1. **INTRODUCTION**
2. **INTRODUCTION**

In this modern world everything can be controlled and accessed without the presence of a particular person- that which the time constraint of the modern world demands. This concept is implemented in a complete way through the **ONLINE MEDICAL** is project. It is not practical in today’s life to spend much time only being dedicated for a particular work.

The admin module is concerned with updating of the number of patients and doctors in the medical portal. The admin can add doctors to the portal and enter their details like Name, Qualification and Specialization etc. He can view the details of both patients and doctors and has the right to delete from the medical portal if necessary.

Every patient will be given unique patient ID .When a patient comes to reception desk, a new registration number is automatically allotted to him. His personal details like Name, Age, Sex, Address etc. and the service desired are fed into the software. The patient can then view the doctor available to him and the send a request to the doctors for his approval.The doctor on getting request from the patient decides to whether to accept his request or reject it. After receiving approval from the doctor the patient can start communicating with the doctor by sending offline message. There is also an option for both the patient and the doctor to do live chatting.

1. **SYSTEM ANALYSIS**
   1. **SYSTEM DESCRIPTION**

As already mentioned, the introduction of human element is the most important part

of our portal. The analytical ability of eminent physicians comes in handy in complicated diagnosis.

The main service offered by our site is

1. Image and text uploads.
2. Consultancy through chatting

The uploading facilities act as a useful tool for the user to upload the various diagnostic reports and image namely X-rays, MRI scan images and so on. This helps the doctor to get a better understanding of the patient’s condition.

The consultancy is facilitated with the introduction of chatting. This gives our site an edge over the present system. This chatting facility provides the user with a near to real life consultancy experience.

The doctor can review the various images and reports uploaded by the patients in the earlier date. This enables the doctor to keep a track of the patient’s health status.

* 1. **SCOPE OF THE PROJECT**
* This software which is very useful in practical world.
* This project will be helpful for the people in the rural and semi-urban areas where there is scarcity of medical aid.
* Time consumption for standing in a queue to meet a doctor can also be reduced.
* Patient can consult more than one doctor at the same time

**2.3 EXISTING SYSTEM**

At present, the existing system is partially computerized. This system is mainly implemented in hospitals. The information necessary for the smooth operation of a hospital outpatient section is not easily available to staff in the op-section.

In the existing system, the details regarding the departments and doctors are stored and updated or deleted with much effort. A detailed study of the existing system with the constraints and structures, which gives a complete idea of the present system, is said below and we consider only single module for the system.

**Problems with existing system**

* All records may not be handled or written by the same person, so the format will be different resulting in loss.
* The lifetime of paper record is very less that it easily get damaged, thus resulting in loss of data.
* It is quite difficult for generating the reports and is time consuming for any updation.
* The great limitation to the existing system is that, service to the customer is limited
* Manual system needs more manpower for its functioning than computer system. Expenditure is high in terms of salary and time.
* The other limitation of the existing system is that there is no communication between doctor and patient when they are away from the hospital.

**2.4 PROPOSED SYSTEM**

The proposed system overcomes the difficulties faced within the existing system. The new system is a user-friendly computerized system. Most of the workloads of operator and the administrator can be reduced with the new system.

**2.5 ADVANTAGES**

* Provides an easy department and doctor detail adding section.
* Provides provision for updating the details regarding the doctors and department.
* Make the advance registration process fast and efficient.
* Provides the enquiry section fast and integrated.
* Make the selection of a doctor from a department more easy.
* Fast and efficient reports about the doctors.
* Provide an easy way to see the details of patient everyday.
* Provides an easy communication that is chatting facility between the doctor and patient when they are away from the hospital.
* Provide an offline messaging

**2.6 FUNCTIONAL REQUIREMENTS**

Registration:

The users are allowed to register to our portal on a free basis. The user will be able to avail the services once he register. The doctors need a valid doctor\_id provide by the administrator to complete the registration. This helps to avoid miss information. Once the administrator believes that the person with the credentials of the doctor is genuine. He provides with a unique id.

Chatting:

The patient can interact with the doctors with the help of the chatting facilities provide by our portal. This increasers the output of the site since the patient is able to communicate his talk to the concerned doctor. This eliminates the need to store the different symptoms and there concern disease so as to make the diagnosis possible.

Entering the doctor-id

This function comes under the category of administrative operation. The doctor needs the doctor id provided by the administrator. This helps to prevent miss information. The administrator provide the doctor id and updates in the database so that the doctor can register smoothly

View and remove user

This function comes under the administrative section. The administrator will be able to view all the users who are registered to the portal. If any sort of malpractice are encountered from any classes of user. The administrator can remove them from the portal. Thus resistricting them the access to the system

Change password

The user can changes password if he wishes to. This is done so as to ensure security and privacy area from the user’s part.

Upload:

This is the second important feature of our portal. The users are given the provision to upload various

* Images like X-rays or scan images.
* Previous diagnostic report like blood test and other details.

The doctor will be able to view these images and documents and this helps the concerned user to get better understanding of patient’s condition.

Review

The users, mainly doctors are given the facility to replay the interactions with the

concerned person. The images and documents uploaded by the user can be reviewed. The doctor will be able to compare the earlier and present condition of his patient with the help of this facility.

