Online Medical Assistance

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Abstract- The purpose of the project entitled as "online medical assistence" is to computerize the Front Office Management of Hospital to develop software which is user friendly simple, fast, and cost – effective. It deals with the collection of patient's information, diagnosis details, etc. Traditionally, it was done manually. The main function of the system is register and store patient details and doctor details and retrieve these details as and when required, and also to manipulate these details meaningfully System input contains patient details, diagnosis details, while system output is to get these details on to the screen. The Hospital Management System can be entered using a username and password. It is accessible either by an administrator or receptionist. Only they can add data into the database. The data can be retrieved easily. The data are well protected for personal use and makes the data processing very fast. The purpose of the project entitled as "ONLINE MEDICAL ASSISTENCE" is to computerize the Front Office Management of Hospital to develop software which is user friendly simple, fast, and cost – effective. It deals with the collection of patient's information, diagnosis details, etc. Traditionally, it was done manually. The main function of the system is register and store patient details and doctor details and retrieve these details as and when required, and also to manipulate these details meaningfully System input contains patient details, diagnosis details, while system output is to get these details on to the screen.

1.introduction

This "Online Medical Assistance System" is totally web compliant application which works on all suitable devices like mobile, tabs and PC. All the information is made available to its user at the need of single click. It manages hospitals, doctors and specified medical communities records. This is the complete web based Medical Assistance system. This project uses NodeJs for server side calls & database management is handled using MongoDB.

This software mainly focuses on basic like getting details for fixing Appointment, finding specialist, general Reports and statistics. "Medical Assistance System" is designed to help people to find various hospitals & doctors based on stated categories. This application is easy to use for any users trying to access this website with their mobile phones or tabs or PC.

It features a familiar and well thought-out, an attractive user interface, combined with strong searching insertion and reporting capabilities using Google's Places application programming interface. The advanced search facility of this application helps to get the specific list of hospitals and doctors near the places you give the system as input.

The online medical service system is an online base medical site here people appoint their

best doctors online. Doctor and patient talk with video chat and real-time messaging

systems. I t is a freelancing website for a doctor. People can get medical-based info here

within a second as like medical info, hospital info, blood info, etc.

1.2 Objectives

The main goal of the online medical service system is easily connected with the patient and

doctors. In rural or village, people will be easily connected to the country's best doctor.so

it will be time-consuming.

System Goals

x   Online appointment

x   Discuss with video chat

x   Discuss with messenger

x   Online prescription

x   Patients previous history

x   Medicine sell

x   Blood bank info

x   Hospital info

x   Ambulance service

1.3 Motivation

Now a day all the world depends on technology. Technology is very effective in all sectors.

But our country's medical sector isn't properly digitalized. So our plan people can get

medical-based all info in one place. This will be trustful among people. Our slogan is " A

project for Bangladesh".

