18CSE303J – DATABASE MANAGEMENT SYSTEMS <u>MINI-PROJECT</u>

ACADEMIC YEAR: 2021-2022 [EVEN SEMESTER]



DEPARTMENT OF COMPUTER SCIENCE ENGINEERING SRM INSTITUTE OF SCIENCE AND TECHNOLOGY KATTANKULATHUR – 603203 KANCHEEPURAM DISTRICT

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TITLE: -

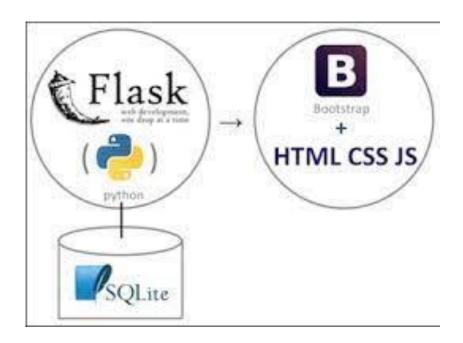
Covid Bed Slot Booking System

ABSTRACT: -

Covid Bed Slot Booking System is in the form of a website with the frontend implemented using HTML, CSS, JS and MySQL. PYTHON- FLASK, HTML and CSS are used to build the user interface and database was built using MySQL. Bed Management in this pandemic has become an issue that almost all of the families of covid patients face. But by using the latest technology this problem can be solved, the main reason for this problem is hospitals not having a proper portal for managing beds. Our solution to this problem can be used to save many lives of covid patients. Therefore, we have tried to address this problem with help of our project where the focus is to make sure that every covid patient gets a bed. We have achieved this by creating two apps one for users through which they can request a bed in a hospital and another one for hospitals where they can manage beds.

The objective of our app is to provide an efficient bed management system in this pandemic to save lives of covid patients.

METHODOLOGY: -

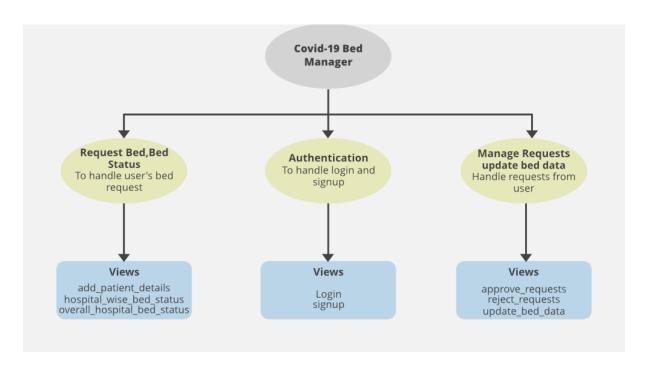


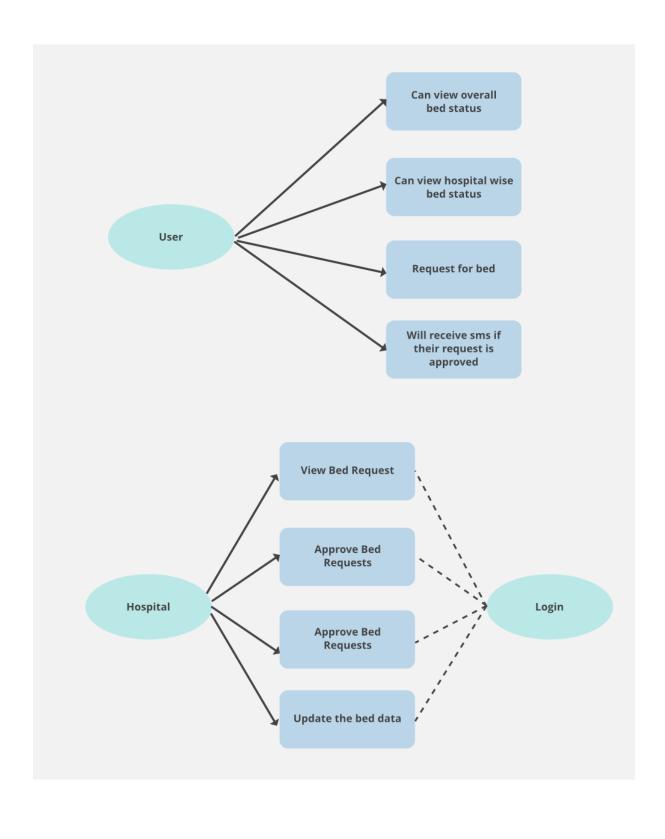
In this project implementation" of Python should be taken to mean a program or environment which provides support for the execution of programs written in the Python language, as represented by the Python reference implementation. There have been and are several distinct software packages providing of what we all recognize as Python, although some of those are more like distributions or variants of some existing implementation than a completely new implementation of the language. Back End (MySQL) Database: A Database Management System (DBMS) is computer software designed for the purpose of managing databases, a large set of structured data, and run operations on the data requested by numerous users. Typical examples of DBMSs include Oracle, DB2, Microsoft Access, Microsoft SQL Server, Firebird, PostgreSQL, MySQL, SQLite, FileMaker and Sybase Adaptive Server Enterprise. DBMSs are typically used by Database administrators in the creation of Database systems. Typical examples of DBMS use include accounting, human resources and customer support systems. Originally found only in large companies with the computer hardware needed to support large data sets, DBMSs have more recently emerged as a fairly standard part of any company back office.