**2.7 SYSTEM REQUIRMENTS**

Platform : Linux

Language used : JAVA,jsp

Technologies : Ajax,

Back-end : Mysql

**3.0SYSTEM DESIGN**

* 1. **DFD WITH DETAILED EXPLANATION**

**LEVEL 0**

REQUSET REQUSET

**ADMIN**

**USER**

RESPONSE

RESPONSE

**LEVEL 1**

**ADMIN**

**MEDICAL**

**PORTAL**

**DETAILS**

**PATIENT**

**DOCTOR**

**LEVEL 2**

**LOGIN**

**ADMIN**

**LOGIN**

**PATIENT**

**LOGIN**

**DOCTOR**

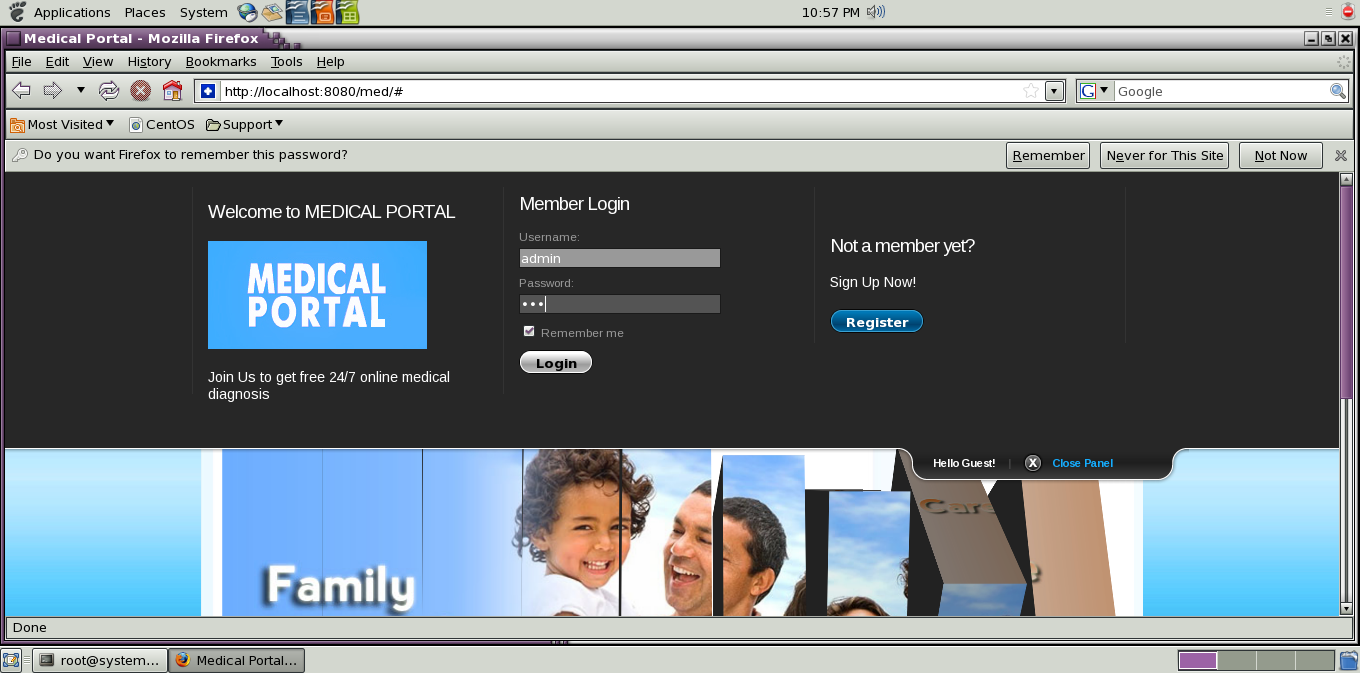
* 1. **SCREEN SHOTS**

**JavaServer Pages** (**JSP**) is a Java technology that helps software developers serve dynamically generated web pages based on HTML, XML, or other document types. Released in 1999 as Sun's answer to ASP and PHP. JSP was designed to address the perception that the Java programming environment didn't provide developers with enough support for the Web.

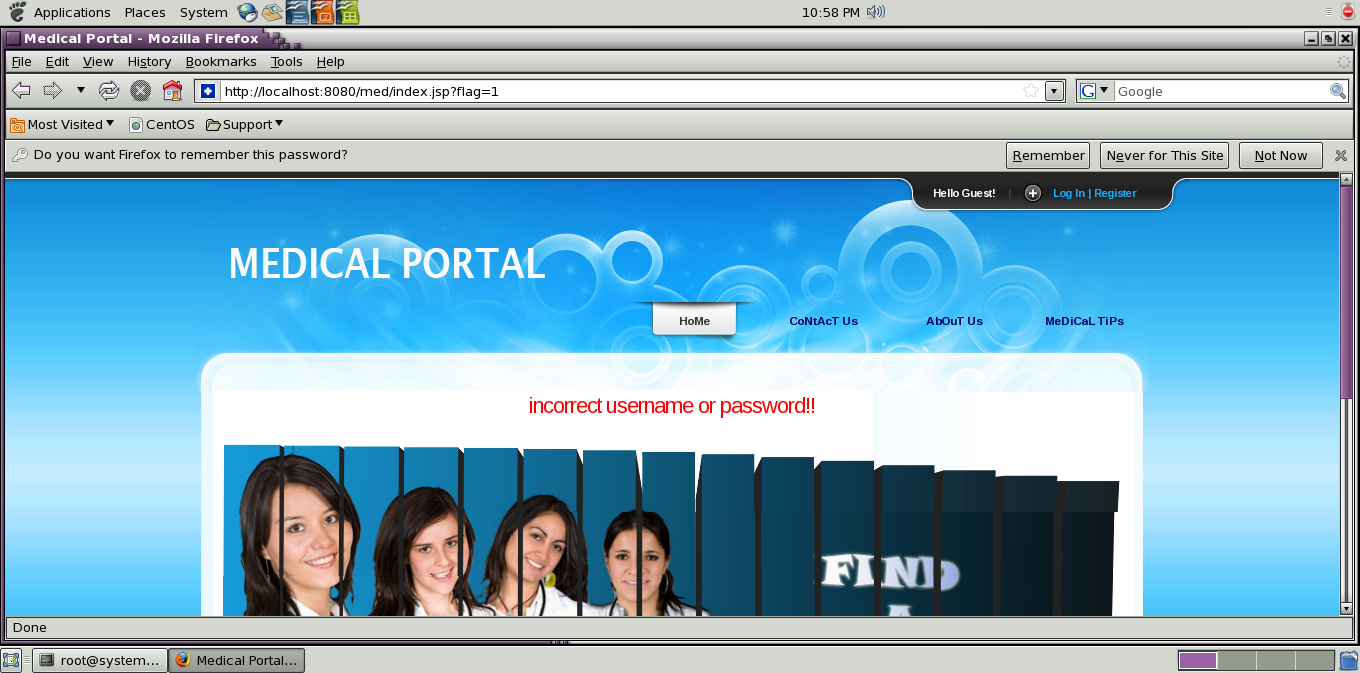
To deploy and run, the Apache Tomcat Server is used. It is an open source servlet container developed by the Apache Software Foundation (ASF). Tomcat implements the Java Servlet and the JavaServer Pages (JSP) specifications from Sun Microsystems, and provides a "pure Java" HTTP web server environment for Java code to run.

JSP pages are loaded in the server and are operated from a structured special installed Java server packet called a Java EE Web Application.JSP allows Java code and certain pre-defined actions to be interleaved with static web markup content, with the resulting page being compiled and executed on the server to deliver an HTML or XML document. The compiled pages and any dependent Java libraries use Java bytecode rather than a native software format, and must therefore be executed within a Java virtual machine (JVM) that integrates with the host operating system to provide an abstract platform-neutral environment.