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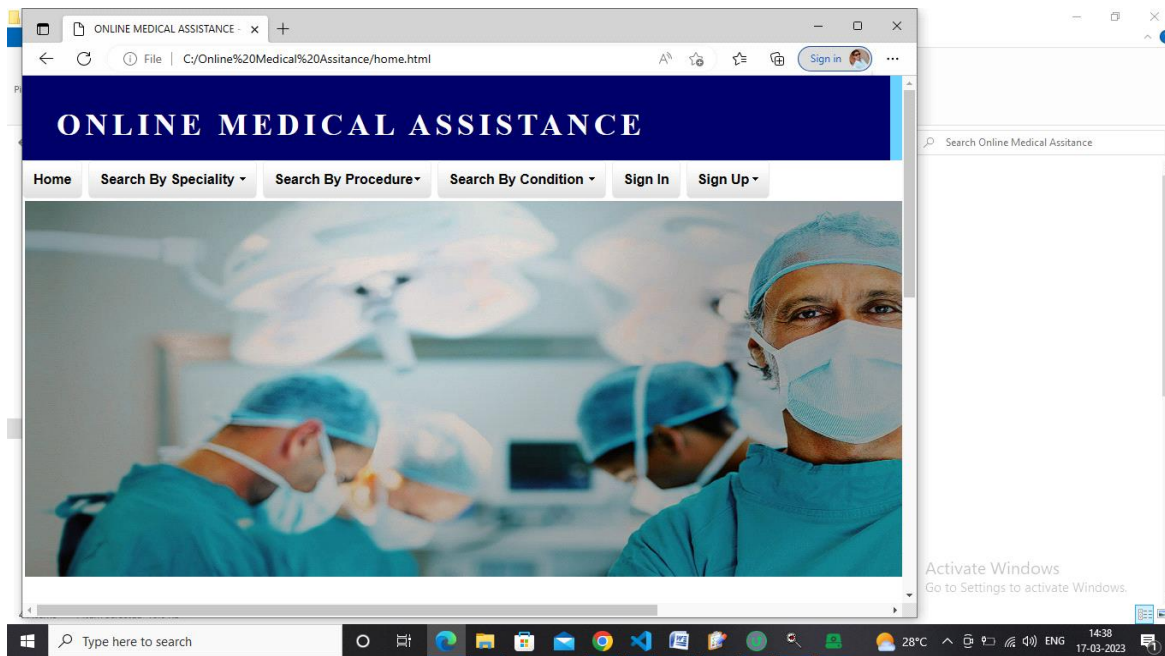
1.4 Expected Outcome

This project main feature connected doctors and patient. It's online appointment and

medicine sell (e-commerce). Doctors and patient information are secure & protected.

x   Online appointment and talk with doctors with video chat

x   Buy medicine from city town like (Dhaka, Rajshahi, bogura, etc). Delivery on time.

x   Get doctor info that is trusted and verified by team

x   Hospital info, hospital open our, their info (address, phone no), and their expert

doctor list.

x   Show medicine info and practical details

x   Blood bank info and easily contact with a blood donor.

x   The doctor can income on their free as freelance work.

x   Ambulance service (upcoming)

The online medical service system is an online base medical site here people appoint their

best doctors online. Doctor and patient talk with video chat and real-time messaging

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Online medical system provides online treatment to the patient along with the home delivery of medicines

for that patient have to login to the portal. Patients after login, decide whether to get treatment from doctors

or hospitals. Once decided, he/she gets list of diseases, choose the disease, choose their symptoms. Before

treatment is shown to patient, he/she is asked to pay for treatment. Once payment is done then he/she gets

prescription. Once he/she gets prescription, he can download it or send it to nearby medical store which is

registered onto this portal. If he/she sends prescription to medical store then medical store provides home

delivery with cash on delivery service. Medical store has to register onto this portal to access the benefit of

selling medicines online. We are using PHP as server scripting and Java script as a client script along with

MYSQL for data storage to develop this website. We will use Android studio to develop .apk of this website.

This website is going to be beneficial for all patients who want treatment at home and it will also increase

business of doctors indirectly as well as medical stores. The main objective of this web portal is to give online treatment. Patients get the advantage of high profile doctors online. Patients get treatment at lower cost online. Medical stores will deliver medicines at home. We decided to choose this medical portal, because it is good concept and not available in India. We have done some related work, like, we have visited some doctors and hospitals regarding how will our project be useful for them. They have approved this concept and are ready to help us.

Litrare sarvey

LITERATURE REVIEW By studied of some papers and journals we got that there is only doctor and patient communication applications are available to communicate with each other via text messages or emails. Which is time consuming for both patient and doctors Or another application available for getting online appointments from hospitals or doctors[1] and also provide healthcare system, there is no any mechanism of having online treatment through professionals. So after studied some papers making such a portal that also accessible on mobiles or smart phones is good idea for both Doctors and International Patients, so that we can overcome the limitations of previous systems by making this portal as online medical system. 3. APPLICATIONS The main applications of this project can be in : Towns, Village, Low grade area. M-Commerce: It works as medical commerce project where doctors, hospitals and medical stores earn through this portal. E-Treatment: It is where patients have some internet knowledge, they can get good treatment from skilled doctors. This portal may also be used in cities where maximum candidates are illiterate. They can get good treatment from doctors outside India. They can get health and fitness information. Hospitals, This portal is beneficial for hospitals where doctors can treat patients in different areas.

