

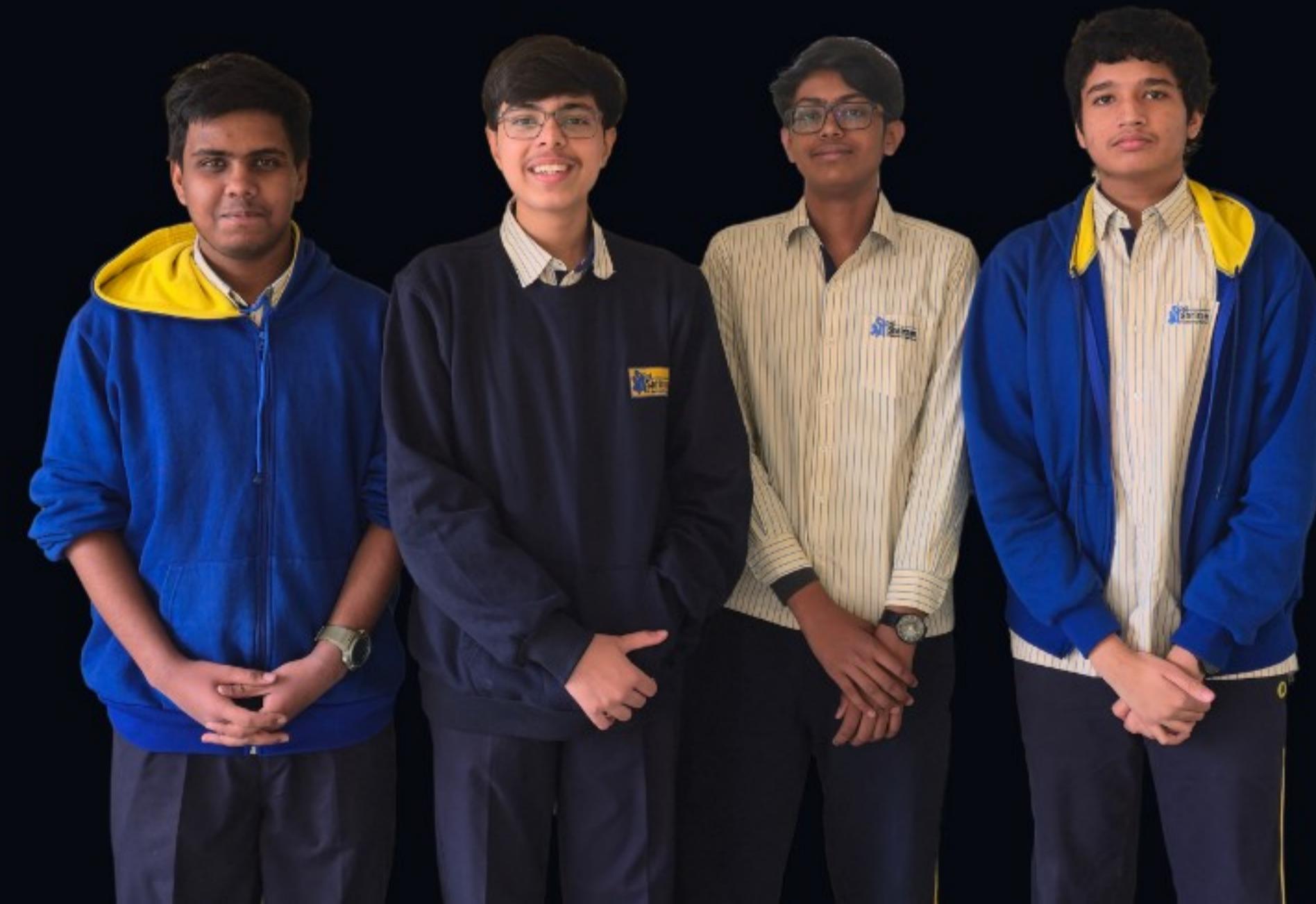
AI MOCK INTERVIEW PLATFORM



UPSKILL INDIA CHALLENGE
TECHFEST IIT BOMBAY

2025

FANTASTIC FOUR



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OUR TEAM



AARYAMAN

Team Lead, AI & Backend



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Frontend Dev



ABHAV

Development & Testing
Lead



RITAM

Presentation &
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WHAT PROBLEM ARE WE TRYING TO SOLVE

Preparing for interviews is a major challenge for students and job seekers across India.

- 80%+ students rely on self-preparation without access to real mock interviews.
- Human-led mocks are limited, expensive, and inconsistent.
- Existing platforms only give generic text-based questions, not real-time interaction.
- No system tracks communication, confidence, tone, or progress scientifically.
- Students enter real interviews unprepared, anxious, and unaware of their weaknesses.



PROPOSED SOLUTION

Our Solution: An AI Interviewer That Feels Real

- Real-time, voice-based AI interviewer
- Domain-specific question generation
- Adaptive difficulty that reacts to your answers
- Objective scoring of communication, correctness, fluency, and confidence
- Auto-generated improvement reports after every interview
- Fully automated, affordable, and available 24/7 for every student



ABOUT THE PROJECT

Making interview preparation accessible, interactive, and unbiased, powered by real-time speech and AI evaluation.

- Real-time, realistic interview simulations
- Personalized, data-driven feedback
- Unbiased and consistent evaluation





Limited availability

Mock interviews are hard to find and not available to every student.



Biased

Human interviewers may be subjective; AI ensures consistent evaluation.



Expensive

Professional mock interviews often cost too much for students.



WHY CURRENT MOCK INTERVIEW SYSTEMS FALL SHORT

THE GAP

- Feedback is subjective and inconsistent
- No measurement of tone, pauses, filler words, clarity
- No adaptive difficulty
- Tools are text-based, not voice-based
- No data-driven improvement plan



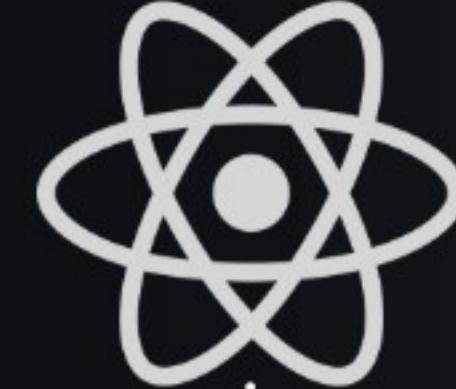
OUR APPROACH

Our platform will leverage AI to bridge the gaps that traditional methods fail to address.

- Real-time speech-based AI interviewer
- Domain-specific question sets (ML, Cybersecurity, HR, etc.)
- Scoring engine trained on communication metrics
- Improvement report after every session
- Modular architecture for easy scaling



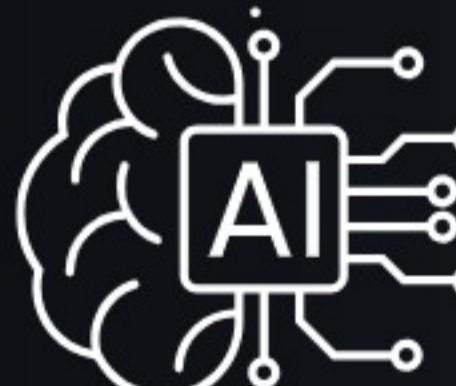
SYSTEM ARCHITECTURE



React Frontend



Speech-to-Text
(Whisper)



LLM (GPT/Llama)



Evaluation Engine



Feedback Generator



Firebase

KEY DIFFERENTIATORS



Feels like a real
interview



Adapts instantly to
user performance



Consistent,
unbiased scoring



Tracks metrics no
human can measure

ROADMAP

Our roadmap focuses on delivering a functional prototype in four weeks. We begin by setting up the core backend, speech-to-text system, and base AI interview logic. Next, we develop the evaluation engine that scores technical accuracy, communication, and confidence. In the third week, we integrate the frontend with FastAPI and connect everything to Firebase for smooth end-to-end operation. Finally, we dedicate the last week to testing, refining the system, fixing bugs, and producing our final demo video.



WEEK 1

Core Foundations

Set up the backend, integrate Whisper for speech-to-text, and build the base AI interviewer logic.



WEEK 2

Evaluation Engine

Develop scoring modules for technical accuracy, communication, and confidence. Begin early testing.

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WEEK 3

Frontend + Database Integration

Build the React interface and connect it with FastAPI and Firebase for full end-to-end functionality.



WEEK 4

Testing+Refinement+ Presentation

Run full system tests, refine the UI and scoring, fix bugs, and produce the final prototype demo video.

WHY OUR SOLUTION WORKS AT SCALE

- Whisper runs efficiently even on basic hardware
- LLM can be swapped for cost flexibility
- Firebase handles authentication + storage securely
- Each module runs independently → easy scaling
- APIs allow integration with LMS, training platforms, and colleges



FUTURE POTENTIAL

- Video-based interviews
- Resume parsing + customised questions
- Multi-round interview simulations
- AI behaviour tuning (strict vs friendly interviewer)
- Analytics dashboard for institutions
- Support for regional Indian languages



THANK YOU
