ARTICLE

DESIGN AND DEVELOPMENT OF AN INTELLIGENT FITNESS TRACKING AND RECOMMENDATION SYSTEM

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The rapid advancement of technology has shifted app development from hardware-based to software-driven systems, transforming operations for industries and individuals worldwide. Modern companies increasingly invest in technology-focused, personalized products powered by Artificial Intelligence (AI), Machine Learning (ML), big data, analytics, and cloud computing. Among the most impactful innovations is the intelligent ecosystem of wearable devices, which significantly enhances global health and well-being. AI and ML form the core of decision-making in these systems, extending their use beyond simple activity tracking. This research paper presents the concept of a socially engaging fitness tracking and advising mobile application that integrates both physical and mental health features. The study identifies essential components of an effective health-centered web application and emphasizes the unification of multiple health functions into a single platform. The proposed system, including a mental wellness module, was designed and tested for usability, with the study focusing on its applicability to the Taiwan market.

Usage as Mental Health App: To keep the users informed about the daily reports, the web service has to connect with a fitness device even though the phone sensors can just track steps. The data from all sensors is gathered and, after the syncing is done, eventually being examined making the users able to check the general health metrics and get the daily comparison served through the system's interactive interface.

Conclusion

The fitness and healthcare mobile app industry has indeed seen a rapid growth due to the release of more advanced and secure technologies. However, the process of bringing in multiple features into a single application is not easy but still can be done. A lot of users are eager to improve their health but, sometimes, are reluctant to take action, consequently, looking for one app that would cater to all their health needs. Older adults are particularly in need of health information they can trust and apps with easy navigation. According to this research, the available mobile health solutions are group-specific and have some significant shortcomings. We have come up with FIT+ TRACKER, an all-in-one solution that will be available in the near future, by identifying and closing these gaps. ❐

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