A Field Project Report on

# Alumni Needs Assessment and Portal Development

Submitted by

**CS-9014 ShravanKumar Raghuveer Chourasiya**

**CS-9025 Krrish Santoshkumar Gupta**

**CS-9026 Shivam Anilkumar Gupta**

**CS-9054 Sujal Dinesh Manjrekar**

**CS-9024 Ajay Sonu Gupta**

Supervisor

Ms. Tejal Wagh



2025 – 26

*Department of Information Technology & Computer Science*

MES’s The D. G. Ruparel College of Arts, Science and Commerce, Mumbai – 400 016

**DECLARATION**

We CS-9014 ShravanKumarRaghuveer Chourasiya , CS-9025 Krrish Santoshkumar Gupta , CS-

9026 Shivam Anilkumar Gupta , CS-9054 Sujal Dinesh Manjrekar , CS-9024 Ajay Sonu Guptahereby declare that the work presented in this Field Project report entitled Alumni Needs Assessment and Portal Development is an authentic record of our own work carried out under supervision of Ms. Tejal wagh.

**CS-9014 ShravanKumar Raghuveer Chourasiya**

**CS-9025 Krrish Santoshkumar Gupta**

**CS-9026 Shivam Anilkumar Gupta**

**CS-9054 Sujal Dinesh Manjrekar**

**CS-9024 Ajay Sonu Gupta**



**CERTIFICATE**

This is to certify that the above statement made by the students are correct to the best of my knowledge and belief.

Name and Signature of the Supervisor

# Contents

1. Introduction… 4
2. Date and Location… 5
3. Methodology………………………………………………………………………………...6
4. Observations and Data Collection…………………………………………………………..9
5. Analysis & Findings………………………………………………………………………..11
6. Conclusion………………………………………………………………………………….14
7. Recommendations…………………………………………………………………………..15
8. Appendices……………………………………………………………………………….....16

# Introduction

**Purpose of the Fieldwork:**

* The fieldwork was conducted to address the critical need for enhanced alumni engagement through systematic research and development of a comprehensive alumni portal system.
* The primary objectives were to conduct a detailed needs assessment to understand what alumni require in a digital networking platform, analyze collected data to create user personas and feature specifications, and design an intuitive UI/UX with robust technical structure for an easy-to-use alumni portal.
* This fieldwork aimed to bridge the gap between educational institutions and their graduates by creating a modern, comprehensive platform that strengthens relationships between alumni, current students, and the institution.

**Context and Background:**

* Alumni networks represent valuable assets of educational institutions, serving as bridges between academic learning and professional success.
* However, current alumni engagement systems are often fragmented and ineffective, resulting in limited networking opportunities, insufficient career guidance for current students, weak institutional relationships, and lack of centralized platforms for events and knowledge sharing.
* D.G. Ruparel College recognized these challenges and initiated this project to develop a sustainable framework for long-term alumni engagement.
* The project involved partnership with Satish Pradhan Dnyanasadhana College, Thane, as the primary research site, providing real-world context and institutional support for comprehensive data gathering and requirements analysis.

# Date and Location

**Date:**

The fieldwork was conducted across four strategic visits spanning from September 17, 2025, to September 29, 2025:

* **Visit 1:** September 17, 2025 (3 hours)
* **Visit 2:** September 19, 2025 (6 hours)
* **Visit 3:** September 23, 2025 (6 hours)
* **Visit 4:** September 29, 2025 (4 hours)

The total duration of field work comprised 19 hours distributed across these four visits, with an additional 15 hours dedicated to prototype development and over 7 hours invested in comprehensive research of existing alumni portal systems.

**Location:**

The fieldwork was conducted at **Satish Pradhan Dnyanasadhana College, Thane, Maharashtra**.

This institution was selected as the primary research site due to its established alumni network and willingness to participate in the study.

The college provided access to various facilities including the Principal's Office for initial approval meetings, Conference Room for requirements collection and presentation delivery, IT Department for technical assessment and infrastructure evaluation, and Computer Lab for the final alumni response collection attempt.

