CHAPTER-1

INTRODUCTION

1 Introduction

➤ "DOCTOR PATIENT RELATIONSHIP MANAGEMENT SYSTEM" is the desktop application is based on java language and it is used for which works on a rfid card.

➤ Our system is a desktop application which helps doctor to maintain patient records. This system provides facilities like patient visit, appointment, record and their database.

1.2 Purpose of the System

In this system we are going to make the patient file management system in which we are going to overcome all the drawbacks which are mentioned in the above existing work. We use this system.

1.3 Scope of the System

- The scope of this system is file gives facility to doctor and patient online or offline file management is easy.
- So, we can save time.

CHAPTER-2:

PROJECT

PLANNING

2.1Software Process Model

1   In prototyping model initially the requirement gathering is done.Develop and customer defines overall objectives; identify areas needing more requirement gathering.
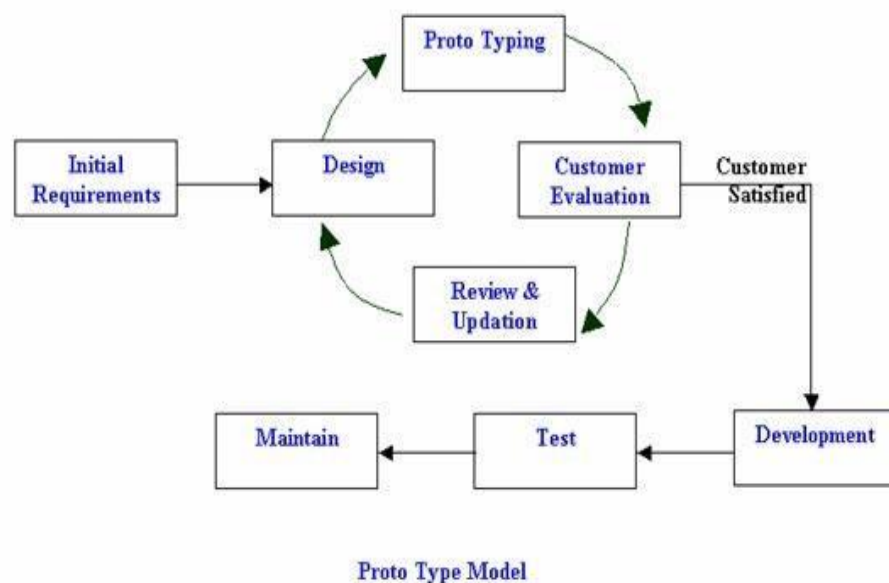

FIG1.Proto Type Model

2   Then a quick design is prepared. This design represents what will be visible to user in input and output format.

3   From the quick design a prototype is prepared. Customer or user evaluates the prototype in order to refine the requirements. Thus prototype is tuned for satisfying customer requirements. Thus prototype is important to identify the software requirements.

4   When working prototype is built, developer use existing program fragments or program generators to throw away the prototype and rebuild the system to high quality.

5   Certain classes of mathematical algorithms, subset of command driven systems and other application where results can be easily examined without real time interaction can be developed using prototyping paradigm.

2.1.1 Advantage of Prototyping

1. Software applications that are relatively easy to prototype almost always involve human-machine Interaction (HCL) the prototyping model is suggested.

2. A general objective of software is defined but not detailed input, processing or output requirements. Then in such a case prototyping model is useful.

3. When the developer is unsure of the efficiency of an algorithm or the adaptability of an system then prototype serves as a better choice.

2.2 Project planning

A **project plan** is "A formal, approved document used to guide both project execution and project control. The primary uses of the project plan are to document planning assumptions and decision, facilitate communication among stakeholders, and document approved scope, cost, and schedule baselines. A project plan may be summary or detailed."

"A statement of how and when a project's objectives are to be achieved, by showing the major products, milestone, activities and resource required on the project.

"Project Planning Activity

chart:

10/7 to 20/8	21/8 to30/10	1/11 to29/12	30/1 to 10/3	11/3 to 15/4
project				
	Analysis of the project			
		Design of projectt		
			Implementation	
				testing and Documentatio n

(Activity Chart of Project Planning)

2.2.1   Project Development Approach and Justification

- ➢ It Begins with requirements gathering.
- ➢ Developer and Customers meet and define the overall objectives of the software, identify whatever requirements are known and identify the areas which require further definition.
- ➢ In many instances the client only has a general view of what is expected from the software product.
- ➢ In such a scenario where there is an absence of detailed information regarding the input to the system, the processing needs and the output requirements, the prototyping model may be employed.
- ➢ This model reflects an attempt to increase the flexibility of the development process by allowing the client to interact and experiment with a working representation of the product.

