



# E-TREATMENT ROOM

---

*Online free Treatment...*

E-Treatment Room is a website which is created using ASP.NET with C#.

APROJECT REPORTONE-TREATMENT ROOM**Submitted To****Gujarat Technological University****For full Fulfilment towards the Award of Diploma of****Diploma (C.E.)****SEM 6<sup>th</sup>****April 2016****BY**

- |                     |              |
|---------------------|--------------|
| 1. Vidhi Shah       | 136400307587 |
| 2. Swapnil Turakhia | 136400307600 |

**R.C. Technical Institute****Opp. Gujarat High court, S.G. Highway, Sola**



**R. C. Technical Institute  
Sola, Ahmedabad - 60**

**CERTIFICATE**

This is to certify that this work of **PROJECT-II** Subject & **3360707** Subject Code of **6<sup>th</sup>** Sem with title: **E-Treatment Room** represents the bonafide work of following students for the partial fulfilment of the Certificate of Diploma in Computer Engineering at R. C. Technical Institute Sola, Ahmedabad - 60, Gujarat, during the academic year 2015-16 and the work is completed and found satisfactory.

Sr. No.	Enroll No.	Name
1	136400307587	Vidhi Shah
2	136400307600	Swapnil Turakhia

Submitted to:

Mr Jwalant Baria

Lecturer, Computer Engg. Dept.  
RCTI

Mr Kamlesh Raval

Head of Computer Dept.  
RCTI

## Acknowledgement

Without taking help of other people it is not possible to complete this large project. So we have opportunity to thank them all who have helped us directly or indirectly to make our project successful.

Firstly, we would like to thank our external guide **Mrs Sejal B. Bihola** and our internal guide **Miss Dhruti Mistry, Mr Jwalant Baria** and **Mrs Hiral Parikh**. We are grateful to there prolonged interest in our work and excellence guidance. They have been a constant source of motivation to us by providing us with suitable media performance, a platform to show our potential and a chance to prove our skills by the way of project development.

We are grateful to **Prof. K. N. Raval**, Head of Computer Department for allowing us to make this project at R.C Technical Institute. We are sincerely thankful to him for his time and valuable guidance during the training period. We are also thankful to our family members to provide mentally strength during my project preparation.

Yours Sincerely,

Shah Vidhi (136400307587),

Turakhia Swapnil (136400307600)

## Table of Content

<i>Serial No</i>	<i>Title</i>	<i>Page No</i>
<b>1</b>	<i>Abstract</i>	7
<b>2</b>	<i>Company Profile</i>	6
<b>3</b>	<i>Figures</i>	
	1) <i>List of figures</i>	
	(1) <i>Waterfall model</i>	16
	(2) <i>Use case diagram</i>	51
	(3) <i>Activity Diagram</i>	52
	(4) <i>Sequence Diagram</i>	53
	(5) <i>ER Diagram</i>	61
	(6) <i>Context diagram</i>	63
	(7) <i>DFD 1</i>	64
	(8) <i>DFD 2</i>	65 to 68
	(9) <i>Flow Diagram</i>	69
	(10) <i>Test Cases</i>	95
	2) <i>List of tables</i>	
	(1) <i>Milestones</i>	19
	(2) <i>Activities</i>	20
	(3) <i>Gantt chart</i>	22
	(4) <i>Data dictionary</i>	56 to 59

<b>3)</b>	<i>List of snapshots</i>	
	<i>(1)Interface to other system</i>	<i>36 to 40</i>
	<i>(2)Sample Snapshots</i>	<i>76 to 87</i>
<b>4</b>	<b><i>Chapter 1</i></b>	
	<i>Project abstract</i>	<i>7</i>
	<i>Project Profile</i>	<i>10</i>
	<i>Introduction</i>	<i>11</i>
	<i>Objective</i>	<i>12</i>
<b>5</b>	<b><i>Chapter 2</i></b>	
	<i>Project planning</i>	<i>13</i>
	<i>Project scheduling</i>	<i>19</i>
	<i>Risk Management</i>	<i>21</i>
	<i>Efforts &amp; Cost Estimation</i>	<i>25</i>
<b>6</b>	<b><i>Chapter 3</i></b>	
	<i>User characteristics</i>	<i>27</i>
	<i>Software &amp; hardware requirements</i>	<i>32</i>
	<i>Interfaces to other system</i>	<i>34</i>
<b>7</b>	<b><i>Chapter 4</i></b>	
	<i>Feasibility Study</i>	<i>40</i>
	<i>Modules of system</i>	<i>44</i>
	<i>Features of system</i>	<i>46</i>
	<i>UML diagram</i>	<i>49</i>
	<i>System activity diagram</i>	<i>51</i>

	<i>Sequence diagram</i>	52
<b>8</b>	<b><i>Chapter 5</i></b>	
	<i>Database Design</i>	54
	<i>Flow Diagram</i>	70
<b>9</b>	<b><i>Chapter 6</i></b>	
	<i>Implementation environment</i>	70
	<i>Module specification</i>	71
	<i>Coding standards</i>	73
	<i>Sample snapshots</i>	75
<b>10</b>	<b><i>Chapter 7</i></b>	
	<i>Testing plan &amp; strategy</i>	88
	<i>Testing methods</i>	92
	<i>Testing cases</i>	94
<b>11</b>	<b><i>Chapter 8</i></b>	
	<i>Limitations</i>	97
	<i>Future environment</i>	98
<b>12</b>	<b><i>Chapter 9</i></b>	
	<i>Conclusion</i>	100
	<i>Reference</i>	101

# Company Profile



Navigator's InfoTech was founded in 2011 and engaged in business of software development, Database services, Hardware and website services and different computer courses. Navigator's InfoTech's excellence is proven to provide Software technology solutions for Accounting and Business Management, Smart card Technology solutions and ERP based software solution to SME corporate.

Navigator's InfoTech did provided software development services to end user clients and as sub contract services to Smart Chip Limited, Financial Information and Operations Limited (FINO), etc.

**Contact Details:**  
**Sejal B. Bihola**

***Navigator's InfoTech***  
6/B, Anupam Society part-1,  
Jodhpur Cross Road,  
Satellite,  
Ahmedabad-380015,  
M::7874420833

**Thanks**  
**Sejal B. Bihola**

# Ch: 1

---

## *Introduction*

## Project Abstract

---

E-Treatment Room for doctor and patient is a system that can help the clinic to manage their daily activity. This system help reduce the problems which occur when using the manual system. This system enables doctors and admin to manage patient records and appointment and produce reports. This System also provides exceptional solutions for getting online medicine suggestion regarding Allopathy, Ayurveda and Homeopathy who cannot come at clinic. This System is easy and simple to use by user. Other than that, the system is user friendly and it can help the clinic to manage their activity.

# Project Profile

---

**Aim:** To develop E-Treatment Room.

**Definition:** E-Treatment Room.

**Operating System:** Windows 8.1

**Platform:** Visual Studio 2010.

**Language:** Asp.Net with C#.

**Front End Tool:** Visual Studio 2010.

**Back End Tool:** SQL Server2008.

## Introduction

---

We are going to create “E-Treatment Room” which will provide efficient and reliable way to patients and doctors. Using this website doctors can see all the information about patients. Means he/she can see present as well as past medical cases of all the patients. In patient’s case, patients can visit free weekly dental camp. Patient can use the online prescription provided by the respective doctors of Ayurveda, Allopathy, and Homeopathy and if there is a need to visit the clinic then the patient can also take online appointment.

So, I hope this website will give us a great experience to us and hopefully it may become a boon for us...

# Objectives

---

**The main objective of the system is to provide:**

- + Better interface between doctors and patient.
- + To provide free dental camp.
- + To provide free prescription of diseases.
- + To spread awareness between users about the new technologies and happenings in medical field.
- + To take appointment online.

# Ch: 2

---

## Project Management

Project Management is concerned with activities involved in ensuring that software is delivered on time and on schedule and in accordance with the requirements of the organizations developing and procuring the software. Project management is needed because software development is always subject to budget and schedule constraints that are set by the organization developing the software.

**□ Management includes following activities:**

- + Proposal writing.
- + Project planning and scheduling.
- + Project costing.
- + Project monitoring and reviews.
- + Personnel selection and evaluation.
- + Report writing and presentations.

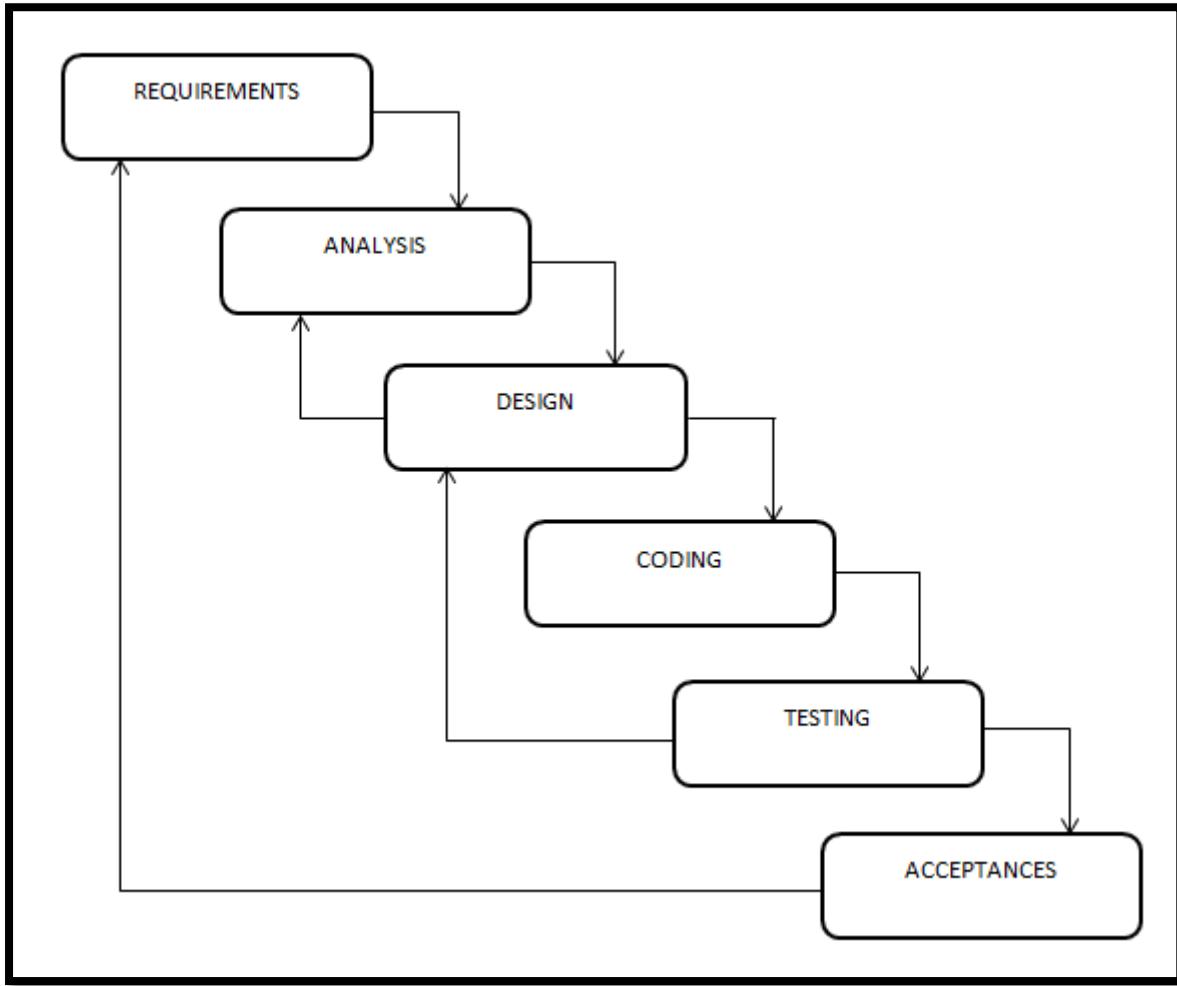
# Project planning

Now since we are aware of the possible risks so we can avoid those risks by taking preventive measures. We can also remove those features from the site which are most risk prone thereby avoiding any risk condition beforehand. The risks associated with our project were mainly concerned with area involving user.

## Waterfall model:

Waterfall model uses the classic approach towards software development. It uses linear and sequential approach in software design as well as development. The progress of the software is steady downward flow, similar to that of a waterfall. This model originated in the manufacturing and construction industry. It follows a highly structured pattern, where the changes to the model after the phase in the waterfall model life cycle has passed often prove to be very costly.

This model was adapted initially for software development, as no other model was available at that time. The phases in the waterfall model in software engineering are looked upon as separate process in itself. After the phase is over, there is no going back to the phase. The waterfall model examples prove to be of immense help in understanding the model better.



*Fig 2.1: Waterfall model*

#### **Requirement specification phase:**

This is the first phase waterfall software development model. It is in this phase that all the requirements from the users are captured.

#### **Analysis Specification:**

Analysis of the requirement is carried out to find out the possibility and validity of the requirements can be incorporated in the system. The different functionality required along with the constraints is also taken into consideration in this phase.

 **Design Phase:**

This is one of the important waterfall model phases. In this phase the software to be developed is designed.

 **Coding phase:**

The third phase in the waterfall model diagram is the coding phase. In this phase the actual software is developed.

 **System testing:**

As specified above, the system is first divided into units which are developed and tested for their functions.

 **Maintenance Phase:**

After the software is working as per the specifications of the end user, the system is ready for delivery. The software is delivered to the end user. Often there are problems, which arise after the end user starts using the system. When the problems arise, the problems have to be rectified. Something, the problems in the system are seen after substantial amount of time.

## Project Development Approach:

There are various software development approaches defined and designed which are used/employed during development process of software, these approaches are also referred as "Software Development Process Models". Each process model follows a particular life cycle in order to ensure success in process of software development. One such approach/process used in Software Development is "The Waterfall Model". Waterfall approach was first Process Model to be introduced and followed widely in Software Engineering to ensure success of the project. In "The Waterfall" approach, the whole process of software development is divided into separate process phases. The phases in Waterfall model are Requirement Specifications phase, Software Design, Implementation and Testing & Maintenance. All these phases are cascaded to each other so that second phase is started as and when defined set of goals are achieved for first phase and it is signed off.

## Milestones & Deliverables:

- + When planning a project, a series of milestones should be established. The milestone is in end-point of the software process activity. All projects have important event called milestones that marks significant in their development as they difficult handles to passed or critical task that must be completed on time.
- + At each milestone, there is formal output, as a report. Milestone report needs not to be large Documents. They may be short report of achievements in a project activity. It is logical step in project progress but which are not delivered to the customer.
- + The completion of each phase of SDLC is milestone in linear sequential model. Each completing phase raises the project work 10, 15% towards that end product expected.

	<b>Milestones and Activities</b>	<b>Start Date</b>	<b>End Date</b>
1.	<i>Understand the Definition</i>	15/06/15	30/06/15
2.	<i>Requirement gathering and system analysis</i>	1/07/15	1/08/15
3.	<i>Design</i>	2/08/15	20/09/15
4.	<i>Project Documentation</i>	21/09/15	10/10/15
5.	<i>Implementation</i>	1/1/16	30/3/16

*Table 2.1:Milestones*

## Roles and Responsibility:

Our system was decomposed into different modules and we are the only responsible people for analysis, design and implementation, documentation along with the testing.

<b>Activities</b>	<b>Responsibility</b>
<b>Requirement Collection</b>	<i>Swapnil, Vidhi</i>
<b>Analysis</b>	<i>Swapnil, Vidhi</i>
<b>Design</b>	<i>Swapnil, Vidhi</i>
<b>Documentation</b>	<i>Swapnil, Vidhi</i>
<b>Implementation</b>	<i>Swapnil, Vidhi</i>
<b>Testing</b>	<i>Swapnil, Vidhi</i>

*Table 2.2: Activites*

# Project Scheduling

- ❑ Project scheduling is the process of creating a network of the software engineering tasks that will enable the job done on time. After creating network have to assign responsibility.
- ❑ Project scheduling starts after:
  - Selecting appropriate process model.
  - Identified the software engineering tasks.
  - Estimating the amount of work and number of people.
  - Deciding the deadlines
  - The main thing is that it is impossible to track complex software project without scheduling.

