**ABSTRACT**

The purpose of the project entitled as “HOSPITAL MANAGEMENT SYSTEM” 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 as and when required, and also to manipulate these details meaningfully System input contains patient deregister and store patient details and doctor details and retrieve these details tails, 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. The software has the facility to give a unique id for every doctor and stores the clinical details of every patient and hospital tests done automatically. It includes a facility of choosing a doctor on their wish based on profile and timings. Doctors can search details of a patient using the database display. The

Hospital Management System can be entered using a username and password. It is accessible either by an administrator or by management. Only they can add data into the database. The data can be retrieved easily. The interface is very user-friendly. The data is well protected for personal use and makes the data processing very fast.It helps people to get an appointment to top most doctors of India respective to their department.

***OBJECTIVES***

* Design a system for better patient care.
* provide(MIS)reports on demand to the management for better decision making among different departments.
* Provide top management a single point of control.

## CHAPTER 1

**1.1 Introduction:**

The project Hospital Management system includes registration of patients, storing their details into the system, and also computerized billing in the pharmacy, and labs. The software has the facility to give a unique id for every patient and stores the details of every patient and the staff automatically. It includes a search facility to know the current status of each room. Users can search availability of a doctor and the details of a patient using the id.

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 interface is very user-friendly. The data are well protected for personal use and makes the data processing very fast.

Hospital Management System is powerful, flexible, and easy to use and is designed and developed to deliver real conceivable benefits to hospitals.

Hospital Management System is designed for multispeciality hospitals, to cover a wide range of hospital administration and management processes. It is an integrated

end-to-end Hospital Management System that provides relevant information across the hospital to support effective decision making for patient care, hospital administration and critical financial accounting, in a seamless flow.

Hospital Management System is a software product suite designed to improve the quality and management of hospital management in the areas of clinical process analysis and activity-based costing. Hospital Management System enables you to develop your organization and improve its effectiveness and quality of work. Managing the key processes efficiently is critical to the success of the hospital helps you manage your processes

## Problem Statement

Our HOSPITAL MANAGEMENT SYSTEM is aimed to the Self-diagnosis with hospital management system is to provide a self-test to the patient, if hospitals are not available in near places. This system provides an additional facility, that is patients can get online medication and can interact with an appropriate doctor through online chatting based on their convenience. This system includes registration of patients, storing their details into the system, and also computerized pay links and labeled prescription.

## Project Scope and Objectives Project Scope :

* + - Information about Patients is done by just writing the Patient's name, age and gender. Whenever the Patient comes up his information is stored freshly.
    - Bills are generated by recording price for each facility provided to Patient on a separate sheet and at last they all are summed up.
    - Diagnosis information to patients is generally recorded on the document, which contains Patient information. It is destroyed after some time period to decrease the paper load in the office.
    - Immunization records of children are maintained in pre-formatted sheets, which are kept in a file.
    - Information about various diseases is not kept as any document. Doctors themselves do this job by remembering various medicines.

All this work is done manually by the receptionist and other operational staff and a lot of papers are needed to be handled and taken care of. Doctors have to remember various medicines available for diagnosis and sometimes miss better alternatives as they can’t remember them at that time.

## Objectives:

* + - Define hospital
    - Recording information about the Patients that come.
    - Generating bills.
    - Recording information related to diagnosis given to Patients.
    - Keeping record of the Immunization provided to children/patients.
    - Keeping information about various diseases and medicines available to cure them.

These are the various jobs that need to be done in a Hospital by the operational staff andDoctors. All these works are done on papers.

## CHAPTER 2 OVERALL DESCRIPTION

* 1. **Project Specification :**

Our project consists of two phases,where in the website it has four different modules that are specific for Admin,Patients ,Doctors and Accountants. Patients can enter the details and book their appointment by filling in the form and once the form is submitted successfully and the appropriate doctor is selected, details are forwarded to respective doctor.were doctor can access the details based on the input given to the system. Finally , online medication or hospital appointment of a doctor can be done.There fore any details regarding hospital or regarding hospitality, cost details and all the amenities

were displayed in the project.All the surgery related details are also provided.The people who want to know procedure of hospital appointment process is also available like for inpatients,outpatients and visitors.This projects has the vast knowledge of all the medications and automatic medicine details irrespective to the doctor consultation is also provided.This project’s ultimate aim is to provide treatment to patients from the topmost doctors by either online consultation or by hospital appointment.

## Admin module:

* + - manage department of hospitals, user, doctor, nurse, pharmacist, laboratorist accounts.
    - watch appointment of doctors
    - watch transaction reports of patient payment
    - Bed ,ward, cabin status
    - system working and status and details
    - watch medicine status of hospital stock

## user module(patient):

* + - View appointment list and status with doctors
    - View prescription details
    - View medication from doctor
    - View doctor list
    - View operation history
    - View admit history. like bed, ward icu etc
    - Manage own profile

## Doctor module:

* + - Manage patients. account opening and updating
    - Create, manage appointment with patient
    - Create prescription for patient
    - Provide medication for patients
    - Issue for operation of patients and creates operation report
    - Manage own profile

## Accountant module:

* + - Create invoice for payment
    - Order invoice to patient
    - Take cash payment
    - Watch payment history of patients
    - Manage own profile

## were the process in the website by user flows in this process:

A picture containing timeline

Description automatically generated

* 1. **USE CASE DIAGRAM:**

Diagram

Description automatically generated

## use case(process):

Chart, diagram

Description automatically generated

* 1. Graphical user interface

     Description automatically generated**CLASS DIAGRAM / ER :**

## ER DIAGRAM:

Diagram

Description automatically generated

* 1. **SYSTEM ARCHITECTURE :**

All the users (patients) enter details and book an appointment with a consultant.

