

Technical Assignment (With Plivo API)

Position Overview

We are seeking a Forward Deployed Engineer (FDE) to join our team to build communication-forward applications using APIs like Plivo. This assignment evaluates your ability to integrate APIs, handle call logic, and design a multi-level IVR.

Technical Assignment

Scenario

InspireWorks wants a demo IVR system that demonstrates Plivo's voice API capabilities. The system should:

1. Make an outbound call to a given phone number.
2. Upon answer, present a multi-level IVR menu:
 - a. Level 1: Language selection
 - i. Press 1 for English
 - ii. Press 2 for Spanish
 - b. Level 2 (after language selection):
 - i. Press 1 to play a short audio message
 - ii. Press 2 to connect to a live associate (use a placeholder number)

The goal is to demonstrate basic voice interaction, branching logic, and Plivo API integration.

Implementation Requirements

1. **Outbound Call**
 - Build an endpoint or script to initiate an outbound call using Plivo's API.
 - Target phone number can be provided via a simple UI or configuration variable.
2. **IVR Menu**
 - Level 1: Prompt caller to select a language (English / Spanish).
 - Level 2: Depending on language choice:
 - Press 1 → Play an audio file (e.g., MP3 hosted publicly).
 - Press 2 → Forward call to an associate (can be a placeholder number).

- Use Plivo XML (or equivalent JSON API) for call flow.
- 3. Multi-level Flow Handling**
 - Correctly handle DTMF input for multiple levels.
 - Implement branching logic based on user input.
 - Handle invalid inputs gracefully (e.g., repeat the menu).
- 4. Optional Frontend**
 - Simple web page or CLI to trigger the outbound call.
 - Not required, but helpful for demonstration.

Deliverables

- 1. Working Application**
 - Script / web app that triggers outbound calls and supports IVR.
 - Demonstrate Level 1 and Level 2 interactions.
- 2. Code Repository**
 - GitHub or zip file with source code.
 - Include README with:
 - Setup instructions
 - Required Plivo credentials (Auth ID / Auth Token)
 - Steps to run and test
- 3. Short Demo Video (3–5 min)**
 - Show a call being made
 - Navigate Level 1 → Level 2 menus
 - Demonstrate audio playback and call forwarding

Evaluation Criteria

Notes / Tips

- For audio playback, use a publicly accessible MP3 file or Plivo's default audio.
- The live associate number can be a placeholder or your own test number.