Healthsphere: Intelligent Health Companion

A PROJECT REPORT

Submitted by,

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Under the guidance of,

Dr. Madhusudhan M V

in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING

(DATA SCIENCE)

at

PRESIDENCY UNIVERSITY

BENGALURU

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PRESIDENCY UNIVERSITY

SCHOOL OF COMPUTER SCIENCE ENGINEERING

CERTIFICATE

This is to certify that the Project report **"Healthsphere: Intelligent Health Companion"** being submitted by "**K Pavadharani, Khushi S M, Akshatha C**" bearing roll number(s) "**20211CSD0127, 20211CSD0045, 20211CSD0115**" in partial fulfilment of requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering is a Bonafede work carried out under my supervision.

20/1/25

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DECLARATION

We hereby declare that the work, which is being presented in the project report entitled **"Healthsphere"** in partial fulfilment for the award of Degree of **Bachelor of Technology in Computer Science and Engineering**, is a record of our own investigations carried under the guidance of **Dr. Madhusudhan M V, Associate Professor, School of Computer Science Engineering, Presidency University, Bengaluru.**

We have not submitted the matter presented in this report anywhere for the award of any other Degree.

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ABSTRACT

The "Heathsphere" is a comprehensive web-based solution designed to help individuals monitor and improve their overall health through personalized insights and recommendations. By leveraging advanced technologies such as machine learning and API integrations, the application enables users to track their daily nutrition, hydration, and physical activities effortlessly. Users can input details about their meals, water intake, and physical data, such as height and weight, to receive detailed analyses of their nutritional intake, including calories, proteins, carbohydrates, vitamins, and minerals.

The application identifies potential deficiencies in essential nutrients, predicts related health risks, and offers tailored suggestions for dietary and lifestyle improvements. Additionally, it tracks water consumption, provides hydration reminders, and monitors physical activities using Google Fit API to estimate calories burned. By integrating diverse metrics into a unified platform, the Healthsphere simplifies complex health data into actionable insights, empowering users to achieve fitness goals, maintain balanced diets, and prevent diseases caused by nutritional imbalances. This innovative tool addresses the challenges of busy schedules, lack of nutritional awareness, and data accessibility, making it a valuable asset for promoting healthier lifestyles.

This project addresses the growing need for an efficient and user-friendly platform that simplifies health tracking and promotes well-being. By analyzing data over time, the app identifies patterns in user behaviour, such as recurring nutrient deficiencies or irregular hydration habits, and provides proactive recommendations to mitigate potential health risks. It integrates machine learning to deliver precise, real-time insights, enhancing its capability to offer personalized dietary suggestions and exercise plans tailored to individual needs.

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