

Healthcare management system and domain search of nearest Medical services

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Abstract: *The main aim of this project is to improve medical services. Our project hospital management system and nearest domain search is a web application which is developed for secure storage of patients medical history and also search for nearest blood bank, medicals and hospitals. This project is developed by three perspective i.e. doctor, patient, and nearest domain. We have provided security for authenticated user as new user have to register according to their type of perspective and existing user have to login, unique OTP will be given to every patient while login so proper authentication is maintained. This project requires internet connection as it runs dynamically. This application stores user account information in the database server and for nearest domain search we are providing GPS. We are also providing search option of doctors as per their specialization so that patients can take appointment. This web application merges many applications like nearest search, user login, doctor login, appointment etc. so it becomes more convenient to user.*

1. INTRODUCTION

1.1 Scope

The Scope of the project is that many applications are integrated in one web application. It provides an elegant management of doctors and patients database. The main purpose of this project is to allow access to patient database to all authorized doctors so they can examine patient's medical details. Subtasks of this application are nearest search of hospitals, blood banks, medicals, doctors with specialization so user can deal with most medical services at one place.

1.2. WEB Technology

Nowadays Web Technology has become very important aspect because of advanced terminologies. It specifies both designing and coding techniques so here we are using basic as well as advanced web techniques. As all technologies move towards an API orientation its importance is likely to grow quickly. Nowadays every major development language includes frameworks for building RESTful Web services.

REST is an architectural style for networked hypermedia applications. We are using bootstrap framework as a front end and database SQL as back end. Here Java language is used for running project hence dynamically. Here rating facility is also available i.e. every patient authorized patient can give rating to the doctor in terms of stars so it will become easy to choose best doctor for patient.

2. DESIGN AND IMPLEMENTATION CONSTRAINT

The other constraint regarding mobile handset will be processing power and limited memory. Our project is meant to be responsive management of functions which deals with tremendous information regarding the hospitals, blood banks, medicals, patients, and doctors' stock management and will be developed with efficiency. There are two types of people related to this application:

A) User groups- users of this function are patients as well as doctors. They are nothing but actual users and service providers to them by client side.

B) Technical expertise: They manage all data which is stored at backend. They belong to service provider.

- Administrator: All confidential things are handled by administrator. He/she administers the whole system.
- Database Admin: All database activity is handled by database admin. He/she administers the whole database management system.

2.1 Assumptions and Dependencies

2.1.1 Assumption:-

- 1) It will show doctors list according to their specialization domain.
- 2) GPS will correctly find nearest hospital, Medical and blood bank.
- 3) Database will work properly and store the records of the User.

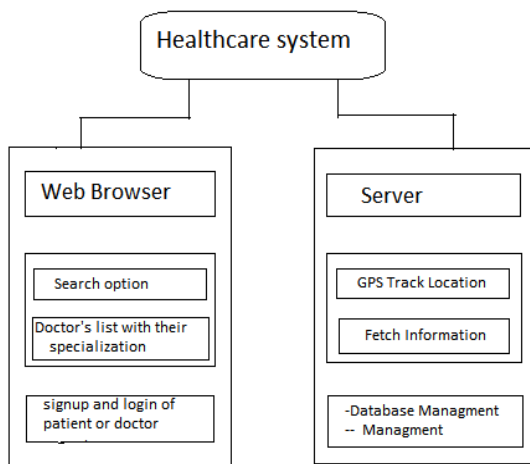
2.1.2 Dependencies

- 1) Tracing depends upon Google Maps API's
- 2) Sign up page consist of user option either patient or doctor and their details which stored in Database Mysql. And then login by username and password.
- 3) This project is depend on web services
- 4) Suitable for any kind of person.

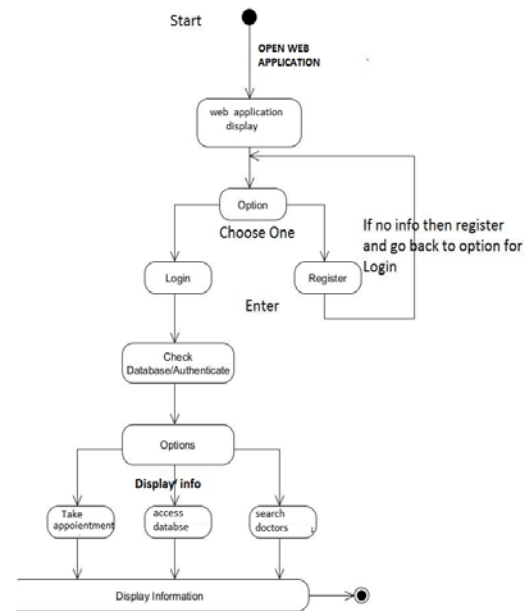
5. After sign up user can login in to their account. User has to provide their password and username to system

6. information is fetch by server side then it stores all information at SQL database system. Database management is done at back end xamp server is used for database management.

