



Anaaya

Unlocking Safer
Healthcare Decisions

100+ Drug



TEAM: AiMI



Mai A. Shaaban

- ❑ Ph.D. Machine Learning @ MBZUAI
- ❑ M.Sc. Computer Science
- ❑ Mobile App Developer

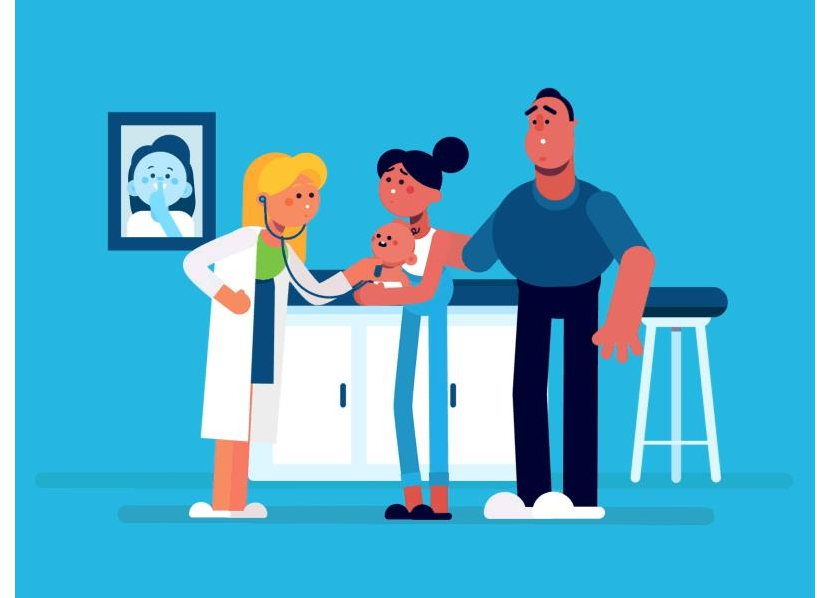


Adnan Khan

- ❑ Ph.D. Computer Science @ Carleton
- ❑ M.Sc. Computer Vision
- ❑ Machine Learning Researcher

PROBLEM

- ❑ Adverse Drug Reaction (ADR) is harmful unintended reaction caused by a medicine
- ❑ ADRs are caused by:
 - Incorrect diagnosis
 - Inappropriate drug prescription
- ❑ ADR is a leading cause of deaths in many countries [1]
- ❑ It varies from patient to patient and depends on factors such as patient history
- ❑ Currently, physicians fail to determine which drug can cause ADR for me, or you..!



STATISTICS



2,216,000

TOTAL

ADRs in hospitalized
patients



4th

CAUSE OF DEATH

Ahead of pulmonary
disease, diabetes,
AIDS, pneumonia,
accidents, and
automobile deaths



106,000

DEATHS

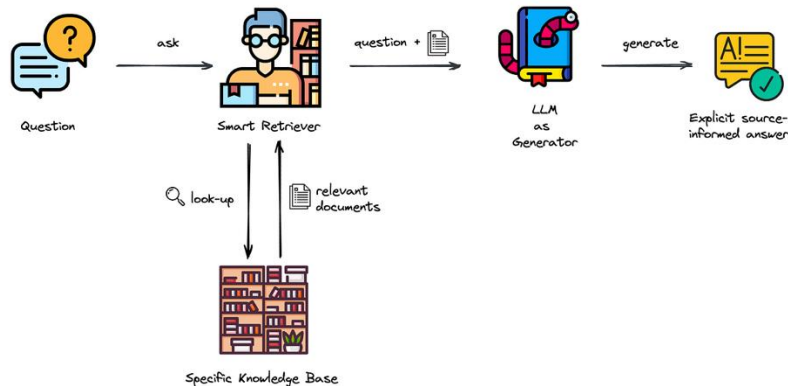
Fatality rate of
0.32% in hospitalized
patients

Reference: EDA

SOLUTION

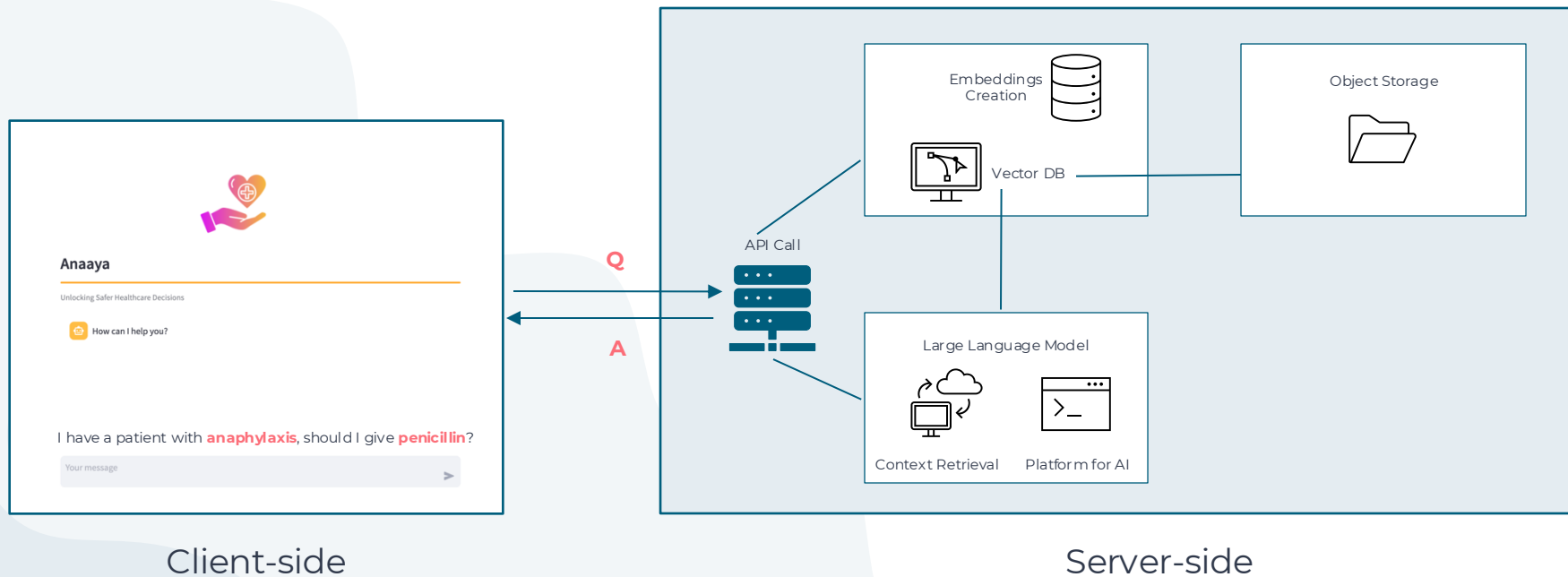
Anaaya, a chatbot for clinicians that can inform them about the potential ADR of a prescribed drug based on the patient's history

