A Major Project Synopsis on

**SkillSync**

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Towards the partial fulfillment for the Award of the Degree of

**MASTER OF COMPUTER APPLICATIONS**

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by

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1. **Introduction**

SkillSync is an **AI-powered web-based platform** designed to connect individuals based on their skills, learning interests, and professional goals. Unlike traditional networking platforms that emphasize resumes and job-seeking, SkillSync focuses on **real-time skill-based networking**, helping students, professionals, and freelancers **find study partners, mentors, and project collaborators** effortlessly.

The platform uses **AI-driven matchmaking algorithms** to recommend connections based on shared expertise, career aspirations, and learning goals. This ensures that users are paired with like-minded individuals, making networking more effective and meaningful. Whether someone is looking for **mentorship, collaboration on projects, or skill development**, SkillSync provides a dynamic and engaging space to foster growth and professional relationships.

By integrating **modern web technologies** such as **React.js, Node.js, Express.js, and MongoDB**, SkillSync offers an intuitive, user-friendly interface with features like **real-time chat, project collaboration, and AI-driven recommendations**. This project aims to bridge the gap between **learners, professionals, and recruiters**, fostering a knowledge-sharing community that goes beyond static resumes and job boards.

Why Choose SkillSync?

1. For Learners and Professionals:
   1. Find the perfect mentor or study partner.
   2. Get AI-based skill recommendations.
   3. Expand your professional or academic network.
2. For Recruiters & Companies:
3. Identify skilled individuals for internships or jobs.
4. Create skill-based project teams.
5. Reduce hiring costs with direct networking.
6. **Motivation**
7. Many people struggle to find **study partners, mentors, or collaborators** with matching skill levels.
8. LinkedIn and other platforms focus on resumes rather than **skill-based real-time networking**.
9. This platform will help **students, freelancers, and professionals** connect based on common skills and learning goals.
10. **Problem Statement**

1. Finding peers with the same skills or learning goals.

* Many students and professionals struggle to find **like-minded peers** who share their interests and skill levels.
* Traditional **social media platforms** do not provide targeted matchmaking based on skills or learning objectives.
* Example: A student learning **MERN stack development** may want a **study partner** but has no easy way to connect with someone at the same level.

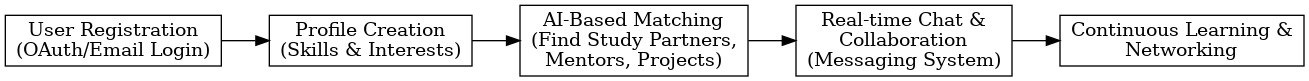
1. Discovering mentors without formal job-seeking platforms.

* Platforms like **LinkedIn** mainly focus on job seekers and recruiters, not **mentorship**.
* Users may need **guidance and mentorship** from experienced professionals, but there is no direct way to find and connect with them.
* Example: A junior **software developer** may struggle to find an **experienced mentor** for career guidance and skill improvement.

1. Building real connections beyond static resumes.

* Many platforms rely on **resume-based networking**, which does not highlight real-time skills or active learning goals.
* Recruiters and professionals often **miss potential candidates** because traditional resumes do not reflect their **current projects, interests, or skills in progress**.
* Example: A **freelancer in UI/UX design** may want to collaborate on projects, but their resume alone does not show their active learning or design skills.

1. **Methodology/ Planning of work:**
2. ⁠Creating the UI using React.js. The frontend will include different components:
   1. **Home Page** – Overview and login/signup.
   2. **Dashboard** – User profile and skill management.
   3. **Matchmaking System** – AI-driven skill-based matching.
   4. **Chat Feature** – Connect and communicate with matched users.
   5. **Projects & Opportunities** – Users can collaborate on projects or find learning groups.
3. Backend Development using Node.js & Express.js:
   1. **Authentication:** OAuth and email-based login.
   2. **AI Matching Algorithm:** Uses AI to match users based on skills and interests.
   3. **Messaging System:** Real-time chat for seamless communication.
   4. **Data Management:** Stores user profiles, skills, and activity logs.
4. ⁠Database Implementation using MongoDB:
5. **User Profiles** – Stores skill sets and learning interests.
6. **Matches & Connections** – Saves previous interactions.
7. **Chat History** – Manages real-time conversations.
8. **Development Flow:**



1. **Requirements for proposed work:**
2. Software Requirement:
   1. Operating System: Windows, Linux, MacOS
   2. User Interface: ReactJS
   3. Database: MongoDB
   4. Backend: NodeJS with ExpressJS
3. Hardware Requirement:
   1. Hardware: Intel i3 or better
   2. RAM: 4GB (minimum)
   3. Hard Disk: 20 GB Hard Disk Space
4. **Bibliography/References**

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