SOFTWARE REQUIREMENTS:

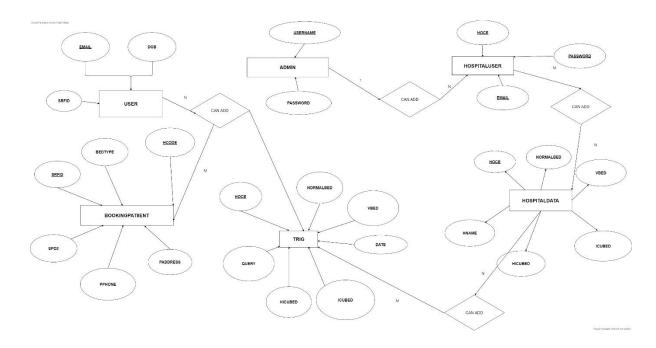
Frontend- HTML, CSS, Java Script, Bootstrap
Backend-Python flask (Python 3.7), SQLAlchemy,
☐ Operating System: Windows 10
☐ Google Chrome/Internet Explorer
☐ XAMPP (Version-3.7)
☐ Python main editor (user interface): PyCharm Community
□ workspace editor: Sublime text 3
HARDWARE REQUIREMENTS:
☐ Computer with a 1.1 GHz or faster processor
☐ Minimum 2GB of RAM or more
☐ 2.5 GB of available hard-disk space
☐ 5400 RPM hard drive
\square 1366 × 768 or higher-resolution display
□ DVD-ROM drive

DIAGRAM:-

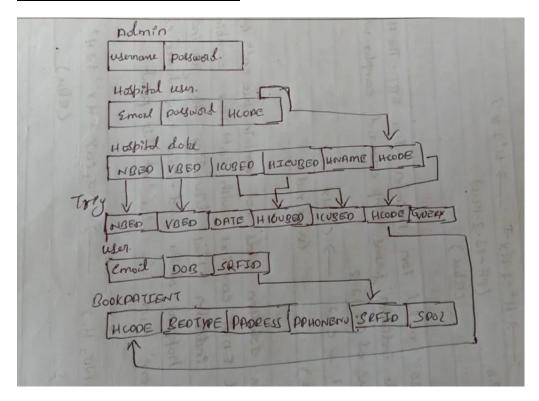




ER: -



RELATIONAL SCHEMAS



IMPLEMENTATION: BACKEND AND FRONTEND:

Frontend: -

Reasons:

There are many frameworks and libraries available for frontend development.

We have used HTML & CSS for the frontend development.

HTML (Hyper Text Markup Language) is the most basic building block of the Web. It defines the meaning and structure of web content. It was used in the frontend part of our project.

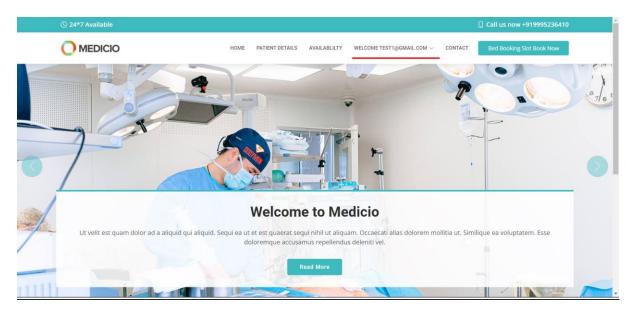
CSS can be used to make websites in the fastest and the easiest way. CSS is basically a utility-first CSS framework for rapidly building custom user interfaces. It is a highly customizable, low-level CSS framework that gives you all of the building blocks you need to build bespoke designs without any annoying opinionated styles you have to fight to override. This was used to give styling to our website.

Reasons:
#1 Easy to learn
#2 Rich user-interfaces
#3 Faster development
#4 Strong community support
Backend: -
SQL:
Structured Query Language (SQL) is the language used to manipulate relational databases.
SQL is tied very closely with the relational model.
\square In the relational model, data is stored in structures called relations or tables.
SQL statements are issued for the purpose of:
☐ Data definition: Defining tables and structures in the database (DDL used to create,
alter and drop schema objects such as tables and indexes).

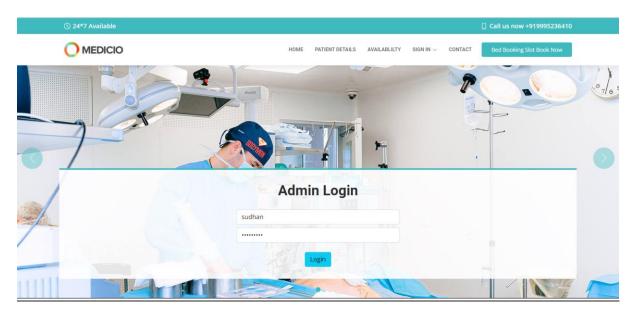
- #1 Fast and simple
- #2 Secure
- #3 It's well established and suits every web development project.

