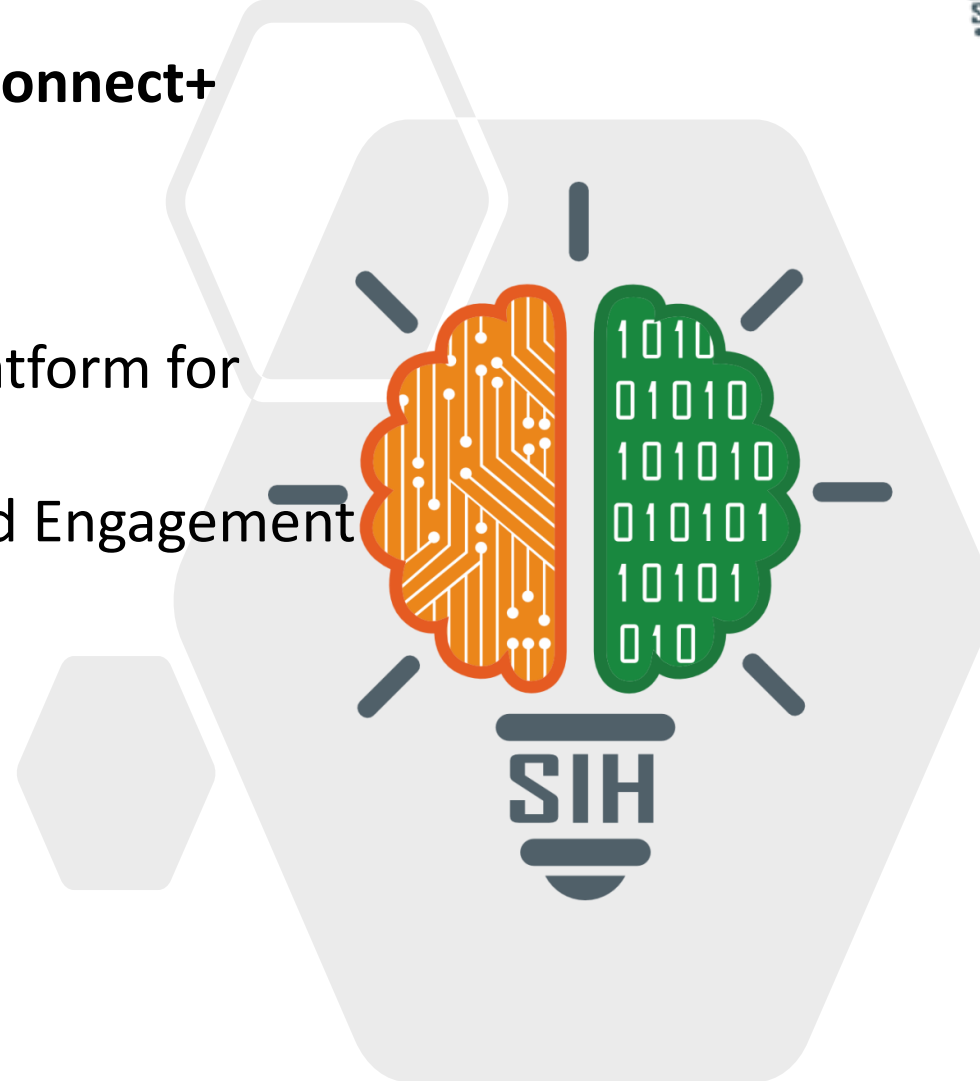


SMART INDIA HACKATHON 2025



AlumniConnect+

- **Problem Statement ID** – 25017
- **Problem Statement Title**- Digital Platform for Centralized Alumni Data Management and Engagement
- **Theme**- Smart Education
- **PS Category**- Software
- **Team ID**-
- **Team Name**- LegacyLink



