



# INSTITUTE FOR ADVANCED COMPUTING AND SOFTWARE DEVELOPMENT AKURDI, PUNE

## **Documentation On**

"Online Appointment System For Hospital" e-DAC MAY 21

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#### 1. Introduction

Sometimes we come across small problems where you to need consult doctors about your health problems or for the nearest ones and follow their prescriptions. Doctors online will provide you the power of direct interaction between doctors of your choice as and when required for your small problems. Using this web applications, patients will able to fill online form in just few seconds before entering to the virtual office room. It will also enable you to upload your lab results such as x-ray copies, health history etc which can be viewed by your referred doctors.

#### **Document Purpose**

The advancement in Information Technology and internet penetration has greatly enhanced various business processes and communication between society owners and their customers who are purchasing the flats. This Society Management System is developed to provide the following services:

#### **Enhance Business Processes:**

To be able to use internet technology to project to the global world instead of limiting their services to their local domain alone, thus increase their return on investment (ROI).

#### Online Society Management:

A tool through which admin can register a flat owner and provide many functionalities to them. The admin also receives some set of functionalities which help in managing the society.

#### Monthly Bill generation:

This system's key functionality is that it helps in generating the monthly bill of thesociety conveniently.

#### **Problem Statement**

Under manual system, you have to first wait in line to take appointment for the doctors and wait for your time to have meet with them and discuss on your health problems. As you have to provide your information and other reports many times at different places such as the medicine store which is again a burden of carrying documents. You have to be present physically at the doctor's cabin. Patients have to visit on another day of after some hours to take their health reports which involves extra care person with patients anytime. Under manual system, the only accepted payment method is by cash and if patients due to some reasons are not having cash on time may face difficulties and not able to get treatment.

#### **Product Scope**

This project traverses a lot of areas ranging from business concept to computing field, and required to perform several researches to be able to achieve the project objectives. The area covers include:

- Housing industry: This includes study on how the daily Society work actually is being done, process involved and opportunity that exist for improvement.
- J2EE Technology used for the development of the application.
- General customers as well as the society's staff will be able to use the system effectively.
- Web-platform means that the system will be available for access 24/7 except when there is a temporary server issue which is expected to be minimal.

#### **Aims & Objectives**

Specific goals are: -

- To allow patients to register and sign in for appointment booking
- To Doctors to sign up and sign into the health care facility
- To produce a web-based system that allow the admin to add and delete patient users

And Doctor users

## **Overall Description**

#### **Product Perspective:**

#### 2.1.1 Existing system function:

Under manual system, you have to first wait in line to take appointment for the doctors and wait for your time to have meet with them and discuss on your health problems. As you have to provide your information and other reports many times at different places such as the medicine store which is again a burden of carrying documents. You have to be present physically at the doctor's cabin. Patients have to visit on another day of after some hours to take their health reports which involves extra care person with patients anytime. Under manual system, the only accepted payment method is by cash and if patients due to some reasons are not having cash on time may face difficulties and not able to get treatment.

#### • III. PROPOSED SYSTEM

#### **Product functionality:**

To make a truly online system to have meet with online doctors, all manual process has been automated through this system.

Patient have to fill online form by which id and password created and sent to the database and upon accepting data, automatic login to patient panel.

Through this panel, patients can select the doctors and have appointment with them on their time from their own place.

### **Modules**

# 1. Patient Form and Login Module.

For the first time visitors, they have to just enter their basic details and can enter their dashboard. System will take care of creating their new profile. For existing patients, they will have to enter their id and password sended to their email earlier. This module will like virtual office from where all activity can be performed.

## 2. Online Appointment Module.

Through this module, patients can select doctors and have discussion regarding their health problems. Patients will able to get their availability time or choose from the available ones and start their diagnosis immediately.

#### 3. Medicine Module.

This module will provide details of medicines which should be taken by the patients. It will also include the limit up to which these medicines should be taken and date to have meet again with doctors.

