HEARTCARE

BY Balram kewat (1012777)



PROJECT REPORT
ON
HEARTCARE

SUBMITTED IN PARTIAL FULFILLMENT FOR AWARD OF YASH TECHNOLOGIES PVT LTD

BY
BALRAM KEWAT

(1012777)

UNDER THE ESTEEMED GUIDANCE OF Vimal jawla (technical trainer)



ABSTRACT

The purpose of the project entitled as "HEARTCARE" is to computerize the Cardiology Department of the Hospital to develop software which is user friendly, simple, fast and cost-effective. The main function of the system is to register and store patients and doctors details and retrieve these details as and when required. The patient can be entered using email and password. It is accessible by Admin, Doctor and Receptionist. Patients can check the availability of doctors and confirm their appointment.

The Government of India has still aimed at providing medical facilities by establishing hospitals. The basic working of various hospitals is still on paper as compared to hospitals in other countries. The concept of automation of administration and management of hospital is now being implemented.

INTRODUCTION

1.1 Brief Description

Health of citizens is the wealth of a Nation. India has contributed the most ancient Medical science "AYURVEDA" to the world besides other medical sciences. This field had witnessed a rapid metamorphosis in all of its sections. Heartcare is designed to improve the quality and management of one particular department of hospital in the areas of clinical process analysis and activity of patients and availability of doctors. Heartcare enables you to develop your organization's department and improve its effectiveness and quality of work. Managing the key processes efficiently is critical to the success of the hospital and helps you manage your processes.

In Heartcare we entered using an email and password. It is accessible by an admin, Doctors & Receptionist. Data can be retrieved easily. The data is well protected for personal use and makes the data processing very fast. Heartcare is powerful, flexible, and easy to use and is designed and developed to deliver real conceivable benefits to the department.

Heartcare includes registration of patients, storing their details into the system by using a database. This has the facility to store the details of patients and patients can check the availability of doctors using their email and password. It also aims at providing low-cost reliable automation for the existing systems. This provides excellent security of data at every level and also provides robust & reliable storage facilities.

1.2 Objective

Heartcare system is a computer system that helps manage the information related to heart care in the job completion of heart care providers effectively. Heartcare was introduced to solve the complications coming from managing all the paperwork of every patient associated with the departments of cardiology with confidentiality. Heartcare provides the ability to manage all the paperwork in one place, reducing the work of staff in arranging and analyzing the paperwork of the patients. In this patients can signup with some details and they are able to login in the system and check the availability of doctors and take appointments from available doctors.

1.3 Scope

As the term management includes planning, organizing, coordination, staffing, evaluating and controlling, as hospital management professionals do, they do all these roles in health services to provide quality healthcare to the people and in turn satisfaction to the patients by giving them cost-effective services.

2.1 Feasibility Study

A feasibility study is an analysis that takes all of a project's relevant factors into account—including economic, technical, legal, and scheduling considerations—to ascertain the likelihood of completing the project successfully. Project managers use feasibility studies to discern the pros and cons of undertaking a project before they invest a lot of time and money into it.

2.1.1 Technical Feasibility

This is concerned with specifying equipment and software and hardware that will successfully satisfy the user requirement. The technical needs off the system may vary considerably, but might include:

- The facility to produce output in a given time.
- Response time under certain conditions.
- Ability to process a certain volume of transaction at a particular speed.
- Facility to communicate data to distant locations.

In examining technical feasibility, configuration of the system is given more importance than the actual make of hardware. The configuration should give the complete picture about the system requirements. What speeds of input and output should be achieved at particular quality of printing.

2.1.2 Economic Feasibility

Economic analysis is the most frequently used technique for evaluating the effectiveness of a proposed system. More commonly known as cost/benefit analysis: the procedure is to determine the benefits and savings that are expected from a proposed system and compare them with cost. If benefits outweigh cost, a decision is taken to design and implement the system. Otherwise, further justification or alternatives in the proposed system will have to be made if it is to have a chance of being approved. This is an ongoing effort that improves in accuracy at each phase of the system life cycle.

2.1.3 Behavioral Feasibility

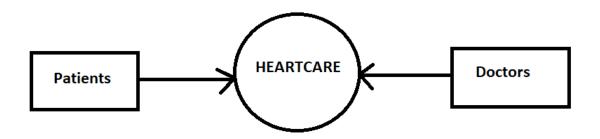
It evaluates and estimates the user attitude or behavior towards the development of a new system. It helps in determining if the system requires special effort to educate, retrain, transfer, and changes in employee's job status in new ways of conducting business.