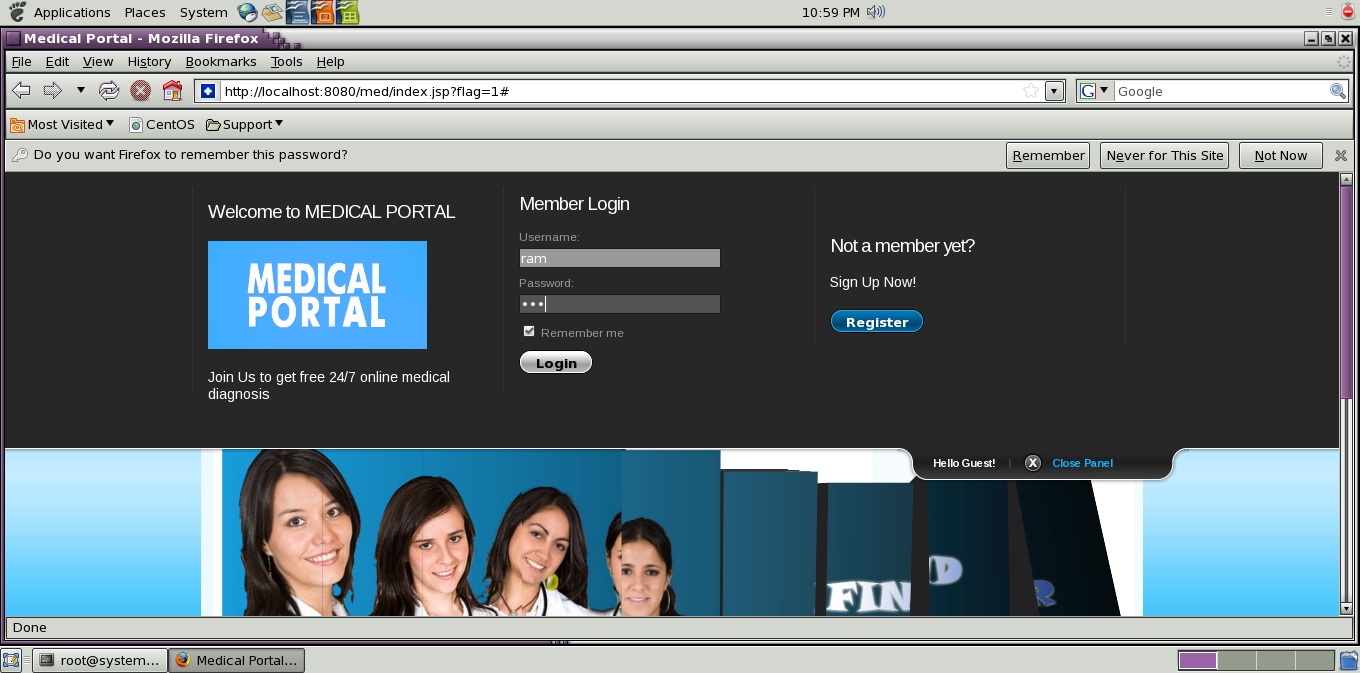
LOGIN PAGE



Fig(1)

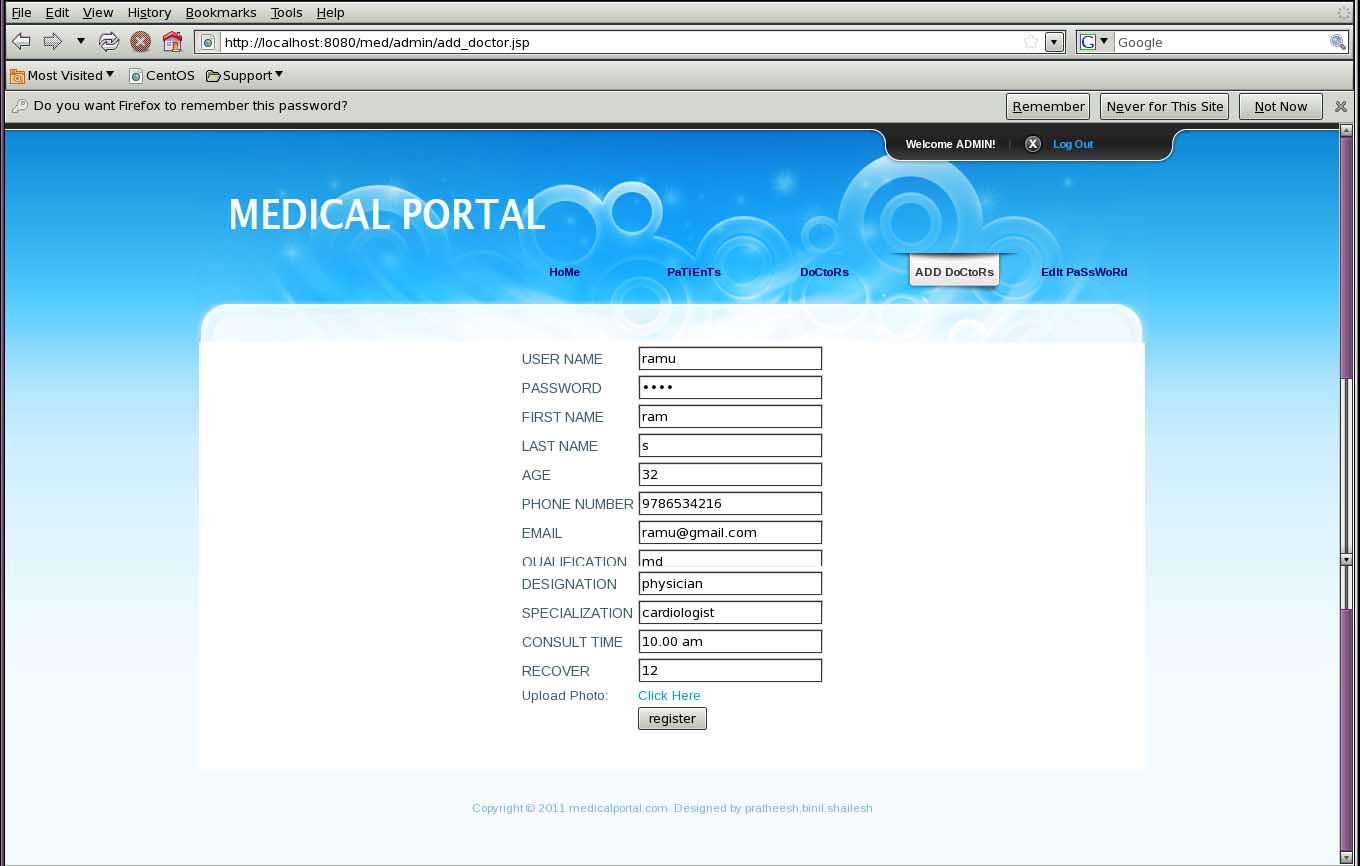


Fig(2)