Gantt Chart:

Month	Week1	Week2	Week3	Week4
1 <sup>st</sup> month	<p><i>Search of Project.</i></p> <p><i>Project assigned</i></p>	<p><i>Overview of project</i></p> <p><i>Discussion on the project</i></p>	<p><i>Preparing SRS</i></p> <p><i>Study asp.net with C#.</i></p>	<p><i>Study of SQL server</i></p> <p><i>Project planning</i></p>
2 <sup>nd</sup> month	<p><i>Designing of UML Diagrams &amp; System flow</i></p>	<p><i>Database Design for Initial modules</i></p>	<p><i>Changes in System flow from User side</i></p>	<p><i>Further Details study of system</i></p>
3 <sup>rd</sup> month	<p><i>Redesigning of Database with needed changes</i></p>	<p><i>Development of Database</i></p>	<p><i>Development of Database</i></p>	<p><i>Development of Database</i></p>
4 <sup>th</sup> month	<p><i>Development of Documentation</i></p>	<p><i>Development of Documentation</i></p>	<p><i>Integration of modules</i></p>	<p><i>Completion of Documentation</i></p>

# Risk Management

- Risk management is the process of measuring or assessing risk and developing strategies to manage it. Strategies include transferring the risk to another party avoiding the risk, reducing the negative effect of the risk and accepting some or all the consequences of a particular risk. Traditional risk management focuses on risks stemming from physical or legal causes (e.g. natural disaster or fires, accidents, death and lawsuits). Financial risk Management on the other hand, focuses on risk that can be managed using traded financial instruments. In ideal risk management, a periodization process is followed whereby the risks with the greatest loss and largest probability of occurring are handled first, and risk with lower probability of occurrence and lower loss are handled later.
- **Steps in risk management process:**
  - Planning the remainder of the process.
  - Mapping out the following: the scope of the exercise, the identity and objective of stakeholders, and the basis upon which risks will be evaluated.
  - Defining a framework for the process and agenda for identification.
  - Developing an analysis of risk involved in the process.

## **Risk Identification:**

It is the first stage of risk management. It is concerned with discussing all the possible risks to the project. Risk identification is carried out as a team process. To help this process a list of all the possible risk types is used. The possible risks include the following:

### **Requirements Risk:**

Earlier we thought that for weekly dental camp in which patient can pay for camp at camp but later we have decided to provide free weekly dental camp managed by doctors.

### **Estimation Risk:**

As the need for including lab test section and online prescription of medicines for patients erupted project size increased tremendously. Also, the estimated time was to be recalculated.

## Risk Analysis:

- Once risks have been identified, they must then be assessed as to their potential severity of loss and to the probability of occurrence. Regardless of the prevention techniques employed, possible threats that could arise inside or outside the organization need to be assessed. Regardless of the type of threat, the goals of business recovery planning are to ensure the safety of customer. Employees and other personal during and following a disaster.
- If by mistake any person threat administrator password then he can change the data in software and can leak information. Something wrong occurs if the wrong user is authorized.
- The software may be in problem by natural threat e.g. internal flooding, external flooding, internal file, external file etc.

## Risk Planning:

This process considers each risk which has been identified and identifies strategies to manage the risk. These strategies fall into three categories:

-  **Avoidance strategies:** Following these strategies means that the probability that the risk will arise will be reduced. An example of this is the strategy to deal with wrong information of latest machines and news.
-  **Minimization strategies:** Following these strategies means that the impact of the risk will be reduced. An example of this is the strategy for doctors not available.
-  **Contingency plans:** Following these strategies means that, if the worst happens, you are prepared for it and have a strategy in place to deal with it. An example of this includes organizational financial problems.

## Efforts & Cost Estimation

- ❑ For any new project, it is necessary to know how much it will cost to develop. This estimation is needed before the development is initiated. The estimation can be done using past experience as the only guide. In most cases projects are different and past experience is not enough for new project, it should be broken into small pieces and each piece estimated individually.
- ❑ A cost benefit analysis is necessary to determine economic feasibility. It is economically worthwhile to invest in the project. If the return on the investments is good, then the project is considered economically worthwhile.
- ❑ Cost benefit analysis is performed by first listing all the costs associated with the project. Costs consist of direct costs and indirect costs. Benefits can be broadly classified as tangible benefit and intangible benefits. Tangible are directly measurable and intangible are not.
- ❑ The sum of all costs is compared with the sum of all savings (Tangible and Intangible). It is not always easy to assign money value to intangible benefit. It is arrived at by discussion amongst users of the system.

# Ch: 3

---

## System

## Requirement Study

## User Characteristics

□ The characteristics of the ADMINISTRATOR are:

- The admin have the full rights over the system.
- Can handle the whole website.
- Can view the accounts.

R.0: View account.

R.0.1: View account option.

- Input: "Login" option.
- Output: Admin logged into its account.

- Insert/delete/edit the information from the system.

R.1: Insert/Delete/ modify.

R.1.1: Insert/Delete/modify on system.

- Input: Select data to be Inserted/Deleted/Edited.
- Output: Data inserted/Deleted/Edited as required.

- Can access all the account of the Doctors/Patients.

R.2: Access all accounts.

R.2.1: Account access.

- Input: "Access account" option.
- Output: Admin prompted into access account option.

R.2.2: Doctors id/patients username.

- Input: Enter patient's username or Doctors id.
- Output: Whole account is fully accessed by the admin.

**The characteristics of the DOCTOR are:**

 Can login into his account.

R.0: View account.

R.0.1: View account option.

- Input: "Login" option.
- Output: Doctors logged into its account.

 Can check patient's history

R.1: Patient's History.

R.1.1: View "Patient's History".

- Input: View "Patient's history" option.
- Output: Doctor prompted into all Patient's history.

 Can arrange weekly dental camp.

R.2: Weekly dental camp.

R.2.1: "Weekly dental camp".

- Input: "Weekly dental camp" option.
- Output: Doctor prompted into weekly dental camp option.

R.2.2: Check the patient's forum.

- Input: View the patients who have applied.
- Output: Give appointment to the patients.

 Doctors can prescribe medicine.

R.3: Prescribe other medicine.

R.3.1: Prescribe medicines for patient.

- Input: new medicines for diseases.
- Output: Patient can view this medicine for respective diseases.

 Doctor can view its Profile.

R.4: Doctor can see the profile.

R.4.1: View profile.

- Input: "Profile" option.
- Output: Doctor prompted in its profile and can make changes.

 Doctors can view its patients.

R.5: Doctors can view how many patients he/she has served.

R.5.1: Doctors can view the number of patients and their cases.

- Input: View patients.
- Output: Doctors prompted into the patient's cases he/she has served.

**The characteristics of the PATIENT are:**

- Can view this website.
- Can register in the website.

R.0: Registration form.

R.0.1: Registration Form.

- Input: Click on Registration Form.
- Output: User prompted to register itself.

R.0.2: Fill Registration form.

- Input: User fills the registration form.
- Output: User is registered and has created the account in the website.

- Can login into his account.

R.1: View account.

R.1.1: View account option.

- Input: "Login" option.
- Output: Patient logged into its account.

- Can view the profile and achievements of Doctors.

R.2: Can view the Doctor's Profile.

R.2.1: View Doctors.

- Input: "Doctors" option.
- Output: User prompted into all Doctor's list.

R.2.2: Select Doctor.

- Input: "Select Doctor" option.
- Output: User prompted to see Doctor's Profile.

- Can view Latest Technology and news.

R.3: Can view the new technologies and news.

R.3.1: New technologies and news.

- Input: "Latest Technologies & News" option.
- Output: Can view all the happening in the medical world.

 Can give Feedback.

R.4: Can view as well as give feedback.

R.4.1: Blog can be seen.

- Input: “Blog” option.
- Output: User prompted into Blog where it can see as well as give updates.

 Can take help.

R.5: Can take help if the user is new to website.

R.5.1: Can take help.

- Input: “Help” option.
- Output: The user is helped by the modules.

 Can apply for free dental camp.

R.6: Can apply for free dental camp.

R.6.1: Need to apply for free Dental camp.

- Input: “Weekly dental camp” option.
- Output: User prompted into Weekly dental camp option.

R.6.2: Fill the form for Weekly Dental camp.

- Input: Fill the weekly dental camp registration form.
- Output: The user is registered for weekly dental camp and got the appointment for the free dental camp.

 Can use all services.

R.7: Can know all the services given by the system.

R.7.1: Can get the services by the system.

- Input: “Services” option.
- Output: User prompted to get all the services provided by the website.

 Can contact doctor:

R.8: Can Contact the doctors.

R.8.1: Contact the doctors.

- Input: “Contact us” option.
- Output: User can know all the contact of the doctors.

# Software Requirements & Hardware Requirements

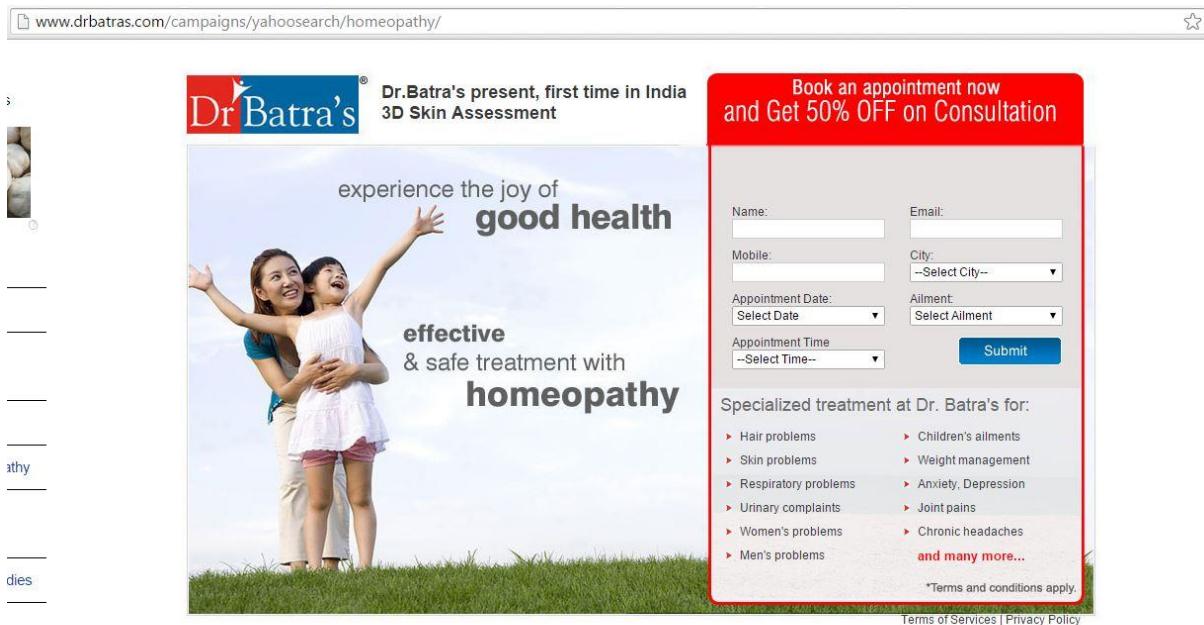
## Software Requirements:

-  **Operating System:** Windows 2000.
-  **Diagram Software:** MS Word 2010, MS Visio 2010, Snipping Tool, Duck Capture.
-  **Presentation Software:** MS PowerPoint
-  **Frontend Tool:** Visual Studio 2010
-  **Backend Tool:** SQL Server2008
-  **Browser:** Internet Explorer 6.0

## Hardware Requirements:

-  **RAM:** 512 MB, 2 GB, 4GB, 8GB
-  **Peripheral Device:** Printer
-  **Hard-disk:** 250GB HDD
-  **Processor:** Dual Core Processor

# Interfaces to other systems



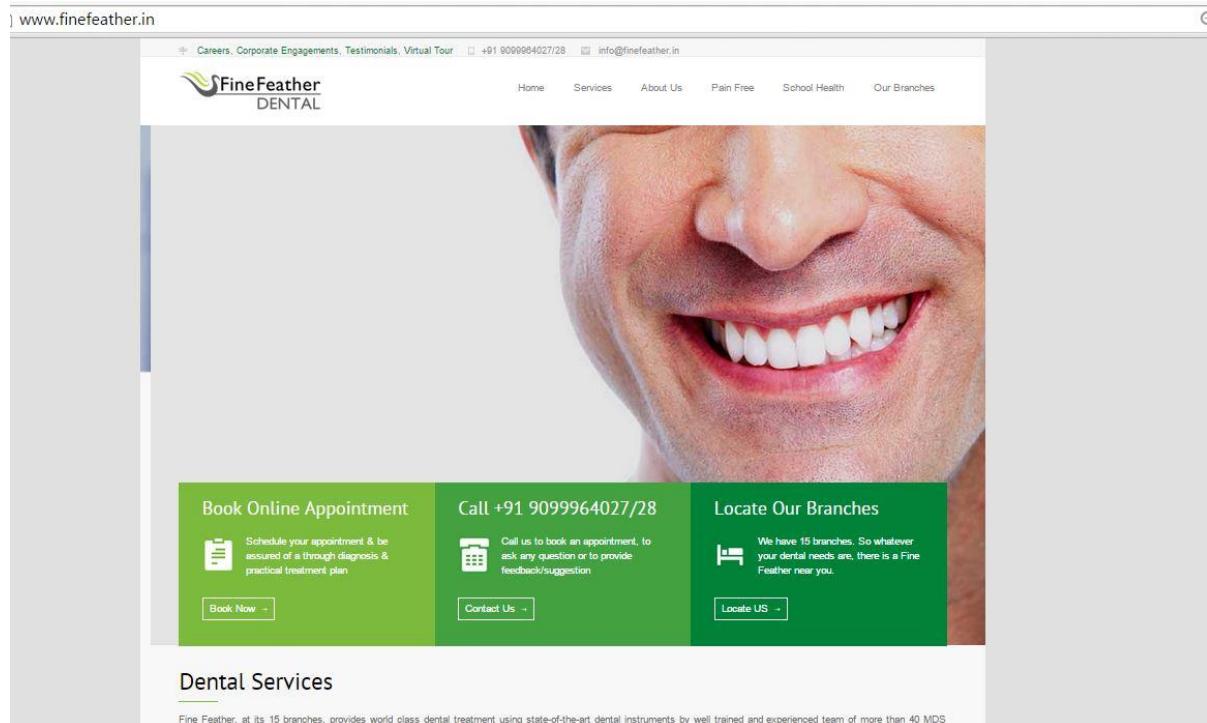
*Fig 3.1: Dr. Batra's Clinic*

## Dr Batra's:

Need to take appointment before even viewing the website.

In our website the new user can see the website without registration. Viewer can also view our different modules.

While in above shown website we need to take appointment first without even viewing its different modules.



*Fig 3.2: Fine Feather*

## □ Fine feather:

No weekly dental camp for the patients.

But in other website no such camp provided.

In our website the user needs to fill the forum provided in Weekly dental camp module. And then the appointment is given by our dentists and the user can attend this camp freely.

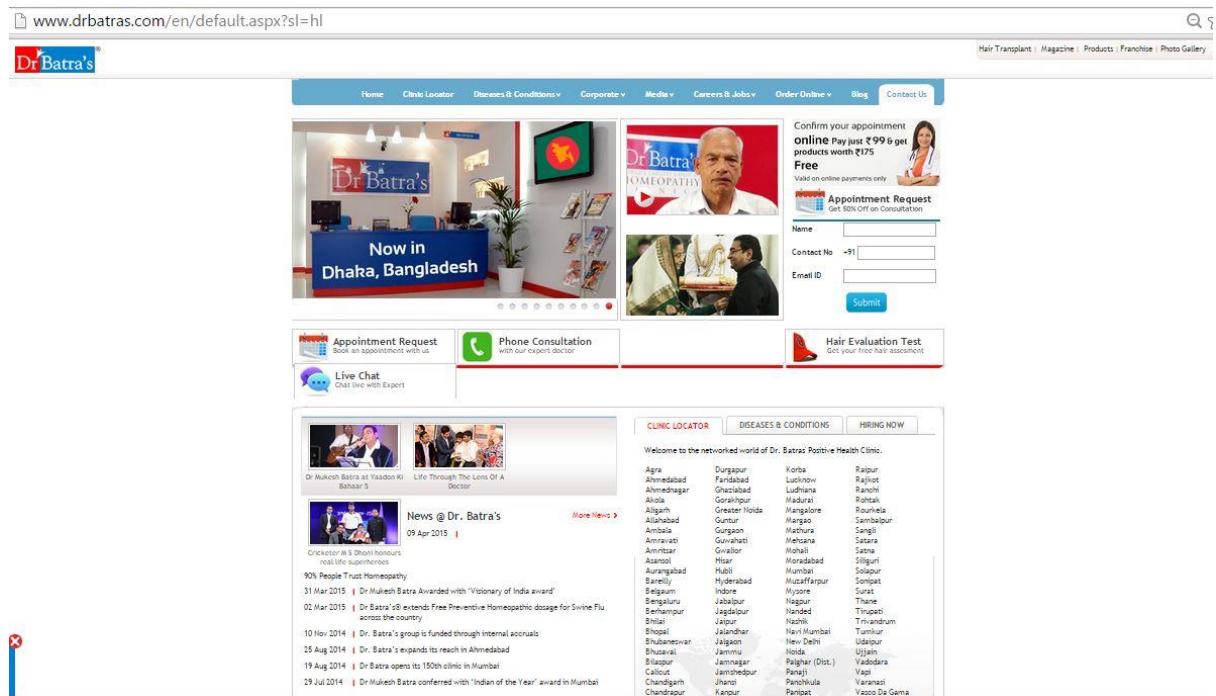


*Fig 3.3: NABHP*

## National accreditation board for hospitals & Healthcare Provider:

No online prescription provided. In this website it is compulsory to take appointment.

