SATHVIC HEALTH—A Personalized Diet Recommendation Using Vata–Pitta–Kapha Classification Through a Questionnaire-Based Model

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Abstract—The rising need for individualized healthcare has spurred the amalgamation of conventional medical expertise with contemporary digital technologies. Ayurveda is one of the oldest holistic healthcare systems in the world. It focuses on treating each person based on their constitutional type, which is called Prakriti. These constitutions are mainly divided into three doshas: Vata, Pitta, and Kapha. These doshas affect a person's physical traits, metabolism, behavior, and dietary needs. This paper introduces Sathvic Health, a tailored Ayurvedic wellness management system that employs a questionnaire-based approach to ascertain an individual's predominant dosha and offer personalized dietary and lifestyle guidance. The suggested system uses a structured questionnaire based on traditional Ayurvedic ideas to look at users' physical and behavioral traits. A rule-based scoring system looks at each answer and figures out what the user's main dosha type is. The system makes personalized diet and health suggestions based on the classification results. These suggestions are meant to keep the body in balance and encourage preventive care. The application is a web-based platform that makes it easy for users to access the system and get health information right away. By using both traditional Ayurvedic diagnostic methods and modern web technologies, the system shows how digital platforms can help people manage their nutrition and lifestyle in a way that works for them. The proposed model enhances digital wellness solutions by advocating preventive healthcare, facilitating access to Ayurvedic guidance, and motivating individuals to embrace healthier lifestyle practices congruent with their natural body constitution.

Keywords—Ayurveda, Vata–Pitta–Kapha, Personalized Wellness, Dosha Classification, Questionnaire-Based Model, web application.

I. INTRODUCTION

With the fast development of web technology, it is possible to create intelligent and easily available health management systems, the quick growth of digital technology has drastically changed the healthcare industry. Through ongoing monitoring and recommendations, modern digital healthcare systems seek to offer individualized counsel that helps people maintain a healthy lifestyle and prevent diseases. In order to develop comprehensive healthcare systems that blend Ayurvedic knowledge with cutting-edge technical capabilities, there is also growing interest in fusing traditional medical knowledge with contemporary digital solutions. Ayurveda, one of the oldest traditional medical systems with Indian roots, is to preserve health by promoting harmony and balance inside the body. Ayurvedic philosophy holds that each person has a distinct body constitution known as Prakriti, which is based on the relative dominance of three basic biological forces known as doshas: Vata, Pitta, and Kapha. A person's physical attributes, metabolism, digestion, emotional conduct, and general health are all influenced by these doshas. It is said that maintaining equilibrium

between these doshas is crucial to attaining ideal health and avoiding illness. However, without professional advice, many people struggle to correctly determine their body constitution and adhere to healthy eating and lifestyle habits. Most existing digital health applications focus mainly on general fitness tracking and do not incorporate traditional Ayurvedic body classification or personalized wellness guidance. This research introduces Sathvic Health, a personalized Ayurvedic health management system aimed at helping users determine their predominant dosha and obtain tailored health suggestions. The system gathers user data on physical characteristics, behavioral patterns, and lifestyle habits using a questionnaire-based classification model based on Ayurvedic principles. Users are categorized into one of the three dosha categories—Pitta, Kapha, or Vata—by a rule-based scoring system. The system creates individualized food recommendations and wellness advice based on the detected constitution with the goal of preserving internal equilibrium and promoting preventative healthcare. The technology, which is implemented as a web-based platform, offers customers an interactive and easily accessible interface for gaining customized Ayurvedic health insights.

