

SMART INDIA HACKATHON 2025



PRASHISKSHAN

- **Problem Statement ID** – 25207
- **Problem Statement Title** – Prashiskshan - An app for Academia Industry Interface
- **Theme** – Smart Education
- **PS Category** – Software
- **Team ID** – 91511
- **Team Name** – Code Forgers_01





PRASHISKSHAN



(AN APP FOR ACADEMIA INDUSTRY INTERFACE)

❖ Proposed Solution

Concept / Prototype Overview:

Prashikshan is a digital platform that connects students, colleges, and industry to simplify internships under NEP 2020. It allows for real-time collaboration, verified learning, and credit-based assessment through a clear system.

Details & Key Modules:

The platform makes the internship process easier by helping users discover opportunities, track progress, and verify reports online.

Student Portal: Profiles, skill tests, applications, digital logbook, and report generation.

Industry Module: Post internships, share projects, give feedback, verify certificates.

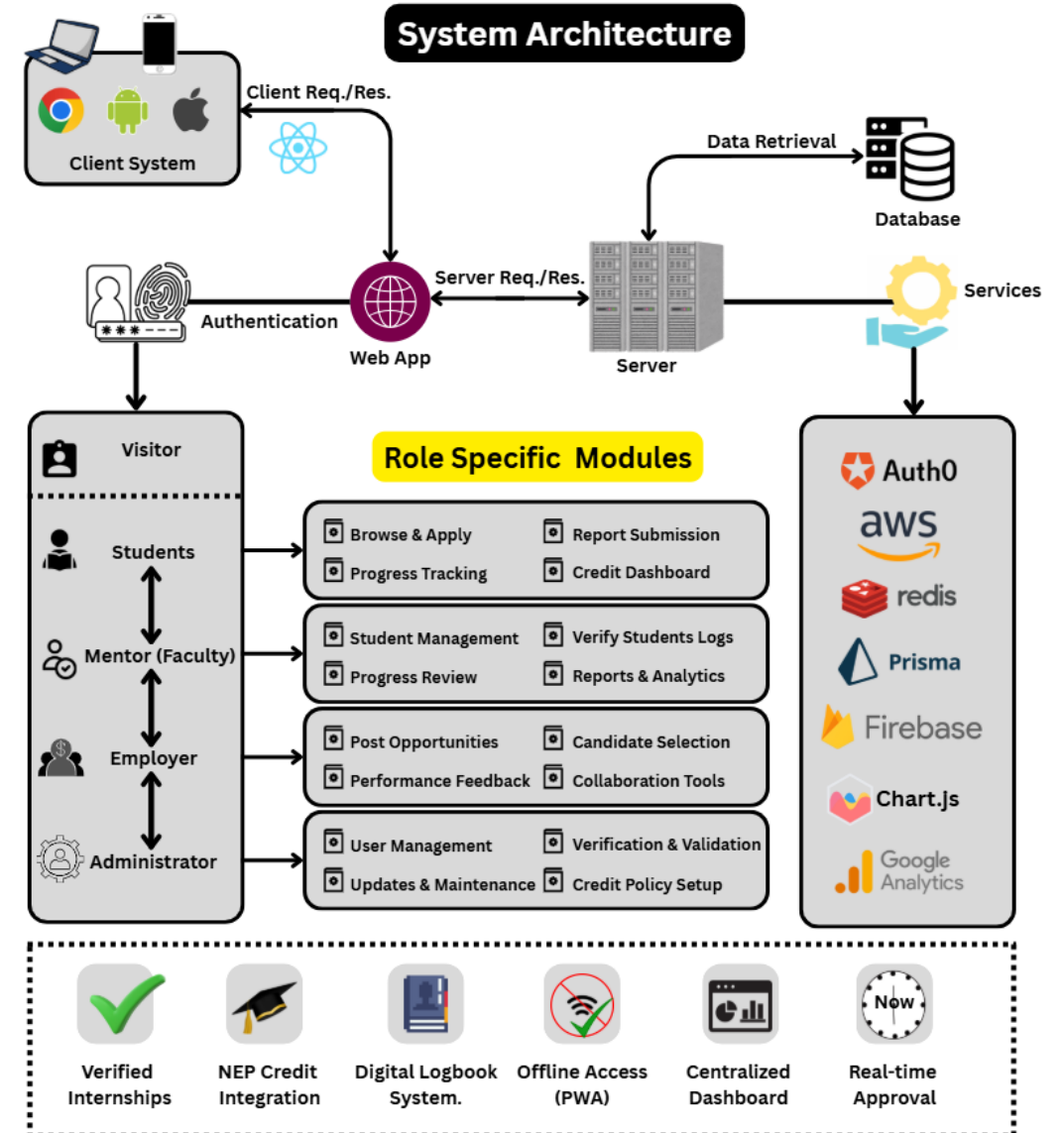
Faculty/Admin Panel: Approve internships, monitor students, manage credits.

