TITLE

BAYMAX: An Intelligent Integrated System for Smart Medical Assistance

Abstract

Accessing timely healthcare services is often challenging due to lack of medical awareness, difficulty in finding suitable doctors, long waiting times, and scattered healthcare resources. BAYMAX is an intelligent, user-centric system designed to simplify healthcare access by integrating doctor recommendation, appointment booking, pharmacy assistance, navigation, health guidance, and emergency support into a single platform. The system allows users to enter their illness, based on which it recommends nearby specialized doctors and displays the number of patients currently waiting. Users can select a doctor and book appointments online, reducing waiting time and manual effort. The system also identifies nearby pharmacies where prescribed medicines are available and displays their prices, eliminating the need to search multiple medical stores. Integrated map services provide navigation routes to hospitals and pharmacies. A medicine library is included to offer information on medicine usage and requirements. Premium features such as video consultation enable remote interaction with preferred doctors, while prescription-based medicine reminders ensure timely medication intake. Additional intelligent modules include illness suggestion through user prompts and a personal health trainer that provides basic fitness and diet guidance using a conversational bot. An SOS mode supports emergency situations by displaying emergency contact numbers and alerting nearby emergency services. A personalized health dashboard can be included to present an overview of appointments, reminders, and health activities. By combining intelligent recommendations, healthcare navigation, medical knowledge, fitness support, and emergency assistance, the Healthcare Assistant aims to enhance healthcare accessibility, improve patient convenience, and support efficient medical service delivery.