Covid Tracking and Management System

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Outline

Overview

This project:

- allows customers to book vaccination appointments.
- allows customers to report covid cases.
- allows hospital staff to verify vaccinations.
- allows hospitals to view stats.
- allows hospitals to keep track of number of vaccines.
- gives information on covid cases and answers questions on covid vaccinations and symptoms.

Basic Information

The following information will be displayed on the home-page
(open to all)

Cumulative Data

Displays total cases, total deaths, total recoveries, new
case-load for the day.

Present Data

Displays number of active cases and closed cases.

Graphs

Graphically represents daily case-load, daily deaths, total cases,
total deaths.

Customer Functionalities 1

Sign Up + Sign In

Every user can sign up and access the website by giving Aadhar ID, username/email, password and details on vaccination and demographics. Registered users can then sign in and can do the following functionalities.

Self-Reporting

Any user that has tested positive can report himself/herself on the website. This allows hospitals to keep track of cases and assess the situation using vaccination status and demographic parameters.

Customer Functionalities 2

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Basic Information

Customer

Admin

Hospital

Hospital Staff

Implementation

Vaccination Appointment

Users can book appointments for vaccinations on a desired date. They will be given a list of hospitals that has sufficient vaccines to choose from. They will also be warned if their next dose is not yet due.

Update Vaccination Status

Users can update their vaccination status and date of last vaccination if they have obtained vaccination without using the website. This functionality will be prompted every time a user logs in, in order to keep data continuously updated.

Customer Functionalities 3

FAQ's and covid Info

This functionality helps the user use the website efficiently. The user will also be redirected to reliable webpages with accurate information on vaccines and covid symptoms.

Self-Assessment Test

This functionality helps the user to assess his risk of infection based on questions asked to the user.

Admin Functionalities

Manage Admins

Every admin can add and delete other administrators.

Manage Hospitals

Every admin can add and delete hospitals that can administer vaccines and access data using the website.

Hospital Functionalities

Re-stock Vaccinations

Every hospital can re-stock the vaccination inventory, to allow more people to get vaccinated.

Manage Hospital Staff

Every hospital can add and delete hospital staff. All staff will be deleted if the admin deletes the hospital.

Staff Functionalities

Mark Vaccinations

Every staff can update vaccination status of users who have booked a vaccine appointment, after administering the vaccine. This will automatically deduct a vaccine from the respective hospital's inventory.

Assess Data

Every staff can view cases in the vicinity of the hospital and view them by a demographic parameter (or) by their vaccination status.

Implementation

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Implementation

- The front-end will be implemented using HTML, CSS and JavaScript.
- The back-end will be implemented using Java and mySQL (for database management).
- The SQL database will consist of the following tables:
  1. Admin: Admin-ID, name, password
  2. Customer: Aadhar-ID, name, password, age, gender, vax-status, covid-status, death-status, date-of-last-vax
  3. Hospital: hospital-ID, name, password, vax-nos
  4. Hospital Staff (Referencing hospital-ID): hospital-ID, staff-ID, name, password
  5. Appointments: Hospital-ID, Aadhar-ID, Date-of-vax