VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JnanaSangama, Belagavi -590018

A mini project report on

"COVID CARE"

Submitted in the partial fulfilment of Database Management System Laboratory

COMPUTER SCIENCE & ENGINEERING

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CERTIFICATE

This is to certify that the Project Work entitled **"COVID CARE"** is the bonafide work carried out by **Mohamed Raihan(4AD19CS043)** in partial fulfillment for the award of degree of Bachelor of Engineering in Computer Science and Engineering from Visvesvaraya Technological University, Belagavi during the year 2021-2022.

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Signature of Coordinator   Signature of HOD

Mrs. Jyothi M Patil   Dr. Puttegowda D
Assistant Professor   Professor & Head
Dept of CSE   Dept of CSE

EXTERNAL VIVA

Name of examiners   **Signature with Date**

1………………….…   **1…………………..**

2…………………….   **2…………………..**

<u>ACKNOWLEDGEMENT</u>

The successful completion of our project work would be incomplete without the mention of the names of the people who made it possible.

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Mohamed Raihan (4AD19CS043)

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CHAPTER 1

1.1 <u>INTRODUCTION</u>

In 2020-21, the world has gone through a global pandemic. The novel coronavirus disease had widespread across the globe, affecting millions of people and leaving hundreds of thousand of people dead. The hospitals in the country had a great challenge managing the COVID-19 positive patients and at one point went out of control. We would like to make a database software that would help in hospital management. This project mainly deals with the patient entry in the software, also allotting beds to the respective patients.

We are designing a software that mainly communicates with three sections. First one is the 'admin', who is going to administer the software, give the respective ID's to the hospitals and maintain the overall software. The second section is for the hospitals. For the hospitals to login or sign up to the software, the admin has to authenticate and provide the hospital ID to the email provided by the hospital which would allow the hospitals to enter their details. The third section belongs to the user or the patient who is tested positive for the disease. The patient has to first register himself/ herself to the software by the SRFID which is given to them during the RT-PCR tests. The user can sign up and enter their information and medical records in the software(the hospital management can access these records). The user will have an option as "book a bed", which will allow the patient to look at the available beds and choose one according to his personal and medical convenience.

This is how we aim this database software can help both, the hospitals and patients in better management.

CHAPTER 2

This chapter includes aim, objectives and scope of the project "Covid Care" to develop a flexible system to prevent data loss.

2.1 AIM

The main aim is to provide with the best hospital-patient management in the pandemic with flexible and secure techniques.

2.2 OBJECTIVES

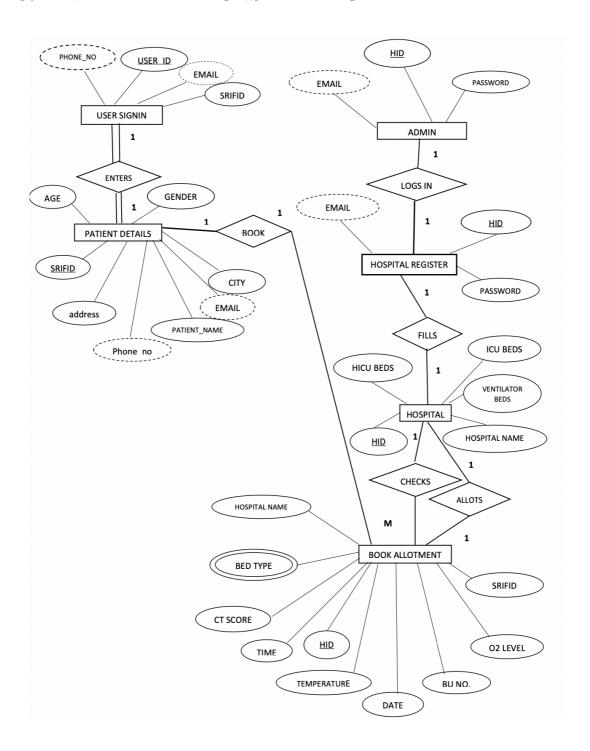The main objective of the projective is to design and develop a user friendly system.
- Easy to use and efficient computerized system
- To develop an accurate and flexible system, it will eliminate data redundancy
- Computerization can be helpful as means of saving time and money
- Provide better graphical user interface
- Less chances of information leakage
- Provides security to data by using login and password

