A
Project Report
On
"<u>Hospital E-Card System</u>"

Prepared by:

Tirth Bharatiya (18DCS008)
Vikas Marwadi (18DCS043)
Adnan Mistry   (18DCS047)

Under the guidance of
Prof. Radhika Patel   prof. Harshil Joshi

A Report submitted to
Charotar Univeristy of Science and Technology for
Partial Fulfillment of the Requirements for the
4th Semester Software Group Project-II [CS255]
Submitted at

CSE
DEPSTAR
At: Changa, Dist: Anand – 388421
MAY 2020

CERTIFICATE

This is to certify that the report entitled "Hospital E-Card System" is a bonafied work carried out by Tirth Bharatiya (18DCS008), Vikas Marwadi (18DCS043) and Adnan Mistry (18DCS047) under the guidance and supervision of prof. Chandrashekhar and prof. Radhika Patel for the subject Software Group Project-II (CSE) of 4th semester of Bachelor of Technology in DEPSTAR at Faculty of Technology & Engineering – CHARUSAT, Gujarat

To the best of my knowledge and belief, this work embodies the work of candidate himself, has duly been completed, and fulfills the requirement of the ordinance relating To the B.Tech. Degree of the University and is up to the standard in respect of content, presentation and language for being referred to the examiner.

Radhika Patel,
Assistant Professor
CSE
DEPSTAR, Changa, Gujarat.

Dr. Amit Ganatra
Principal, DEPSTAR
Dean, FTE
CHARUSAT, Changa, Gujarat.

<u>ACKNOWLEDGEMENT</u>

We, the developer of Web Application "Hospital E-Card System", with immense pleasure and commitment would like to present the project assignment. The development of this project has given us wide opportunity to think, implement and interact with various aspects of management skills as well as the new emerging technologies.

Every work that one completes successfully stands on the constant encouragement, good will and support of the people around. We hereby avail this opportunity to express our gratitude to number of people who extended their valuable time, full support and cooperation in developing the project.

We express deep sense of gratitude towards our Head of the CE Department,

Dr. Amit Ganatra and project guides Prof. Radhika Patel and Prof. Chandrashekhar for the support during the whole session of study and development. It is because of them, that we were prompted to do hard work, adopting new technologies.

We are sincerely thankful to all our Professors who helped us to complete the project in one way or the other. They altogether provided us favorable environment, and without them it would not have been possible to achieve our goal.

ABSTRACT

A hospital information system is a comprehensive, integrated information system designed to manage the patient data.

Sometimes we saw that in any Hospital every patient need's to carry their all reports ,If he/she is a card holder than they must have to take that whenever they visit the Hospital, Every time patient need to show their reports and fill out some formality forms and pay some advance And then after he/she can take the bed.

For that type of problems we develop a web based application in which patient don't need to do anything whenever they visit a Hospital they always have a RFID card like an I-card with the help of that card they can easily get the hospital and take the treatment they do not need to do any formalities.

This project is based on paperless system in which there is no need of paperwork and Our project is encompasses paper-based information processing of Hospital, And all data like previous reports ,medicines data all are already stored in Database and patient just have to show the card and Hospital get all the data about any patient.

<u>INDEX</u>

Acknowledgement
Abstract

Project Definition

1.1   **Project Overview:**

Sometimes we have a problem of carry reports every time while visit the hospital. And every time in any emergency doctors need to wait for patient's other reports. However, modern technology aims to help us in every way possible, So they don't need to carry their reports every time and doctors don't need to wait for patient's report in emergency.

It's hard to wait for required reports before start operation in emergency. Things around develop and evolve before we even know it, and the trend seems to be gaining momentum. When our parents or grandparents were in their twenties, they were forced to spend hours on dealing with paperwork. With our application doctors can also store paperless reports.

Hospital E-Card System is to remove waiting of patient's reports in emergency. User can register themselves and store their reports online so they can access it from any corner from the world.

1.2   **Objective**
- Nowadays whenever patient mate any accident, doctors need to wait for user's relatives so they can bring patient's reports.
- And also user need to carry their every time when they visit hospital.
- To overcome this problem, we have created this application.
- The objective of this application is to make the splitting task simpler task simpler.

1.3   Scope:

- The scope for this application is much wider in near future.
- People will not have to carry their reports every time.
- Also, if some more feature are added then it can also be used in industries.

Project Description

We have created this application using PHP and MySQL database.

