for hospitals of all sizes.

The HMS project is developed using modern technologies and follows best practices in software development to ensure scalability, security, and reliability. It is designed to adapt to the evolving needs and regulations of the healthcare industry, providing a flexible and future-proof solution for hospital management.

Overall, the Hospital Management System project aims to transform hospital operations, improve patient care outcomes, and streamline administrative processes, ultimately contributing to the delivery of high-quality healthcare services.

2. INTRODUCTION

2.1: MOTIVATION

Hospitals are an essential part of our lives, providing the best medical facilities to people suffering from various health conditions. It is necessary for the hospitals to keep track of its day-to-day activities & records of its patients, doctors, nurses, and other staff personals that keep the hospital running smoothly & successfully.

But keeping track of all the activities and their records on paper is very cumbersome and error prone. It also is very inefficient and a time-consuming process, observing the continuous increase in population and number of people visiting the hospital. Recording and maintaining all these records is highly unreliable, inefficient and error prone. It is also not economically & technically feasible to maintain these records on paper.

Thus, keeping the working of the manual system as the basis of our project. We have developed an automated version of the manual system, named "Hospital Management System".

The purpose of this project is to computerize the Front Office Management of Hospital to develop a software which is user friendly, simple, fast, and cost – effective. It deals with the collection of patient's information like to add patient, update patient details, delete patient, view patient details, etc. Traditionally, it was done manually. The main function of the system is to register and store patient details and doctor details and retrieve these details as and when required, and to manipulate these details meaningfully.

2.2: PROBLEM STATEMENT

- **Lack of immediate retrievals: -**

The information is very difficult to retrieve and to find a particular information like- E.g. - To find out about the patient's history, the user must go through various registers. This results inconvenience and wastage of time.

- **Lack of immediate information storage: -**

The information generated by various transactions takes time and efforts to be stored at the right place.

- **Lack of prompt updating: -**

Various changes to information like patient details are difficult to make as paperwork is involved.

- **Preparation of accurate and prompt reports: -**

This becomes a difficult task as information is difficult to collect from various register or papers.

2.3: PURPOSE / OBJECTIVES / GOALS

This project is aimed to develop to maintain the day –to-day state of admission/discharge of patients, list of doctors, reports generation, etc. It is designed to achieve the following objectives:

- To computerize all details regarding patient details & hospital details.
- Reduce paperwork.
- Provide a quick and efficient retrieval of information. Any type of information would be available whenever the user requires.
- Implement robust security measures to protect patient data.
- Create a digital repository for medical records.
- Utmost care to make sure that no information is repeated anywhere, in storage or otherwise. This would ensure economic use of storage space and consistency in the data stored.

2.4: LITERATURE SURVEY

Hospital Management Systems (HMS) play a crucial role in the efficient operation and administration of healthcare facilities. Existing studies highlight various aspects related to HMS implementation, usability, and impact on healthcare delivery. Research indicates that a well-designed HMS enhances organizational efficiency, improves patient care, and ensures better resource utilization.

Studies reveal that an effective HMS should integrate seamlessly with hospital workflows, facilitating smooth coordination among various departments and personnel. This integration enables real-time access to patient records, appointment scheduling, and records management, thereby improving overall operational efficiency and reducing administrative burdens.

Research highlights the significance of user-friendly interfaces in HMS design, emphasizing ease of use for healthcare professionals of varying technical competencies. A well-designed interface enhances user satisfaction and adoption rates, ultimately contributing to improved patient care delivery.

In terms of trends, recent literature suggests a shift towards cloud-based HMS solutions, offering scalability, accessibility, and cost-effectiveness. Furthermore, the emergence of mobile applications and patient portals has empowered patients with greater control over their healthcare information and interactions with healthcare providers.

Challenges related to HMS implementation and utilization have also been explored in the literature. These include issues such as data security and privacy concerns, interoperability between different healthcare systems, and resistance to change among healthcare professionals.

Overall, the literature underscores the importance of continuous evaluation, adaptation, and innovation in HMS to meet the evolving needs of healthcare organizations and ensure the delivery of high-quality patient care. Future research directions may focus on addressing emerging challenges, leveraging emerging technologies, and enhancing user experience to further optimize hospital management processes and healthcare delivery.

2.5: PROJECT SCOPE

The system can be used in any hospital or clinic to get the information from the patients and then storing that data for future usages. The current system in use is a paper-based system. It is too slow and cannot provide updated lists of patients within reasonable timeframe. In hospital management system its data is more important. In this system we can arrange the data and store in proper format for long time.

2.6: LIMITATONS

- The upfront costs of implementing a new system can be substantial, including software development, hardware upgrades, and training.
- Additional manpower is necessary.
- It may be difficult to transfer previous records to the new system.

3. SYSTEM ANALYSIS

3.1: EXISTING SYSTEM

Hospitals currently use a manual system for the management and maintenance of critical information. The current system requires numerous paper forms, with data stores spread throughout the hospital management infrastructure. Often information (on forms) is incomplete or does not follow management standards. Forms are often lost. Multiple copies of the same information exist in the hospital and may lead to inconsistences in data in various data stores.

3.2: Scope and Limitation of Existing System

Almost all operations are done manually in the existing crime management system, such as appointment booking, record checking, billing, etc. So, with the existing system, numerous minor errors may occur.

Drawbacks of the existing system can be concluded as follows:

- Difficult to retrieve or find a particular information since data is recorded in different papers.
- Inefficient workflow.
- Data redundancy which may lead to inconsistency of data.
- Record can be lost if not kept safe.

3.3: PROPOSED SYSTEM

The hospital management system is designed for any hospital to replace their existing manual, paper-based system the new system is to control the following information: patient information, room info, doctor and appointment schedules, and patient invoices. These services are to be provided in an efficient, cost-effective manner with the goal of reducing the time and resources currently required for such tasks.

- **Advantages of Proposed System**
  - Paperwork is reduced.
  - The redesigned system can optimize hospital workflows, leading to increased efficiency and better patient care.
  - The proposed system can be designed to be scalable, accommodating future growth in terms of data, users, and functionality.
- **Disadvantages of Existing System**
  - Transferring data from the existing system to the new one may pose challenges, and there is a risk of data loss or corruption during the migration process.

3.4: PROJECT PERSPECTIVE, FEATURES AND STAKEHOLDERS

- **Features**

  - **ADMIN**
    - ✓ Login
    - ✓ Add admin.
    - ✓ Manage patient and doctor accounts.
    - ✓ Approve or reject doctor job application.
    - ✓ View appointments.
    - ✓ Manage profile.

  - **USER(PATIENT)**
    - ✓ Login
    - ✓ Register
    - ✓ Make appointments.
    - ✓ View medical records.
    - ✓ Pay bills.
    - ✓ View prescription details.
    - ✓ Manage profile.

❖ **DOCTOR**

- ✓ Login
- ✓ Apply for job.
- ✓ Make prescriptions for patients.
- ✓ Manage profile.
- ✓ Diagnose patients.
- ✓ Approve Appointments.

- **Stakeholders**

  There are 3 main figures in the Hospital Management System: Admin, Patient, and Doctor. Patient books appointment. Meanwhile the Doctor approves appointments and treats patient. Here, Admin manages records and hire doctors.

3.5: REQUIREMENT ANALYSIS

Requirements Analysis is the process of defining the users' expectations for an application to be built or modified. Requirement's analysis involves all the tasks that are conducted to identify the needs of different stakeholders. Therefore, requirements analysis means analysing, documenting, validating, and managing software or system requirements. As the software system requirements were predictable, wallowing the classical system development life cycle method is decided. This process demands a systematic, sequential approach to software development that begins at the system level and progress through analysis, design, coding, testing and maintenance. The steps that apply to all software engineering paradigms. The program is followed by SDLC (Software Development Life Cycle).

3.5.1: Functional Analysis

Functional analysis involves conceptualizing the hospital management system's functionalities and translating them into distinct activities or tasks that the system must perform. This includes features such as patient registration, appointment scheduling, medical records management, billing, and reporting.

3.5.2: Performance Analysis

The success of the hospital management system is measured using various performance metrics. It should ensure efficient performance across different devices and browsers. A positive user experience and timely response to user actions are essential for effective hospital management.