#### **Users and Characteristics:**

#### Admin:

- Admin can login to the system.
- View the list of all users and doctors in the hospital.
- Add new patient or Doctor.
- Delete patient or Doctor.
- Update patient or Doctor.
- View Complaints of flat owners.
- Circulate notice among all the flat owners.
- Add workers in the society.
- View workers working in the society.

#### User:

- Flat Owner can login to the system.
- View his/her details.
- View notices.
- Generate complaints.
- View visitors who visited his/her flat.
- Update their personal credentials.
- View monthly generated bill.

#### **Operating Environment:**

#### Server Side:

**Processor:** Intel® Xeon® processor 3500 series

HDD: Minimum 500GB Disk Space

**RAM:** Minimum 2GB

OS: Windows 8.1, Linux 6

Database: Oracle 11g

#### Client Side (minimum requirement):

**Processor:** Intel Dual Core

**HDD:** Minimum 80GB Disk Space

**RAM:** Minimum 1GB

OS: Windows 7, Linux

#### **Design and Implementation Constraints:**

- The application will use Ajax, JavaScript, jQuery and css as main web technologies.
- HTTP and FTP protocols are used as communication protocols. FTP is used to upload the web application in live domain and the client can access it via HTTP protocol.
- Several types of validations make this web application a secured one and SQL Injections can also be prevented.
- Since Society Management system is a web-based application, internet connection must be established.
- The Society Management System will be used on PCs and will function via internet or intranet in any web browser.

## Specific Requirement

#### **External Interface Requirements:**

#### **User Interfaces:**

- All the users will see the same page when they enter in this website. This page asks the users a username and a password.
- After being authenticated by correct username and password, user will be redirect to their corresponding profile where they can do various activities.
- The user interface will be simple and consistence, using terminology commonly understood by intended users of the system. The system will have simple interface, consistence with standard interface, to eliminate need for user training of infrequent users.

#### Hardware Interfaces:

- No extra hardware interfaces are needed.
- The system will use the standard hardware and data communication resources.
- This includes, but not limited to, general network connection at the server/hosting site, network server and network management tools.

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#### **Application Interfaces:**

**OS:** Windows 7, Linux

#### Web Browser:

The system is a web-based application; clients need a modern web browser such as Mozilla Firebox, Internet Explorer, Opera, and Chrome. The computer must have an Internet connection in order to be able to access the system.

#### Communications Interfaces:

- This system uses communication resources which includes but not limited to, HTTP protocol for communication with the web browser and web server and TCP/IP network protocol with HTTP protocol.
- This application will communicate with the database that holds all the booking
  information. Users can contact with server side through HTTP protocol by
  means of a function that is called HTTP Service. This function allows the
  application to use the data retrieved by server to fulfil the request fired by the
  user.