Doctor can be able to see all the appointments who want to get consult to him.were based on the online communication and medication here the same user needs to get fill his details always but if he is choosing the same consultant then software will recognizes that he is a pre visited patient and the previous medication details will be notified to the doctor and his reports ,if he was surged then his whole will be highlighted to doctor.

Thus in such a way all the details regarding the patient will be stored in the server.if he

is a pre visited patient he can see prescription details without any one’s notice.

## EXTERNAL INTERFACE REQUIREMENTS

* 1. **USER INTERFACE**

The stakeholders of this system are patient and doctors with in hospital and they can be able to access the web portal using any of the browsers from a mobile device or a computer and can be able perform all the actions in any of the operating systems using any of internet browsing applications and this site is built in such a way that the user can experience and perform actions easily in all the browsing applications.

## HARDWARE INTERFACE

MINIMUM HARDWARE REQUIREMENTS FOR PRESENT PROJECT:

PROCESSOR : Intel dual Core ,i3 RAM : 1 GB

HARD DISK : 80 GB

## SOFTWARE INTERFACE

**Name Mnemonic**

Windows Operating System Windows OS

Linux Operating System Linux OS

Mac Operating System Mac OS

Google Chrome Chrome

Opera Web Browser Opera

Mozilla Firefox Firefox

Safari Web Browser Safari

## TESTING

* 1. **Test Plan**

## PRODUCT ANALYSIS

Patients can get a consultation with a doctor and admin, management can see all the appointments that a doctor has and all the reports and things processed in the website and hospital.

where all the details regarding the hospital will be displayed in the project including facilities ,amenities and so on…All the particulars cost are also available at website or application.

## STRATEGY

**Scope -** The scope of the test is that the entire web portal is tested in order to make sure that all the components within the website are functioning exactly as expected while developing the website.

**Create Test Logistics -** Testing must be carried from user level, where the site is tested based on user point of view and must make sure that the site has best user experience.

**Test Deliverables -** The Final product must be easily accessible by all the users

and a better working application is delivered.

## TEST OBJECTIVE

Testing is carried out inorder to make sure that the site functions as expected and can handle load at all times.

## TEST

**PROCEDURE**

The test plan is as follows

## TEST TEST COMPONENT

Compatibility Testing Checking whether the system is compatible to host the project.

Unit Testing Checking all the individual

components and modules within the website

Integration Testing Test whether all the webpages are navigable to and fro within the session

Agile Testing After the integration test, a final test is done iterating through all the components of the system

System Testing Checking whether all the data is being flown in an organised manner between

## TEST CASES

web pages

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TEST CASE ID** | **TEST NAME** | **EXPECTED RESULT** | **ACTUAL RESULT** | **PASS/FAIL** |
| **1.** | Launching the site in  all web browsers | Must be Launching Successfully | As Expected | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | As Expected Pass |  |  |  |
| **2.** | Doctor Login and authentication | Login to the  Student Portal | As Expected | Pass |
| **3.** | on submitting details | stored in doctors database | As Expected | Pass |
| **4** | re enter details | recognition of patient | As Expected | Pass |
| **5** | every module is working | result to the respective | As Expected | Pass |
| **6** | offline appointment request | appointment allotment. | As Expected | Pass |

## FUTURE ENHANCEMENT :

* + - The future extension of the system is aimed at centralising the online consultation system with the identity issued to the patient
    - The System can be integrated to hospital database and monitoring the system can be automated
    - All the users can be provided with better authentication
    - The system is linked to access through the code available in the identity

card such that the user can be authenticated at offline consultation using barcode scanners

* patient and doctor complete databases are brought up centrally such that all the doctor and patient activities within the hospital are monitored using this portal.

## CONCLUSION

Final conclusion of this project is that easing the process of online consultation and tracking all the details along with the log maintained in order monitor the patient details and doctor activities is the main function of this project and could be carried forward in implementing the same within all the hospitals(required)and could be extended beyond on successful implementation.

SCREENSHOTS

Graphical user interface, website

Description automatically generated

A screenshot of a computer

Description automatically generated with medium confidence

Graphical user interface, website

Description automatically generated

A screenshot of a computer

Description automatically generated with medium confidence

Graphical user interface, text, application, email, website

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Graphical user interface, website

Description automatically generated

Graphical user interface, website

Description automatically generated

Graphical user interface, application, website

Description automatically generated

A picture containing graphical user interface

Description automatically generated