



AUDIO CHATBOT

TEAM MEMBERS

GAYATHRI S AJITH(TCR22CS030)

HANANA K(TCR22CS032)

RAHIL RAHMAN P(TCR22CS055)

GUIDED BY:

Dr.Ezudheen .P

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INTRODUCTION

Voice-driven chatbot for hospital inquiries.

ERP-powered for accurate and timely information.

Personalized service & enhanced patient experience.

User profile creation .

PROBLEM STATEMENT



This project aims to develop a voice chatbot for hospitals that leverages Retrieval-Augmented Generation (RAG) and real-time SQL query processing. The chatbot builds and dynamically updates patient profiles through voice interactions, tailoring responses based on the most current patient data to provide personalized healthcare support and assistance.

HOW WE DO

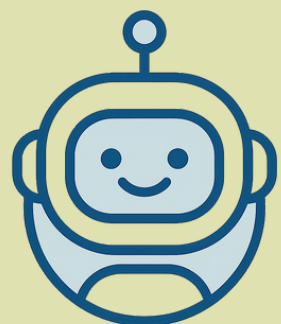
- TECHSTACK IMPLEMENTATION
- CONVERT SPEECH TO TEXT
- ANALYZE THE TEXT
- USE RETRIEVAL AUGMENTED GENERATION(RAG)
- CONVERT TEXT TO SPEECH
- SPEECH DELIVERED TO USER



