

Abstract:

- The timely identification and diagnosis of health conditions are pivotal for effective treatment and improved patient outcomes.
- However, several challenges impede the goal of achieving early detection across various diseases and medical conditions.
- The innovative concept of a specialized healthcare chatbot addresses the complex issue of disease diagnosis, to provide medical advice and recommendation.
- As medical knowledge expands, patients often struggle to navigate potential diagnoses, resulting in delayed referrals and unchecked disease progression.
- This visionary chatbot leverages cutting-edge technology to streamline diagnoses, with a focus on unique healthcare obstacles.
- Traditional diagnostic paths can be arduous and lengthy, potentially allowing conditions like stomach discomfort to escalate to severe ailments like stomach cancer due to delayed specialist referrals. So, our chatbot narrows the disease domain and it will provide the medical advice and recommendation.

Problem Statement:

Early Detection and Diagnosis:

1

The timely identification and diagnosis of health conditions are pivotal for effective treatment and improved patient outcomes.

2

However, several challenges impede the goal of achieving early detection across various diseases and medical conditions.

3

Patients often struggle to navigate potential diagnoses, resulting in **delayed referrals**.

4

Traditional diagnostic paths can be lengthy, and leading to the conditions like escalate to severe ailments like deadly disease due to delayed specialist referrals.

Proposed Solution

- The proposed solution is a chatbot that provides medical advice and recommendations to narrow down the disease domain with early symptoms.
- The innovative concept of a specialized healthcare chatbot addresses the complex issue of disease diagnosis, to provide medical advice and recommendation.
- This visionary chatbot leverages cutting-edge technology to streamline diagnoses, with a focus on unique healthcare obstacles and timely intervention of diseases.



Features:

1

Invoice generation

2

Skin disease recognition

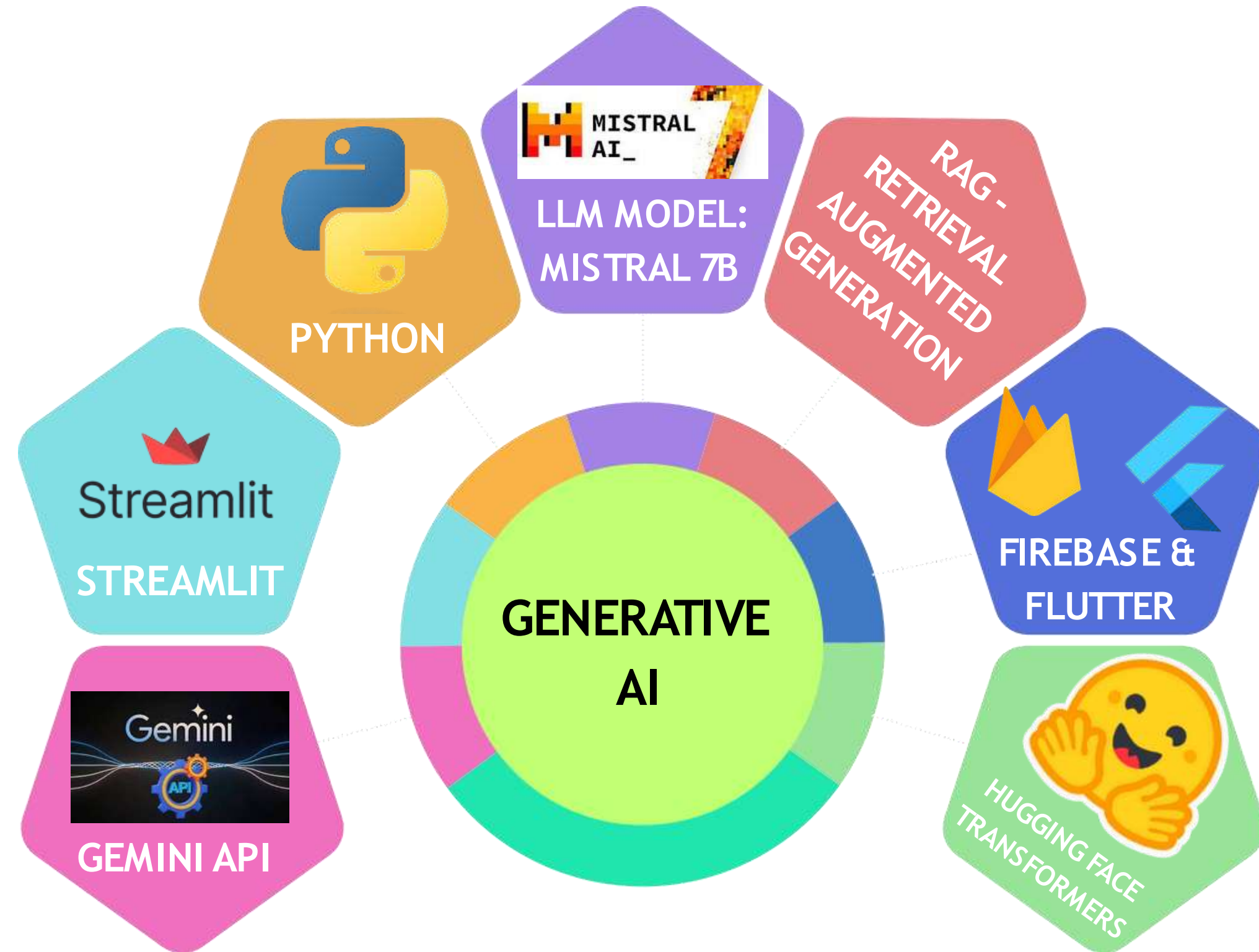
3

Food nutrient analysis

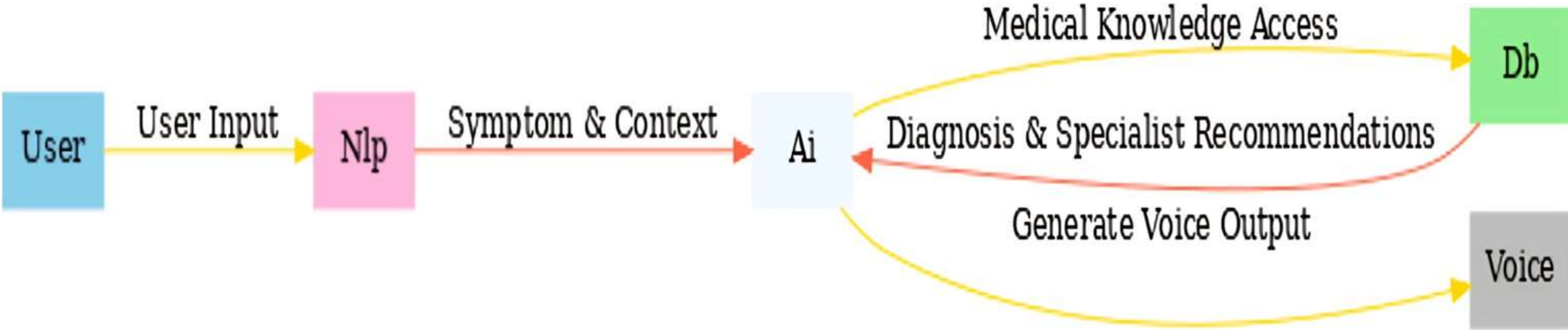
4

Voice recognition