2.3 SCOPE

- Information about Patients is done by just writing the Patients email, srif-id and date of birth. Whenever the Patient comes up his information is stored freshly.
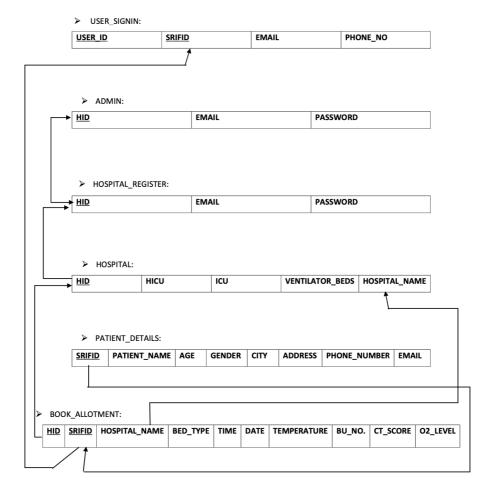- This project will be very helpful for booking bed slots for covid positive patients.

CHAPTER 3

CONCEPTUAL DESIGN

3.1 ENTITY-RELATIONSHIP DIAGRAM

The fig above shows us the entity relationship diagram of our project "covid care" which is the bed management system. The entities are 'user sign in','patient details','book allotment', this entity is basically to store the details of the patients who have booked a bed. 'Hospital', this is to store hospital details. 'Hospital register' and 'admin' who is doing to manage the software.

3.2 SCHEMA DIAGRAM

➢ USER_SIGNIN:

USER_ID	SRIFID	EMAIL	PHONE_NO

➢ ADMIN:

HID	EMAIL	PASSWORD

➢ HOSPITAL_REGISTER:

HID	EMAIL	PASSWORD

➢ HOSPITAL:

HID	HICU	ICU	VENTILATOR_BEDS	HOSPITAL_NAME

➢ PATIENT_DETAILS:

SRIFID	PATIENT_NAME	AGE	GENDER	CITY	ADDRESS	PHONE_NUMBER	EMAIL

➢ BOOK_ALLOTMENT:

HID	SRIFID	HOSPITAL_NAME	BED_TYPE	TIME	DATE	TEMPERATURE	BU_NO.	CT_SCORE	O2_LEVEL

Fig(3.2) - SCHEMA DIAGRAM

CHAPTER 4

4.1 HARDWARE REQUIREMENTS

- Processor: Pentium V, Core 2 Duo

- Processor Speed: 533 MHZ

- Hard Disk Space: 20 GB (min.)

- Ram Memory: 8GB

4.2 SOFTWARE REQUIREMENTS

- Operating System : Windows 7 or later

- Database Server : SQL server

- Platform: Visual Studio Code

- Backend : MySQL server

- Python Flask (backend and database connectivity)

- HTML(for front end)

- CSS(for front end)

- Javascript (for front end)

4.3 TECHNOLOGIES USED

Python Flask: Flask is a micro web framework written in Python. It is classified as a micro framework because it does not require particular tools or libraries. It has no database abstraction layer, form validation, or any other components where pre-existing third-party libraries provide common functions. However, Flask supports extensions that can add application features as if they were implemented in Flask itself. Extensions exist for object-relational mappers, form validation, upload handling, various open authentication technologies and several common framework related tools.Flask was created by Armin Ronacher of Pocoo, an international group of Python enthusiasts formed in 2004. According to Ronacher, the idea was originally an April Fool's joke that was popular enough to make into a serious application. The name is a play on the earlier Bottle framework.

MySQL:MySQL is a relational database management system (RDBMS) developed by Oracle that is based on structured query language (SQL).A database is a structured collection of data. It may be anything from a simple shopping list to a picture gallery or a place to hold the vast amounts of information in a corporate network. In particular, a relational database is a digital store collecting data and organizing it according to the relational model. In this model, tables consist of rows and columns, and relationships between data elements all follow a strict logical structure. An RDBMS is simply the set of software tools used to actually implement, manage, and query such a database. MySQL is integral to many of the most popular software stacks for building and maintaining everything from customer-facing web applications to powerful, data-driven B2B services. Its open-source nature, stability, and rich feature set, paired with ongoing development and support from Oracle, have meant that internet-critical organizations such as Facebook, Flickr, Twitter, Wikipedia, and YouTube all employ MySQL backends.
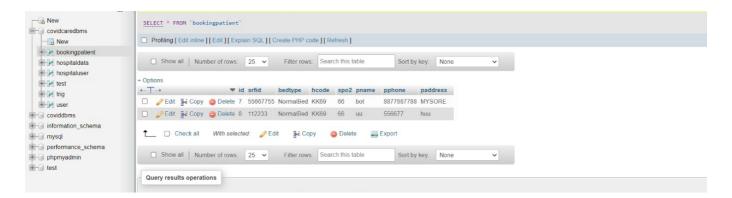
HTML : The HyperText Markup Language, or HTML is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript.

