

BUILD WITH INDIA 2025



Idea / Track Title: Chikitsāi

Theme: Health Care

PS Category: Software

Team Name: Vyakyan.ai

Team Members:

- Shriram M A
- Hem J V K
- Akilesh Shukla
- Sujith Laware
- Kamalsundar



Chikitsāi

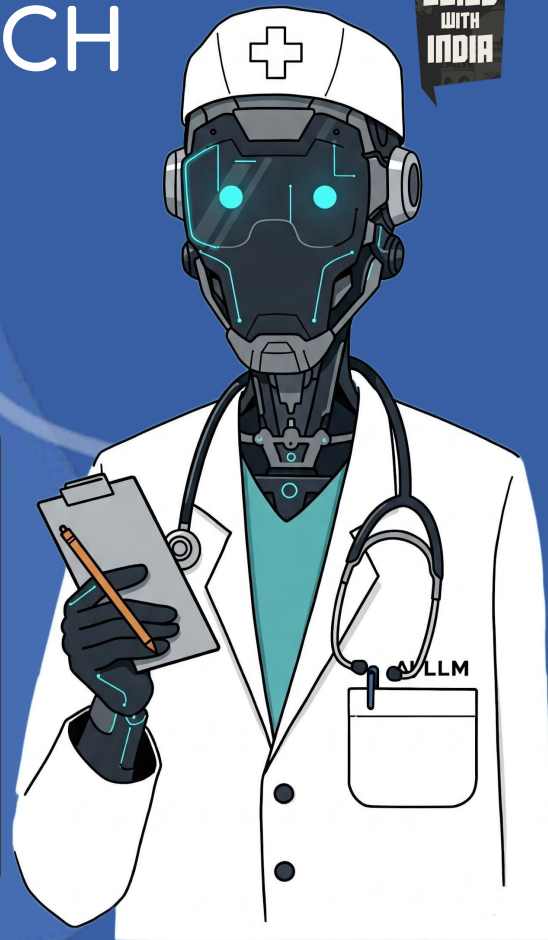
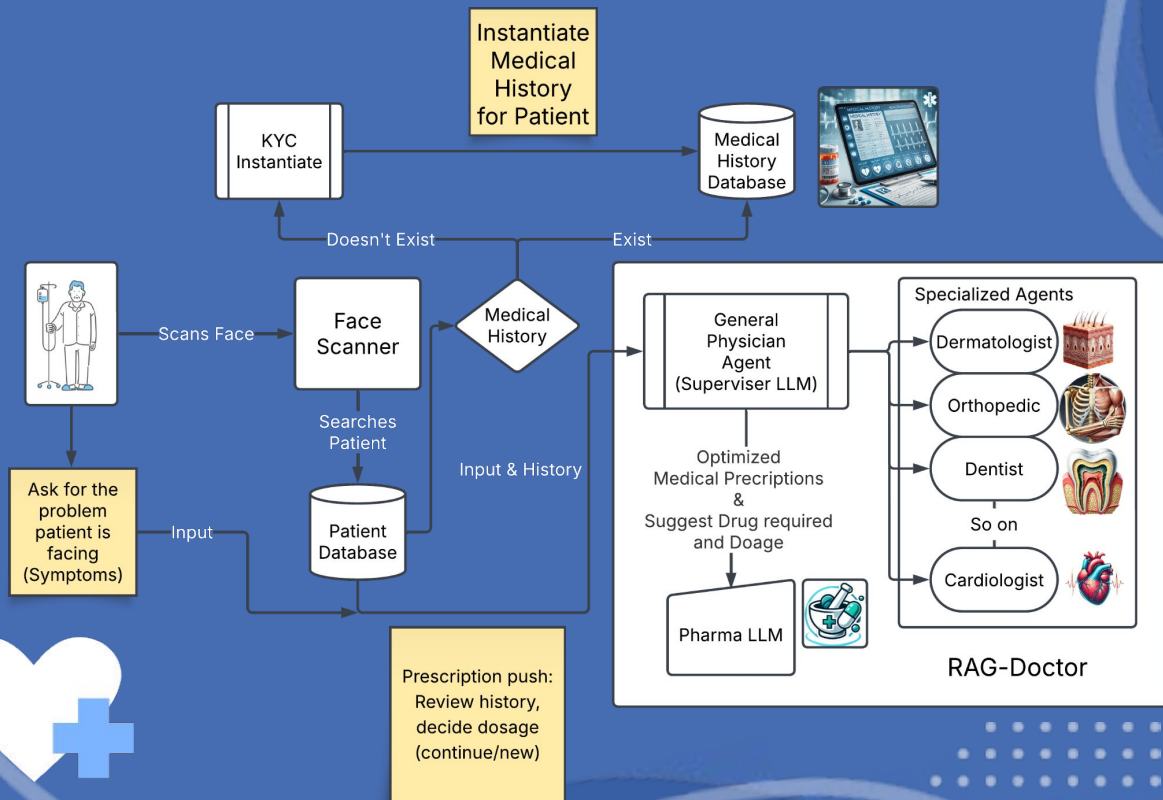
Building ReAct agents to help doctors in the health care center.

- AI-powered hospital assistant orchestrating doctor agents.
- Uses patient history, symptoms, and reports to suggest specialists.
- Supervisor agent assigns queries to appropriate doctor agents.