The institutional environment offered relevant context for understanding alumni engagement challenges and opportunities in the educational sector.

# Methodology

**Approach and Tools:**

* The fieldwork employed a multi-faceted research approach combining primary and secondary research methods.
* The primary data collection strategy centered on a Google Forms-based survey methodology distributed through institutional channels to reach the alumni database.
* The survey was designed to capture comprehensive information about alumni needs, preferences, and expectations from a digital networking platform.
* Additionally, stakeholder interviews were conducted with college administration and faculty to gather institutional requirements and understand existing alumni engagement processes.
* A complementary research component involved over 7 hours of intensive analysis of existing alumni portals from premier Indian universities (IITs, IIMs), international universities (US, UK, Europe), private colleges with active alumni networks, and technical institutes.
* This comprehensive research provided insights into core feature patterns, user experience best practices, and technical architecture standards.
* The prototype development phase utilized an Agile development approach with the following technology stack:
* **Next.js 15.5.3** for server-side rendering and deployment efficiency
* **React 19.1.0** for component-based architecture
* **TypeScript** for type safety and maintainability
* **Tailwind CSS** for rapid development and consistent design

The deployed prototype is accessible at <https://fp-web-proto.vercel.app/>

**Participants and Team:**

The field project was executed by a team of five students from D.G. Ruparel College, Department of Information Technology and Computer Science:

1. Shravan Kumar Raghuveer Chourasiya
2. Ajay Sonu Gupta
3. Krrish Santoshkumar Gupta
4. Shivam Anilkumar Gupta
5. Sujal Dinesh Manjrekar

The project was conducted under faculty supervision from D.G. Ruparel College. Key stakeholders from Satish Pradhan Dnyanasadhana College included the Principal who provided project approval and strategic guidance, administrative staff who facilitated access to resources and alumni contact processes, faculty members who participated in requirements discussions, and IT department personnel who assisted with technical infrastructure assessment

Team Member Roles:

**Shravan Kumar Raghuveer Chourasiya**

**Role:** UI/UX Designer & Team Lead

**Responsibilities:**

* Complete UI/UX design (wireframes, mockups, prototypes)
* Create user flow diagrams
* Design mobile app interface
* Technical architecture planning
* Coordinate team activities

**Ajay Sonu Gupta**

**Role:** Research Lead & Data Analyst

**Responsibilities:**

* Design survey questions and interview guides
* Conduct stakeholder interviews
* Perform quantitative and qualitative data analysis
* Create user personas
* Write technical requirements document

**Sujal Dinesh Manjrekar**

**Role:** Field Coordinator

**Responsibilities:**

* Contact college placement cell for alumni database
* Organize and schedule all interviews
* Conduct 5-6 alumni interviews
* Manage survey distribution
* Maintain contact database

**Shivam Anilkumar Gupta**

**Role:** Documentation Specialist

**Responsibilities:**

* Write field visit report
* Maintain guide interaction diary
* Compile final project report
* Create presentation slides
* Handle all documentation formatting

**Krrish Santoshkumar Gupta**

**Role:** Outreach & Communication Manager

**Responsibilities:**

* Manage project timeline and deadlines
* Conduct focus group discussions
* Follow up with non-respondents
* Coordinate with college administration

# Observations & Data Collection

**Qualitative and Quantitative Observations:**

The field work yielded significant qualitative insights across four strategic visits totaling 19 hours:

**Visit 1 (September 17, 2025 - 3 hours):**

Established strong institutional partnership with formal approval from the Principal. Documented safety protocols, professional conduct expectations, and identified initial scope including research objectives and deliverables. The Principal appreciated the planning and relevance of the field work and granted approval with the condition that a follow-up report be submitted post-completion.

