COMSATS University Islamabad,
Abbottabad Campus

Project Proposal
(SCOPE DOCUMENT)

for

<Interview Preparation Application>
Version 1.0

By

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1. <u>Introduction:</u>

The "Interview Preparation Application" is a project made especially for **software engineering graduates.** Getting a job in today's competitive world can be tough, and doing well in job interviews is a big part of that. This project is all about creating a mobile application that helps graduates prepare for interviews.

The app is designed with graduates in mind, assuming they already have some knowledge about software engineering. It's here to give them everything they need to do well in interviews. This includes a big list of questions they might be asked, a way to talk to experts, inspiring stories from people who succeeded, a place to chat with others, and even a special feature where the app checks how confident you are during practice interviews.

We believe that this app can make a real difference in helping graduates not only learn about the technical stuff but also feel more confident and ready for interviews.

2. <u>Problem Statement:</u>

The "Interview Preparation Application" solves the problem that software engineering graduates face when preparing for job interviews. Graduates often lack the right resources and confidence, which can lead to missed job opportunities and stress. While other interview preparation tools exist, they don't cater specifically to software engineering graduates.

3. <u>Problem Solution for Proposed System:</u>

Our application provides software engineering graduates with interview resources. It offers a wide range of relevant questions and answers, connects users with experts, and uses advanced technology to help build interview confidence. Unlike other apps, our focus is on making interview preparation specific and easy for the audience. By re-implementing this system, we can better understand their unique needs and improve the user experience.

4. <u>Advantages/Benefits of Proposed System:</u>

1. **Expert Advice:** Chat with experts and learn from experienced interviewees in real-time.
2. **Boosted Confidence:** Our application helps you appear more confident during interviews, regardless of your answers.
3. **Community Support:** Join a friendly community, share experiences, and get feedback.
4. **Extensive Question Bank:** Access a wide range of interview questions and answers.
5. **User Contributions:** Add your own questions and answers, and benefit from community checks.
6. **Progress Tracking:** Keep an eye on your progress and see how you're improving.

5. <u>Scope:</u>

The **"Interview Preparation Application"** project includes the following main functionalities:

1. **User Authentication and Profile Setup:** Users can securely create accounts and set up profiles.
2. **Question Bank:** Access a comprehensive database of relevant interview questions.
3. **Community Collaboration:** Engage in discussions, share experiences, and provide feedback.
4. **Expert Interaction:** Seek advice from industry experts and successful candidates.
5. **Mock Interview Analysis:** Utilize technology to analyze and improve interview confidence.
6. **User Contribution:** Contribute questions, answers, and insights.
7. **Progress Tracking:** Monitor interview preparation progress.
8. **User Support:** Access a support system for assistance and feedback.
9. **User-Friendly Design:** Ensure an intuitive and easy-to-use interface.
10. **Content Management:** Allow user-driven content moderation.
11. **Mobile Platform Compatibility:** Develop for Android platform.

6. <u>Modules:</u>

1. User Panel:

The User Panel is a fundamental module of the application, serving as the entry point for registered users. Within this module, users can:

- **Account Creation and Profile Setup:** Users can easily create accounts, providing essential details like their graduation year, academic performance (CGPA, if desired), and field of interest within software engineering. This information helps tailor the app's content to their specific needs.
- **Personalized Dashboard:** Upon logging in, users are welcomed by a dynamic dashboard. This dashboard showcases user information, including their progress, recommendations, and relevant job vacancies.
- **Question Bank Access:** Users can explore a rich repository of interview questions, encompassing various formats (text, documents, presentations, PDFs). They can search for questions specific to their area of interest and even filter questions based on difficulty level and other parameters.
- **Community Engagement:** This module enables users to actively participate in discussions, share their interview experiences, and provide constructive feedback to fellow users. They can also join interest-based groups to connect with related members.
- **Progress Tracking:** Users can monitor their interview preparation progress seamlessly. The dashboard displays statistics, such as the number of learning material covered, contributions made to the community.
- **User Contribution:** Encouraging active participation, the User Panel allows users to contribute their own questions, answers, and insights to the question bank. User contributions enrich the content and community engagement.

- **Profile Management:** Users have the flexibility to manage their profiles, update information, and fine-tune their preferences at any time.

2. Expert Panel:

The Expert Panel is designed to facilitate interaction between users and experienced professionals. Within this module:

- **Expert Insights:** Users can seek advice, tips, and insights from industry experts and individuals who have successfully navigated software engineering interviews. Experts can provide guidance in real-time, enhancing user learning.
- **Sharing Success Stories:** Experts can share their own success stories and experiences, inspiring and motivating users on their interview preparation journey.
- **Interactive Collaboration:** This module includes chat sections and discussion forums where users and experts can interact, creating a knowledge-sharing community.
- **Video Messages for New Students:** Experts can record short video messages aimed at new students. These messages offer guidance, tips, and words of encouragement to newcomers embarking on their interview preparation journey.

3. Mock Interview:

The Mock Interview module is a super important part of the "Interview Preparation Application." It's all about helping you get ready for real job interviews in a unique way. Within this module:

- **Pick Your Time and Date:** First, you get to choose when you want to do a mock interview. This way, you can practice when it's most convenient for you.
- **Choose Your Level:** You can select the level of difficulty for your mock interview: basic, intermediate, or advanced. It means you can start easily and work your way up as you get better.
- **Find the Right Spot:** You will need to place your mobile phone where it can clearly see your face and hands. This helps the app analyze your expressions and movements.
- **No Stress About Correct Answers:** The best part is, we're not worried about whether your answers are right or wrong. Instead, we look at your confidence. We watch how you move your hands, your **facial expressions**, and your eyes. Then, we give you feedback on how confident you seem.
- **Improvement Tips:** If the app sees any areas where you could be more confident, it tells you. It's like having a friendly coach giving you advice on how to look more self-assured.

4. Admin Panel:

The Admin Panel is essential for managing and overseeing the application. It includes:

- **User Management:** Admins can manage user accounts, review user contributions, and ensure that the community maintains a positive and informative atmosphere.

- **Question and Answer Moderation:** Admins can moderate user-generated questions and answers to maintain the quality and authenticity of the question bank.
- **Report Handling:** Admins handle user reports regarding inappropriate content within the app, ensuring a safe and respectful environment for all users. This feature is primarily for reporting inappropriate questions and answers.

7. <u>System Limitations/Constraints:</u>

- You need an internet connection to use the app because it stores data in the cloud. Without the internet, the app wouldn't work.
- The app checks your facial expressions and hand movements. If your device's camera is in the wrong place or doesn't have the right features, it might not work well.

8. <u>Software Process Methodology:</u>

We have chosen an Agile software development methodology for our project due to its iterative, collaborative, and adaptable nature. Agile allows us to continuously gather feedback, efficiently address changing requirements ultimately helping us deliver a user-centric solution.

9. <u>Tools and Technologies:</u>

Tools and Technologies	Rationale
React Native	Cross-platform mobile app development.
Fire store	Cloud-based NoSQL database for data storage and synchronization.
Firebase Authentication	Secure user authentication.
Visual Studio Code	IDE for React Native development.
Figma	Design and prototyping of the UI.
Microsoft Word	Documentation and project planning.
Microsoft PowerPoint	Creating project presentations.
OpenCV (Open-Source Computer Vision Library)	Incorporating AI for hand gesture and facial recognition features.

10. <u>Project Stakeholder and Roles:</u>

Stakeholder	Role and Responsibilities
1. Hozefa Hassan Rizvi 2. Muhammad Hammad 3. Ashar Ali	Development and implementation of the application, including design, coding, testing, and documentation.
Project Supervisor (Mam Sana Malik)	Provides guidance, mentorship, and project oversight. Offers technical and project management support, reviews

	progress, and ensures project alignment with academic requirements and industry standards.

11. <u>Gantt Chart:</u>

12. <u>Conclusion:</u>

To wrap it up, the "Interview Preparation Application" is a game-changer for software engineering graduates preparing for job interviews. It offers personalized learning, real-time expert help, and confidence-boosting tools. Our app creates a friendly community, provides lots of resources, and lets you see how you're doing step by step. This project's goal is to give graduates the skills they need to do great in software engineering interviews and kickstart their careers with confidence and ability.

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