3.FIGURE



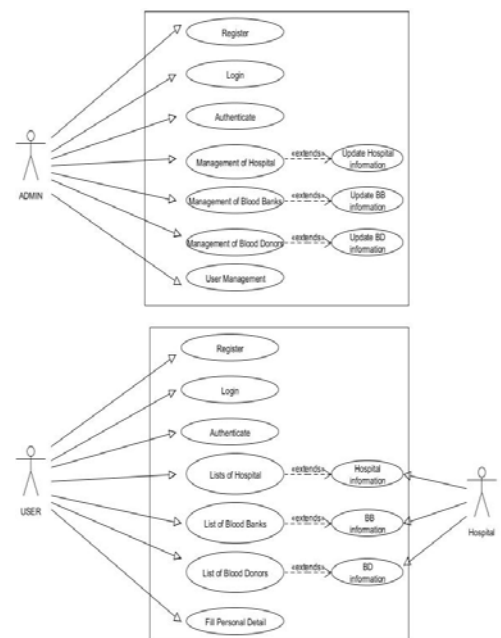
3.2 state diagram



3.1. System Architecture

1. Main page consist of search option at middle of Page which is use for searching nearest hospital Blood bank, medical by using GPS location tracking.
2. Medical domain list is declare at web page ,Here doctors sorted according to their specialization. This list is display after search window.
3. sign up or register option is at upper right side of the web page . if there are new user then he can sign up with his personal details like name, contact information and other sign up window shows two sub windows which gives option to user is either patient or doctor.
- 4 .When any account is creating then detail information is different for different user. If patient is creating account then he has to feel his personal details, if any doctor creating account then he has to feel his personal detail as doctor.

3.3 Use case diagram



4. SYSTEM FEATURES

4.1 Static or dynamic execution

This is a web application which uses IIS web services such as http. We are making web pages which are fetching by such web protocols. At the beginning of implementation we are design web pages statically means it remain unchanged page content while it is loading . after completion of whole implementation we used to run it as dynamically means page content change lively. Local Tomcat apache 8.0 server is used for static execution of each module, project is remotely handled by internet which changes its content lively.

4.2 Location Accuracy

Web based system provides the list of hospitals, blood banks, medicals. Using GPS location identification of the applicant will provide location and path for nearest health organization system.

4.3 Highly Trained Dataset

Dataset Training i.e., data storage, manipulation, service etc., provides a great supporting model for the Application. The filtered dataset in which is uniformly structured helps end user to access this information and make fruit from it.

The key features and information are date of birth of the patient , blood group of the patient, date of last treatment ,medical history ,reports, mobile number, address with city and state, email id. It provides the criteria according hospital wise advance search for the list and retrieval of data. information and key feature of doctor is name ,education, location, ratings etc.

4.3 Inventory Management

There are many Web Based Application which stores and provides information of both user's like patients and doctors. As we know data store in database so any doctor who is registered can see patient data so system must allow access of database

Generation of report for the inventories used in the application should be properly done. Inventory includes the patient,, hospitals, blood banks, medicals, doctors and the seeker inventory. So proper record of patients as it will work manual work of manager who is Interesting in database. As patients history or present Medical condition changes this is also inventory data Must be stored in database. Mysql is use for storing such data. Here mysql work on xamp server.

4.4 System Security

The Healthcare management systems facilitate the application with advanced security feature like validation and verification for web base application. This security service is provided by the web application were the user is Already registered to the system and its profile related information is stored And maintained for the further validation and verification of the user. Unique OTP is given to the user for authenticated access.

4.5 Algorithms used

This project is live project is run dynamically on internet so there are measure algorithms used they are as follows

- Nearest Search : Here we are using k-means clustering for the searching purpose. If we have to found nearest hospital or medical then it will search nearest domain by referring location. Then it forms different clusters so it chooses nearest k cluster.
- Security : For security aspect we are using MD5 algorithm it provides best web based security ,it is an algorithm that are used to verify data integrity through the creation of 128- bit .

5. CONCLUSION

As the paper suggest us to implement Web application for faster communication between the doctor's and patients, using Restful web services.

Appendix

REST: -Representational State Transfer used for networked hypermedia applications. It is used to build Web Services.

API: - It is a set of routines, protocols, and tools for building software applications. The API specifies how software components should interact and APIs are used when programming graphical user interface (GUI) components.

IIS Web Server: - IIS stands for Internet Information Services. It is a web server developed by Microsoft .IIS supports HTTP, HTTPS, FTP, FTPS, SMTP. It has been an integral part of the Windows NT family .

MySQL: - It is an open source RDBMS. It is used for client server model RDBMS (Relational Data Base Management System).

SYSTEM REQUIREMENTS :

1] HARDWARE :

-System standalone pc's Pentium IV 2.4 Ghz

-RAM :400GB

-HARD DISK: 500GB

-CORE i3/i5 Processor

2] SOFTWARE :

- any devices with internet services, drivers
With minimum 4GB memory ,with minimum 500MB

-Any operating system

-JAVA

-Bootstap framework

- jsp ,css for designing purpose.

ACKNOWLEDGMENTS

Report is on the topic “ **Healthcare Management system and domain search nearest medical services**”. All the relevant and important details are included in this report. At beginning we have given quite summary regarding the project we are building and as we proceed details about how project is going to be implemented is mentioned using technologies

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