CHAPTER-3

SYSTEM ANALYSIS

3.1 There are two roles in this system:

> ➢ **Doctor** :
> Doctor can register patient, view patient profile, manage patient database, manage attendance, accept/reject appointment, and generate bill, etc.

> ➢ **Patient** :
> Employee can view profile, attendance and bill, etc.

3.1.1 Attendance Management

- appointment Management

- billing

3.2   FEASIBILITY STUDY

- A feasibility study is undertaken to determine the possibility or probability of either improving the existing system or developing a completely new system.

- It helps to obtain an overview of the problem and to get rough assessment of whether feasible solution exists.

- This is essential to avoid committing large resources of project and then repent on it later.

Mainly following aspect is taken into this stage:-

   1. Technical feasibility

   2. Economic feasibility

   3. Operational feasibility

3.2.1 Technical Feasibility

The technical requirement for the system is economic and it does not use any other additional Hardware and software.

1. We have preferred Microsoft visual studio 2008 as front end and Microsoft SQL server 2008 as back end as both these software are easily Available and the company have its licensed version.

2. The employees in the company have been trained to use this software.
Reckoning with the aforesaid point, it is technically feasible.

3.2.2 Economic feasibility

➢ The system being developed is economic with respect to School or Collage's point of view. It is cost effective in the sense that has eliminated the paper work completely.

➢ The system is also time effective because the calculations are automated which are made at the end of the month or as per the user requirement.

➢ The result obtained contains minimum errors and are highly accurate as the data is required.

3.2.3 Schedule feasibility

1. Project are initiated with specific deadline .we need to evaluate whether the deadlines are mandatory desirable. Time is the one of the critical factor in the development of any system but this kind of feasibility is hardly perfect in any system.

2. We have been asked to complete the project within the working days of the organization having of 4 months approximately. So we have managed to complete the project before given deadline.

3.2.4 Operational feasibility

1. Operational feasibility measure how well the solution will work in the organization and how will end –user feels about the system.
2. It will provide advantageous and reliable services.
3. The proposed system makes a best effort to satisfy user requirements.

3.3 REQUIREMENT SPECIFICATION

3.3.1 Functional Requirement

A functional Requirement defines a function of a software system or its component. A function is described as a set of inputs, the behaviour, and outputs. Functional requirement may be calculations, technical detail, data manipulation and pressing and other specific functionality that define what a system is supposed to accomplish.

3.3.2 Non-functional Requirement

1. Email Facility
2. Notification
3. SMS

3.4 Hardware and Software Requirement

3.4.1 Software Requirement

- ➢ Front End: JAVA
- ➢ Back End: MY SQL 2008

3.4.2 Hardware Requirement

- ➢ RAM: 2GB
- ➢ Hard Disk: 80 GB
- ➢ Processor: Intel i3

3.4.3 Documentation

➢ WPS Writer 2008 for documentation.

➢ WPS Presentation 2008 for presentation.

➢ RF-Flow for diagram.

3.5 Construction

3.5.1 Hardware Limitation

➢ The website requires the 512MB RAM or above and the HDD can have 20 GB or above and the processor IV Intel 80486 is required in Hardware Requirements.

3.5.2 Higher Order Language Requirement

➢ We need to have a good Graphical User Interface (GUI) with user friendly environment which VS provides

3.5.3 Reliability Requirement

➢ For this system the user needs to have basic knowledge of computer.
➢ The computer needs to have 2 GB RAM with Chrome Latest Version (Minimum).

3.5.4 Safety and Security Condition

➢ The username and password authentication has been provided for the login.

Assumptions and Dependencies:

➢ The project was started with the assumption that we would be given the necessary support the form of h/w and s/w resources. My project depends a lot on the inputs.

➢ User has the basic knowledge of the windows environments.

➢ The project design is mainly created by keeping in mind the dependency with languages.