2.2 Drawback of Existing System

The current manual system has a lot of paperwork. To maintain the records of sale and service manually, is a time consuming task. With the increase in databases, it will become a massive task to maintain the database. Requires large quantities of file cabinets, which are huge and require quite a bit of space in the office, which can be used for storing records of previous details. The retrieval of records of previously registered patients will be a tedious task. Lack of security for the records, anyone disagrees with the records of your system. If someone wants to check the details of available doctors the previous system does not provide any necessary detail of this type. All this work is done manually by the receptionist and the other operational staff and a lot of papers need 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.

2.3 System Analysis

2.3.1 DFD



2.4 Proposed System

The Heartcare system is designed for any hospital to replace their existing manual paper-based system for any department. The new system is to control the information of patients as well as doctors availability. These services are to be provided in an efficient, cost effective manner, with the goal of reducing the time and resources currently required for such tasks.

The complete set of the rules & procedures related to cardiology department day to day activities is very easy with this system. It is a computerized management system. This system keep a track of Doctors and patients.

- The system should be easy to operate
- The working in the organization will be well planned and organized
- The level of accuracy in the proposed system will be higher
- The reliability of the proposed system will be high due to proper storage of information
- Provide a quick and efficient retrieval of information

ADVANTAGES:

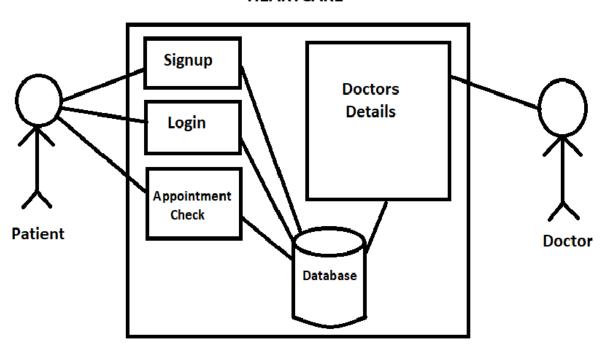
- Low maintenance cost
- Volume of data is not an issue

- Data can be converted easily into information
- It can be expanded as well as data communication possible