But in our website we provide online prescription to the patients so if the disease is normal it will be cured in 3 days or else the user need to take online appointment to cure the diseases.



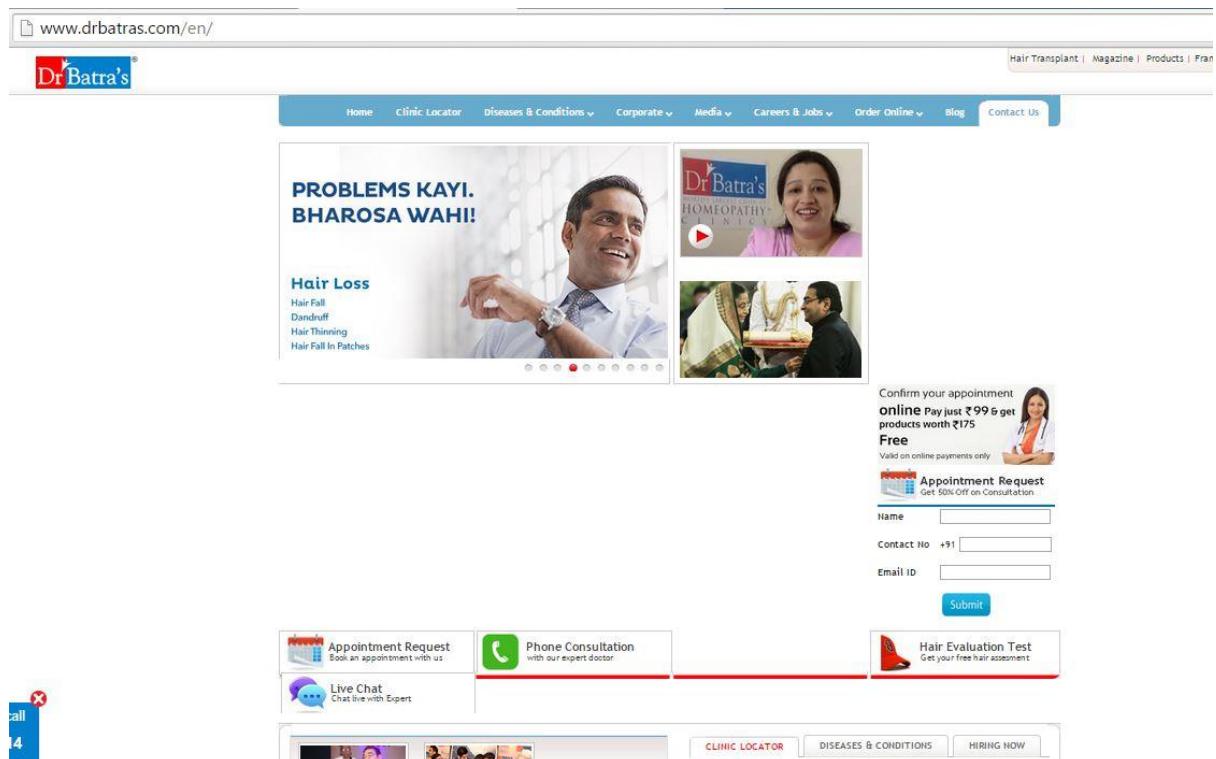
*Fig 3.4: Dr. Batra's clinic*

## □ Dr Batra's:

No other services like allopath or Ayurveda provided.

In our website the patient can choose the way of treatment by choosing the doctors related to different lines i.e. Allopathy, Ayurveda, homeopathy.

While the other website provide on homeopathy or allopathy or Ayurveda but not all three of this.



*Fig 3.5: Dr. Batra's clinic*

## ❑ Dr Batra's:

No latest technologies provided.

In our website we provide Latest Technologies, which will show the new technology in the medical fields.

But in other website there is no such module.

# Ch: 4

---

## System Analysis

# Feasibility Study

As we know each and every project need to have a feasibility study for the complete understand ability of the project. We will consider 4 types of feasibility study they are Operational Feasibility, Technical Feasibility, Scheduled Feasibility, and Economical Feasibility.

## □ **Need For Feasibility Study:**

The feasibility study is needed to:

- + Determine the potential of the existing system.
- + Improve the existing system.
- + Know what should be embedded in to new system.
- + Define the problems and objective involved in the project.
- + Avoid crash implementation of a new system.

## Operational Feasibility Test:

This test gives the different measurement of the system whether it can achieve or satisfy the goals, and how much the developed system is efficient. Different questions and check points by which we can have the result for the operation functionality. By doing feasibility analysis at operational level we can have answer of some difficult question like

- Measure of how well the solution will work for the organization.
- It's a measure of how user will feel about the system?
- How the end user & management feel about the problem solution?

## Technical Feasibility Test:

It is the measure of practicality of solution and the availability of technical resource and the expertise.

We have measure Technical feasibility test based on this questions.

- Is the proposed solution practical?
- Is the proposed technology available?
- Do you possess the necessary technical expertise? And is the schedule reasonable?

## Economic Feasibility Study:

The purpose of the economic feasibility assessment is to determine the positive economic benefits to the organization that the proposed system will provide. It includes quantification and identification of all the benefits expected. This assessment typically involves a cost/benefits analysis.

## Modules of system

- **Latest Technologies & News:** It gives us the introduction about which machines are new in market as well as their status and their use in medical field. And also gives news about world
- **Login:** It gives u access to the websites. It also gives us the privileges to use the other facilities in the website.
- **Doctors:** It shows the profiles of the doctors as well as their achievements in their respective fields. It also shows how much experienced the doctors have in their fields.
- **Weekly Dental Camp:** It gives you details about the dental camp arranged weekly by our dentists. The patients can attend this camp for free. And can even take appointments if needed.
- **Feedback:** It shows the feedback and the replies given by users (patients). It shows the positive as well as negative feedbacks. Other users (patients) can also visit this page and can give feedback as well as check feedbacks of other users.
- **Our successful Stories:** It shows the stories which will show all the cases of patients who were treated by our doctors and got well.
- **Registration:** Register's you to the website.

- Online Prescription:** Provides you the free prescription of diseases
- Online Appointment:** You can take online appointment.
- Patient History:** Doctor and admin can see patient history.

## Features of system

### Registration:

On the system the user are able to register according to its hierarchy, so that a username and password will be provided to the User in order to login to the system. The user database and records are maintained by the system and also you can add, update and delete the records from the system with proper privileges. (Depending on the user i.e. doctor and admin.) Doctor login will also define so they can login and view patients records.

### Doctor Consultant:

The system will provide a forum for the Patient like they can visit the Allopathy, homeopathy and Ayurveda doctor also as per their requirement.

### Weekly Dental Camp:

We will provide the weekly camp of dentist. For this camp patient must have to register before visiting.

## Other Features:

Along with the system we also propose a web site for the Treatment Room, which will enable the organizations to project themselves on global scale and keep up to date with today's latest technology. Also it provides a good advertising platform for projecting the organization worldwide.

## The web site will also provide following features:

- Detail information of the E-Treatment Room and its history.
- Online health related problem solved by doctors.
- Health related news.
- Gives information about the latest Technologies and equipment in the market.
- Free weekly dental camp for patients.

# System UML diagram

A use case diagram in Unified Modelling Language (UML) is a type of behavioural diagram defined by and created from a use case analysis.

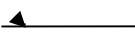
Use case diagrams model the functionality of a system using actors and use cases.

Use cases are services or functions provided by the system to its users.

UCDs have four major elements:

1. Actor
2. System itself
3. Use-case
4. Relationships.

## Basic Use Case Diagram Symbols and Notations

 Actor	<b>Actor:</b> It represents a user or another system that will interact with the System. When one system is the actor of another system, label the Actor system with the actor stereotype. For instance, an actor can be a customer, a business partner, a supplier, or another business system.
	<b>Relationship:</b> It represents the connection between these elements. It is also known as Association.
	<b>Use Case:</b> It is the External view of the System that represents some action the user might perform. Draw use cases using ovals. Label with ovals With verbs that represent the system's functions.