# **System Design**

# **Activity Diagram**

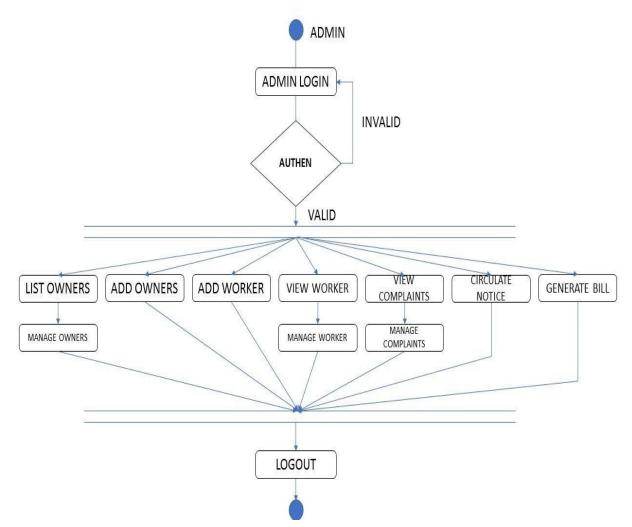


Figure 1: Admin Activity Diagram

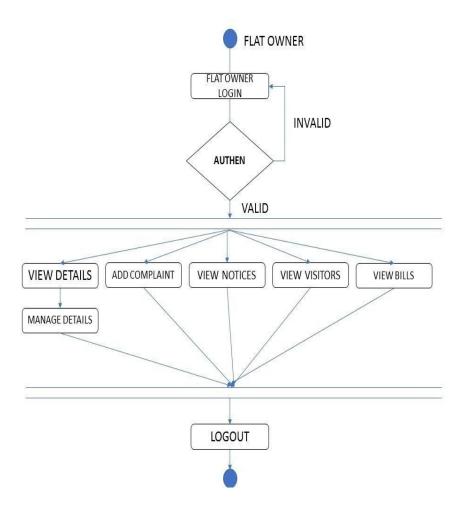


Figure 2: Flat Owner Activity Diagram

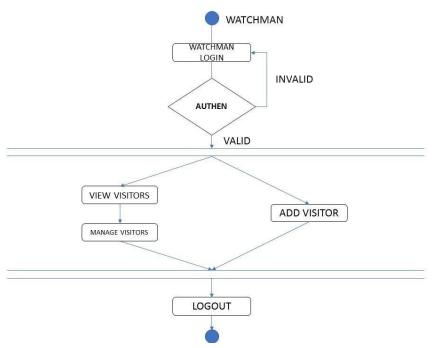


Figure 3: Watchman Activity Diagram

# **Data Flow Diagram**



Figure 4: Level 0 Data Flow Diagram

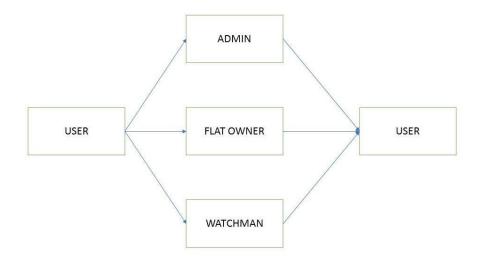


Figure 5: Level 1 Data Flow Diagram