DESIGN DESCRIPTION

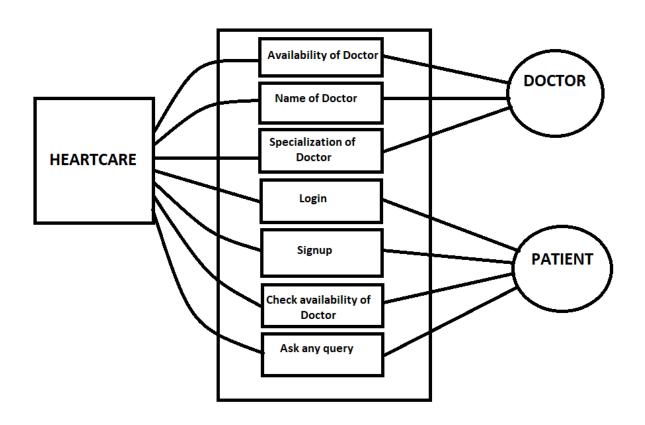
3.1 System Architecture

HEARTCARE



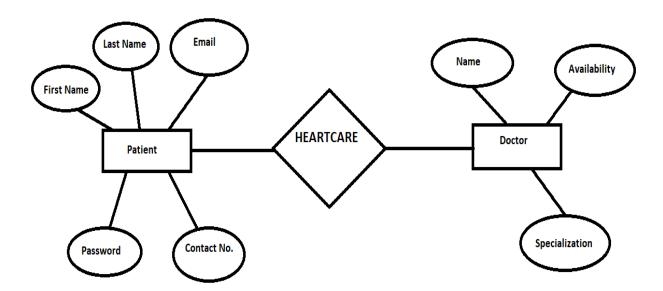
3.2 System Design Tool

3.2.1 Use Case Design

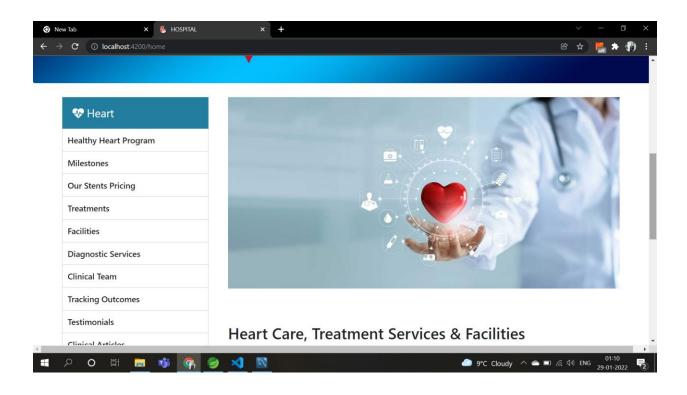


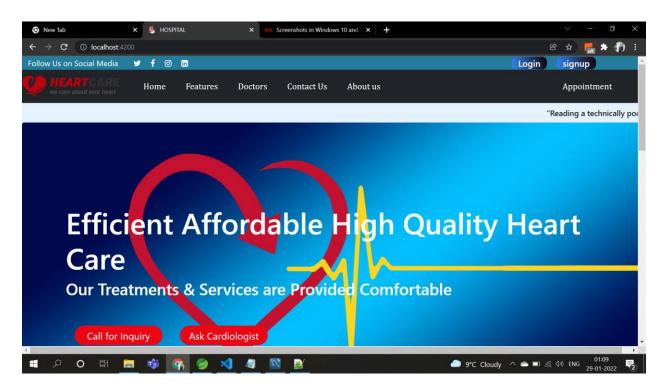
3.2.2 E-R Diagram

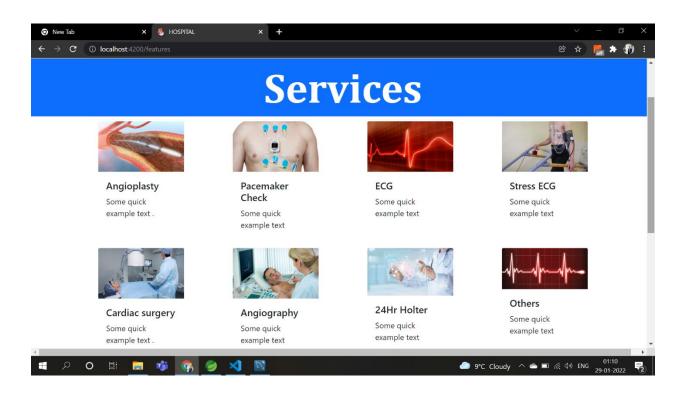
An ER diagram shows the relationship among entity sets. An entity set is a group of similar entities and these entities can have attributes. In terms of DBMS, an entity is a table or attribute of a table in a database, so by showing relationship among tables and their attributes, ER diagram shows the complete logical structure of a database. Let's have a look at a simple ER diagram to understand this concept.