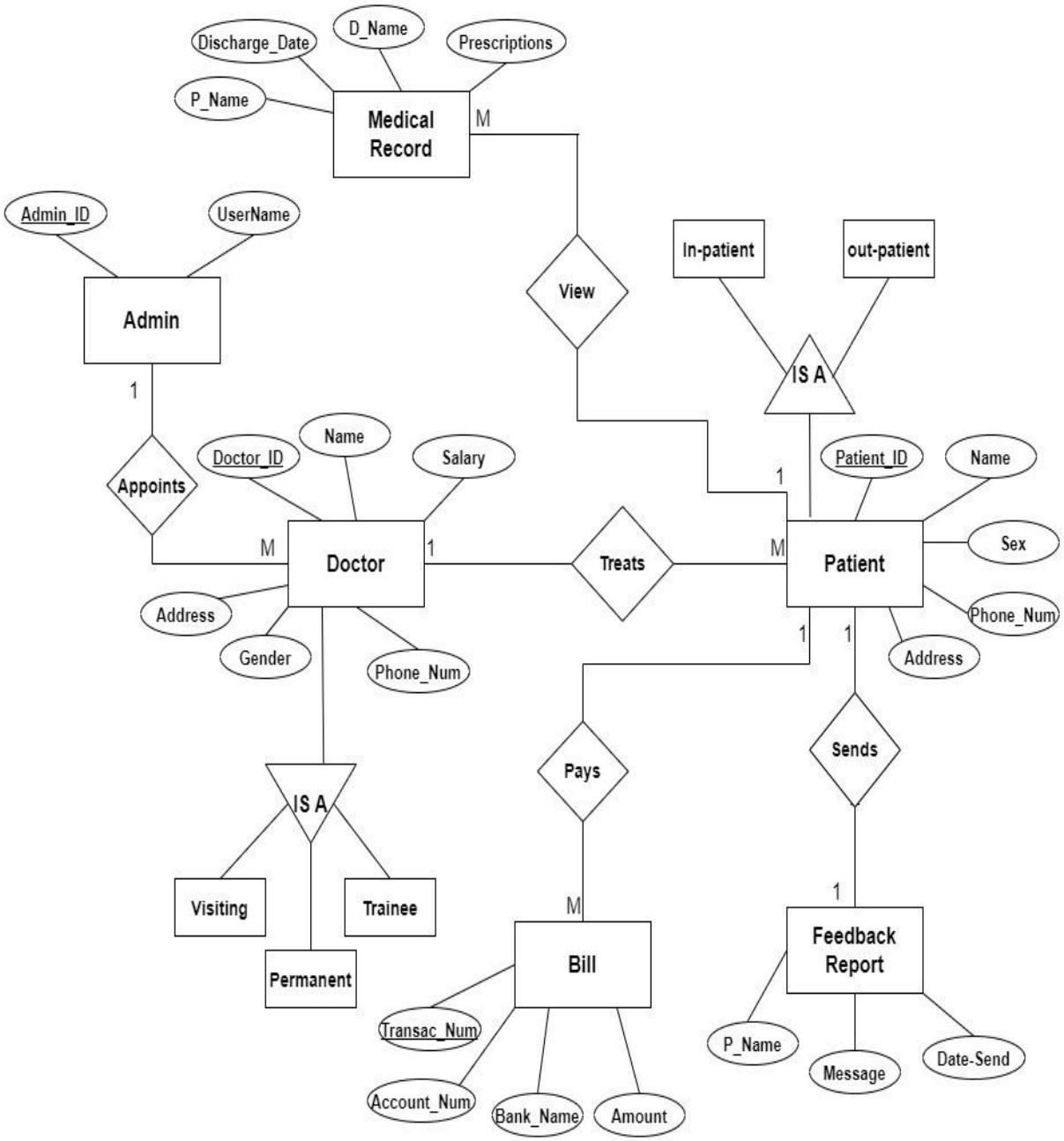
3.5.3: Security Analysis

In the hospital management system, data security is paramount. The system should securely store patient records, ensuring confidentiality and integrity. Access control mechanisms should be implemented to restrict unauthorized access to sensitive information.