Chapter-4
SYSTEM DESIGN

4.1 DESIGN METHODOLOGY

A software design is a meaningful engineering representation of a software product that is to be built. A design can be traced to the customer's requirement and can be assessed for quality against predefined criteria.

In order to evaluate the quality of a design (representation) the criteria for a good design should:

- ➢ Exhibit good architectural structure.
- ➢ Be modular.
- ➢ Contain distinct representation of data, architecture, interfaces and components (modules).
- ➢ Lead to components that exhibit independent functional characteristics.
- ➢ Lead to an interface that reduces that complexity of connection between modules and whit the external environment.
- ➢ Is derived using a reputable method that is drive by information obtained during software requirement analysis?
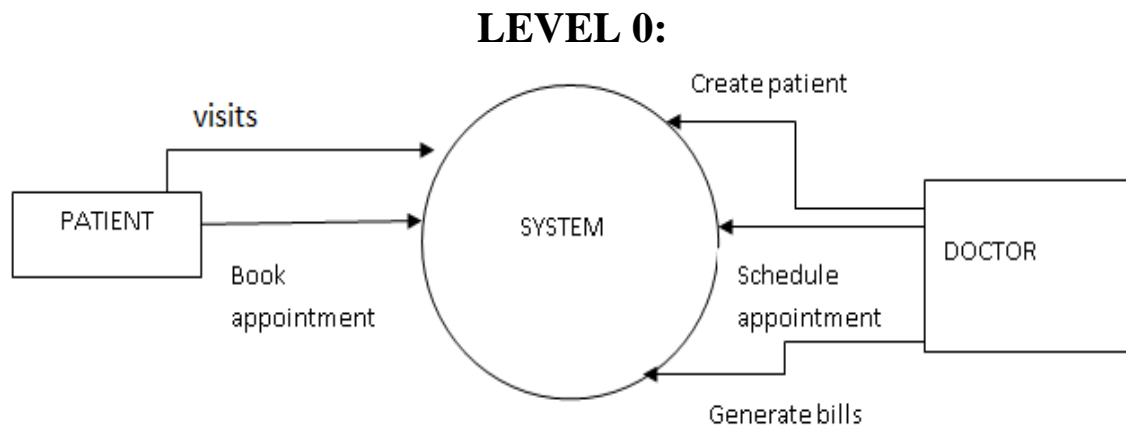- ➢ To design this software we have used Object Oriented Design Method.