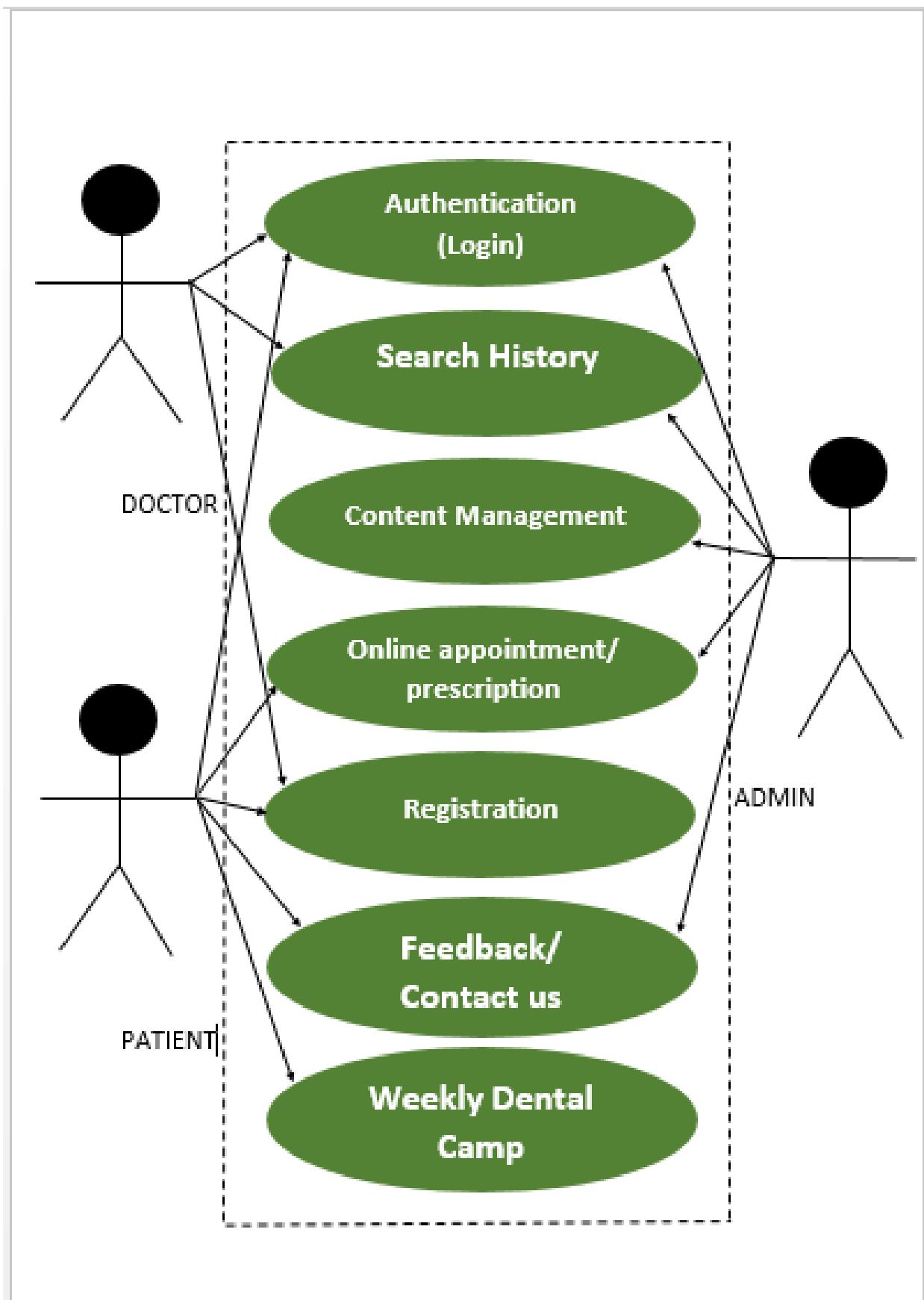


Fig 4.1: Use case diagram

# System Activity Diagram

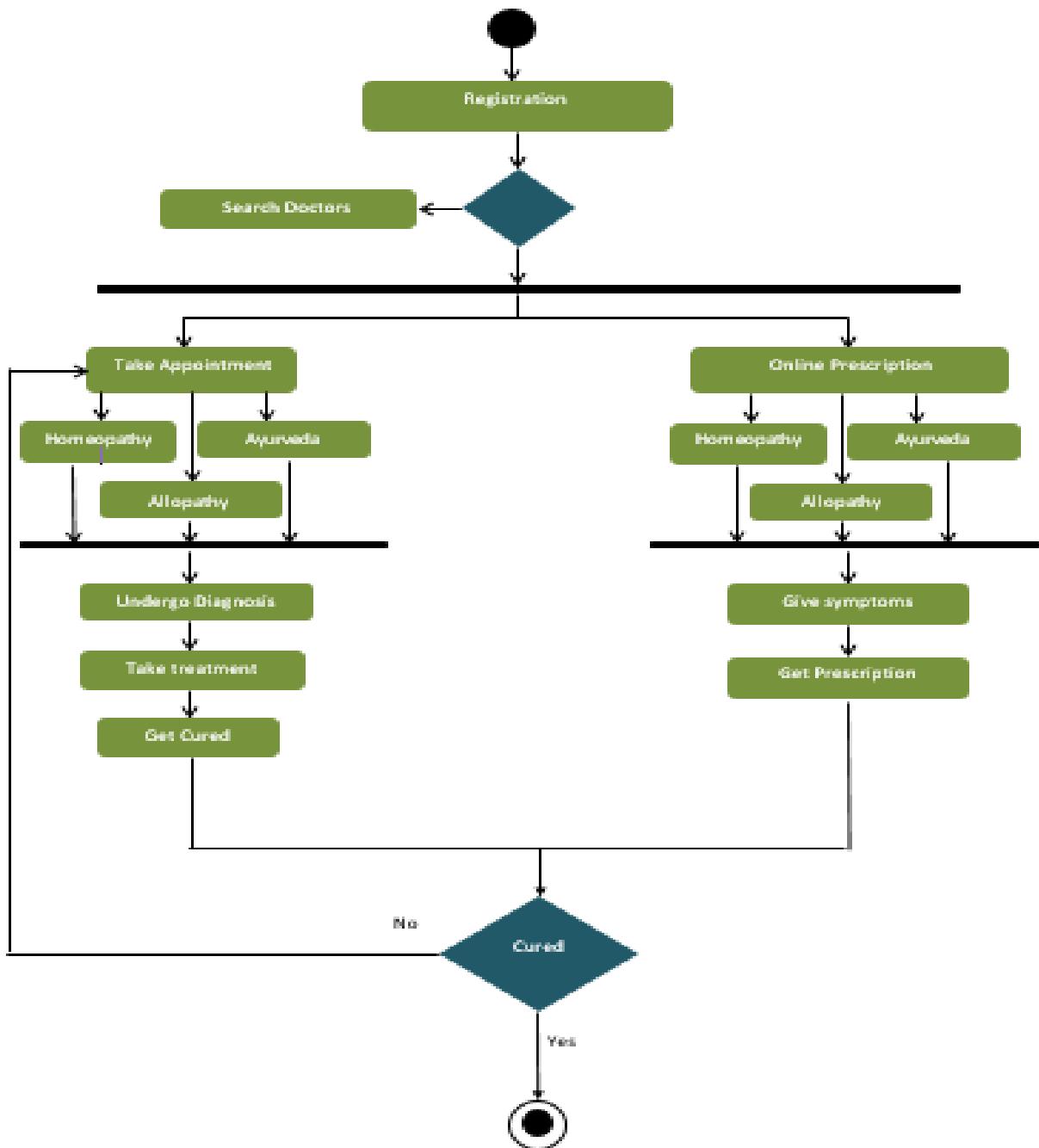


Fig 4.2: Activity diagram

# Sequence Diagram

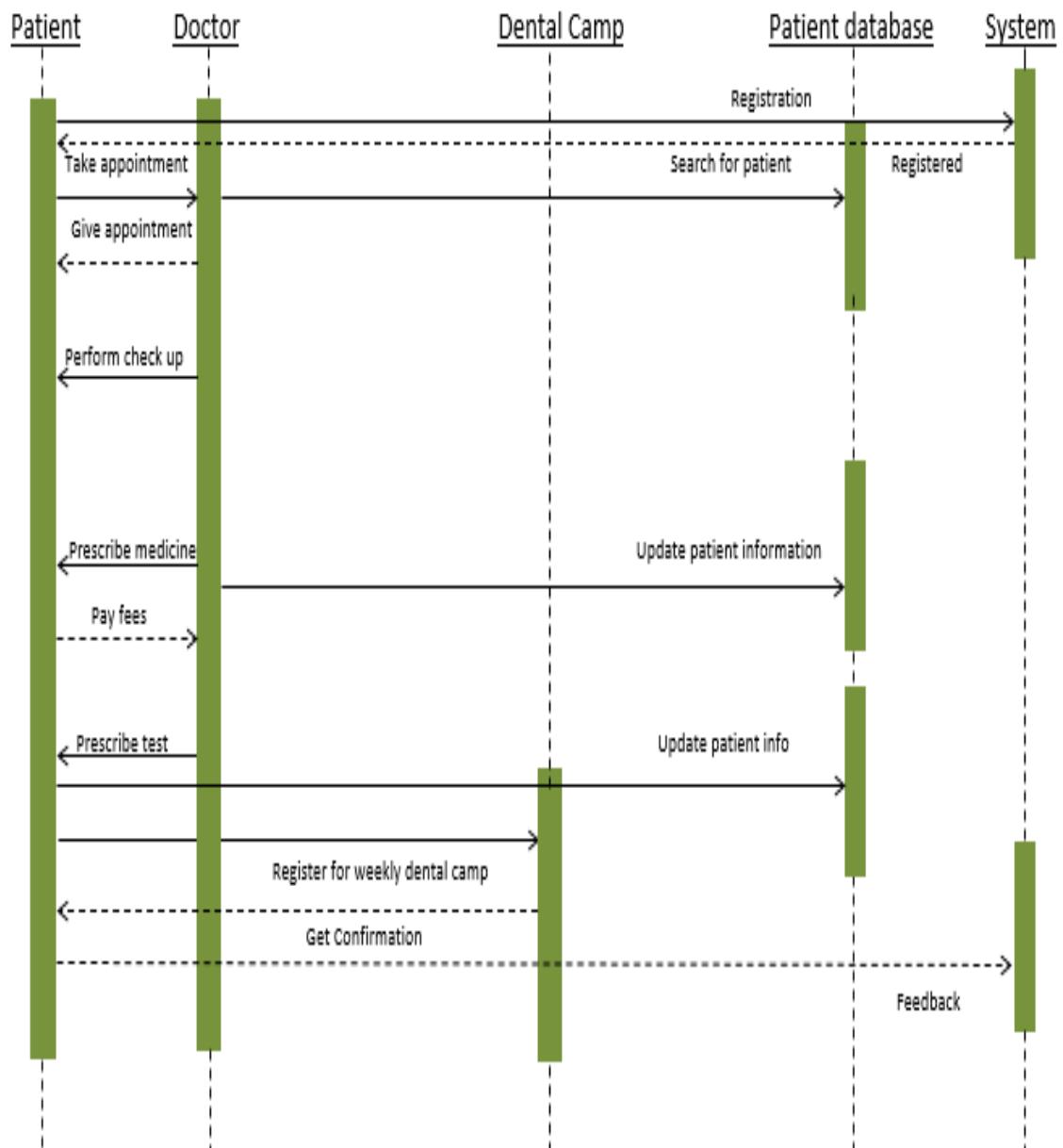


Fig 4.3: Sequence diagram

# Ch: 5

---

## System Design

# Database Design

## Data Dictionary:

A data dictionary, or metadata repository, as defined in the IBM Dictionary of Computing, is a "centralized repository of information about data such as meaning, relationships to other data, origin, usage, and format. The term may have one of several closely related meanings pertaining to databases and database management systems (DBMS):

A document describing a database or collection of databases.

An integral component of a DBMS that is required to determine its structure.

A piece of middleware that extends or supplants the native data dictionary of a DBMS.

 Patient (Registration):

<b>S_No</b>	<b>Attribute Name</b>	<b>Data Type</b>	<b>Size</b>	<b>Constraints</b>
1	Name	Varchar	20	
2	Pid	Nvarchar	20	Primary key
3	Email id	Nvarchar	50	Unique key
4	Address	Nvarchar	3000	
5	Phone no	Bigint		
6	Gender	Varchar	10	
7	Birthdate	Date		
8	Age	Int		
9	Password	Nvarchar	36	
10	Confirm password	Nvarchar	36	

Table 5.1: Patient's Registration

 Patient (Log in):

<b>S_No</b>	<b>Attribute Name</b>	<b>Data Type</b>	<b>Size</b>	<b>Constraints</b>
1	Pid	Nvarchar	20	Foreign Key
2	Password	Nvarchar	20	

Table 5.2: Patient's login

 Doctor (Log in):

<b>S_no</b>	<b>Attribute Name</b>	<b>Data Type</b>	<b>Size</b>	<b>Constraints</b>
1	Did	Nvarchar	20	Primary key
2	Password	Nvarchar	20	

Table 5.3: Doctor's login

 Admin (Log in):

<b>S_No</b>	<b>Attribute Name</b>	<b>Data Type</b>	<b>Size</b>	<b>Constraints</b>
<b>1</b>	Aid	Nvarchar	20	Primary key
<b>2</b>	Password	Nvarchar	20	

*Table 5.4: Admin's login*

 Admin (Home):

<b>S_No</b>	<b>Attribute Name</b>	<b>Data Type</b>	<b>Size</b>	<b>Constraints</b>
<b>1</b>	Aid	Nvarchar	20	Foreign key
<b>2</b>	Description	Nvarchar	4000	

*Table 5.5: Admin's home*

 Admin(contact us):

<b>S_No</b>	<b>Attribute Name</b>	<b>Data Type</b>	<b>Size</b>	<b>Constraints</b>
<b>1</b>	Aid	Nvarchar	20	Foreign key
<b>2</b>	Description	Nvarchar	4000	

*Table 5.6: Admin's contact us*

 Admin(About Us):

<b>S_No</b>	<b>Attribute Name</b>	<b>Data Type</b>	<b>Size</b>	<b>Constraints</b>
<b>1</b>	Aid	Nvarchar	20	Foreign key
<b>2</b>	Description	Nvarchar	4000	

*Table 5.7: Admin's about us*

 Admin(Services):

S_No	Attribute Name	Data Type	Size	Constraints
1	Aid	Nvarchar	20	Foreign key
2	Description	Nvarchar	4000	

Table 5.8: Admin's services

 Admin(Doctor Profile):

S_No	Attribute Name	Data Type	Size	Constraints
1	Aid	Nvarchar	20	Foreign key
2	Image	Img	200	

Table 5.9: Admin's doctor profile

 Patient history(Doctors):

S_No	Attribute Name	Data Type	Size	Constraints
1	Name	Nvarchar	25	
2	Pid	Nvarchar	25	Foreign key
3	Category of Doctor	Varchar	50	
4	Diagnosis	Nvarchar	1000	
5	Prescription	Nvarchar	50	
6	Fees	Int		
7	Test	Nvarchar	50	
8	Date	Date		

Table 5.10: Doctor's patient history

 Feedback:

<b>S_No</b>	<b>Attribute Name</b>	<b>Data Type</b>	<b>Size</b>	<b>Constraints</b>
<b>1</b>	<i>Pid</i>	<i>varchar</i>	<i>20</i>	<i>Foreign key</i>
<b>2</b>	<i>Email id</i>	<i>Nvarchar</i>	<i>50</i>	<i>Unique key</i>
<b>3</b>	<i>Feedback</i>	<i>Nvarchar</i>	<i>3000</i>	

*Table 5.11: feedback*

 Take appointment:

<b>S_No</b>	<b>Attribute Name</b>	<b>Data Type</b>	<b>Size</b>	<b>Constraints</b>
<b>1</b>	<i>Name</i>	<i>Varchar</i>	<i>20</i>	
<b>2</b>	<i>Pid</i>	<i>Nvarchar</i>	<i>20</i>	<i>Foreign key</i>
<b>3</b>	<i>Gender</i>	<i>Nvarchar</i>	<i>50</i>	
<b>4</b>	<i>Age</i>	<i>Int</i>		
<b>5</b>	<i>Category of doctor</i>	<i>Varchar</i>	<i>50</i>	
<b>6</b>	<i>Diseases</i>	<i>Varchar</i>	<i>50</i>	
<b>7</b>	<i>Email id</i>	<i>Nvarchar</i>	<i>50</i>	<i>Unique key</i>

*Table 5.12: Take appointment*

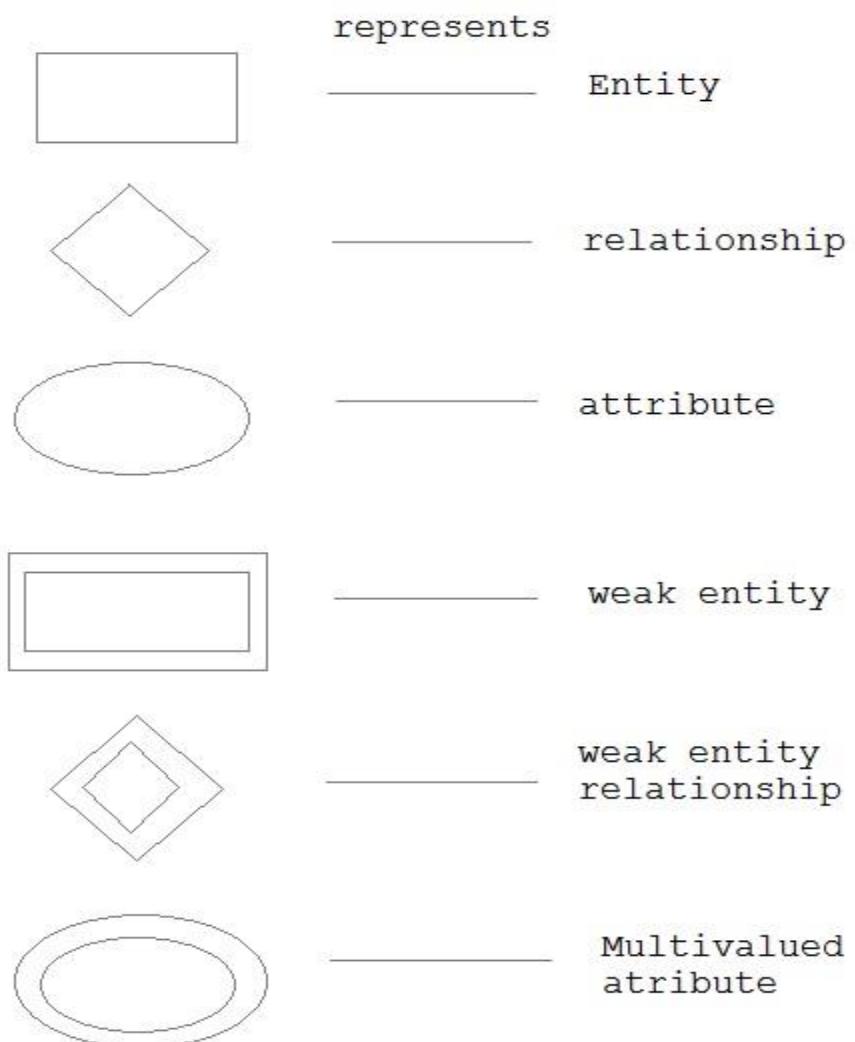
 Take appointment (for weekly dental camp):

<b>S_No</b>	<b>Attribute Name</b>	<b>Data Type</b>	<b>Size</b>	<b>Constraints</b>
<b>1</b>	<i>Name</i>	<i>Varchar</i>	<i>20</i>	
<b>2</b>	<i>Pid</i>	<i>Nvarchar</i>	<i>20</i>	<i>Foreign key</i>
<b>3</b>	<i>Email id</i>	<i>Nvarchar</i>	<i>50</i>	<i>Unique key</i>
<b>4</b>	<i>Phoneno</i>	<i>Bigint</i>		
<b>5</b>	<i>Gender</i>	<i>Varchar</i>	<i>10</i>	
<b>6</b>	<i>Age</i>	<i>Int</i>		

*Table 5.13: Dental camp's take appointment*

## ER Diagram:

ER diagram is a visual representation of data that describes how data is related to each other. In software engineering, an **entity–relationship model (ER model)** is a data model for describing a database in an abstract way.



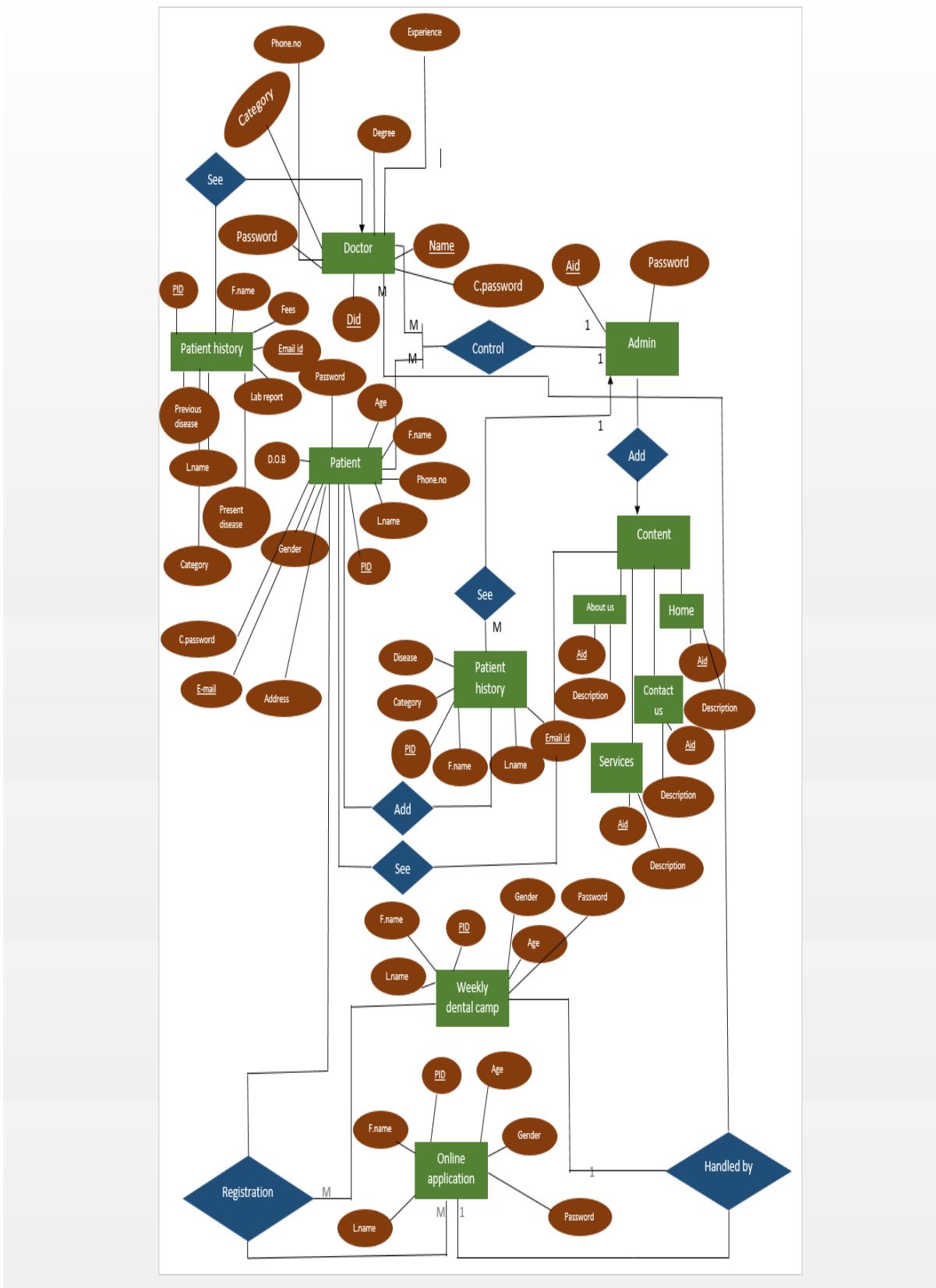


Fig 5.1: ER Diagram

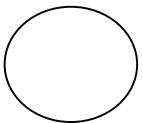
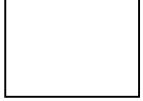
## Data Flow Diagram:

### Overview:

Data flow diagram (DFD) represents the flows of data between different processes in a business. It is a graphical technique that depicts information flow and the transforms that are applied as data move from input to output. It provides a simple, intuitive method for describing business processes without focusing on the details of computer systems. DFDs are attractive technique because they provide what users do rather than what computers do.

### ▪ Representation of Components

DFDs only involve four symbols. They are:

	<b>Process</b> Transform of incoming data flow(s) to outgoing flow(s).
	<b>Data Flow</b> Movement of data in the system.
	<b>Data Store</b> Data repositories for data that is not moving. It may be as simple as a buffer or a queue or as sophisticated as a relational database.
	<b>External Entity</b> Sources of destinations outside the specified system boundary.