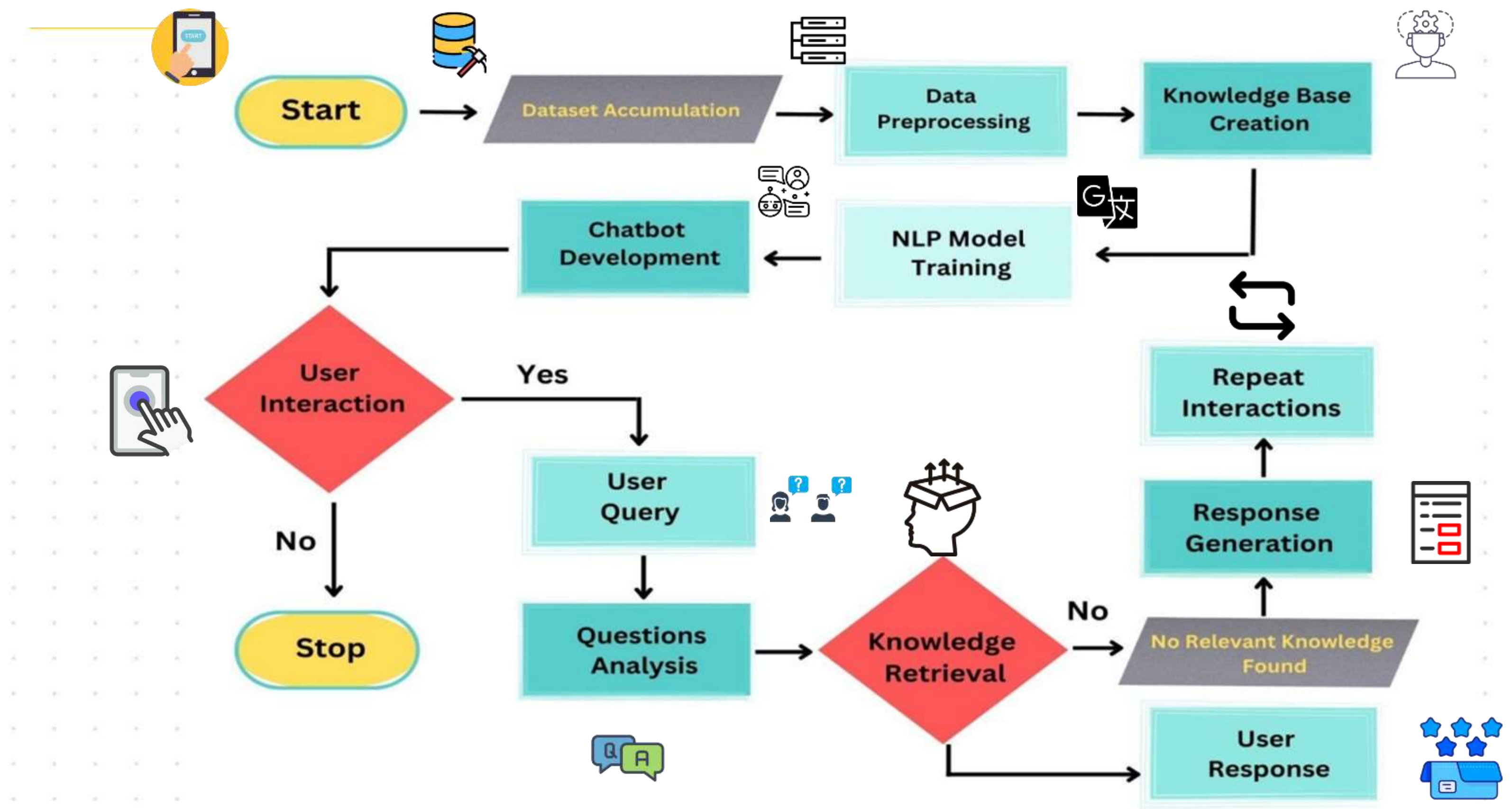
Tech Stack



Architecture Overview:



Flow Diagram



Feasibility Analysis



Trying out the chatbot with the common people to see the working progress.