: **What was the reason to choose this method is as under:**

- ➢ It provides the feature like reuse, quality, an emphasis on modelling the real world, resistance to change, encapsulation and abstraction etc.
- ➢ **Faster development:** this was the requirement of the project.
- ➢ **Reuse of previous work:** This was required in the project because it is going to extend further to meet the other requirement of the organization.
- ➢ **Increased quality:** this was the non-functional requirement of the organization.
- ➢ **Modular Architecture:** this was required to meet the modification in the product. ➢ **Better mapping to the problem Domain.**
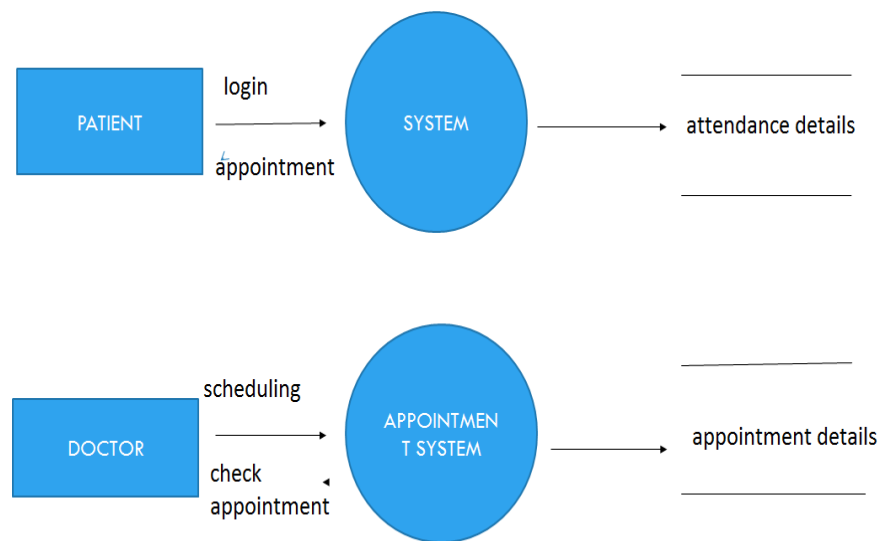
    Only OOD provides the mechanism that enables the designer to achieve above with less complexity.
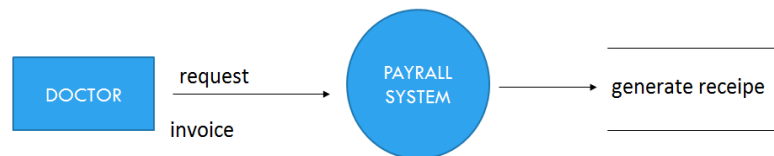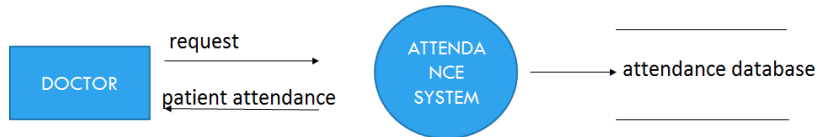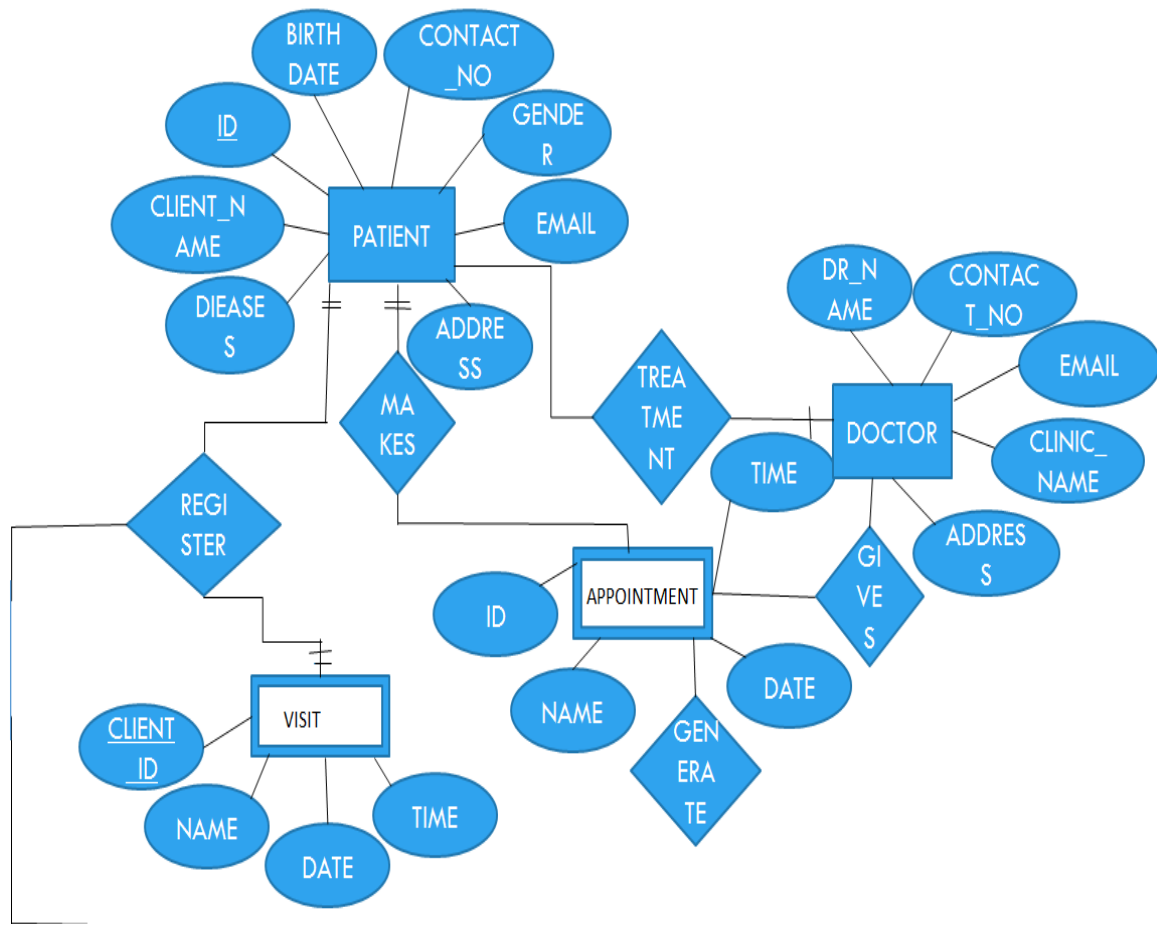
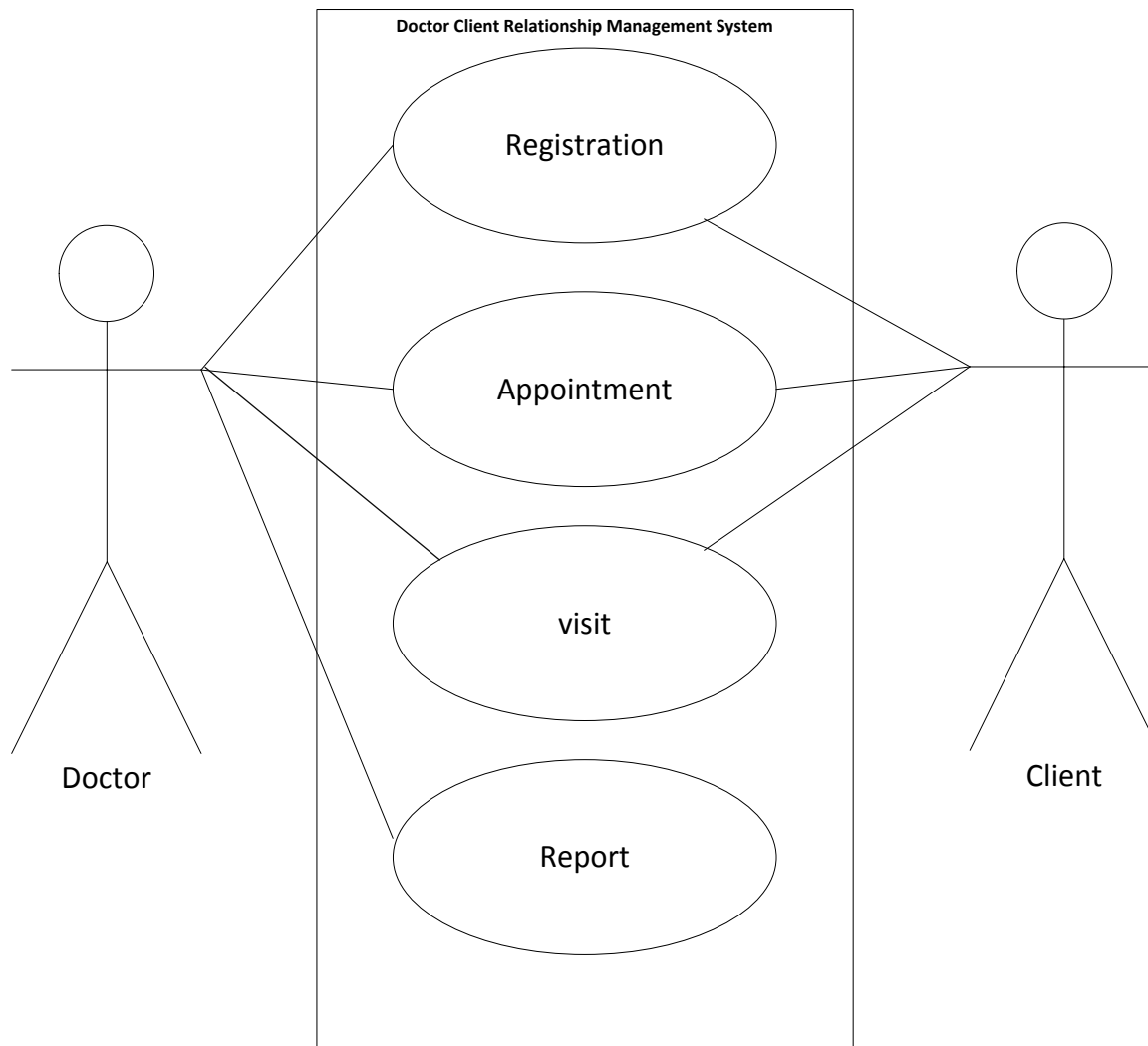## 4.2 DATAMODELING