4. SYSTEM DESIGN

4.1: DESIGN CONTRAINT

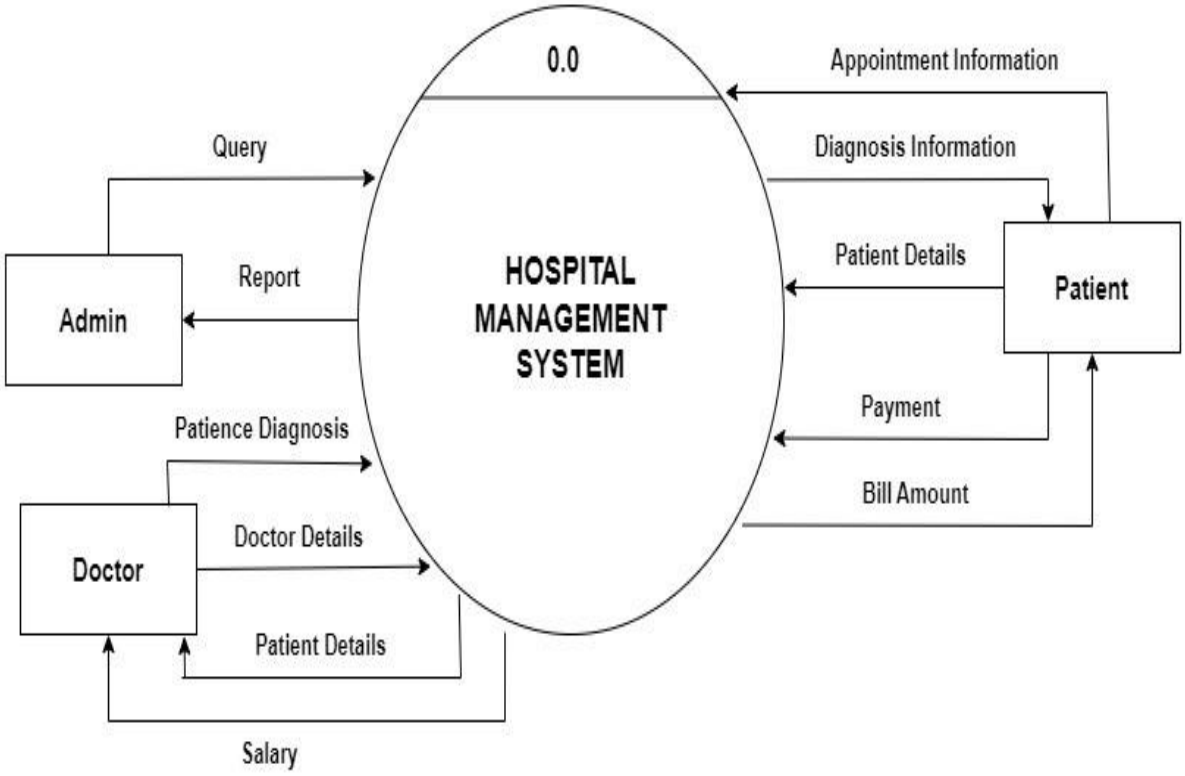
- **ER-Diagram**



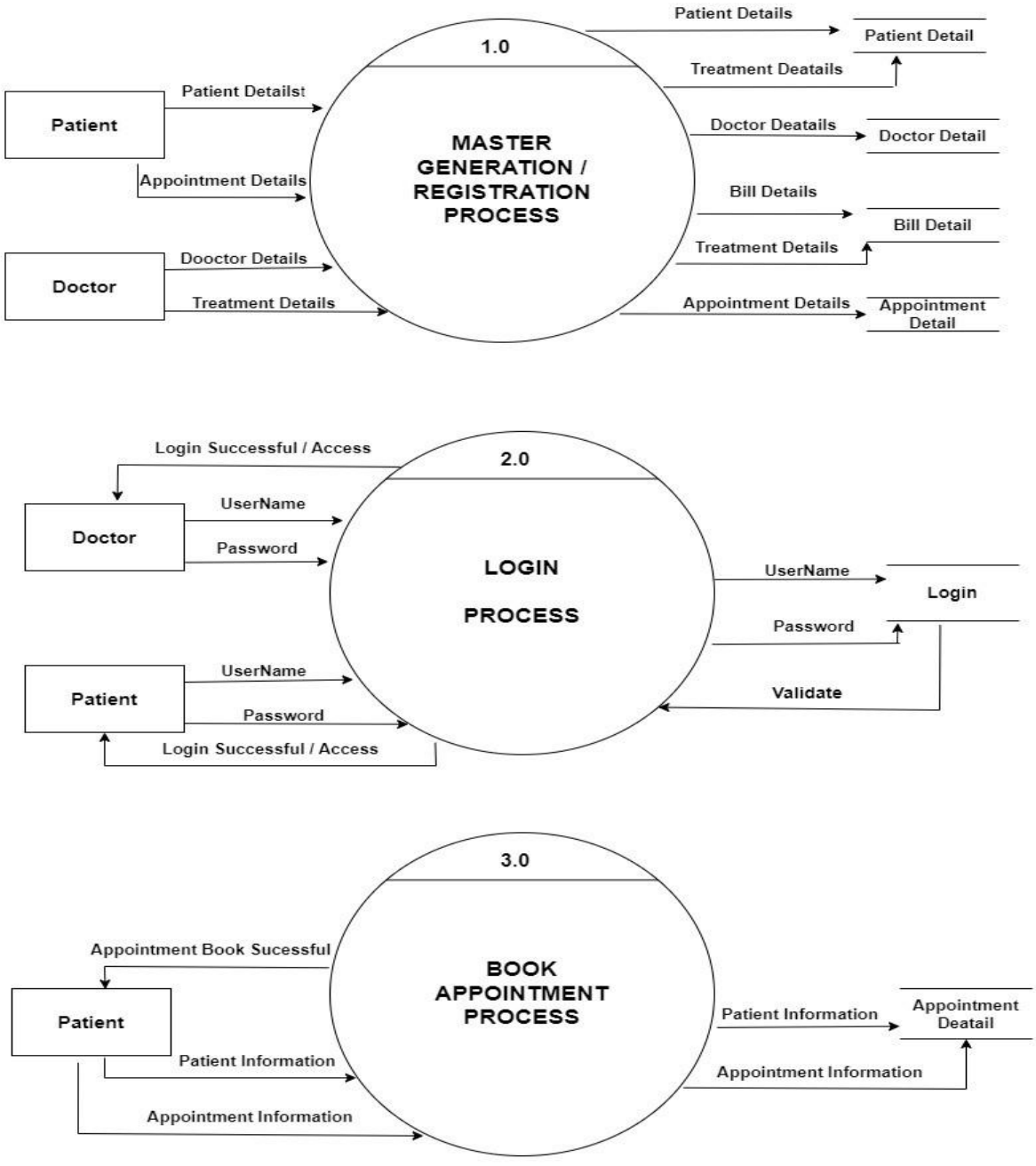
4.2: SYSTEM MODEL

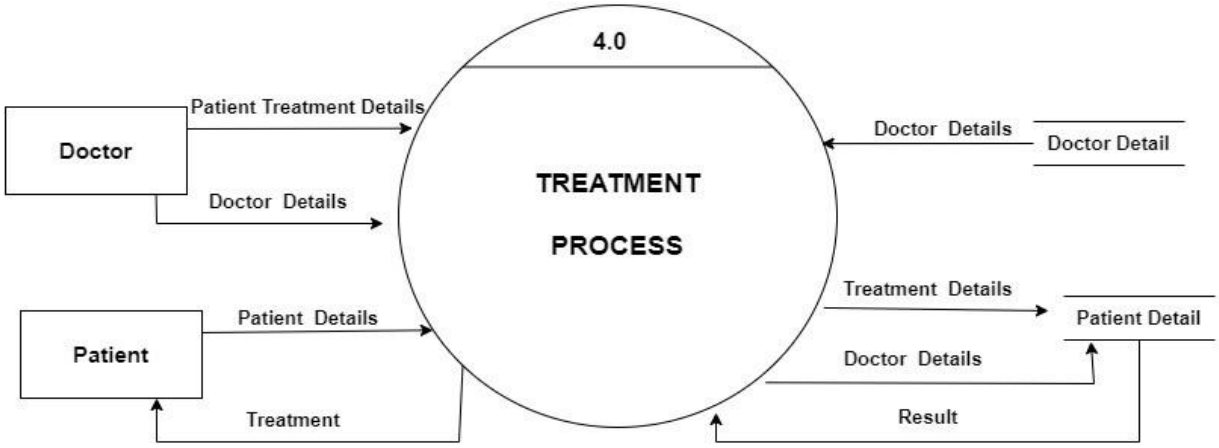
4.2.1: Data Flow Diagram

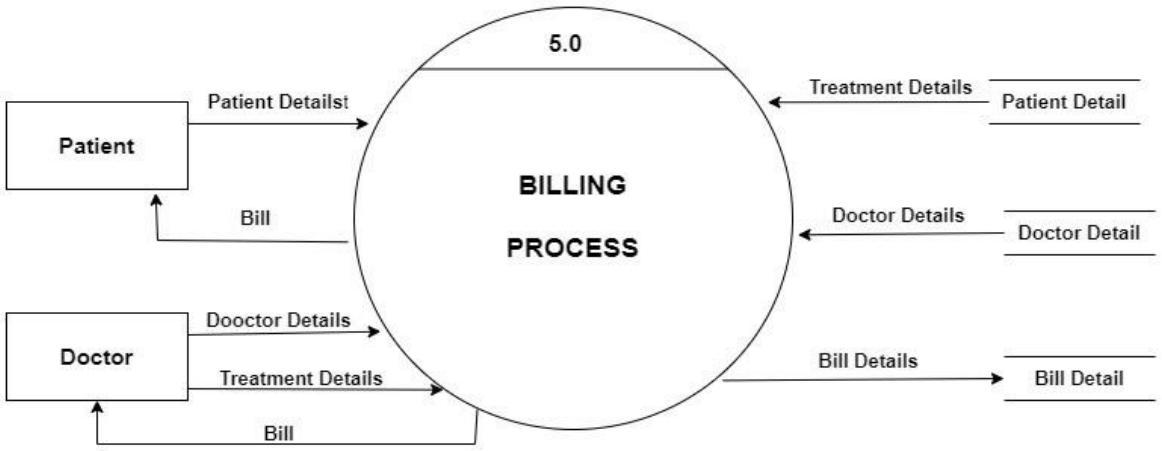
0th Level (Context Level) DFD

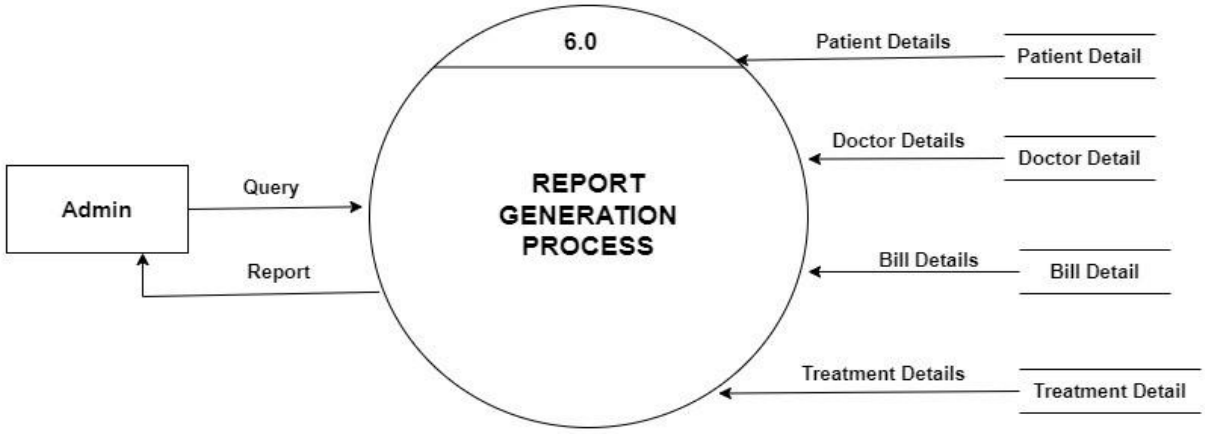


1th Level DFD



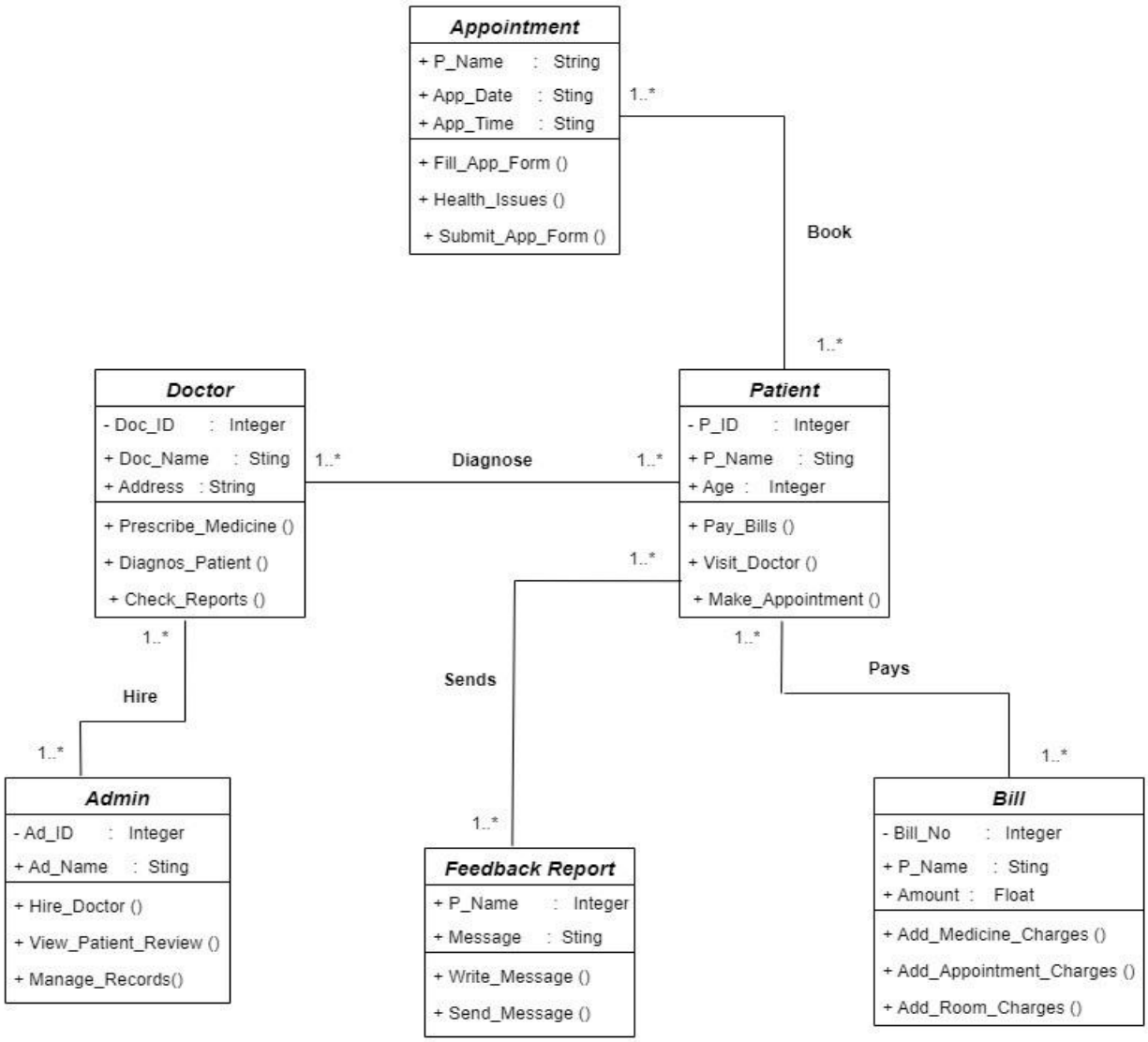

4.0
TREATMENT
PROCESS
Doctor
Patient Treatment Details
Doctor Details
Patient
Patient Details
Treatment
Doctor Details
Doctor Detail
Treatment Details
Patient Detail
Doctor Details
Result


5.0
BILLING
PROCESS
Patient
Patient Detailst
Bill
Doctor
Dooctor Details
Treatment Details
Bill
Treatment Details
Patient Detail
Doctor Details
Doctor Detail
Bill Details
Bill Detail

