

# HACKATHON 2023

Lablab.ai

**JTAVN Team**

**Contest:  
TruEra Challenge: Build LLM  
Applications with Google  
Cloud Vertex AI**



# JTAVN TEAM



**JOHNNIE TIEN NGUYEN**

**I am passionate about AI, Generative AI, and Data science, and I am committed to using these technologies to solve real-world problems. I am also a strong advocate for diversity and inclusion in the tech industry, and I love to building a team that reflects the diversity of our customers and users.**

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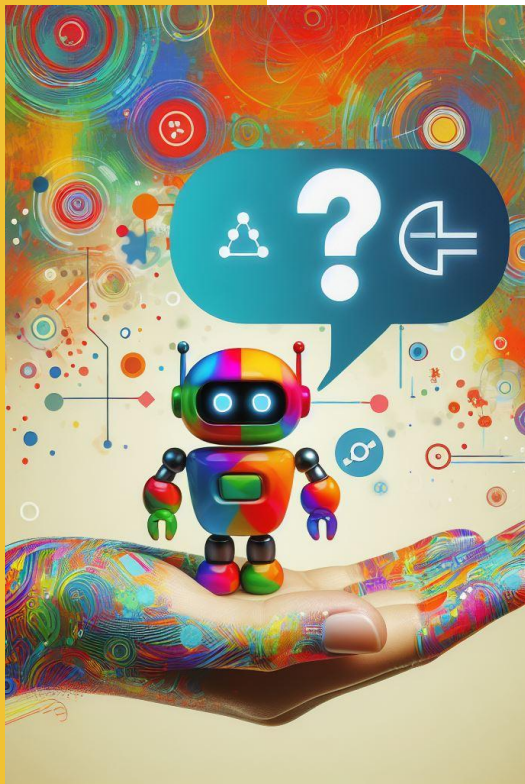
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# **PROBLEM**

## **Finetune LLM model** **is very costly**

**In today's world, accessing reliable healthcare information can be a daunting task. Finetune LLM model is very costly.**

**This project seeks to revolutionize this landscape by developing a readily-available medical chatbot powered by Google's cutting-edge Generative AI technologies. Palm2, Med-Palm2 and will be Gemini soon.**

# THE SOLUTION

Leveraging the immense knowledge base of Google Palm2 LLM and Google Enterprise Search (Vertex AI Search and Conversation).

This chatbot will be provided the context with comprehensive medical and healthcare information from trusted sources like MSD. This innovative approach eliminates the need for costly fine-tuning, ensuring a cost-effective solution while guaranteeing the accuracy and timeliness of information provided.



## Searching

Search the relevant info from MSD website.



## Build The Context

Summarize and build the context for the Prompt



## Answer The Question

Answer the question with knowledge base



# MSD Manual for the Consumer

The best first place to go for medical information

Thousands of topics in  
all medical fields

Free, and always will be

Authored by hundreds  
of top medical experts

Photos, Videos,  
Animations and more!

## FEATURED CONTENT



### Understanding Ear

## QUICK LINKS

FIRST AID AND EMERGENCIES >



- DEUTSCH (GERMAN)
- ENGLISH**
- ESPAÑOL (SPANISH)
- FRANÇAIS (FRENCH)
- ITALIANO (ITALIAN)
- 日本語 (JAPANESE)
- 한국어 (KOREAN)
- PORTUGUÊS (PORTUGUESE)
- РУССКИЙ (RUSSIAN)
- 中文 (CHINESE)
- العربية (ARABIC)
- हिन्दी (HINDI)

FEATURED CONTENT



## Depression

*William Coryell,*  
MD, University of Iowa Carver College of Medicine

Depression is a feeling of sadness and/or a decreased interest or pleasure in activities that becomes a disorder when it is intense enough to interfere with functioning. It may follow a recent...

[Read All](#)

QUICK FACTS

DID YOU KNOW...

Eating Problems in Young Children

**MSD WEBSITE PROVIDE MANY LANGUAGES**

# PRODUCT DEMO

Mobile

askdocbotpalm2.streamlit.app

ASK DOC & SEARCH chatbot

Design by [Johnnie Tien](#) — version: 0.0.06

Medical resources for professionals and consumers from MSD website

Sign of Lung cancer

✓ Searching Complete!

Searching data...

Topic: [Lung Carcinoma - Pulmonary Disorders - MSD Manual Professional Edition](#)

Pathological : Lung Carcinoma - Pulmonary Disorders - MSD Manual Professional ...

Brief description : Symptoms can include cough, chest discomfort or pain, weight loss, and, less commonly, hemoptysis; however, many patients present with metastatic disease with ...

Link: <https://www.msmanuals.com/professional/pulmonary-disorders/tumors-of-the-lungs/lung-carcinoma>

Topic: [Lung Abscess - Pulmonary Disorders - MSD Manual Professional Edition](#)

Pathological : Lung Abscess - Pulmonary Disorders - MSD Manual Professional ...