Skill Hub: Microlearning, mentorship, AI-based skill suggestions.

Analytics: Tracks trends, skills, and placement readiness.

Impact & Uniqueness:

It ensures real, traceable internships, stops fake certificates, and provides equal access to industry. It supports NEP-aligned credit evaluation and strengthens the ties between academia and industry through real-time tracking, AI matching, multilingual access, and a secure, scalable design.





TECHNICAL APPROACH



❖ Tech Stack:

Architecture:

- **Frontend:** React + TypeScript (Next.js) for a responsive, PWA-ready interface with offline support.
- **Backend:** Node.js (Express/NestJS) providing modular REST APIs for scalability and performance.
- **Database:** PostgreSQL with Prisma ORM ensuring structured, reliable, and maintainable data storage.
- **Authentication:** OAuth 2.0 / SSO with strict role-based access (Student, Faculty, Industry, Admin).
- **File Storage:** AWS S3 or DigitalOcean Spaces for secure, scalable document handling.

Cache & Queue: Redis with BullMQ to manage sessions, background jobs, and notifications efficiently.

Analytics Layer: Real-time dashboards using Recharts or Chart.js for internship metrics and performance tracking.

Learning & Skill API: Integration with MOOCs like SWAYAM, Coursera, and Skill India for upskilling.

Core Flow: Student → Faculty → Industry → Admin → Feedback Loop enabling verified, traceable internships and auto-generated reports with NEP credit mapping.

Deployment: SaaS pilot rollout → Government integration (AICTE, Digilocker) → National expansion.





FEASIBILITY AND VIABILITY



Technical Feasibility:

- Cloud-based, modular architecture guarantees scalability and reliability.
- PWA with offline support allows access in low-connectivity areas.
- Secure role-based access, OAuth 2.0, and encrypted storage protect data.
- Integration with MOOCs, AICTE, and Digilocker portals is possible.
- AI-driven modules for student-internship matching and predictive analytics can be added in Phase 2.

Operational Feasibility:

- Automated logbooks, reports, and feedback cut down manual work for students and faculty.
- Real-time dashboards offer monitoring and decision support.
- Streamlined workflows for students, faculty, industry, and admin help ensure smooth operation.
- Multi-language support improves accessibility across the country.
- Role-based notifications and alerts enhance communication efficiency.

Scalability & Integration:

- Easily expandable from pilot colleges to state and national levels.
- Compatible with government and educational portals for smooth data exchange.
- Supports NEP-aligned credit systems and standardized evaluation.
- Modular design allows adding new features without system downtime.
- Cloud infrastructure supports high concurrent user access.

Security & Compliance:

- End-to-end data encryption protects sensitive information.
- Regular security audits prevent breaches and vulnerabilities.
- GDPR and NEP compliance ensures regulatory adherence.
- Role-based access controls limit data exposure.
- Automated backups prevent data loss.

Resource Availability:

- Skilled developers available for cloud and web technologies.
- Faculty and administrative support can be leveraged for verification.
- Industry partners ready to participate in internships.
- Government IT infrastructure available for integration.
- Training modules for staff and users ensure smooth adoption.