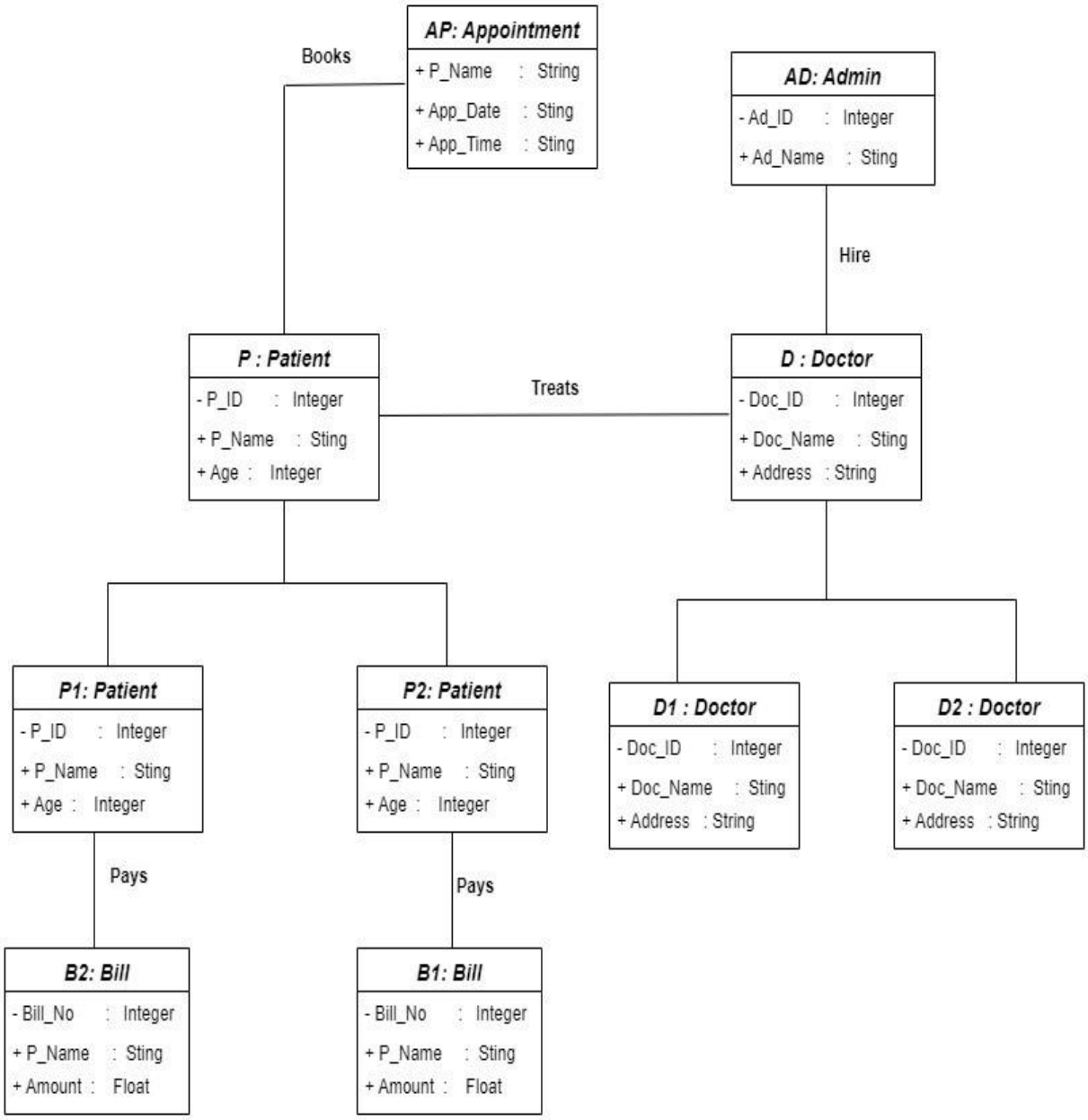

6.0
REPORT
GENERATION
PROCESS
Admin
Query
Report
Patient Details
Patient Detail
Doctor Details
Doctor Detail
Bill Details
Bill Detail
Treatment Details
Treatment Detail

4.2.2: Data Model

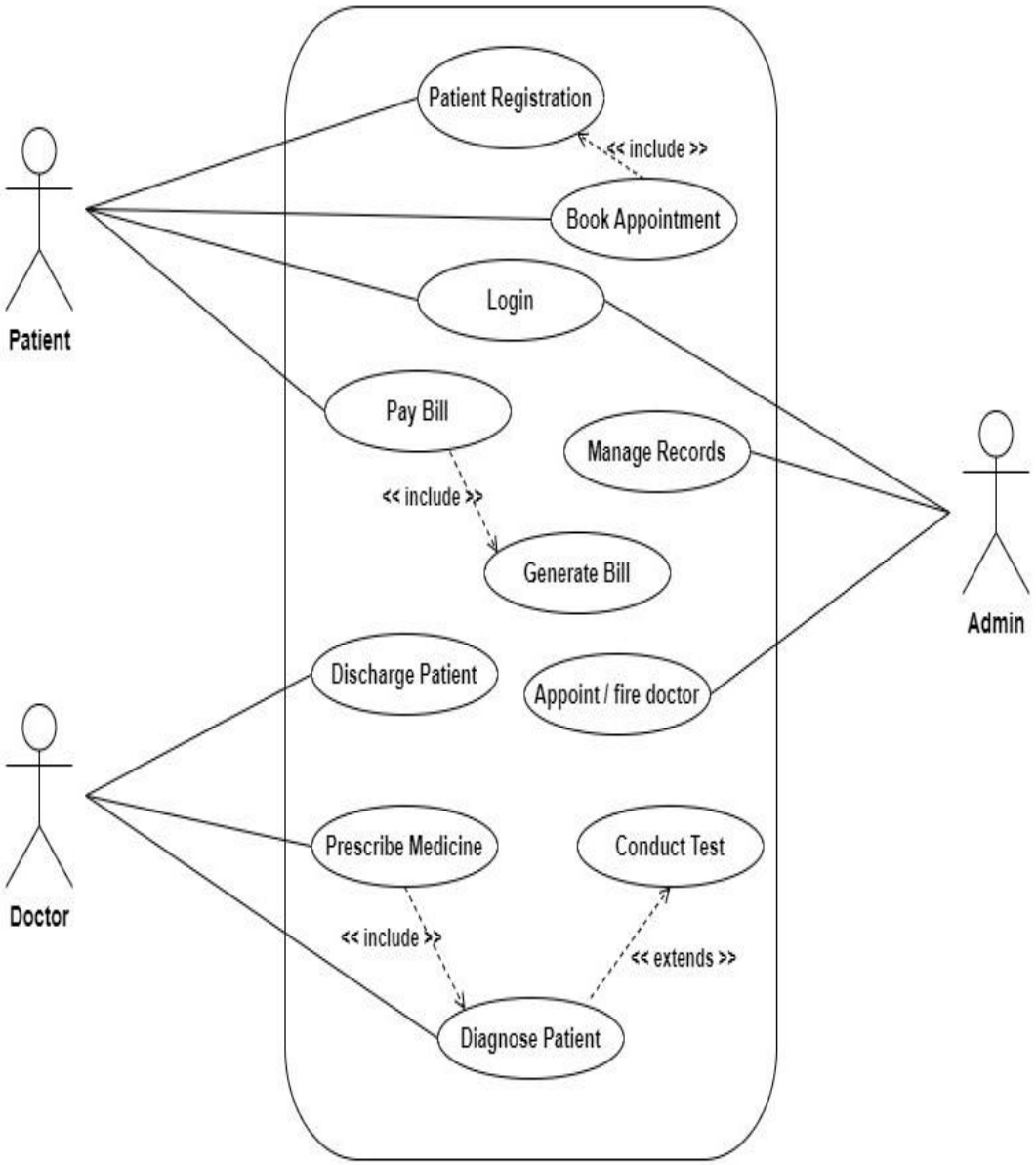
A) Class Diagram



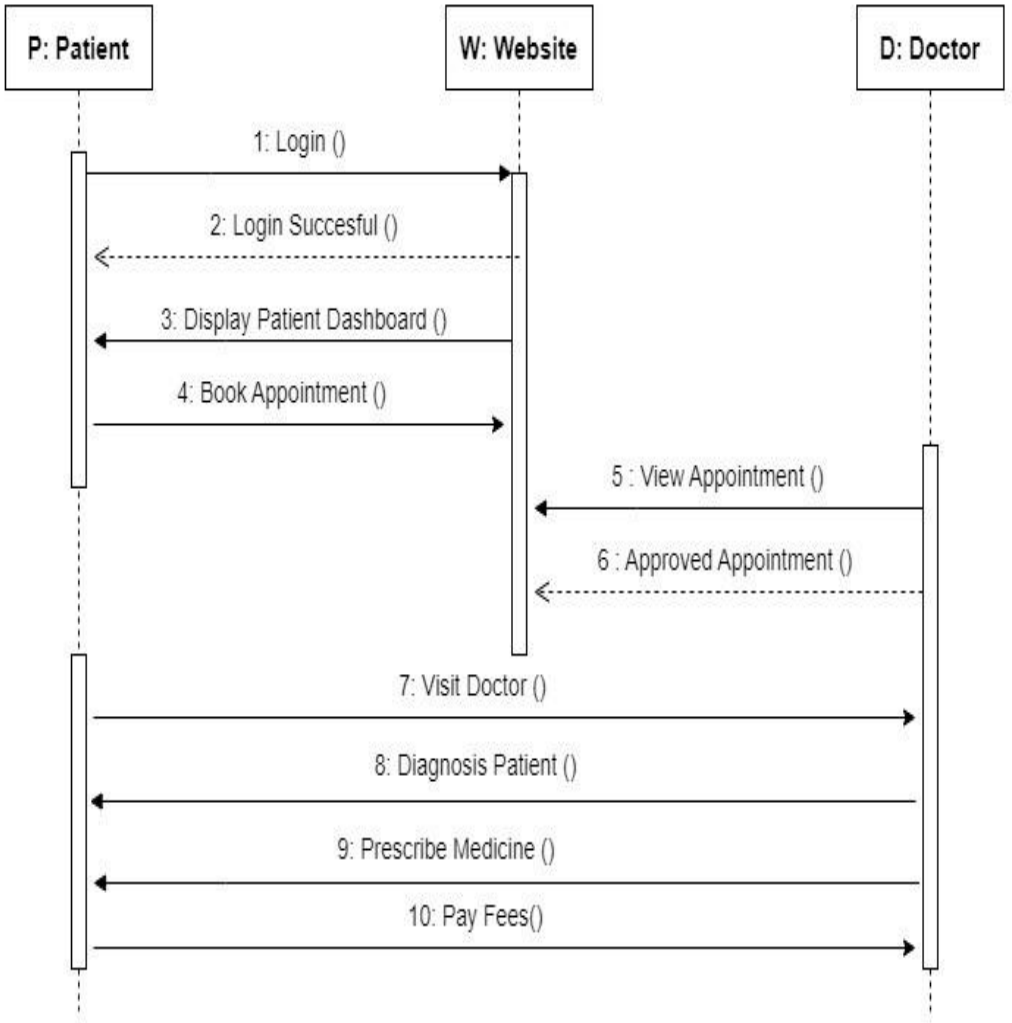
B) Object Diagram



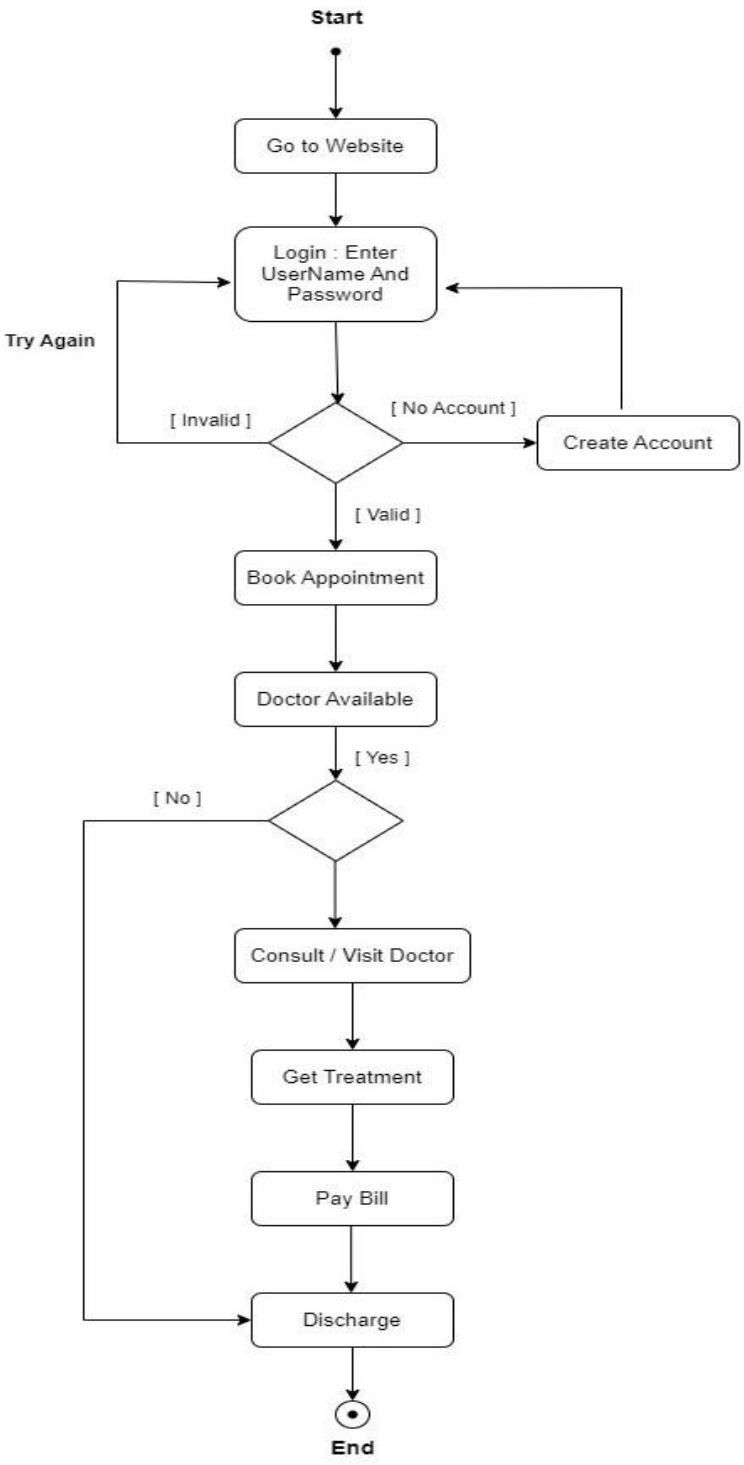
C) Use Case Diagram



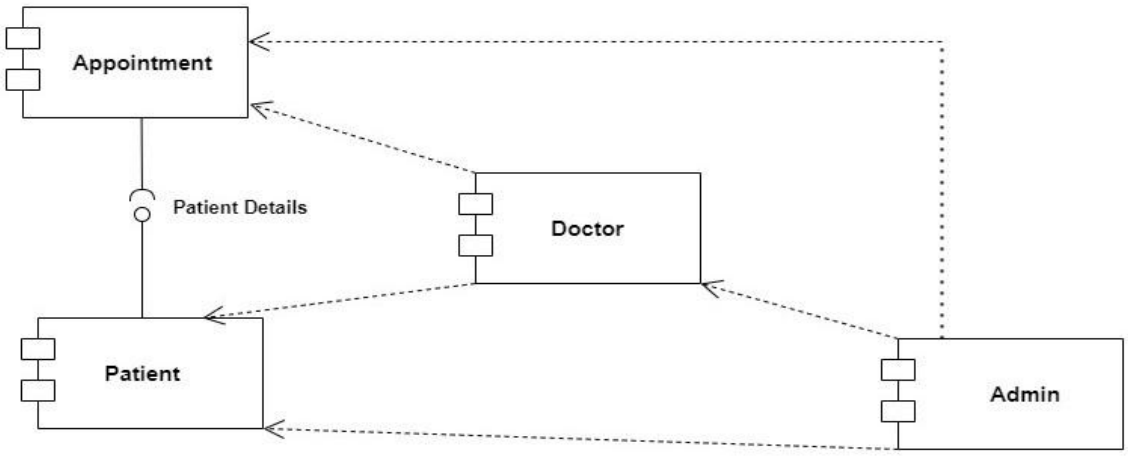
D) Sequence Diagram



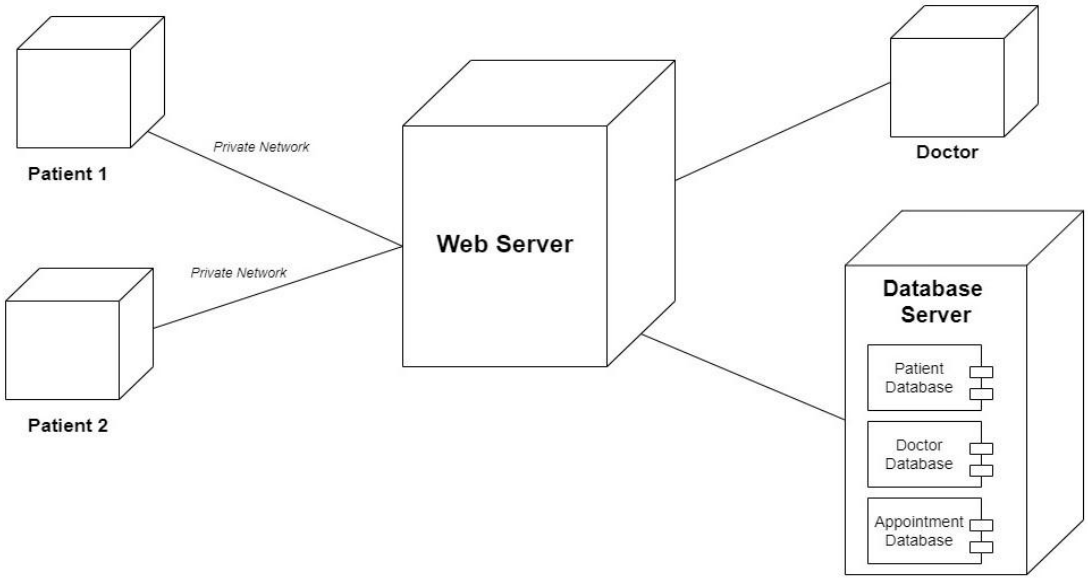
E) Activity Diagram



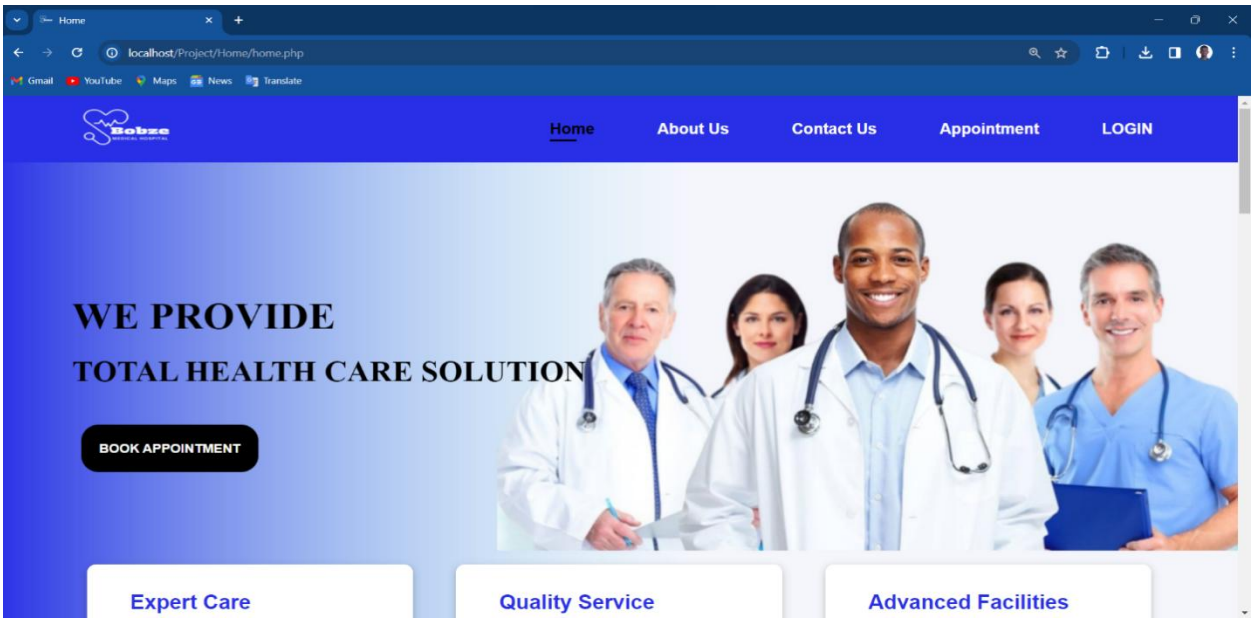
F) Component Diagram

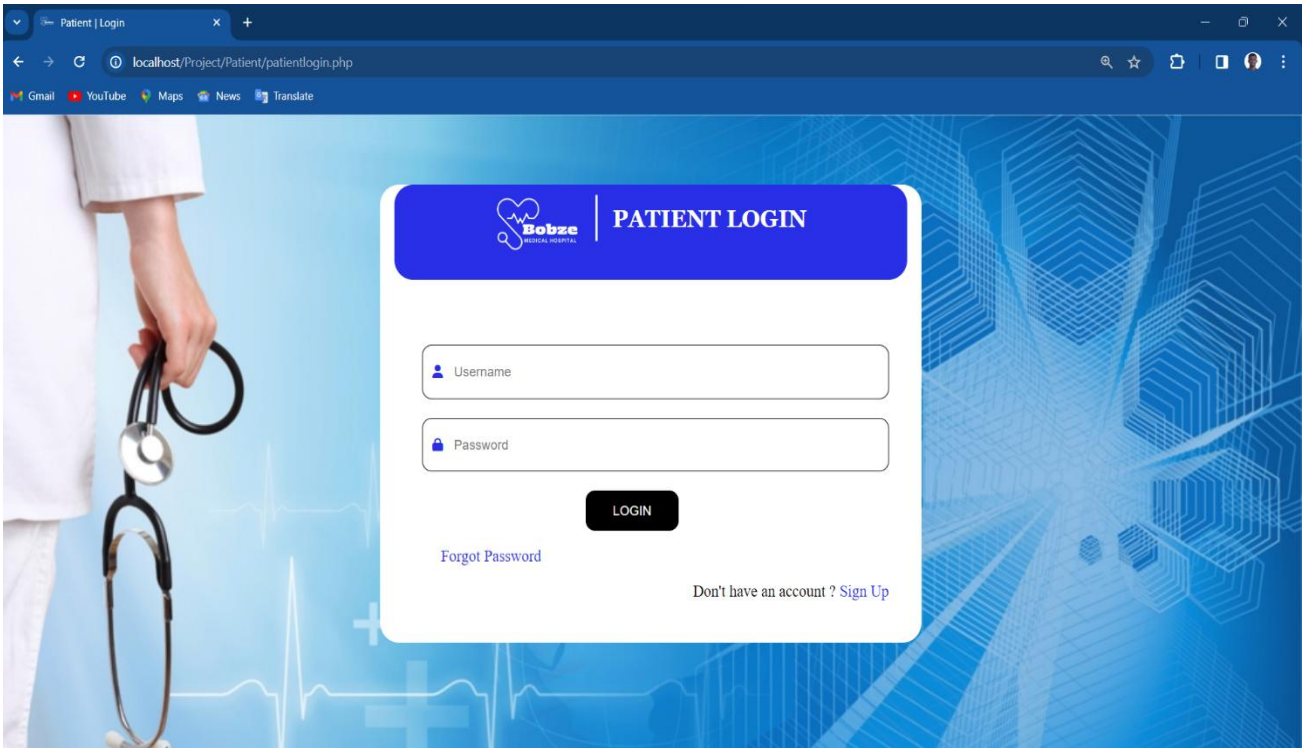


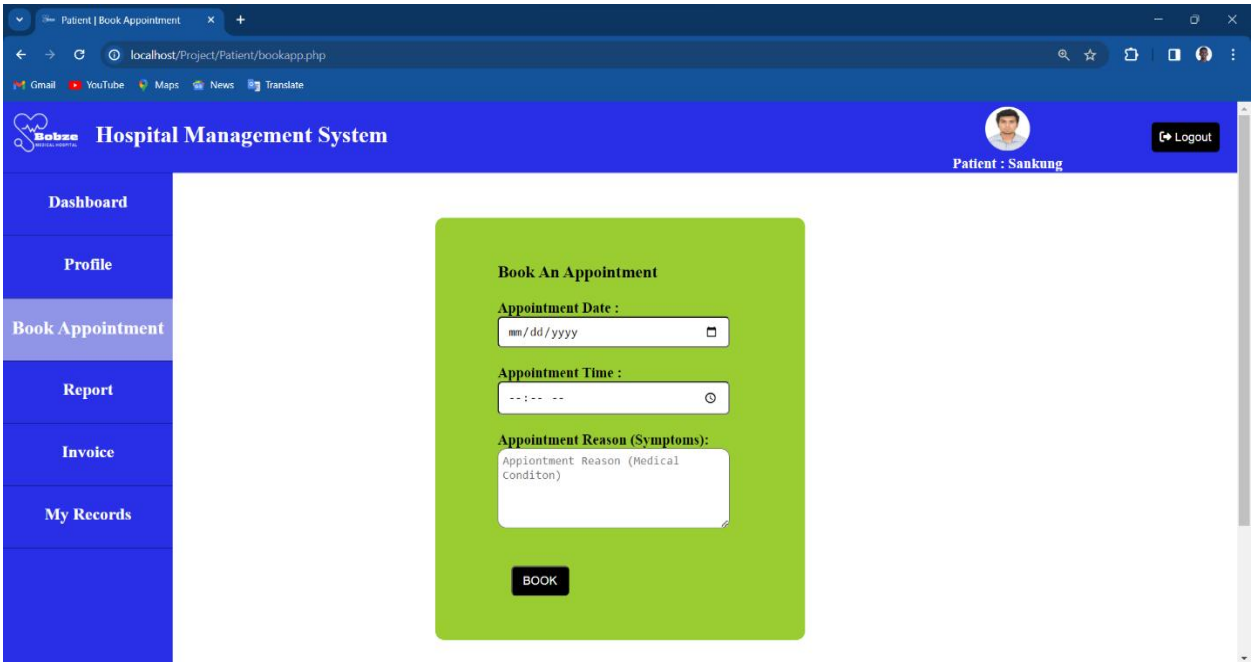
G) Deployment Diagram



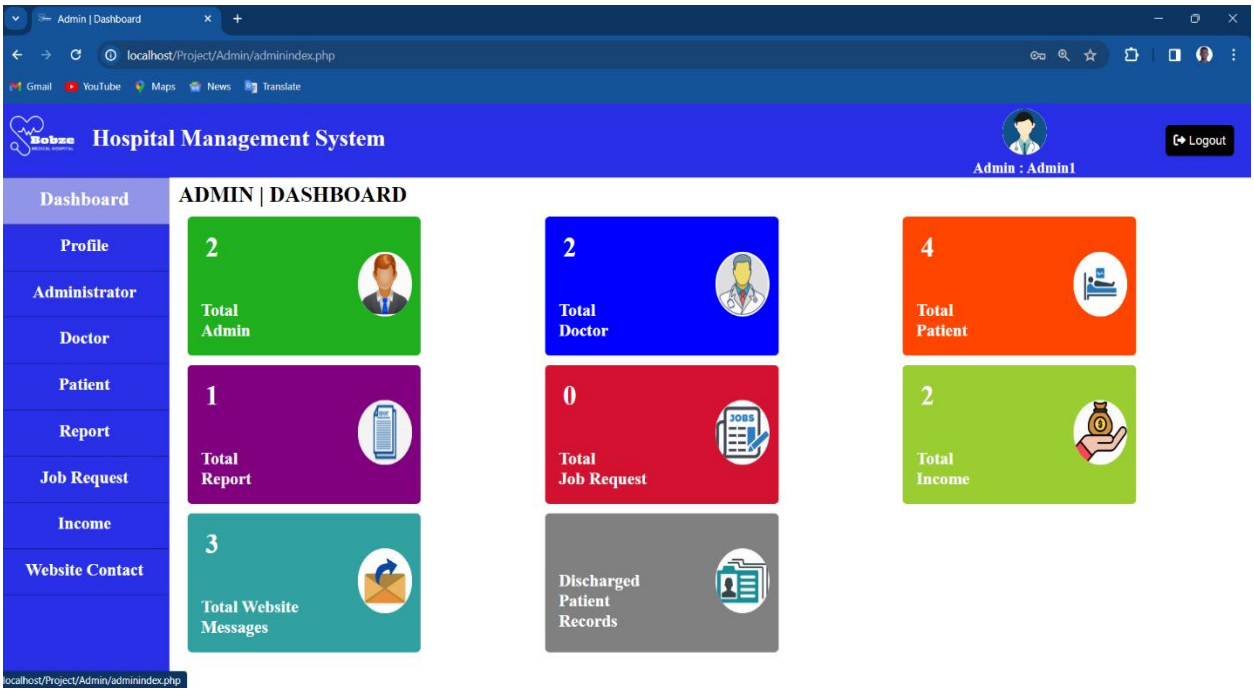
4.3: USER INTERFACE





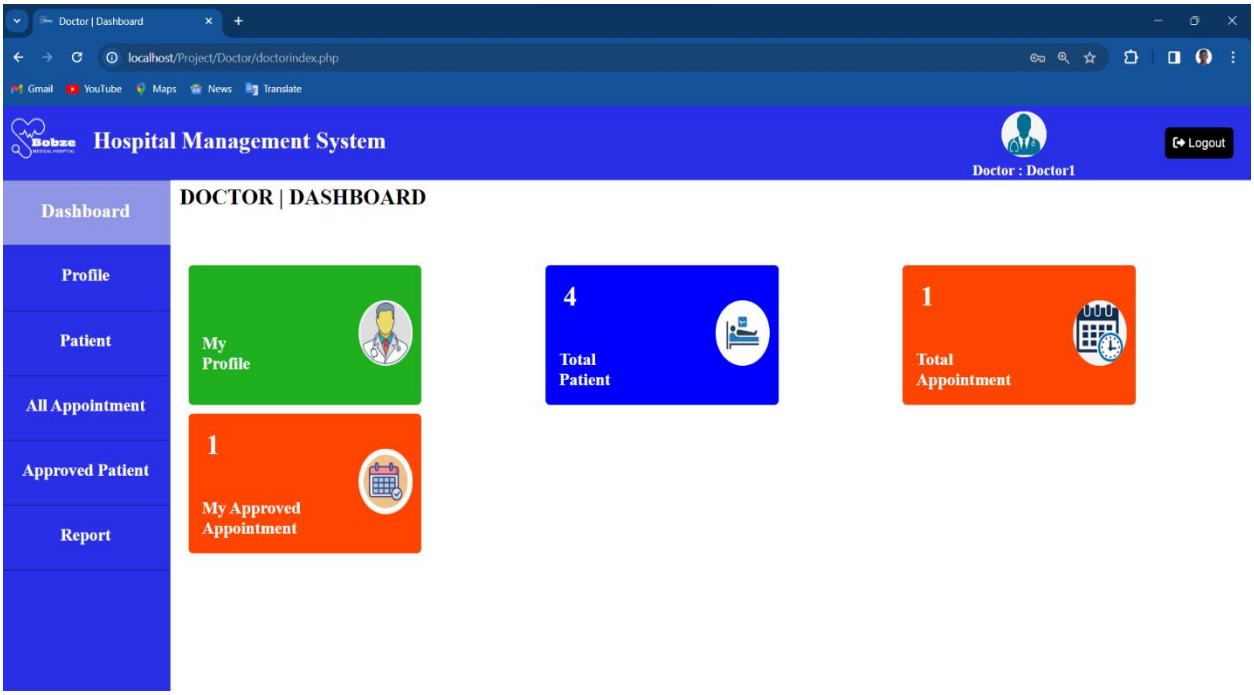

Patient | Book Appointment
localhost/Project/Patient/bookapp.php
Gmail
YouTube
Maps
News
Translate
Hospital Management System
Patient : Sankung
Logout
Dashboard
Profile
Book Appointment
Report
Invoice
My Records
Book An Appointment
Appointment Date :
mm/dd/yyyy
Appointment Time :
--:-- --
Appointment Reason (Symptoms):
Appiontment Reason (Medical Conditon)
BOOK

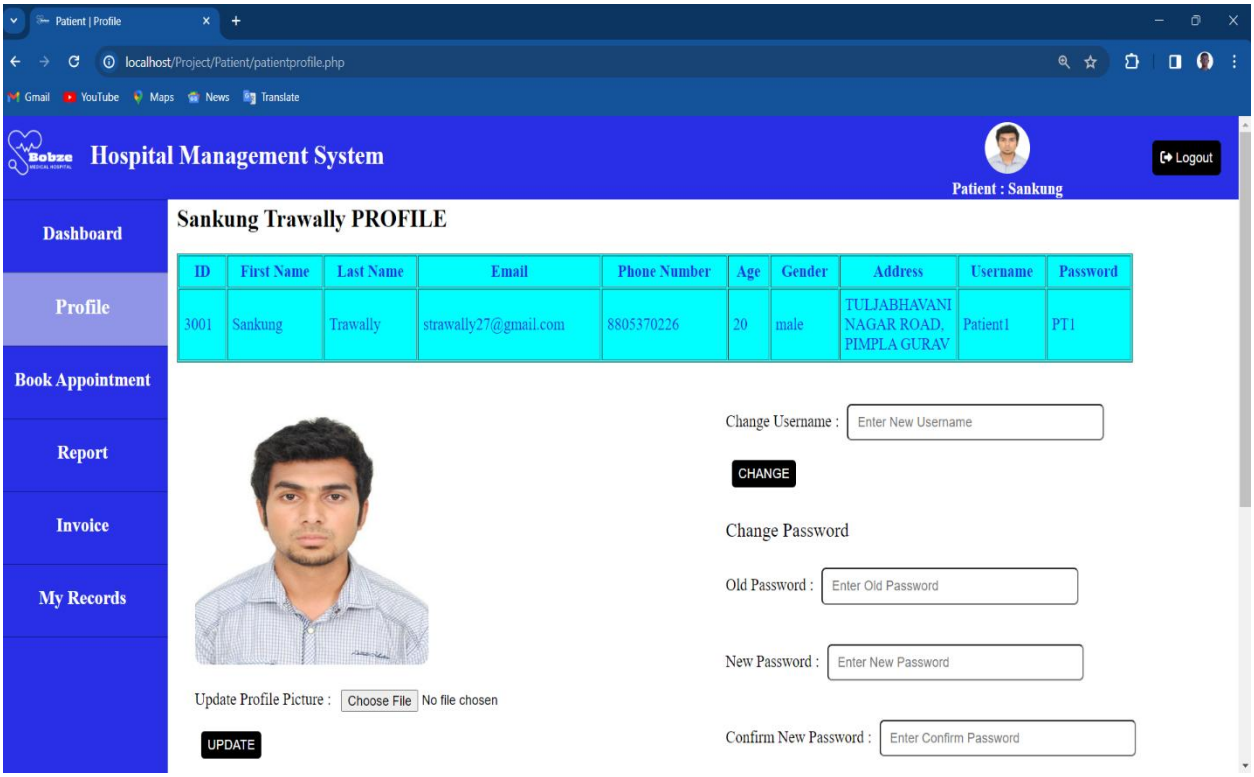

Patient | Record
localhost/Project/Patient/patientrecs.php
Gmail
YouTube
Maps
News
Translate
Hospital Management System
Patient : Sankung
Logout
Dashboard
Profile
Book Appointment
Report
Invoice
My Records
Medical Record
ID
Doctor
Discharge Date
Treatment Description
Lab Test (If Any)
Result
Prescription
Bed Allocated (If Any)
6012
Doctor1
2024-03-14 02:24:22
Examine the stomach, may be caused due low vitamin
Malaria
negative
Gastro table 100g Biko capsule 50g


Admin | Dashboard
localhost/Project/Admin/adminindex.php
Gmail
YouTube
Maps
News
Translate
Hospital Management System
Admin : Admin1
Logout
Dashboard
Profile
Administrator
Doctor
Patient
Report
Job Request
Income
Website Contact
ADMIN | DASHBOARD
2
Total Admin
2
Total Doctor
4
Total Patient
1
Total Report
0
Total Job Request
2
Total Income
3
Total Website Messages
Discharged Patient Records
localhost/Project/Admin/adminindex.php


Admin | Doctor
localhost/Project/Admin/admindoctor.php
Gmail
YouTube
Maps
News
Translate
Hospital Management System
Admin : Admin1
Logout
Dashboard
Profile
Administrator
Doctor
Patient
Report
Job Request
Income
Website Contact
Doctors
ID
First Name
Last Name
Email
Username
Phone Number
Age
Gender
Address
Application Date
Specialization
Action
2001
First
Doctor
strawally27@gmail.com
Doctor1
7755917804
30
male
hbccbssjs
2024-03-10 21:02:43
Dentist
Edit
Remove
2002
Second
Doctor
bgibba11@gmailcom
Doctor2
8805370226
28
female
Fajikunda Dumos, The Gambia
2024-03-10 21:08:05
Gynecologist
Edit
Remove
2005
Fifth
Doctor
bubacarrceesay910@gmail.com
