Task: YouTube Analysis Node.js Service

Build a Node.js service that

Grabs a YouTube URL submitted via a simple web form or REST POST /analyze.

Uses **Puppeteer headless** to load the page, verify playback starts, and take a thumbnail screenshot.

Downloads the audio track with ytdl-core (or any legal method) and pipes it through **FFmpeg** to wav (16 kHz, mono, 16-bit).

Sends the file to **ElevenLabs Scribe** for transcription with word-level timestamps and speaker diarisation.

Runs each sentence through **GPTZero** and appends ai_probability to the JSON transcript.

Persists results (JSON + screenshot path) and exposes GET /result/:id.

Deploys on a small GCE VM, binding to 0.0.0.0:8080; document the firewall rule and an SSH port-forward fallback.

Deliverables

Public Git repo with clean history.

README covering setup, env vars, and design decisions.

Dockerfile + docker compose up one-liner.

Sample JSON output and the screenshot it generated.

Short (≤90 s) capture proving end-to-end run.