 Circumstances leading to the current new system

In order to match up with the requirement of this new system a various sets of circumstances and facts are used to be determined

Benefits to the user's leads to the maximum priority at first were the users may easily gain or access the information. Generating different tactics in order to implement the idea has been evaluated and also a complete module of needed information has been calculated before actually get working into the system.

3 INFORMATION FLOW REPRESENTATION

4.3.1 ER-DIAGRAM

Entity Relationship Diagram:

Entity Relationship Diagram is used in modern database software engineering to illustrate logical structure of database. It is a relational schema database modeling method used to

Model a system and approach. This approach commonly used in database design. The diagram created using this method is called ER-diagram.

The ER-diagram depicts the various relationships among entities, considering each object as entity. Entity is represented as rectangle shape and relationship represented as diamond shape. It depicts the relationship between data object. The ER-diagram is the notation that is used to conduct the data modeling activity.

Entity: Entity is the things which we want to store information. It is an elementary basic building block of storing information about business process. An entity represents an object defined within the information system about which you want to store information. Entities are distinct things in the enterprise.

Relationship: A relationship is normal connection or association between entities used to relate two or more entities with some common attributes or meaningful interaction between the object.

Attributes: Attributes are the properties of the entities and relationship descriptor of the entity. Attributes are elementary pieces of information attached to an entity.
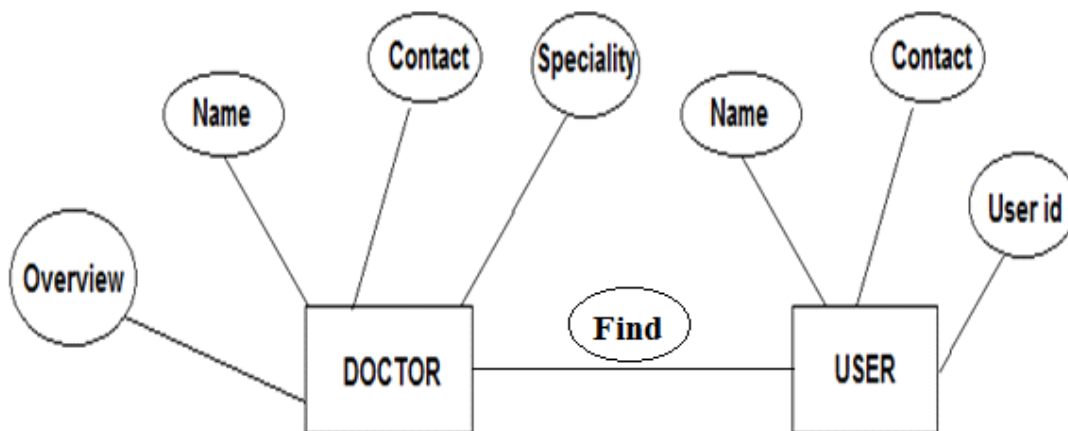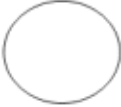

Fig no: 1

DFD (Data Flow Diagram)

A Data Flow Diagram is a graph showing the flow of data values from their source in objects through process that transform them to their destination in other objects.

DFD also knows as "Bubble charts" has the purpose of clarifying the system requirements and identifying major transformations that will become programs in system design. So it is the starting point of the design phase that functionally decomposes the requirements specifications down to the lowest level of details. A DFD consist s of a series of bubbles joined by lines.