II. LITERATURE REVIEW

Various scholars have investigated web technologies for their application in developing healthcare management systems. Jain et al. [1] emphasized how they may facilitate centralized medical record administration, reduce paperwork, and improve data accessibility. Their study showed that by making it easier to store and retrieve patient data, digital platforms may greatly improve the effectiveness of healthcare organizations. Similar to this, Singh and Kumar [2] looked at how hospital management systems are implemented and stressed the value of automation in patient record management and appointment scheduling. According to their findings, automated technologies can increase operational efficiency and reduce human labor in healthcare settings. Another crucial component of healthcare apps is security. In their analysis of web application security in healthcare systems, Sharma et al. [3] emphasized the significance of data protection measures and secure authentication to protect sensitive patient data. A role-based access control paradigm for healthcare online applications was suggested by Mehta and Shah [4] in a related research to guarantee safe communication between administrators, physicians, and patients. Their strategy showed how organized access control techniques might improve system security while preserving effective stakeholder interaction. Researchers have looked on the integration of healthcare information systems in addition to healthcare management systems. Security, scalability, and effective data management were noted as the main issues with contemporary healthcare technology by Verma and Malhotra [5] in their assessment on hospital information systems. Centralized databases increase data consistency and decrease redundancy in medical records, according to Chen et al.'s [6] deeper investigation of the function of online technologies in healthcare data management. Personalized healthcare research has also focused on ancient medicinal systems like Ayurveda, in addition to digital healthcare management. Lad [7] asserts that determining a person's dominant dosha is crucial for suggesting suitable eating habits, lifestyle choices, and preventative medical measures. The use of structured questionnaires to determine Ayurvedic body constitution has been investigated in a number of research studies. To distinguish Prakriti kinds, Prasher et al. [8] created a categorization model based on physiological and behavioral characteristics. Their study showed that Ayurvedic body constitution may be accurately determined using questionnaire-based models, which can then be used to support individualized healthcare recommendations. The combination of digital technology with Ayurvedic principles has also been studied recently. The possibility of integrating Ayurveda with contemporary information technologies to increase accessibility to traditional medical knowledge was covered by Patwardhan et al. [9]. The significance of creating digital tools that can assist people in comprehending their body constitution and adopting appropriate health behaviors was highlighted by their research. In contemporary healthcare research, personalized nutrition guidance systems have also been extensively examined. Numerous digital health systems analyze user data and offer personalized nutrition recommendations using rule-based models or questionnaire-based techniques. By offering suggestions that are in line with their physiological traits and lifestyle habits, these systems assist people in adopting healthier lives. There are still few integrated digital platforms that combine Ayurvedic dosha categorization with automated food recommendation models, despite the fact that several research projects have looked into Ayurvedic bodily constitution and personalized diet recommendation systems separately. Sathvic Health, a web-based Ayurvedic wellness management system that uses a questionnaire-based classification model to identify a person's dominant dosha and offer tailored diet recommendations based on the Vata–Pitta–Kapha framework, is proposed in this study to fill this research gap.

III. EXISTING METHODOLOGY

The current approaches to managing nutrition and health primarily rely on manual consultations with medical specialists or basic dietary guidelines. In many traditional systems, people contact directly with Ayurvedic practitioners to get dietary and lifestyle suggestions. To ascertain the person's body constitution, this procedure usually entails verbal evaluations and physical tests (Prakriti). Such manual evaluation techniques are time-consuming, subjective, and difficult for a wide population to access, notwithstanding their effectiveness. Similar to this, the majority of contemporary digital health apps offer food recommendations based on fundamental factors like age, weight, and exercise objectives. But these approaches frequently overlook conventional medical frameworks like Ayurveda's Vata-Pitta-Kapha categorization. Because of this, the suggestions might not be tailored to each person's physiological and behavioral traits. Ayurvedic evaluations are frequently documented by hand or using basic forms without adequate digital integration. This might result in inconsistent data storage, restricted accessibility, and a lack of automation when creating customized diet regimens. Furthermore, the

majority of current solutions do not offer a single platform that combines computerized meal recommendations with Ayurvedic body constitution analysis. Thus, it is necessary to have a structured digital system that can precisely determine body constitution using questionnaire-based models and offer tailored food suggestions.
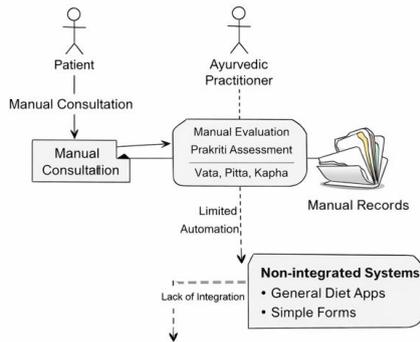

Fig. 1. Architecture of the Existing System

IV. PROPOSED METHODOLOGY

The proposed "SATHVIC HEALTH—A Personalized Diet Recommendation Using Vata–Pitta–Kapha Classification Through a Questionnaire-Based Model" aims to create a centralized web-based application that integrates cutting-edge digital technologies with ancient Ayurvedic principles. Using a questionnaire-based methodology, the system seeks to identify a person's physical constitution (Prakriti) and offer tailored dietary and lifestyle suggestions based on the prevailing Vata, Pitta, or Kapha dosha. The system's architecture is intended to offer a consolidated, user-friendly health management platform that makes it simple for users to obtain their own wellness data. The two main roles in the system are administrator and user. To guarantee effective operation and safe platform administration, each position is given particular functions. People may register, log in, do the Ayurvedic questionnaire, see the findings of their dosha classification, and get customized exercise and diet regimens through the User module. Through the dashboard, users may also keep an eye on their health-related activities, such as tracking their habits, exercise intensity, and diet consistency.