Doctor5
8805370226
32
female
TULJABHAVANI NAGAR ROAD, PIMPLA GURAV
2024-03-22 02:48:15
Neurosurgeon
Edit
Remove
ADD DOCTOR


Admin | Patient
localhost/Project/Admin/adminpatient.php
Gmail YouTube Maps News Translate
Hospital Management System
Admin : Admin1
Logout
Dashboard
Profile
Administrator
Doctor
Patient
Report
Job Request
Income
Website Contact
Patients
ID First Name Last Name Email Username Phone Number Age Gender Address Registration Date Action
3001 Sankung Trawally strawally27@gmail.com Patient1 8805370226 20 male TULJABHAVANI NAGAR ROAD, PIMPLA GURAV 2024-03-12 20:52:50 View Remove
3002 Baboucarr Gibba bgibba11@gmailcom Patient2 0100177829 25 male New Sagnvi ROAD, PIMPLA GURAV 2024-03-12 20:55:56 View Remove
3003 Ma Janneh mjanneh23@gmail.com Patient3 7755917804 40 female Jimpex Road, KMC 2024-03-12 20:57:05 View Remove
3004 Modou Jallow sdarboe11996@gmail.com Patient4 8805370226 33 male Lamin New Town,WCR 2024-03-13 04:24:49 View Remove


Doctor | Dashboard
localhost/Project/Doctor/doctorindex.php
Gmail YouTube Maps News Translate
Hospital Management System
Doctor : Doctor1
Logout
Dashboard
Profile
Patient
All Appointment
Approved Patient
Report
DOCTOR | DASHBOARD
My Profile
4
Total Patient
1
Total Appointment
1
My Approved Appointment