1. Data Flow Diagram

LEVEL 0:

LEVEL 1:

LEVEL 2

2. ER-Diagram:

3. Use Case

Doctor Client Relationship Management System

- Registration
- Appointment
- visit
- Report

Doctor

Client

4.3 Data Dictionary

1. REGISTRATION

COLUMN NAME	DATATYPE	CONTRAINTS	DESCRIPTION
Name	Varchar2(20)	Not Null	Not Contains Null Values
Id	Integer	Primary Key	Contains unique values and cannot contain null values
Diseases	Varchar(25)	Not null	-
Phone no	Varchar2(13)	Not Null	Not Contains Null Values
Email	Email	Unique Key	Contains unique values
Address	Varchar2(80)	Not Null	Not Contains Null Values
Photo	Blob	Not Null	Not Contains Null Values
Gender	Varchar2(6)	Not Null	Not Contains Null Values

2. PATIENT VISIT

COLUMN NAME	DATATYPE	CONTRAINTS	DESCRIPTION
Id	Integer	Foreign Key	Contains values from referenced table
Name	Varchar2(20)	Not Null	Not Contains Null Values
Visit	Datetime	-	

3.Patient Appointment

COLUMN NAME	DATATYPE	CONTRAINTS	DESCRIPTION
Id	Integer	Foreign Key	Contains values from referenced table
Name	Varchar	Not Null	Not Contains Null Values
Date	Datetime	Not Null	Not Contains Null Values
Time	Datetime	Not Null	Not Contains Null Values

4.NEWCLIENT APPOINTMENT

COLUMN NAME	DATATYPE	CONTRAINTS	DESCRIPTION
Id	Varchar2(20)	Not null	Not Contains Null Values
Name	Varchar2(50)	Not Null	Not Contains Null Values
Date	Datetime	Not Null	Not Contains Null Values
Time	Datetime	Not null	Contains unique values and cannot contain null values

5. receipt

| COLUMN NAME	DATATYPE	CONTRAINTS	DESCRIPTION
Clientid	Varchar2(20)	Not null	Not Contains Null Values
Per month	Date time	Not Null	Not Contains Null Values
Change	Integer(5)	Not Null	Not Contains Null Values
Total	Integer(20)	Not null	Contains unique values and cannot contain null values

Chapter-5

SCREEN SHOTS

5.1 Screen Shots

Home page

This is a Home page of this desktop application. In this the Login and Signup options are available. Using this options we can Login or Signup in the website.

Login page(Registration page)
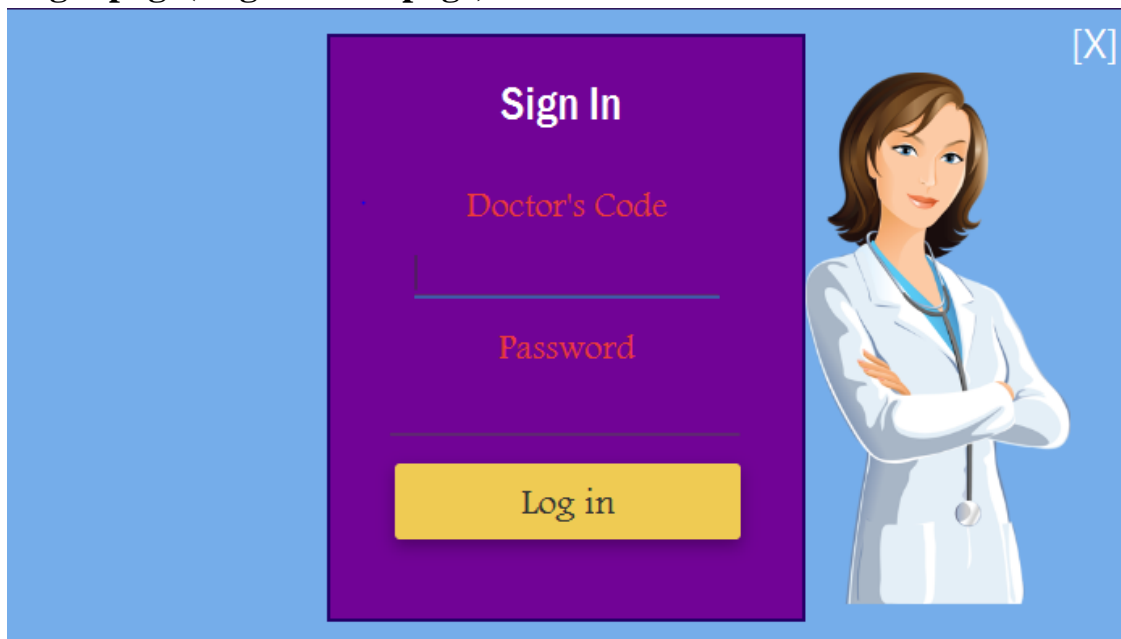
This is login page (Registration page) of the website. By filling the information of the us we can register in the website.