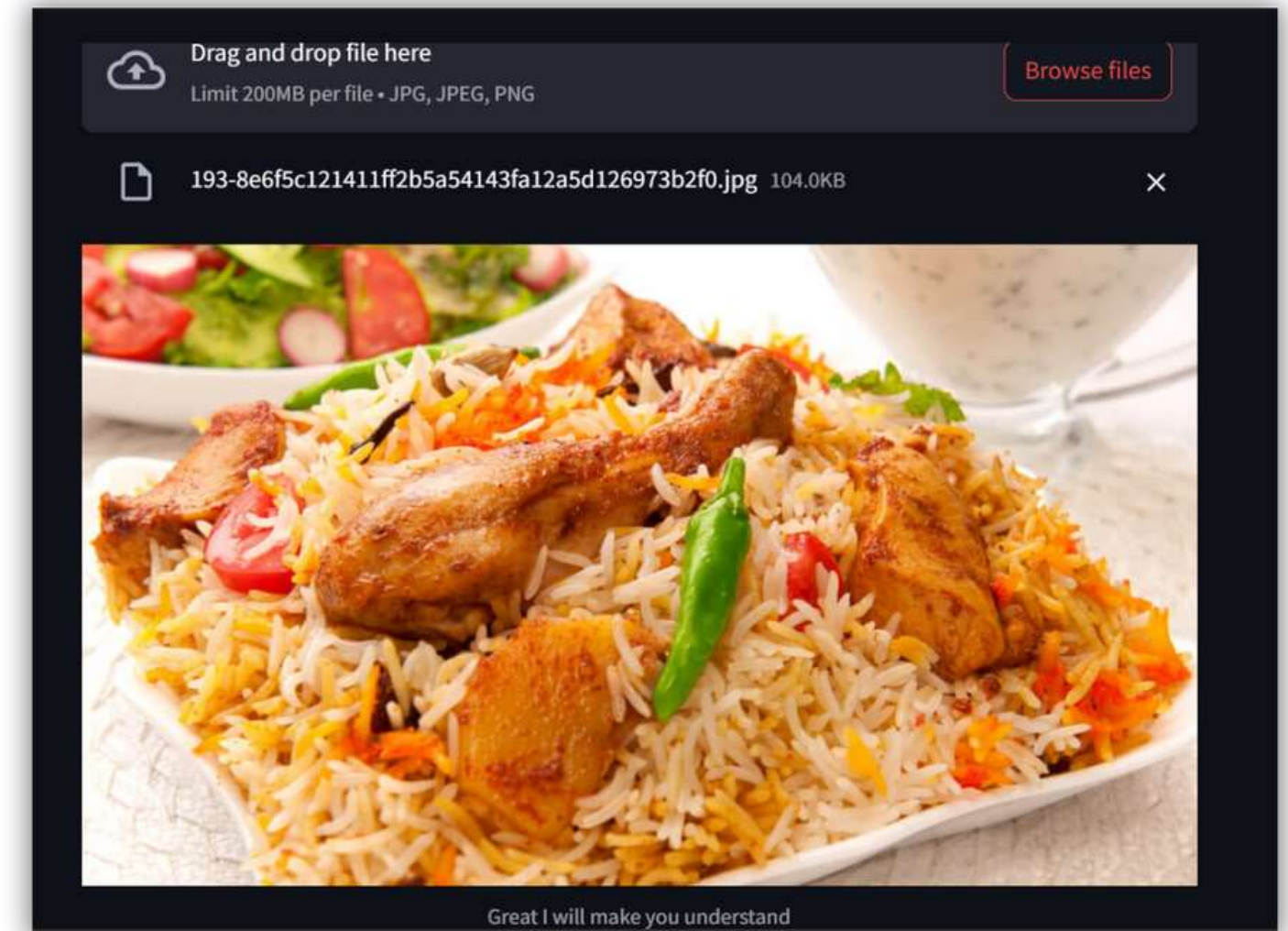


Survey trip for gathering information and checking feasibility

UI/UX



User Interface of our MediBot.