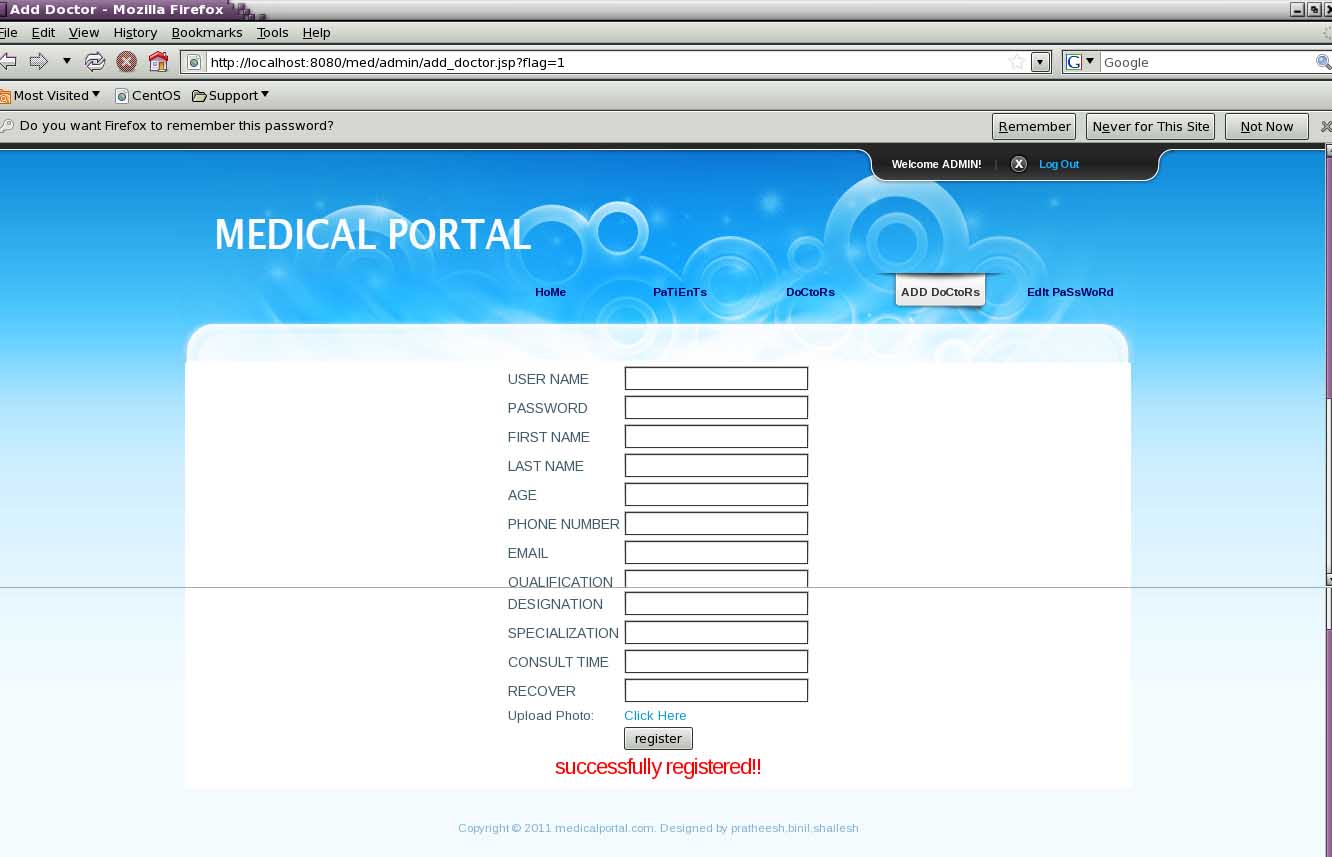


Fig(3)

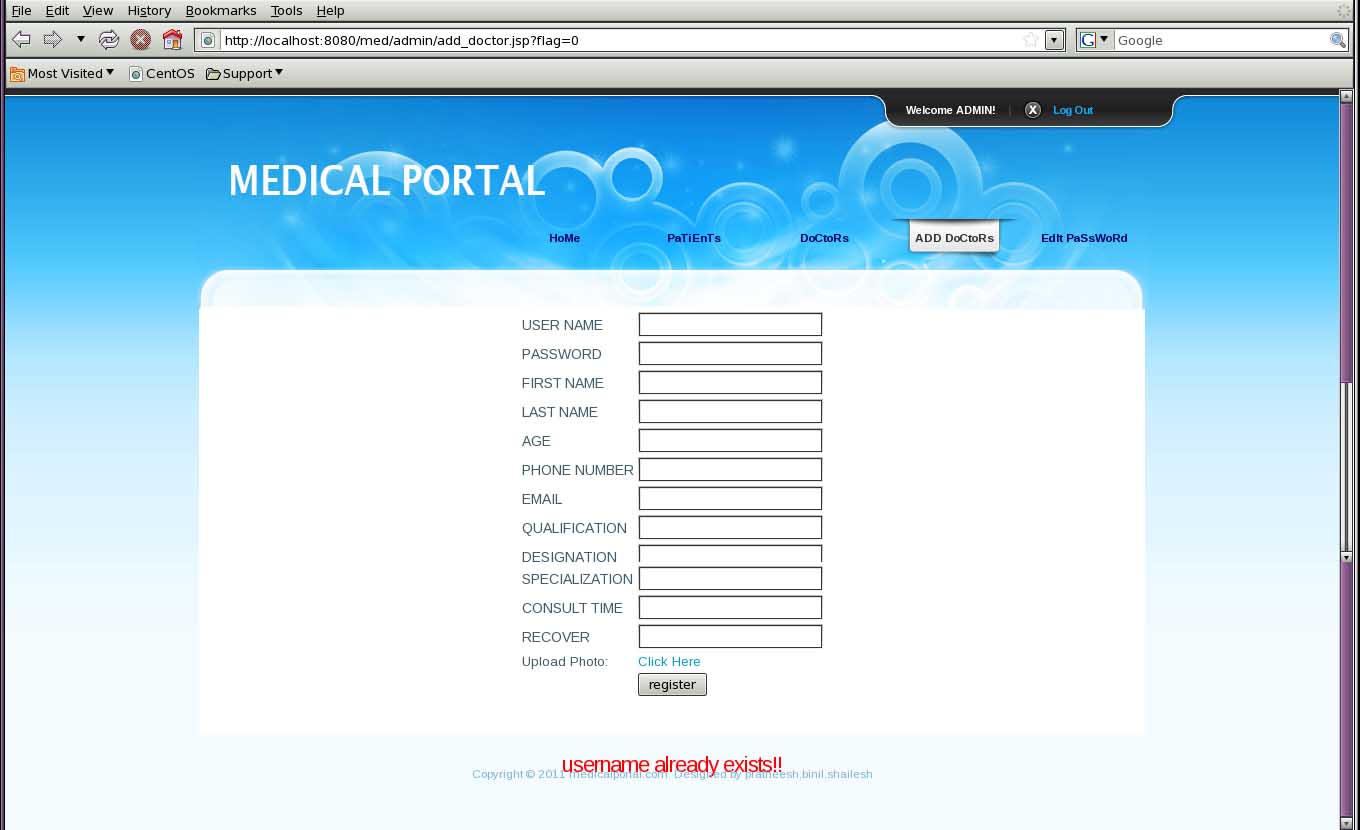
ADD DOCTOR



Fig(4)