DFD use a number of symbols to represent system. Most data flow modeling methods use 4 kinds of symbols to represent 4 kinds of system components: processes, data stores and external entities

Symbols	Descriptions
Process	A process shows a transformation or manipulation of data flow within the system. A process transforms incoming data flow into outgoing data flow.
External entity	External entity is outside the system, but they either supply input into the system or use system output. External entity is representing by a rectangle.
Data flows	A data flow shows flow of information from source to destination. A data flow is represented by a line with arrow head showing the direction of flow.
Database	Database is huge collection of data. It is used for storage purpose.

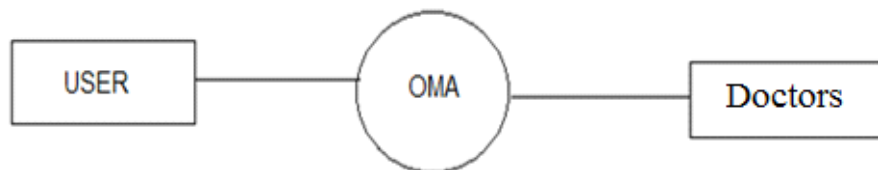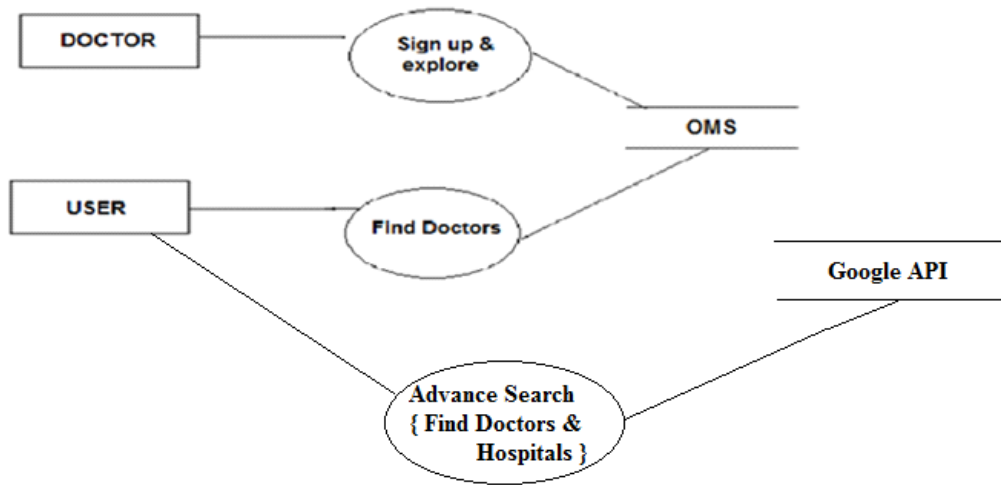0-LEVEL:

Fig no: 2

1-LEVEL:

Fig no: 3
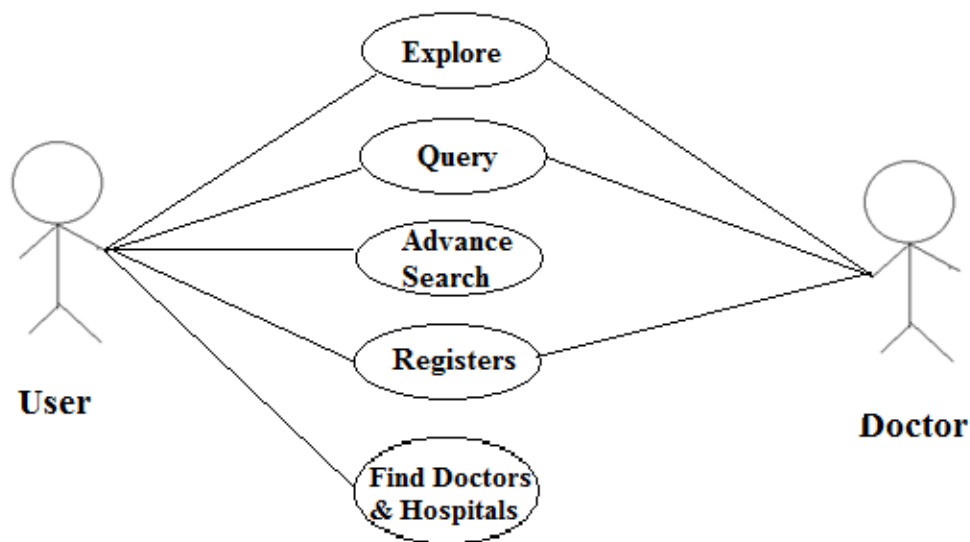
4.3.3 USE CASE DIAGRAM

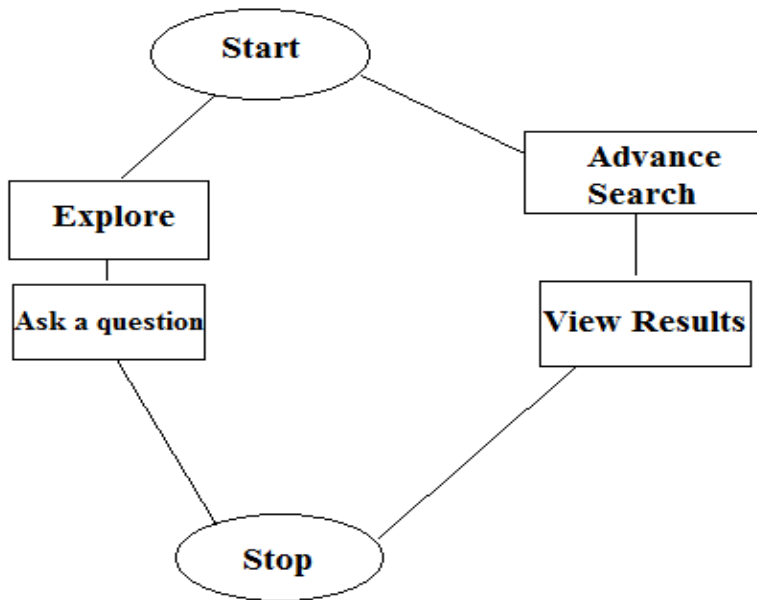**Fig no: 4**

4.3.4 ACTIVITY DIAGRAM

Fig no: 5

TECHNOLOGY USED

This is the complete Web-Based module of "Medical Assistance system". This project is designed & coded in HTML-embedded scripting language i.e. PHP (Hypertext preprocessor) & database management is handled by MYSQL Server. Flow of information regarding timings is updated on regular basis in the database.