CSS: Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

JAVASCRIPT : JavaScript often abbreviated JS, is a programming language that is one of the core technologies of the World Wide Web, alongside HTML and CSS. Over 97% of websites use JavaScript on the client side for web page behavior, often incorporating third-party libraries. All major web browsers have a dedicated JavaScript engine to execute the code on users' devices.

TABLE DESCRIPTION

1. Booking Patient

This table consists of 8 attributes. The first one is, 'id' which represents the id of the patient. The second attribute is 'srfid', which stores the surf id which is given to the patients during RT-PCR tests. The third attribute is 'bed type', where the patient choose the type of bed they need. The fourth attribute is 'hcode', which tells us about the hospital code. The fifth attribute is 'spo2' which represents the oxygen level of the patients. The sixth attribute is 'pname', which represents the patient name. The seventh attribute is 'pphone', which stores the phone number of patients. The last attribute is 'address' which will store the address of the patient.

2. Hospital Data

This table consists of the attributes, first one is 'id' which is the hospital ID. The second attribute is 'hcode', which is the hospital code. The third attribute is'hname' which represents the hospital name. The fourth, fifth and sixth attribute is 'normalbed','hicubed','icubed','vbed' which represents the types of beds the hospitals offer.
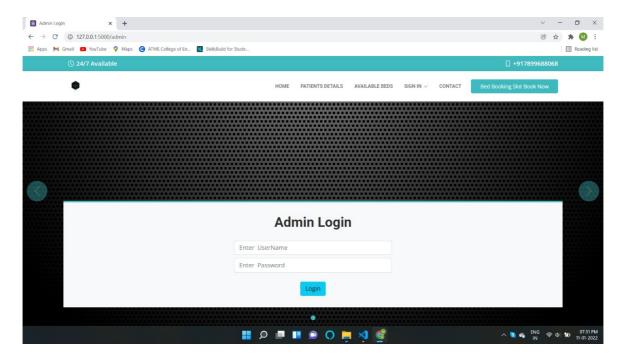
3. Hospital User

The first attribute in this table is 'id' which represents the hospital id. The second attribute is 'hcode', which represents the hospital code. The third and fourth attribute represents the hospital email-id and password respectively.

4. User

The first attribute in this table is 'id' which refers to the user id. The second attribute is the 'srfid' which is given to the patients during RT-PCR tests. The third attribute is the email-id of the user and the fourth attribute is the 'dob' which represents the Date of birth of the user.

5. Admin

This table only tells us that there is a admin who is going to manage this software and it is only him who can authenticate the hospitals and patients.
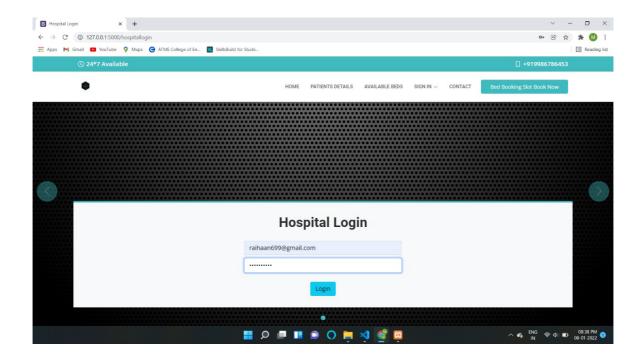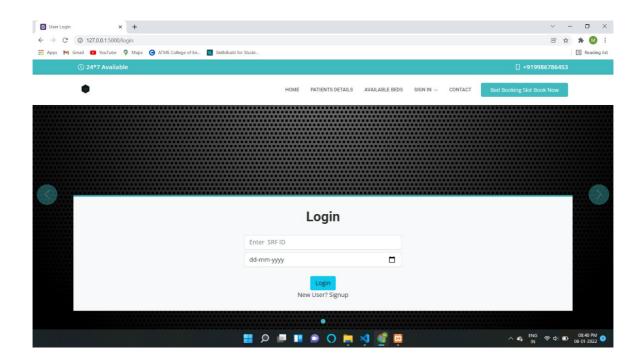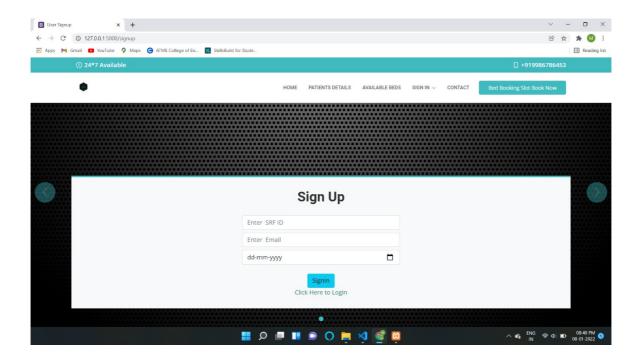
Chapter 6