- ❑ Anaaya uses Retrieval Augmented Generation (RAG)
- ❑ Personalized
- ❑ Known source of information
- ❑ Up-to-Date information
- ❑ Based on the regions



[1]

SCHEMATIC DIAGRAM



KNOWLEDGE BASE

To enrich the knowledge base, we have different resources mentioned below:

- ❑ Publicly available datasets:
 - SIDER 4.1: Side Effect Resource [1]
 - Kaggle: Drugs, Side Effects and Medical Condition [2]
- ❑ Private datasets from healthcare providers



[1] - <http://sideeffects.embl.de>

[2] - <https://www.kaggle.com/datasets/jithinanievarghese/drugs-side-effects-and-medical-condition>

DEMO

ChatGPT 4o ▾



What's in the news
in Tokyo today?



Write a report
based on my data



Study vocabulary



Suggest a recipe
based on a photo
of my fridge



Message ChatGPT



Anaaya

Unlocking Safer Healthcare Decisions



How can I help you?



SCAN ME

Your message



Competitors

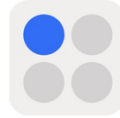
Anaaya

TECHNOLOGIES



MindsDB

AI Platform



Together AI

Open-source
Models



LangChain

LLM Framework



Llama 3.1

Large Language
Model



Streamlit

User Interface
Solution

VALUE PROPOSITIONS

ADR Expertise

With a deep understanding of adverse drug reactions (ADRs), Anaaya is your clinicians' ADR encyclopedia. Backed by AI expertise, it goes the extra mile to ensure safe and effective patient care

Precise

Precision isn't just a goal; it's our commitment. The cutting-edge technology and personalized insights ensure the right drug, for the right patient, at the right time. Every time.

Easy

Designed for clinicians, with simplicity in mind. Engage in natural, intuitive conversations with the chatbot to access ADR insights effortlessly.

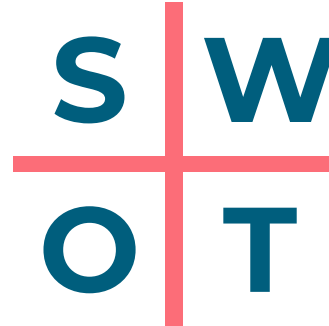
SWOT ANALYSIS

STRENGTHS

- AI Technology
- Personalization
- Known Source of Information
- Up-to-Date Information
- Regional Consideration

OPPORTUNITIES

- Scalability
- Telemedicine Integration
- Research Collaboration



WEAKNESSES

- Quantity and Quality of Data
- Data Privacy and Security

THREATS

- Data Accessibility
- Resistance to Change

FUTURE WORK

1. Data Quality Improvement
2. Privacy and security measures
3. Integration and Adoption
4. Scalability
5. Telemedicine Integration
6. User-Friendly Interface
7. Feedback Loop



BUSINESS MODEL



Value

Patient safety &
Compliance



Customer Segments

Healthcare
Providers/Clinics



Cost Structure

Data security &
Resources

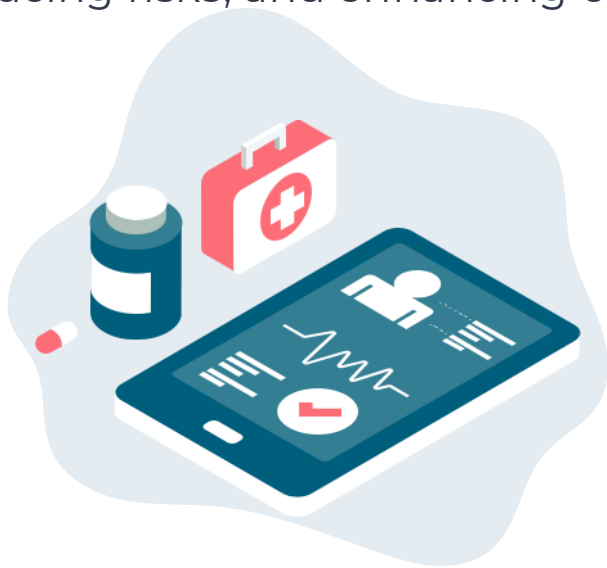


Revenue Streams

Subscription
Model

WRAP-UP

Anaaya is the first ADR chatbot that is driven by cutting-edge AI, ensures that every medication decision aligns with the patient history and allergies, reducing risks, and enhancing care.





Thanks

Reach out if you have questions
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