# Health Intelligence System (HIS)-A New Trend in Healthcare

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**Abstract:-** **The project Healthcare Intelligence System-(HIS)-A New Trend in Healthcare helps the doctors, pharmacists and diagnosticians to efficiently store the details of the patients and manage their appointments.**

**The main contribution of my proposal is that the software has the facility to give a unique id for the doctors, pharmacists and lab diagnosticians. This has a centralised data and is secure. It is also easy to backup. The features of the project includes appointments to doctors based on their specialities or ratings or comments by the patients previously visited or even by the consultation fee. The complete profile of the doctor is available to the patients so that they can choose the doctor of their interest.**

**The second main contribution of the project is an in-depth analysis of the present appointment scheduling system limitations; therefore, new solution, as shown here, are needed .The ordering of medicines for home delivery which generates a computerised bill for the orders along with the patient details. The lab tests can be booked according to the availability of the tests at each centre or by the fee for a particular test. The Natural supplement plays a vital role in specifying the causes, symptoms and natural treatments for variety of diseases which are harmless. Thus the project includes all the combination of medical services leading to the enhancement of the hospital management and also ensures to make the patients a powerful partner of the doctor's healing process.**

*Keywords:- Health Intelligence system, unique id, combination of medical services.*

## I.    INTRODUCTION

### A.  Overview

Healthcare Intelligence System-(HIS)-A New Trend in Healthcare is powerful, flexible, and easy to use and is designed and is developed to deliver real conceivable benefits to hospitals.

As the population increases, so does the requirement for healthcare services and options. This in turn will result in a swell in number of patients seeking the medical facilities and healthcare centers. The action that immediately gets affected is the appointment scheduling system.

(HIS) is a software product suite designed to improve the quality and management of clinical processes. Hospital Management System enables you to develop your organization and improve its effectiveness and quality of work.

It will bring together new economic opportunities. It relates to appointment booking caring about health, preventing diseases through doctor consultation and natural supplements thereby improving its usefulness to the society.
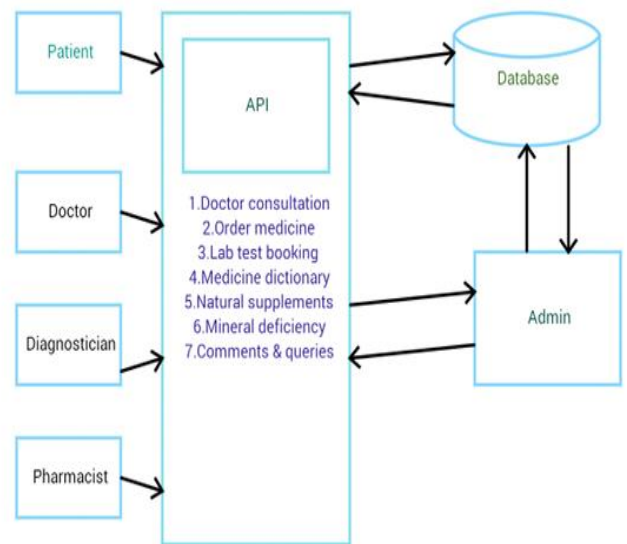
## II.    APPLICATION API MODULE



Fig 1:- System Architecture

### A.  User Consultation Booking

For accessing the website he/she need to register to enter into the functionality pages .Here he/she will first search for doctors by speciality, after select the   doctor he/she will book an appointment. That appointment will be goes to the doctor mail**.**

### B.  User Pharmacy Search And Order

The user will be entering into the pharmacy module by registering. Here he/she will first search for pharmacy in nearest location, after selecting the pharmacy he/she will book an appointment. That appointment goes to the pharmacist mail.

### C.  User Lab Testing

The user will be entering into the lab module. Here he/she will first search for lab in the nearest location to book an appointment. That appointment will be sent to the diagnostician through mail. By this functionality the pharmacy module will be performed.

*D.  2.4 Doctor Module*

The doctors will be entering into the doctor module by registering. The list of appointments that is received will be displayed with the appointment details. After the appointments are consulted then history can be removed.

*E.  2.5 Pharmacy Module*

The pharmacists will be entering into this module by registering. The list of orders that is received will be displayed with the address and patient details. After the delivery of orders history can be removed.

