

Diagno Guide

Addressing need ...



Abstract

- Quick and Accurate Disease Prediction based on symptoms and personal details.
- Personalized Medication Recommendations tailored to individual factors and predicted diseases.
- User-friendly interface for easy input of details and symptoms, making it easy and smooth for users.

Introduction

- Our project seeks to transform disease diagnosis by utilizing Machine Learning methods (handling high-dimensional data, adapting to new information).
- Providing Personalized Treatment Recommendations .
- Considering individual factors, tailoring medical approaches to each patient's specific needs.

Limitations of Existing System

- Treatment recommendations are often generalized and not personalized to the patient's individual needs.
- Limited availability and long wait times for healthcare professionals, leading to delayed diagnosis and treatment.
- Misdiagnosis and errors in diagnosis leading to incorrect treatment plans

Proposed System

- Aims to address the limitations of the existing system by analyzing user symptoms to accurately predict diseases based on user-provided symptoms.
- Personalized treatment recommendations based on individual factors-details for the predicted disease.
- Offers a user-friendly interface for effortless data input of symptoms and personal details.

Working

I. User Profiling

Capture key user details like age, gender, and alcohol use. For pregnant users, note pregnancy status and trimester. Also, collect concise information on experienced symptoms for a comprehensive understanding.

2 . Symptoms Analysis

Examine symptoms and offer the option to inquire about disease description and precautions for a more thorough understanding.



Working

3. Predictive Medication Recommendations

Leveraging a predefined medication database, we offer personalized recommendations based on predicted diseases derived from user details. Additionally, we reveal anticipated health issues and suggest suitable medications.

4. Healthcare Navigation

Post medication recommendations, we facilitate users by directing them to nearby hospitals featuring specialists aligned with their specific medical condition.

Sample Output

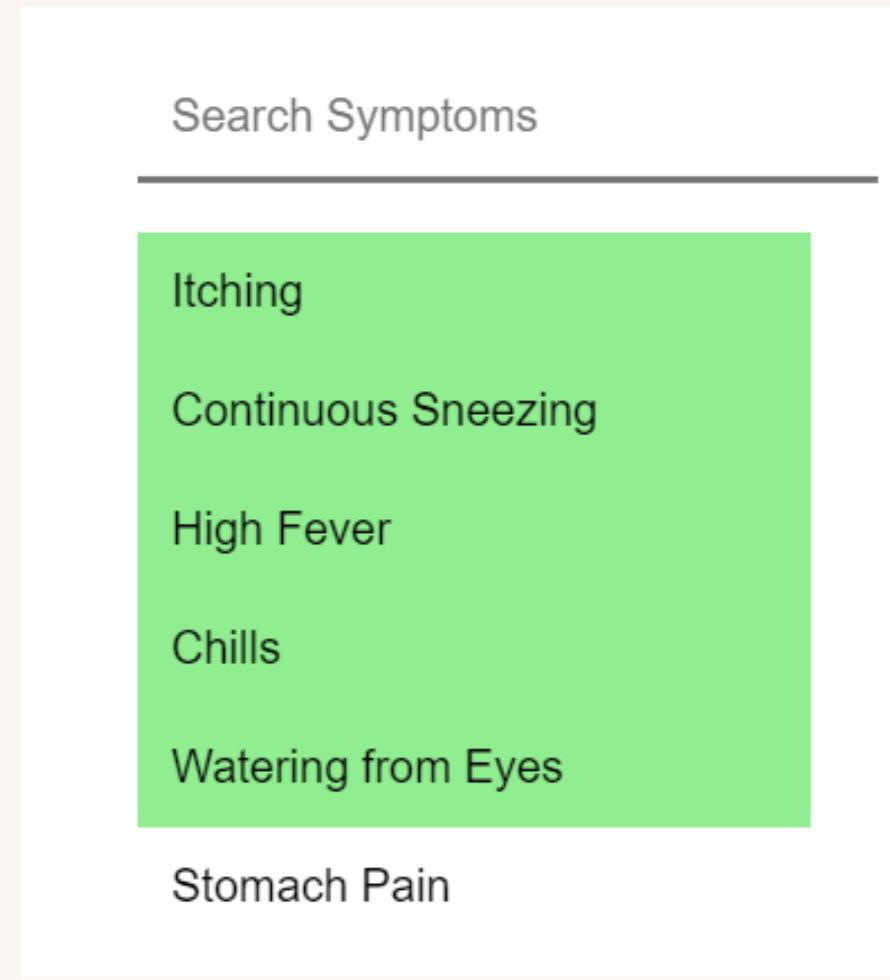


Fig.1

Sample for selecting symptoms

The screenshot shows a mobile application interface titled "Patient Symptoms Disease Medication". Below the title, it says "Based on the given symptoms: **itching, continuous_sneezing, high_fever, chills, watering_from_eyes**". It then lists four disease possibilities with their probabilities and a "Get Precautions" button:

- Possibility of having 'Allergy i' **53%**
as probability is below THRESHOLD--we recommend you to consult **Dermatologist**
Get Precautions
- Possibility of having 'Fungal infection i' **15%**
as probability is below THRESHOLD--we recommend you to consult **Dermatologist**
Get Precautions
- Possibility of having 'Jaundice i' **9%**
as probability is below THRESHOLD--we recommend you to consult **Gastroenterologist**
Get Precautions
- Possibility of having 'Drug Reaction i' **8%**
as probability is below THRESHOLD--we recommend you to consult **Allergist**
Get Precautions

At the bottom of the screen are two buttons: "Back" on the left and "Next" on the right.

Fig.2

Sample output for Disease prediction

Sample Output

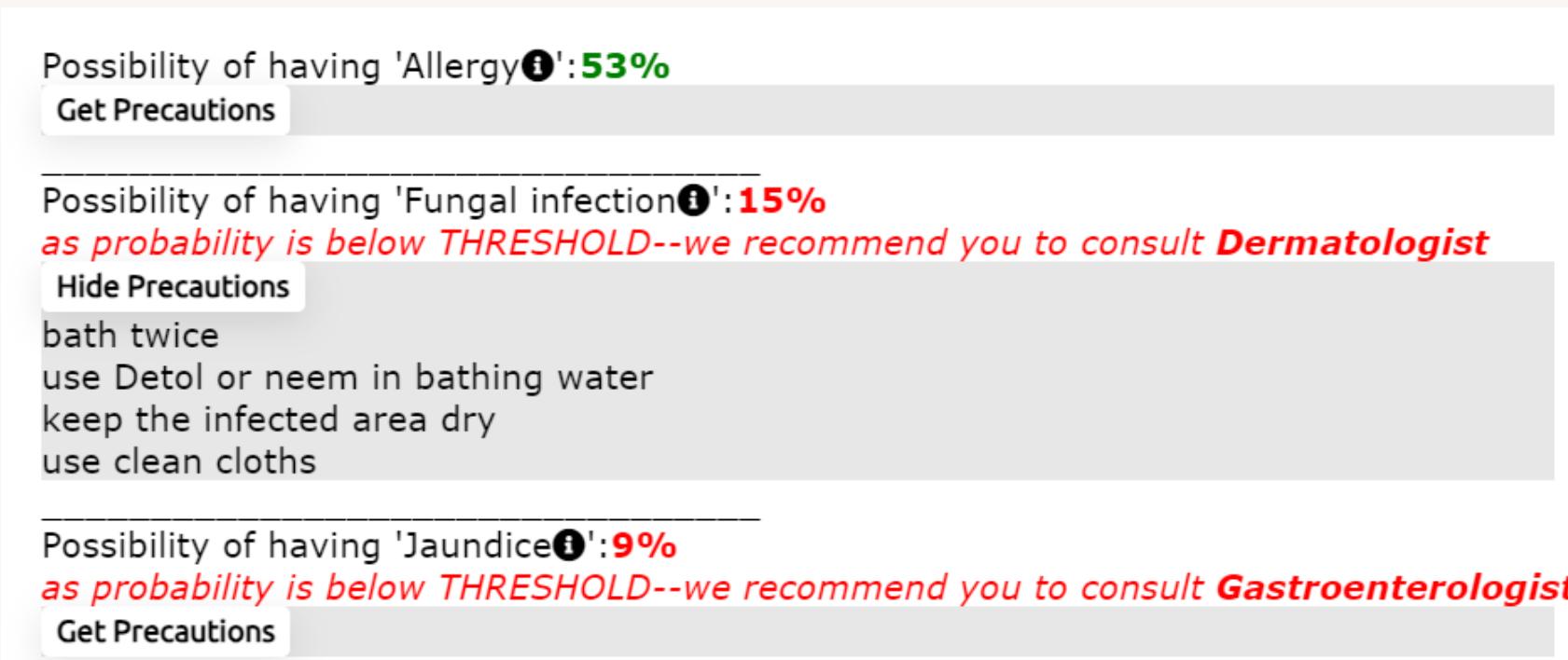


Fig.3

Sample output for Disease Description and Disease Precaution

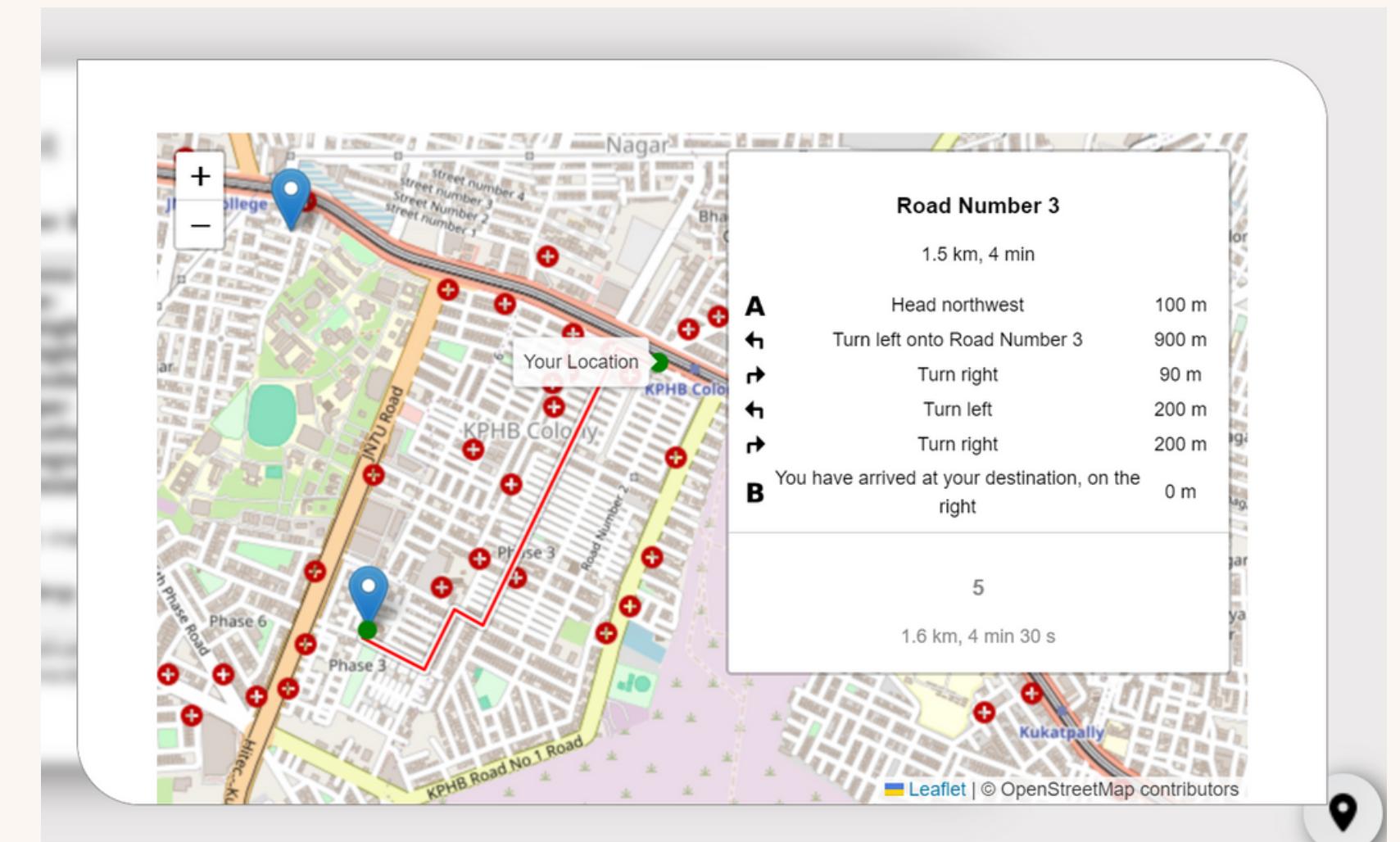
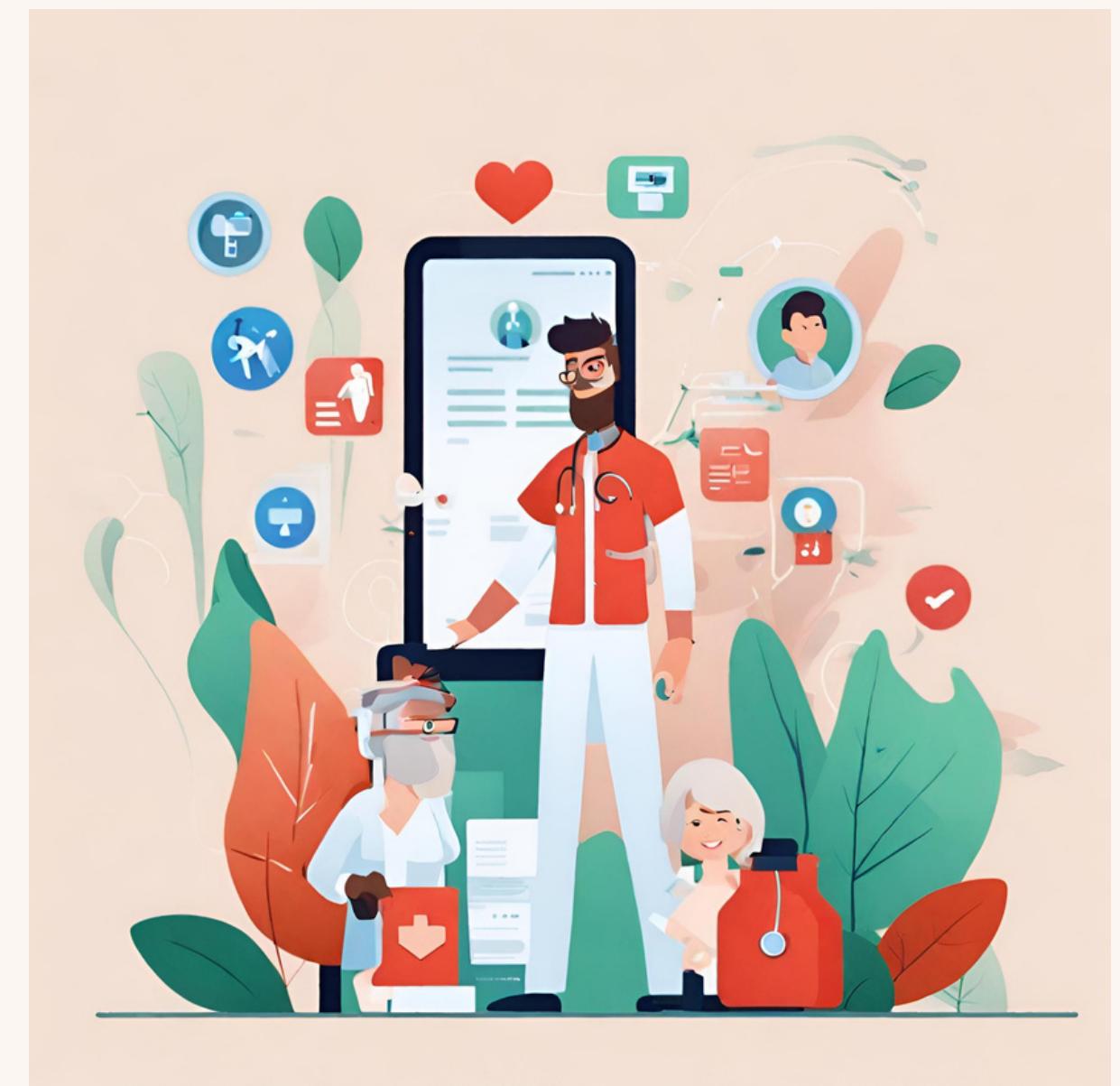


Fig.4

Sample output for hospital navigation

Advantages

- Utilization of machine learning technology to reduce misdiagnosis and improve overall efficiency.
- Faster diagnosis and treatment initiation, enhancing patient outcomes and reducing the wait times.
- This data-driven approach will improve diagnostic accuracy, optimize treatment plans, and enhanced facilities to patients.



References

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- [3]. Anand Kumar,Ganesh Kumar Sharma,UM Prakash: “International Journel for Research in Applied Science & Engineering Technology (IJRASET) 9, 34-44, 2021

Thank you