- The different levels of DFD are:

1. Level 0 or Context Level
2. Level 1
3. Level 2
4. Level 3

### Level 0 or Context Level

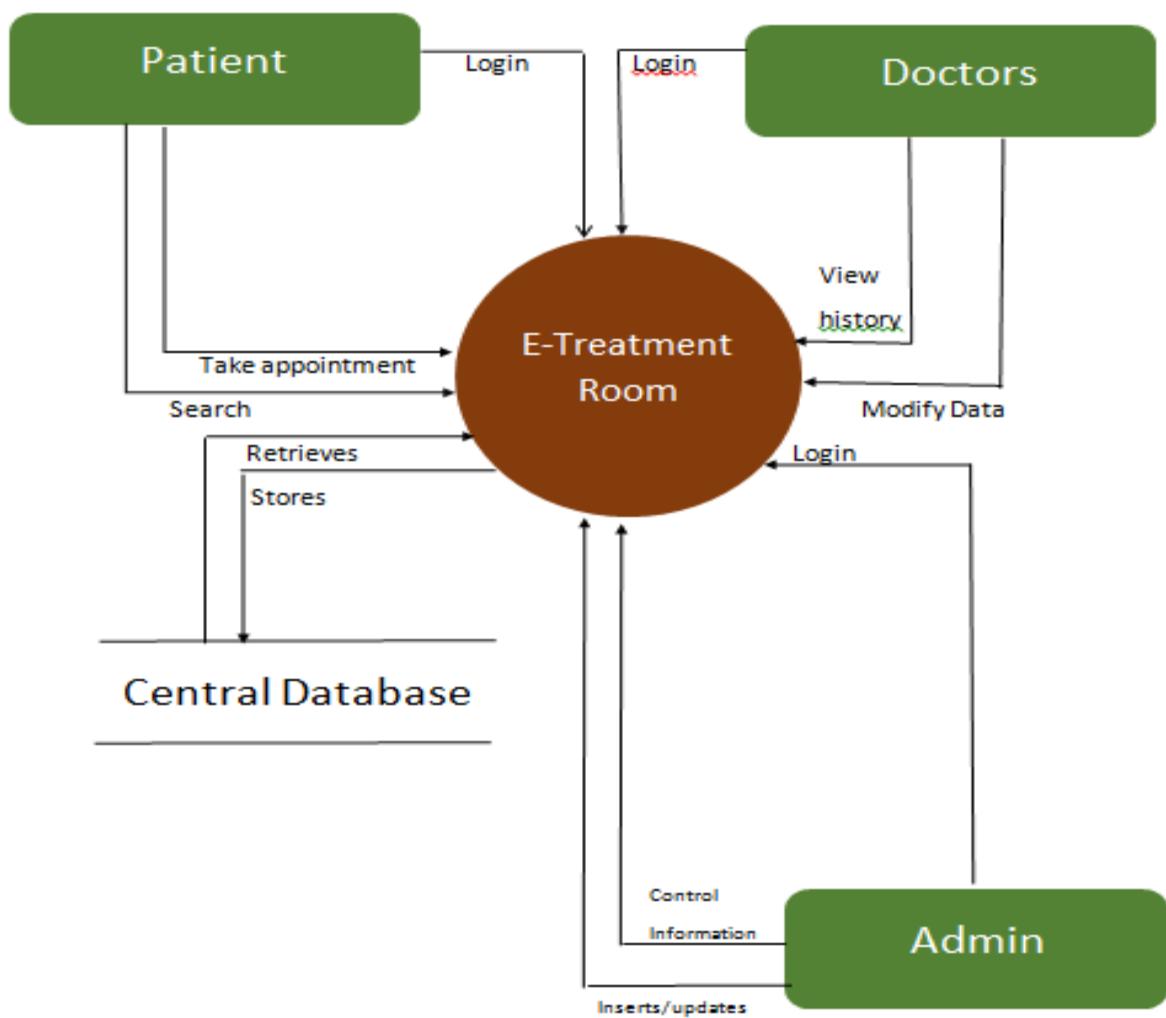
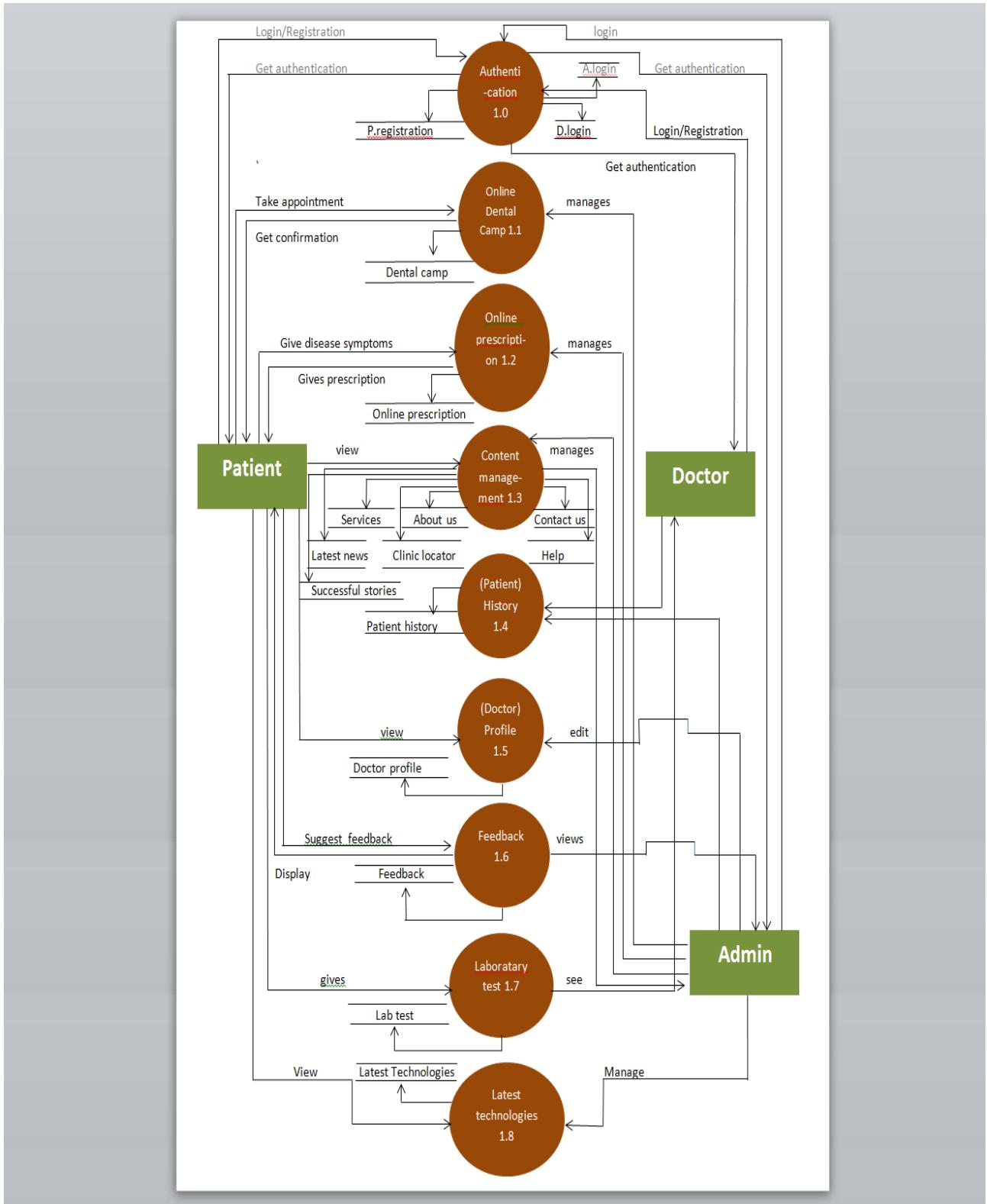
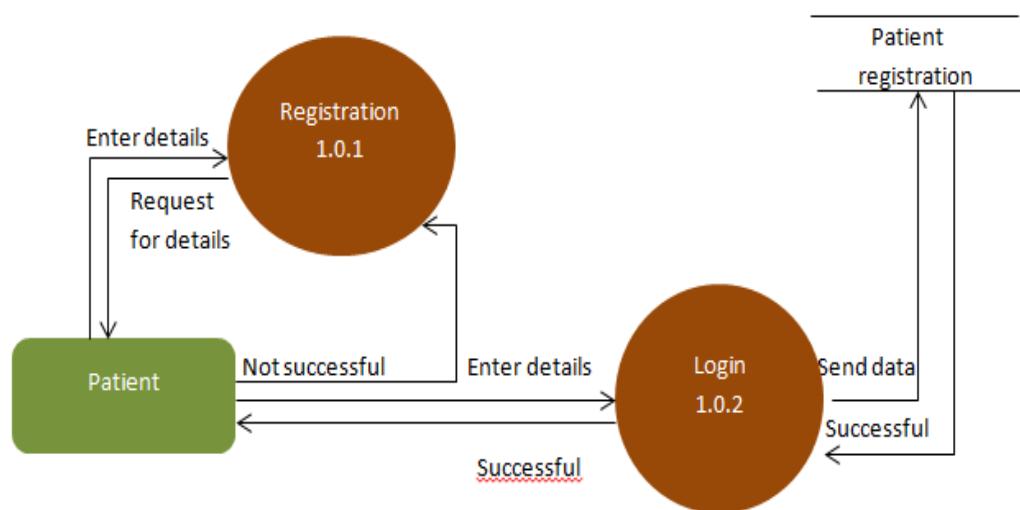
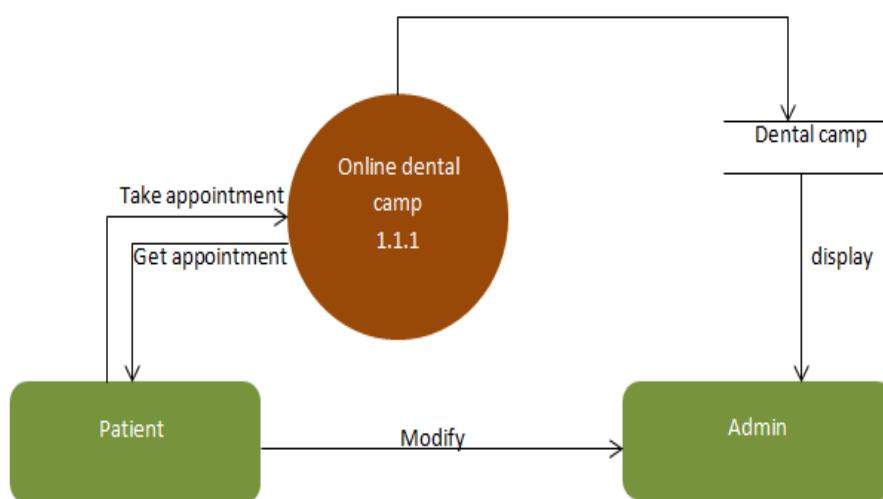
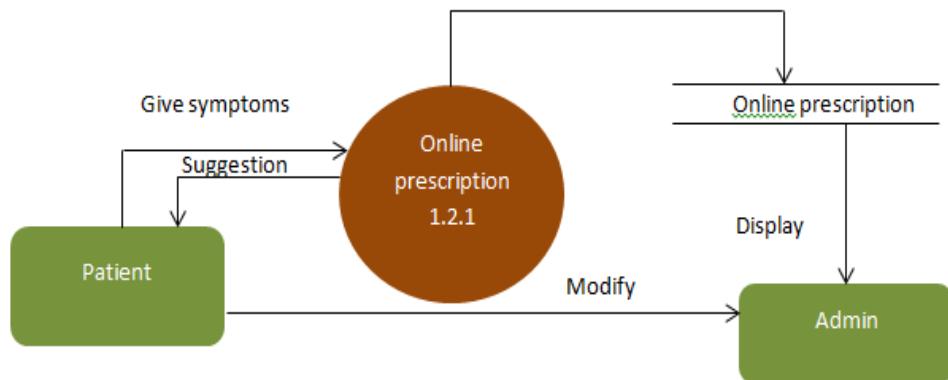


Fig 5.2: DFD 0

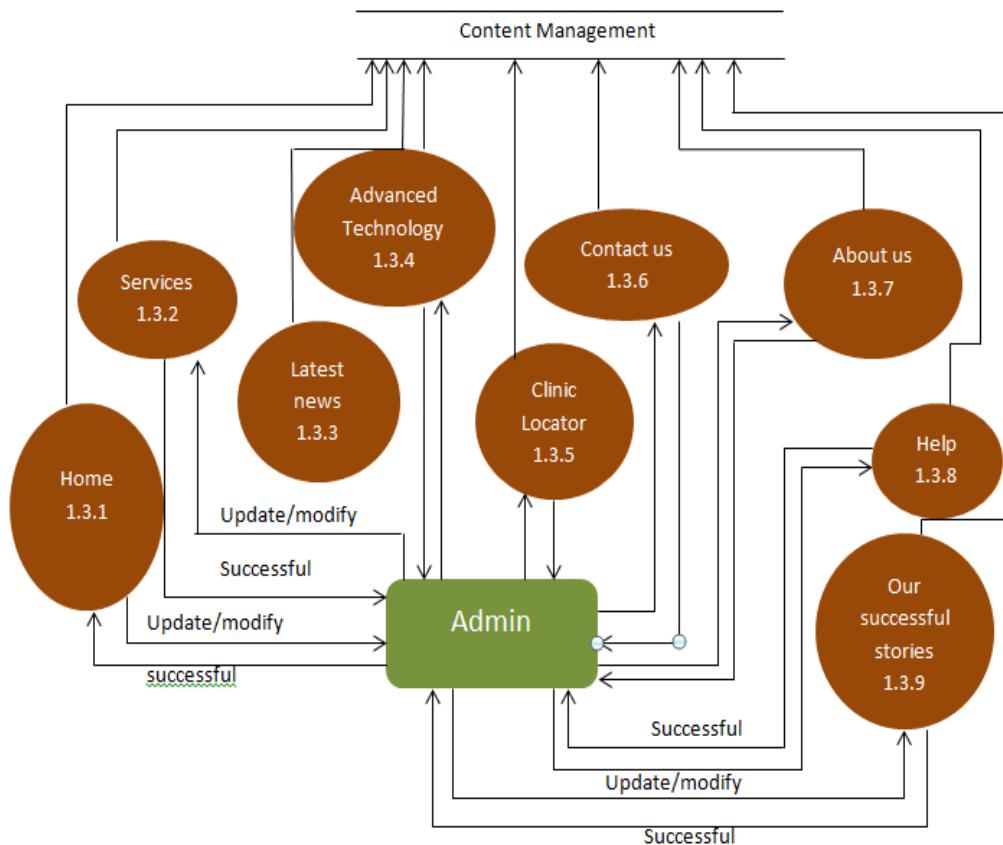
**DFD 1****Fig 5.3: DFD 1**

**DFD 2****Authentication:****Online Dental Camp:**

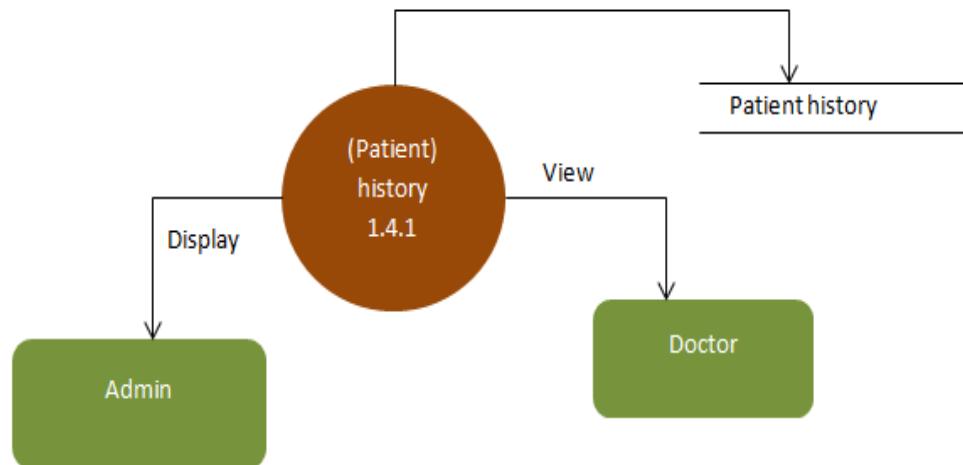
## Online Medicine Prescription:



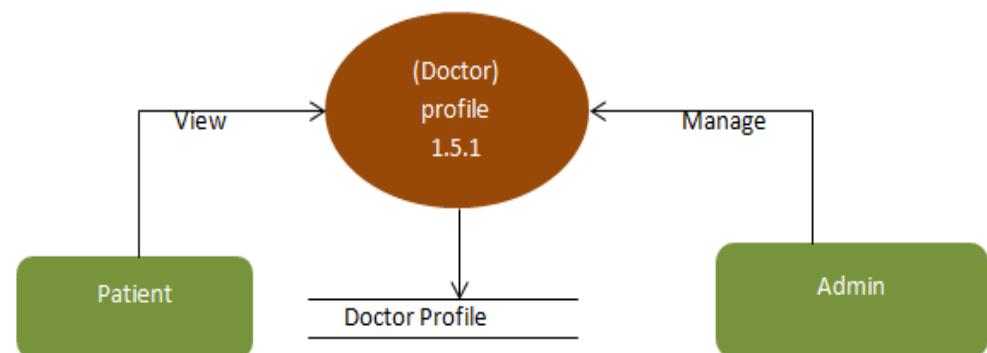
## Content management:



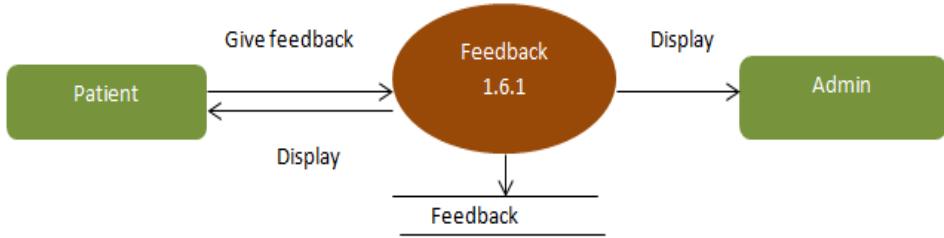
### ■ (Patient) History:

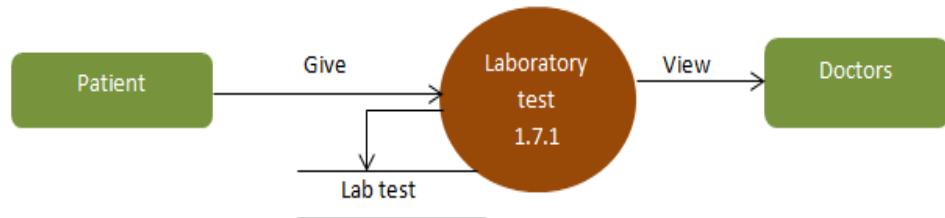


### ■ (Doctor) Profile:



### ■ Feedback:



 **Laboratory Test:**

## Flow Diagram

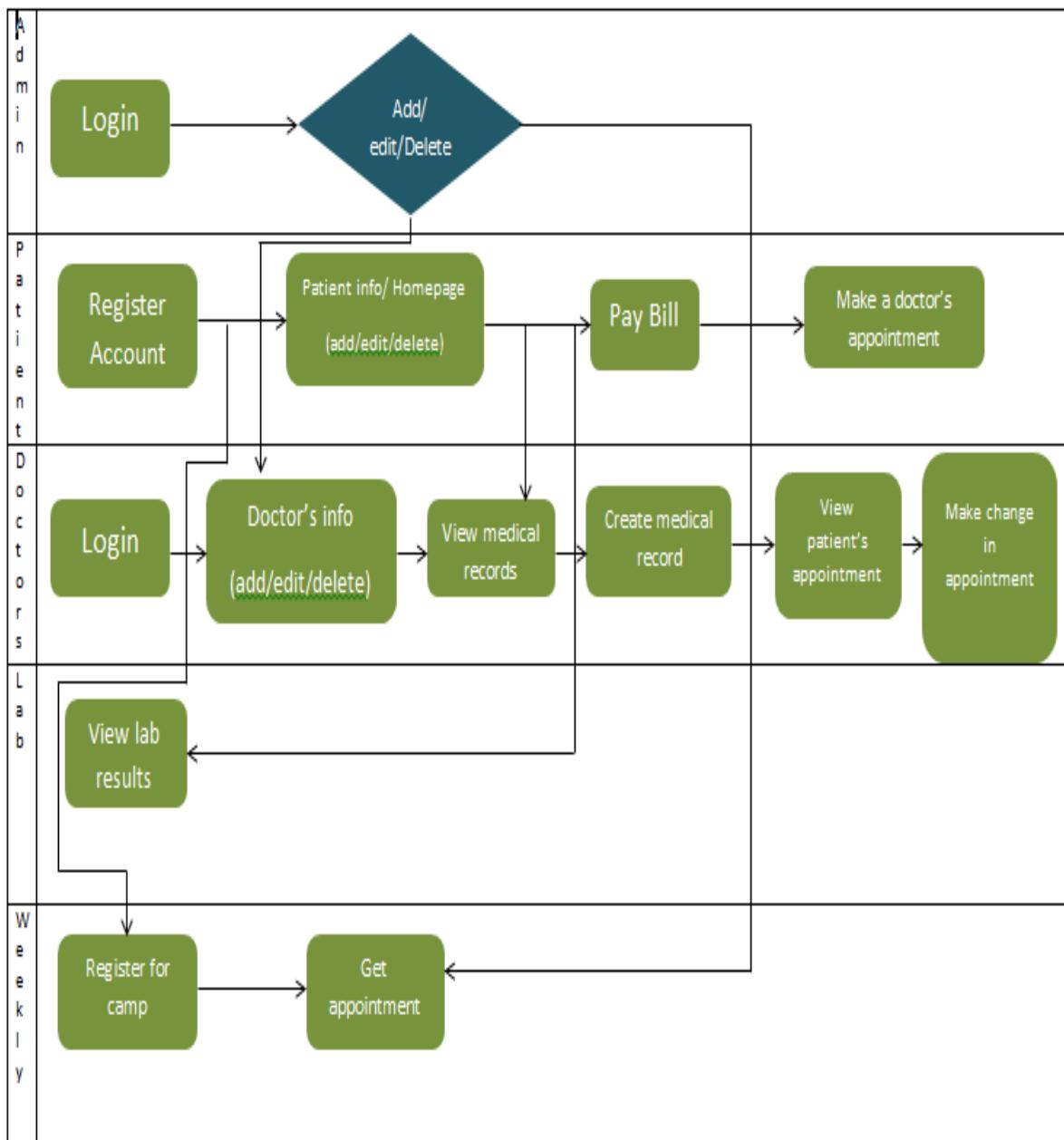


Fig 5.4: flow diagram

# Ch: 6

---

## Implementation

## Planning

## Implementation Environment

- The project was the result of a group consensus.
- The team structure depends on the management style of the organization, the people in the team, their skill level and their approach to solve the problem.
- Their software is GUI based. User can easily encrypt and decrypt data.
- At a time, on a single computer, single user can perform the operations.
- It allows multi user facility.
- It allows password protections for user to secure the secret data stored inside.

## Module Specification

- **Latest Technologies & News:** It gives us the introduction about which machines are new in market as well as their status and their use in medical field. And also gives news about world
- **Login:** It gives u access to the websites. It also gives us the privileges to use the other facilities in the website.
- **Doctors:** It shows the profiles of the doctors as well as their achievements in their respective fields. It also shows how much experienced the doctors have in their fields.
- **Weekly Dental Camp:** It gives you details about the dental camp arranged weekly by our dentists. The patients can attend this camp for free. And can even take appointments if needed.
- **Feedback:** It shows the feedback and the replies given by users (patients). It shows the positive as well as negative feedbacks. Other users (patients) can also visit this page and can give feedback as well as check feedbacks of other users.
- **Our successful Stories:** It shows the stories which will show all the cases of patients who were treated by our doctors and got well.
- **Registration:** Register's you to the website.

- Online Prescription:** Provides you the free prescription of diseases
- Online Appointment:** You can take online appointment.
- Patient History:** Doctor and admin can see patient history.

## Coding Standards

- Normally, software development organization requires their programmers to adhere to some well-defined and standard style of coding called coding standard.
- In software development metrics management, they have also some representative regarding coding standard:
  - Do not modify global variables.
  - Whenever require adding new method, specific for what purpose you are going to add it, date, and author name.
  - All constant variables must have to write into all capital letter.
  - If need to changes into any existing method then specify for what purpose changes are required and modification date with author name. And Specify name of the module at starting of the module.
  - There is a rule that every programmer who developed and last time updated the methods at the beginning of the method.
  - There should be optimized code.
  - Code should be efficient.
- Besides of this there are also some coding guidelines regarding project development.
  - Each variable should be given a descriptive name.

- The code should be well documented i.e., description of any function of the
- Code should be given by doing commenting.

# Sample Snapshots

## Main Page:

E-Treatment Room

localhost:61614/E-Treatment Room/home.aspx

Search

HOME

ABOUT US

SUCCESSFUL STORIES

CONTACT US

SERVICES

HELP

REGISTRATION

LOGIN

ACCURATE.RELIABLE.FAST

When it comes to hectic schedules and getting prescriptions without going to clinics, E-Treatment Room is number one. No other website is faster, more reliable and accurate. Choose E-Treatment Room

Welcome To E-Treatment Room

HOMEOPATHY

ALLOPATHY

AYURVEDA

OUR DOCTOR'S TEAM

2016 © E-Treatment Room. Terms of Service | Privacy Policy

*Fig 6.1: Main Page*

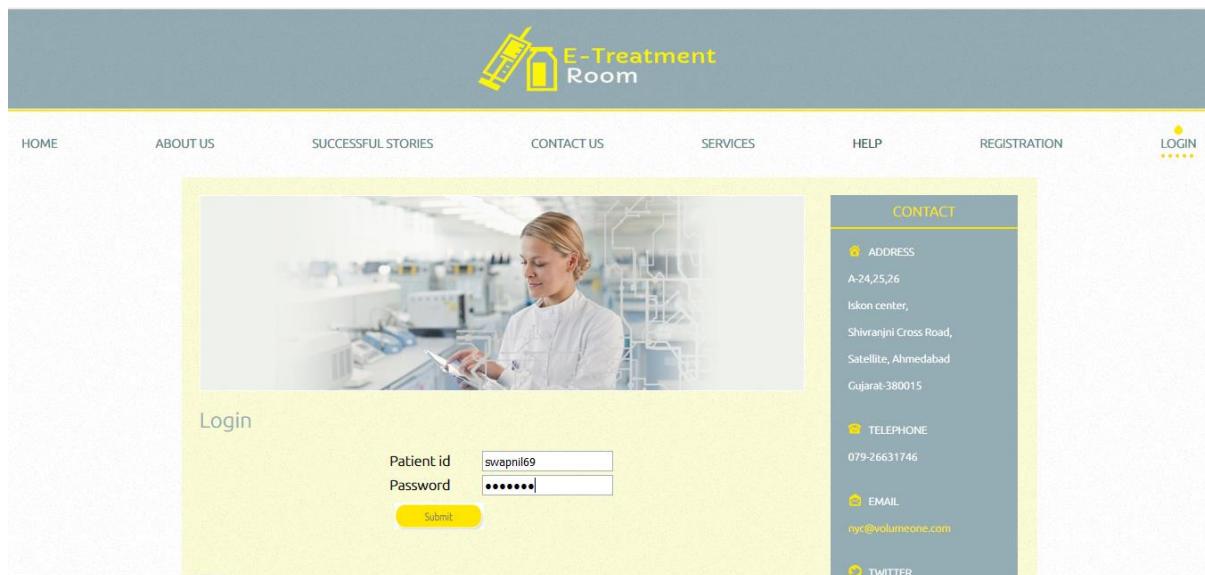
## Patient's Panel:

### Patient's Registration:

The screenshot shows the registration page for the E-Treatment Room. The page has a light blue header with the site's name and a navigation bar with links like Home, About Us, and Contact Us. The main form is titled 'Register' and contains various input fields for personal information. To the right, there's a sidebar with contact details and social media links.

Fig 6.2:Registration page

 Patient's login:



*Fig 6.4:Patient Login*

 Patient's successful login:



*Fig 6.5: Patient succesfull login*

 Take Appointment:

136400307587

136400307600

**CONTACT**

**ADDRESS**  
A-24,25,26  
Iskon center,  
Shivranji Cross Road,  
Satellite, Ahmedabad  
Gujarat-380015

**TELEPHONE**  
079-26631746

**EMAIL**  
nyc@volumeone.com

**TWITTER**  
@mattovolumeone

**FACEBOOK**  
www.facebook/illumelabs

**Take Appointment**

Name: swapnil  
Patient id: swapnil69  
Gender: Male  
Age: 18  
Categories of Doctor: 02 Ayurvedic  
Diseases: D03 Pimples  
Email: turakhiaswapnil69@gmail.com

Submit

*Fig 6.6:Take Appointment*

**ADDRESS**  
A-24,25,26  
Iskon center,  
Shivranji Cross Road,  
Satellite, Ahmedabad  
Gujarat-380015

**TELEPHONE**  
079-26631746

**EMAIL**  
nyc@volumeone.com

**TWITTER**  
@mattovolumeone

**FACEBOOK**  
www.facebook/illumelabs

Thank You For Taking Appointment

- Patient Name: swapnil
- Patient id: swapnil69
- Gender: Male
- Age: 18
- Category of Doctor: Ayurvedic
- Disease: D03 Pimples
- Email: turakhiaswapnil69@gmail.com

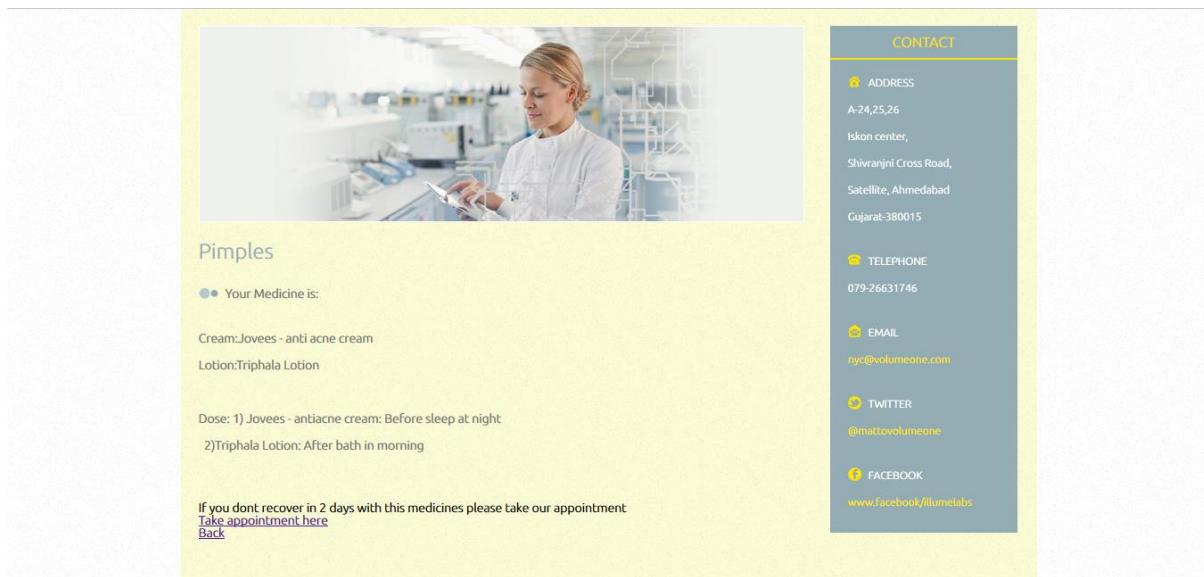
\*\* Please Come With The Print Of This Page. Tomorrow Between 12 To 6

*Fig 6.7:Successfull appointment*

## ⊕ Online Prescription:

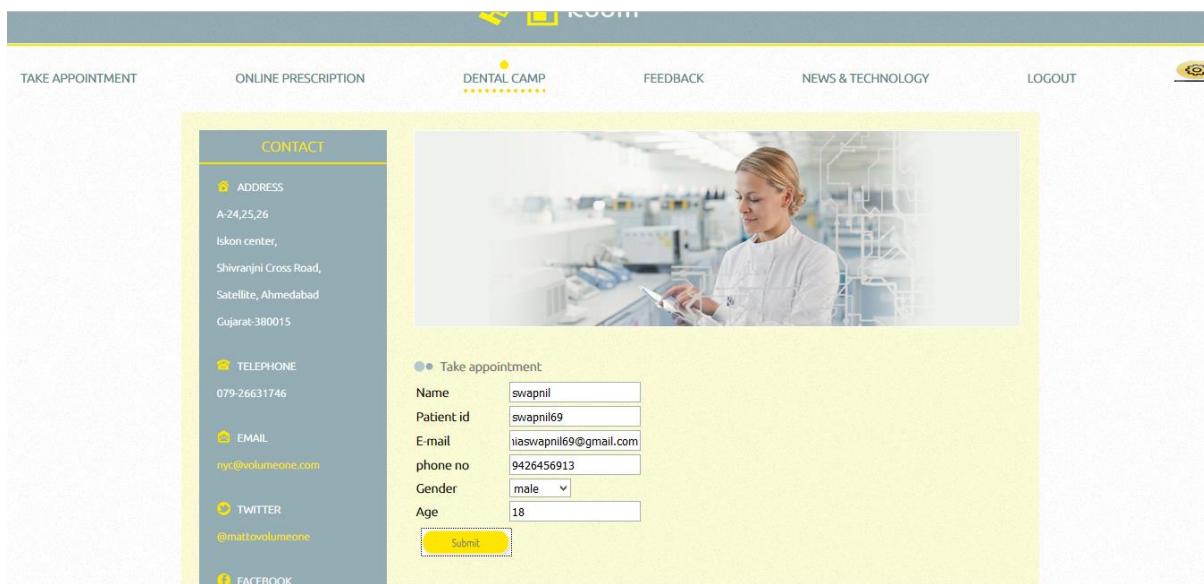
The screenshot shows the E-Treatment Room website's "Online Prescription" section. At the top, there is a navigation bar with links for "TAKE APPOINTMENT", "ONLINE PRESCRIPTION", "DENTAL CAMP", "FEEDBACK", "NEWS & TECHNOLOGY", and "LOGOUT". The "ONLINE PRESCRIPTION" link is highlighted with a yellow dotted underline. On the left, a sidebar titled "CONTACT" provides address, telephone, email, and Twitter information. The main content area features a photograph of a medical professional in a lab coat using a smartphone. Below the photo, there is a radio button labeled "Online Prescription" and a dropdown menu for "Categories of Doctor" set to "Ayurvedic". A yellow "Submit" button is at the bottom right.