**Visit 2 (September 19, 2025 - 6 hours):**

Focused on requirements collection where the Principal specifically requested Excel to Database conversion functionality for managing alumni data. Stakeholders outlined needs for multi-role user management, advanced search capabilities, event management systems, career services integration, and administrative control panels. A comprehensive project presentation was delivered to college leadership demonstrating technical feasibility and project scope. The Google Forms survey was launched (<https://forms.gle/SGLtKbLoxXvy1YmQ6>) for alumni data collection.

**Visit 3 (September 23, 2025 - 6 hours):**

Involved a strategic pivot where technical limitations regarding Excel-DB conversion were transparently communicated and accepted by the college administration. The college decided not to provide direct alumni contact information, instead instructing the team to conduct data collection exclusively through Google Forms that would be circulated internally. This decision reflected institutional policies around data privacy and alumni communication protocols.

**Visit 4 (September 29, 2025 - 4 hours):**

Dedicated to alumni response collection with a 3-hour waiting period as instructed by the college. Despite systematic distribution through institutional channels, **zero alumni responses were received**. This outcome necessitated adoption of a research-based development approach.

The quantitative outcome of the Google Forms survey was 0 responses despite college circulation. However, the research phase spanning over 7 hours analyzed numerous successful alumni portals and identified critical success factors including mobile-first design prioritization, role-based access control implementation, career-focused features prominence, intuitive navigation structures, and social engagement mechanisms.

**Environmental and Social Factors:**

Several environmental and social factors influenced the fieldwork execution and outcomes. The institutional environment at Satish Pradhan Dnyanasadhana College was highly supportive, with administration demonstrating openness to collaboration and willingness to facilitate research activities.

However, practical constraints emerged regarding direct alumni access, reflecting institutional policies around data privacy and alumni communication protocols.

The social factor of alumni engagement presented a significant challenge, as evidenced by zero response rate to the survey despite institutional circulation.

This observation highlighted broader issues in alumni engagement including potential lack of active alumni participation in institutional activities, possible communication gaps between institutions and graduates, and challenges in motivating alumni to contribute time to surveys or research activities.

Time constraints emerged as a practical factor, with the team achieving 19 hours of the planned 30-hour field work duration, requiring efficient prioritization and strategic visit planning.

The collaborative relationship between D.G. Ruparel College and Satish Pradhan Dnyanasadhana College demonstrated the value of inter-institutional partnerships in educational research projects.

# Analysis & Findings

**Data Analysis:**

The analysis phase integrated insights from multiple sources to inform prototype development. Despite receiving zero alumni responses through the Google Forms survey, the comprehensive stakeholder interviews provided valuable requirements including:

* Multi-role authentication systems supporting Alumni, Students, Faculty, and Admin access levels
* Alumni directory with advanced search functionality by name, graduation year, department, and location
* Event management capabilities for creating, registering, and managing alumni events
* Career services including job boards and mentorship matching systems
* Administrative panels for user and content management

The 7-plus hours of research analyzing successful alumni portals revealed consistent patterns across high-performing implementations:

**Technical Architecture Analysis:**

* Dominance of React and Next.js frameworks in modern alumni portals
* Prevalence of cloud-based deployment solutions for scalability
* Implementation of relational databases with comprehensive role management
* Integration of OAuth and secure session management protocols

**User Experience Analysis:**

* Mobile-first design as critical for engagement
* Intuitive navigation characterized by clear menu structures and role-based access controls
* Visual hierarchy principles emphasizing clean layouts that highlight key actions
* Engagement features including social networking elements showing positive correlation with participation rates

**Feature Prioritization Analysis:**

Core functionalities essential for minimum viable product include secure authentication, searchable alumni directory, basic event management, and administrative controls. The analysis informed technology stack selection with Next.js chosen for server-side rendering capabilities and deployment efficiency, React selected for component-based architecture and industry standard status, TypeScript adopted for type safety and maintainability, and Tailwind CSS utilized for rapid development and consistent design systems

**Challenges Faced:**

The fieldwork encountered several significant challenges that substantially impacted project execution:

