

A Project Synopsis on

Project Title

CampusConnect

By

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> MCA ,SEM-II Batch 2024-2026

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In Partial Fulfillment of the Degree of Master in Computer Application (M. C. A.)

Under The Guidance Of

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Academic Year 2024-25

Synopsis

Introduction of Project

"CampusConnect" is a mobile application meticulously crafted to bridge the communication and collaboration gap between students, faculty, and campus resources within a university ecosystem. In today's fast-paced academic environment, students often struggle to stay connected with peers, access vital resources, and remain updated on campus happenings. CampusConnect addresses these challenges by serving as a centralized, intuitive platform designed to enhance the university experience. It empowers students to connect with like-minded individuals, collaborate on academic endeavors, and stay informed about both academic and extracurricular opportunities in real time. Beyond fostering peer networking, the app promotes a vibrant sense of community by facilitating resource sharing, enabling seamless communication, and delivering personalized updates tailored to users' needs. A standout feature of CampusConnect is its ability to match students with peers who share similar academic interests, schedules, or goals, thereby enhancing group study sessions, project collaborations, and knowledge exchange. This innovative functionality sets it apart as a tool that not only simplifies campus life but also enriches it by encouraging meaningful interactions. Leveraging cutting-edge technologies like Flutter for cross-platform development and Firebase for robust backend services, CampusConnect ensures a fast, secure, and engaging user experience. With features such as real-time data synchronization, secure authentication, media sharing, and push notifications, the application emerges as a comprehensive, modern solution tailored to meet the dynamic needs of today's tech-savvy college students and university communities.

Objectives

- To provide a platform for students to connect with peers and faculty for academic and social purposes.
- To enable real-time communication through messaging, forums, and event notifications.
- To facilitate resource sharing, including study materials and career opportunities.
- To help students discover peers with matching academic schedules or interests for collaboration.
- To streamline campus event management and participation.
- To deliver a secure, scalable, and efficient mobile solution using Flutter and Firebase.

Scope of the Project

Functional Scope:

- **User Management:** Role-based login (Students, Faculty, Admins) and customizable profiles.
- Networking & Collaboration: Peer-to-peer messaging, group chats, and a feature to match students based on their academic schedules or interests.
- Event Management: Event creation, registration, and reminders.
- Resource Sharing: Upload and access notes, documents, and multimedia files.
- Career Support: Job/internship postings and basic resume tools.
- Live Updates: News feed with posts, comments, and notifications for campus announcements.

Technical Scope:

- Developed using Flutter (Dart) for a cross-platform mobile app.
- Firebase backend for authentication, real-time database (Firestore), file storage, and push notifications.
- Provider package for efficient state management.
- Basic security with encrypted data and role-based access control.

Future Enhancements:

- Integration of AI for personalized content and career suggestions.
- Support for virtual event streaming.
- Analytics dashboard for student engagement tracking.

Technology Used

- Flutter (Dart): For building a responsive, cross-platform mobile application.\
- **Firebase:** For authentication, real-time database (Firestore), cloud storage, and push notifications.
- Provider: For state management to ensure smooth UI updates.

Tools Used

- Visual Studio Code: Primary IDE for Flutter development.
- Android Studio: For emulator testing and debugging.
- Firebase Console: For backend configuration and management.
- Git: For version control and project collaboration.

References

- Official Flutter Documentation
- Firebase Documentation
- Dart Programming Language GuideOnline tutorials and community forums for Flutter and Firebase integration