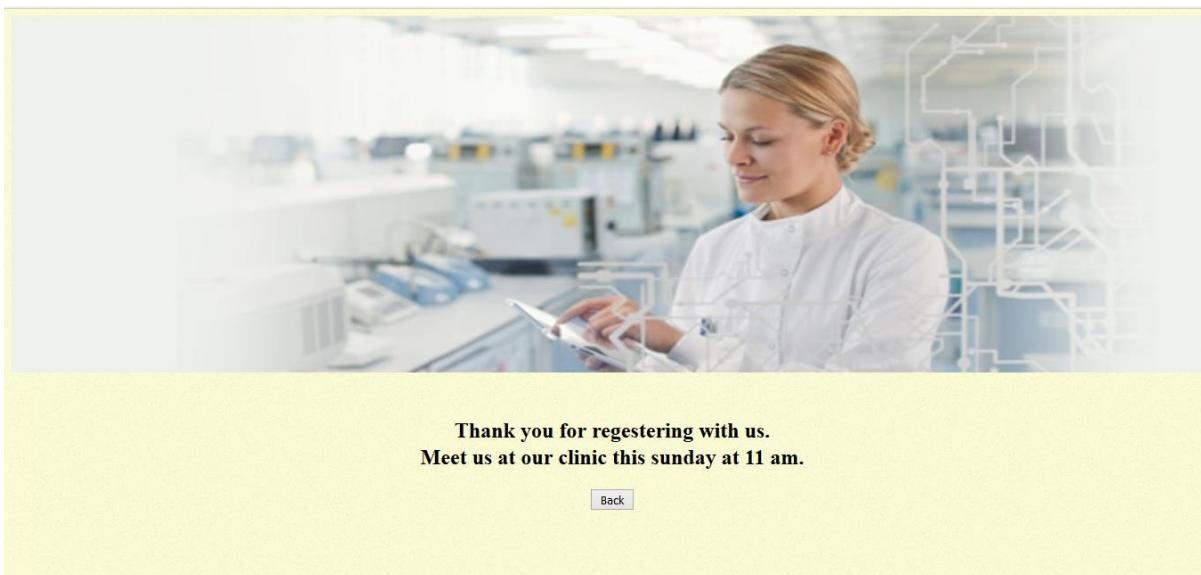
This screenshot shows the same "Online Prescription" page but with a specific category selected: "Ayurveda". The "Categories of Doctor" dropdown is now set to "Ayurvedic". The main content area displays the same photograph of a medical professional and includes a radio button for selecting a disease. Below this, there are input fields for "Patient ID" (swarnil69), "Age" (18), and "Diseases" (D03 Pimples). A yellow "Submit" button is located at the bottom right of the form area. The sidebar on the left remains the same as in the previous screenshot.



*Fig 6.8:Online Prescription*

## Dental Camp:





Thank you for registering with us.  
Meet us at our clinic this Sunday at 11 am.

Back

*Fig 6.9:Dental Camp*

## Doctor's Panel:

### Doctor's login:

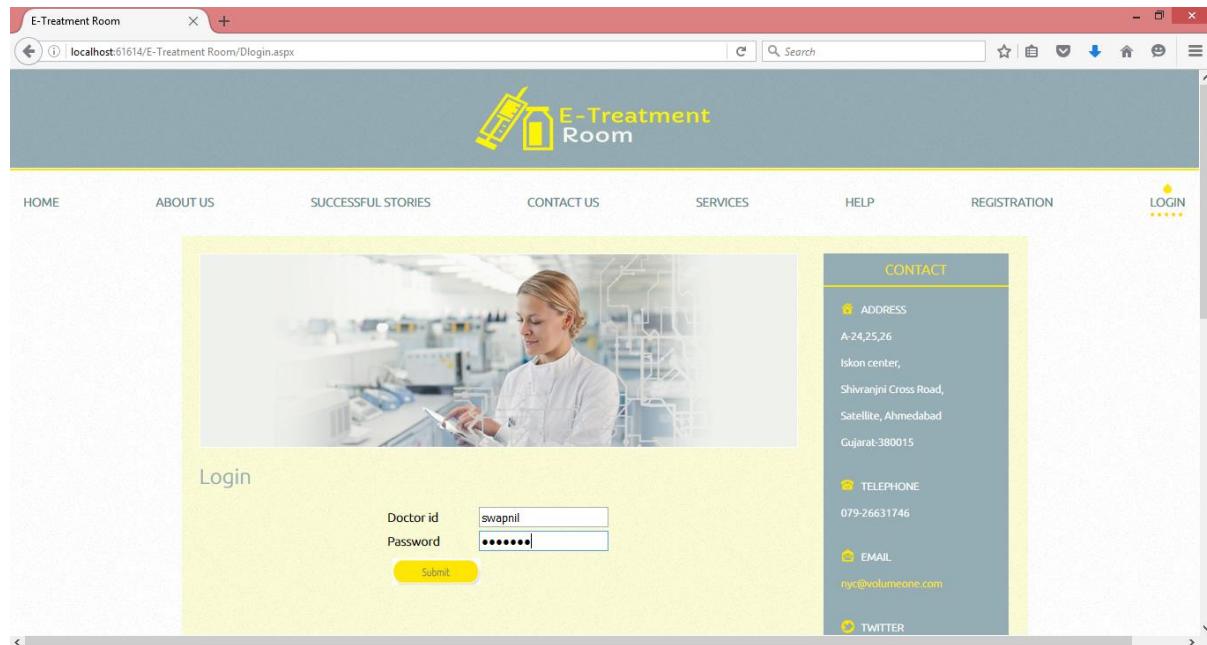


Fig 6.10:Doctors Login

### Doctor's successful login:

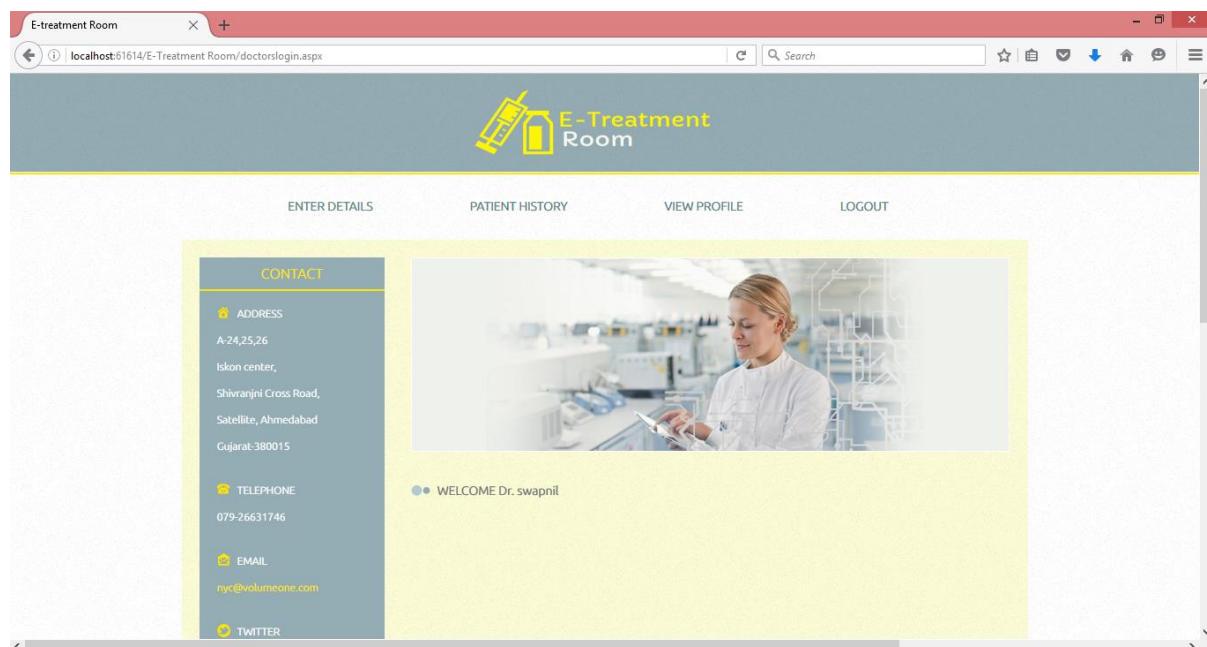


Fig 6.11:Doctors successful login

## Enter Details:

PATIENT DETAILS      PATIENT HISTORY      VIEW PROFILE      LOGOUT

**CONTACT**

ADDRESS  
A-24,25,26  
Iskon center,  
Shivranjini Cross Road,  
Satellite, Ahmedabad  
Gujarat-380015

TELEPHONE  
079-26631746

EMAIL  
[nyc@volumeone.com](mailto:nyc@volumeone.com)

TWITTER  
[@mattowvolumeone](https://twitter.com/mattowvolumeone)

FACEBOOK  
[www.facebook.com/illumelabs](https://www.facebook.com/illumelabs)

**Enter Patient Details**

Name	vidhi
Patient id	vidhi7203
Catagories of Doctor	01 Allopathy
Diagnosis	jaundice
Prescription	abcd
Fees	500
Medical Test	Yes
Date	04/27/2016 (mm/dd/yyyy)

**Submit**

Fig 6.12:Enter details

## Patient History:

PATIENT DETAILS      PATIENT HISTORY      VIEW PROFILE      LOGOUT

**E-Treatment Room**

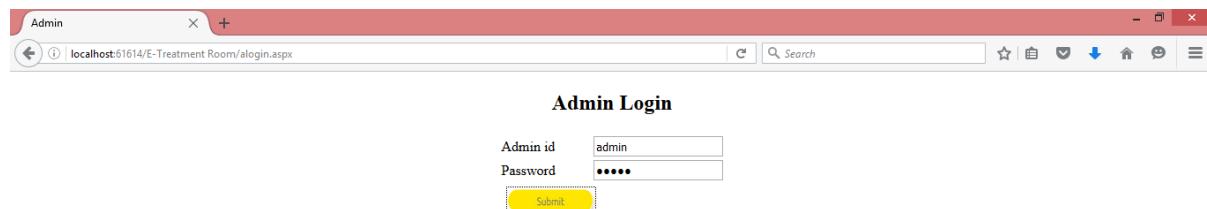
**Enter Name :**  **Submit**

Name	Patient-Id	Category of Doctor	Diagnosis	Prescription	Medical test	Date
vidhi	vidhi7203	Allopathy	typhoid	peracetamol	Yes	07-04-2016 00:00:00
vidhi	vidhi7203	Ayurvedic	malaria	abc	No	07-12-2016 00:00:00
vidhi	vidhi7203	Allopathy	malaria	abc	Yes	07-12-2016 00:00:00
krimy sorathiya	p93	Allopathy	malaria	abc	Yes	07-12-2016 00:00:00
vidhi	vidhi7203	Ayurvedic	malaria	abc	No	07-12-2016 00:00:00
vidhi	vidhi7203	Ayurvedic	malaria	abc	Yes	07-12-2016 00:00:00

Fig 6.13:Patient History

## Admin's Panel:

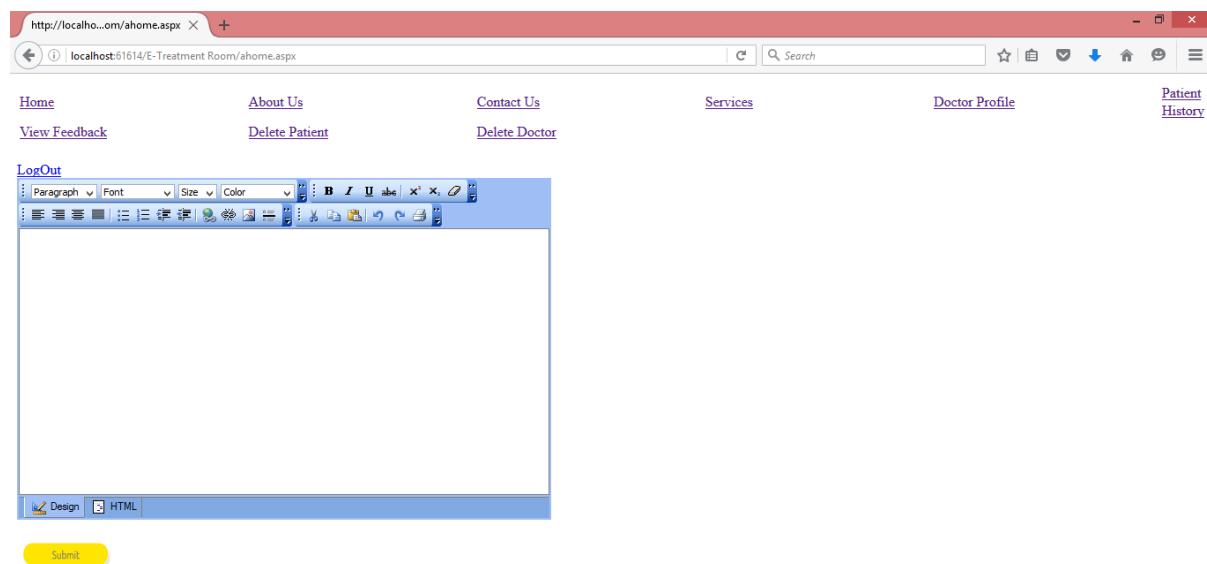
### Admin's login:



The screenshot shows a web browser window titled "Admin". The address bar displays "localhost:61614/E-Treatment Room/alogin.aspx". The main content area is titled "Admin Login". It contains two text input fields: "Admin id" with the value "admin" and "Password" with the value "\*\*\*\*\*". Below these fields is a yellow "Submit" button.

*Fig 6.14:Admin login*

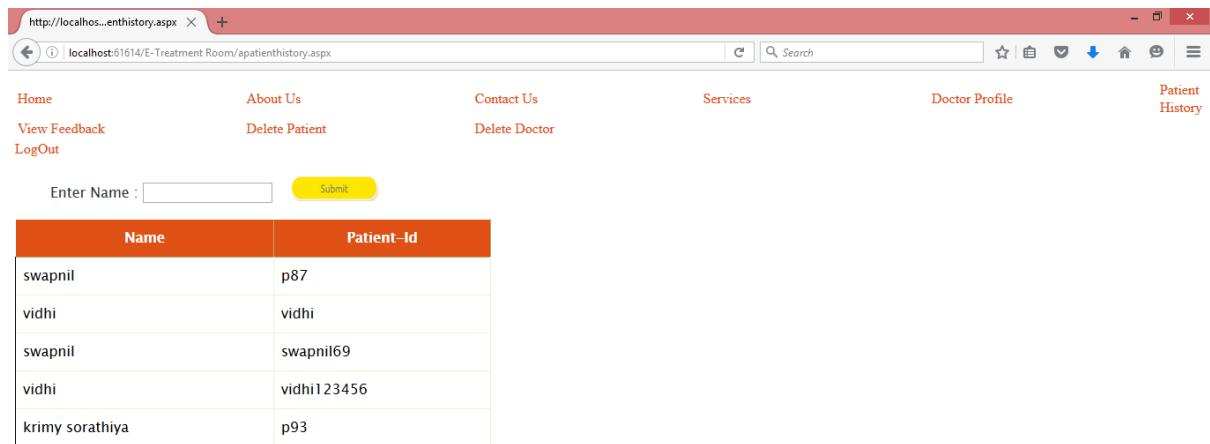
### Admin's successful login:



The screenshot shows a web browser window titled "http://localhost/ahome.aspx". The address bar displays "localhost:61614/E-Treatment Room/ahome.aspx". The top navigation bar includes links for "Home", "About Us", "Contact Us", "Services", "Doctor Profile", and "Patient History". Below the navigation bar is a toolbar with various icons. A large empty content area is present, and at the bottom, there are tabs for "Design" and "HTML", along with a yellow "Submit" button.