- This application on starting asks to enter user's credentials
- You can also login using E-Card.
- If you are a new user, we have sign up form for you.
- After login there are different section.
- User and hospital authority can add user's reports.
- They are able to retrieve all their data from single RFID card or login credentials.

System Requirements

3.1 Hardware Specification

- ❖ Arduino
- ❖ Wi-Fi module
- ❖ RFID module
- ❖ Monitor
- ❖ Processor: Dual core
- ❖ Ram: 512MB
- ❖ Storage: 512MB
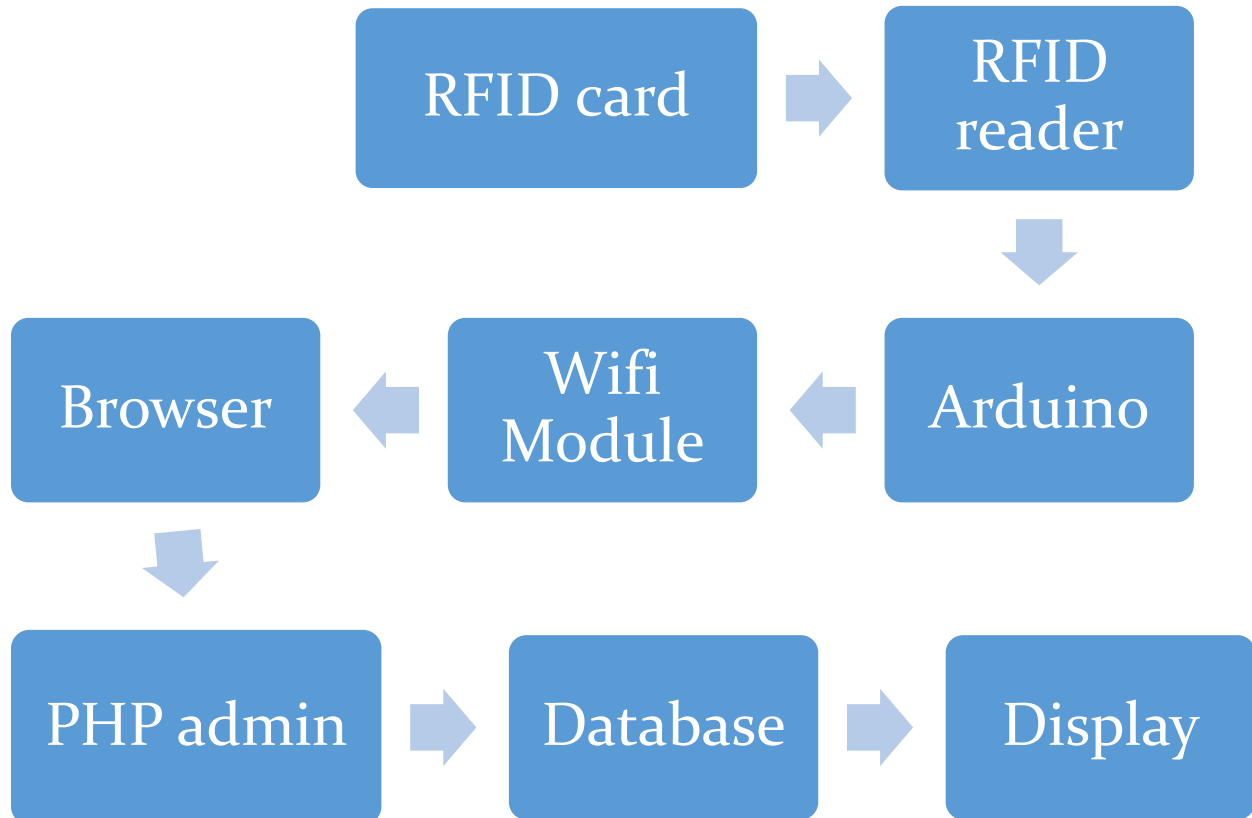
3.2 Software Specification

- ❖ Web browser
- ❖ Internet with good speed
- ❖ Database

Major Functionalities

Some of the key features of our project are:

- User can get their reports from anywhere.
- Patient don't need to take their reports every time while visiting the hospital.
- Doctors don't need to wait for user's report in emergency cases.
- Users can register themselves and they can store their reports.

