Statement of Work (SOW)

Project Title: Skill and Language Exchange Platform
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1. <u>Introduction</u>

<u>Skill and Language Exchange Platform</u>: The platform will enable users to engage in peer-to-peer tutoring, allowing them to exchange knowledge and skills, including language learning.

The platform will allow individuals to offer their expertise in specific skills (e.g., coding, photography, cooking) or languages (e.g., Spanish, French, Mandarin) while seeking to learn from others. The goal is to create a global community where users can connect, share knowledge, and learn from each other in a seamless and engaging manner.

The platform aims to create a seamless experience for users to connect, communicate, and learn from each other, fostering global learning and cultural exchange. The project will involve the integration of various functionalities, including user profile management, matching algorithms, messaging, and video/audio call features.

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2. <u>Scope of Work</u>

- **<u>Project Description:</u>** The Skill and Language Exchange Platform will allow users to offer and seek skills or language tutoring. The platform will match users based on their interests, expertise, and language preferences. Key features will include user profiles, a matching system, real-time messaging, and video/audio call capabilities, scheduling the time.
- **<u>Objectives:</u>**

  1. Develop a user-friendly platform for skill and language exchange.
  2. Implement a robust matching algorithm to connect users based on their skills and preferences.
  3. Integrate seamless communication tools (messaging and video calls) for peer-to-peer tutoring.

    4. Ensure scalability and performance to handle a growing user base.

- **<u>Key Activities:</u>**
  1. Research and finalize the platform's features and user flow.
  2. Design and develop the frontend and backend architecture.
  3. Implement user authentication, profile management, and matching algorithms.
  4. Integrate third-party Apps for messaging and video calls.
  5. Conduct testing, debugging, and deployment on a cloud platform.

3. <u>Deliverables</u>

- Deliverable 1: Research and Planning Document
  Description: Finalized list of features, user flow, and tech stack decisions.

- Deliverable 2: Prototype Design
  Description: UI/UX design and backend architecture setup, including user authentication.
- Deliverable 3: Core Features Implementation
  Description: Matching system and skill/language exchange features implemented.
- Deliverable 4: Communication Features Integration
  Description: Messaging and video call APIs integrated into the platform.
- Deliverable 5: Testing and Debugging Report
  Description: User testing results and bug fixes.
- Deliverable 6: Deployment and Feedback Collection
  Description: Platform deployed on a cloud platform, and initial user feedback collected.

4. <u>Timeline and Milestones</u>

Milestone	Description	Due Date/Duration
Project Kickoff	Initial project meeting	03-02-25
Research & Planning	Finalize features, user flow, and tech stack.	Week 2

Milestone	Description	Due Date/Duration
Prototype Design	UI design and backend setup	Week 4
Core Features Development	Matching system and skill exchange features	Week 6
Communication Integration	Communication detailes integrated	Week 8
Testing & Debugging	User testing and bug fixes	Week 10
Deployment & Feedback	Platform deployment and feedback collection	Week 12

5. <u>Roles and Responsibilities</u>

- **Team Members:**

  1. Makes sure the team stays on track with deadlines and task assignments. Handles backend development, including databases, user authentication, and the matching algorithm. Ensures smooth integration with the frontend and external services like messaging or video calls.

  2. Designs the platform's interface to make it easy and enjoyable to use. Develops the frontend using React/Angular, ensuring it works well on all devices. Collaborates with the backend developer to integrate features and fixes UI bugs.

  3. Works on both frontend and backend, ensuring smooth interaction between the two. Manages API integrations for messaging, video calls, or authentication. Helps optimize performance and assists with debugging critical issues.

  4. Finds and fixes bugs, making sure the platform runs without glitches. Handles deployment and monitors performance post-launch. Assists in documentation, user feedback collection, and minor development tasks when needed.

  Client Contact: Software Engineering course, Mahindra University

6. <u>Assumptions and Constraints</u>

- **Assumptions:**

    1. Users will have stable internet access for video and chat sessions.
    2. API providers (Twilio, Zoom) will maintain uninterrupted service.
    3. The platform will initially target university students and young professionals.
- **Constraints:**
    1. Regulatory limitations related to data privacy and user information.
    2. API Limitations: Integration with third-party APIs (Twilio, Zoom, Firebase) is subject to their respective usage limits and pricing.
    3. Scalability Challenges: Initial deployment will support a limited number of users; future scalability requires further optimization and funding.
    4. Time Constraints: The project must be completed within 12 weeks, requiring efficient task management and prioritization.

Unique Value Proposition:
- **Combination of Skill and Language Exchange:** Unlike platforms that focus solely on language exchange or skill-sharing, this platform combines both, offering a more comprehensive learning experience.
- **Seamless Communication Tools:** Integrated messaging and video call features make it easy for users to connect and learn from each other.
- **Global Learning and Cultural Exchange:** The platform encourages users from different parts of the world to connect, fostering cultural exchange and global learning.

Challenges:
- **Matching Algorithm:** Developing an effective algorithm to match users based on multiple criteria (skills, languages, availability) is a key challenge.
- **Communication Features:** Integrating smooth and reliable messaging and video call functionalities requires careful planning and testing.
- **Scalability:** Ensuring the platform can handle a large number of users without performance issues is critical.