*Fig 6.15:Admin successful login*

## Patient History:

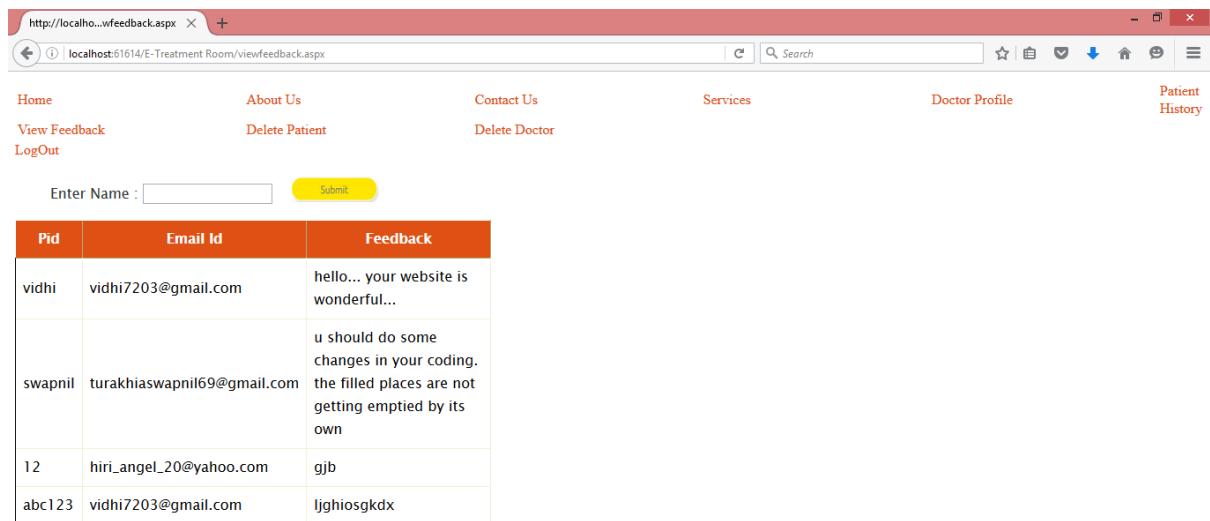


The screenshot shows a web browser window with the URL <http://localhost:61614/E-Treatment Room/patienthistory.aspx>. The page title is "Patient History". The header includes links for Home, About Us, Contact Us, Services, Doctor Profile, and Patient History. Below the header is a search bar with the placeholder "Enter Name :". A table displays patient information:

Name	Patient-Id
swapnil	p87
vidhi	vidhi
swapnil	swapnil69
vidhi	vidhi123456
krimy sorathiya	p93

*Fig 6.16:Patient History*

## View Feedback:

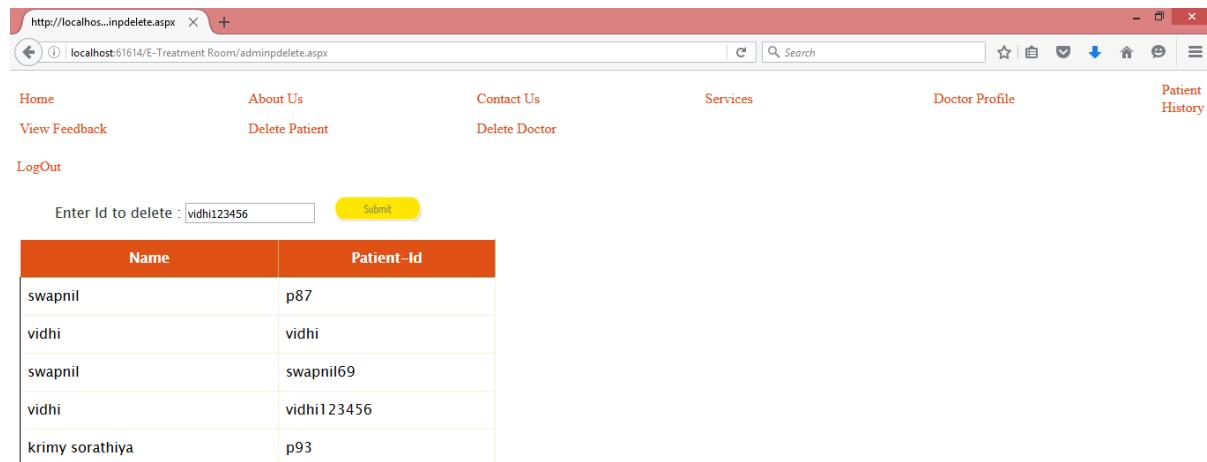


The screenshot shows a web browser window with the URL <http://localhost:61614/E-Treatment Room/viewfeedback.aspx>. The page title is "View Feedback". The header includes links for Home, About Us, Contact Us, Services, Doctor Profile, and Patient History. Below the header is a search bar with the placeholder "Enter Name :". A table displays feedback entries:

Pid	Email Id	Feedback
vidhi	vidhi7203@gmail.com	hello... your website is wonderful...
swapnil	turakhiaswapnil69@gmail.com	u should do some changes in your coding. the filled places are not getting emptied by its own
12	hiri_angel_20@yahoo.com	gjb
abc123	vidhi7203@gmail.com	lighiosgkdx

*Fig 6.17:View feedback*

### Delete Patient:

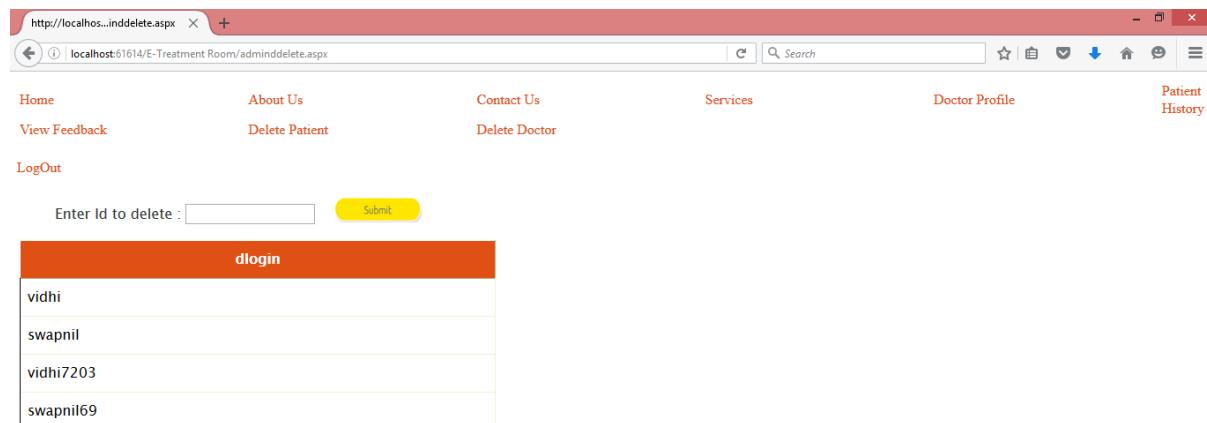


The screenshot shows a web browser window with the URL <http://localhost:61614/E-Treatment Room/adminindelete.aspx>. The page title is "Delete Patient". The header includes links for Home, About Us, Contact Us, Services, Doctor Profile, Patient History, View Feedback, Delete Patient, Delete Doctor, and LogOut. A search bar and a "Submit" button are also present. The main content is a table with columns "Name" and "Patient-ID". The data rows are:

Name	Patient-ID
swapnil	p87
vidhi	vidhi
swapnil	swapnil69
vidhi	vidhi123456
krimy sorathiya	p93

Fig 6.18:Delete patient

### Delete Doctor:



The screenshot shows a web browser window with the URL <http://localhost:61614/E-Treatment Room/adminindelete.aspx>. The page title is "Delete Doctor". The header includes links for Home, About Us, Contact Us, Services, Doctor Profile, Patient History, View Feedback, Delete Patient, Delete Doctor, and LogOut. A search bar and a "Submit" button are also present. The main content is a table with a single column labeled "dlogin". The data rows are:

dlogin
vidhi
swapnil
vidhi7203
swapnil69

Fig 6.19:Delete Dotor

# Ch: 7

---

Testing

## Testing Plan & Strategy

### Testing Plan:

Software Testing is a critical element of Software Quality Assurance and represents the ultimate review of specification design and coding.

### **Testing:**

When the name of the object in coding is different than the name of that forms property set in the property window at that time this type of error has been occurred.

### **Solution:**

To debug this error correct all the name of the objects and check that all are same or not.

### **Testing:**

When we enter the name in the field at that time number also display.

### **Solution:**

So, we put validation in the name that is you can enter only character.

### **Testing:**

When we want to display some in MDI form, there is an error.

 **Solution:**

To debug this error, we have to set MDI child property true of that MDI form.

 **Testing:**

When we save the record at that time if any field was empty the error will occurred.

 **Solution:**

We check every field at that time of saving the record and if any file is empty we give message box “PLEASE FILL THE ENTIRE FIELD”.

A test plan documents the strategy that will be used to verify and ensure that a product or system meets design specifications and other requirements. A test plan is usually prepared by or with significant input from Test Engineers.

- Depending on the product and the responsibility of the organization to which the test plan applies, a test plan may include one or more of the following:
- Design verification or Compliance test- to be performed during the development or approval stages of the product, typically on a sample of units.
- Manufacturing or Production test-to be performed during preparation or assembly of product in an ongoing manner for purposes of performance verification and quality control.
- Acceptance or commissioning test- to be performed at the time of delivery or installation of the product.

- Service and Repair test- to be performed as required over the service life of the product.
- Regression test- to be performed on an existing operational product, to verify that existing functionality didn't get broken when other aspects of the environment are changed.

A complex system may have a high level test plan to address the overall requirements and supporting test plans to address the design details of subsystems and components.

Test plan document formats can be varied as the products and organizations to which they apply.

## **Testing Strategy:**

### **Unit Testing:**

Unit testing tests the minimal software component, or module. Each unit (basic component) of the software is tested to verify that the detailed design for the unit has been correctly implemented.

### **Integration Testing:**

Integration testing exposes defects in the interfaces and interaction between integrated components (modules). Progressively larger groups of tested software components corresponding to elements of the architecture design are integrated and tested until the software works as a system.

### **System Testing:**

System testing is actually a series of tests whose purpose is to exercise the computer-based system. It verifies that system

element have been properly integrated and perform allocated functions. It checks whether the system as a whole as per requirement.

### **Performance Testing:**

This is designed to test the run-time performance of software within the context of an integrated system. Performance testing occurs throughout all steps in the testing process. Our system is checked for high load as well as low load.

# Testing Methods

## Black Box Testing:

Black box testing treats the software as a black-box without any understanding of internal behaviour. It aims to test the functionality according to the requirement. Thus, the tester inputs data and only sees the output from the test object. This level of testing usually requires through test cases to be provided to the tester who then can simply verify that for a given input, the output value (or behaviour), is the same as the expected value specified in the test case.

In Black-Box Testing or Functional Testing, Developers are concerned about the output of the module and software, i.e. whether the software gives proper output as per the requirements or not. In another words, this testing aims to test behavior of program against its specification without making any reference to the internal structure of the program or the algorithms used. Therefore the source code is not needed, and so even purchased modules can be tested. The program just gets a certain input and its functionality is examined by observing the output.

This can be done in the following way:

-  Input Interface
-  Processing
-  Output Interface

The tested program gets certain inputs. Then the program does its job and generates a certain output, which is collected by a second interface.

Equivalence Partitioning

Boundary value analysis

Causes effect graphing

Syntax testing

This result is then compared to the expected output, which has been determined before the test.

## White Box Testing:

White Box testing is an important primary testing approach. Here code is inspected to see what it does. This test is designed to check the code. Code is tested using code scripts, driver, etc. which are employed to directly interface with and drive the code.

Complete path testing

Branch or Decision

Condition testing

Data flow testing

Loop testing

The tester can analyze the code and use the knowledge about the structure of a component to derive the test data.

## Test Cases

A test case is a detailed procedure that fully tests a feature or an aspect of a feature whereas the test plan describes what to test; a test case describes how to perform a particular test. You need to develop a test case for each test listed in the test plan, figure illustrates the point at which test case design occurs in the lab development and testing process.

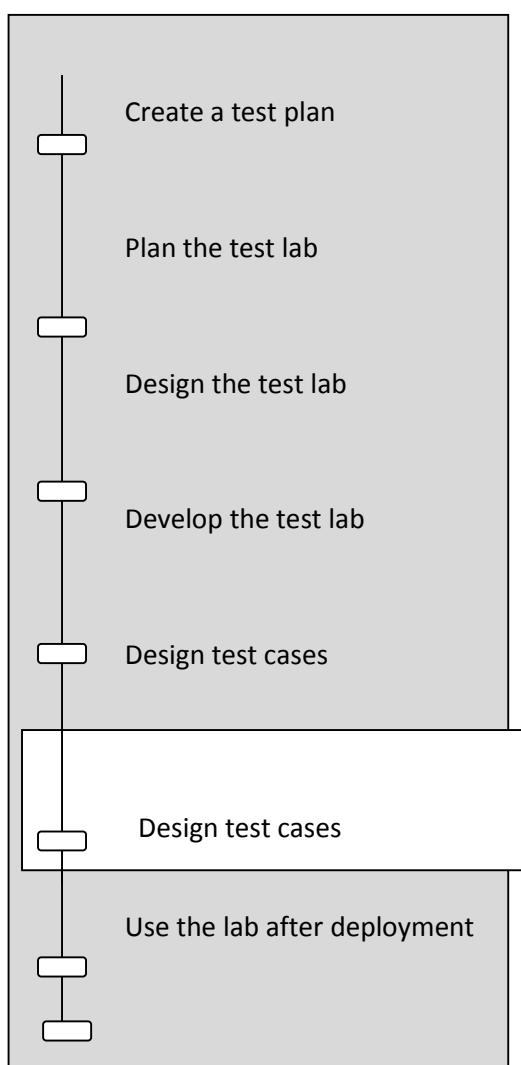


Fig 7.1: Designing Test Cases

A test case includes:

- The purpose of the test.
- Special hardware requirements, such as a modem.
- Special software requirements, such as a tool.
- Specific setup or configuration requirements.
- A description of how to perform the test.
- The expected results or success criteria for test.

Test cases should be written by team members who understand the function or technology being tested. And each test case should be submitted for peer review.

Organization takes a variety of approaches to documenting test cases: this range from developing detailed, recipe-like steps to writing general descriptions in detailed test cases. the steps describe exactly how to perform the test. In descriptive test cases. The tester describes at the time of the test how to perform the test and what data to use.

# Ch: 8

---

## *Limitations & Future Enhancement*

## Limitations

---

- Patient cannot be admitted through online process.
- Our website provides Online Prescription for only ten diseases.

## Future Enhancement

- Future Developer can enhance the clinic for patient's being admitted through online process.
- Future Developer can enhance our website by providing Online Prescription of more diseases.
- Future Developer can enhance the website by keeping the module of home delivery of medicines.
- Future developer can provide better scheduling of appointment.

# Ch: 9

---

## Conclusion

## Conclusion

---

It was a really good experience for us to do a project in this organization. Working on this project has given us a valuable experience. It has been like stepping on the first step of the staircase that leads us towards building our carrier. It was our first experience of working in the atmosphere of a software firm.

At the time of practically executing our knowledge, we fortunate to have very cooperative and supportive project leaders and colleagues, their attitude towards us was very palliative and was always there in our needs.

We also learned how to cooperate with other employees while working in same project. This precious experience would definitely be helpful to us for future.

We like this opportunity to convey our special thanks to all those who played roll in making this project success and a great learning experience for us.

## References

Most of data collected in my coding was primary in nature but few books and websites were consulted during the course to give more objective to the whole procedure.

□ We have used software like following:

- Microsoft visual studio 2010
- Microsoft SQL server 2008
- Microsoft Visio 2007
- Microsoft word 2013

### REFRENCES:-

- [www.google.com](http://www.google.com)
- <http://www.drbatras.com>
- [www.finefeather.com](http://www.finefeather.com)
- [www.salhospital.com](http://www.salhospital.com)
- [www.sterlingshospital.com](http://www.sterlingshospital.com)
- [www.apollohospitals.com](http://www.apollohospitals.com)
- [www.medicalnewstoday.com](http://www.medicalnewstoday.com)