Flow Chart

```
┌──────────────┐        ┌──────────────┐
│  RFID card   │  ──▶   │     RFID     │
│              │        │    reader    │
└──────────────┘        └──────────────┘
                                │
                                ▼
┌──────────────┐   ┌──────────────┐   ┌──────────────┐
│   Browser    │◀──│     Wifi     │◀──│   Arduino    │
│              │   │    Module    │   │              │
└──────────────┘   └──────────────┘   └──────────────┘
        │
        ▼
┌──────────────┐   ┌──────────────┐   ┌──────────────┐
│  PHP admin   │──▶│   Database   │──▶│   Display    │
└──────────────┘   └──────────────┘   └──────────────┘
```

5.1 Flowchart

<u>Limitations of the Project</u>

- There can be various parameter for describing characteristics of the environment on which project implementation is done, two of the main parameter and its justification is mentioned below:
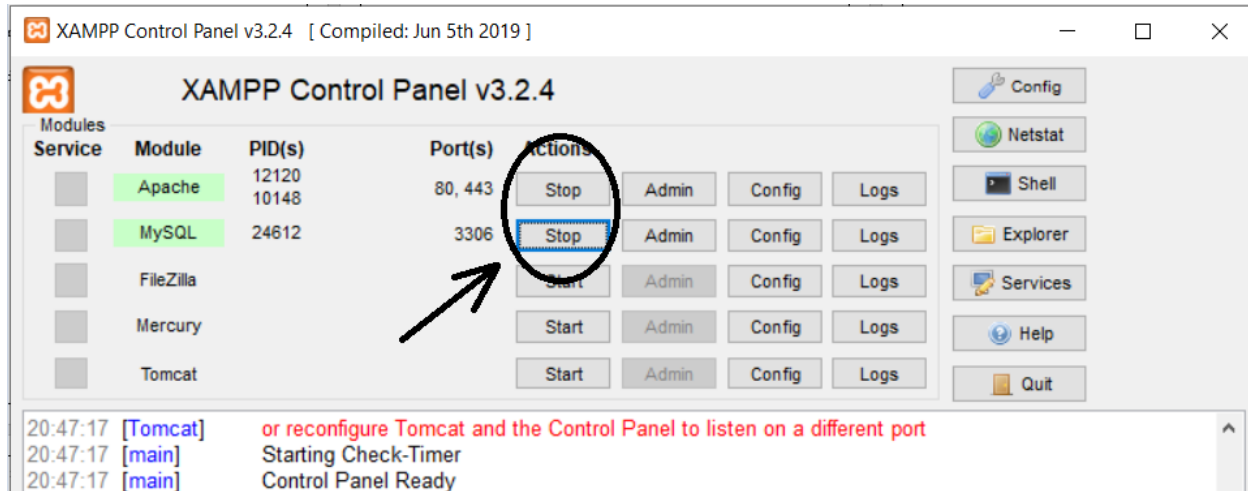
  1. **Single vs Multi-user**
     This software is single user, because only one user can use it at a time.
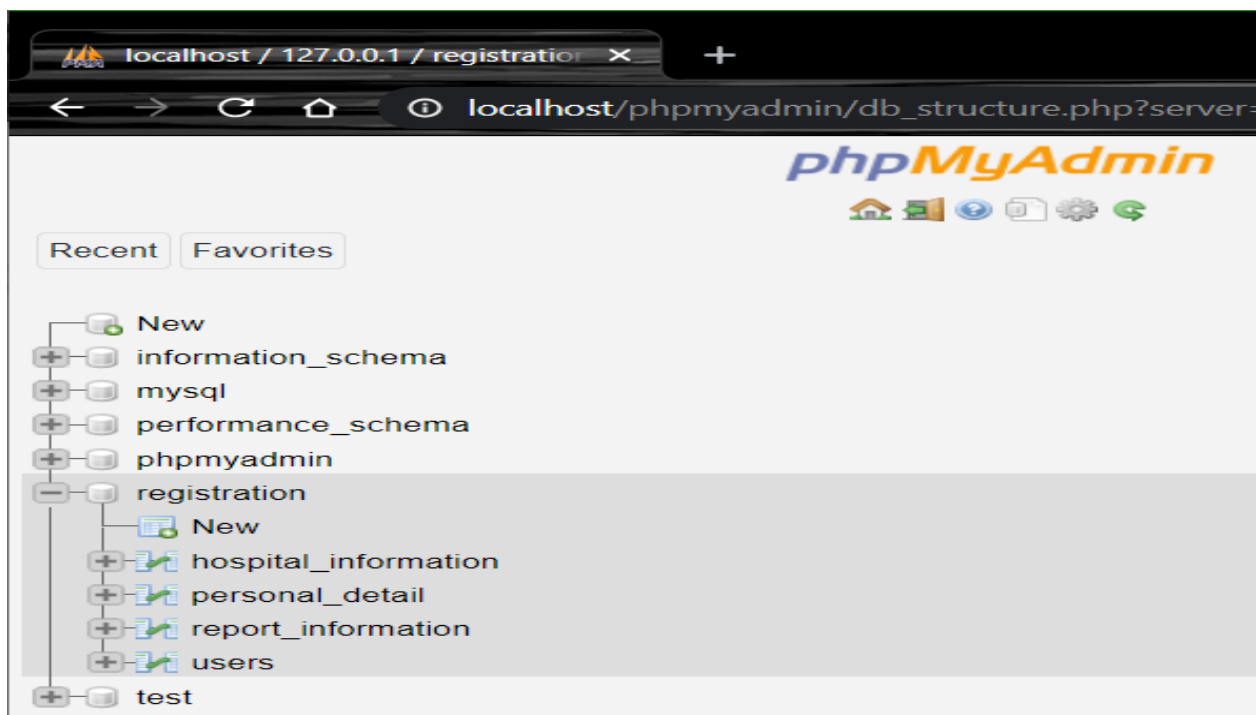
  2. **GUI vs Non GUI**
     The software is GUI based, it has 2D canvas window with texts and buttons.

