RV College of Engineering®, Bengaluru – 59
Department of Information Science and Engineering
Introduction to Database Systems Laboratory (21CS53)

Synopsis

TITLE: HERBAL HELP		
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1. Introduction

Our database platform provides easily accessible information on diseases, symptoms, and home remedies, blending traditional wisdom with modern insights. It offers a user-friendly interface for those seeking natural solutions for minor health concerns. The structured database links diseases to symptoms and corresponding remedies, featuring detailed instructions and video resources. Emphasizing the use of natural ingredients and associated herbs, the project aims to create a community exploring safe home remedies while recognizing the importance of consulting a professional for serious health issues.

2. Existing System

Existing systems like WebMD and Natural Medicines Database cover a range of health topics, including diseases, symptoms, treatments, and some home remedies. They feature interfaces with articles, videos ensuring broad accessibility through online platforms and mobile applications.

However, these systems prioritize allopathic medication and treatment over herbal/ ayurvedic and home remedial medications. To a more organic and nature-based generation of patients that would want herbal treatments these systems fall short.

3. Proposed System

The proposed Herbal Health Management System adopts a holistic healthcare approach, offering detailed herb information for crafting home remedies. It emphasizes evidence-based practices through educational videos and establishes patient-doctor connections for personalized care. Seamlessly integrating with Ayurvedic pharmacies, the system optimizes medicine supply for clinics and facilitates the creation of personalized treatment plans. Alongside patient history and profile management, secure communication channels, and real-time medicine stock computation, the system includes tools for crafting home remedies using herbs. It employs data science to predict demand, issuing alerts and alternative pharmacy recommendations to prevent shortages. The user-friendly interface features a dashboard displaying stock levels and predictions, empowering clinics to make informed decisions. Privacy and security measures, regular machine

learning model updates, and scalability considerations contribute to a comprehensive system designed to enhance efficiency, patient outcomes, and overall healthcare experiences.

4. Relational Database Structure

- **patient**-patient_name-patient_id
- **doctor**-doctor_id-doctor_name-qualification-salary
- **medical_record**-record_id-illness
- **illness**-Illness_name-symptoms-category
- **treatment**-treatement_id-home_remedyname
- **home_remedy**-recipe
- **recipe**-herb-procedure-link
- **herb**-herb_id-local_name-scientific_name-image

5. RDBMS AND NoSQL Integration

The project utilizes NoSQL like mongoDB for storing images of the special medicinal herbs used in specific herbal treatments and maintaining a database for remedies. NoSQL databases often have built-in support for handling multimedia data, making it easier to integrate and work with images within the database environment. It also uses RDBMS like MySQL for querying data. This will facilitate easy and quick retrieval of information for users seeking specific details about diseases, their symptoms, and the corresponding remedies. Users can efficiently navigate and retrieve data through queries. It enables you to create tables for diseases, symptoms,etc. Each table can have relationships and connections to others, ensuring a systematic and organized database. RDBMS can handle the increased volume of data and users. This ensures that the system can expand without compromising on performance or data integrity.

6. Societal Concern

Herbal Help poses risks like inaccurate information, health concerns, legal, ethical, and cultural issues, and privacy lapses. Consequences include reliance on unverified remedies, delayed care, legal disputes, privacy breaches, and exclusion. Solutions involve validation, ethics, cultural awareness, security, and promoting medical advice for accuracy and transparency to minimize societal impact.

7. Innovative Experiment

We're developing a notification system that dynamically alerts the ayurvedic clinic when the pharmacy's inventory of medicines and herbs falls below specified levels. Using APIs for database integration, this system tracks and compares the clinic's requirements with current pharmacy stock. Automated alerts will be triggered if stock levels meet the clinic's demand thresholds. These notifications, sent via email, SMS, or a dedicated interface, enable timely actions to replenish dwindling stock, fostering efficient inventory management between the clinic and the pharmacy.