AlumniConnect 360 degree – Unified Alumni Engagement Platform



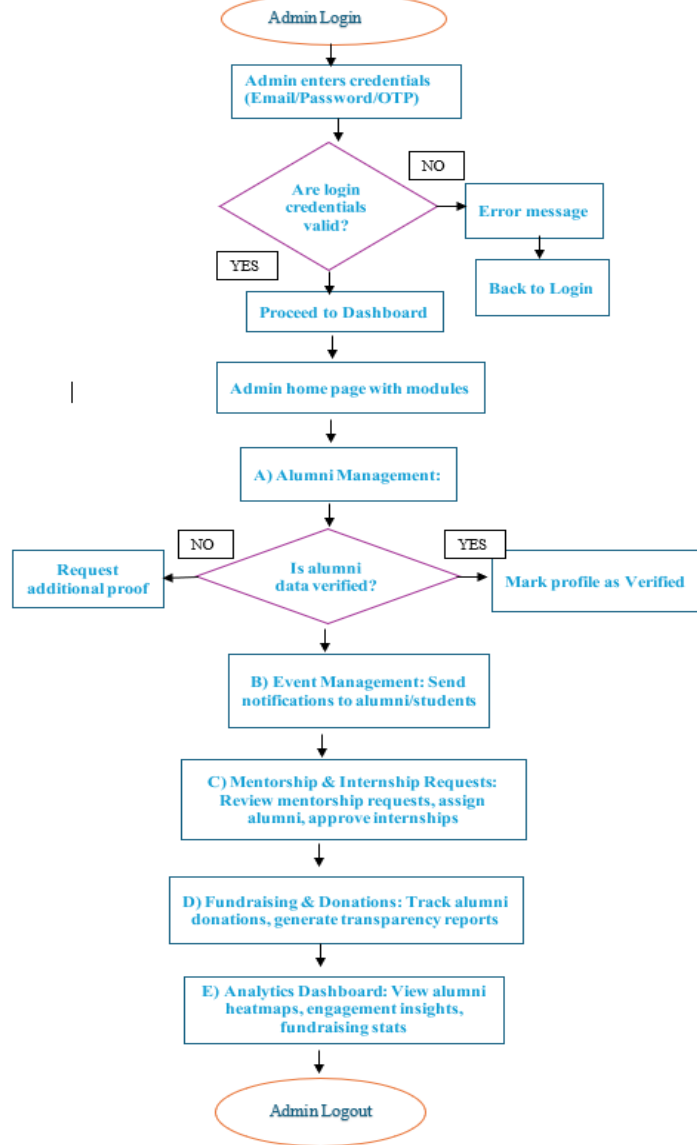
Proposed Solution

- **Centralized Alumni Database**- A single, secure platform that stores and manages all alumni data in one place, ensuring institutions never lose touch with their graduates.
- **Multi-level Verification**- Every alumni profile is authenticated through college email, LinkedIn sync, and admin approval, ensuring data accuracy and trust across the network.
- **AI-powered Mentorship**- The system intelligently matches students with the most suitable alumni mentors based on skills, career paths, and interests for effective guidance.
- **Event Management & Communication**- Alumni can easily join reunions, webinars, and workshops while receiving real-time updates, creating seamless interaction between institutions and alumni.
- **Transparent Fundraising**- All donations are tracked with complete transparency using UPI and payment gateways, with a future roadmap for blockchain-based trust and security.
- **Gamification & Recognition**- Alumni earn badges, feature on leaderboards, and get recognized on a Wall of Fame, motivating active participation and building long-term engagement.