**Institutional Access Challenges (Most Critical):**

The most significant challenge was securing institutional partnership for field work. The team visited multiple colleges seeking cooperation, including VJTI (Veermata Jijabai Technological Institute), R.D. National College, St. Andrews College, Khalsa College, and Keerti College, but faced considerable difficulties due to several factors. The Ganpati festival vacation period coincided with initial outreach efforts, resulting in limited college operations and staff availability. Most institutions repeatedly stalled the team, requesting visits on different dates without firm commitments. Several colleges indicated they would contact the team first before allowing visits, but failed to follow through. After extensive efforts across these multiple institutions, Satish Pradhan Dnyanasadhana College finally agreed to participate. As this was their first time engaging in such collaborative research activities with external students, they were exceptionally cooperative and supportive throughout the project, which ultimately enabled successful completion despite initial setbacks.

**Time Constraints:**

The institutional access difficulties consumed substantial time from the planned field work schedule. Achieving only 19 hours of the planned 30-hour field work duration (63% completion rate) was directly attributable to time lost in securing college partnership. Once Dnyanasadhana College partnership was established, efficient visit planning and focused activities maximized value from each interaction.

**Alumni Engagement Challenge:**

Complete absence of alumni participation with zero responses received through the Google Forms survey despite systematic distribution through institutional channels and a dedicated 3-hour waiting period during the final visit. This lack of primary data required strategic pivot to research-based development methodology.

**Technical Scope Issues:**

The Principal's request for Excel to Database conversion functionality exceeded project scope and timeline constraints. After assessment during Visit 3, the team transparently communicated these

* technical limitations, which were accepted by the college administration.

**Access Limitations:**

The college's decision not to provide direct alumni contact information, requiring exclusive use of Google Forms through internal circulation, limited the team's ability to employ alternative data collection strategies.

**Development Constraints:**

The 15-hour prototype development window, while sufficient for core features, limited depth of implementation and required careful feature prioritization. Working as a single development team with limited resources necessitated focus on proven technologies and scalable architecture patterns.

# Conclusions

**Summary of Key Findings:**

The field project successfully demonstrated the feasibility and value of developing a comprehensive alumni portal system despite challenges in primary data collection. Key findings reveal:

* Strong institutional partnerships are essential for successful alumni engagement initiatives, as evidenced by productive collaboration with Satish Pradhan Dnyanasadhana College
* Alumni engagement remains a significant challenge, with zero survey responses highlighting difficulty in motivating alumni participation
* Research-based development methodology proved effective when primary data collection faces obstacles
* Modern web technologies enable rapid development of functional prototypes, with the team delivering a production-ready system in 15 hours
* Core alumni portal features consistently include multi-role authentication, searchable directories, event management, career services, and administrative controls
* Mobile-first design emerges as critical for user engagement

The project met its primary objective of demonstrating technical feasibility and creating a replicable model for educational institutions. The functional prototype deployed at [**fp-web-proto.vercel.app**](https://fp-web-proto.vercel.app/) serves as proof of concept and foundation for future development.

**Impact and Relevance:**

The project delivers significant impact across multiple dimensions:

**For Satish Pradhan Dnyanasadhana College:** Comprehensive assessment of alumni engagement needs, documented requirements for future portal implementation, and establishment of framework for systematic alumni relationship management.

**For D.G. Ruparel College and Students:** Valuable experiential learning in stakeholder management, requirements gathering, and professional communication with institutional leadership. Students gained practical experience in modern web development technologies and agile methodologies.

**For the Educational Sector:** A replicable model for alumni portal development that other institutions can adapt. The documentation of challenges and solutions provides guidance for similar initiatives. The research findings synthesizing best practices offer consolidated knowledge resource for institutions planning digital alumni engagement platforms.

Long-term impact potential includes improved alumni-institution relationships through centralized communication platforms, enhanced career services and networking opportunities .

