

Project Report

Title of Project:

AI Mock Interview Simulator

Name of the Innovator:

Dhyanapelli Vaishnavi Rajesh

Start Date:

11/02/2026

End Date:

18/02/2026

Day 1: Empathise & Define

Step 1: Understanding the Need

Which problem am I trying to solve?

Many students and job seekers struggle to prepare effectively for interviews due to lack of guidance, confidence, and personalized feedback. Traditional preparation methods such as reading interview questions, watching videos, or practicing alone do not simulate real interview conditions. Additionally, access to professional interview coaching is often expensive and not easily available to everyone. As a result, candidates feel anxious, underprepared, and unable to clearly communicate their skills during interviews.

Interview Buddy AI aims to solve this problem by providing an affordable, AI-powered interview practice platform that simulates real interview scenarios, offers instant feedback, and helps users improve their communication, confidence, and interview performance.

Who is affected by this problem?

College Students – Final-year students and fresh graduates who lack real interview experience and feel nervous during placements.

Job Seekers – Individuals applying for jobs who struggle with confidence, communication skills, or answering technical and HR questions effectively.

Career Switchers – Professionals changing fields who are unsure how to present their transferable skills in interviews.

Students from Rural or Underprivileged Backgrounds – Candidates who do not have access to professional interview coaching or mentorship.

Introverted or Low-Confidence Individuals – People who find it difficult to express themselves clearly under pressure.

How did I find out about this?

Interviews, Observation, AI Tools

Step 2: Problem Statement

Job interviews play a crucial role in determining career opportunities, yet many candidates fail to perform well due to lack of proper preparation, confidence, and real-time feedback. Existing preparation methods such as reading common questions or watching online tutorials do not provide personalized guidance or simulate real interview pressure. Professional coaching services are often expensive and inaccessible to many students and job seekers.

There is a need for an affordable, intelligent, and interactive platform that can simulate real interview experiences, analyze user responses, and provide constructive feedback to help candidates improve their performance effectively.

Why is this problem important to solve?

Interview performance directly affects a person's career growth and future opportunities. Even highly skilled candidates may lose job offers due to poor communication, nervousness, or lack of preparation. Without proper guidance and practice, many students and job seekers fail to showcase their true potential.

Providing an accessible and AI-powered interview practice platform ensures that everyone—regardless of financial background—can prepare effectively. It reduces anxiety, builds confidence, improves communication skills, and increases the chances of securing job opportunities.

By addressing this gap, Interview Buddy AI contributes to career development, equal opportunities, and professional success for a wide range of users.

Take-home task insights:

Through this project, we realized that the biggest barrier in interviews is not lack of knowledge, but lack of confidence and structured practice. Many candidates know the answers but struggle to express them clearly under pressure.

We also learned that personalized feedback is far more effective than generic preparation methods. When users receive specific suggestions on communication, content, and confidence, their improvement becomes measurable and motivating.

The key insight is that affordable AI tools can bridge the gap between talent and opportunity by providing equal access to interview preparation. With the right guidance and consistent practice, anyone can improve their interview performance and unlock better career opportunities.

Day 2: Ideate

Step 3: List at least 5 different solutions:

1. Mock Interview Question Bank Website A platform that provides categorized interview questions (HR, technical, behavioral) with sample answers.
2. Video-Based Interview Practice Tool Users record their answers and replay them to self-evaluate body language and confidence.
3. Peer-to-Peer Mock Interview Platform Students can practice interviews with each other through video calls.
4. AI Chatbot Interview Simulator An AI system that asks interview questions and responds based on user answers.
5. AI-Powered Smart Feedback System A platform that simulates instant feedback on communication skills, answer structure, and confidence level.

Step 4: My favourite solution:

AI-Powered Smart Feedback System

Step 5: Why am I choosing this solution?

This solution was selected because it provides:

Personalized feedback instead of generic advice

Real-time interaction similar to an actual interview

Affordable and accessible preparation

Continuous improvement tracking

Reduced anxiety through repeated practice

It combines automation, intelligence, and practicality in one platform.

Day 3: Prototype & Test

Step 6: What will my solution look like?

The prototype is a web-based AI interview simulator where:

1. Users select interview type (HR, Technical, Behavioral).
2. The AI asks relevant questions.
3. Users respond via text or voice.
4. The system analyzes responses.

Instant feedback is provided on:

1. Clarity
2. Confidence
3. Content relevance
4. Communication structure

The platform also tracks progress over multiple sessions.

What AI tools will I need?

- 1.Natural Language Processing (NLP)
- 2.Speech-to-Text technology
- 3.Sentiment Analysis
- 4.Feedback Generation Model
- 5.Performance Tracking System

Selected AI tools:

1. OpenAI API (for response analysis and feedback generation)
2. Speech Recognition API (for voice input)
3. Sentiment Analysis Model
4. Web Framework (React / HTML-CSS-JS)
5. Database (Firebase / MongoDB)

Step 7: Test - Getting Feedback

Who did I share my solution with?

- 1.Final-year college students
- 2.Fresh graduates
- 3.Friends preparing for placements

What works well:

- 1.Realistic interview simulation
- 2.Instant feedback
- 3.Easy-to-use interface
- 4.Confidence improvement after repeated practice

What needs improvement:

- 1.More industry-specific question sets
- 2.Better voice tone analysis
- 3.More detailed body language evaluation
- 4.Advanced performance analytics

Day 4: Showcase

Step 8: Final Project Title:

Interview Buddy AI – Your Smart Interview Preparation Partner

1-Minute Pitch Summary:

Interview Buddy AI is an intelligent web-based platform designed to help students and job seekers prepare effectively for interviews. It simulates real interview scenarios using AI and provides instant, personalized feedback on answers, communication, and confidence. The system aims to reduce interview anxiety, improve performance, and make professional interview preparation accessible and affordable for everyone.

Step 9: Reflections

What did I enjoy the most?

I enjoyed designing a solution that directly helps students improve their confidence and career opportunities. Building something practical and socially impactful was the most satisfying part of the project.

What was my biggest challenge?

The biggest challenge was designing accurate feedback mechanisms that feel realistic and helpful. Ensuring the AI responses are meaningful and structured required careful planning and testing.

Project Link:

<https://interview-buddy-ai-51.lovable.app>