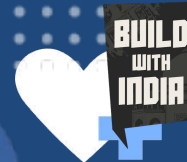


TECHNICAL APPROACH

BUILD
WITH
INDIA



Prototype Output



```
Face registered for patient test_patient
Similarity score: 1.0
Face recognized as test_patient with similarity 1.0
Connected to PostgreSQL
Found the patient from the database.test_patient
Sending context
```

```
===== Human Message =====
Patient presents with a stomach ache and fatigue. Current medications: Has Wheezing.
```

```
===== AI Message =====
```

```
Name: supervisor
```

```
Given the patient's symptoms of a stomach ache and fatigue, and considering their current medication for wheezing, I'd like to consult with the gastroenterology agent to explore potential causes and interactions.
```

```
Tool Calls:
```

```
transfer_to_gastroentologist (f7c29a48-54eb-4135-ac8a-49d23dddf4e0)
```

```
Call ID: f7c29a48-54eb-4135-ac8a-49d23dddf4e0
```

```
Args:
```

```
===== Tool Message =====
```

```
Name: transfer_to_gastroentologist
```

```
Successfully transferred to gastroentologist
```

```
===== AI Message =====
```

```
Name: gastroentologist
```

```
I am a gastroenterological expert. I will use my knowledge and the provided tools to assist in diagnosing the patient. I will start by collecting information about the possible causes of a stomach ache and fatigue.
```

```
Tool Calls:
```

```
rag_context (2d1f0da8-e2f5-4fdb-a8c1-046f8e39898d)
```

```
Call ID: 2d1f0da8-e2f5-4fdb-a8c1-046f8e39898d
```

```
Args:
```

```
input: causes of stomach ache and fatigue
```

```
===== Tool Message =====
```

```
Name: rag_context
```

```
gastrointestinal medications (e.g. sulfasalazine).
```

```
Disorders of the gastrointestinal tract and peritoneum Gut and peritoneal disorders represent prevalent causes of nausea and vomit-ing. Gastric outlet obstruction often pr  
intermittent symptoms, whereas small intestinal obstruction is usually acute and associated with abdominal pain. Disorders of gut motor activity (e.g. gastroparesis and ch  
intestinal pseudo-obstruction)evoke nausea because of an inability to clear retained
```

```
===== AI Message =====
```

```
Name: gastroentologist
```

```
Possible causes of stomach ache and fatigue include gastrointestinal disorders, gut and peritoneal disorders, gastric outlet obstruction, small intestinal obstruction, and  
disorders of gut motor activity. Given the patient's current medication for wheezing, it's important to consider potential medication side effects or interactions as well. I would  
like to know more about the patient's medical history, and conduct a thorough examination, including abdominal examination, and possibly order blood tests and stool tests to  
investigate further.
```

```
===== AI Message =====
```

```
Name: gastroentologist
```

```
Transferring back to supervisor
```

```
Tool Calls:
```

```
transfer_back_to_supervisor (460b2062-045f-4062-8713-5875723f9a7b)
```

```
Call ID: 460b2062-045f-4062-8713-5875723f9a7b
```

```
Args:
```

```
===== Tool Message =====
```

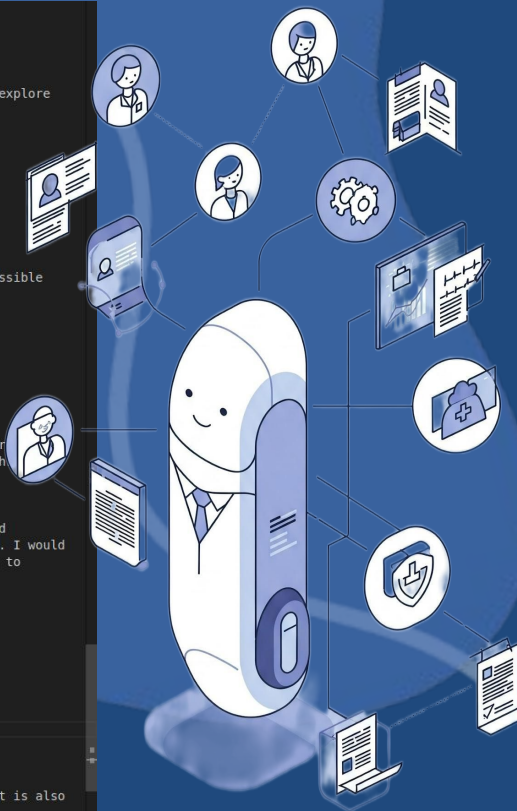
```
Name: transfer_back_to_supervisor
```

```
Successfully transferred back to supervisor
```

```
===== AI Message =====
```

```
Name: supervisor
```

```
Since I am a general physician, I can suggest some general advice. Ensure the patient stays hydrated, eats easily digestible foods, and gets enough rest. Since the patient is also  
on medication for wheezing, it's important to rule out any potential drug interactions or side effects contributing to the symptoms.
```



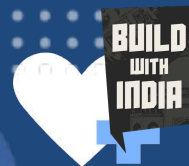
Feasibility and Viability

- Uses existing AI with LLM models, making implementation practical.
- Can be integrated with hospital IT systems and EMR platforms.
- Integration with medical devices like ECG and SPO2 (future scope)



- Secure encryption and access control mechanisms to ensure data privacy
- Continuous model refinement and validation with doctors to ensure reliability in AI suggestions

Impacts and Benefits



- **Social Impact:** Faster diagnosis and treatment, reducing patient wait times.
- **Economic Impact:** Optimizes doctors' time, reducing hospital costs.
- **Medical Impact:** Enhances diagnostic accuracy and improves patient outcomes.
- **Future Benefits:** AI-driven drug recommendations improve personalized treatment.