- We can't take online payment.
- User database is not so much secure.
- Anyone with user's credentials manipulate user's data.

Implementation Screenshots

7.1 Screenshot of Xampp for starting Localhost

7.2 Created Database and tables in PhpMyAdmin

7.3 Screenshot of Login Page

7.4 Screenshot of Registration Page
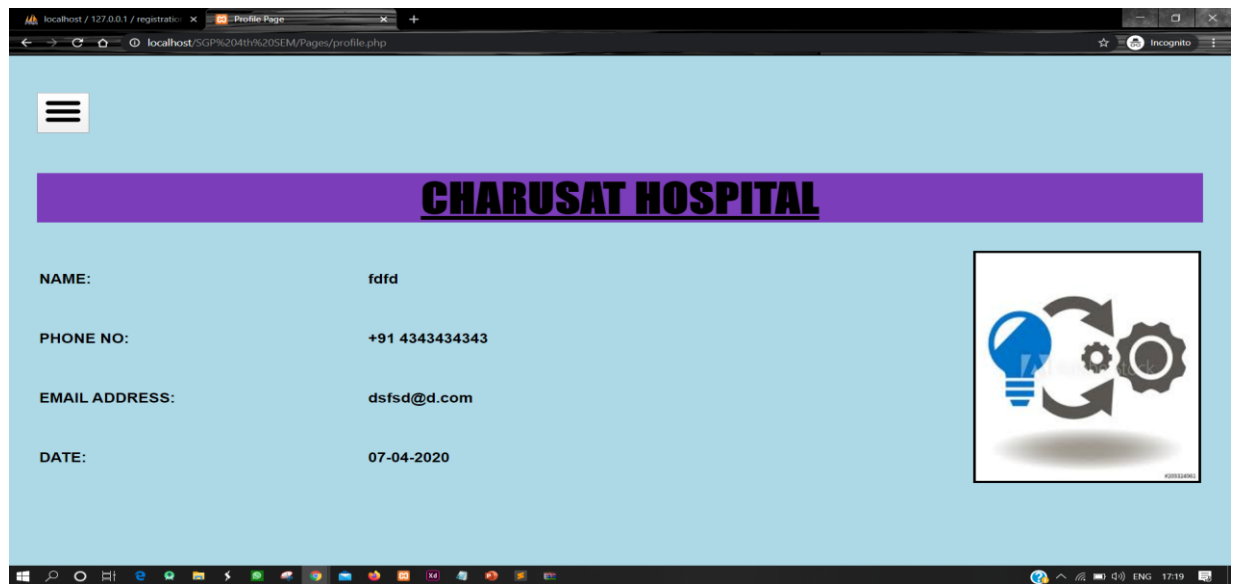
7.5 Home Page
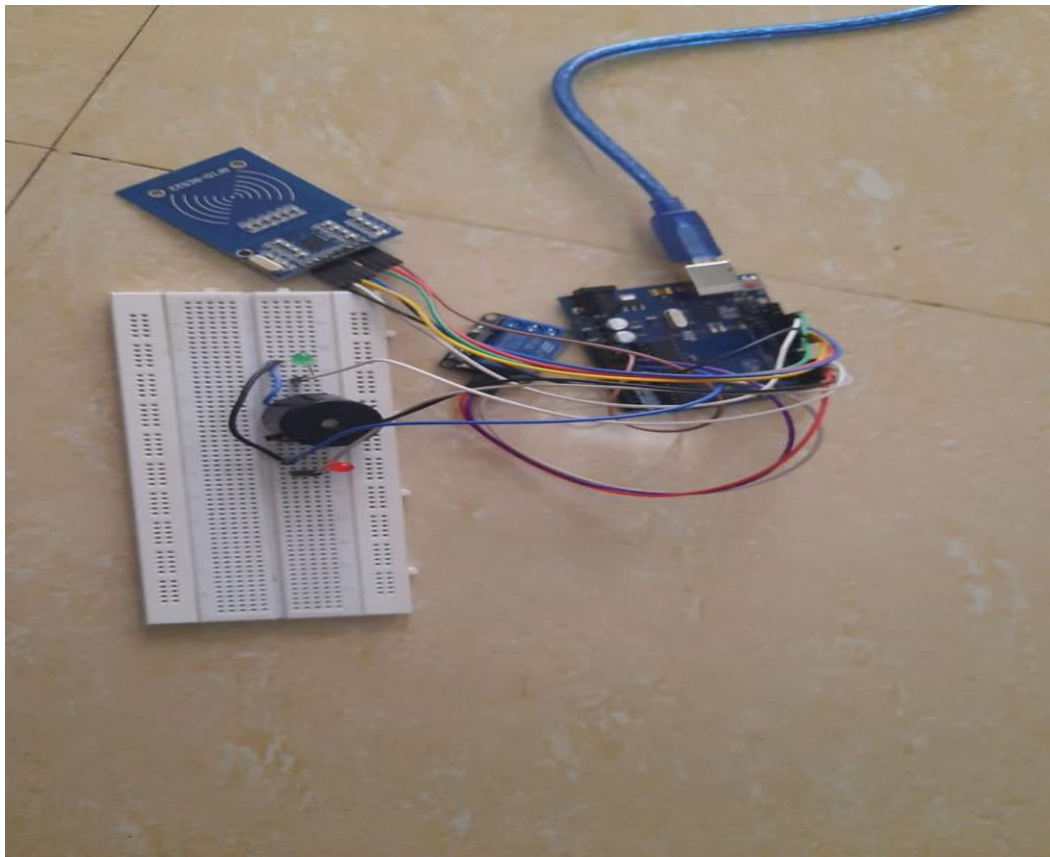
7.6 Circuit of RFID Card Reader