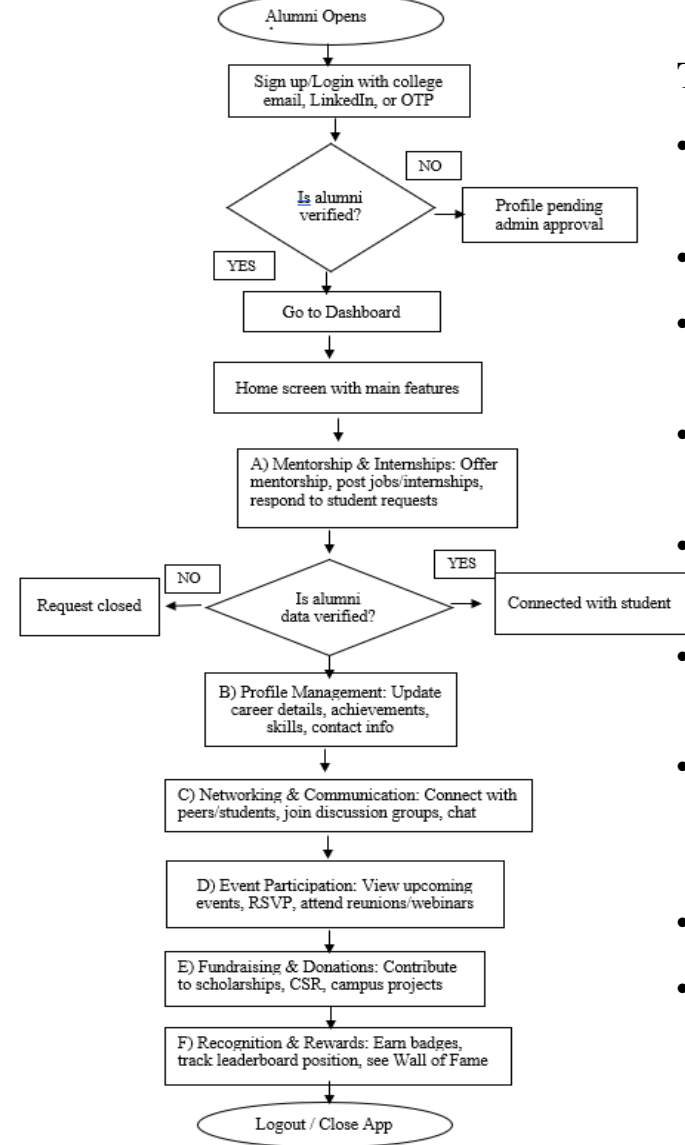
Innovation & Uniqueness

- **AI + Gamification**- The platform uniquely combines personalization through AI with gamified engagement strategies to keep alumni consistently involved.
- **Chatbot Assistant**- An AI-powered chatbot is available 24/7 to answer queries, recommend mentors, and connect alumni and students instantly.
- **Career Heatmap & Global Mapping**- An interactive dashboard highlights alumni presence across industries and countries, helping institutions showcase their network strength.
- **Future Roadmap (AR/VR & Blockchain)**- Future enhancements include immersive AR/VR alumni reunions and blockchain-enabled donations for maximum transparency and trust.

Authority/Admin Interface Flowchart



Alumni Interface Flowchart



Technologies to be Used

- Frontend: Flutter (Mobile), React.js (Web Dashboard)
- Backend: Node.js + Express.js
- Database: Firebase Firestore (easy setup), PostgreSQL/MongoDB (for scale)
- Authentication: Firebase Auth (Email/OTP), LinkedIn OAuth, Admin approval
- Chatbot/NLP: Google Dialogflow + Hugging Face APIs
- AI/ML: Scikit-learn, TensorFlow, Hugging Face Transformers
- Communication: Firebase Realtime DB (chat), Firebase Cloud Messaging (notifications)
- Payments: Razorpay API Blockchain
- Analytics & Maps: Chart.js, Firebase Analytics, Google Maps API

FEASIBILITY AND VIABILITY



HOW IS OUR IDEA FEASIBLE AND VIABLE?

- The platform is technically feasible as its core modules—alumni profiles, verification, events, mentorship, and donations—can be built quickly using Flutter, React, and Firebase, making it suitable for a hackathon timeline.
- Scalability is ensured through cloud-based deployment, where the system can start as a pilot for one institution and later expand seamlessly to state or national levels without major redesign.
- The use of existing and reliable APIs such as LinkedIn for verification, Razorpay for payments, and Google Maps for alumni mapping reduces development effort while ensuring robustness.
- Potential challenges like data privacy, verification delays, and alumni engagement can be addressed through encrypted storage, multi-level authentication, and gamification techniques, making the solution both secure and sustainable.

CHALLENGES

Data Security :

Efficient Verification :

Scalability :

Backup Plan for APIs :

Boost Engagement :

STRATEGIES FOR OVERCOMING

Use encrypted databases, role-based access, and GDPR-like compliance.

Multi-level (college email + LinkedIn sync + admin approval) with automation where possible.

Start with Firebase (easy), later migrate to microservices on AWS/GCP.

Use fallback options (manual entry if LinkedIn API fails).

Gamification (badges, leaderboards), recognition (Wall of Fame), and personalized push notifications.

IMPACT AND BENEFITS



Potential Impact on the Target Audience

The platform will strengthen connections between institutions, alumni, and students by providing a centralized space for networking, mentorship, and collaboration. Students gain career guidance and internship opportunities, alumni receive recognition and meaningful ways to give back, and institutions build stronger reputations through active engagement and transparent fundraising.

Benefits of the Solution

➤ Social Benefits

Enhances mentorship, networking, and community building, while enabling scholarships and donations that directly support students.

➤ Economic Benefits

Creates transparent fundraising channels, reduces administrative overhead, and leverages alumni contributions for institutional growth.

➤ Environmental Benefits

Shifts alumni engagement to a digital-first approach, reducing paper use, postal communication, and unnecessary travel through virtual events.

RESEARCH AND REFERENCES



•Research

- IJSER (2018) – Alumni Information System → <https://www.ijser.org/researchpaper/Alumni-Information-System-A-Web-based-Application.pdf>
- Hindawi (2021) – AI in Education → <https://www.hindawi.com/journals/edri/2021/9918762/>
- NASSCOM (2022) – Indian EdTech Opportunity → <https://nasscom.in/knowledge-center/publications/indian-edtech-opportunity>

•Policies

- National Education Policy (NEP 2020) → <https://www.education.gov.in/nep-new>
- AICTE Guidelines for Alumni Engagement → <https://www.aicte-india.org>

•Tech Documentation

- Firebase Docs → <https://firebase.google.com/docs>
- Google Dialogflow → <https://cloud.google.com/dialogflow/docs>
- Razorpay API → <https://razorpay.com/docs/api>