Code :

bookappointment.php

```
<?php
   include("header.php");
?>
<?php
if(isset($_POST['book']))
{
   $con=mysqli_connect("localhost","root","","hms",3307);
```

```
if(!$con)
{
   die("Connection Failed");
}
$apdate=$_POST['appdate'];
 $aptime=$_POST['apptime'];
  $apreason=$_POST['appreason'];
$user=$_SESSION['patient'];
$q="select * from patient where username ='$user'";
$r=mysqli_query($con,$q);

while($row=mysqli_fetch_array($r)){
$fname=$row['firstname'];
$lname=$row['lastname'];
$uname=$row['username'];
$email=$row['email'];
$pnum=$row['phonenumber'];
$age=$row['age'];
$gender=$row['gender'];
 $add=$row['address'];
}
$query="INSERT INTO
appointment(firstname,lastname,email,username,phonenumber,age,gender,address,appdate,appti
me,apreason,datebook)
```

```
   VALUES
('$fname','$lname','$email','$uname','$pnum','$age','$gender','$add','$apdate','$aptime','$apreaso
n',NOW())";
   $result=mysqli_query($con,$query);
   if($result){
        echo"<script>alert('Appointment Booked Succesfuly...!');</script>";
   }
   else{
         echo"<script>alert('Oops😑! Something Went Wrong...');</script>";
   }
}
?>
<?php
$qry="select * from appointment where username ='$user' order by status desc";
$rslt=mysqli_query($con,$qry)
$output="";
if(mysqli_num_rows($rslt) < 1){
   $output.="<h4 align='center' style='color:red'>No Appointment Record</h4>";
}
while($rw=mysqli_fetch_array($rslt)){
   $id=$rw['id'];
   $output.="
            <tr>
               <td>".$rw['id']."</td>
               <td>".$rw['appdate']."</td>
```

```
                <td>".$rw['apptime']."</td>
                <td>".$rw['apreason']."</td>
                <td>".$rw['datebook']."</td>
                <td>".$rw['status']."</td>
                <td>".$rw['doctor']."</td>
                <td><a href='bookapp?del=$id'><button id='rej'>Delete</button></a></td>
            </tr>
          ";
}
?>
<?php
if(isset($_GET['del'])){
  $del=$_GET['del'];
  $qy=mysqli_query($con,"delete from appointment where id='$del'");
  if($qy){
    echo"<script>alert('Appointment Deleted');</script>";
  }
  else{
            echo"<script>alert('Oops😑! Something Went Wrong...');</script>";
  }
}
?>
<!DOCTYPE html>
<html lang="en">
```

```
<head>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0" />
  <title>Patient | Book Appointment</title>
  <link rel="website icon" type="png" href="../Home/Logo.png" />
  <link
    rel="stylesheet"
    href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.5.1/css/all.min.css"
    integrity="sha512-
DTOQO9RWCH3ppGqcWaEA1BIZOC6xxalwEsw9c2QQeAIftl+Vegovlnee1c9QX4TctnWMn13T
Zye+giMm8e2LwA=="
    crossorigin="anonymous"
    referrerpolicy="no-referrer"
  />
  <link rel="stylesheet" href="dashindex.css" />
</head>
<body>
  <section class="sidenav">
    <div>
      <a href="patientindex.php"><h3>Dashboard</h3></a>
    </div>
    <div>
      <a href="patientprofile.php"><h3>Profile</h3></a>
    </div>
    <div class="active">
```

```
    <a href="bookapp.php"> <h3>Book Appointment</h3></a>
  </div>
  <div>
    <a href="patientreport.php"> <h3>Report</h3></a>
  </div>
  <div>
    <a href="patientinvoice.php"> <h3>Invoice</h3></a>
  </div>
  <div>
    <a href="patientrecs.php"> <h3>My Records</h3></a>
  </div>
</section>
<main class="adminprof">
<section class="report" id="bapp">
  <h3>Book An Appointment</h3>
  <form method="post"  action="<?php echo $_SERVER['PHP_SELF']?>">
  <label>Appointment Date : </label><br/>
  <input type="date" name="appdate" required>
  <br/><br/>
  <label>Appointment Time : </label><br/>
  <input type="time" name="apptime" required>
  <br/><br/>
  <label>Appointment Reason (Symptoms): </label><br/>
```

```
      <textarea name="appreason" placeholder="Appiontment Reason (Medical Conditon)"
required></textarea>
      <br/><br/><br/>
      <input type="submit" name="book" value="BOOK" id="btn">
      </form>
   </section>
   <section class="yourprof" id="prevapp">
    <h3>APPOINTMENT HISTORY</h3>
      <div class="info">
        <table border="1">
          <th>Appointment ID</th>
          <th>Appointment Date</th>
          <th>Appointment Time</th>
          <th>Appointment Reason</th>
          <th>Date Book</th>
          <th>Status</th>
          <th>With Doctor</th>
          <th>Action</th>
          <?php echo $output ?>
        </table>
      </div>
   </section>
   </main>
 </body> </html>
```

5. IMPLEMENTATION DETAILS

5.1: SOFTWARE AND HARDWARE SPECIFICATION

Software Requirement	
Operating System	Microsoft Windows
Software Technology: -	
Front –End Software	WAMP Server, HTML, CSS, JavaScript
Back-End Software	PHP, MySQL
Hardware Requirement	
Processer:	Intel core i5 2GHZ
RAM:	4GB or more
Monitor:	LCD monitor
Keyboard:	Normal keyboard
Mouse:	Compatible mouse

6. OUTPUT AND REPORT TESTING

6.1: TEST PLAN

A) Objective: The primary objective of testing this Hospital Management System software is to enhance user flexibility and ensure the absence of technical faults. And to essentially avoid technical faults in the particularly particular program in a subtle way. This web-based application aims to streamline hospital operations and provide efficient management of patient records and administrative tasks.

B) Project Overview: The Hospital Management System is a comprehensive software solution designed to facilitate the efficient management of hospital operations, including patient admissions, scheduling appointments, managing medical records, and billing. By automating these processes, the system aims to improve overall hospital efficiency and patient care.

C) Assumptions:

I. while testing this software we assume that expected output will recur
II. there may be a chance of errors while testing functionalities under different environments.

D) Test Execution

Testing of this software is divided into two parts:

1. Black Box Testing / Data Validation Test Cases

2. White Box Testing/ Functional Validations Test Cases and Results

6.2: BLACK BOX TESTING / DATA VALIDATION TEST CASES

Black Box Testing is a software testing method in which the functionalities of software applications are tested without having knowledge of internal code structure, implementation details and internal paths. Black Box Testing mainly focuses on input and output of software applications and it is entirely based on software requirements and specifications. It is also known as Behavioral Testing.

A **TEST CASE** is a set of actions executed to verify a particular feature or functionality of your software application. A Test Case contains test steps, test data, precondition, postcondition developed for specific test scenario to verify any requirement. The test case includes specific variables or conditions, using which a testing engineer can compare expected and actual results to determine whether a software product is functioning as per the requirements of the customer.

Following is a performed data validation test cases and its result for this Hospital Management Software:

Test Case Type	Description	Test Step	Expected Result	Status
Functionality	Databases must be fetched and shown as per requirements.	Sign in with user's credentials fetching from database.	Access should be permitted according to whomever user is logged in.	**Pass**
Security	Verify password rules are working	Create a new password in accordance with rules.	The user's password will be accepted if it adheres to the rules.	**Pass**
Usability	Ensure all links are working properly.	Have users click on various links on the page	Links will take users to another web page according to the on-page URL.	**Pass**

6.3: WHITE BOX TESTING / FUNCTIONAL VALIDATION TEST CASES

White Box Testing, also known as clear box testing or logic-driven testing, examines the internal structure of a program to derive test cases based on program logic or code. This testing technique is crucial for ensuring the reliability and functionality of the Hospital Management System (HMS) built using HTML, CSS, JavaScript, and PHP.

How Does White Box Testing Work?

The steps to perform this Testing mentioned as following in a specific order -

- Firstly, all feature, components, and programs to be tested, identified first.
- Create a flow graph and identify /plot all possible paths in the flow graph.
- Identification of all possible paths from the flow graph.
- Write test cases for every single path of the flow path.
- Execute, rinse, and repeat test cases.

Benefits of this testing explained in the following manner –

- **In-depth Understanding:** Requires knowledge of the internal workings of the HMS, ensuring thorough testing.
- **Error Detection:** Helps uncover hidden errors and internal issues within the codebase.
- **Optimization:** Identifies areas for code optimization and enhancement to improve system performance.
- **Maximized Code Coverage:** Offers maximum coverage of the codebase, ensuring comprehensive testing of all functionalities.

Test Cases and Result:

ID	Process	Detail step	Expected result	Pass/ fail/criteria	Data input	Reference
1	Patient Login	Type username in username field			username	Login
2		Type password into the password field.			Password	Login
3		Click the login button	Website launches	Dashboard opens without error = pass		
4		Click book appointment icon or side navigation bar	Appointment form opens	Page opens without error = pass		Book Appointment
5	Appointment	Insert appointment details (i.e. date, time, reason) in the form				Book Appointment
6		Click submit button (BOOK)	Appointment booked successfully/ Error Something went Wrong	Showing correct output = pass	Form	Book Appointment
7	Doctor Login	Type username in username field			username	Login
8		Type password into the password field.			Password	Login
9		View Appointments	Open Appointment list and click approve	Shows updation = pass		Approve Appointment

10	Admin Login	Type username in username field			username	Login
		Type password into the password field.			Password	Login
		View Doctor Job Request	Open job request list and update status	Shows list = pass		Approve/Reject Doctor Application
11		Add Doctor	Fill add doctor form	New Doctor added successfully = pass		Add New Doctor
12	Logout	Click logout button	Redirects on login page Session ends	Pass		Logout

7. CONCLUSION

The project Hospital Management System (HMS) is for computerizing the working in a hospital. 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 patients that come up to the hospital.

It also provides staff, doctor and patient details and billing facility based on patient's status whether it is an indoor or outdoor patient.

Using this application, we can retrieve patient's history with a single click. Thus, processing information will be faster. It easily reduces the bookkeeping task and therefore reduces the human effort and increases accuracy speed.

8. FUTURE SCOPE

The system has wide scope in the future. All the limitation mentioned above could be fulfilled which will make it complete system.

In future it can be enhanced with some more features like:

- Notifications of patients, and doctors.
- Different medicals can also connect with this.

9. BIBLIOGRAPHY AND REFERENCES

- www.slideshare.net
- www.youtube.com
- http://www.geeksforgeeks.org
- ✧ Object Oriented Software Engineering by Neelima Padmawar.