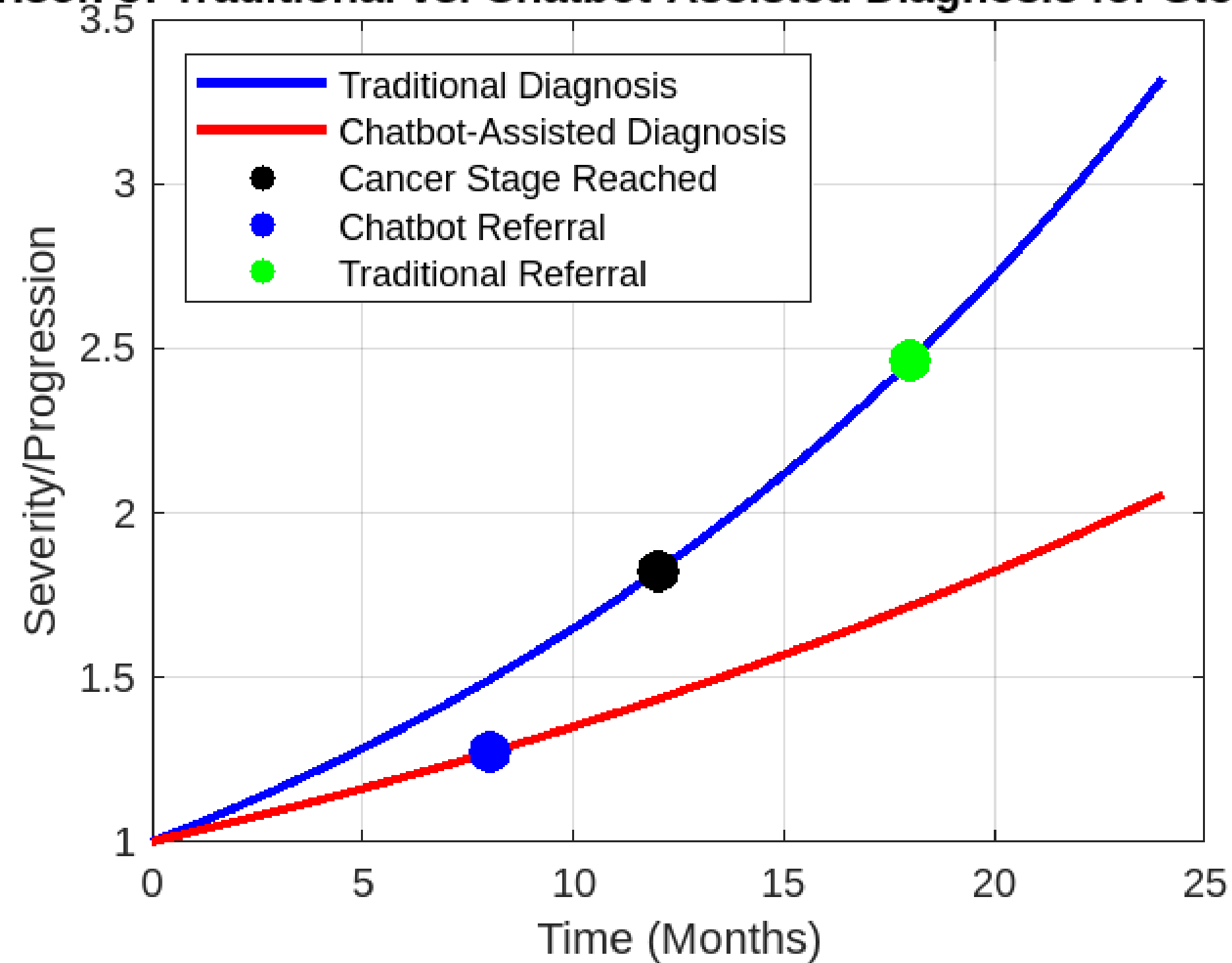
User Interface of our Nutrition Analysis and Consumption Suggestion.