# Recommendations

**Suggestions for Improvement:**

Future fieldwork initiatives should implement several improvements:

**Alumni Engagement Strategies:**

* Earlier outreach before survey distribution
* Incentivization mechanisms such as recognition programs or exclusive benefits
* Multiple touchpoints including email campaigns, social media outreach, and phone follow-ups
* Personalized communication from respected faculty or successful alumni

**Data Collection Methodology:**

* Combine online surveys with in-person focus groups or interviews
* Utilize social media platforms for informal feedback gathering
* Implement shorter pulse surveys throughout project duration
* Schedule data collection during alumni events or reunions when engagement is naturally higher

**Time Management:**

* Extend total field work duration to accommodate unexpected delays
* Implement more aggressive scheduling for strategic visits
* Allocate dedicated time blocks for specific activities with clear milestones

**Technical Scope Management:**

* More thorough initial feasibility assessment before making commitments
* Phased development approach with clearly defined minimum viable product
* Buffer time allocation for unexpected technical challenges

**Next Steps:**

**Immediate Enhancements (0-3 months):**

* Conduct follow-up data collection efforts with improved engagement strategies
* Implement enhanced security features including comprehensive OAuth integration
* Expand prototype features based on stakeholder feedback
* Develop mobile application (native iOS/Android or progressive web app)

**Short-term Goals (3-6 months):**

* Implement advanced analytics dashboards for tracking alumni engagement metrics
* Develop comprehensive content management system for administrators
* Integrate email notification systems for events, announcements, and messages
* Expand career services functionality with resume databases and job matching algorithms

**After this we can proceed with Mid Term(6-12 months) and Long term vision.**

# Appendices

**Supporting Documents:**

**Appendix A: Field Work Documentation**

Complete field work documentation includes detailed visit reports for all four strategic visits. Visit photographs and institutional approval documents are available in the fieldworkdone folder.

* **Google Forms Survey:** <https://forms.gle/SGLtKbLoxXvy1YmQ6>
* **Response Data Spreadsheet:** <https://docs.google.com/spreadsheets/d/1NI9ViC9vivl9-dVIohFt_OtKHveLtNTxWb-R6WkhhZQ/edit>

Stakeholder interview notes and requirements documentation from each visit provide comprehensive record of discussions and decisions.

**Appendix B: Technical Documentation**

Technical implementation details are documented in the project repository:

* **GitHub Repository:** <https://github.com/TaiyoYozakura/FP-Web-Proto.git>
* **Live Deployment:** [fp-web-proto.vercel.app](https://fp-web-proto.vercel.app/)

Technology stack documentation covers Next.js 15.5.3 framework implementation, React 19.1.0 component architecture, TypeScript type definitions, and Tailwind CSS styling system. Database schema documentation includes user role management structure, alumni profile data models, event management tables, and career services data architecture.

**Appendix C: Research Materials**

Research materials from the comprehensive 7-plus hour analysis include comparative feature analysis across IIT, IIM, and international university portals, user experience design patterns and best practices synthesis, technical architecture evaluation and framework comparison, and mobile-first design principles. Best practices documentation consolidates insights from successful implementations across diverse institutional contexts.

**ACKNOWLEDGMENTS**

We extend our sincere gratitude to the administration, Principal, and faculty of Satish Pradhan Dnyanasadhana College, Thane, for providing access, support, and institutional partnership throughout this field project. Their guidance, project approval, and facilitation of our research activities were instrumental in the successful completion of this work. Special thanks to the faculty and administration of D.G. Ruparel College for their academic supervision, encouragement, and support throughout the project duration.

**REFERENCES**

1. Alumni Association Technology Report. (2023). Digital Transformation in Higher Education Alumni Relations.
2. React Documentation Team. (2024). Next.js 15 Documentation. Vercel Inc.
3. Higher Education Alumni Engagement Best Practices. (2023). Council for Advancement and Support of Education (CASE).
4. Various Alumni Portals of Educational Institutions. (2025). Comprehensive Analysis and Best Practices Study.