

HER HEALTH:AI-POWERED HEALTH COMPANION

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Keywords:

ML-Based Health Assessment System, AI-Powered Personalized Recommendations, Healthcare Decision Support System, Speech-to-Text & Text-to-Speech Integration, Real-Time Data Processing.

Introduction:

1. Women's health issues such as PCOS, PCOD, and Breast Cancer are often overlooked due to lack of awareness, social stigma, and limited access to proper healthcare guidance. Many existing solutions are not user-friendly and fail to provide personalized support, especially for users with low literacy levels.
2. The **Her Health: AI-Powered Health Companion** is a mobile application designed to address these challenges using machine learning-based symptom analysis. The system evaluates user inputs and provides AI-driven health tips and personalized recommendations after assessment, helping users understand their health conditions better.
3. With features like multilingual support, voice interaction, and a simple interface, the application ensures accessibility and ease of use. Overall, the project aims to promote early detection, improve awareness, and support women in making informed health decisions.

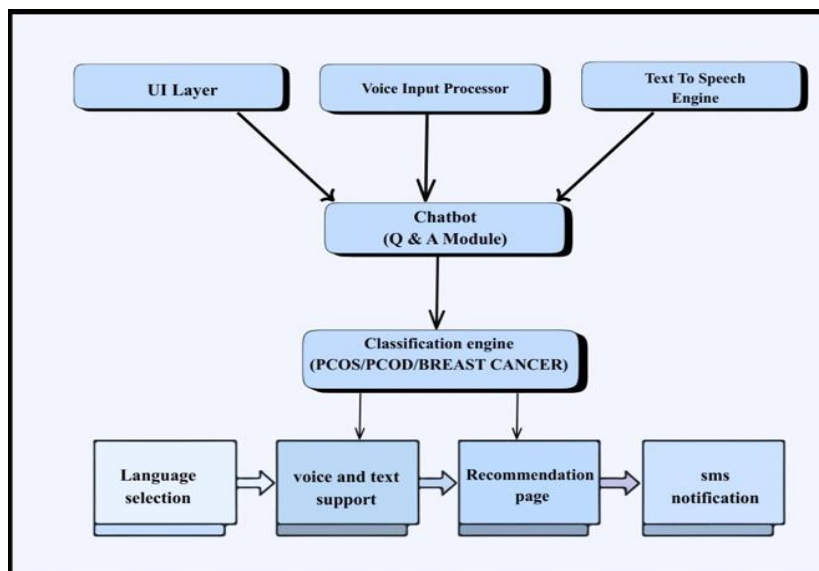


Figure 1: System Architecture of the Her-Health Application

Objectives:

1. To develop an AI-based system that analyzes symptoms and provides personalized health recommendations for conditions like PCOS, PCOD, and Breast Cancer.
2. To implement multilingual and voice-based interaction for better accessibility and ease of use.
3. To provide AI-driven health tips and awareness content to improve understanding of women's health.
4. To ensure secure data handling and user privacy while delivering reliable healthcare support.

Methodology:

The system starts with user login, followed by symptom collection via text or voice. The data is processed using machine learning algorithms to predict possible health conditions. Based on the results, the system provides personalized recommendations and stores the data for tracking and future analysis. Visualization tools help users monitor their health, while alerts and emergency features ensure continuous support.



Figure 2: Methodology and Workflow of Her-Health Application

Result and Conclusion:

In conclusion, The HER HEALTH project successfully addresses the problem of late detection and lack of awareness of menstrual disorders such as PCOS, PCOD, and Breast Cancer. To solve this issue, an AI-powered mobile health application was developed that enables users to enter symptoms through text or voice, receive possible disorder classification, and obtain personalised health guidance in a simple and secure way. The system integrates AI-based health assessment, a multilingual chatbot, period tracking, health tips, SMS alerts, and emergency contact support into a single platform. The main outcome of this project is the creation of a fully functional, user-friendly prototype that supports early detection, faster guidance, and continuous user engagement. The application improves accessibility for women across different literacy levels and encourages proactive health monitoring.

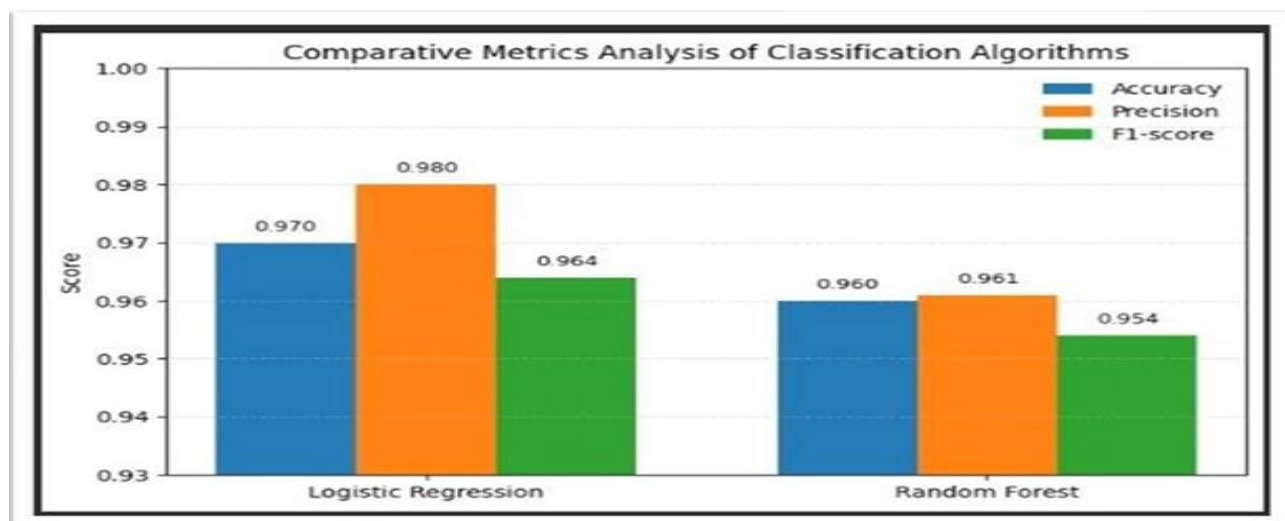


Figure 3: Comparative Metrics Analysis of Classification Algorithms

References:

Dharshini R., Indu Shree S. C., Keerthana V., Kilar I. Bhavana and Mrs. Divya U. H. (2025). "Her Health: An AI-Based Multilingual Symptom Assessment System for Early Screening of Women's Health Disorders". INTERNATIONAL JOURNAL OF COMPUTER APPLICATION (IJCA), vol. 15, no. 6, 2025, pp. 251-257. DOI:<https://dx.doi.org/10.5281/zenodo.18042955>

Future Scope:

The future scope of this project includes:

1. **Offline Functionality:** Enable the app to work without internet using on-device processing for symptom analysis and recommendations.
2. **Local Data Storage:** Store essential data locally to ensure continuous access to health services in low or no network areas.
3. **Doctor Connectivity:** Integrate features to connect users with gynecologists for consultation, guidance, and emergency support.