The system's backend functions are overseen by the administrator module. The administrator has the ability to monitor exercise suggestions, update food programs, keep track of user information, and guarantee that the data on the platform is correct and compliant with Ayurvedic wellness standards. A centralized database houses all of the system's data, guaranteeing safe data management and effective user information retrieval. To provide an efficient digital wellness platform, the suggested system integrates dosha categorization algorithms, questionnaire analysis, and tailored recommendation systems. The Sathvic Health system gives customers an easily accessible tool for comprehending their bodily composition and implementing healthy living practices by fusing ancient Ayurvedic knowledge with a contemporary web application platform.
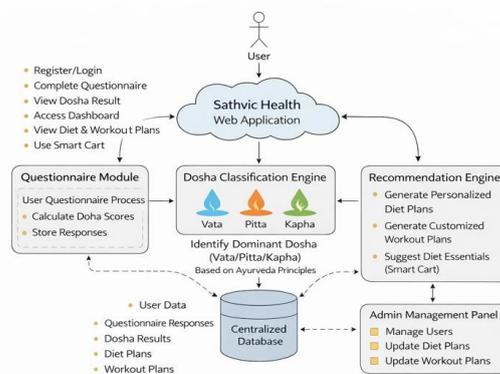

Fig. 2. Architecture of the Proposed Sathvic Health System

MODULES
1.User module:
The Sathvic Health system's main interface, the Home Page module, gives users a rundown of the platform's features. It acts as a gateway where users may access different functions including registration, login, and health assessment, as well as comprehend the system's goal.

Fig. 1. Sathvic Health Home Page Interface

Users can safely access the Sathvic Health system using the Registration and Login module. In order to establish an account, users must enter their name, email address, and password during the registration process. A distinct user profile is created by safely storing the input data in the system database. Only those who are permitted may use the system thanks to the login mechanism, which authenticates registered users. After successfully logging in, individuals may obtain individualized health advice and finish the Ayurvedic questionnaire. This module shields user data from unwanted access and guarantees safe access control.
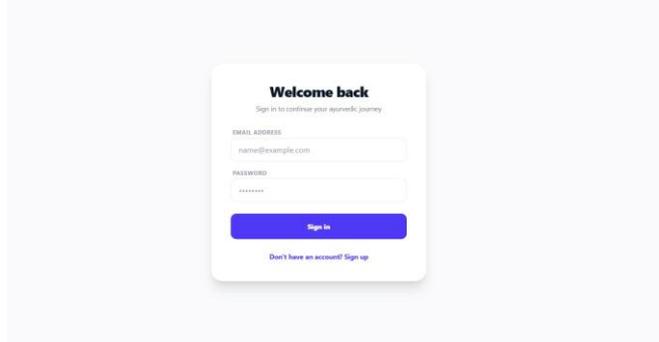
Fig. 2. User Registration and Login Interface

2.Dosha Questionnaire module:

The purpose of the Questionnaire module is to gather data on the user's physical attributes, lifestyle choices, patterns of digestion, and behavioral features. These inquiries assist ascertain the user's physical constitution and are based on Ayurvedic concepts. Users choose the alternatives that most accurately reflect their traits, and the answers are noted and kept in the database. In order to determine the user's dominant dosha type and provide tailored health suggestions, the questionnaire is essential.
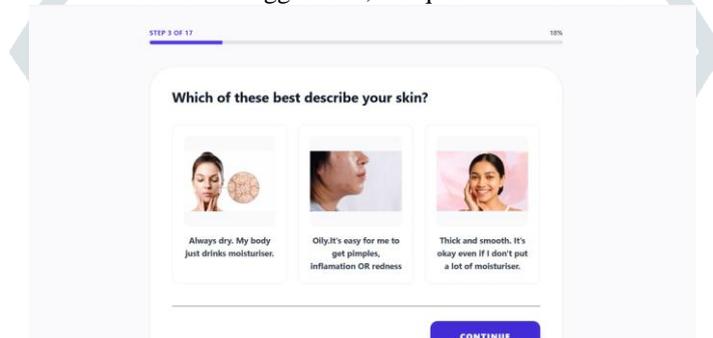