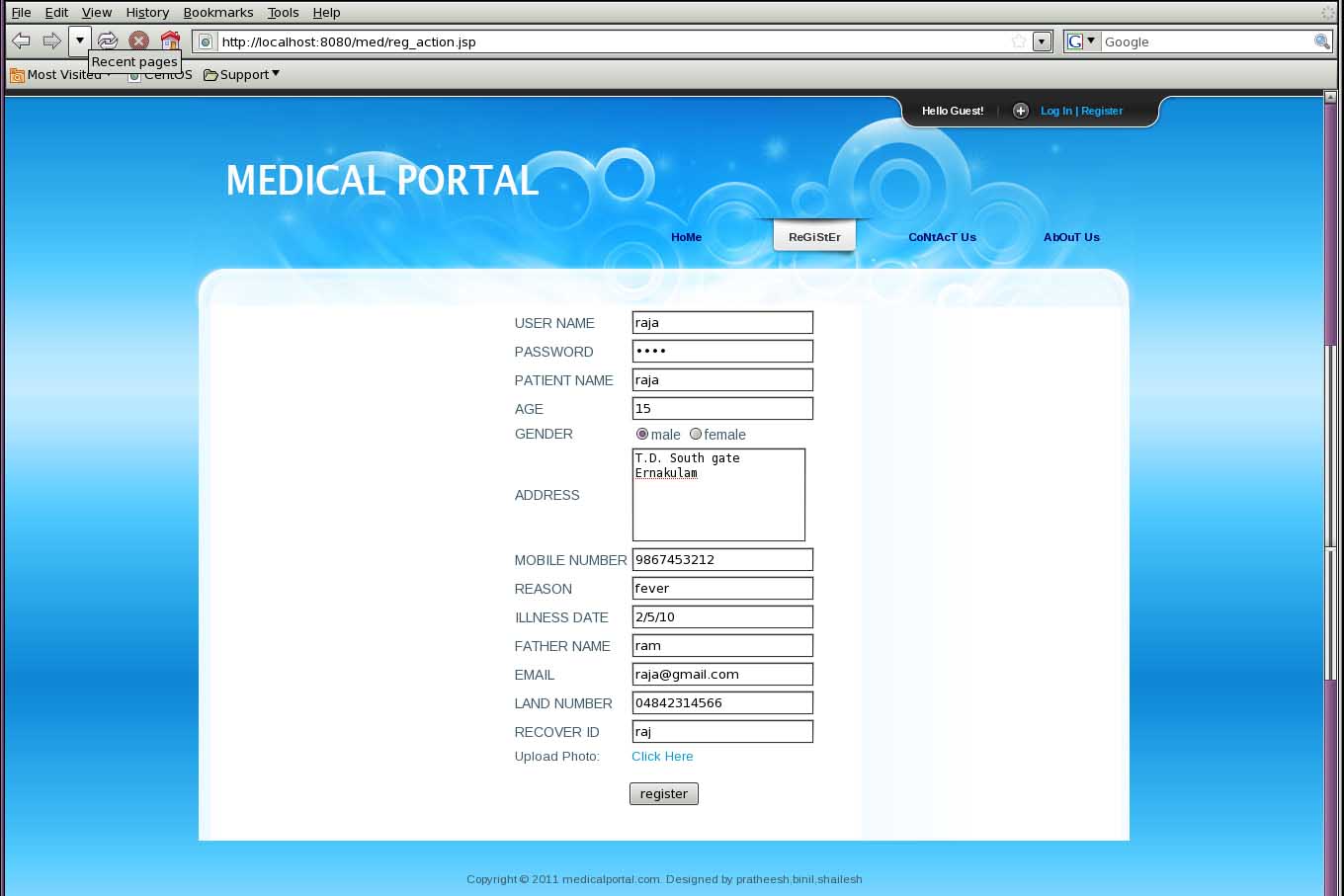


Fig(5)

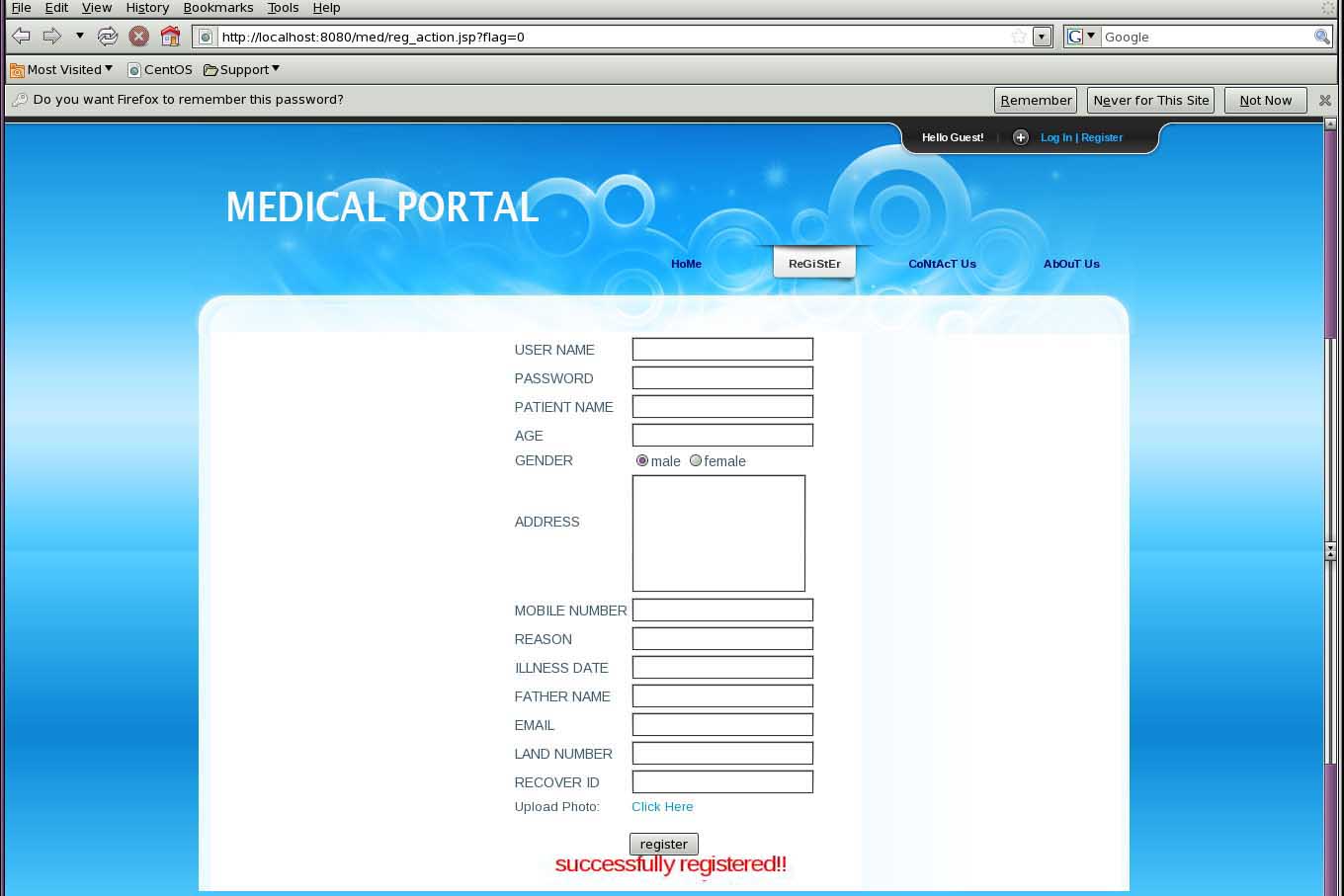


Fig(6)

