Project Proposal: TalkEdge – Real-Time GD & Interview Skill Enhancement Platform

1. Team Name and Member Details

Team Name: innoshpere

Team Members:

- [Moksha] – UI/UX Designer (V0.dev / Figma, User Experience)
- [Kruparani] – Frontend Developer (React.js, UI Development)
- [shabbir] – Backend Developer (Node.js, API Development)
- [sahil] – Backend Developer (Node.js, API Development)
- [samarth] – Database & API Integration

2 **Problem Statement**:

Develop a platform where users can practice group discussions (GD) and interviews in real-time, with guided mentoring and detailed feedback.

🎯 Target Audience

- **Students**: Preparing for placements or higher education.
- **Job Seekers**: Practicing interviews and soft skills.
- **Educators/Mentors**: Willing to guide and evaluate.
- **Institutions**: Colleges or training centers wanting to provide soft-skill training.

💡 Solution Overview

3 talkedge will be a web with:

- Login/Sign-Up system for both students and mentors
- Level-based learning (Beginner, Intermediate, Advanced)
- Live mentorship sessions via video conferencing
- Real-time chat during GD
- Feedback system post each session (communication, logic, confidence)
- Leaderboard, resume tips, and performance dashboard
- Role-based rooms: Moderator, Evaluator, Participant

4 🛠 Frameworks/Technologies

Frontend:

- Html , java script , css

Backend:

- Django (Python)

Database:

- Mysql

Authentication:

- Firebase Auth / JWT + OAuth

Real-Time Communication:

- WebRTC / Socket.IO (text & voice chat)
- Zoom SDK / Jitsi Meet API / Daily.co for video integration

Hosting:

- Vercel

5 🤔 Reasoning

- Real-time experience improves confidence.
- Peer and mentor feedback aids faster growth.
- Custom levels allow for inclusivity and targeted learning.
- Scalable video APIs make the platform cost-effective.

6 📌 Assumptions & Constraints

Assumptions:

- Students have stable internet access.
- Mentors are verified professionals.
- Users are familiar with basic tech interfaces.

Constraints:

- Latency in real-time communication.
- Data privacy during live sessions.
- Scheduling difficulties between students and mentors.

7 ☑ Feasibility and Implementation

MVP (Minimum Viable Product):

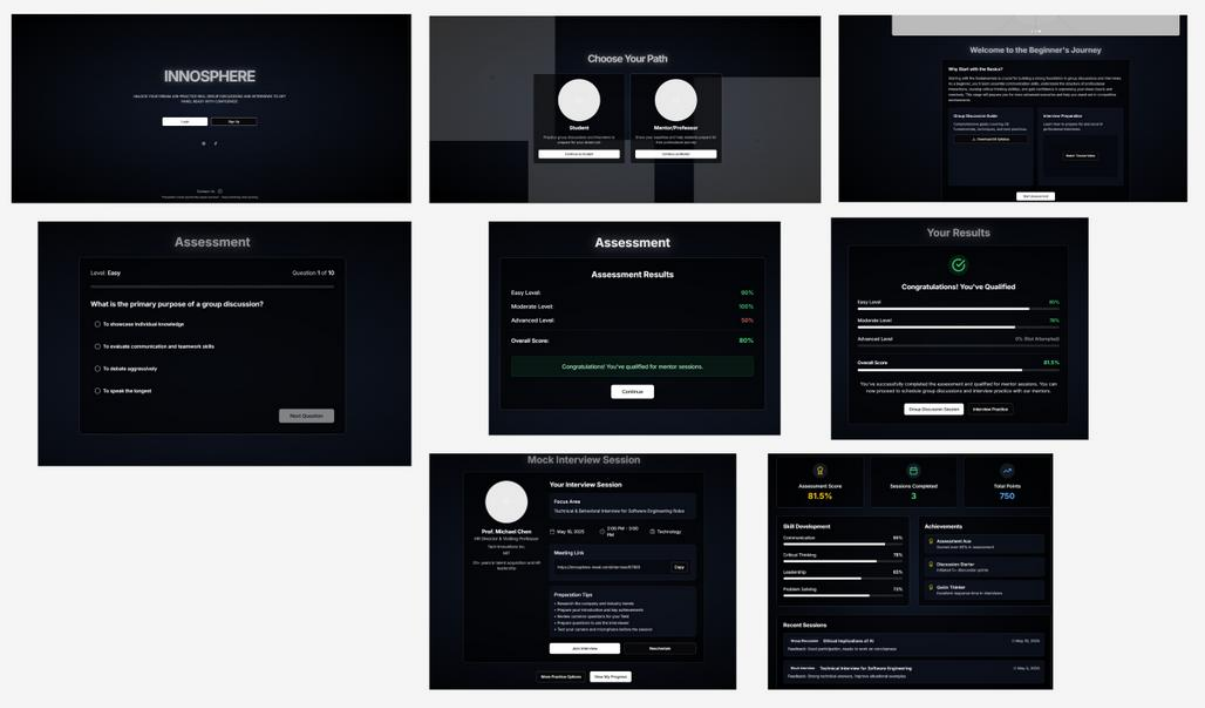
- Login/Signup
- Level selection and dashboard
- GD rooms with chat and timer
- Manual feedback form post-session

Phase 2:

- Video mentoring integration
- Automated feedback using NLP (communication tone analysis)
- Resume tips and leaderboard gamification

8 🎨 UI/UX Mockup (Suggestions)

1. **Home Page**: Choose between Student & Mentor
2. **Student Dashboard**: Choose level (Beginner → Advanced)
3. **Stages View** (for Beginners):
    - Intro → Q&A → Live Mentor Session → GD Practice → Real-World Case
1. **Live Session Page**: Video + Chat + Timer + Role Indicator
2. **Feedback Page**: Ratings, mentor comments, improvement tips



9 📊 Business Scope & Use Case

Use Cases:

- Campus placement training
- Job interview bootcamps
- Online coaching services
- English-speaking improvement platforms

Business Scope:

- Subscription plans for students
- Paid sessions with premium mentors
- Institutional tie-ups for soft-skills curriculum
- Certification after GD & Interview mastery

10 💻 Coding Approach

Step-by-Step:

1. **User Auth System** (Role-based: Student, Mentor, Admin)
2. **Level Pathways**: Backend routing based on level selected
3. **GD Room**:
    - Create + Join GD Rooms
    - Assign roles (moderator, participant, evaluator)
    - Integrate video/audio + chat
1. **Feedback System**:
    - Manual + Auto-score calculation
    - Store feedback with timestamp
1. **Progress Tracker**:
    - Sessions attended, scores, skill graph
1. **Mentor Panel**:
    - Schedule, conduct sessions
    - View student profiles
1. **Admin Panel**:
    - Manage users, validate mentors
    - Monitor rooms and reports

11 💡 Challenges & Learnings:

- Designing a role-based flow that adapts to skill levels
- Ensuring real-time performance with low latency
- Integrating third-party video APIs securely
- Building an intuitive feedback mechanism
- Creating a scalable database model for multiple user types

12 🎯 Key Features:

- 🔐 **Role-based Login**: Separate interfaces for Students and Professionals (Mentors).
- 🧭 **Level Selection**: Beginner, Intermediate, and Advanced learning paths.
- 💬 **Real-time GD Rooms**: Includes text chat, voice/video calls, and assigned roles (Moderator, Participant, Evaluator).

- 🎥 **Live Mentorship Sessions**: Zoom-style mentor-student interaction with guidance and feedback.
- 📊 **Feedback System**: Based on confidence, communication, logic, and teamwork.
- 📈 **Progress Tracker**: Tracks user improvements and session history.
- 🏆 **Leaderboard + Resume Tips**: Adds gamification and employability enhancement.
- 🕵️ **Verified Mentors**: Authentic professional background checks before onboarding mentors.