Comparison with existing Solution

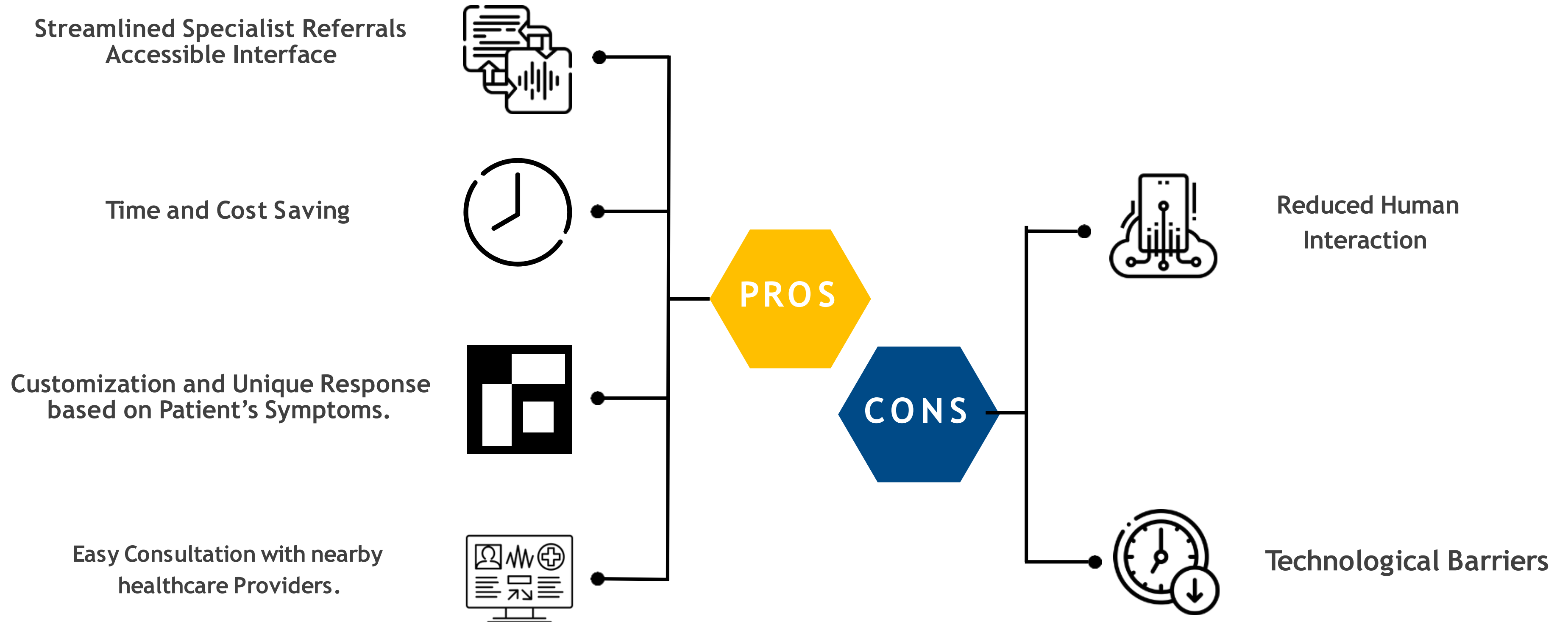
	Gyant	Megi Health Platform	DeepScribe	MediBot
Vital Sign Monitoring				✓
Peripheral Diseases			✓	✓
Clinical Decision Support		✓		✓
Commoner with no medical background	✓		✓	✓

Comparison with Traditional Diagnosis

Comparison of Traditional vs. Chatbot-Assisted Diagnosis for Stomach Cancer



Pros and Cons of the solution



References

1. Natural Language Processing (NLP): Jurafsky, D., & Martin, J. H. (2020). "Speech and Language Processing." Draft of 3rd edition.
2. Voice Recognition and Synthesis: Huggins, C. (2019). "Building a Text-to-Speech Service with Amazon Polly." A Cloud Guru.
3. Healthcare Data and Knowledge: Sackett, D. L., et al. (2000). "Evidence-Based Medicine: How to Practice and Teach EBM."
4. Generative AI Algorithm: Keulen, B., & Ganegedara, T. (2018). "Hands-On Sequence-to-Sequence Learning with TensorFlow." Packet Publishing.