*F.  2.6 Database Module*

The database collects all the information that are used in the transaction. The user details and the template details are constituted here.

G.  *Client Processes*
- *Appointment*
The first service provided is the consultation to doctor.

- *Pharmacy orders*
The second service provided is the scheduling medicine orders to pharmacies.

- *Lab test bookings*
The third service provided is the scheduling diagnostic tests to lab centers.

- *Medicine dictionary*
Access through countless medical terms and diseases.

- *Ask queries to doctors*
The user can post any kind of medical related questions to doctors of that particular field.

## III.    UML DIAGRAM

A.  *Use Case Diagram*

It depicts the roles of each user and the sequence of steps to be performed. The activity of each user is identified.
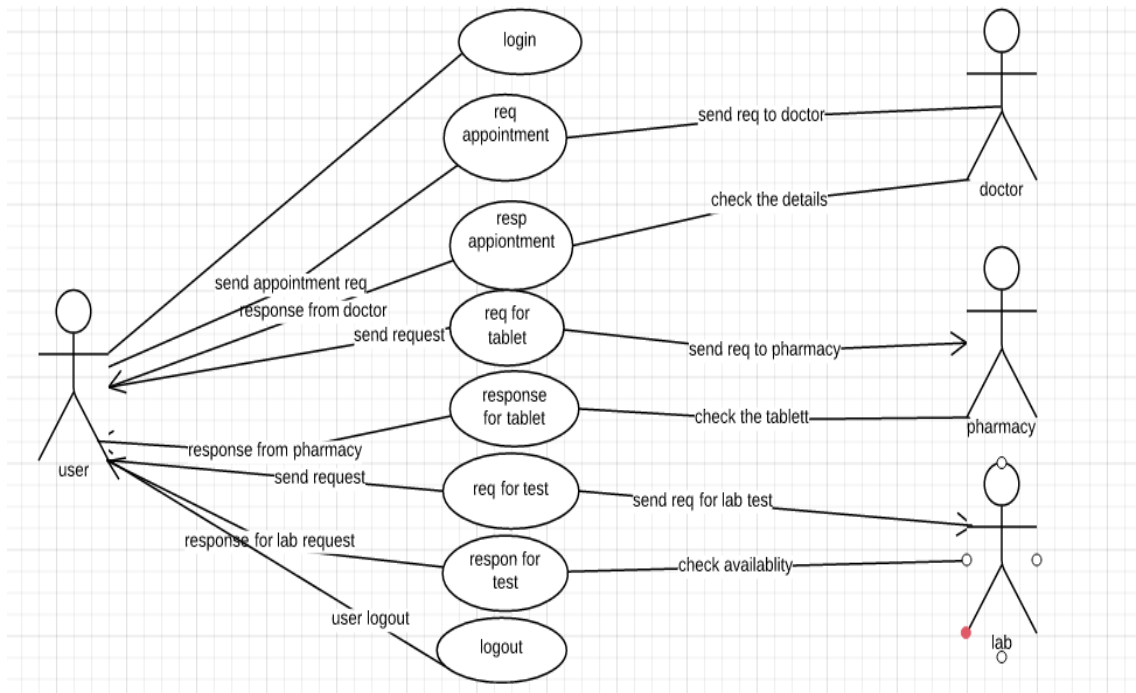


Fig 2:- Use Case Diagram

- ➢ *Actors*
- *USER(Patient, Doctor, Pharmacist, Diagnostician) :*

The user is the one who uses the system in order to perform the appointment and other services that are available in the application.

- ➢ *Server*:
The server controls all of the modules that maintain the application. The server collects the data, processes and verifies the user. All of the main modules are implemented and deployed in the server side.

- ➢ *Use Cases*
- *User Registration*
The user is registered with all the required details
- *User Login*
The user by using the id generated in the registration tries to login to the application by using the biometrics.
- *API Access*
The medical services available in the application are then accessed once the authentication of the user is performed in the login phase.

- *Database*
  The database collects all the information that are used in the transaction. The user details and the template details are constituted here.
- *Appointment*
  The first service provided is the consultation to doctor.
- *Pharmacy orders*
  The second service provided is the scheduling medicine orders to pharmacies.