Fig. 3. Dosha Questionnaire Interface

3. Dosha Classification Module:

The Dosha Classification module determines the user's dominant dosha by analyzing the questionnaire replies. Based on the chosen answers, the algorithm determines Vata, Pitta, and Kapha scores. The system identifies the prevailing body constitution after analyzing the replies and presents the findings to the user. The categorization result serves as the basis for customized dietary and lifestyle recommendations and aids users in understanding their innate body characteristics.
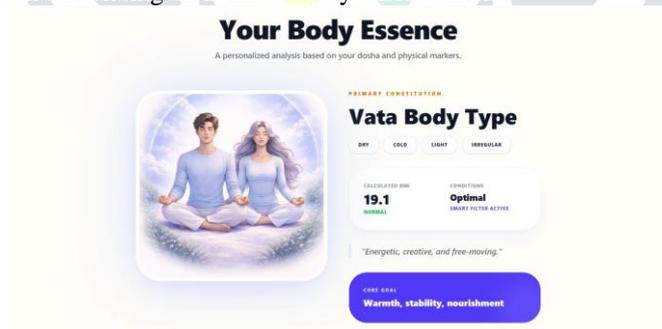

Fig. 4. Dosha Classification Result Page

4. Dashboard Monitoring Module:

Users may get a visual summary of their wellness journey on the site using the Dashboard feature. It shows a number of health indicators, including exercise duration, total habits maintained, workout intensity tracking, and food consistency tracking.This module encourages users to continue leading healthy lifestyles and assists them in tracking their progress. Users may stay balanced and consistent in adhering to the suggested wellness regimens by keeping track of their daily activities.
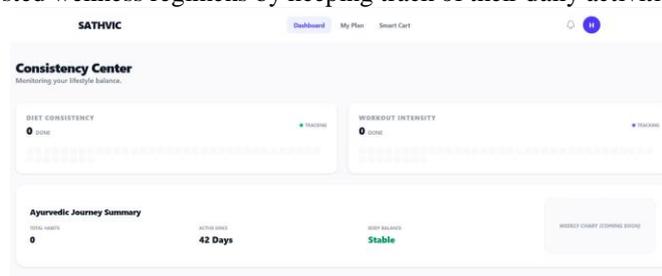

Fig. 5. Personalized Health Dashboard

5. Personalized Plan Module:

Based on their determined dosha type, the My Plan feature offers customers personalized health suggestions. In order to balance the user's physical constitution, the system creates a customized food and exercise regimen that complies with Ayurvedic principles. These suggestions assist users in adopting body-type-appropriate physical activity and improved eating habits. By encouraging users to stick to a disciplined and balanced lifestyle plan, the module encourages long-term wellbeing.
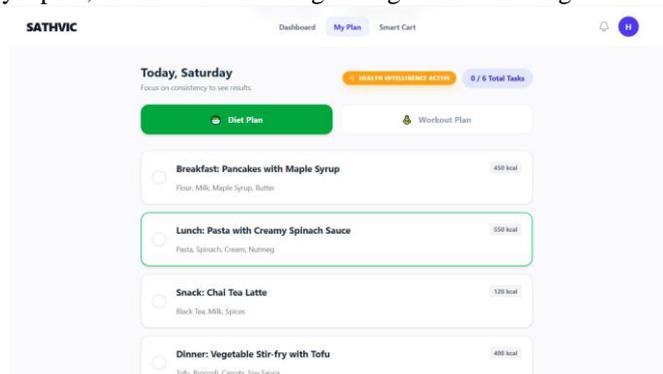
Fig. 6. Personalized Diet and Workout Plan

6. Smart Cart Module:

The Smart Cart module recommends foods that are necessary to stick to the suggested diet plan. The system presents a list of items and dietary necessities that users would require to sustain their nutritional regimen based on the tailored diet suggestions. This feature makes it easier for users to keep a healthy Ayurvedic diet by making it easy for them to find the foods that are appropriate for their body constitution.
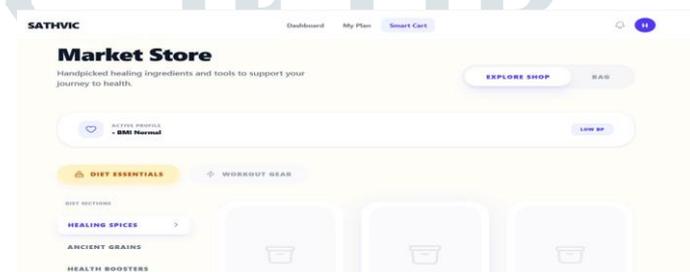