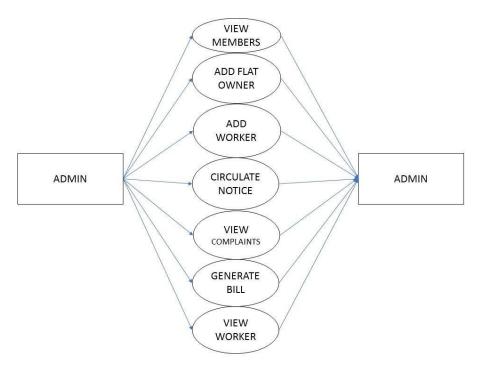


Figure 6: Level 2 Data Flow Diagram for Admin

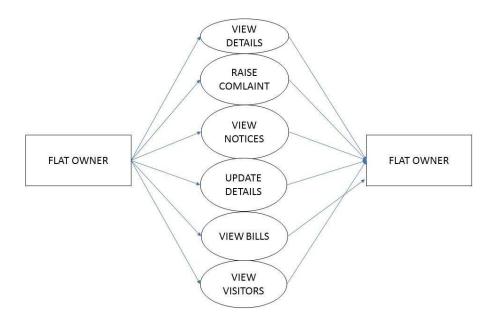


Figure 7: Level 2 Data Flow Diagram for Flat owner

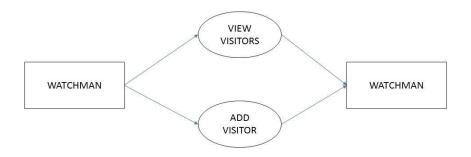


Figure 8: Level 2 Data Flow Diagram for Watchman

#### **Database Diagram**

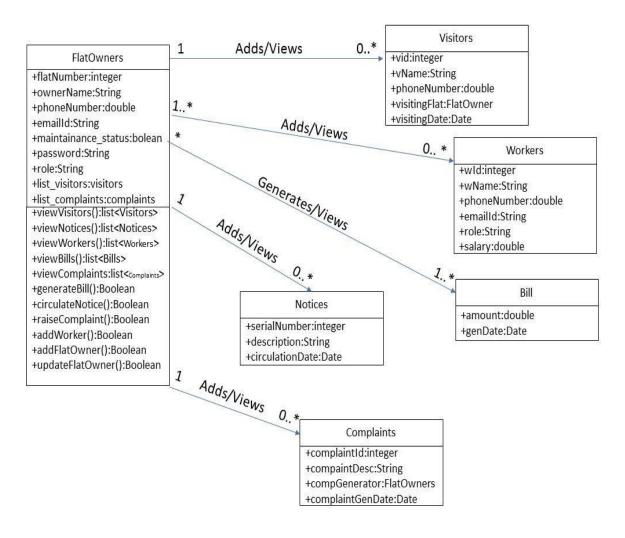
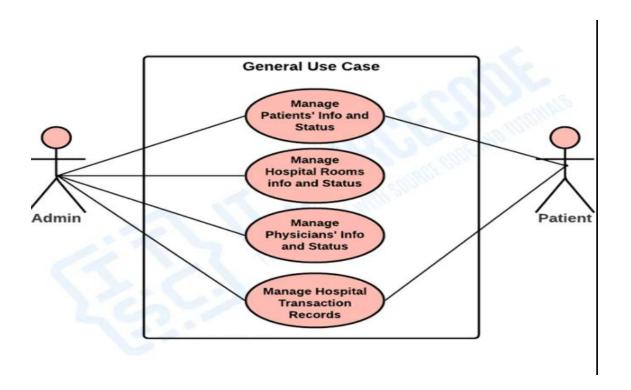
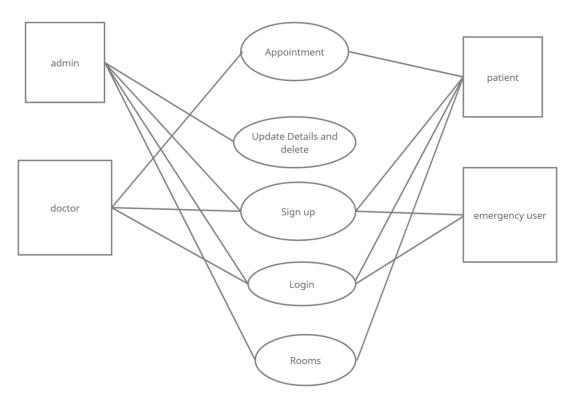


