# Project Proposal

**Name of the Project:**

AI-Powered Mock Interview Platform with Mode-Driven Interviewer Behavior and Evidence-Based Feedback

**The URL of the Project Web Page:**

https://github.com/BasakGuney/BIL496-sudo

**Names of the Team Members:**

Ecesu Bozkurt, İnci Sıla Kaleli, Başak Güney

**Project Description (1-2 paragraphs):**

This project delivers a web-based AI Mock Interview platform for new graduates and early-career candidates, providing short (10–15 minute) HR or Technical (non-coding) interview simulations through a voice-based AI interviewer. The system offers two interaction modes—Supportive and Neutral—where both modes follow the same evaluation rubric but differ in the interviewer's conversational behavior and guidance intensity. Candidate responses are captured via microphone and transcribed using Speech-to-Text (STT), while the interviewer speaks using Text-to-Speech (TTS). Each session is personalized based on the user's selected target role/position, company context, domain/interest areas, and difficulty level (e.g., junior/intermediate). Before starting, the user can view a sample question preview to align expectations on scope and difficulty; however, the preview does not strictly guarantee that the exact same questions will appear during the interview.

The primary focus is Supportive Mode and the feedback system. In Supportive Mode, the interviewer acts as a coach: when the candidate drifts off-topic, it gently redirects them with empathetic prompts (e.g., "We may be moving slightly away from the question—let's refocus on…"), and when the candidate expresses uncertainty (e.g., "I don't know" / "I'm not sure"), it helps them continue by opening the topic with clarifying sub-questions and small hints rather than penalizing them. In addition, time-bound intervention is applied in both modes: if a response exceeds the allocated time window, the interviewer politely prompts the candidate to summarize and return to the core point. If time permits, the platform may also include optional enhancement features such as question-specific Hint Cards on demand (e.g., STAR structure for HR answers or key points for technical explanations), a human avatar interviewer (visual representation of the interviewer), login and progress tracking/dashboard, and CV-based HR personalization. These optional items are considered stretch goals and are not guaranteed due to project time

constraints. After each session, the system produces a scored feedback report combining content evaluation (relevance, clarity, completeness) with measurable communication signals such as fluency indicators (long pauses/silence, filler-word frequency, speaking pace/energy) and camera-based behavioral analysis (with explicit user consent), including a focus/engagement proxy, head movement patterns, and coarse facial expression cues (e.g., tension vs. positive expression). These signals are aggregated into clear scores and actionable recommendations, enabling candidates to iteratively improve interview performance through evidence-based coaching rather than generic advice.