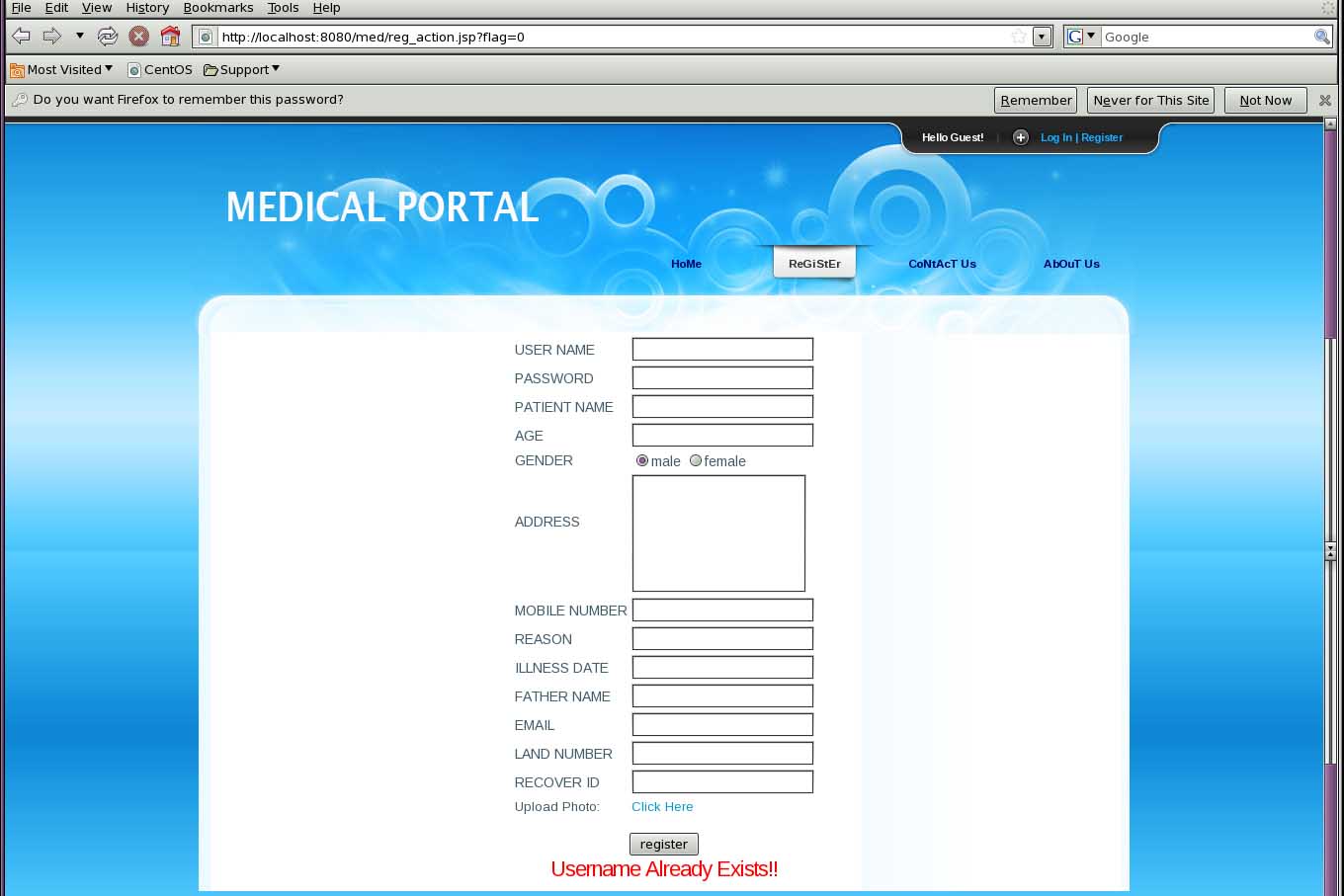
ADD PATIENT



Fig(7)

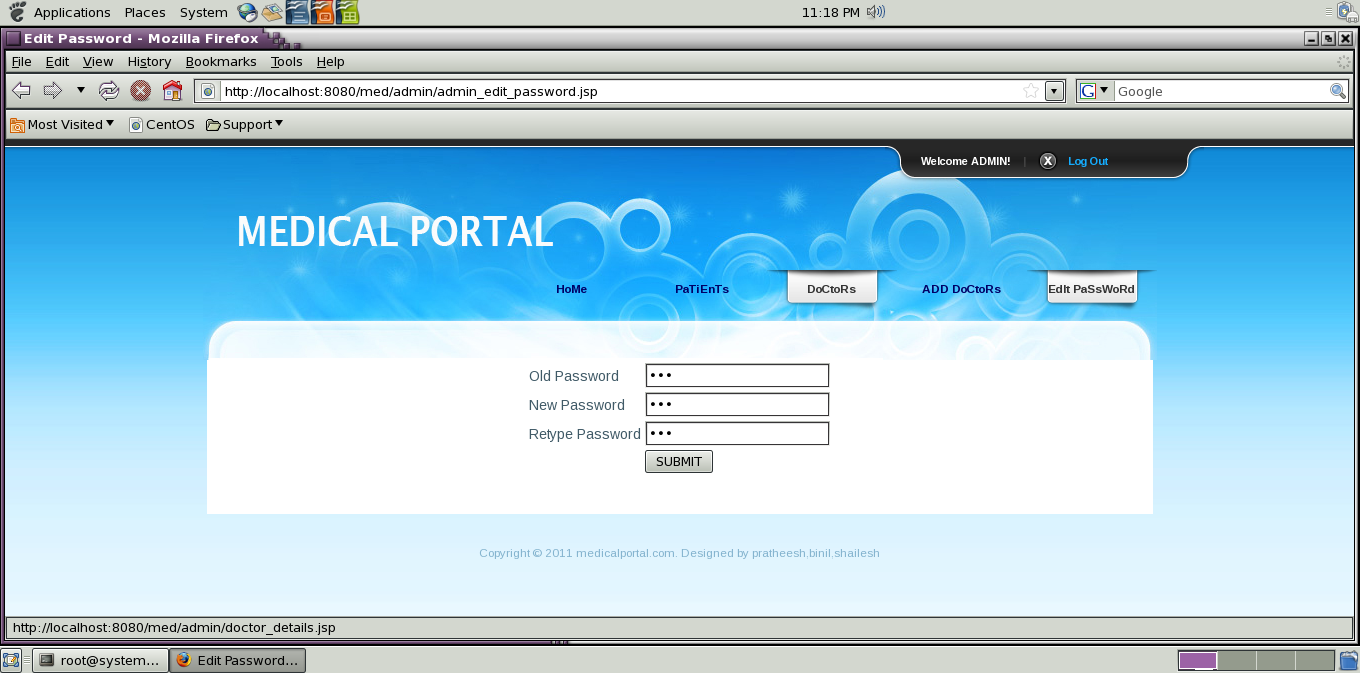


Fig(8)



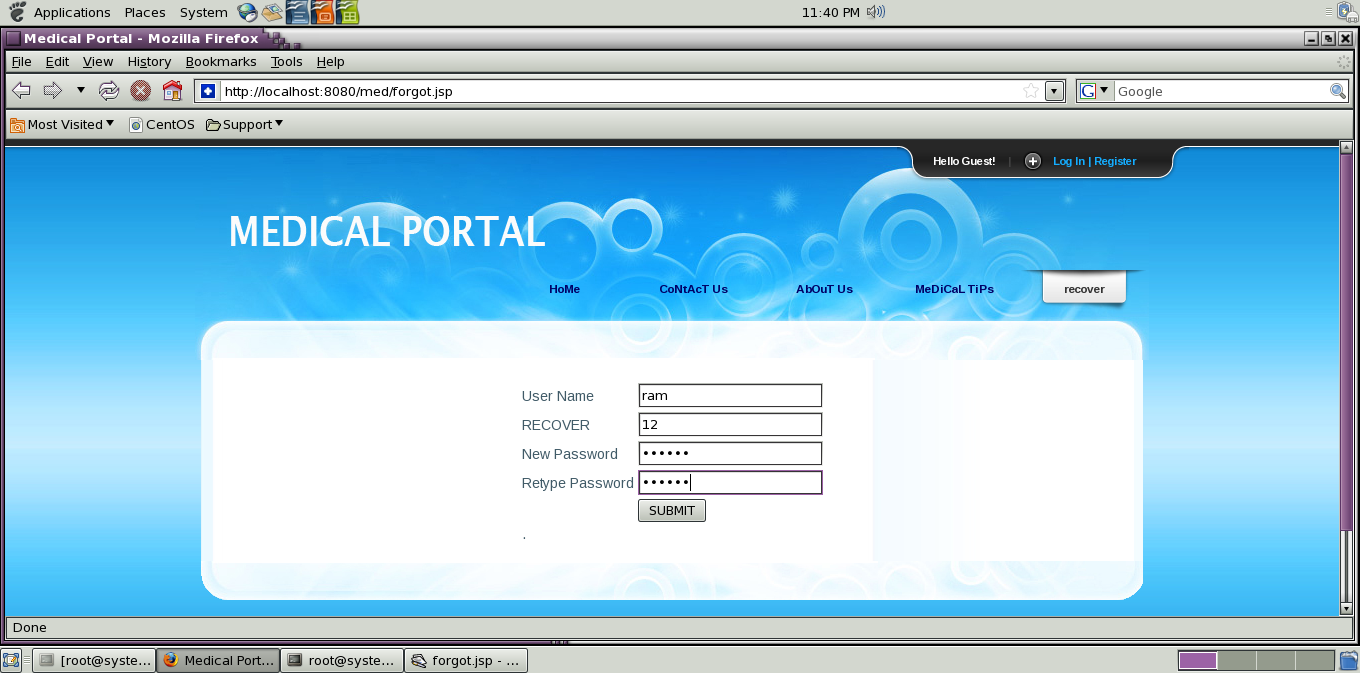
Fig(9)