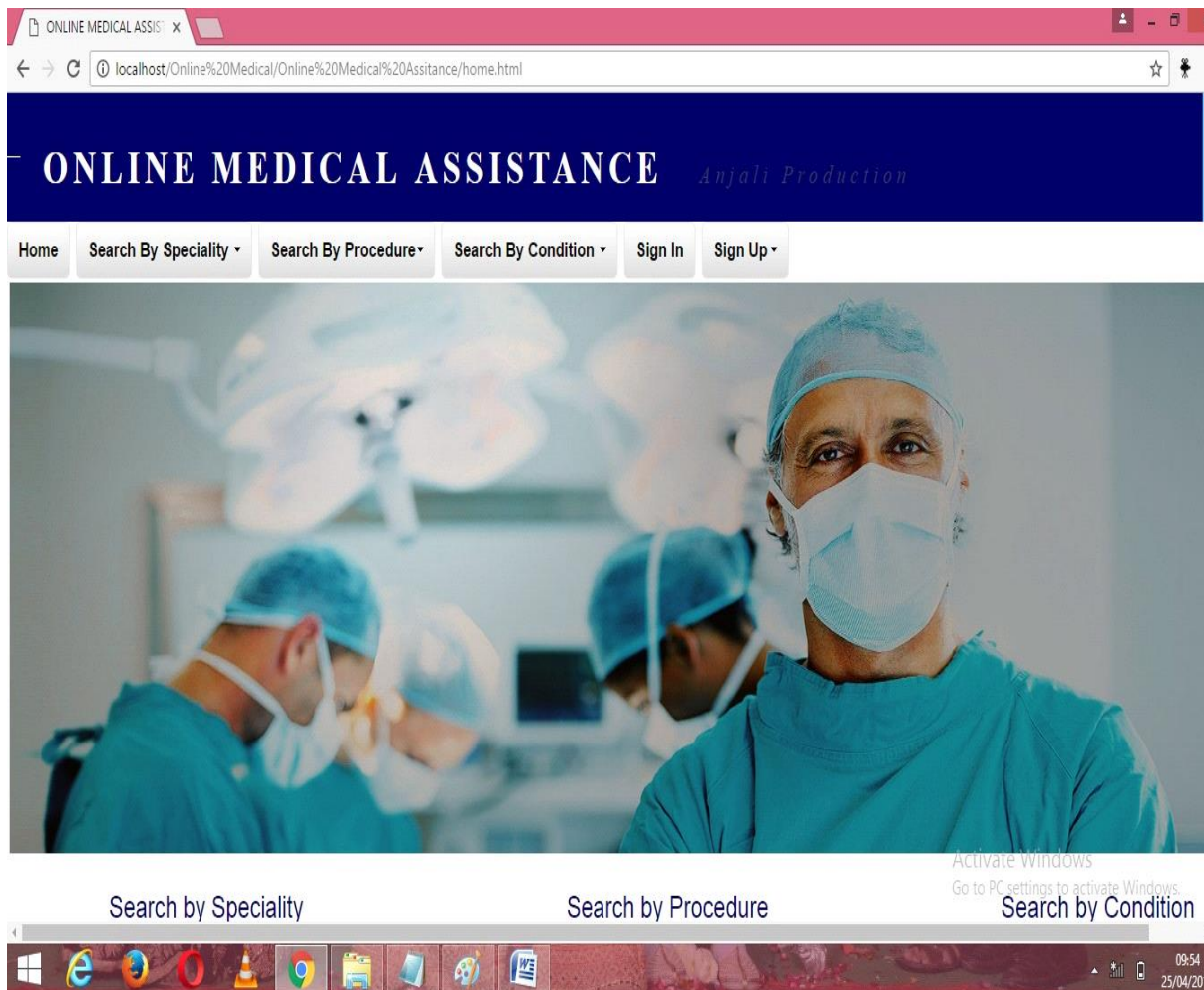**Language and software tool used:**

Scripting Language – PHP**.**

Web Pages are designed and maintain in HTML & CSS.

Page Editors – Macromedia Dreamweaver & Notepad.