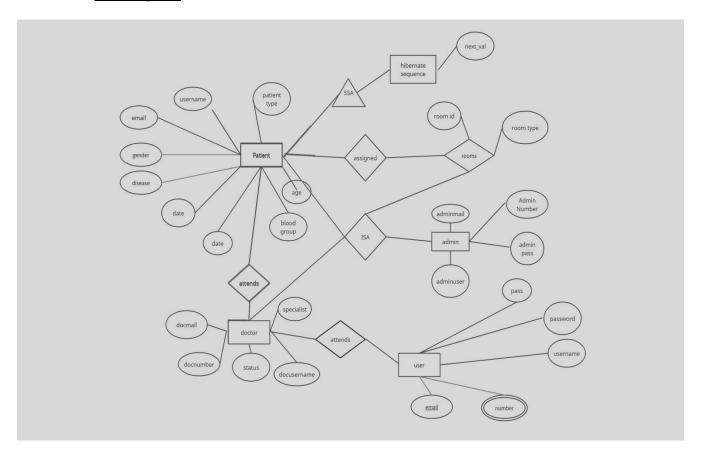
Figure 9: Class Diagram

## **Use Case Diagram**

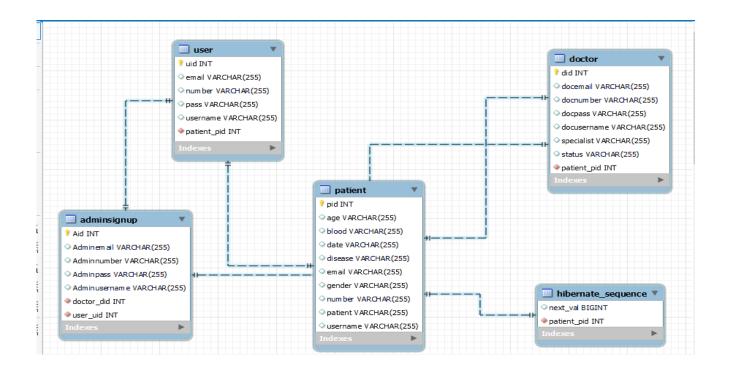




#### **ER Diagram**



#### Database Diagram



# **Table Structure**

# Flat owners:

<u>Field</u>	<u>Type</u>	<u>Null</u>	<u>Key</u>	<u>Default</u>	<u>Extra</u>
<u>f_flatnumber</u>	number(11)	NO	PRI	NULL	Auto_increment
<u>f_ownername</u>	varchar2(30)	NO		NULL	
<u>f_email</u>	varchar2(30)	NO	UNI	NULL	
<u>f_password</u>	varchar2(30)	NO		NULL	
<u>f_phonenumber</u>	number(10)	NO		NULL	
<u>f_role</u>	varchar2(10)	NO		NULL	

# **Notices:**

<u>Field</u>	<u>Type</u>	<u>Null</u>	<u>Key</u>	<u>Default</u>	<u>Extra</u>
n_id	number(11)	NO	PRI	NULL	Auto_increment
n_description	varchar2(100)	YES		NULL	
n_gendate	Date	NO	UNI	NULL	

# **Complaints:**

Field	<u>Type</u>	<u>Null</u>	Key	<u>Default</u>	<u>Extra</u>
c_id	number(11)	NO	PRI	NULL	Auto_increment
c_description	varchar2(100)	YES		NULL	
c_gendate	Date	NO	UNI	NULL	
c generator	number(10)	NO	FKEY	NULL	

# **Visitors:**

<u>Field</u>	<u>Type</u>	<u>Null</u>	<u>Key</u>	<u>Default</u>	<u>Extra</u>
v_id	number(11)	NO	PRI	NULL	Auto_increment
v_name	varchar2(20)	NO		NULL	
v_phonenumber	varchar2(30)	NO	UNI	NULL	
v_visitingflat	number(10)	NO	FKEY	NULL	

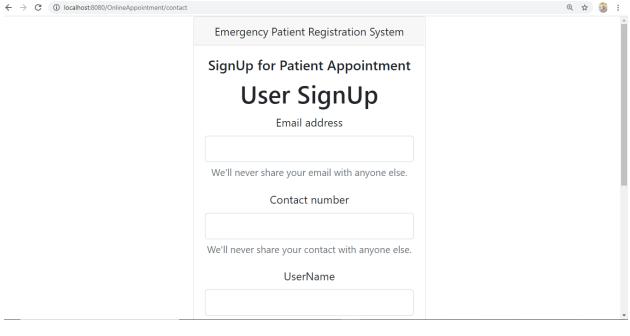
# 5.4 Bill:

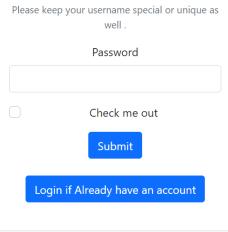
<u>Field</u>	<u>Type</u>	<u>Null</u>	<u>Key</u>	<u>Default</u>	<u>Extra</u>
<u>b_amount</u>	number(11)	NO	PRI	NULL	
<u>b_gendate</u>	Date	NO		NULL	