Doctor patient relationship management system

Register page

After Registration we can Login in the website by enter the user name and password and after filling the user name and password click on Login button.

Attended clients

Doctor patient relationship management system

After Login we can see all the options of the application user enter the all this fields and then client visit will be entered their rfid card (file) . so doctor can know that user visit.

Client listPage

This is the client list page where doctor can see the client details and all their information.

Schedule appointment Page

Doctor patient relationship management system

This is the page where doctor can see the available time for give the appointment to client.

View appointment Page

This is the view appointment page where doctor can view all appointments of client.

View Visit Page

This is the page of view visit where doctor can see the visited clients name, date and client id.

Bill Page

This is the page of billing where doctor can generate the bill of clients fees and total amount of their charges.

Chapter-6
TESTING

6.1TESTING PLAN

TESTING

"Software testing is the process of analysing a software item to detect the differences between existing and required conditions (that is, bugs) and to evaluate the features of the software item."

The aim of testing is to identify all defects existing in a software product though not all. Software testing is an activity that should be done throughout the whole development process.

Therefore, we can safely conclude that testing provides a particular way of reducing defects in a system and increasing the user's confidence in a development system.

Black Box Testing:

"Black box testing is testing that ignores the internal mechanism of a system or component and focuses solely on the outputs generated in response to selected inputs and execution conditions."

It is also called functional testing. Therefore no reference to source code is required, and so even purchased modules can be tested. The program just gets an input and its functionality is examined by observing the output. **White Box Testing:**

"White-box testing is testing that takes into account the internal mechanism of a system or component."

White-box testing is also known as structural testing, clear box testing, and glass box testing. The connotations of "clear box" and "glass box" appropriately indicate that you have full visibility of the internal workings of the software product, specifically, the logic and the structure of the code.

Using the white-box testing techniques outlined in this chapter, a software engineer can design test cases that :

1. Exercise independent paths within a module or unit;
2. Exercise logical decisions on both their true and false side;
3. Execute loops at their boundaries and within their operational bounds; and
4. Exercise internal data structures to ensure their validity.

6.2 Test case, Test data and Expected Result

Test Case 1: For Login

Test case	Test data	Expected Result	Actual Result
Login Process	Username=admin Password=admin	User will be redirected to attended client.	Pass
	Username=admin Password=Test	System generates an error message.	Pass
	Username=(blank) Password=admin	System generates an error message.	Pass
	Username=admin Password=(blank)	System generates an error message.	Pass
	Username=(blank) Password=(blank)	System generates an error message.	Pass

Test Case 2: registration form

Test case	Test data	Expected Result	Actual Result
Registration form	User must provides Name,Password,dieases ,photo ,Email and Mobile no.	If data of any field is not blank data will be inserted into database.	Pass
	Email Address not in proper format.	Error message will be displayed to user starting "Email address not in proper format".	Pass
	If any of the required field is blank.	Error message will be displayed to user.	Pass

Test Case 3: Attended client

Test case	Test data	Expected Result	Actual Result
Attended client	User must have to fill clientid, name,dieases,email, contact no and photo.	If data of any field is not blank data will be inserted into database.	Pass
	Email addressnot in proper format.	Error message will be displayed to user stating "Email Address not in proper format".	Pass
	If any of the required field is blank.	Error message will be displayed to user.	Pass

Test Case 4: Schedule appointment

Test case	Test data	Expected Result	Actual Result
Scheduling Appointment	User provide client id , new client , diseases , date and time (from and to)	If data of any field is not blank data will be inserted into database.	Pass
	If you don't fill any field then it will not redirect any page.	Error message occurs.	Pass
	If you don't fill date and time will not registered.	Appointment will not registered.	pass