SNAPSHOTS

1. Home Page

2. Hospital Log-in Page
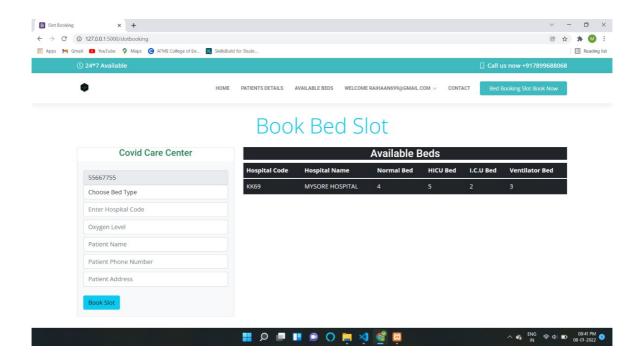

3. User Log-in Page

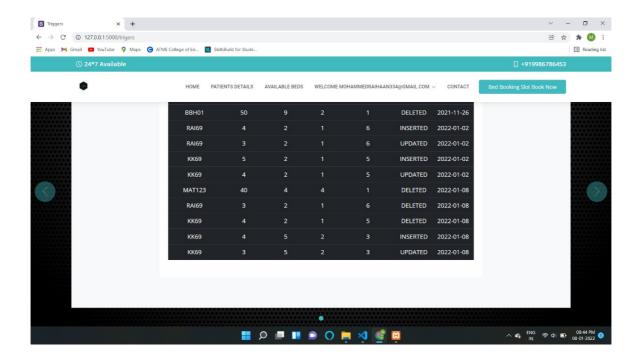# 4. User Sign-up Page

5. Hospital Details Insertion Page
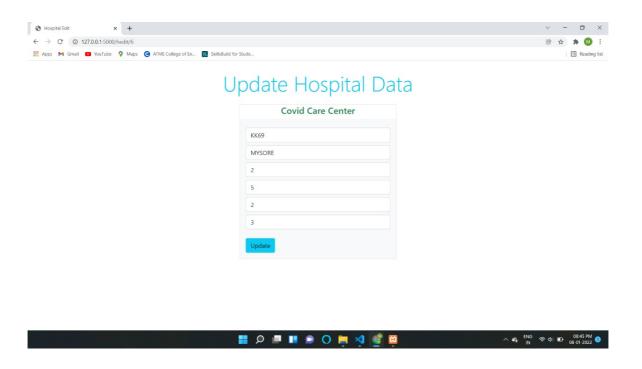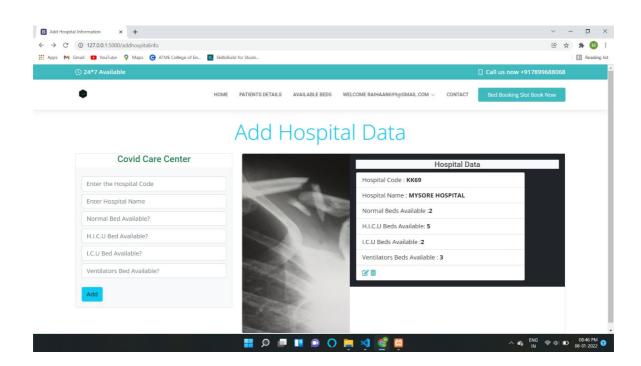
6. Patient Booking Page

7. Triggers View Page

8. Updating Hospital Data

9. Page after Hospital Details insertion

CONCLUSION:

With the completion of this project, we can conclude that, this software is going to be a boon to the society. This software helps us in storing and allotting beds to the patients in a very convenient and easy way. This software also has a user friendly interface, attractive and well made front end which will make the working experience better and satisfying

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- **Front end (Bootstrap): https://bootstrapmade.com/medicio-free-bootstrap-theme/**

- **Python Flask :https://www.youtube.com/watch?v=Z1RJmh_OqeA**

- **https://www.w3schools.com/mySQl/default.asp**

- **https://www.youtube.com/watch?v=7S_tz1z_5bA&t=503s**