# 5.4 Workers:

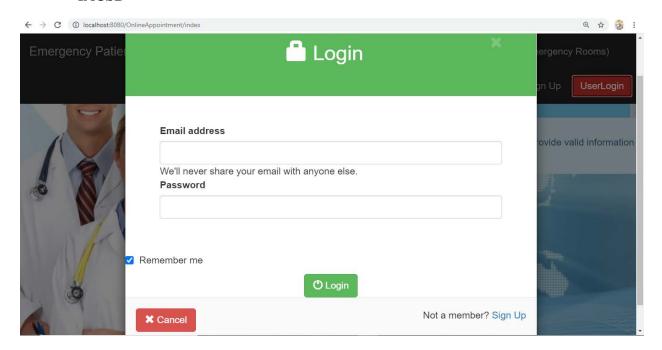
<u>Field</u>	<u>Type</u>	<u>Null</u>	<u>Key</u>	<u>Default</u>	<u>Extra</u>
w_id	int(11)	NO	PRI	NULL	Auto_increment
w_name	varchar2(20)	NO		NULL	
w_phonenumber	varchar2(30)	NO	UNI	NULL	
w_role	varchar2(10)	NO		NULL	
w_salary	number(6)	NO		NULL	



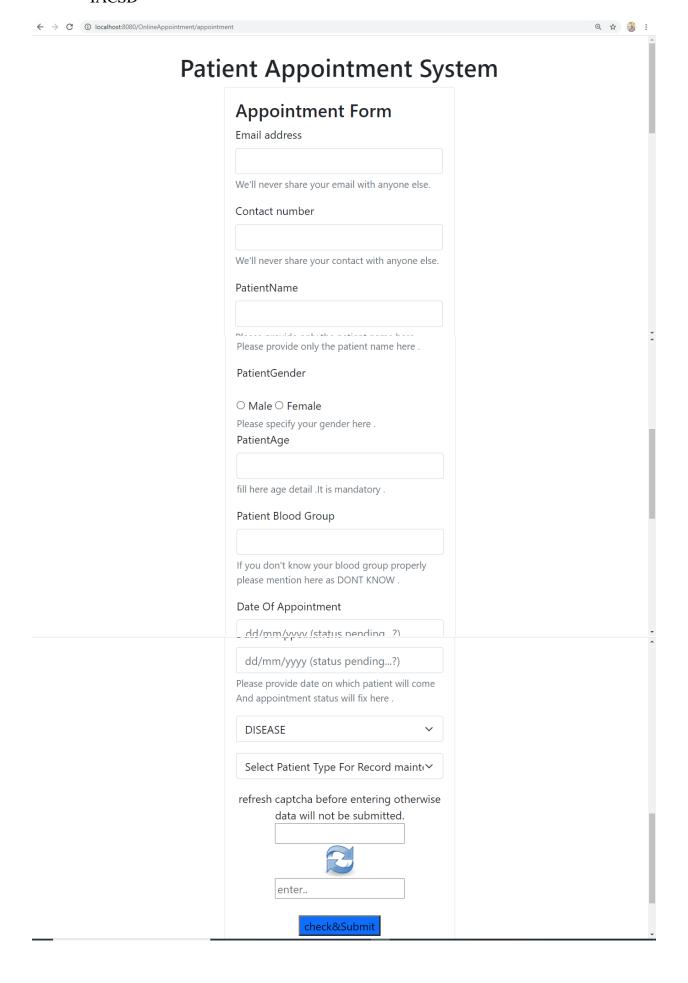




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#### **Conclusion**

Society management system puts forth the actual working of a society. Administration, management, payment calculation, worker management, visitor management, etc. similar to a society are the key features of our project. User can access services and functionalities from the society anywhere and anytime for their own comfort.

## **Future Scope**

This project can be enhanced further by adding club house booking, online voting system, online payment facility for the members to reduce the extra work of the admin. The software is flexible enough to be modified and implemented as per future requirements. We have tried our best to present this free and user–friendly website to Society members. Message and Email alerts for various happenings in the society can be added to the system so that users do not miss the updates and happenings of the society.

# 7.0 References

- [1] Maharashtra Co-operative Housing Societies Act; [MCS Act] 1960.
- [2] "Reserve Funds" means the funds constituted under the provisions of section 66(1) of the Act and "Bye law" No. 12 (i).
- [3] "Repairs and Maintenance Funds" means the fund constituted under the Bye Law No. 13(a).
- [4] "Sinking Funds" means the funds constituted under the Bye Law No. 13(c).

#### **ONLINE REFERENCE**

[5] www.housing-society-management-software.software.informer.com/1.0/