ADMIN EDIT

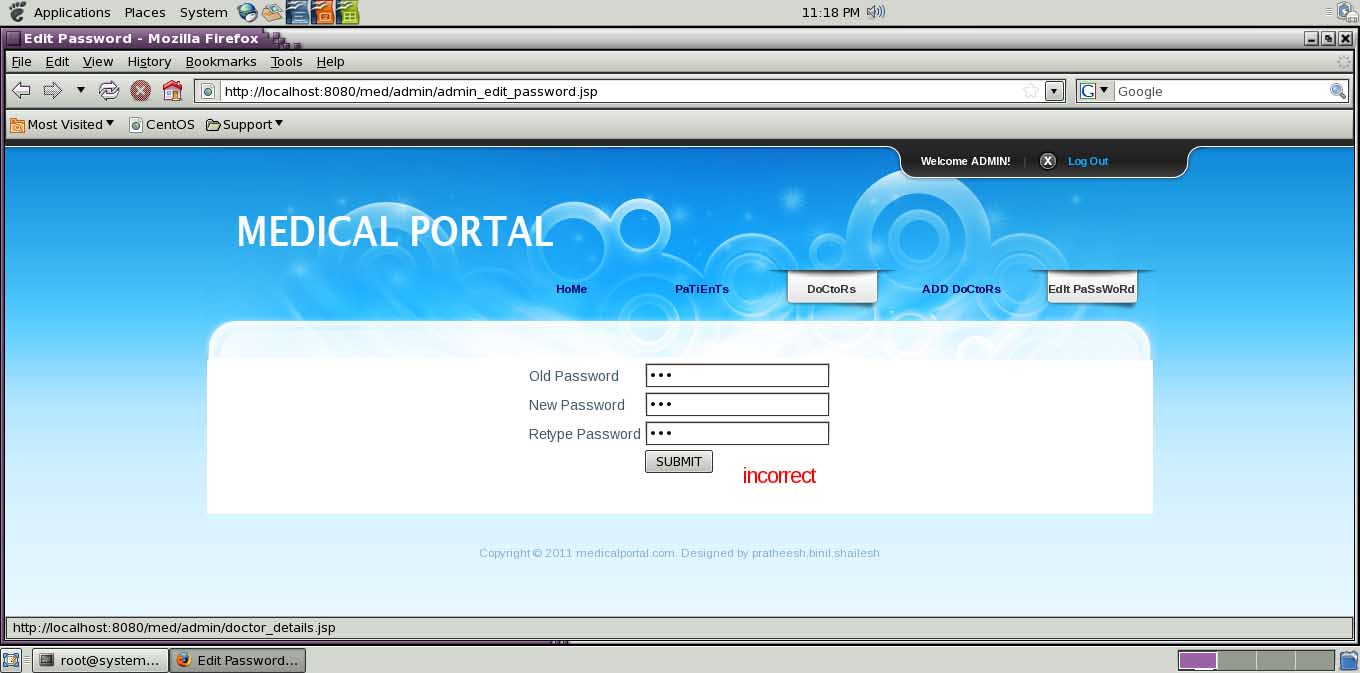


Fig(10)

PASSWORD RECOVERY



Fig(11



Fig(12)

**3.3 TABLE SPECIFICATION**

**LOGIN TABLE**

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Key** |
| login\_id | bigint(20) unsigned | PRI |
| username | varchar(20) |  |
| password | varchar(20) |  |
| role | varchar(20) |  |

**PATIENT PERSONAL**

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Key** |
| patient\_id | bigint(20) unsigned | PRI |
| login\_id | bigint(20) unsigned | MUL |
| patient\_name | varchar(15) |  |
| age | varchar(10) |  |
| gender | varchar(10) |  |
| address | varchar(20) |  |
| mobile | varchar(20) |  |
| reason | varchar(10) |  |
| illness\_date | varchar(10) |  |
| father\_name | varchar(10) |  |
| email\_id | varchar(10) |  |
| lan\_phone | varchar(10) |  |
| image | varchar(100) |  |
| recover\_id | varchar(20) |  |

**DOCTOR DETAILS**

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Key** |
| doctor\_id | bigint(20) unsigned | PRI |
| login\_id | bigint(20) unsigned | MUL |
| fname | varchar(20) |  |
| lname | varchar(20) |  |
| age | varchar(10) |  |
| phone | varchar(15) |  |
| email | varchar(20) |  |
| qualification | varchar(20) |  |
| designation | varchar(20) |  |
| specification | varchar(20) |  |
| consulttime | varchar(20) |  |
| image | varchar(100) |  |
| recover\_id | varchar(20) |  |

**MATTER**

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Key** |
| mattered | bigint(20) unsigned | PRI |
| formid | bigint(20) unsigned | MUL |
| toid | bigint(20) unsigned | MUL |
| message | varchar(100) |  |
| status | varchar(10) |  |
| reply | varchar(100) |  |
| readstatus | varchar(10) |  |

**REQUEST**

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Key** |
| reqid | bigint(20) unsigned | PRI |
| fromid | bigint(20) unsigned | MUL |
| toid | bigint(20) unsigned | MUL |
| status | varchar(10) |  |

**DOCUMENTS**

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Key** |
| docid | bigint(20) unsigned | PRI |
| fromid | bigint(20) unsigned | MUL |
| toid | bigint(20) unsigned | MUL |
| uploadeddoc | varchar(80) |  |
| status | varchar(10) |  |
| date | varchar(15) |  |
| time | varchar(10) |  |

**CHATROOM**

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Key** |
| cid | bigint(20) unsigned | PRI |
| login\_id | bigint(20) unsigned | MUL |

**CHAT**

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Key** |
| chatid | bigint(20) unsigned | PRI |
| chatter1 | bigint(20) unsigned | MUL |
| chatter2 | bigint(20) unsigned | MUL |
| date | varchar(10) |  |
| status | varchar(10) |  |

**CHAT DETAIL**

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Key** |
| chatterdetailsid | bigint(20) unsigned | PRI |
| chatid | bigint(20) unsigned | MUL |
| fromid | bigint(20) unsigned | MUL |
| toid | bigint(20) unsigned | MUL |
| message | varchar(10) |  |
| status | varchar(10) |  |
| time | varchar(10) |  |

**3.4 MODULE DESCRIPTION**

**User management**

This module is managed by administrator.He can add many doctors and delete users.He is the authenticated person to control the whole activity happening in the site.

