

# AI-Driven Mobile Application for Interview Readiness and Group Discussions

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**Abstract** - This paper presents an AI-powered mobile application designed to support students in improving interview readiness and group discussion (GD) confidence. The system integrates structured learning modules, real-time GD practice, mock tests, and AI-based performance evaluation. With increasing competition in placement processes, students require tools that offer personalized feedback and continuous skill improvement. The proposed solution provides company-specific preparation, communication analysis, and progress tracking, making it a compact yet effective virtual training platform.

## 1. INTRODUCTION

Interviews and group discussions play a vital role in campus placement and recruitment processes. However, many students struggle due to insufficient preparation, lack of communication practice, and limited exposure to real interview patterns. Traditional coaching methods provide general guidance but do not offer personalized evaluation. Artificial Intelligence (AI) can bridge this gap by analyzing student responses, identifying weaknesses, and suggesting improvements. This project focuses on developing an AI-based mobile application that enables continuous interview practice, real-time GD participation, and automated feedback generation.

## 2. LITERATURE REVIEW

Existing platforms like Interview-Bit, Hacker-Rank, and communication training apps provide partial solutions. However, they lack integrated GD simulation and AI-powered communication analysis. Studies highlight that AI improves learning efficiency by offering tailored feedback and adaptive learning experiences. A review of digital learning apps shows increased student satisfaction when AI-driven personalization is included. The proposed app addresses these gaps by combining technical learning, aptitude practice, GD simulation, and AI scoring into a unified mobile solution.

## PROBLEM STATEMENT

Students face challenges such as lack of confidence, poor communication skills, unfamiliarity with company specific rounds, and absence of personalized guidance. Existing interview preparation tools do not provide real-time GD practice or AI-based performance evaluation. Therefore, a comprehensive and accessible solution is needed to support students' overall interview readiness.

## PROPOSED SYSTEM

The proposed mobile application includes structured learning modules, aptitude practice, coding challenges, company-wise interview questions, GD participation rooms, and AI scoring. The system evaluates clarity, tone, accuracy, and response structure using NLP algorithms. Users can join GD rooms, participate in discussions, and receive feedback instantly. The platform acts as a virtual placement mentor accessible anytime.

Key features include:

- Topic-wise lessons and coding practice

AI-driven mock tests and interview scoring

- Text and video-based GD sessions
- Company-specific interview preparation

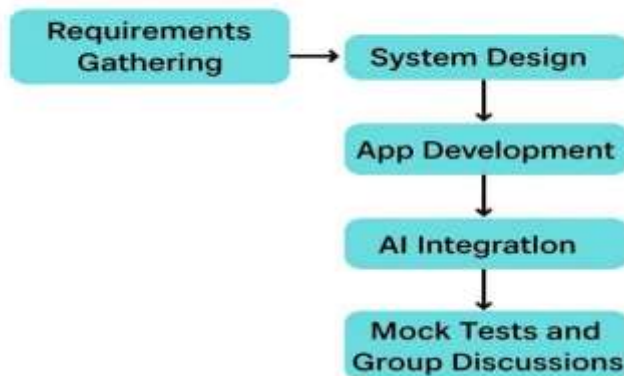
The architecture includes the mobile front-end, backend APIs for data storage, an AI evaluation engine for NLP based analysis, and a GD module using WebRTC for communication.

## METHODOLOGY

The methodology consists of the following phases: requirement gathering, UI/UX design, backend development, AI model integration, GD module setup, testing, and deployment. Flutter is used for app development, Node.js/Firebase for backend, and machine learning libraries for response evaluation. The system

undergoes iterative testing to improve accuracy and user engagement.

### Methodology



### RESULTS AND DISCUSSION

Testing was conducted with a group of students preparing for campus placements. Users reported improved confidence, better clarity in responses, and increased familiarity with interview structures. AI evaluation helped identify weak areas, especially in communication, enabling focused improvement. GD simulations provided a real-world experience, enhancing speaking skills and teamwork.

enhancements include emotional tone detection, multilingual support, and automated company-specific mock interviews.

### FUTURE SCOPE

- Emotional tone and sentiment analysis for better communication evaluation
- Company-specific full mock interview modules
- AI-based scoring for GD leadership and involvement
- Cloud-based dashboard for faculty to monitor student progress

### REFERENCES

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