Database will be handled in MYSQL.
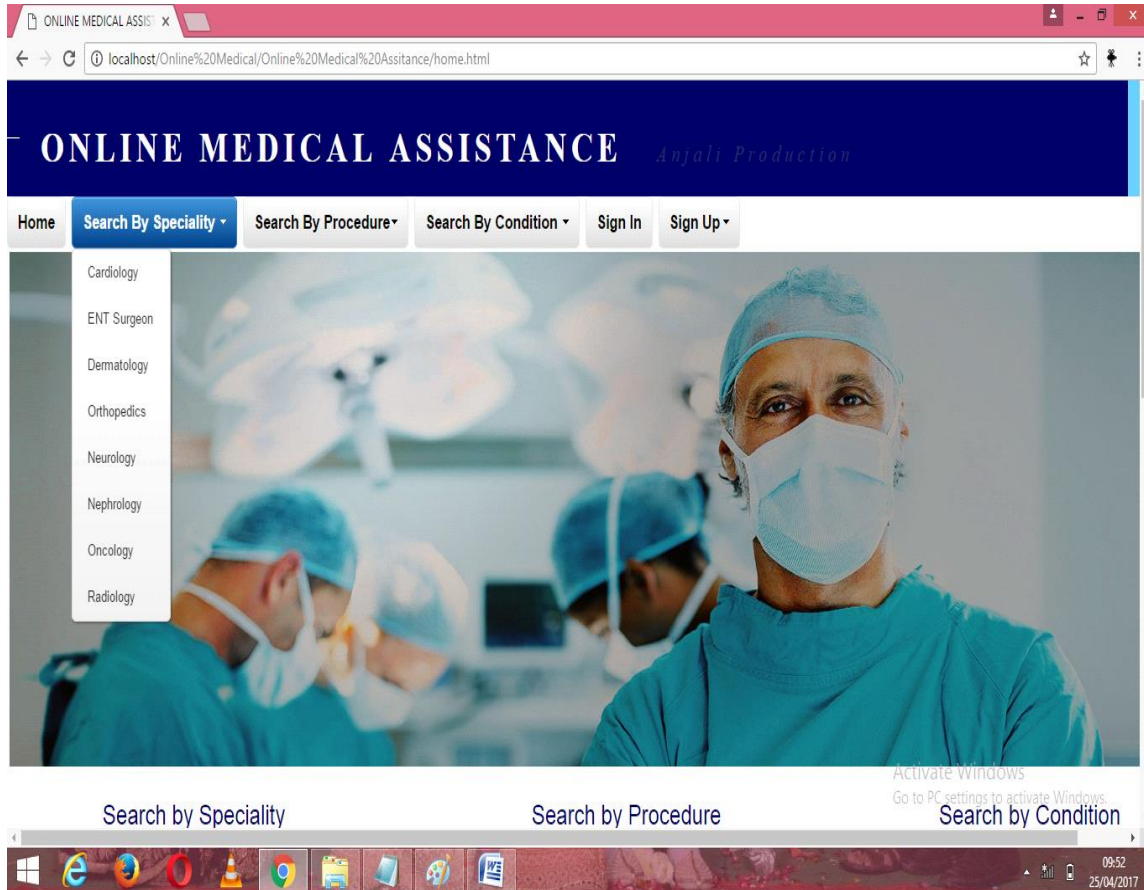
5. DESIGN

5.1 System Architecture

Sample Architecture

5.3 INTERFACE DESIGN

Home Page 1

User & Doctor Sign In

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FUTURE SCOPE

In this era, computer plays a very important role in all the aspects of our life. Computer is capable of storing data for long time & reduces time in calculation making the work easier.

Computers are extremely versatile & finding in every business industry & office today. Computer gives us an opportunity to built software. In computer field that is based on software. It is necessary to activate some task for learning good skills about any software. Using software one can easily built any system.

This Website is an easy package, which uses a very small amount of money & is user-friendly also. Anyone can use it frequently & can swiftly work on it. The project will truly contributes to all users for general purpose only. Various information is separated into different pages. Although the Website developed is quite complete & I have tried my best to corporate all the possible aspects in it. Hence ever still there is tremendous scope for future enhancement.

9. CONCLUSION

Information which is being transferred to patients by the system is more reliable and efficient. Appointment contacts are provided to the individuals, schedules of medicinal professionals that are provided by the institutions are used to operate and inform patients about the status of their visits. All specialists may also register themselves to the system with their needs and provide identification in terms of practicing scenario. It seems to be an integration system to integrate different outcomes that can occur in medicinal terms. Data exchange and synchronization is preceded by regular updating of timings and schedules of the desired individuals.

- **NodeJs official documentation by Joyent Technologies.**
- **Web Development with NodeJs and MongoDB by "Packt Publishing".**
- **Learn easy HTML & CSS by "Mathew Macdonald".**
- **Google Places API official documentation.**
- **www.tutorialspoint.com for Node, MongoDB, Html, Angular quick examples.**

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