Internship Assignment: Voice over AI agent

Objective: Create a demo web application that allows a user to input text, generate voice using ElevenLabs TTS API, and place a call using Exotel or simulate the call flow using SIP trunk integration (if access to Exotel is limited). This assignment demonstrates your ability to integrate AI-generated voices with real-time telephony systems.

Deliverables

1. A functional frontend (React, Vue, or plain HTML/JS) with:
    - A text input field
    - Voice selection dropdown (from ElevenLabs voice options)
    - A "Call Now" button
2. Integration with ElevenLabs TTS API to generate speech audio from input text
3. Use Exotel API (or any simulated SIP trunk) to place a call using a virtual number, playing the AI-generated voice
4. A README explaining:
    - How to run the project
    - APIs used
    - Any limitations or assumptions made

Step-by-Step Expectations

- 1. ElevenLabs Integration

    - Create a free ElevenLabs account (https://www.elevenlabs.io/)
    - Use their TTS API to convert input text into speech (preferably as .mp3 or .wav)
    - Allow the user to select different voices via frontend dropdown

- 2. Frontend Interface

    Basic UI to:

    - Enter text
    - Choose voice
    - Click "Generate & Call"

    After clicking, send request to backend to generate voice and initiate call

- 3. Telephony Integration

Use Exotel APIs (https://developer.exotel.com/) to:

- Set up a Connect call to a test number (can be your own)

- Play the audio file generated by ElevenLabs as part of the call flow

If Exotel access is restricted:

- Simulate SIP trunk behavior (e.g., mock API endpoints or Twilio trial if allowed)
- Optionally include webhook URLs for Exotel or SIP events

Tech Stack Suggestions (Flexible)

- Frontend: React / HTML + JS / Vue
- Backend: Node.js / Python Flask / Django
- Voice API: ElevenLabs
- Telephony: Exotel (preferred) or SIP call simulation

Evaluation Criteria

✅ Functionality of voice generation

✅ Working call integration or simulation

✅ Code quality and structure

✅ Documentation and explanation of setup

✅ UI clarity and ease of use

✅ Creativity in handling missing features (e.g., audio streaming)

Submission Instructions

- Host the project on GitHub
- Include README.md with instructions and a short demo video or screenshots
- Deadline: Within 7 days of receiving this assignment