Test Case 5: Bill

Test case	Test data	Expected Result	Actual Result
Bill	User provide client id , no of days, charge per day and total amount.	If data of any field is not blank data will be inserted into database.	Pass
	If you don't fill any field then it will not redirect any page.	Error message occurs.	Pass
	If you don't fill client id then will not registered.	Bill will not generate.	pass

6.3 Coding

```java
package controller;

import java.io.IOException;
import java.sql.DriverManager;

import javax.swing.JOptionPane;

import com.jfoenix.controls.JFXButton;
import com.jfoenix.controls.JFXPasswordField;
import com.jfoenix.controls.JFXTextField;

import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Scene;
import javafx.scene.control.Label;
import javafx.scene.input.MouseEvent;
import javafx.scene.layout.AnchorPane;
import javafx.stage.Stage;

public class LoginPageController {
@FXML
private Label close;

    @FXML
    private AnchorPane LoginPane;

    @FXML
    private JFXTextField T_username;

    @FXML
    private JFXPasswordField T_Password;

    @FXML
    private JFXButton login_button;

@FXML
    void close_login(MouseEvent event) {
        System.exit(0);

    }
```

```java
@FXML
void LoginClicked(ActionEvent event) throws IOException {


    try{
            String user=T_username.getText();
        String pwd=T_Password.getText();
            Class.forName("com.mysql.jdbc.Driver");
            java.sql.Connection
con=DriverManager.getConnection("jdbc:mysql://localhost/doctor assist","root","");
            java.sql.Statement stmt=con.createStatement();
            java.sql.ResultSet rs=stmt.executeQuery("Select * from login WHERE
username='"+user+"' and password='"+pwd+"'");


            if(rs.next()){


                        LoginPane.getScene().getWindow().hide();
                    AnchorPane
pane=FXMLLoader.load(getClass().getResource("/view/Doctor_features.fxml"));
                    //rootPane.getChildren().setAll(pane);
                     Scene scene = new Scene(pane);
                   Stage stage = new Stage();
                   stage.setTitle("Welcome Doctor");

                   stage.setScene(scene);
                   stage.show();


                    }
            else{
                    JOptionPane.showMessageDialog(null,"Username  or  Password
incorrect");
            }
            con.close();

    }

    catch(Exception e)
    {
            e.printStackTrace();
            System.out.println("\n error:"+e.getMessage());

    }


  }
  }
```

Chapter-7

LIMITATION AND FUTURE ENHANCEMENT

7.1 Limitation

- ➢ Patient need to carry their rfid cards
- ➢ If numbers of patient grow database increases

7.2 Future Enhancements

- ➢ **Sms/call through reminder**

- ➢ **receipt**

- ➢ **Monthly Sms.**

CONCLUSION

➢   In this system we are going to make the patient file management system in which we are going to overcome all the drawbacks which are mentioned in the above existing work. We use this system.

Chapter-8

REFERENCES & BIBLIOGRAPHY
BIBLOGRAPHY

> During the development of my project, I have taken help of many books, and websites for reference, which I would like to humbly mention in this section. I hereby sincerely express my gratitude to all authors, publishers, web designers, software developers of these books and websites which we used as materials.

> These books, web sites acted as our tutor cum guide during the project Development.

Reference

❖ **Books:**

➢Advance Java Programming (By: Hemant Oza & Ghanshyam Shah)

❖ **Reference Sites:**

https://www.google.co.in/search?q=java&source=lnms&tbm=isch&sa=X&ved=0ahUKEwjK96rEwsjWAhUBto8KHaZgAkYQ_AUIDCgD&biw=1366&bih=613#imgrc=CsB7MqyeaD60UM:

https://www.google.co.in/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwiJjI3Pz8XWAhUHO48KHTixCR8QjRwIBw&url=http%3A%2F%2Fhtml-css-php-jsript-mysql.blogspot.com%2F&psig=AFQjCNGnt5oo75_13mCBUAJKnJcGfDT9Vg&ust=1506610496703915

https://www.google.co.in/search?tbm=isch&q=eclipse+icon&chips=q:eclipse+icon,g_7:eclipse+mars,g_2:eclipse+software&sa=X&ved=0ahUKEwiUr_fVusrWAhXKNI8KHSGwBBEQ4lYIKigA&biw=1366&bih=662&dpr=1#imgrc=P1mE_4Mde8xCdM: