**AI-Powered Mentorship Platform for Women in Tech**

### **1. Problem Statement**

Women in technology often face challenges in finding the right mentors and career guidance. Limited access to mentorship opportunities, a lack of role models, and difficulty in scheduling meaningful interactions hinder professional growth. Additionally, individuals with speech and hearing impairments face barriers in communication, making it even more challenging for them to connect with mentors. The absence of a streamlined, AI-powered platform that facilitates personalized mentorship through an accessible and scalable digital experience further exacerbates the problem.

### **2. Proposed Solution**

We propose a **full-stack SaaS-based mentorship platform** that leverages AI and Digital Experience Platform (DXP) capabilities to offer an interactive, scalable, and inclusive mentorship experience. The platform will enable mentees to **sign up, browse mentor profiles, schedule sessions, and interact with mentors** through various channels, including video calls, chat, and AI-powered recommendations. Unique accessibility features like **real-time sign language recognition, AI-powered mentor matching, and automated analytics** will make the platform more inclusive and efficient.

#### **Core Features**

* **User Authentication:** Secure sign-up and login with 2 way authentication(Google, LinkedIn, email).
* **Mentor & Mentee Profiles:** Users can sign up as mentors or mentees, with verification for experienced mentors.
* **Personalized Dashboard:** Users can track their mentorship sessions, progress, and key takeaways.
* **Search & Filter:** Mentees can filter mentors based on skills, experience, industry, or availability.
* **Meeting Scheduling:** Real-time session scheduling with automated reminders.
* **AI-Powered Mentor Matching:** Recommends the best mentor based on career goals and interests.
* **1:1 and Group Mentorship:** Support for private mentorship as well as group learning sessions.
* **Multilingual Chatbot:** AI-driven assistant for instant query resolution.
* **Notes Maker:** Mentees can take session notes within the platform.
* **Live Quizzes & Assignments:** Interactive learning modules for mentees.
* **AI-Based Analytics & Reporting:** Tracks session engagement, success rates, and user feedback.
* **Real-Time Sign Language Translation:** Enables communication for speech-impaired users.
* **Live Chat & Video Calls:** Integrated chat and video conferencing with screen sharing and recording features.
* **Feedback & Rating System:** Mentees can review and rate their mentors.

### **3. Technology Stack**

To ensure scalability, security, and real-time interactivity, the following technology stack will be used:

#### **Frontend:**

* **React.js** – Component-based UI with server-side rendering for fast performance.
* **Tailwind CSS** – Modern styling with responsiveness.

#### **Backend:**

* **Node.js (Express.js) / Django (FastAPI)** – Scalable backend API.
* **PostgreSQL / MongoDB** – Database for user and session data storage.
* **Firebase / WebSockets** – Real-time chat and notifications.
* **OAuth 2.0 (Google, LinkedIn)** – Secure authentication.

#### **AI & Analytics:**

* **OpenAI APIs /Chatbase** – AI chatbot for multilingual support.
* **Google Vision / MediaPipe** – Real-time sign language detection.
* **Whisper AI / Google Speech-to-Text** – Live captioning & voice-to-text.
* **Tableau** – For displaying analytical stats.

#### **Video & Communication Tools:**

* **WebRTC / Zoom API** – Video conferencing with screen sharing.
* **Google Calendar API** – Scheduling & reminders.

### **4. Potential Impact & Scalability**

#### **Impact:**

* **Increased Women’s Participation in Tech:** More women will have access to structured mentorship and career growth opportunities.
* **Bridging the Accessibility Gap:** Sign language recognition and AI-driven support enable inclusivity for speech-impaired mentees.
* **Data-Driven Career Planning:** AI-powered analytics will help mentors and mentees track progress effectively.
* **Global Reach & Inclusivity:** The multilingual chatbot and online accessibility make this platform effective worldwide.

#### **Scalability:**

* **Cloud-Based SaaS Model** – Easily scalable for different organizations and regions.
* **Multi-Tenant Architecture** – Supports corporate mentorship programs and university collaborations.
* **API-First Approach** – Seamless integration with third-party learning platforms.
* **Personalized AI-Based Learning Paths** – Custom career roadmaps for long-term mentorship.

This AI-powered mentorship platform will revolutionize mentorship for women in tech by providing seamless mentor-mentee interactions, AI-driven recommendations, accessibility features, and real-time analytics. This platform is not just a mentorship tool it is a movement to empower women in technology and create an inclusive, data-driven future for mentorship!