Personal Details

Hospital Name:	CHARUSAT Hospital
Hospital City:	Anand
Username:	xampp
Full Name:	Xampp
Contact no.:	9045124517
Gender:	○ Male ● Female ● Other
Guardian's Name:	Ratanbhai
Guardian's Contact :	1414122525
Permant Address :	Nadiad
Local Address :	Kheda
Aadhar Number :	154265338863
Date of Birth :	09-04-2020
Height :	132 cm
Weight :	76 Kg
Blood Group :	○ O- ● O+ ● A- ● A+ ● B- ● B+ ● AB- ● AB+

Reset   Submit

7.7 Page for getting Personal Details of Patient

Future Enhancement

- Optimization of the present code.

- Take online payment so the user can pay direct from their bank account and they don't need to take money with them in emergency situation.

- Adding more GUI will make our app more user friendly.

- We can also add a feature to calculate different tax on different items.

- Also by adding more secure database so we can store users data more securely.

- To use block chain in our project.

<u>Summary</u>

We made a common Hospital E-Card System, so using that patient or any other hospital authority can read the patient's report and medicines. Patient or hospital can register user. Only hospital have only access of patient's report which is made by them, for other reports they need user's card or login credentials.

We use RFID to use unique card each of user. We read id of RFID using of Arduino. We will send that id to browser using Wi-Fi module, so that for login user doesn't need to enter their login credentials. It's good if user always carry their card with them so in any emergency hospitals can use it if the patient is not able to enter their credentials.

User can store their reports from going to the Report section. While sing up user need to provide some personal details. And also hospitals need to register themselves with us with their details.

References

1. **https://www.blessinghealth.org/visitor-information/send-an-ecard**
2. **https://www.kansashealthsystem.com/patient-visitor/visitor-information/send-message**
3. **https://www.lovelycoding.org/2015/10/hospital-management-system-php-java-project.html**
4. **https://nevonprojects.com/smart-card-biometrics-projects/**