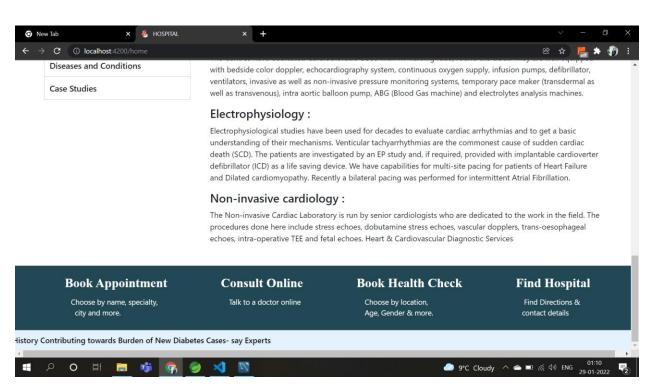


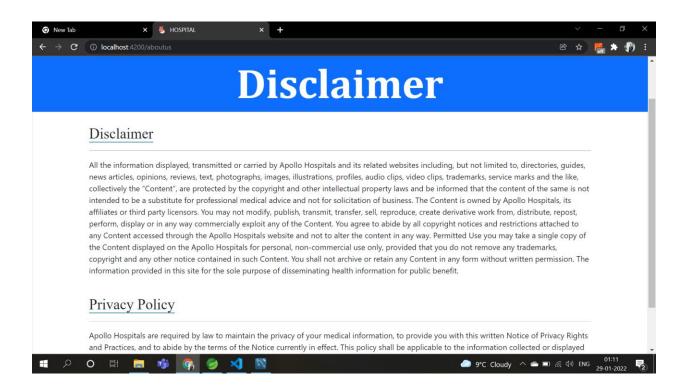
3.3 User Interface Design

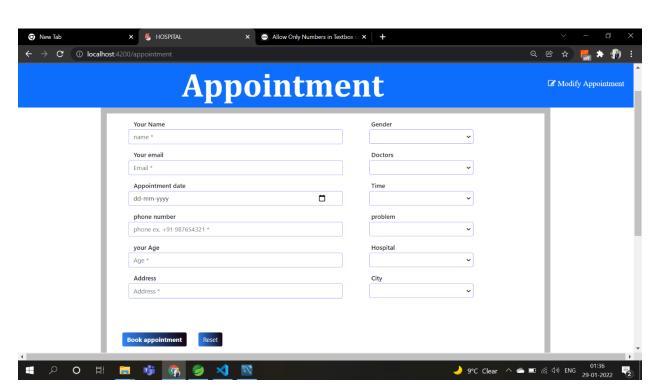


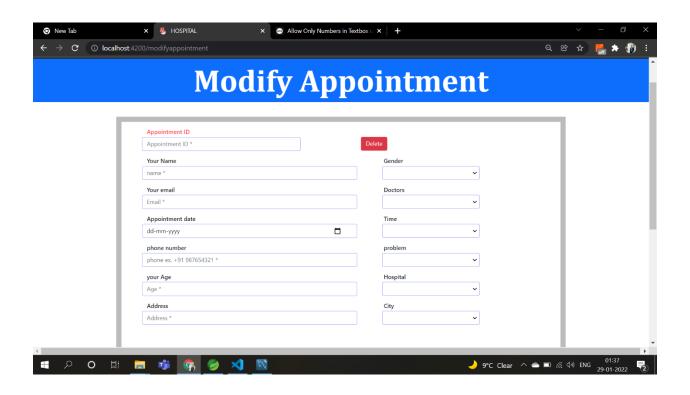


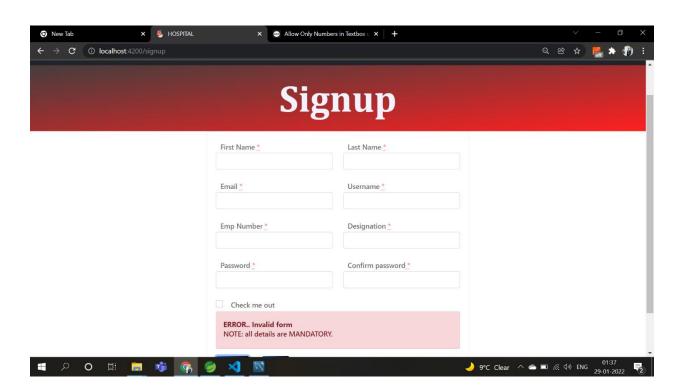


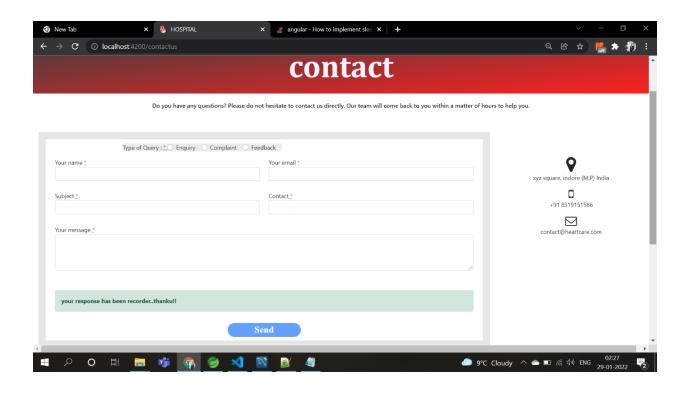


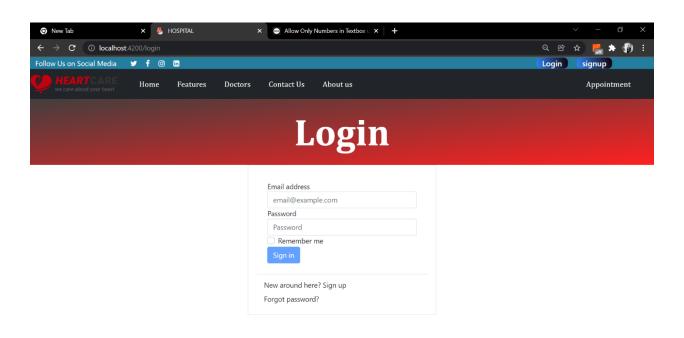




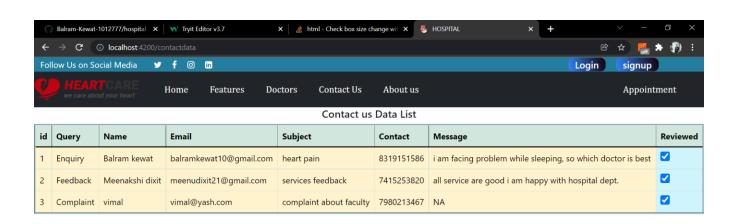




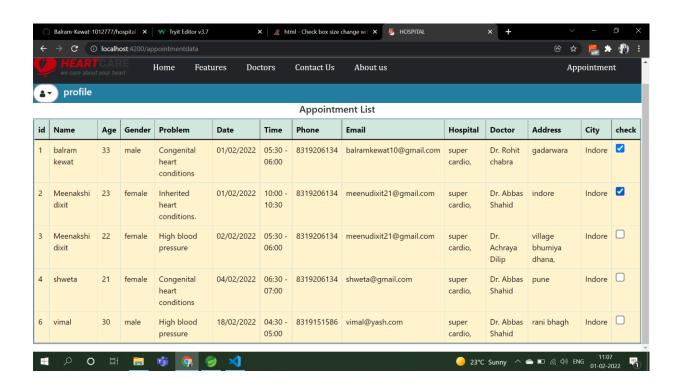


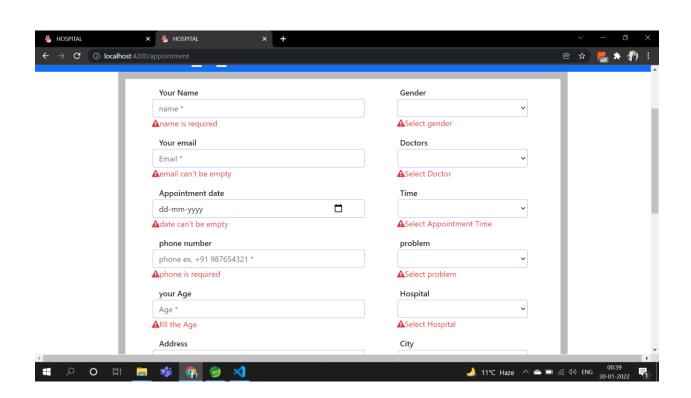


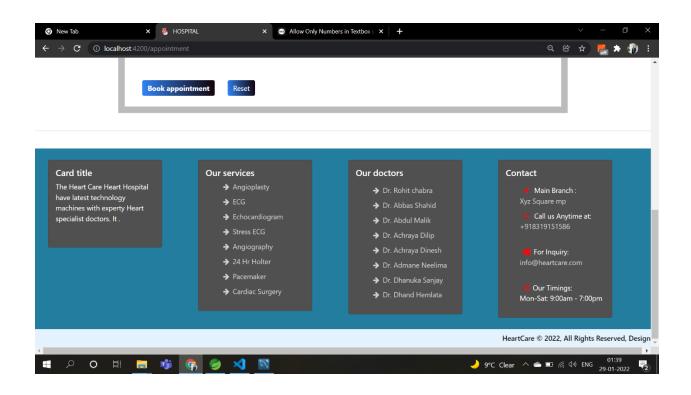
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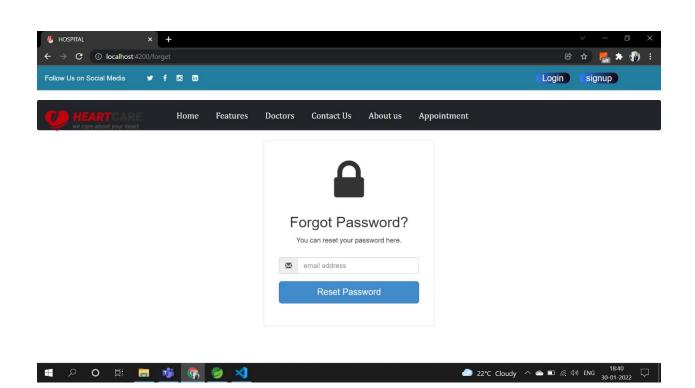












CONCLUSION AND FUTURE ENHANCEMENT

Since we are entering details of the patients electronically in the "HEARTCARE", data will be secured. Using this, we can retrieve a patient's history with a single click. Thus, processing information will be faster. It guarantees accurate maintenance of patient details. It easily reduces the book keeping task and thus reduces the human effort and increases accuracy speed.

Heartcare is essential for maintaining details about the Doctor and Patients. We understand that by using this project the work becomes very easy and we save a lot of time. Heartcare would be able to significantly improve the operational control and thus streamline operations. This would enable to improve the response time to the demands of patient care because it automates the process.

For future enhancement we can add a payment option in which patients check the appointment and take appointment after that they can pay fees of the doctor online.

Design And Developed by

Balram kewat 1012777 Balram.kewat@yash.com