- *Lab test bookings*
  The third service provided is the scheduling diagnostic tests to lab centers.

*B. Activity Diagram*
The first activity involves in the registration of the user. This process is performed at the user end. The server validates the obtained details and generates the user id and login parameters. The user then tries to log in to the server by means of the credential provided by the server
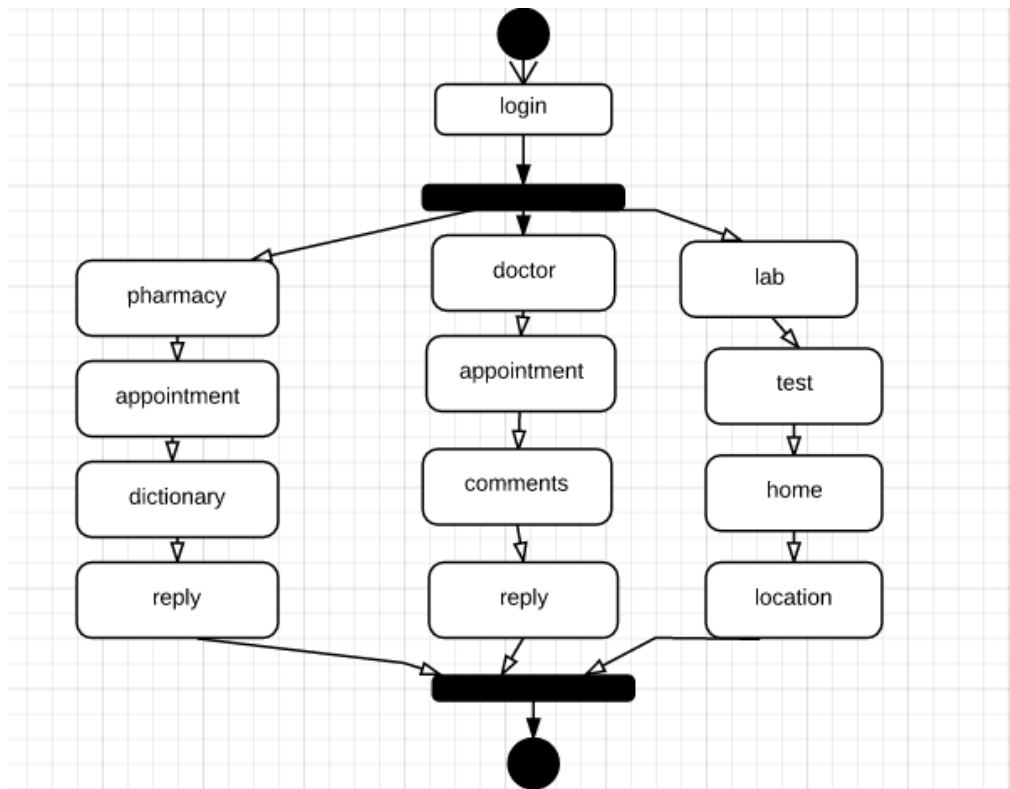


Fig 3:- Activity Diagram

## IV. CONCLUSION AND FUTURE ENHANCEMENT

*A. Conclusion*
In this project, the problem of using different applications for accessing various medical services has been successfully approached.

First, I have shown that there are several related works, projects, and commercial applications; however, none of them have approached the presence of vital medical services along with the natural supplements, remedies, ask queries to doctors, ambulance services and categorized health recipes into a single destiny.

Second, a solution has been shown that, the information can be accessed at a faster rate as it has various filters for search options such as ratings for doctors, recipes for a particular disease etc. The interface is very user-friendly and attractive.

The main characteristics of our proposal are that

- It is free of charge to the user.
- Application development costs are very low.
- It is supported on pc, tablets, and mobile phones.
- Data is accurately displayed.
- No installation is required.

*B. Future Enhancement*
The future lines of work in this context can be classified into two types, they are

- Technological Research
- Basic Research

The technological problems to be approached in the future are, to implement the proposed solution in other mobile-phone platforms and to perform an in-depth study of the communication load and server performance in terms of the number of users.

The basic problems to be approached in the future are to implement symptoms checker and SMS remainder.

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