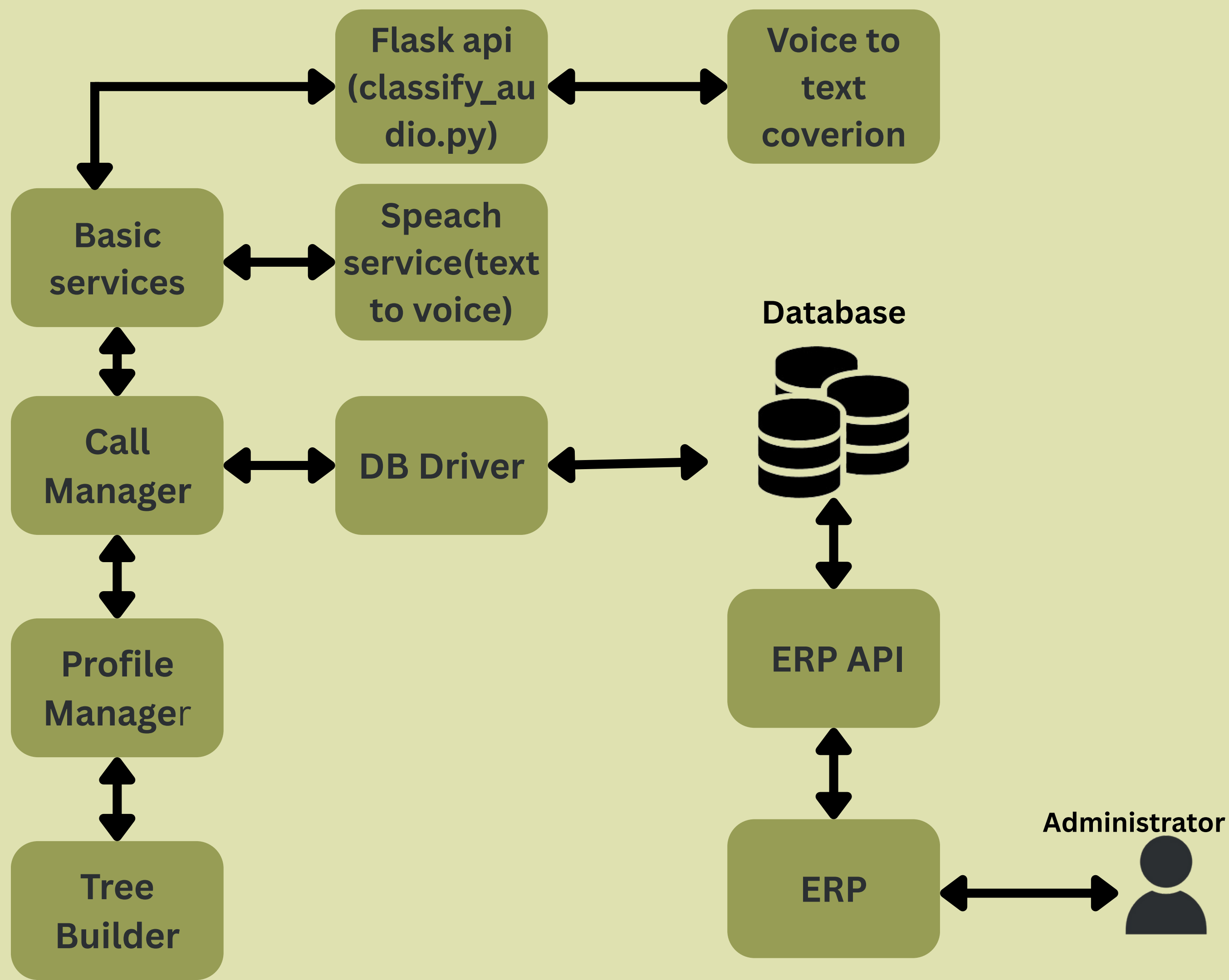
Hospital chatbot user



C++ server



Chat bot



REQUIREMENTS

- **PROGRAMMING LANGUAGE:** C++, PYTHON, JAVASCRIPT
- **DATABASE:** MYSQL
- **PLATFORM:** UBUNTU

WHY THIS PROJECT

· Better User Experience:

Fast, accurate, and personalized responses improve accessibility and reduce wait times

· Availability:

Always ready to handle inquiries about appointments, insurance, tests, etc.

· Increased Efficiency:

Automates data fetching, reducing staff workload and speeding up service.

· Personalized Interactions:

Adapts responses based on user profiles for tailored experiences.

· Real-Time Updates:

Provides up-to-date information on services, doctors, and treatments.

· Cost-Effective:

Reduces dependency on extra staff, offering a scalable solution.

· Optimized Staff Resources:

Frees staff to focus on critical tasks, while the chatbot handles routine queries.

WHY THIS PROBLEM **IS MOST IMPORTANT**

- Health is a fundamental priority, and every life is invaluable.
- This project ensures timely access to healthcare services, including doctor bookings, instant medical information, and emergency ambulance dispatch.
- By minimizing delays, the system acts as a lifeline, directly contributing to saving lives and making a profound impact on society.

BENEFITS OF THE PROJECT

1. Increased Satisfaction:

67% of customers report improved experiences with faster, personalized responses (Gartner, 2023). Satisfaction can increase by 30%.

2. Efficiency Gains:

Automating routine tasks boosts efficiency by 40% and reduces staff workload by 35% (McKinsey, HIMSS Analytics).

3. Cost Savings:

Automation can cut human resource needs by 25%, saving hospitals \$2 million/year (Deloitte).

4. Always Available:

24/7 support boosts satisfaction by 15–20% and cuts wait times by 50% (Forrester).

5. Personalized Service:

Personalized services increase loyalty by 40% and engagement by 25% (Accenture).

6. Scalability:

Efficient systems handle 200% more inquiries without extra costs, ensuring smooth scalability (PwC).

7. Accessibility:

Voice support makes healthcare 20% more inclusive for 15% of people with disabilities (WHO).

8. Up-to-Date Info:

Real-time info reduces errors by 40% and enhances patient safety (95% of healthcare pros agree) (Journal of Healthcare Information Management).

9. Better Resource Allocation:

Automation saves 30% of administrative time, improving clinical staff efficiency by 25% (JAMA, 2022).

10. Consistent Responses:

Automated systems ensure 90% consistency in responses, improving trust and patient care quality by 40% (MIT Sloan).

The background is a solid light green color. It is decorated with several organic, wavy shapes in two shades of green: a darker olive green and a lighter sage green. These shapes are positioned around the edges of the frame. Some of these shapes contain small, white, oval-shaped dots, resembling seeds or bubbles. The text "Thank You" is centered in the middle of the image in a dark olive green, serif font.

Thank You