Fig. 7. Smart Cart – Diet Essentials

V. RESULTS AND JUSTIFICATIONS

By combining Ayurvedic principles with present online technology, the implementation of the planned Sathvic Health System shows notable advantages in offering individualized health assistance. By evaluating answers gathered from a structured questionnaire and categorizing them into one of the three main Ayurvedic doshas—Vata, Pitta, or Kapha—the technique effectively ascertains a person's physical constitution. Without having to speak with an Ayurvedic physician directly, customers may quickly determine their dominant bodily constitution thanks to the automated questionnaire-based analysis. This method preserves the core ideas of Ayurvedic health evaluation while simplifying the traditional assessment procedure. Users may therefore become more conscious of their body type and comprehend how their diet and way of life impact their general health. The method assists users in adopting balanced and healthier lifestyle practices by offering tailored nutrition and exercise suggestions based on the determined dosha type. By enabling users to monitor their daily health behaviors, exercise intensity, and food consistency, a dashboard monitoring system enhances the user experience even further. This tool motivates users to keep up consistent wellness practices and efficiently track their advancement. The system's degree of confidence in identifying the user's dominant dosha based on their questionnaire answers is shown in the User Confidence Score graph. By examining the percentage of answers linked to each dosha type, the confidence score is determined. A greater confidence level means that the algorithm has determined that a specific dosha is strongly dominant in the user's physical constitution.

Fig. 1. User Confidence Score

The comparative distribution of Vata, Pitta, and Kapha scores produced by the system based on user replies is shown in the Dosha Confidence Score graph. The degree to which a certain dosha affects the user's physical constitution is represented by each score.
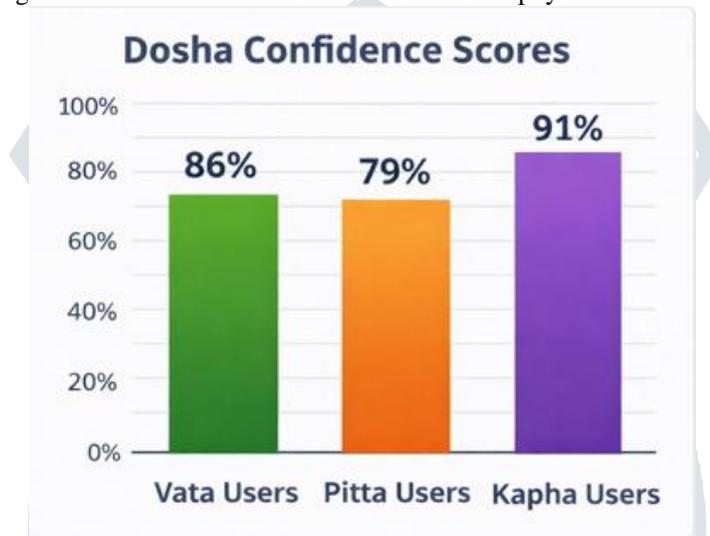

Fig. 2. Dosha Confidence Score

Overall, the results show that the suggested Sathvic Health system successfully connects current digital technology with ancient Ayurvedic knowledge. The method makes Ayurvedic health advice more accessible and encourages a more organized and practical approach to leading a balanced and healthy lifestyle by automating dosha categorization and providing tailored wellness recommendations.

VI. CONCLUSION

In the paper, The creation of Sathvic Health, an online Ayurvedic wellness management system that offers individualized health advice based on the Vata–Pitta–Kapha bodily constitution categorization, was the focus of this article. Through a structured questionnaire-based paradigm, the system combines Ayurvedic principles with contemporary online technology to assist users in determining their dominant dosha and provide personalized dietary and lifestyle advice. In order to assist customers in maintaining and tracking their overall wellness activities, the platform also offers a number of additional functions, including a health dashboard, habit tracking, food consistency monitoring, and workout intensity tracking. These characteristics assist people to retain balance in their daily activities and choose better lifestyle choices. In addition, the web-based design minimizes data redundancy and enhances accessibility by ensuring the safe administration and storage of user data via a centralized database. From any internet-enabled device, users can easily access their wellness suggestions, diet plans, and health information. All things considered, the suggested Sathvic Health system effectively unites traditional Ayurvedic knowledge with present digital healthcare technology. The system offers a user-friendly, organized, and accessible platform that supports individualized wellness management and motivates people to lead healthy, balanced lives.For further enhancement of the system's accuracy and usability, future enhancements may incorporate wearable device integration, real-time health data, mobile application compatibility, and AI-based recommendation models.

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