

COLLEGE COMMUNITY SOFTWARE

A. Feasibility:

- Technical Feasibility: The project is technically feasible within a semester-long duration. The required technologies and tools for each module (e.g., user profiles, messaging, job board) are well-established and can be integrated effectively. The development team will need to be proficient in web development, database management.
- Operational Feasibility: Operationally, the project is feasible as it addresses practical needs within a college community. The modules are designed to enhance communication, collaboration, and resource-sharing, streamlining various aspects of college life. The team should establish effective communication channels to gather user feedback and iterate on features during development.

B. Novelty:

- The project addresses a novel problem by consolidating various functionalities into a single platform tailored for college communities. While individual features (e.g., job boards, messaging) exist in various applications, the combination of personalized profiles, lost&found platform, blood group tracking, and more makes this project unique. It offers a comprehensive solution that caters specifically to the needs of college students and alumni.

C. Challenges:

- The non-trivial nature of the project lies in integrating diverse functionalities seamlessly. The project involves challenges such as real-time updates, secure user authentication, and efficient data management. The lost&found feature requires careful implementation to ensure privacy and security. The blood group tracking adds complexity but enhances the project's value.

D. Real-World Applicability:

- The project addresses real-world problems commonly faced by college communities. The platform facilitates communication, resource-sharing, and collaboration, improving the overall experience for students and alumni. The Lost&Found Reunify and Blood Group Tracking features have direct societal impact by fostering a helpful and collaborative environment and potentially assisting in emergencies.

E. Informal List of Requirements (Functionalities):

Requirement ID	Description
REQ001	User Profile Management
REQ002	News Feed for Updates and Announcements
REQ003	Lost&Found Platform
REQ004	Direct Messaging System
REQ005	Shared Event Calendar
REQ006	Job Board for Opportunities

- | REQ007 | Alumni Success Stories Showcase |
- | REQ008 | Push Notifications for Updates |
- | REQ009 | Class Schedule Management |
- | REQ010 | Resource Hub for Academic Materials |
- | REQ011 | Blood Group Tracking System |
- | REQ012 | User Authentication and Authorization |
- | REQ013 | Real-time Updates and Notifications |
- | REQ014 | Mobile-Friendly Interface |
- | REQ015 | Privacy and Security Measures |

F. Tools and Technologies:

- Programming Language: JavaScript (Node.js for backend, React.js for frontend)
- Operating System: Cross-platform (Linux, macOS, Windows)
- Database: MongoDB (for flexibility and scalability)
- Tools: Git for version control, VS Code as the integrated development environment (IDE)
- Additional Technologies: WebSocket for real-time updates, Firebase for push notifications (optional)

This set of tools and technologies provides a solid foundation for developing a web-based platform with the required features and functionalities.