**Request management**

This module is manage by patient. They can do live chatting with doctor. They have also an option to search a doctor based on department.They can obtain appointment online.This helps the remotely stayed patient to be in live contact with the doctor without directly going to the hospital. The patients can even upload scanning results and x-rays as well. These documents can be verified by the doctor on line and provide necessary prescriptions. They can even provide the details through the mail , even if the doctor in offline.

**Approval management**

This module is managed by doctor. They can approve or reject the patient request .They can do chatting with patients and they can prepare report for patient,

view report and edit reports and can sent secret reports to the patients .There is also profession for the doctor to read and reply mails , that came in his absence .That is in this project,we provide personal mailbox for each and every doctor.

Also the doctors can communicate each other online when consulting patients.

**3.5 SYSTEM TEST PLAN**

**LOGIN PAGE**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Serial No.** | **Model Description** | **Test Case** | **Expected Input** | **Expected  Output** | **Refer GUI** | **Remark** |
| 1. | Login | Admin login | Attempt to authenticate with valid username and password | Login to home page | fig 1 | Successful |
| 2. | Login | Admin login | Attempt to authenticate with invalid username and password | Redirected to same page with error message | Fig 2 | Failed |
| 3. | Login | Doctor Login | Attempt to authenticate with valid username and password | Login to home page | Fig3 | Successful |
| 4. | Login | Doctor Login | Attempt to authenticate with invalid username and password | Redirected to same page with error message | Fig2 | Failed |
| 5. | Login | Patient Login | Attempt to authenticate with valid username and password | Login to home page | Fig3 | Successful |
| 6. | Login | Patient Login | Attempt to authenticate with invalid username and password | Redirected to same page with error message | Fig2 | Failed |

**REGISTRATION**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Serial No.** | **Model Description** | **Test Case** | **Expected Input** | **Expected  Output** | **Refer GUI** | **Remark** |
| 1. | Registration | Patient | Attempt to authenticate with valid entries | Add patient if it does not exist | Fig7,8 | Successful |
| 2. | Registration | Patient | Attempt to authenticate with invalid entries | Discard patient if it already exists | Fig9 | Failed |
| 3. | Registration | Doctor | Attempt to authenticate with valid entries | Add doctor if it does not exist | Fig4,5 | Successful |
| 4. | Registration | Doctor | Attempt to authenticate with invalid entries | Discard doctor if it already exists | Fig6 | Failed |

**FORGOT PASSWORD**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Serial No.** | **Model Description** | **Test Case** | **Expected Input** | **Expected  Output** | **Refer GUI** | **Remark** |
| 1. | Check whether the user is genuine | Doctor | Valid recover id | New password is entered | Fig11 | Successful |
| 2. | Check whether the user is genuine | Doctor | Invalid recover id | Redirected to same page with error message | Fig11 | Failed |
| 3. | Check whether the user is genuine | Patient | Valid recover id | New password is entered | Fig11 | Successful |
| 4. | Check whether the user is genuine | Patient | Invalid recover id | Redirected to same page with error message | Fig11 | Failed |

**ADMIN EDIT PASSWORD**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Serial No.** | **Model Description** | **Test Case** | **Expected Input** | **Expected  Output** | **Refer GUI** | **Remark** |
| 1. | Check whether the user is genuine | Admin | Valid recover id | New password is entered | Fig10 | Successful |
| 2. | Check whether the user is genuine | Admin | Invalid recover id | Redirected to same page with error message | Fig12 | Failed |

**TEST REPORTS**

1. **TEST REPORTS**

System testing of software or hardware is testing conducted on a complete integrate system to evaluate system compliance with its specified requirements. System testing falls within the scope of black box testing and as such should require no knowledge of their inner design of the code or logic.

As a rule system testing takes as its inputs, all of the integrated software components that have successfully passed integrated testing and also the software system itself integrated with any applicable hardware system(s).

As mentioned above the various components which have been integrated to/from the final system are tested by giving specific test data. Usually the boundary conditions are analyzed and given as the test data to know how the system responds to the extreme conditions.

So we make use of valid username/password or invalid username/password to test the first login page. Only if the match is found the system moves into the next page. A similar procedure is a carried out in the registration process where if the username already exists the registration process fails.

Once the user enters into his home page he uses several facilities provided by the portal. Consider the case where the request has been sent to the doctor. The common mistake that occurs is when the same user sends multiple requests to the same doctor. This is the boundary condition. This has been tested and the system responds with a message notifying the request has been sent once to the doctor.

When the user forgets his password there is a provision for him to enter the new password with the help of Recover ID. If the recover ID is wrong an error message will be displayed. Similarly, the admin can edit his password by entering his old password. If the passwords match then the new password is successfully updated otherwise error message will be displayed.

As mentioned earlier each different module of the system which offers a function has to be tested to ensure that the product hand over to the client is free of errors and of the highest quality. When the modification or up gradation is performed the boundary conditions may change and hence the test plan changes.

In such a situation additional testing has to be done to ensure that the system performs well with the old data as well as the new one. This is scientifically termed as regression testing. The submission of the test report marks an end to this journey where the present scenario was studied and a new product has been introduced to improve it.

**CONCLUSION**

1. **CONCLUSION**

The present system had defect. This prompted as to conceive the idea of this portal as presented before you. Even what we have presented before you is an idea which has been implemented and has a scope for future improvements.

Through the introduction of our system we have right to solve the various problems of present system in the best possible manner. Along with that we have introduce some additional features to ensure satisfaction of clients.

The main aim behind the implementation of the portal was combining technology and human in genuity in manner that would benefit the common cause. The accuracy is of operability and storage of digital media along with the analytical capabilities of human mind has been brought together to bring the best possible result.

Hence the present system whose functioning where restricted to mere comparison of symptoms and conditions could be improve with the introduction of new portal which provide provision of uploading data and interaction with doctors

Here portal with its uploading and chatting capabilities as a new dimension in the field of online medical consultancy and diagnosis

**FUTURE SCOPE**

1. **FUTURE SCOPE**

Our portal as mention above has its definite edge over the existing once .presently the users will be able to interact with the registered doctors via chat or upload documents

In the near future we intent to expand by incorporating services like video chatting, sending request to doctors through SMS and services of various health care centers and hospitals so as to improve the resource fullness of our site

1. **REFERENCES / WEBSITES**

* [www.roseindia.net](http://www.roseindia.net)
* IEEE Recommended Practice for Software Requirements Specification
* [www.devdaily.com](http://www.devdaily.com)

1. **ABBREVIATIONS**

GUI: Graphical User Interface

DFD: Data Flow Diagram

JSP: Java Server Pages

SQL : Structured Query Language