Maintenance & Support:

- Cloud-based updates reduce downtime.
- Helpdesk and technical support for troubleshooting.
- Modular design simplifies bug fixes and feature upgrades.
- Documentation and tutorials assist new users.
- Monitoring tools ensure system performance and uptime.



IMPACT AND BENEFITS



Authentic Internships

- Guarantees verified and traceable internship experiences.
- Prevents submission of fake certificates or false reports.
- Encourages accountability for students, industry, and faculty.
- Provides a structured system for monitoring daily work and progress.
- Builds trust between colleges, students, and industry partners.

Equal Opportunity

- Opens access to verified industry partners nationwide, including remote areas.
- Bridges the urban–rural divide in internship availability.
- Ensures all students, regardless of location, can gain quality experience.
- Supports diverse skill development across regions and colleges.
- Promotes inclusive participation in the workforce ecosystem.

Academic Integration

- Aligns internships with NEP 2020 credit and evaluation systems.
- Faculty can monitor progress, give feedback, and grade students efficiently.
- Supports seamless reporting to administrative dashboards.
- Enables data-driven academic decisions on skill readiness and placement.
- Reduces manual paperwork while improving oversight and supervision.

Skill Development

- Provides microlearning modules before and during internships.
- AI-based skill recommendations personalize learning for each student.
- Mentorship opportunities guide practical and professional growth.
- Enhances employability and readiness for industry standards.
- Tracks skill acquisition and readiness through analytics.

Feature / Portal Group	Prashikshan (Proposed)	Job + Internship Portals (Internshala, LinkedIn, Naukri, Indeed)	Govt. Internship Portals (PM Internship Portal, AICTE, Skill India)
Focus	NEP-aligned internships	Jobs and internships across industries	Government / academic internships
Academic Integration	✅ Full NEP credit tracking, faculty monitoring	❌ No formal academic integration	✅ Limited academic alignment (technical / policy)
Verified Internship Tracking	✅ Real-time dashboards, auto-generated reports	❌ Mostly manual, dependent on student reporting	✅ Verified for government/academic programs
AI-Based Skill Matching	✅ Personalized AI matching based on skills	❌ None	❌ None
Offline & Rural Access	✅ PWA with offline support	❌ Web-based, limited offline access	❌ Web-based
Multilingual Support	✅ Multiple languages	❌ Primarily English	✅ Some portals support multiple languages
Mentorship / Skill Development	✅ Microlearning + mentorship	❌ Limited / only training courses	✅ Skill India portal offers training
Real-Time Analytics & Reporting	✅ Full analytics dashboards	❌ Limited dashboards / reporting	✅ Basic reporting
Scope / Reach	Nationwide + scalable	Nationwide / Global reach	National / government-focused



RESEARCH AND REFERENCES



Government Policies & Guidelines

- NEP 2020 framework for internships and credit-based evaluation.
- AICTE internship guidelines and portals for technical education.
- PM Internship Portal for public policy and governance internships.
- Skill India Digital Internship Program for skill-based learning opportunities.

Existing Internship Platforms

Internshala – Industry internships with training modules.

LinkedIn – Professional networking and internships/jobs.

Naukri & Indeed – Jobs and internships with wide reach.

Unstop – Competitions and internships for skill-building.

Academic & Skill Development Resources

SWAYAM, Coursera, Skill India for microlearning modules:

AI-driven skill assessment research for personalized internship recommendations.

Technical References


React + TypeScript (Next.js) for PWA/frontend.

Node.js (Express/NestJS) for backend RESTful services.

PostgreSQL + Prisma ORM for structured database management.

AWS S3 / DigitalOcean Spaces for secure file storage.

Redis & BullMQ for caching, background tasks, and notifications.

 **Live Demo Link:** mudit-code.github.io (it is a portfolio of one of our team member where the project link will be available and it will be keep updating as development progresses)