Brief description : Lung Abscess - Etiology, pathophysiology, symptoms, signs, diagnosis & prognosis from the MSD Manuals - Medical Professional Version.

Link: <https://www.msmanuals.com/professional/pulmonary-disorders/lung-abscess/lung-abscess>

Topic: [Paraneoplastic Syndromes - Hematology and Oncology - MSD Manual Professional Edition](#)

Pathological : Paraneoplastic Syndromes - Hematology and Oncology - MSD ...

Brief description : It occurs most commonly in men with intrathoracic tumors (70% have small or oat cell lung carcinoma). Symptoms and signs include fatigability, weakness, pain in ...

Link: <https://www.msmanuals.com/professional/hematology-and-oncology/overview-of-cancer/paraneoplastic-syndromes>

Extract information from search results:

The most common signs and symptoms of lung cancer are:

- A persistent cough that does not go away
- ...

Enter the information you want to search for...

Desktop

<https://askdocbotpalm2.streamlit.app/>





# MARKET COMPETITION

## Our competitor

- ❑ **Ada:** Ada offers a similar service but focuses on specific medical conditions and symptoms. While Ada may offer deeper knowledge in specific areas, the Our chatbot provides broader coverage.
- ❑ **Babylon Health:** Babylon Health provides a more personalized chatbot experience with video consultations with doctors. However, this can be significantly more expensive than using our AI chatbot.
- ❑ **Pre-trained with Extensive Knowledge Base:** Have to build up the dataset and the need for costly fine-tuning.

## Our Solutions

- ❑ **Cost-effective:** By leveraging pre-existing knowledge bases from trusted sources like MSD, the chatbot requires minimal fine-tuning, significantly reducing development and maintenance costs compared to chatbots built from scratch.
- ❑ **Accessibility:** The chatbot is designed to be readily available and easily integrated into existing websites, making healthcare information accessible to a wider audience.

FEATURED CONTENT



## Strabismus and Amblyopia: What Parents Need to Know

30/10/23

As children grow and develop, some parents may notice that their eyes begin to point in different directions and become misaligned. This condition is known as strabismus, and it's relatively...

[Read All](#)

**ASK DOC & SEARCH chatbot**

Design by *Johannie Tien* --- version: 0.0.0.05

Medical resources for professionals and consumers from MSD website

How to eat healthy?

Searching Complete!

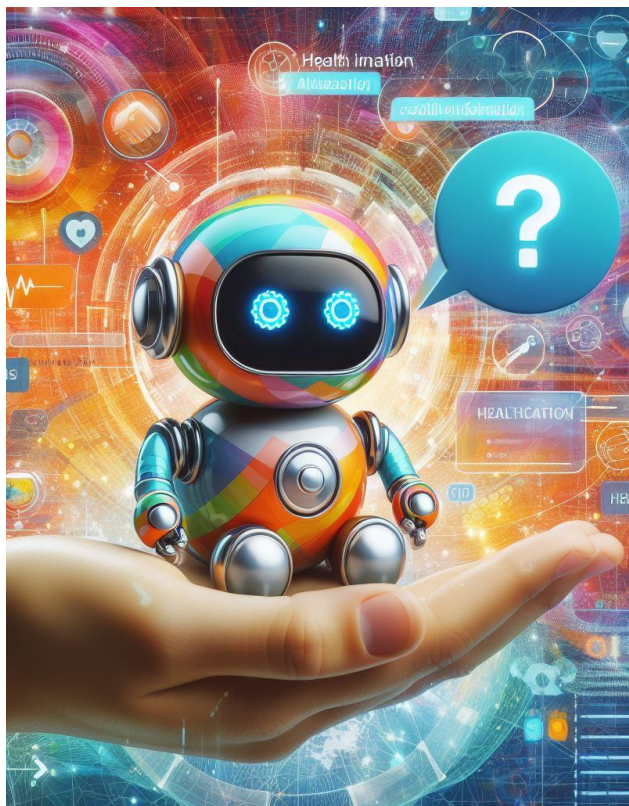
Extract information from search results:

Here are some tips on how to eat healthy:

- Eat plenty of fruits and vegetables. Fruits and vegetables are low in calories and high in nutrients, including vitamins, minerals, and fiber. They are also a good source of antioxidants, which can help protect your cells from damage.
- Choose whole grains over refined grains. Whole grains are higher in fiber and nutrients than refined grains. They can help you feel full and satisfied, and they may also help reduce your risk of chronic disease.

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**EASY EMBEDDED TO ANY WEBSITE**



# THANK YOU

Do you have any questions?

Email: [johnnietien@gmail.com](mailto:johnnietien@gmail.com)

Demo: <https://askdocbotpalm2.streamlit.app/>

