Intellectual System For E-Health

Final Year Project (2020-2024)
Department of Computer Science
COMSATS University Islamabad, Attock Campus

Introduction

Disease-Prediction Using Machine Learning is to predict the accurate disease of the patient using all their general information the symptoms. it's a companion dedicated to ensuring that you have the tools and information you need to live a healthier, more informed life.


TAKE CARE OF YOUR HEALTH

Motivations

- Reduce the number of hospital visits.
- Reduce number of preventable deaths.
- Improve health outcomes of individuals.
- Reduce the burden of healthcare costs.
- Promote healthy behaviors and lifestyle.
- Develop innovative healthcare solutions.
- Provide support for people with chronic diseases. Also Improve patient provider communication.

System Background

There are some problems with the existing systems which are identified below:

- Existing healthcare services are often limited in accessibility and lack personalization.
- Traditional healthcare approaches focus on reactive treatment rather than proactive prevention.
- Fragmented healthcare data and limited patient engagement hinder effective healthcare management.

Architecture
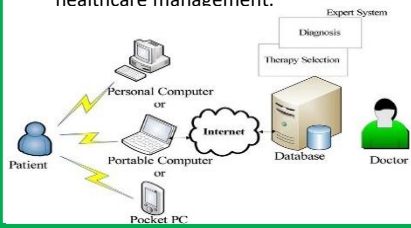
Different Tab's
Emergency
First-Aid
Health
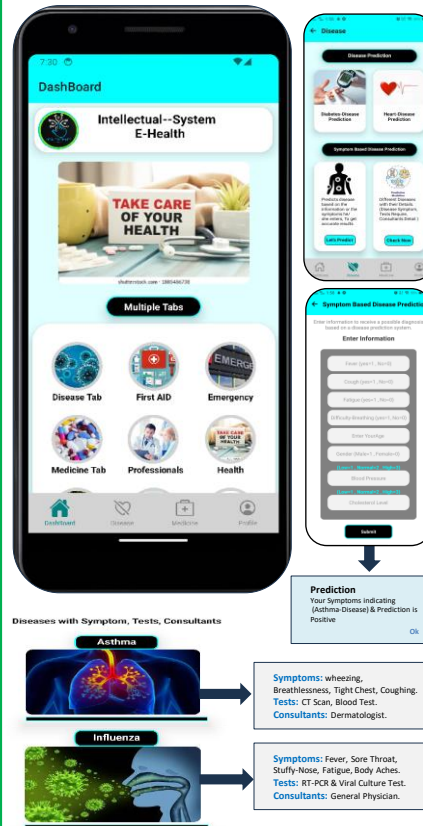Diet
Exercise
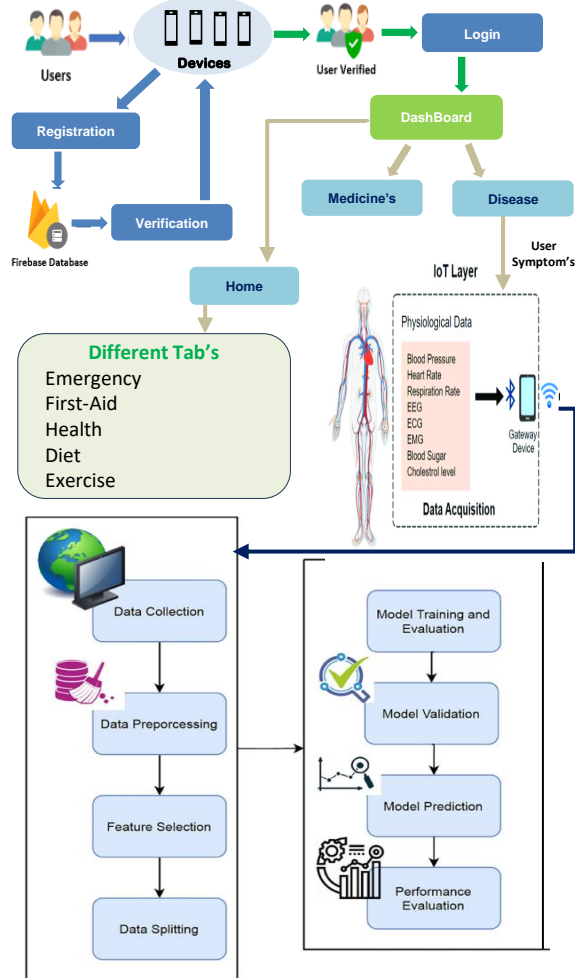
Objectives

- Early identification of potential health risks
- Empowered individuals taking charge of their well-being
- Prepared for any health situation
- Continuous improvement and expansion
- Personalized & convenient health management services

Results

User Application
Dashboard where multiple Screen's

On Disease Tab user give Symptom and Model will predict Disease

Diseases with Symptom, Tests, Consultants

Asthma
Symptoms: wheezing, Breathlessness, Tight Chest, Coughing.
Tests: CT Scan, Blood Test.
Consultants: Dermatologist.

Influenza
Symptoms: Fever, Sore Throat, Stuffy-Nose, Fatigue, Body Aches.
Tests: RT-PCR & Viral Culture Test.
Consultants: General Physician.

Conclusion

The system has the potential to significantly improve the lives of its users by providing them with convenient and personalized access to a variety of healthcare services.

The symptom-based disease prediction model, diabetes disease prediction model, and heart disease prediction model can help users identify potential health problems early on and get the care they need.

The app also provides users with information on diet, health, exercise, first aid, emergencies, and medicine tabs. This information can help users make informed decisions about their health and well-being.

Future Directions

- The system is committed to boosting accuracy, adding features, and broadening coverage.
- The app's prediction models will be enhanced through machine learning and data collection.
- New features will include a personalized health plan, medication reminders, and virtual doctor consultations.
- The app will continuously utilize machine learning and AI to address the evolving needs of its users.

Members

Name: *Shahid iqbal* **Reg No:** *SP20-BCS-008*
Email: *Shahidiqbalofficial.is@gmail.com*

Supervisor
Mr. Umar Zia

Co-Supervisor
Mr. Waseem khan