RESULT (SS OF DEMO):

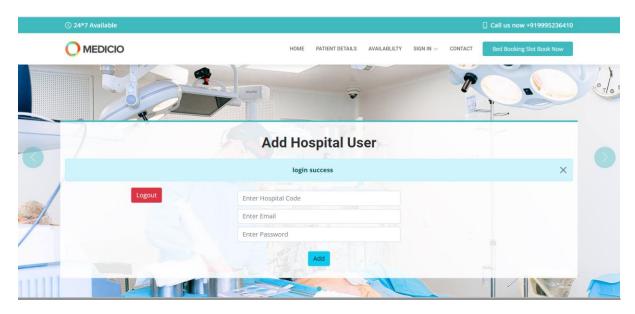
HOMEPAGE



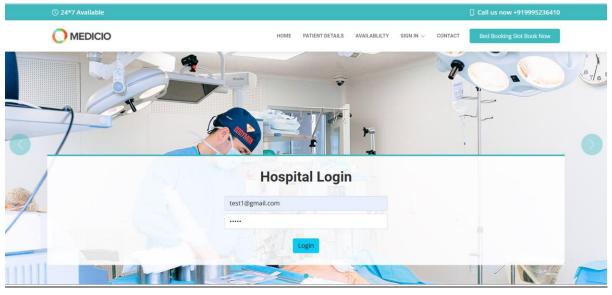
ADMIN LOGIN:



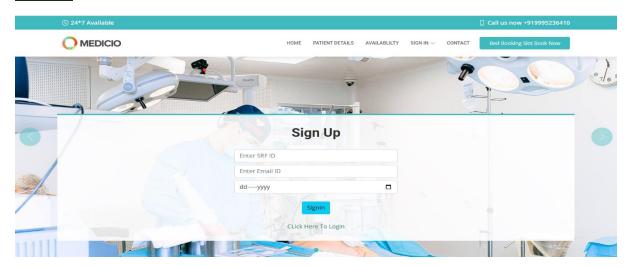
Add Hospital User:



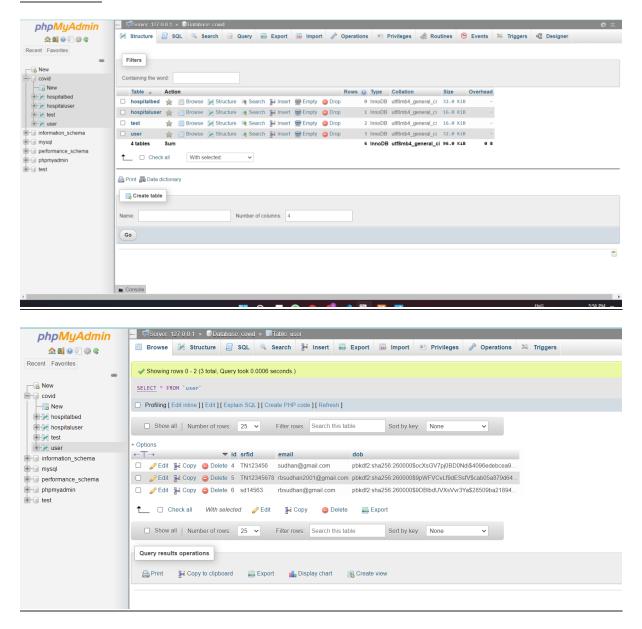
HOSPITAL LOGIN



SIGNUP



BACKEND:



CONCLUSION:

1. Easy Access to Customer Data

A well-implemented Covid bed slot booking system means, readily available data to the patients. It is only a matter of few clicks and all the requisite information about a bed, from various hospitals, can be available on the screen. If the doctor needs to re-check the test records of a patient, he/she need not go looking for the records file; logging in via the admin access will give her instant access to those reports and timely decisions are ensured.

2. Cost Effective

Covid bed slot booking system, when implemented well, cuts out on a lot of manual work that are essentially performed in hospitals, especially the ones where documentation and record keeping is required. It helps in cutting down manpower because a lot of work gets automated and does not require manual intervention to store or analyze the information. It also saves much on storage and the related costs.

3. Improved Efficiency

Processes automated using software would mean that the processes will be taken care of mechanically without any human intervention and this will instantly ensure improved efficiency. The software will not face human problems like fatigue, miscommunication or lack of focus; it will perform every task assigned to it with the same accuracy day in and day out.

4. Improved clinical decision-making

A good quality management system makes sure that the operational and clinical decision-making process is fast, accurate, and efficient. With an easy, single view availability of data points, doctors and medical support staff gets facilitated.

5. Improve data security

Experts have highlighted and reinforced those hospitals that rely on manual systems are more vulnerable to data theft and leakage than automated ones. A full-fledged hospital management system keeps every bit of information secure from unauthorized access.